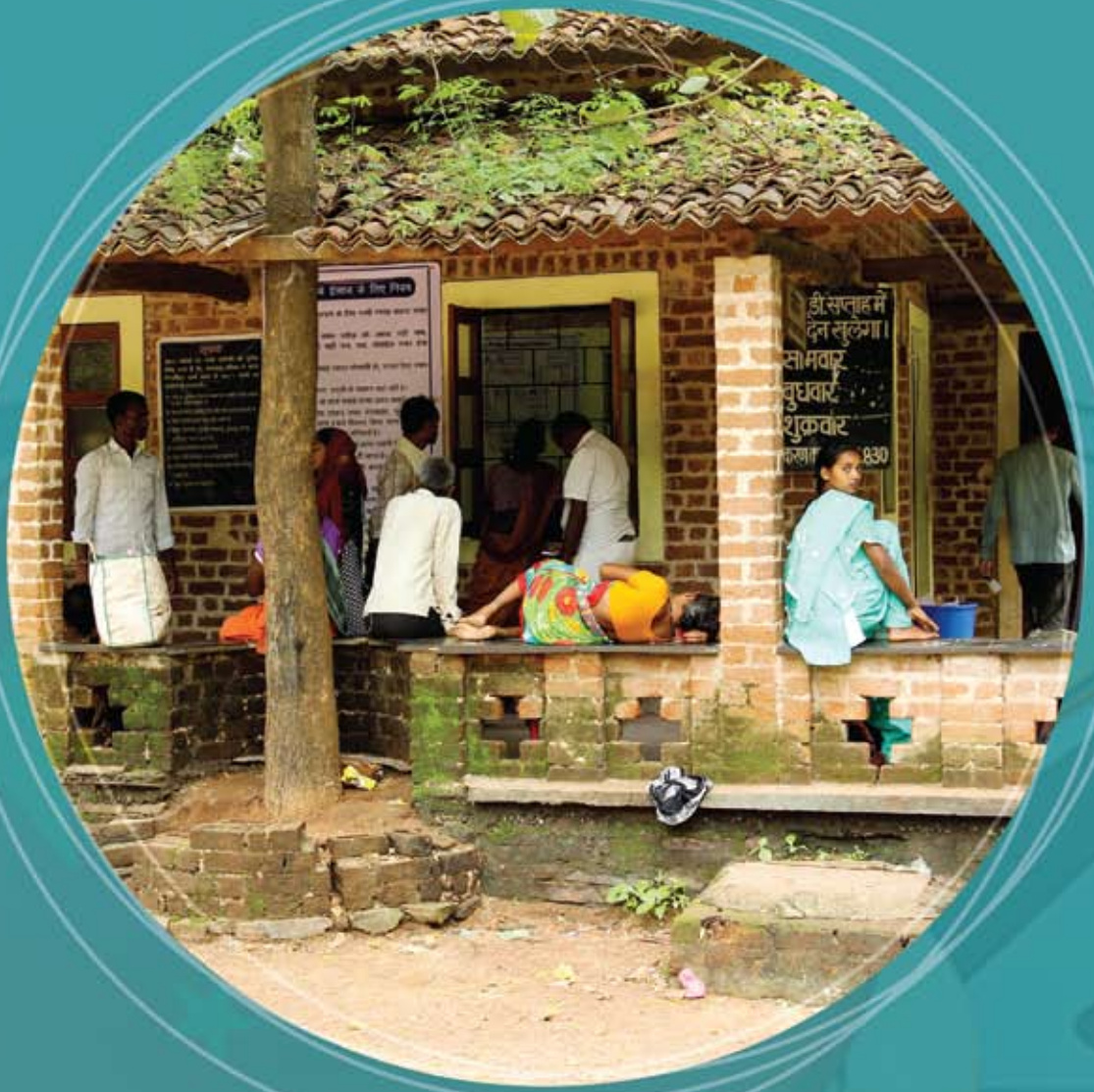
THE ARCHETYPES OF INCLUSIVE HEALTHCARE

Where health care for the poor is not poor healthttcare



CASE STUDIES OF ORGANIZATION OF HEALTH CARE SERVICES FROM ACROSS INDIA

School of Health Systems Studies : Tata Institute Of Social Sciences
National Health Systems Resource Center
World Health Organization, India Country Office

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The book has a series of 15 case studies from across India. The case studies cover public institutions, trust hospitals, mission hospitals, NGO run hospitals and private institutions. We are indebted to all the authorities and organisations for their whole hearted cooperation which was crucial for the completion of this work.

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CHAPTER

INTRODUCTION
The Why and How of these Case-Studies!!

T. Sundararaman

Background to the Study

This research project had many roots. One of these is the work of the Task Force established in 2015, under the Ministry of Health and Family Welfare to provide strategy and guidance on rollout of Comprehensive Primary Healthcare (Task Force Report, 2015). The Task Force recommended that a compendium of case studies of organizations implementing innovative approaches that have relevance to the organization of inclusive, universal primary healthcare be developed. However, this collection of case studies is not just a document intended to realize the recommendation made by the Task Force. It discusses the learnings that are relevant to the implementation of comprehensive primary healthcare - but goes well beyond it to discuss the different archetypes of inclusive Healthcare delivery - and sort of healthcare that is specifically aimed to reach the poor.

Yet another root to this research project is the brisk ongoing debate that is taking place with regards to the strategies for strengthening health sector performance and the roadmap to universal health coverage. One milestone in this debate is the announcement of the National Health Policy 2017. The Policy envisages that the achievement of Universal Health Coverage in India would be through a health systems architecture where primary Healthcare would be largely provided by public health providers, with secondary and tertiary care purchased from a mix of providers-public and private. It further states that the priority is to purchase from the public hospital, supplement with purchase from not-for-profit hospitals and only as a last resort and as a temporary measure purchase from the commercial private sector.

The National Health Policy 2017 articulates seven key policy shifts as central to strengthening public health systems. The first of these is a shift from selective list of services provided by primary health facilities to a more comprehensive list of services that includes a large number of chronic illnesses. Another key proposed shift is from the use of user fees and cost recovery to provision of free consultations, drugs and diagnostics in public hospitals and to strengthen infrastructure on human resources where they are needed most. Another key shift is to rapidly scale up public services in urban areas. Critics of this approach, point out past failures

to reform public health delivery and question the possibility of ever doing so.

This view however has its critics. There are many who think that a shift to purchasing Healthcare services from private providers is possible and desirable and that it should be the main strategy. Reflective of the tension between these views there is a contradictory section within the policy itself that visualizes strategic purchasing as a strategy for engaging the commercial private sector in a wide range of services including primary Healthcare. In this view even strengthening the public health system would mainly be through market based reforms. However as the situation analysis that accompanies the NHP 2017 notes - purchasing through insurance, efforts and regulation of private sector have not done well either.

We now have close to twenty five years of market based reforms and even a longer history of public provision of basic Healthcare services. Clearly there is a need to go beyond the public-private dichotomy (or provisioning versus purchasing debate) to look at the common problems that cripple both approaches and how in specific contexts these problems have been addressed and how successful these efforts were. This would help us generate empirical evidence as well as theoretical frameworks of analysis that are grounded in our own reality and that can help us think about the way forward in health systems strengthening.

Theories of Health Systems Strengthening and Health Sector Reform

Strengthening Healthcare systems and improving the performance of health systems is an old theme in public health. The theoretical frameworks used to understand and recommend reforms are characterized below (Anne Mills, Sara Bennett, Steven Russell, 2001):

Theories of Bureaucracy: The traditional approach to strengthening have been based on theories of bureaucracy. The focus of this approach is to focus on authority and governance, the structures of an organization in terms of how authority flows, how tasks are allocated, how reporting relationships are patterned and in mechanisms of accountability. Good Performance is therefore a resultant of good political will, which then uses authority to gets things done. Enforcement of the rules is therefore the key. Clear job descriptions help. Change requires pointing out the failings of the system and bringing political pressure to bear, or even better a change of political leadership. And all failure to improve healthcare delivery is attributable to the failure to generate the necessary political will. Much of civil society and traditional academics is still based on this system of thinking. As a result most research approaches focus on what is NOT working - that is on the failures. Once these are listed, the recommendations are obvious viz. to enforce - to make it work. "Although this literature has often done well in advancing our understanding of why governments do badly it has nowhere provided the same insights and case materials on the circumstances in which governments perform well." (Tendler, 1998). Best practices are not dismissed – they only prove that if there is the right leadership, the system can be made to work. It is not design changes that are required but - the challenge is of how to get the right leadership in place.

New Public Management and Market Based Reforms: Disruption of this traditional thought arrives with New Public Management in the 80s. This approach accepts that in many areas of public management like in the health sector there are market failures. But the challenge is in setting the prices right. In the absence of the disciplinary power of the market, use of resources is wasteful, workers cannot be made to perform and leaderships have no incentive to improve performance. The direction of reforms is therefore to introduce market mechanisms. But even in strengthening public health systems all experience and advice is filtered through this lens - and we have at different times a number of recommendations to make markets work - user fees, autonomous organizations that would compete for funds and raise its own, payment for performance for staff as different from fixed salaries, contractual terms of employment, keeping direct government staff minimal, exposing them to the wishes and dissatisfactions of users through consumer forums and so on. These are all the features of the first wave of health sector reforms that began in the nineties. The perceived failure of

these measures in this line of thinking only reinforces thinking that public provisioning of services is inherently ineffective. Therefore in this second phase of reforms the international direction if for re-positioning government – discarding the role of provider and making it a purchaser of services from the private sector.

New Institutional Economics: In the late nineties, increasingly it was the emergence of new institutional economics and theories of institutions that were called on to explain performance and failures of government. To some this is a break with neo-liberal theory whereas to others it is merely an advance of the same. To its credit it brought a greater focus on understanding the necessity of institutions and that institutions are shaped by social norms and organizational cultures, which is a lot better than starting with the assumption that civil servants and politicians are self - interested, rent-seeking and venal unless proven otherwise. Tools and theories like transaction analysis and principal agent analysis were able to provide insights into what shapes organization effectiveness and what determines efficiency. But it is not quite clear that it could provide insights into what could be done remedially. At its core it remained a mechanisms of addressing market failure by setting the prices right and creating an incentive environment to rectify provider and organizational behavior. Healthcare remains a commodity whose value ought to be set by supply and demand but given the inability of the individual consumer to do so, institutions have to be created that can exercise that choice on behalf of the consumer and by a variety of innovations in contracting which includes payment mechanisms, human resource numbers and qualifications, specifications on outputs etc, ensure that the provider adheres to the terms of the contracts - thereby ensuring quality and efficiency. A major part of the challenge is therefore to create institutional capacity-but here the reference if often to the capacity needed to purchase and to enforce.

Overlaps and inconsistences: There are some areas in which these two streams could appear very similar. For example, both neo-liberals and their ardent critics, like the NGOs believe that governments in developing countries is over-bearingly powerful and that several of its functions would be better carried out or monitored by private entities including NGOs. Again advocates and critics of state intervention stress the importance of incentives, pressures and increased user voice in improving the performance of government. And a good number of development practitioners who feel perfectly comfortable using the language and concepts of mainstream development community are not aware of the writings that gave rise to these views and if asked would disagree with them. Nevertheless, this set of ideas about the causes of poor performance and about how to improve it profoundly influences the way development practitioners interpret what they see, write reports, and give advice. (ibid pg 2).

One problem with both these narratives is that Healthcare providers are often projected as the problem - which is inconsistent with the requirement that Healthcare is best achieved if there is a high degree of trust between the provider and the service user. The fact that associations with different forms of user groups and citizen/villager/grassroots are always welcome, provider associations are always problematic. These narratives also fail to see why in some contexts health systems perform much better than others though the incentive environment and the bureaucratic structures of authority are similar. They also fail to see that in most developed nations the practices that followed and have shown success are far different from what is being derived out of these theories - for example in human resource management.

Political Economy of Healthcare: It is therefore necessary to explore alternative theoretical frameworks, grounded in Indian reality, that explain better why certain forms of organization do well and why some do not. One such exploration is the range of theories of political economy. In theories of political economy, the value of Healthcare is determined by the terms of its production - which includes the purpose of production, the productive forces, and relationships of production. By purpose of production we consider whether healthcare is produced by the organization primarily as a commodity to be sold for profits (viz exchange value) or for consumption in the spirit of as solidarity (use –value). The service user is not only a consumer of a product, he or she has to actively participate in the creation of health and hence

a co-producer. Their participation individually and collective is an important requirement - not just as consumer voice. Institutions have always been central to political economy. They define the relationships of production– and they play a critical role in the allocation of power and resources. And the way institutions behave depends a lot on the relationships of power that are embedded in them.

Evidence to support recommendations: All these theoretical frameworks are not mutually exclusive, and all of them can equally measure and explain failures. The challenge therefore is to see which of these can lead to predict viz. can make recommendations which are more convincing, feasible and 'evidenced'. And how theories compare when they do so.

One effort to go beyond research that merely study gaps and failures to build evidence for recommendations is the effort to document and replicate "best practices". While there is merit in this "best practices" approach, too often the imported practice does not survive the transplantation into the new context. And it is not only the context that is to blame. There are often incorrect interpretations of why a particular model works which are reflective of gaps in the theoretical framework of analysis used, or a failure to see variation in levels of success and constraints in different settings.

Realist evaluation has grappled better with this problem. (Pawson, Tilley 2005) In Realist evaluation we do not ask the question - Does it work? - but rather ask - what works, to what extent, which parts, in what circumstances and so on. Realist evaluation calls for each intervention to be defined in terms of its own programme theory. A programme theory is a narrative of how the different mechanisms (M) that together make up the intervention play out in different contexts (C) and what are the outcomes (O) they lead to - intended as well as unintended. And many interventions to improve health sector performance or outcomes can be described in more than one programme theories - as different stakeholders have different reasons and understandings of what are their main objectives and how they would achieve it.

Any efforts at health systems reform/strengthening is a bundle of mechanisms that include in the least - the mandate and the values they enshrine, the mechanisms of governance, the organization of work processes, the access to technologies, the gathering and use of information, the mechanisms of financing the organization and the payment to providers, and the ways in which the community participates as a co-producer of health.

The Comparative Case Study as Method

The main objective of this study is to build evidence for better organization of healthcare services. Our method is comparative case studies of a variety of partial or major examples of success drawn from different types of providers - government, not for profit as NGOs, corporate social responsibility or as faith based organizations, commercial providers - and drawn from different parts of the country.

Case Studyis a well-established method, (Robert Y in 5th edition 2011). In our case studies we have combined the study of documents of the organization, the study of organizational records, and interviews with key informants and sometimes group discussions as well. We have not independently measured outcomes, or cost-effectiveness or community feedback. This is not an evaluation of the case studies to see whether these are fit models for scaling up.

Rather we are choosing to look at how each of these case studies address some of the key problematics of Healthcare delivery. Here we use the term to mean "problematique" as was used in sociological literature to indicate a problem that allows of multiple solutions in multiple contexts and even with differing ideologies and theories. These problematics of healthcare have solid existence that all policy makers, practitioners and even the informed public would recognize as factors that compromise the delivery of Healthcare. One does not have to subscribe to any particular theoretical framework to acknowledge it – though it is quite difficult to discuss what to do about it without consciously or inadvertently using one of theoretical frameworks of analysis discussed earlier.

Of the different problematiques of Healthcare delivery we have short-listed a few for greater focus. One is

how primary Healthcare including prevention and community involvement is organized - if at all in each of these case studies. A closely related question is how continuity of care across levels (referral support) - and at same level (continued medication compliance, follow up) is organized. A second focus is on how these archetypes, manage the main problems of human resources for health - attracting and retaining skilled providers, building up skills and ensuring motivation and performance. A third focus is on financing - their sources of financing including issues of user fees and leveraging government funded insurance, how are they making payments to providers – and approximate costs per patient seen - where that can be measured. A fourth is on governance and included in this the issue of core values - how it drives or fails to drive performance and how it is replicated and nurtured within the organizations. And we also briefly look at issues of access to technologies and management of information.

One important consideration that has gone into the selection of case studies is the meaning of "success" with respect to a model. These case studies chosen are those (a) where there is a conscious effort to reach the poor, (b) where the approach is such that it can, potentially, be replicated to cover entire populations, (c) where the effort is not in maximizing the revenue per patient, but the number of patients seen per unit of investment (put another way: not the number of dollars earned per occupied bed/ patient seen, but number of patients seen per dollar spent) and (d) care that values and respects individual dignity. The NHP 2017 articulates these as the principles of equity, universality, afford ability and person-centeredness

Most case studies selected relate to were comprehensive primary healthcare which was by definition is inclusive. But since the greater emphasis was on reaching the poorest, we took note of the many efforts at healthcare delivery which has these four principles at the core - even if they were of secondary or tertiary care.

The choice of case studies and their themes

The first of the case studies in our series is of a rural Healthcare programme implemented by *Jan Swashtya Sahyog (JSS)*. We chose this for many reasons. For one it is a very low resource setting in which the programme delivers a comprehensive list of Healthcare services, being driven by the needs of the population as assessed locally. One central message that the JSS team actively propagates is that the Healthcare needs of the poor must not be trivialized - they are complex and multiple and requires not only primary Healthcare but secondary and tertiary care as well. The case study describes the many, many innovations through which they have addressed the key challenges such community participation, continuity of care, skilling and retaining an appropriate health workforce issues, access to diagnostics and so on. Indeed there is not a single problematic which they are managing without major innovations. So one can learn from the innovations - but one can also learn about the role of innovations itself.

The second of these case studies is from an entirely different context - urban Mumbai and that too serving largely middle class sections. Healthspring could be described as a social enterprise mode of primary healthcare delivery. A model that has to provide a "merit good" but earn enough for both covering its capital costs and its revenue needs. But they too are reaching out to provide primary Healthcare for a very wide range of needs. The efforts are to keep payments affordable and the number of clients per clinic limited - but expand more clinics to cover more population. Like for most social enterprises, marketing is a key operation, that JSS does not have. But other than this - they too need to address the same problems of building and maintaining of organizing primary healthcare, of building up and retaining a skilled workforce, of financing, of use of information and the study describes how they have done so.

Next we present two case studies in public private partnerships. One is a PPP for RCH services made with Deepak Foundation – a Corporate Social Responsibility organization which is established within the premises of a government CHC. The CSR agency brought in a significant amount of capital expenditure and shares in the running costs - but it is designed like a CHC and faces all the problems that CHC faces. Still it is undoubtedly providing a stable level of good quality care over almost ten

years. Though this is not comprehensive care - but limited to only RCH services we still included it as one of the best practices in CSRs and because of the interesting narrative of how the Foundation managed the problematics.

The other PPP is from Uttarakhand, chosen because it is typical of one form of strategic purchasing that has been much experimented with. Here the aim is to outsource a number of government health facilities to private managements using the process of competitive bidding and contracting for price discovery, quality assurance, service providers more aligned with public health goals. The contract is the key management tool. In the case study under study it is a set of CHCs that have been outsourced to two agencies. However these agencies had to face the usual problematics - and it is clear that a mere change of ownership from public to private was unable to deliver this.

Our fifth case study is of Aravind's unique approach to the provision of universal eye care to a population of close to 5 milllion. Aravind Eye Hospital has been the subject of case study written by Harvard Business School which characterizes Aravind as a great success because of it being a innovative business model - what it characterizes as the Macdonaldization of Healthcare. This case study has also been seen as an exemplar of case study writing and updated by Harvard, many times since. Our own case study re-visits Aravind, butusing a different theoretical lens we see it differently. We see Aravind, like JSS, rich with numerous innovations especially in the use of technology, but also in the way it has innovatively addressed each and every problematic. Aravind also demonstrates that population based universal care need not be limited to selective packages. Their universal eye care model includes prevention and management of conditions like glaucoma, diabetic retinopathy, refractive errors and much more.

Our sixth case study is again of primary Healthcare and that which is especially meant to reach the poor. But the setting is now urban slums in the outskirts of Delhi where St. Stephen's community health center has been managing a primary care programme for over 50 years. What makes us include this - is not only the wide understanding of comprehensive care - much like what JSS is doing in a rural setting, but the special set of affirmative actions that reach out to the most vulnerable like those in geriatric age groups and the homeless.

Our seventh case study is actually a collection of four case studies of Mission Hospitals and Mission run programmes. Lead amongst this is the Kunkuri Holy Cross Mission Hospital and its associated RAHA primary health programme that grapples with the usual problematics but in one of the most remote and backward and strife prone areas of the entire nation. Another is Duncan Hospital situated in the Nepal - Bihar border in Raxual and which networks and synergises with government primary health centers in an innovative approach. A third is a mission hospital in Amboory Kerala that does not do well - and has been outsourced - and which exemplifies the fact that many faith based hospitals despite a high level of owner motivation are facing the same level of problems as public health facilities. Christian Fellowship Hospital from Odanchatiram in central tamilnadu is also presented. Discussed is the tension between being sustainable and being inclusive - and the choices that faith based hospitals have to make in this regard - and the implications this has for management.

Our eighth and ninth case study are two worker managed hospitals. The first is better known - Shaheed Hospital in Dalli Rajahara in interior Chhattisgarh and the second is the Peoples Polyclinic of Nellore in Andhra Pradesh. Both of these have no primary Healthcare extensions, but their inclusion here is for two reasons. They are dedicated to serving the poor and do a great job of it. They have no external funds and therefore have to stretch their efficiency to the limit - providing greater value for money than anyone could have imagined was possible. The former leverages the RSBY scheme in a remarkable way and has transformed itself - but the latter has chosen to remain out of this circuit. And finally they also did primary care once - but now, as resources are limited, the site of such care is limited to the hospital to which the poor come in huge numbers.

Our tenth case study visits the newest of these innovations - too early to write up - but too newsy to leave out - the Mohalla clinics of Delhi. What we explore is an idea - an idea that has aroused widespread curiosity, since it is in the direction of

reform that has been proposed by many varied interlocutors in the past.

We then move on to two case studies of what we term the urban public mega hospitals. These are included in recognition of the reality that they exist and they perform an invaluable and unique function so far as Healthcare to the poor is concerned. The KEM hospital for example provides what may be called as comprehensive primary Healthcare close to what 80 primary health centers would have provided - other than an immense quantity of secondary and tertiary care it provides. And as the JIPMER case study shows it could combine primary care with the most advanced of tertiary care provided with very high standards of quality as well - and all of this, especially in JIPMER is free. There are lessons here to be learnt. They point to unmet needs for primary care in the designated primary care facilities. They also point to how continuity of care with primary care has a major role to play in rescuing these hospitals from the diseconomies of scale that these hospitals are threatened with. They also point to how perceptions of primary care that are created here can adversely influence the organization of healthcare. And there are also lessons with regard to implementing the government policies with regard to financing public hospitals.

Finally we close with a series of public Healthcare facilities – a few PHCs and district hospitals across the nation from four different states. We have again purposively chosen best practice sites - to understand the design issues as different from implementation issues and to reflect on why some of the innovations that different forms of public and private ownership have undertaken can be implemented in a government setting and what barriers exist for implementing others.

The multiple audiences for these case studies

These case studies are lightly structured so as to lend themselves to being a teaching tool and allow comparisons. Each case study begins with a story of its origins and in this section we discuss that values that govern the organization. The next section describes all the services that are available, with some sense of the quantities of services delivered. We then look at the organization of such services – and we include in this both the forward and backward linkages viz the linkages to higher levels of care and to lowers levels of care including to communities. We then describe how the problematics of human resources are organized. Quality of care, use of information, the use of information and communication technology and issues of access to medicines and diagnostics are all touched upon. Then there is the section on financing and governance.

These case studies are written to serve three different purposes and three different audiences.

One is for the teaching of public health management. There is a serious dearth of well researched case studies that can be so used - and this would make a beginning. Over time it could be built on. With further refinements it could be used to teach case study methodology, comparative case studies and even realist evaluation.

The second audience is the community of practice- either as implementors, or as policy-makers at the level of states and districts, technical support, or even for civil society which intervenes to improve the performance of public health systems. They may draw on these case studies to address the problematics in their respective contexts or to think afresh and stimulate innovation to deal with some of the most intractable problems they face or to tweak or interpret policy to their favour.

The third is an ''academic" audience and the policy community (those involved in policy processes who may be government officers or working in media or activists civil society) commenting upon this in the media. This is the level of theoretical exploration – where one examines how the case study is best explained, and how its relevance is drawn out for informing policy. Some case studies like the PPPs are driven by theoretical expectations and it is always interesting to find out how they fare. The truth is that many in this level may actually be dismissive of academics- though inadvertently they would be using theories that often serve them badly, without knowing the other choices they have. The flagship training programmes that are conducted for policy

makers by international agencies often project only one theoretical framework and use largely international examples and case studies. There is a need to creatively change this.

The concluding chapter and two annexures

After all the case studies are presented we therefore have a last chapter which is on what we learnt from these case studies. This chapter summarizes the conclusions of immediate relevance to policy and theory.

Finally we are also presenting two country level experiences as annexures. One is from India itself- and is the example of the Indian Railways Health Service which provides universal health coverage to all its 1.4 million employees, and 1.7 million pensioners, and their families who together come to almost 11 million population.

The second is the example of Thailand. Here what we do is re-examine the case study of this country which is usually told as story of provider-purchaser split and financing reform- with the same approach we have used for these case studies where the organization of service delivery is the central principle and seen as constructed around core values. The human resource policies, financing policies, and policies for access to information and technology flow from this.

2
CHAPTER

THE VISION OF COMPREHENSIVE PRIMARY HEALTHCARE

Learning from *Jan Swasthya Sahyog* for Developing Health and Wellness Centers

Bilaspur (Chhattisgarh) | *T. Sundararaman*

Introduction

Jan Swasthya Sahyog (JSS) was founded in the year 1996 by a group of progressive health professionals from the All-India Institute of Medical Sciences (AIIMS), New Delhi who shared a common desire to develop an effective, low-cost, high quality community-based Healthcare system that would be readily accessible to the rural poor and a model for the delivery of care in low-resource settings. In 1999, They took over on lease a near abandoned irrigation colony some 20 km from Bilaspur town- and over there began with an out –patient clinic and then a small hospital with a Operation Theatre which was operationalized in June of 2001.

In addition to the provision of high quality services in a remote and underserved area, for over 15 years, their work has generated a wealth of data and experience.

This case study focuses on the organization of primary Healthcare services, delivered through the Bamhani Health and Wellness center, located in the midst of a cluster of villages and covering a population of 8403. Bamhani is one of four sub-centers, which between them provide primary Healthcare to a population of 35,000 persons, and are linked to a base hospital of 80 beds. In the Ganiyari center, more than 50 beds are for hospitalization most of which is for surgical cases or for medical emergencies. Though largely it caters to secondary care needs, a select range of tertiary care services are also available.

Most studies on and from JSS have focused on the Ganiyari Center or their program as a whole. But in this case study we are taking a conscious focus on their primary care work.

The four centers which are delivering primary care are referred to as Health and Wellness Centers (HWCs) to differentiate from the government-managed sub-center and in line with the changing usage within the project as well.

These four HWCs are supported and coordinated and provided referral support from an 80-beded hospital and Healthcare team located at Ganiyari- much on the lines of what is expected of a community health center.

Geographical Location

Bamhani Health and Wellness Center (HWC) is located in a tribal and forested area, catering to

17 forest villages. The HWC is located at a distance of about 50 km from the referral facility at Ganiyari and about 77 km from the district headquarter town of Bilaspur. There is a once-daily bus service connecting Bamhani to the nearest town. However, only a few rugged 4 wheel drive vehicles can reach the villages. For all practical purposes the only means of connecting the 17 villages served by the Bamhani center and Bamhani with the bus stop is bicycle or by foot.

The Health Workforce

The HWC in Bamhani caters to a population of 8408 persons dispersed across 17 villages and 40 hamlets with populations ranging from 103 to 938.

At the level of the hamlet, there is a Mitanin of the state programme (same as ASHA at the national level) who plays the role of the Village Health Worker of the JSS as well. Some of the pre-existing VHWs of the JSS also continue. Both VHWs and Mitanins are selected and deployed by a similar process and on the same terms. There are 38 Mitanins/VHWs in the entire Bamhani area. (The Ganiyari Project on the whole has 110 Mitanins).

The HWC is staffed by 2 ANMs and one Senior Health Worker (SHW). The SHW-is a mid level care provider with a nine month pre-service training provided by JSS followed by a structured review meetings every month. When needed short three day training programmes could be held. All trainings included practical aspects, with supervised practice on the field.

Where the catchment area is larger and covers a population of 15,000 there are two or more SHWs. In addition there is also a manager, responsible for patient registration, logistics support and management of case records. The manager functions as a support to the SHWs, and not as their supervisor. The senior most SHW is the leader of the team. In addition in each HWC, there is one individual who is a sort of general factotum- as a handy man, watchman and to carry samples/documents/records between HWC and the main facility. Once a week a team consisting of a doctor, coordinator/registrar, a pharmacist and a laboratory technician visits every HWC.

Supervision of the VHWs is by a cluster coordinator located in the Ganiyari Healthcare Facility. For each VHW there is a cluster coordinator. There is also one HWC coordinator for all four HWCs who support the chronic illness care and HWC functioning and another coordinator for women's Healthcare. There are thus 5 non-medical supervisors located outside the HWCs who supervise and support the 4 HWCs and there is a distribution of skills and functions between them. One set is for RCH services – especially care in pregnancy, another has a focus on infectious disease and acute illness and a third on chronic illness.

The Village Health Worker/ Mitanin

The Village Health Worker/Mitanin is in charge of all acute simple illness and is trained to manage this with a small but effective package of 23 drugs including those for malaria (see box 2). The diagnostics she carries include RDKs for malaria, pregnancy testing kits and sputum collection cups for TB and another 15 assorted supplies. The medicines are re-filled every month in the monthly meeting by the cluster coordinator. The VHWs have also had a training on community dentistry, which allows them to manage with minor dental problems and when required refer it to the dental OP at the Ganiyari Healthcare facility.

One important function the VHW/Mitanin does in birth and death registration. Within two hours of a birth or death, the VHW/Mitanin would make a phone call to a number where there is an Interactive Voice Recorder (IVR), which would record all the main details of the event. This would get typed into the data-base the next days. At this point of time, this is a public health tool only, not yet integrated into the states birth and death registration system.

The Service Package

(i) The case load (quantity of services utilized)

There are 1500 visits to the village/family level each month by the three providers at the HWC. (The three providers are two ANMs and one SHW. Henceforth we will refer to all three as SHWs - since they have similar overlapping skills). In addition there are approximately 500 clinical encounters at the HWC/

sub-center every month. This approximates nearly 24,000 visits per year. In addition in a year there are 3000 referral clinic visits from Bamhani villages to the Ganiyari Healthcare center that occurs every year. This works out to about 3.2 out-patient visits per capita per year- very much in line with the use patterns of optimal care.

In addition there is a mandatory monthly visit by the VHW/Mitanin for every single household in their care. Families at risk or special needs are visited more frequently. The VHWs also undertake management of a large number of acute simple illnesses – the exact number has not been estimated. In addition there is care seeking outside the ambit of the programme. If all these are included, the number of outpatient visits per capita touches about five, which is, nearer the expected range in many developing nations.

(ii) Close to Client Access

Over half of the people needing care either for acute simple illness or for chronic illness get such care at their home or within their village. About one in three patients require care at the HWC, which is within 7 km, and one in ten need to travel about 50 kilometers to the Ganiyari Healthcare facility.

The Set of Assured Services

The set of services that are assured, their providers and site of provision could be enumerated as tabled as follows:

Table 1: The set of services

	Condition	Provider(s)	Drugs and diagnostics in addition to counseling and referral.
Acute Simple Illness	Fever, diarrhea, cough and colds, allergy, mild pain abdomen, passing worms, mild or moderate anemia	VHW/Mitanin – in all of these if not responsive within three days- referred to the HWC for the weekly clinic or to Health Center, Ganiyari as required.	Using a drug kit of 23 medicines and a set of diagnostics (see box 2)
Animal Bites	Animal Bites (this is adense forest area with considerable fauna)	In HWC in a regular basis. Provided by SHWs	ASV, ARV, TT, available at HWC. Dressings at both animal bite clinic and HWC
Chronic Illness	Tuberculosis (157 cases in 3 yrs)	The treatment is started by the visiting doctor in the HWC, followed up by the senior health worker or SHW. ANM during village and home visits- where monthly drug supply is given, and counseling, diagnosis or further treatment or referral as necessary is provided. All these patients have universal care. The figure in brackets gives the number of patients in care in Bamhani area on the day of visit. It is a total of about 48 chronic communicable diseases and about 343 chronic non-communicable diseases which are under treatment and all are visited at least once a month. Except for hypertension all the others are without active screening- those who were picked up by opportunistic screening at the HWC or PHC. There are also a number of severe anemia and SAM and grade III malnutrition under follow up. Everyone gets continued access to medication and at home/village level follow up care. In all, coverage of this set of services accounts for about 1200 visits per month	Anti-TB drugs
	Leprosy (63 in 3 years)		Anti-leprosy drugs, disability care
	Hypertension (174)		BP check, medication
	Epilepsy (45)		Medication
	Sickle Cell disease (31)		Medication
	Asthma/COPD (23) no active screening		Medication, acute illness care
	Diabetes (13- no screening done)		Medication
	Arthritis (9) no active screening		
	Thyroid (10) No active screening		Medication
	Mental Illness (34)		
	Rheumatic heart disease (12)		Medication, record on mobile for consultation
	Airborne contact dermatitis (12)		Medication
Nutritional	Severe Anemia no active screening		Medication
	SAM		Medication- Injection Penidure at HWC

	Condition	Provider(s)	Drugs and diagnostics in addition to counseling and referral.
RCH	Antenatal care (182 pregnancies in one year)	By ANM at a designated ANC site once a month - there are three such sites in Bamhani area, located so that no pregnant woman has to walk more than half hour. VHWs of the area are present.	
	Delivery (70+ in institution)	At the HWC, or if high risk referred to Ganiyari.	
	Post partum and neonatal care	By VHW – home based	
Eye Care	Refractive error detection and management Cataract, decreased vision	At HWC- Provision of glasses to correct age related refractive error for all those above 40, referral for others as needed	Spectacles
Public Health Adminis-trative	Registration of Births and Deaths (56 deaths, 153 births, 4 still births in one year)	Within two hours of learning of a birth or death in their area, VHWs or SHWs call up a Voice recording center where the event is recorded in a pre-recorded Q & A format.	

Ganiyari Health Center: The services available

In the 70 bedded Ganiyari Health Center, the following services are available:

1. Emergency obstetric care
2. Abortion services
3. Dental OPD - referrals from VHWs who also have community dentistry inputs
4. Eye Care- refractive errors
5. Cancers and follow upcare (130 in entire area- approx 32 in Bamhani areas)
6. All acute surgical illness
7. All simple acute or chronic illness which develop complications
8. Suicide Help Line

The Ganiyari Health Center also provides referral support to all primary Healthcare as provided by the sub-centers. For almost all chronic illnesses treatment plans for individual patients are written down or approved by either a doctor in the center or one of the supervisors stationed there. This is then implemented by the sub-center.

Today this Health Center- which is an ideal for all CHCs to aspire to - has grown to become a 70 bed hospital with three operation theatres, a pediatric intensive care unit, a neonatal intensive care unit, a small 4 bed tuberculosis ward, a ward for cancer chemotherapy other than the labour room and a medical and surgical ward. In a year they would see close to 50000 outpatient consultations (about 350 per day, three days a week) and about 60,000 laboratory investigations and about 3000 inpatients and 500 major and about 360 minor surgeries, about 500 deliveries. They also diagnose and put on treatment close to 500 cancer patients every year.

The Organization of Service Delivery

The health sub-center or HWC is the hub of all primary healthcare activity – and corresponds closely to the proposed health and wellness centers of the draft national health policy in staffing, density and package of services. How does such a small complement of staff handle this considerably expanded set of services?

Every day the HWC opens at 8.30 am and remains open till the evening. One of the three staff in rotation, is available there till the evening. Two others come there for an hour and then leave on their beat – visiting one or two villages for that day. In a five day week, two health workers undertaking outreach work, would cover between them all 40 hamlets of the 17 villages.

The sixth day of the week is the clinic day when all the health workers remain in the HWC and the four person team comes from the PHC for its weekly visit. This day is primarily for referral care, and establishing diagnosis and treatment plans for chronic illness. The HWC has a small and impressive list of diagnostics which enables this.

The weekly clinic dayis also an occasion for training of the SHW/ANMs. On one such day every month there is a meeting of all 38 VHWs/Mitanins and dais of the area and their training as well.

Ante-natal care was initially provided at the HWC, but given access problems, due to the distance the women needed to walk, three village sites were chosen such that every hamlet is within half hour walking distance of these, and ANC is provided on a pre-fixed day every month. The HWC are well equipped to manage normal deliveries. Complicated cases are shifted to the Ganiyari center where emergency obstetric care including blood transfusion is available.

Given the large numbers of animal bite cases, while acute cases are brought to the HWC, TT, wound dressing or antibiotics are provided at the HWC with follow up at the village level by SHWs. HWCs have s tetanus toxoid injections, ASV and ARV injections and antibiotics and dressings as needed.

The HWC is also the site of animal Healthcare for the life-stock and for agricultural extension work.

The visit of the SHW to the villages is a well-organized effort. There are five important aspects of this organization of services:

1. The list of patients with chronic illness in their area, is generated at the PHC and provided to them each month. No ANM/SHW ever initiates the drug. The doctor does this during the weekly HWC visit. The patient is then registered and the lists generated monthly for follow up by SHW.

2. The visiting SHW/ANM carries a month's drug supply for each of their cases to the village they are visiting. The drugs carried are as already prescribed and known to be required from the list- these are standing orders of the doctor being implemented under supervision- The drugs could range from digoxin for chronic heart failure, or anti-epileptics, or folic acid.

3. The VHWs are updated on the visit schedule of the SHW and facilitate their work during the village visit.

4. Specific materials - in the form of a printed, illustrated note, guide the details of care- how and what is provided for each specific illness. These are not protocols to be adhered to, but reminders to guide the health worker during the encounter.

5. An innovation catalyzed by the VHW and SHWs is the creation of a number of patient groups for each of the chronic illnesses, including the one for alcohol and substance abuse, which are the largest of these. The patient group directly or indirectly mediates and follows up on the interaction with the SHW.

Protocols of Care for Chronic Illness: The protocol of care varies from case to case, and the individualized plan for a given case, is defined in the treatment plan set out by the doctor. Though there are clear training modules for the health workers that are built around standard treatment protocols, these are guiding documents- so to understand the individual plan better. The clinical plan and its supervision could be facilitated either by the doctor and supervisor making a visit to the HWC on a scheduled day, or by mobile or internet based consultation or by skype. Which is used depends on context- of both disease and availability of resources.

There are interesting modifications of the treatment plan and its supervision. For mental illness, the main symptoms of the patient are recorded on mobile video by the SHW and transmitted to the consultant psychiatrist at a referral site abroad. Sometimes this is enough to start off immediate remedies. Then on the day of the clinic, based on a Skype or other consultation between the visiting doctor and the psychiatrists, the treatment plan is established. When necessary a further telemedicine consultation is sought.

Lessons from the Patient Groups: The creation of the patient groups is a major community level

innovation, which has made chronic illness care, successful. Most chronic illness, especially those asymptomatic in nature, has very poor compliance to treatment. Medication compliance in the best-case diseases was only 40%, but rose above 80% with the formation of support groups.

Patient groups are formed and sustained by VHWs with active assistance from the visiting SHWs. Since they span many villages, the role of the SHW is important. There are functional groups for epilepsy, type I diabetes, sickle cell disease, leprosy, chronic airborne contact dermatitis, (a local need), hypertension and disability. There are 8 groups for chronic alcoholics and one for relatives of chronic alcoholics that meets separately. There is an incentive of about ₹ 200 provided for the group to meet which they can spend on organizational expenses The group discusses their problems, organized the smooth access to drugs and also identifies and brings in latent cases from the community.

Addressing Social Determinants

There is a high degree of sensitivity in the programme to addressing social determinants. The meaning of social determinants is far more fundamental than nutrition and drinking water, or exercise and stress management concerns alone. The first and most important is an understanding inequity by caste and tribal group and reaching the most marginalized communities preferentially.

The other major category of social determinant is hunger and malnutrition. There is an active programme to address this- called the Phulwari programme: This Phulwari programme does growth monitoring, measures the exact levels of malnutrition in children under 5, and guides preventive action through counseling for infant and young child feeding. It is also a crèche programme with one Phulwari worker for 10 to 15 children in the age group of 6 months to 3 years. There are in all 1016 children in 86 crèches across the 38 villages. The children get Sattu in the morning and a cooked meal in the afternoon and eggs twice a week and there is an addition of edible oil as well- which together accounts for 70% of a child's daily nutritional needs. The Phulwari programme is separately financed. Its interface with the main health programme is to ensure that every grade III child has a health referral to the HWC, and a more intensive follow up for illness. Children with severe acute malnutrition are referred to the base hospital and after treatment are followed up at the village level by both the Phulwari worker and the VHW. Severe anemia cases are started on treatment at the HWC or more often at the Ganiyari Health Facility, but in contrast to childhood malnutrition, the follow up is by the senior health workers as part of their chronic illness services.

Table 2 : Frequency of malnourished children

Malnutrition Grade	Grade I	Grade II	Grade III	Total
Bamhani	272	128	58	458
Semariya	156	47	15	218
Shivtarai	120	35	15	170
Achanak	60	26	8	94
Total	608	236	96	940

For pregnant women counseling on nutrition and non-drug aspects of pregnancy care is reinforced and contextualized by a hot cooked meal served on the day of the monthly ante-natal clinic. Given the long and tiring walk to reach the center and the loss of a day's wage the immediate relief this provides also ensures attendance and improves outcomes.

On drinking water and sanitation, these are promoted through the VHW, but there is no measurement of outcomes or record of improvement.

One important area of action is agricultural extension work and veterinary support. This is undertaken by separate staff, but seen and made available through this programme. Agricultural extension work is focused on the promotion of SRI which has a great positive significance for the source reduction of vectors and therefore the control of malaria and encephalitis in this areas. Due to operational constraints, the linkages and contributions it makes have not been documented in this study.

The organization of primary care services can be summarized as follows:

a. The HWC is the hub. It is kept open by one of its 3 to 5 staff on all days. On one day of the

week (Saturdays for Bahmani) the entire team converges on to the HWC. This includes the Mitanins from the villages, all its 3 to 5 staff and a visiting team from the PHC.

b. For RCH services- it is by ANM being present at the designated site with Mitanins facilitating access and follow up counselling. Delivery at HWC by ANM with referral to Ganiyari for complicated cases.

c. For acute simple illness- provided by Mitanin at the community level and/or seen in HWC. Supervision and drug supply by the HWC staff and one of the cluster coordinators.

d. For chronic illness- treatment plan made by a doctor, medication access and follow up locally once a month with supervision by a cluster coordination and with consultation of doctor through mobile vans, mobile telephony or internet-skype as indicated.

e. Action on social determinants, community mobilization events – supported by HWC team and Mitanins - but work-intensive programs like creches requiring additional staff.

The role of the Government Sub-Center

There is government sub-center in this same area and it provides immunization services, access to contraceptives and sterilization. It is also mandated to provide Weekly Iron and Folic Acid Service, deworming day, pulse polio, Rashtriya Kishori Swasthya Karyakram and Rashtriya Bal Swasthya Karyakram related services. The only areas of overlap are ante-natal care and promotion of contraceptives. None of the other services provided at Bamhani by the JSS programme and listed above are currently available in the government programme.

Information Systems

The VHW/Mitanin has a simple register. On the left side of every double page is a print out of the each member of the family with their "baseline-age", sex, relationship. Most important, this page gives every family and every individual a number. At the bottom of the page is a two line space for future births. On the right side the register documents the day of the month when they visited the family, any illness the family had, who had the illness (using the individual number), with whom they had sought care with (which is coded into 7 groups so that they have to only write a number between 1 an 7) and also the cost of care if sought outside the JSS ambit?

The left side of the page-listing of family members allows one to add on members if there are new additions- and allows for deletions by a simple strike-through. Two lines are given for recording births. At the end of the year the data is updated at the PHC and the new sheets are printed out for each Mitanin. These sheets are then bound to constitute the register.

One important innovation is the birth and death registration system, which has the potential using an IVR- which has a great potential for scaling up. It requires integration through use of data standards and inter-operability mechanisms.

The VHW/Mitanin has no reporting data function and no "to-do" lists. No effort is made to compile this register data as this is not even required- except for research purposes. The VHW/Mitanin does however, supply on a monthly basis an aggregate number of number of houses visited and number of illness episodes treated, without disaggregation by type of illness.

In addition, the Mitaninhas a pass book for the drugs that she issues. The SHW/ANM has a print out of all chronic illness categorized - by illness, by village and the individual address with a brief mention of follow up drugs required. This is followed by the SHW, but no effort is made to compile and monitor whether it was in effect provided or not. This too was not required.

The case records of each patient are kept at the corresponding HWC but the PHC has a scanned copy of the same. This is available to the referral doctor.

Each HWC has one manager cum data entry operator who does the registration, sends and collects the record. At the PHC, the HWC coordinator is in charge of generating the chronic illness lists and supplying the necessary drugs. The case records of all new cases seen in the weekly clinic are sent to the centers

where the case-details are entered and a number is given. This constitutes the act of registration. The case records are returned to the HWC the following day. Subsequently every month the patient would be included in the chronic illness lists generated for the SHW to follow up.

The PHC itself has an innovative hospital information system called Bahmni in honour of the village that inspired the programme. The programme provides the tools for facility administration and for case management at the facility level. This is developed as part of a Corporate Social Responsibility Project by Thought Works, an IT firm.

Access to medicines and diagnostics

Drugs and diagnostics move together. For the HWC and the SHWs managing chronic illness and ANMs for pregnancy care, the pharmacist and the HWC coordinator update stock registers and provide the refills to the HWC during the weekly visit. The HWC has a stock book and so has each SHW. The VHWs are however provided drugs directly by the cluster coordinator who sources the drugs independently from the main pharmacy.

It would be possible to work out the consumption of drugs by each village, and each HWC and each provider, but there has been no reason to do so. The total amount required for refill at each HWC and each cluster of VHWs has been adequate for all operational purposes.

At the Ganiyari center there is an essential drug list of over 250 drugs and these are procured from agencies known for high quality and afford ability-notably a firm called Locost. As a result, not only do they get generic drugs – but on an average all drugs sold in the pharmacy are about 30 % of more cheaper than market rates.

Governance and the Values of the Organization

The Executive Body or General Body is the highest policy making body of JSS. But most work related decisions are taken by the working team at Ganiyari, that meets once a week. All senior coordinators of the community programme are members of that working committee.

Much of the emphasis of governance is not only administrative or financial – it is about upholding the values that inform such Healthcare. The Mission statement sets out a core value: "We strongly believe that access to healthcare should not be denied to anyone due to lack of money or due to discrimination on account of caste, sex, religion and social class etc."

It elaborates this further as wishing to create health, happiness and well-being by:

- Creating a system of primary Healthcare which builds on a continuing and mutually enriching dialogue with the people and derives its strength and long term sustenance from this.
- Providing appropriate rational and low cost Healthcare services delivered with empathy and love. We shall endeavor to make them holistic.
- Identifying problems during our work which demand scientific scrutiny, and working on them on a long term basis.
- Being part of the process of development and rejuvenation of village communities by facilitating efforts to improve education, the environment and the level of sustenance of the people.

JSS further defines its core values as – "Respect for the poor, the village folk, an understanding of their problems, and an unfailing commitment to them shall inform and permeate all our work and Compassion and respect for the wholeness of human beings."

There is also a strong desire to be contributing to the policy discourse and to capacity building in public systems and to theoretical medical knowledge which is more contextual and where one consciously examines and exposes the undesirable influences of the political economy in which such knowledge is generated. The JSS leadership is now therefore most sought after and represented in a number of policy making bodies including those like the Mission Steering Group of the National Health Mission.

Financing

There are three main sources of finance for the JSS programme. The first of these is user fees in the fee-for-services mode, the second is donations and the third is the RSBY programme and its state equivalent.

Most recurrent running costs are collected from user fees especially at the secondary level. But at the primary care level- at the level of Bamhani - there are no user fees.

This programme is largely financed by sponsors interested in developing a model of Healthcare delivery. The Tata Trusts are important sponsors with a regular support programme. In addition there are a considerable number of other aid agencies – small and big- national, international and corporate that contribute relatively small sums infrequently- but it all adds up.

About one-thirds of the in-patient services provided at Ganiyariget reimbursed by RSBY. However, though almost every patient is eligible for inclusion in the RSBY, most are denied this re-payment. For some it is because the cards are outdated or they were never issued the cards (in a state where all are covered). In others it was not eligible. In many the insurance company refuses to reimburse, without citing a reason (documents not complete) and refuses to come into conversation. The government facilitator is equally helpless. This creates a problem as to whether to charge user fees for a RSBY patient or not. Despite the problems this is a useful source of revenue- and if developed could be a game-changer in financing.

Lessons from the Bamhani Case Study" A dialogue with the JSS leadership

1. The first and foremost lesson is the possibility of providing good quality of care at very affordable costs using a level of human resource which is more or less consistent with what is envisaged in draft national health policy and in the Indian Public Health Standards and the existing financing packages and strategies. The health workers in this case study are not paid more- they are paid considerably less, except for Mitanins who get similar sums of money as in the national programme- but more regularly and reliably.
2. The game changer is really the organization of service delivery and the quality of training and support provided. And the most important is the commitment to shift from selective Healthcare approaches to comprehensive Healthcare, defined as addressing all the illnesses that are endemic in a community based on simple epidemiology and a compassionate responsiveness to all felt needs.
3. The linkage between the existing government programmes on the ground and this programme are also revealing. Firstly this programme does not address immunization- and therefore the additional human resource, infrastructure and logistics support that this component requires has to be added. Estimating how much difference that would make to prevailing morbidity or mortality would also be very revealing. The government sub-center/ANM is also charge of the following programmes- the Weekly Iron & Folic Acid Programme (WIFS), the Rashtriya Kishori Swasthya Karyakran (RKSK), the Rashtriya Bal Swasthya Karyakran (RBSK), pulse polio days (PP), the national de-worming day, hand washing days- and some other such days etc. These programmes along with immunization potentially absorb the bulk of public health expenditure and work time of the workforce. These are almost all initiated by international donor agencies and made mandatory by financial packaging into the state PIPs. If these programmes were to reach full coverage, it would leave the vast majority of felt needs and the epidemiologically defined priorities in Healthcare of this area almost untouched. To what extent are they value for money and why are they made mandatory when such priorities are invisible has much to do with the international and national politics of Healthcare as well as the dominant stream of public health thinking, which in turn derives

from closely linked institutional factors. These are not explored further here. What can be stated conclusively is that if these programmes are to continue to have the same priority, then additional money and staff are required. Similarly if the package of immunization is expanded with choice like universal hepatitis B vaccination- we can estimate the additional number of deaths and morbidities that would be saved in such a context. Even if policy does not change, at least public perception can be influenced to reduce the criticism on public health systems and public health workforce, failing to provide quality services and lay the blame for it where it belongs- in the policy and mainstream public health community.

4. It is also important to note those key recommendations that dominate the discussion on health sector reform in Delhi – but which are ***not*** present in the discourse as articulated in the JSS programme. When discussing the programme with its senior or mid level management or field functionaries- there is an almost complete absence of the word monitoring in the discourse, or even of accountability. Training and support and organization of work elements are what one hears. Standard Treatment Protocols are also not part of the discourse. However there are clear guidelines for every case, which are revised as and when necessary and they find expression in the training modules. For the hospital itself, they use the clinical guidelines of CMC Vellore, adapting these as needed. Protocols are used as a guide to providers for quality of care- having no role in financing or monitoring.

5. There is also no mention and even an active rejection of performance based financing or financial incentives of any kind. But reliable and timely payments of the modest sums agreed upon are essential. One important element of their human resource policy that no doubt helps is local recruitment and local training and deployment- largely from within the community. This is true of not only Mitanins - but also of the SHWs/ANMs and senior health workers.

6. There is limited well-integrated use of ICT, and none at all on use of ICT for monitoring or as the key organizing principle of Healthcare delivery. ICT tools being developed now are basically to support providers to improve the quality of care they provide and to get better, real-time public health analytics in place at the local level. It also shows that though some information systems are necessary and there is scope to improve on these, these should be friendly and empowering to the peripheral providers and minimalist in nature. The bottom line is that this is not the game changer, though it certainly helps. Work on improving the IT support is ongoing- with a leading firm Thought Works providing the support.

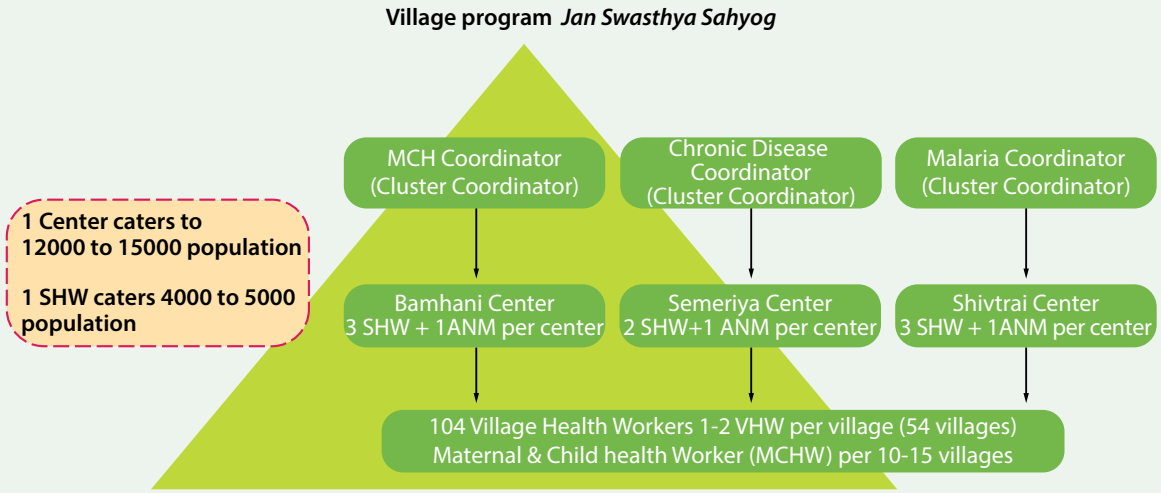
7. The discourse does not contain any element of trying to separate clinical from management functions. Though there are non-clinical coordinators at the mid level, the senior levels are all clinical and manage the public health functions in an integrated fashion.

8. More often than not, visiting policy makers see in this model, only the success of a private enterprise, to the chagrin of the group. They strongly emphasize the non-commercial nature of their enterprise, and the problems of the private sector in the district and state. To them, this is a model meant for public sector scaling up. They see themselves as part of the public system in spirit- a form of public ownership by alternative means. When presented with the argument, that despite their opinion about it, what differentiates their work from the public system is their motivation and this in turn, has a link to their being a private not for profit entity- they counter that motivation for public service- is the same across public and private-and indeed many public providers are private providers also. The important difference lies in how the philosophy of comprehensive care, community basing of care, equity, responsiveness are all hard-wired into its techniques- in the structure and content of the programme and in the organization

of each work element. At any rate, their face-to-face contact with the health worker is limited- and theirs is not a disciplinary approach to workforce management. To their mind the main barriers to scaling up are the lack of understanding and political will at the policy level and the nature of leadership in public health. One section of the leadership in public health are the tertiary care professionals who have a complete disconnect with field realities. Another set collects and interprets a mass of data on the public health situation, but through the lens of economic theories, and these have led to these current choices in Healthcare design. The lived experience of this team is very different.

9. There is a need to cost these services. The amount of locally recruited, locally trained workforce is the system is significant. Three health workers for each HWC plus a case manager for larger HWCs. And supervisors placed at the referral center. There could also be persistent latent demand for Healthcare in chronic illness that is not estimated. There is also a need to understand the challenges that scaling up of this approach would offer. But clearly what we have here is a model that within currently available resources, public health systems can learn from and try out.

1: Village Program - JSS - Organogram



2: List of Drugs with Mitanin/VHW in JSS programme

1. Paracetomol-Fever, aches, pains, inflammation
2. Syrup Paracetomol - same as above but for children
3. Tab. Chloroquine - for malaria
4. Syrup Chloroquine - for malaria
5. Tablet Co-trimaxozole - for respiratory infections- also other infections
6. Syrup Co-trimoxazole-same as above for children
7. Iron Tablets - anemia
8. Chlorpheniramine: Anti - allergic
9. Cough syrup
10. Metronidazole tablets - dysentery, some RTIs

11. Albendazole tablets - deworming
12. Gentamycin eye drops - eye infections
13. Calamine lotion - external application or itching
14. Tab Domperidone - For Vomiting
15. GV Paint. - external application : minor wounds & some RTIs
16. Lindane Lotion- external application- scabies
17. Betadine Lotion - external application - skin infections, minor wounds
18. Mala-D- oral contraceptive
19. Furazolidine- antibiotic- diarrhoea
20. Amoxycillin- antibiotic- respiratory and urinary infections and other infections
21. Becadexamin (mutili-vitamin/B complex)
22. Vitamin A- night blindness- also to all malnourished children
23. Dicyclomine- colicky pain, menstrual pain.

3: Chronic Illness in all four HWC areas taken together

(from which in proportion to population Bamhani figures are derived)

1. Hypertension: 695 patients
2. Tuberculosis: 629 patients
3. Leprosy: 63 patients
4. Diabetes: 55 patients (Only opportunistic surveillance)
5. Cancer: 130 patients
6. Sickle cell: 124 patients
7. Mental Illnesses: 143 patients
8. Epilepsy: 180 patients
9. RHD: 46 patients (Opportunistic surveillance)
10. Asthma: 93 patients (Opportunistic surveillance)
11. Thyroid: 40 patients (Opportunistic surveillance)
12. Arthritis: 34 patients (Opportunistic surveillance)
13. Airborne Contact Dermatitis: 47 patients

a) Pregnancies: 730

b) Live births: 767 (some twins, perhaps some inclusion from other areas)

c) Still births: 4

3
CHAPTER

HEALTHSPRING REDEFINING PRIMARY HEALTHCARE

A Social Enterprise Approach

Mumbai | *Adithyan G.S., Daksha Parmar*

Introduction and Origins

Healthspring defines its mandate as providing modern, robust, comprehensive, people-centric Primary Care with emphasis on Preventive, Participative and Longitudinal care concept, through network of Centres in Urban setting.

The idea of Healthspring was conceived twenty one years ago by Dr. Gautam Sen, an accomplished surgeon who for most of his life has worked in a public hospital setting. He completed his MBBS and MS (1967) from Grant Medical College, Bombay, and joined the faculty there, rising to become a Professor at the same college in 1982, from where he also retired in 2003. He has also served as Member of first Board of Governors of Medical Council of India (2010-2011) and in academic bodies, as Chairman of Indian Chapter, The Royal College of Surgeons of Edinburgh and President of Association of Trauma Care of India (ATCI) He is now Emeritus Professor of Surgery at the Grant Medical College, University of Bombay.

At the instance of his friend Mr Tapan Mitra, Chairman of the Indian Aluminium Company he set up a health centre in the bauxite mining areas of *Radhanagari* region of Kolhapur district in Maharashtra in late 1990s.His mandate was to design a healthcare facility for the impoverished tribal shepherd community which will be self-sustainable in the long run but also to take up the responsibility of running it. The perceived need of the tribal population whom he met was for a hospital to provide medical care. However villages were so dispersed that they would have to travel long distances in difficult terrain for seeking treatment. He assured the people that a health centre properly designed rather than a hospital would address their needs better. After several discussions with local he was able to convince them not only about their real needs of a modern Primary Care unit amidst their midst but also the concept of paying a modest amount for the services they will get from a modern Primary Care Unit with X-ray and Lab facilities at a fraction of cost which they were bearing after travelling 65 km and spending the day running from pillar to post of various nursing homes/Labs in Kolhapur town.

The result was an unique rural Healthcare delivery approach which with multiple stake holders, where the impoverished people in the region pay for the services- albeit in highly subsidised manner and

the industry in the region pays the entire amount of setting up the clinic and much of its running costs- which for them would be less than a senior manager's monthly salary, and a professional takes up the responsibility of running it. For a modest sum of ₹ 35 rupees, a patient receives consultation, 5 days free medicine and X-ray and Lab investigations if any, at a cost price. The project has been running successfully for last 20 years and this was in some sense the forerunner of what was to become the 'Healthspring' concept, several years later.

The CEO of Healthspring is his son Kaushik Sen, a MBA from Harvard Business School (2003) and who worked with Management Consulting firm Bain and Company in Boston, Singapore and later in Delhi for 11 year, before he decided on a different career path. Together they established "Wellspring Healthcare Ltd" in 2010 and the first Healthspring Centre in Goregaon suburb of Mumbai in late 2011. Within five years the network of centres in Mumbai (including Navi Mumbai) has reached to 27 and in Pune 7, Delhi 1 and Bengaluru 2. It has plans to establish 30 more in Mumbai, 10 more in Pune and 30 in Delhi and Bengaluru by the end of this year and early next year. The plan is to spread across the country in major cities in next 4-5 years, reaching the number 200.

Both are convinced that to bring about trans formative changes in healthcare delivery that has maximum impact, one must focus on establishing a robust Primary Care System. Healthspring's mandate is therefore a bold move in terms of private sector investment to invest in healthcare where it matters most and that is at the entry level of care.

The Rationale/Conceptual Framework

As perceived by its leadership, there are three important conceptual foundations on which the Healthspring model rests.

One conceptual foundation is the theoretical understanding of the essential nature of primary Healthcare. Primary Healthcare is not a low cost option for the poor. It is a value for money proposition even for the rich. It makes Healthcare much more effective, safe and satisfactory even for the well to do. Even where access to hospitals and specialists is not a problem, a primary Healthcare setting should be the first option for any illness.

Certainly at the entry level of care Primary and Secondary Preventive care will save the person from establishing and escalation of illness with resultant cost escalation and poor health outcomes. Bypassing Primary Care and visiting Hospitals or Specialists has its own perils.

The second foundation is that government provided primary healthcare is not working for *any* economic strata- and certainly not for middle-class. There are far too many problems of quality and access, and in urban areas, especially in a metro like Mumbai, it is almost non-existent. Though the private sector may not be able to build a viable business model that covers everyone, it can build a sustainable and effective primary care model that is affordable, at least to the middle class- perhaps as many as 50% of the population- and which would demonstrate the potential of such an alternative. Even for the lower income group an affordable and sustainable model can be built up on same principles.

Third, private primary Healthcare in the urban sector is beset with a large number of its own problems. Primary care in the urban health sector as well as in rural sector is dominated by a private sector GPs of different hues from MBBS to AYUSH practitioners which expanded on a rapid scale given the vacuum created by government sector. It is largely made up of concentrations of GPs- who have set up one doctor clinics or small family owned nursing homes, and sometimes in the larger cities a number of specialist polyclinics. The polyclinics are not primary care centres but serve the interest of tertiary care specialists who spend couple of hours in these clinics for consultation in their respective specialties. Those who can pay attend these clinics- and those who cannot over-crowd the large urban public mega-hospitals.

But even for those who can pay, all healthcare is fragmented across multiple providers with no continuity of care either vertically between the primary care provider and the hospital or horizontally between the different primary Healthcare providers.

This along with the prevailing culture and ethics of medical care leads to both fragmentation of care and high degree of irrational care driven by kickbacks for referrals, diagnostics and prescriptions and poor standardization of care- all working in an environment where there is almost no regulationor standards.

The Healthspring model is therefore not only to break even and not only to provide primary healthcare but to do so in a manner that is affordable at least to the entire middle and upper class and without compromise on any of the ethical and quality requirements of such care. Potentially it offers learnings for building similar models for lower economic strata on the shared principles of standards, ethics, patient-centric and dependability.

Healthspring has a vision is of a team of 'Family Health Experts' by providing a package of services under one roof. It is one of the foremost primary care providers in the private sector and has emerged as a 'pioneer' in organised primary Healthcare in India by ensuring quality medical care services to its customers.[1]

The Healthspring Models: for the organization of service delivery

Healthspring's primary care approach works at three sites- the local area, the work-site and the school, and each model is different. However the model which is best known and established is the Healthspring clinic – which is an area based model.

The Healthspring Clinic

There are currently 36 such clinics which are operational.

The Healthspring clinic is very well standardized, so that across the clinics they have a similar set of services, a similar infrastructure layout, and a similar setofhumanresourcesdeployed,similarorganization of work processes, the same standardised treatment protocol and the same revenue generation model.

Infrastructure: Every centre has a reception, sitting space for patients, two or three consultation rooms, a fully equipped minor procedure room to do minor surgical procedures, a pharmacy, a nurse desk and a diagnostic room equipped with an X-ray, USG, TMT, audiometry, biothesiometry and an ECG machine. Most centres have a meeting room and a pantry as well. At present 8-10 centres have a dental wing also and they are expanding it to all their centres.

Services: The services are packaged into several health plans that customers can purchase. This is based on the concept of flexibility, which is fundamental to make it affordable to all concerned. There are five sets of such plans- General Health Management, Diabetes, Hypertension, Senior Care, and Women Healthcare. Each of these has several sub-sets- there are 19 in general health management, 13 in senior care, 4, in women health, 2 in diabetes and one in hypertension. When a patient subscribes to a plan he becomes a "Healthspring member". Each of the packages is priced differently and the prices range from 1999 at the lowest to over 25,000 at the highest. Some of the plans are overlapping, adding on one or two more additional services linked to increasing prices. Thus for general health management one could subscribe to a green plan, silver, gold, platinum or platinum plus plan.

The most minimal of plans provides for a free consultation and five tests. The basic health check plan is priced at ₹ 3000 per annum and provides for a doctors consultation after completion of a battery of 20 blood test, an X-ray and an ECG. In higher priced platinum plan for example, a stress test and ultrasound gets added on for men; and a cancer screening mammogram and gynaecological consultation for women. The geriatric plan is priced at ₹ 11,000 and not only has the above services, but also promises three subsequent home visits and tests over the course of the year. Most plans also makes the members eligible for an emergency home call- the first of which is free, but subsequent calls are charged- to prevent over-use.

In all plans unlimited consultations with Physician is offered free thus taking away the barrier of "fees for service".

1 https://www.healthspring.in/accessed on 10th September, 2016

The clinic also encourages walk-in patients who may come for a one-off consultation or blood test. There would be an effort to get them recruited as members. Most members are "recruited" either on recommendation of other members or have walked in for a one time visit either in health camp or in the clinic itself. Each clinic has a business development team that is focussed on increasing membership in the plans.

Once a patient is a member, he gets the tests done and then the consultant sees the patient with all the test reports. Tests normally become available within the same day and some within the same week. The clinics generally act as sample collection sites- and the blood is sent to a three central labs for testing- except for blood sugar. These central labs were hitherto not owned, but contracted in by Healthspring. However gradually the management would be shifting this work to a Healthspring owned and managed lab at Dadar.* When patients are prescribed the drugs, they are likely to buy it from the in-house pharmacy. There is some effort in ensuring that the drugs prescribed and those available match- since generic names are not insisted upon.

Emergency Medical Service (EMS)

Another major benefit that comes with membership is Emergency Medical Service hither to not available to citizens in urban conglomeration. It is just not ambulance services but much more than that. A modern EMS System is an integrated service of communication, medical response at place of emergency medical situation at home or outside, immediate resuscitation and stabilization and if required transport in well equipped ambulance with accompanying doctor and definitive admission in designated hospital without running from pillar to post. Healthspring set up this bold initiative at considerable cost and risk to provide this facility to its members from day one with Call Centre which is open 24 hours 365 days, Doctors on Call in their designated area with Emergency Vehicle and arrangements with outreach ambulance service and designated hospital in the region in case the member required hospital admission.

Every Member has to fill up In case of Emergency Form (ICE Form) which apart from details of residential address and phone numbers, has details of medications allergies and preferred hospital in case of hospital admission.

A registered Member for any medical emergency at any time of the hour can call the Call Centre Number which is available with him in his HS Card and a doctor on call in that area would make a home call and immediately proceed to member's residence, the ICE Form giving all the details. The Doctor on call will have the Emergency Doctor's vehicle on which the doctor will proceed and on reaching member's residence would examine and provide emergency investigations like ECG, Spot Lab diagnostics etc and give necessary emergency treatment. Doctor's are all trained in basic Life Support courses and are capable of providing resuscitation procedures and stabilize the patient. In case the patient needs further referral and hospital admission then the Call Centre arranges for outreach contracted ambulance service and on its arrival doctor will accompany the patient in the ambulance and will remain with him until he is handed over to hospital admitting doctor.

Every centre has a mini-ambulance (Doctor's emergency vehicle) as well as a suitcase with necessary medical equipment's for facilitating immediate medical care to the patient. After the office hours, the vehicle with the driver is parked at the house of the doctor who is in-charge of the night shift.

Every Doctor at Healthspringis mandated to do Emergency Response service as well as routine house calls. *For some customers, this is the most valuable aspect of a membership at Healthspring.*

Dental Services: Healthspring now offers dental care services in eight of its 36 centres and it has plans to expand this service across all its centres.[2] It was considered possible to provide dental care services as there was an easy availability of the pool of dentists in the country. There is also considerable demand for reliable and trust worthy dental services. Dental

* (Healthspring now has its own state of art Lab of Dry Chemistry and serves as central lab not only for Mumbai but also for Pune Centres)

2 https://www.healthspring.in/Dental-Care

services are however not part of any plan- and paid for by a fee for service basis- though consultations are free for all irrespective of membership status. The demand for providing this facility arose from the members themselves, and an alert Healthspring's management with its philosophy of patient-centric care was able to respond to this

Ensuring Quality: One major feature of this model is an emphasis on improving quality of the provider-patient engagement. Hospitality to the visiting patient is of the highest quality- and receptionists and staff are trained, monitored and assessed on this parameter. The centre manager, who is in overall charge of administration, ensures case follow up fixing appointments for them for specific consultation and facilitating with referrals. The centre manager manages this with the help of the team of five full time staff consisting of a customer relations manager, one qualified nurse, a receptionist and two housekeeping staff for each shift. There are two shifts to ensure that the centre is functional in a 24* 7 basis.

Every Healthspring clinic runs in two shifts i.e. from 8 am to 1 pm and from 4 pm to 9 pm making it flexible for both working and non-working people to access the centres as per their convenience**.** On an average a clinic sees about 30 to 35 patients per day- but it could manage up to about 100 to 150. One principle underlying the organization of care which ensures quality is that a primary physician should be able to spend at least 15 minutes per patient. The doctors could in from different specialist backgrounds all are trained and guided to play the roles of a family physician- so that they can manage about a wide range of primary Healthcare needs. There is a two week induction program where Doctors are trained on Communication Skills, Consultation Skills, tenets of being a "Good Doctor" and some procedural skills on how to perform 12 lead channels ECG and interpret it and skills for entering records in Electronic Medical Record.

Emphasis on Prevention: One important feature is the emphasis the programme places on prevention. At the first visit, every person has to undergo a full medical examination. This will also further help in case of any emergency care. Healthspring also enables patients to monitor their health conditions through reminders and health checks ups. The main purpose is to keep the person healthy and help them to keep a track of the various tests in order to enable them take control of their health. This is necessary to avoid the development of any complications in the health conditions of the patients and better health outcomes. One could also argue that since people have already paid for their health plan there is an incentive for the provider also to ensure that the patient has fewer needs for consultation.

Many primary care initiatives run by corporate hospitals focus on selecting and referring cases for tertiary care.

The rate of sending Healthspring patients to hospital is less than two percent and rate of sending the patients to specialists is less than five percent- well below WHO standard. Healthspring believes in the approach of 'resolve more and refer less'. Since Doctors are full time and well trained with protocol based treatment there is no incentive for referrals or unnecessary investigations thus assuring its members appropriate care at appropriate time through its longitudinal care philosophy

According to Dr. Sen, Healthspring was successful in managing 20 dengue cases with confirmed diagnosis at the primary care level itself during the recent (2016) Dengue outbreak in Andheri West at a maximum charge of ₹ 2500. Only 2 patients were referred to specialists for care. This is in contrast to the dominant practice in Mumbai where a battery of costly tests and procedures along with hospitalization which could set the usual patient back by a few tens of thousands of rupees or more.

Referrals: Another major dimension of the organization of service delivery is referrals. Healthspring's manages this in two ways. One is a referral to specialists in their own clinics. It is not very clear whether there is any advantage other than the comfort level one feels when referred through Healthspring. The other is that on specified dates the specialists visits the health centre and the case manager can fix an appointment with him/her. If urgent the appointment can be fixed wherever the specialists are seeing patients on that day. The latter is often preferred by members who would prefer the familiarity and ambience and professional

attitude here than going outside this ambit and face the uncertainties and ambiguities of Specialist's Consulting room facility.

Healthspring at the Work Place

There are two models in this area- one is the corporate Healthcare for Corporate Business

At present, more than 150 companies/corporate clients have been enrolled under Healthspring. These services are available only for the employees and not the family members of the employees. Healthspring charges the corporate on per person per year basis. There are five services provided under this plan:

- **Annual Health Checks:** Health checks are provided annually to all employees at the work-site. This enables management also to monitor the health conditions of the employees. The Healthspring physician visiting the corporate office makes it convenient for the employees to do blood test as per their convenience. They also focus more on interpretation of data enabling the patients to understand the various medical tests they have done which reports are with them. These checks have played an important role in lowering the chronic disease conditions amongst the employees. It also enables to categorise patients having high/medium and low health risks. The objective of these checks is to lower the percent of high risk employees at the same time maintaining strict personal privacy and confidentiality.
- **Wellness Programme:** Under this integrated health check of employees and identification of high risk is followed up with secondary prevention and effective management of the disease leading to a significant improvement in the health indicators of employees in many companies. This could lead to reduction in sick leave and less complications and fatalities for the employees.
- **Emergency Services:** These services are available 24*7 both at work place and at home for the employee and its family members.
- **Onsite consultation:** An expert doctor and paramedics visits the corporate office periodically and provides on-site health consultation to employees who have a Healthcare need.
- **Tele-health:** There are many companies which have branches/offices in remote/ interior regions of the country. In such a case, Healthspring provides Tele-health services to its clients 24*7 for medical consultations and expert opinion. This is like an on-site consultation but done over space using ICT.
- **Yoga Sessions:** These sessions are regularly organised to keep the workforce healthier and energetic.

It was noted that of the total employees who come under these schemes only about thirty percent avail these services.

Occupational Health Services: The Factories Act, 1948 mandates Occupational Health Centre (OHC) if there are more than 200 workers in a factory. An innovative idea of Healthspring is to enter this area and provide occupational health services to factory workers. Healthspring at present have started OHCs in 9 factories. Each OHC staffed by a physician and a nurse. They are trained to provide care in case there are any injuries and accidents at the factories. Further, regular health check-ups and advice enables to keep the workforce healthy. Apart from these, dieticians from Healthspring also visit the factories and eat from the Canteen where the workers are served food and thereby monitor the diet of the workers.

One of the early adaptors of Healthspring worker's well being initiative is a reputed Building Firm (Oberoi Realty) for its both white collar and blue collar workforce with huge improvement in their general health parameters which won them international recognition as Best Work Force Well-being program in SE Asia.

School Health Services

Just as in the occupational health area, Healthspring's have recently ventured into school health and Healthcare in educational institutions also. One of

their first efforts is in Oberoi International School and in Jamnalal institute of Management. But these are early days for this component.

Some determinants of the choice of services

Healthspring is cautious about undertaking services which have high individual risks. For instance they have not started a dialysis centre which was seen as a high risk domain. Another consideration is that the service should not be too specialist determined, especially where there is a constraint in such specialist skills. Hence, they did not start providing IVF services. Even on mental health the same cautions apply. There is a maternity plan but no for delivery services- which they refer- but rather on providing pre and post natal services for maternity care. It has also started providing adult vaccination programmes.

Human Resources

The Numbers: Healthspring works through its highly motivated doctors supported by a dedicated team of workers by focussing on continuous medical education (CME) and continuous professional development education (CPD).

Every centre has minimum 2 general physicians at one shift. Among them the senior doctor will be the medical head. One Obstetrics/Gynaecologist and a Paediatrician at Primary Care level is available across two centres and a group of cardiologist going across the different clinics to do ECG and Stress test reporting. Similarly a group of Sonologists provide Ultrasonography investigations facility in each centre

Each centre is also designed to have a dentist and a supporting staff attached to the dental clinic. Currently only 8 clinics have the dentist in place.

Each centre has five full time front office people at one shift, which includes one Centre Manager who heads the administrative side, one Customer Relations Manager, one qualified nurse, a receptionist and one pantry or housekeeping person. There are three nurses at every Healthspring centre; one nurse is always present at any given time during the day. Other paramedical staffs include a phlebotomist, two pharmacists in shifts and a lab technician. A centre also consists of a 'Business Development Team' headed by Business Development Manager. The team also includes- one Assistant Business Development Manager, one Business Development Executive and 10-12 Field level Officers.

The Recruitment: The recruitment of doctors in Healthspring is through a multistage interview process. Whereas the first stages are a skill based and undertaken by the HR team, in the final stage the chairperson of the GB himself leads to ensure that the right mix of skills and values are there in the recruit. Recruitment aims to pick a good doctor who are willing to learn and could be made better and not on picking excellent doctors who would want a different career stream.

The Remuneration: Healthspring follows a grid for remuneration based on the qualification and years of experience. On an average, by their assessment, they pay 30-40 percent more than the usual Mumbai hospital pays for a doctor of similar qualifications. To illustrate, the take home pay for a doctor with a three year diploma and seven to eight years of experience would be about ₹ 85,000. Around forty percent of the total workforce comprises of doctors in this pay scale whose average age will be around 40-45 years. For the doctors, ninety percent of the salary is fixed while ten percent is incentives. These are described below.

The Practice Environment: Most of the doctors working at the Healthspring are guided to work in team/group where every caregiver is seen as equal.

Around 70% of all the doctors are female. The General Practitioners (GPs) are considered as the employees of Healthspring and not entrepreneurs. Through selection, training and support certain essential values are emphasized. (Good Doctors. Good Medical Practice)

In addition there is an incentive paid which is about 10% of the total take home remuneration- not so much because of its monetary value but to enforce certain desirable behaviours. This incentive is based on a composite of three scores- one is a consumer service metric where the consumer

rates satisfaction on a 1 to 10 matrix. A second is a Net Promoter Score which is again based on the feedback from its regular members. In the consumer metric, the patient rates the doctor on a scale of 1-10 where 9-10 ranking is seen as a promoter, 7-8 is neutral and below 6 is low attracting. A third component is the team work score which is based on a feedback from the team members and ensures that the doctor is rewarded for behaving politely and positively with the nurse and general staff, and for team building.

There are also regular inputs to be provided for increasing skills and opportunities.

By creating such a professional and positive workforce environment the attrition level amongst doctor is very low at Healthspring. It is not clear whether we are having equally high retention rates in the front office staff. Nurses and phlebotomists may be faring in-between.

The skills: There are five skill-sets that define the human resources- and there is a specific strategy for each. For clinicians- recruitment is largely from physicians, gynaecologists, and paediatricians and any medical officer with any diploma/degree for specialization, preferably also with work-experience. There is an initial training and there are standard treatment guidelines to guide them. An in-house skill up gradation plan is also on the anvil.

In absence of Family Medicine curriculum in formal medical PG studies, Healthspring is in the process of developing a work based Family Medicine Course and Curriculum lasting for two years and delivered as blended program on e –learning platform and contact programs for skills training. For the process of accreditation it is seeking help from national and international organisation/University. It is being developed with replicability in mind so that it could scale up into a National Family Medicine Education and Training- which is lacking at present formal medical education.

The phlebotomist is usually woman who is trained to draw blood. This builds on the observation that this is the most common task that a nurse performs in an ambulatory care setting and this could be better done and more cost effective with someone trained exclusively for that function. It also reduces the nurse requirements to three nurses across two shifts.

The case manager is another unique skill set- partly an administrator and partly engaged in customer relationships.

And then the business development team is another skill set.

The Business Model (the financing of Healthspring)

Retail Business: the revenue generation at the clinic: At present there are more than 8000 members in the retail business plans of Healthspring across Mumbai. Normally 30-35 patients visit a centre every day. A centre could have about 200 members of all groups plus a fair number of walk-in patients. Dental services are also an important source of revenue. All of these are walk-in since dental services are not part of any plan. Large proportions (40-50 percent) of those with membership are senior citizens that mainly comprises of hypertension and diabetes care plans or one of the senior citizen plans. In case of debilitated patients who are bedridden, Healthspring offers home care services to them also.

Emergency services used for the first time are free. However, to avoid the misuse of Emergency services they charge a sum of ₹ 3000/- for the visit of the doctor and ₹ 6000/- for referring and accompanying the patient to the hospital. In the last one year apart from home visits Healthspring physicians attended to thirty six emergency cases.

A 10% discount on consultation charges is usually offered by specialists for referred patients.

For establishing a new centre in Mumbai city an initial investment of around seventy lakhs is required of which around thirty to forty lakhs is towards equipment's and rent for the centre. It usually takes around fifteen to eighteen months for a centre to break-even. Every month the centre break evens at twelve lakhs rupees of which around 4 lakhs is towards utilities and 4 lakhs is for salaries and remaining 4 lakhs is the network overheads. A centre achieves its full capacity at about 150 patients per day while the optimum capacity of the centre is

100 patients. Since current levels are about 35, there is some distance to go.

Since there are limits to how many patients can be loaded on to a centre the Healthspring business model requires a constant expansion in terms of new centres. The decision for location of a new centre is critical. There is a special location decision algorithm with weightage given to each component prepared by the technical team at Healthspring. The criteria that feed into the decision making include demographic density, how recently developed is the area (preference for more recently developed areas), presence and absence of the competition such as the existence of different clinics and hospitals, and presence and absence of other consumer retail brands like Star bucks which have similar business locational requirements. Healthspring model however is designed to cater to the needs of the acquired population i.e. people who have enrolled as members and not the total geographical population.

Business Promotion: All the business promotional activities of a centre are carried out by the 'Business Development Team'. The team have monthly targets to achieve to enrol membership and health checks. They carry out a range of field level activities including free camps, screening programs, house visits to promote the centre. They will be giving free trial coupons initially as a part of promotion. It is trial visits rather than branding that is central to the Healthspring promotion strategy. Customers- potential members- are advised to do a walk-in visit to any of the Healthspring centre to see how the centre functions. So media promotion is largely limited to areas where clinics are functional. There is a limited use of mass media campaigns through radio and print news media to promote the brand name.

The corporate business model is also rapidly developing- rising to 150 agreements in five years- and this is seen as having great potential. Factory and school models also have potential that is being explored.

At the macro-level, the whole model is built largely on personal contributions from promoters, friends and family and on Venture capital. On the Venture Capital front, the Company has raised money primarily for institutional investors who have longer horizons.

It is an unlisted shares based company. It is listed with an authorised capital of ₹ 343 lakhs paid up capital of ₹ 283 lakhs. The effort is to find sponsors who understand the model and offer reasonable terms and are willing to go for the long haul. Sponsors could also help by providing bank guarantees that helps to negotiate better terms for loans. One of its main lenders is the RBL bank. RBL has already invested 1200 lakhs and is now providing a further 9 million US dollars- the latter backed by a loan guarantee by USAID – the first of its kind to a healthcare company in India.

Governance: The ownership of Healthspring's is a company registered under the Registrar of Companies, Mumbai as Wellspring healthcare private limited. Its affairs are managed by five directors- two of them are US based and one independent. The institution follows the best practices of corporate governance.

Lessons learned from the model

One immediate lesson of this model is that primary Healthcare is not a poor man's proposition or even a pro-poor proposition - but still it has relevance to all, including everyone in the upper socio-economic groups. Clearly when built as a paying proposition for a middle class clientele there are significant costs involved. But rather than argue on whether this is a model that government could subsidize for the poor- the lesson to learn is that this is what it takes to provide a high quality of primary Healthcare.

What it takes to provide quality primary Healthcare is along a number of dimensions. First is the cost per health and wellness center. This in turn relates to the human resources deployed. And this in turn relates to the time standard- of the minimum time per consultation. Another point worth remarking on is the influence incentives plays in HR strategy or overall performance- and if it is not incentives, how high quality workforce motivation and performance is ensured.

There is also a learning in terms of what is the care consumed. Thus dental services are a major priority- at least for these sections. More detailed information would surely be available with more data analysis.

The occupational health model or primary healthcare at the work-site is also of great interest- especially on how preventive care is built into the practice and its linkage with insurance.

Also of special interest is the emergency health services model- that drives enrolment significantly within the urban Mumbai milieu at least. One concern is with the multiplicity of packages and how consumers make informed choices . Also "packages" as different from ''assured services' sets limits on quantities of certain types of care consumed- like the number of visits or tests that come free with the base payment and those that are added on. And it is not clear not only how patients would decide, but whether this would work for those that need more care. In such models solidarity is limited.

While clearly there is potential for private entrepreneurs to scale this up as a business model to reach out to India's sizeable urban middle class, it is not very clear whether this would work if scaled up within government systems and in low resource settings. We also need to estimate what is residual out of pocket spend over and above the plan, and how effective are continuity of care arrangements when the referral site is not under the same ownership and do not feel themselves as part of the same team. Clearly there are a number of challenges with this model- but this is perhaps the model that has raised maximal expectations in policy circles- and it would be interesting to observe how it evolves in the coming years.

4
CHAPTER

PUBLIC PRIVATE PARTNERSHIPS
for Outsourcing Management of Primary Healthcare Facilities

Uttarakhand | *Karthik Sharma; T. Sundararaman*

Introduction

Uttarakhand, the 27th Indian state founded by division from Uttar Pradesh is 86% mountainous with a population of approx.10.8 million people and 189 per Sq.km density, less than the national average density at 382. Uttarakhand is predominantly a rural state, with population of less than 500 people in 81% (12,699) rural settlements. The small size of the population settlements and their scattered distribution in the state pose a considerable barrier for service delivery.

In May 2013, a Public Private Partnership (PPP) for outsourcing of primary and secondary Healthcare facilities was initiated through a Memorandum of understanding (MOU) between the Directorate of Medical Health & Family Welfare (D.O. Ministry of H&FW, Government of Uttarakhand) and two private sector parties. This initiative was part of other such efforts for the outsourcing of public health facilities and services. (see accompanying box) This outsourcing practice has been ongoing in Uttarakhand for the last 20 years with results varying from limited to no success- making it important to study the PPP model because it is one of the most recent and innovative of such initiatives- which have not been studied despite being around for sometime now. Outsourcing of primary health centres, urban health centres and even of district hospitals has also taken place many times across many states- but few have sustained- and it is important to understand this better.

Rationale for PPPs

Outsourcing has been justified by a perception of a dysfunctional public Healthcare delivery system. The reasons for this are attributed to the fact that there is little accountability and motivation in the salaried government employee. Therefore the theory is that outsourcing will make deliverables much clearer and therefore accountable. Further selection by competitive bidding can get motivated ownerships whose personal financial interests will be aligned with the government objectives. It is for this reasons the Uttarakhand PPP model for outsourcing of primary and secondary healthcare facilities has crucial lessons for current and future PPP models for service delivery in India. The fact that 80 % of the population have utilized the private sector for ambulatory Healthcare is seen as a supporting fact. Therefore, it is reasoned, partnerships and synergies

between the public and private healthcare sector are becoming essential.

The Evolution over time of the PPP model

The PPP cell in the Government of Uttarakhand was formed with technical assistance from the Department of Economic Affairs (DEA), Government of India and Asian Development Bank (ADB) for promotion of PPP in the State. There have been many PPPs in the past and some are ongoing. This PPP for outsourcing of Community Health Centre's (CHC) was initiated by the PPP cell after discussions with key stakeholders – both of the general administration and the technical directorates.

The MoU to outsource 12 selected CHC's was signed on 14th May 2013 in Dehradun, Uttarakhand between the Directorate of Medical Health & Family Welfare, Government of Uttarakhand and the two private agencies Rajbhra Medicare Pvt. Ltd., New Delhi and Sheel Nursing Home Pvt. Ltd., Bareilly (UP). The two private agencies were incorporated under a PPP design which was called the "Operation and Maintenance (O&M) form" of PPP. One immediate reason stated for the outsourcing of the CHCs being to help closing in the human resource gap in the rural facilities, where the public sector units were unable to consistently provide medical staff. Especially for specialists required for emergency obstetric care and in maternal and child health.

The two private parties Rajbhra Medicare Pvt. ltd., New Delhi and Sheel Nursing Home Pvt. Ltd., Bareilly (UP) which won the selection process were outsourced 4 CHCs and 8 CHC's respectively. These 12 CHC's are spread over 13 districts of the 2 divisions -Kumaon and Garhwal.

Rajhbra Medicare an ISO company, works in providing preventive, diagnostic and curative healthcare services through mobile medical units & rural hospitals for inaccessibleregions. The company registered at Delhi states over 10 years of experience of operating mobile clinics in rural settings with previous experiences in states such as Gujarat, Rajasthan and Bihar. It also operates mobile clinics in Uttarakhand.

Sheel Nursing Home statesan experience of 35 years in the field of medicine and healthcare. The company was set up in 1979 as a Sheel maternity nursing home in Bareilly. Over the years it has established itself as Gangasheel University for higher education in the field of medicine in 2015.

According to the officer in charge of PPP cell, these 12 CHC's were selected based on their geographical location. Andon an assessment where it was found that these particular CHC's were not running on

Table 1 : List of CHC's outsourced to private players by district

S. No.	Private Player	Location (Distances)
1	Rajbhra Medicare	**Sahiya** (61. 8 km from Dehradun) **Raipur** (9 km from Dehradun), **Naugaon** (125 km from Dehra Dun and 30 km from Uttarkashi, Dist.) **Thatyur** (68 km from Dehradun and 20 km from Tehri)
2	Sheel Nursing Home	**Chaukutia** (295 km from Dehradun and 90 km from Almora) **Lohaghat** (445 km from Dehradun and 14 km from Champawat, Dist.) **Bajpur** (230 km from Dehradun and 106 km from US Nagar, Dist.) **Kapkot** (345 km from Dehradun and 24 km from Bageshwar Dist.) **Munsiyari** (450 km from Dehradun and 128 km from Pithoragarh Dist.) **Gairsain** (260 km from Dehradun and 37 km from Chamoli Dist.) **Garampani** (290 km from Dehradun and 14 km from Nainital Dist.) **Jhakoli** (218 km from Dehradun and 38 km from Rudraprayag).

full capacity and had problems with maintaining consistent medical staff.

The PPP was officially launched in May 2013. And in December 2014 there were complaints made mainly related to over-charging. As there was an element of payment according to outputs- and the charge was that the outputs were inflated. There were also complaints that the staff as promised were not there- and later complaints from the public as well. By about August 2015, an understanding between the state and the private player was not reached and the payments were stopped.

In December 2015, the contracts were formally terminated, at which instance the contracted went to court and by August 2016 got a stay order.

Table 2: Time line of events in PPP health service model

Date	Activity	Repercussions
May 2013	MoU signed between Govt. of Uttarakhand and Private players	Work began at CHC's as per MoU.
December 2014	Complaints from local population and instances of over diagnosis noticed.	Payment Fluctuations to private sector.
August 2015	Over Diagnosis and absence of medical specialists found in all CHC's.	Payment fully stopped.
December 2015	Contract Terminated	Private players file case on Govt.of Uttarakhand in High Court.
February 2016	Court case proceedings.	Part payment released
May 2016	Payment Stopped	Court case pursued at Supreme Court
August 2016	Stay order by Supreme Court	PPP work resumes.

In the stay order the Supreme Court had asked the government to allow the private sector more time to deliver to the promises in the MOU. On 24th November 2016, the court agreed for the contract with Rajbhra to be officially terminated with the government given one years time for releasing approximately past 6 months dues. The contract with Sheel is not formally terminated and currently in limbo with neither payments being made nor services being delivered.

The Contracting Design

The MOU was signed for a period of five years with a clause for renewal for further five years based on a performance review by an expert committee. As per the MOU, the expert committee was to be chaired by a representative of rank of additional secretary or above form the Dept. of Health, Uttarakhand with members comprising of domain experts from the government, PHC, CHC, doctors and hospitals. The expert committee also included two patients and two super specialist doctors.

An initial 6 months termed as the 'Implementation period' was provided for setting up, appointment of staff and procurement of consumables, equipment and medicines. The equipment and medicines were to be provided by the government health department.

The main features of the MOU are summarized in Table 3 below:

Table 3: Overview of MOU

Particulars	Description
Project Owner	Department of Medical Health & Family welfare
PPP Model	Operations & Maintenance service
Concession Period	10 years
Number of CHC's	12
Financial Grant	a). Capita Grant for equipment's above ₹ 15.00 lakhs on one-time basis b). For any subsequent purchase of more than Rs.5 lakhs, 100% grant subject to approval by DOMH & FW. c). Operating Grant : Fixed plus Variable on Revenue sharing between PPP partner and govt.
Identified services	a). Diagnostics: X ray, Ultrasound, ECG & Pathology b). Maternity cases c). Minor Injuries d). In patient services e). Surgical services f). Orthopaedic surgeries
Monitoring Arrangement	Expert Committee

The Selection Process: The government PPP cell with development partner support carried out extensive preparation in designing the tender document

and a competitive bidding process was followed for finding eligible parties for implementing the project. There was a formal evaluation process by which these two private agencies were selected. Some respondents working in the Secretariat allege that the actual tendering process was more on paper and the private players were preselected by higher authorities based on previous interactions, and the bidding process being more of a legal formality. But such allegations too are routine. (A light-hearted comment that goes around in those who bid for such tenders is that if you are not taken into confidence while the tender document is being drafted, you are probably not a serious contender for the bid).

Table 4 : L1 prices of Tenders

Tenders	Package 1 (crores)	Successful bids	Package 2	Successful bids
Rajhbra Medicare	53.67	L2	-	-
Bombay Hospital	55.34	L3	36.39	L2
Sheel Nursing Home	45.73	L1	27.15	L1
Citizen Foundation	-		163,160	L3

Table 5: Technical bid points of Tender's

Tenders	Bids	Technical points
Rajhbra Medicare	Package 1 & 3	90
Bombay Hospital	Package 1 &2	85
Sheel Nursing Home	Package 1& 2	80
Citizen Foundation	Package 2	80

Several officers and the medical officer responsible for administration in the CHC were of the view that a selection based on L1 i.e. the lowest price offered by a particular tender is inherently faulty since there is undercutting in the proposal cost to win the bid. The salary required to retain specialists and medical officers in rural and remote areas was in particular under-estimated. The private agency selected however maintain that the quote was realistic and the L1 price never being the problem while the reason being fluctuations and erratic payment release by the public sector.

Another senior officials in the PPP division stated that the MOU had inherent weaknesses. Though definitions and interpretations were well defined and laid out, the MoU lacked real authority for monitoring quality of health services being provided at the facilities. The MOU emphasised primarily only administrative procedures which were not adequate or relevant for assessing the performance- especially in the event of a dispute.

A sum of ₹ 30 Lakhs was reserved as a security to be released immediately on contract termination. Other than this there are no clear penalties for lapse in service delivery.

Work Outputs expected under the MOU: The CHC's mostly have 30 indoor beds with one operation theatre, labour room, X-ray facility and labour facility. There are separate wards for males and females for inpatient Department (IPD) care. The outsourced CHCs varied in built up size- and the fixed component of grant amounts changes with this as the financial bid has to be quoted on this basis. This is a curious feature.

Under the MOU some tasks remain with the government and some of the task are outsourced to the private agency. The private agencies were to have no role in the national and state health programmes except for DOTS in TB control and testing and treating for Malaria and HIV. The other responsibilities that remained with the government were medico legal cases ,ambulance services and collection of user charges.

The private agencies were responsible for providing all outpatient services free of cost and for providing Ante-natal care.

Outpatient services to be included were: general medicine, general surgery, paediatrics, obstetrics, gynaecology and contraceptive services and dental (optional).

Inpatient services were to include emergency services, delivery services including emergency obstetric care, surgeries including orthopaedic surgeries, cataracts.

The MOU also specified drug dispensing services and a range of diagnostics both in radiology & pathology.

The timings were specified as 8 am to 4 pm for out-patient, 8 am to 8 pm for diagnostics and 24x7 for Emergency. Records were also to be maintained.

In the PPP MOU the private agencies are responsible for division of facilities into an entrance zone, ambulatory zone, diagnostic zone, inpatient nursing unit, operation theatre/labour room, service zone and administration zone. Rooms were already available for Minor operation theatre, injection and dressing rooms as well as an observation room.

Table 6: Responsibilities of the private sector in PPP

S. No.	Responsibilities of Private Sector
1	All Clinical services
2	Up gradation of the facility and management as per the prescribed IPHS standards.
3	Add specialized services/beds for procedures over and above existing scope as prescribed by the DOMH & FW from time to time
4	Recruit, retain and manage human resources.
5	IT- based management information systems.
6	Maintenance of all movable and immovable assets of the hospital.
7	Abide by the existing government health laws/rules and policies.
8	Undertake all statutory responsibilities except medico legal cases.
9	Timings of the OPD (8 am to 4 pm) and Diagnostics (8 am to 8 pm). Emergency 24x7
10	Clinical Services: OPD, IPD, emergency, drug dispensing, diagnostics (radiology & pathology) ,maternity cases, surgeries, orthopaedic surgeries, transplants, cataracts .
11	Catering & dietary and Linen & Laundry
12	Hospital Waste Management, Pest Control and Sterilisation Services.
13	Online Clinical Record, Security and Patient discharge process.

Human Resources under the MOU: The private agencies are responsible for recruitment, training and remunerations of all personal staff, employees and staff for operations & management of the CHC. The trained medical personnel's which include doctors, nurses, paramedics, emergency medical technicians have to be certified and qualified according to protocol and credentials be notified to the public sector. The list of staff to be hired is given in the table below. For hiring medical staff the minimum criteria mentioned is at least 5 years of work experience along the respective qualification degree for specialists, general surgeons ,nurses and other medical staff.

The Public sector also had to retain a certain complement of staff to perform its functions. This was a complement of 5 staff members – a medical officer, a Pharmacist, a Driver, a Ward Boy and a Sweeper. The Medical Officer (MO) at the CHC is responsible for matters related to public health and legal issues such as medico-legal cases and national health programmes simultaneously going on in the CHC. They are responsible for also monitoring the performance of the concessionaires and providing support.

Table 7 : Staff expected from private sector as per MOU

S. No.	Clinical Staff	Number
1	General Physician	2
2	Physician	1
3	Obstetrician& Gynaecologist	2
4	Paediatrician	1
5	Radiologist	1
6	Orthopaedic	1
7	ENT Surgeon	1
8	Anaesthetist	2
9	Eye Surgeon	1
10	Dental Surgeon	1
11	General duty medical officer	6
12	Staff Nurse	15
13	Maternity Assistant (ANM)	8
14	Total	41

Financing Under the MOU: The operating grant provided by the public sector in the PPP was done in two formats - the fixed and the variable form. The variable grant is based on performance on a monthly basis . The unit rates had been fixed in the MOU and is provided in the table 8 below. Fixed operating grants also in table 8 are provided every month irrespective of outputs to cover recurring costs such as housekeeping, laundry, waste management, hospital administration, manpower, outpatient department expenses and emergency. All payments are transferred from the government treasury to the private agencies bank account.

The variable operating grant is provided for the following :

a). No. of actual diagnostic procedures performed in a month – X ray, Ultra Sound, ECG and Pathology.

b). Number of actual maternity cases delivered in a month.

c). Number of minor accident/injury cases treated.

As a form of incentive for good performance for renewal of contract a 10% increase on fixed and operating costs after a period of five year was to be provided.

Fixed grant : The fixed grant is provided per annum based on per square (sq) metre of built area. This is divided by 12 and paid every month. This rate rises sharply over the 5 years. The rate per square meters changes for each CHC (see table 8 below) so that the amount received per month per CHC in the first year works out almost always to about ₹ 20 lakh per month or ₹ 2. 4 crores per year. This is without including the variable cost. The rationale for a using such a formula- cost based on built up area, but at different unit rates – has not been clearly laid not.

The public sector provided the equipment and infrastructure costs in all the CHC's as per the IPHS norms. These equipment's would not include any non-medical appliances. For equipment requirement for over 2 Lakhs a notice period of at least 6 months was required. This period was for review of the utility and requirement of the equipment before procurement. The private agencies were responsible for reimbursing service charges to the public sector during this period such as property tax, water tax and sewerage charges for the project site.

These outsourced CHC's also 'on behalf of the government' collected nominal user charges by the patients which were then duly submitted to the DOMH& FW. As the private agencies were not authorised to collect these user charges as part of their PPP MOU, it was the Chikitsa Prabhandan Samiti of the CHCs that were responsible for collection charges of diagnostics, maternity cases, and minor accidents among others. This Samiti also maintain proper records of number and type of diagnostics, bed occupancies, consumables and medicines given to patients on payment. The output reports of the private agencies are tallied at the end of the month with the the user charges collected.

Case Study of Thatyur CHC

Tatyur CHC is in Tehri district, some 68 km from Dehradun on the main road to Tehri town. It takes about two and half hours to reach from Dehradun.

Table 8: Government Grant payable to the concessionaires

S. No.	Description	Procedures	Year 1	Year 2	Year 3	Year 4	Year 5
A	**Variable Grant**						
1	Diagnostic Govt. support (₹ per procedure)	X-ray	90	90	100	120	120
		Ultrasound	180	180	230	250	270
		ECG	80	80	80	150	150
		Pathology test	50	50	50	70	70
2	Maternity Cases (₹ per procedure)		1600	1800	1800	2200	2200
3	Accident Cases (₹ per procedure)		300	300	300	500	500
4	Fixed Grant (Districts) Govt. Support ₹ 'per sqmt' of built up area per annum	Almora 1280 sqmt	19 140	19140	20617	22976	24776
		Champawat 1643 sqmt	14912	14912	16062	17900	19657
		US Nagar 8228 sqmt	2977	2977	3315	3513	3768
		Pabou (Pauri) 2893 sqmt	9222	9637	10467	11089	12126
		Thalisan (Pauri) 2893 sqmt	8220	8635	9018	9786	10968
		Haridwar 6061 sqmt	4022	4270	4651	5034	5400
		Hindolakhal (Tehri) 418	59521	60956	63612	70598	75909

On interviewing the government MO his perception was that service delivery was the sole responsibility of the private agencies and that there was no facilitation needed from the government. He also observed that Interns from medical colleges were being posted at the CHC which was far less than the qualifications specified. The private agencies were responsible for posting in total 42 ancillary staff at each facility- but in practice even at its peak only a part of this had been made available.

On interviewing the Manager of the private agency stationed and leading the CHC team at Thatyur, the total strength of human resource was found to be 22. The only medical staff available was a dentist and 2 General Duty Medical Officer (GDMO)'s against 19 doctors and specialists who were needed as per the MOU. There was 1 (General Nursing and Midwifery) GNM Staff and 1(Auxiliary Nursing and Midwifery) ANM staff though the total requirement was of 23 staff members. The GDMO was paid at average from 60–70 000 p.m. Due to the on-going legal case, fluctuations in wage payments were inevitable. The manager stated that they had managed to get a General surgeon, a gynaecologist, a paediatrician, a physicians and a radiologists – but they left the CHC for employment elsewhere. The numbers of staff in place was 22 only because the number of allied staff such as ward boys, peons, dressers, pharmacists, lab technician were as per the MOU even though they were unpaid for the past 6 months. The reason for the allied staffs continued reporting for work was due to the fact that the allied staff were hired from the local village and continued in the hope of receiving their outstanding dues.

On further probing the manager agreed that human resources were an issue and at the peak their CHC had 11 medical staff. This peak was for a period of 6 months from January to June 2015. In other CHCs the medical staff ranged from 6 to 8. In Tehri the CMO's view of the staffing was that at peak the medical staff was found to be at 8 that too only for a period of 4-5 months. This included an Orthopaedic surgeon, Gynaecologist, Paediatrician, Ophthalmologist, Physician, Anaesthetic and a dental surgeon. The ophthalmologist it is learnt travelled on a rotating basis through 4 CHC's under Rajbera private agency.

No CHC established C-sections except for Raipur CHC- which was distance wise only 9 km away from Dehradun - and there was no clarity why this CHC was particularly selected. As to why other CHC's were not undertaking surgeries, it was informed that due to lack of proper infrastructure and availability of blood. The availability of anaesthetist and gynaecologist specialists at the same time was also a major challenge.

An official at the directorate of health informed that during routine inspection it was found that the private agencies were not only having insufficient medical staff but the medical staff at the CHC's were found to be either above 60 and almost retiring or fresh graduates from medical school, and this was true even in the CHC visited.

It was also learnt that there were trust issues between the public staff posted at the CHC and the private agency doctors. There was also a feeling of hierarchy and interpersonal issues. A Chief Medical Officer (CMO) on interview commented that the main reason for the PPP failing was that the managers lacked leadership qualities and were not well equipped and unaware of the (Key performance Indicators) KPI's.

Outcomes and referral system: A CHC in Uttarakhand at an average has an catchment area of 45000 people with two PHC's and sub centres referring their patients to the CHC. Curiously the private agency did not have any responsibilities with regard to functioning of the PHC's and sub centres. They were responsible to provide clinical services only and that too for patients coming either from referral or reporting directly to the CHC. There was no active mechanism of handling referrals from lower facilities or with other CHC's in the PPP and no feedback either. However for few cases in which referrals were essential as in the case of Caesarean sections or blood requirements ,these were referred mostly to Dehradun using the government 108 ambulance service.

At an average there were about 30 to 50 cases per day reporting at the CHC, with less than 14 in-patients per month. No surgeries and caesarean sections were ever undertaken in any of the CHCs and the only one exception being Raipur a semi

urban CHC. There were 6 cases of delivery in a month but surprisingly at an average 3 blood tests per OPD patient- which is interesting since this being one of the measured outputs for the variable payment is more amenable to over-reporting.

In Table below we present the total number who availed of different services. This is calculated as a monthly average from the sum of 30 months. (Knowing that there must have been a slow pick up in early months the figures of 36 months are attributed to 30 months). We show the figures not only for the CHC studied but also for the best performance CHC.

Table 1 : Avg. Case load per month over a period of 3 years in Tathyur CHC & Raipur CHC

Services	Tathyur CHC (Cases Per Month)	Raipur CHC (Cases Per Month)
OPD	1054	4820
X Ray	259	547
Path Test	3126	10765
ECG	33	287
Admissions	46	184
Accidents	15	97
Operation	0	24
Maternity cases	8	39
Dental	15	49
USG	2	627

These numbers are very modest numbers for any CHC. But what is interesting is a much higher consumption of USG and of laboratory tests than is usually seen. Both of these are part of the variable financing formula and therefore earns higher remuneration.

Access to Medicines and Diagnostics: Under the MOU the public sector was responsible for providing all diagnostic equipment and ensuring an effective supply chain of medicines at the CHC. The private agency were responsible for maintaining the inventory for a period of at least 15 days to avoid stock outs according to the essential drug list (EDL). Prescribing and procurement of only generic medicines at the CHC was also agreed upon. The payments for generic medicines was done by the Public Sector on a quarterly basis at an actual amount for a maximum of Rs.3 Lakh per annum per CHC.

The patients paid a minimum user fee for diagnostics made available as per the schedule. The medicines were free of cost. These charges were collected by the Public Sector. No user fee collections were to be made by the private agency for their services.

Information system in use: The private agencies were required to install a hospital management software's for Key Performance Indicators (KPI), patient wise data report, for creating invoices, for creating daily and monthly reports. As they were responsible to maintain and preserve professional records of diagnosis, treatment and care given for all patients receiving treatment. Such a medical record was seen to be maintained by the private agency which documented health of patients and treatment prescribed. These records were to be sent to the PPP cell in the directorate as monthly digitalised reports and the reimbursement for variable costs were computed based on these outcomes reported.

The private agencies were also responsible for maintaining a complaint register and submit to the directorate. The request to see the register was however denied stating that it was confidential. The monitoring reports sent to the directorate showed attendance for the OPD, emergency, in-patient, maternity, diagnostics, minor surgeries, procedures and patient death rates.

The private sector was responsible for installing a GPS enabled biometric attendance as well as IP based addresses for live streaming on State area wide network (SWAN) nodes, but no information on this was available.

Problems in Performance – the breakdown process

As part of the MOU the public sector maintains a medical audit by the district medical and health officer to ensure that only necessary diagnostic procedures are recommended by OPD - since variable payments were dependent on diagnostic procedures. This payment was initially made only on the basis of what was reported- till an officer investigating a hospital found, mismatches in the number of patients and the investigations being reported. There were also complaints by local public in regards

to poor supplements and services. The complaints reported that the private agencies were responsible for providing high quality dietary supplements to their patients, while this requirement was reported to be not fulfilled. On uncovering these status quo, the auditing officer refused to sign the report to be sent to the CMO, who had to sign approval for the Director General (DG) to release funds.

As a counter measure when the KPI's were examined, it was found that none of them had any emphasis on healthcare service delivery. They related mainly to minor administrative processes- and that too were poorly defined. The fixed amounts based on such KPIs amounted to approximately 2.4 crores per annum i.e. about 20 Lakhs a month. However measures for performance appraisal were weakly defined in the KPI with minor penalty for failures.

This pattern uncovered first in one CHC, was slowly uncovered in all outsourced CHC's. It was then that the government stopped all payments to the private agencies until an examination could be undertaken.

Table 10 : Key Performance Indicators and penalties for low scores

	Explanation
KPI 1	Attendance of Clinical Staff
KPI 2	Attendance of Paramedical & other support staff.
KPI 3	Proper Inventory Management to avoid stock outs.
KPI 4	Asset management and servicing & maintenance of equipment

Average KPI Score (AKS)	Percentage of total reimbursement to be paid to private agency for that quarter
0–5 %	100%
6–10 %	95%
11–15%	85%
16–20 %	75%
>20%	60%(with show cause and explanation)

The main bone of contention was the increased number of false prescriptions and diagnosis. Directorate official interviewed, stated that on surprise inspections at the CHC's they found that though on paper many tests had been done and reimbursement asked for, on contrast the stock position reflected far lesser consumption of consumables. There were other instances found where a number of tests had been conducted for series of days on the same patients. There was also a large number of accident cases being reported.

It is alleged by the directorate that when such excessive reporting of outputs were kept a check on and payment release curbed, the private agencies started letting go of medical staff so as to maintain their profit margins. A number of CHC therefore started having insufficient medical staff, many housing doctors with Ayurveda (traditional) qualifications filling up for allopathic medical doctors. According to the directorate, these were the main reasons for the PPP break down.

While according to the private agencies it was the continued delay in payment release due to 'refusal in kick backs' that led to delay in salary payment and uncertainties leading to exit of many doctors. The MD of the private agency explained that the over reporting had been a software glitch- and the agency had immediately stopped and fixed the problem, even returning excessive money charged. However there were few takers for this justification.

The community response to the PPP model was also found to have mixed opinions. In district Champawat the private agencies were ordered by the local leaders to leave their area. Some of this however could be politically driven due to change in the local government. There was also a case in Tathyur where the CHC had to be shut down for almost 2 weeks. Due to alleged negligence leading to the death of a women during delivery, causing turbulence from the local population. In Raipur a CHC close to Dehradun the response from the public was found to be less than positive. This lack of community response was also a major reason why the government withdrew from this approach of Public Private Partnership (PPP) for outsourcing of primary and secondary Healthcare facilities.

Learnings from PPP case study

There are many PPPs which have gone through the same cycle- first they give rise to high expectations

and are projected as an innovation. In about 18 months after launch the first problems show themselves and there is some discontent and contestation. In about three years they have shut down. Then there is a gap of a couple of years- and then the cycle repeats.

The "Programme Theory" or the ''theory of change" behind a PPP is that it brings about more accountability, it brings in higher levels of motivation and it has better human resource policies and hence it solves some of the problems that ailed the public system. However, as this case study show, the change of ownership and an elaborate contract did little to resolve the problems of healthcare delivery. Some issues like continuity of care actually got worse.

It is tempting to attribute the collapse to inter-personal issues or politics leading to failure to make payments on time. But the fact is that even local leaders who went out of the way to get the PPP to their constituency got disenchanted with the failure to deliver. Without popular support, the political will melted away. There was no way that these commercial agencies could have made adequate returns on this. Some agencies get into such contracts hoping to attract cases for their hospitals elsewhere- but there was no such possibility here. Failures of such PPPs are often based on contract design- which in this framework of analysis further improvements in contracting are expected to solve. It could have been sustainable for a philanthropist who brought in funds or even for a not for profit who was seeking to reach the poor and willing to sacrifice for it. But the very basis of a PPP is to bring in the commercial player- and with them there is no reason for it to work.

A change of ownership will not improve the functioning of the CHCs if the problem was not about the nature of ownership but due to the design of the system. There are serious defects in the package of services, in continuity of care, in human resources availability, and in the exclusionary practises of user fees – to name a few- which the contract did nothing to address. The very nature of the contract prevents that spirit of innovation required to overcome these constraints- even if the management had recognized these constraints in the first place. Which they obviously did not- seeing that they bid for it.

Box-1

Table 1 : PPP projects active in Uttarakhand Health Sector at present

S. No.	Project Name	PPP Model	Private Partner	Project cost	Benefits (Project Initiation date)
1	Mobile Hospital Units in all districts	Operation and Management (O&M)	1). Dr. Jain Video on wheels Ltd 2). Rajbhra Medicare	23 Crores	Efficient utilization of existing resources and access to remote areas. (01/05/2008)
2	MRI at DOON Hospital	O&M	Mahajan Diagnostics, New Delhi	7 Crores	34% of revenue sharing in second half of project. (01/04/2008)
3	Nephrology, Dialysis Unit at Coronation Hospital, Dehradun	Build Operate and Transfer (BOT)	Apollo Hospitals, Chennai	5 Crore	For decongestion of Doon Hospital for availability resources. (01/05/2009)
4	Cardiac care unit at Coronation Hospital, Dehradun	BOT	Fortis Hospital	17 Crore	For decongestion of Doon Hospital for availability resources. (01/04/2009)
5	Nephrology, Dialysis Unit at Coronation Hospital, Haldwani	BOT	M/s Rahi Care	5 Crore	For providing services. (01/05/2009)
6	108 Emergency Response services	O&M	M/s GVK EMRI	11 Crores	Better emergency response (01/05/2008)

S. No.	Project Name	PPP Model	Private Partner	Project cost	Benefits (Project Initiation date)
7	PPP at CHC (Gairsain, Munisiyari, Kapkot, Garampani, Jhakoli)	O&M	Sheel Nursing Home	45 Crores	Better delivery of health services (14/05/2013)
8	PPP at CHC (Chaukutiya, Lohaghat, Bazpur)	O&M	Sheel Nursing Home	27 Crores	Better delivery of health services (14/05/2013)
9	PPP at CHC (Sahiya, Raipur, Naugaun, Thatyur)	O&M	RajbhraMedicare Pvt Ltd	29 Crores	Improving Healthcare (14/05/2013)

Note: A previous batch of PPP models such as voucher schemes in Haridwar, Udham Singh and Nainital began in 2005. There was dissatisfaction with their results and after JSY was introduced they became redundant. They were given up in 2011-12.

5
CHAPTER

DEEPAK FOUNDATION MANAGED COMMUNITY HEALTH CENTRE

A Corporate Social Responsibility

Vadodara (Gujarat) | *Daksha Parmar*

A Brief History of Deepak Foundation

Deepak Foundation (DF) was established in 1982 as a part of the Deepak Charitable Trust. The trust was set up by the Deepak Group of Companies of which the leader is the Deepak Fertilisers and Petrochemicals Corporation Limited and the Deepak Nitrite Limited. It undertakes various activities of corporate social responsibility with a particular focus on improving access to Healthcare services. Presently located in the city of Vadodara, DFs origins can be traced to the industrial areas of Nandesari which is around 20 km away from the Vadodara city. Its origins in the early 1980s, relate to the inspiration and determination of Mr C.K Mehta, the Chairman of Deepak group of industries to initiate a service that would enable the people of the rural and tribal areas to access medical and Healthcare services. Like with many other such philanthropic missions there is a change moment. In this case it was Mr. C.K. Mehta witnessing and being deeply moved by the plight of a poor women who gave birth to a child in a bullock cart on her way to access health facilities in the city of Vadodara. DF has a vision statement 'to provide and to empower underprivileged and unreached communities to ensure holistic development, economic stability and to lead a life of dignity'.[1]

DF intervention began with provision of Healthcare services to the immigrant population working in the factories and industries of this region. It then evolved into establishment of the Maternal and Child Health Hospital.[2] Over the years, the Foundation diversified its activities by providing preschool education, livelihood generation, skills building and training apart from primary health services. Currently, it has expanded its services beyond Gujarat and is also working in the states of Maharashtra, Gujarat and Telangana. This case study discusses the public private partnership DF has with Government of Gujarat for the provision of Reproductive and Child Health (RCH) services in tribal blocks of Vadodara district. This is part of the government's efforts to strengthen Community Health Centre (CHC) services, but since the priority was in reproductive and child Healthcare, and the government was having difficulty with establishing emergency obstetric

1 Annual Report 2013-14 Deepak Foundation.

2 Interview with Director of Deepak Foundation on 14th November, 2016.

care, the Memorandum of Understanding (MoU) was made for only these services with the focus on the provision of Comprehensive Emergency Obstetrics and Newborn Care (CEmONC). This terms relates to the ability to manage all the complications of pregnancy including blood transfusions, Caesarean section surgery and the management of the sick newborn in an intensive care setting.

Health Situation in Tribal Areas of Vadodara

The tribal blocks of the erstwhile Vadodara district had high maternal (452 per 100000 live births) and infant mortality (55 per 1000 live births in 2005).[3] The Safe Motherhood and Child Survival (SMCS) (2005-2011) project was a DF initiative aimed at reducing maternal and infant mortality in tribal areas of the Vadodara district- as a part of the National Rural Health Mission (NRHM). One key strategy of achieving this reduction was to increase the rate of institutional delivery to more than 80%.[4] The SMCS project also aimed to track every pregnant and nursing woman thereby ensuring that they are provided timely antenatal and post natal care. The project was initially implemented in four tribal blocks and later expanded to eight rural blocks of the district. At the baseline, there was a total absence of specialists at public health facilities for management of a medical emergency. Most women with high risk and complications during the pregnancy were referred all the way to the Sir Sayajirao Gaikwad (SSG) District Hospital in Vadodara city which is around 100 kilometres away from the blocks. This resulted in delay in getting medical, especially emergency care. Instead of duplicating government efforts, DF decided to strengthen the existing government health facilities by providing emergency obstetrics and neonatal care to mother and the child in the tribal regions of the Vadodara district. Accordingly, a Community Health Centre (CHC) at Jabugam village in the Pavi Jetpur block in the Choota Udaipur region[5] was selected. This CHC was selected because it was the only functional health facility in this region.

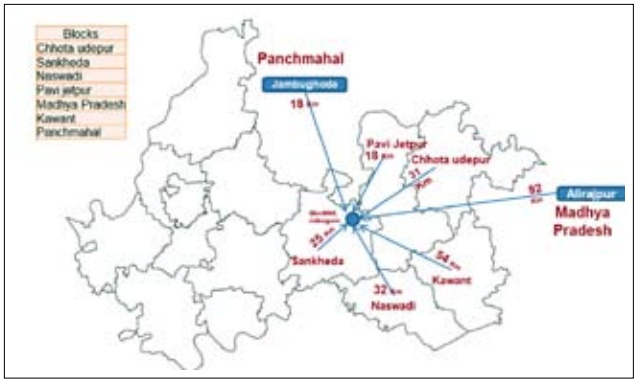
3 Baseline Survey in Vadodara District by DF-2005.

4 Interview with Director of Deepak Foundation on 14th November, 2016.

5 In January 2013, Chota Udaipur was carved out as a new district of the state. It is predominantly a tribal district with more than 80% of its population comprising of tribal's.

The PPP-Comprehensive Emergency Obstetrics and Newborn Care (CEmONC), Jabugam[6]

The Jabugam CHC is a 30 bedded hospital that serves as an important referral point of seeking medical care for patients referred from different Primary Health Centres (PHCs) in the Chota Udaipur district. Apart from the Chota Udaipur district, this centre also caters to the PHCs of the two blocks (Jambhughoda and Ghogambha) of Panchmahal district and Alirajpur district of Madhya Pradesh.[7] In total it caters to around seven PHCs covering a tribal population of around nine lakhs. The following figure show the different areas catered by the Centre.



A Memorandum of Understanding (MoU) was signed between the Deepak Foundation and the State Health Society (SHS) Government of Gujarat (GoG) on 10th February 2006 for operating the Mother and Child Care Centre a period of one year. This was further extended based on the performance of the unit. The PPP has now been in existence for the past ten years and as per the latest MoU, it is valid till March, 2017.[8] It is important to note that DF only caters to the maternal and child services, while the general outpatient and inpatient services provided in the CHC is the responsibility of the government.

6 Locally, CEmONC is also known as Mother and Child Care Centre (Emergency Services). For the purpose of this case study, we will refer to it as the Centre.

7 Interview with Senior MIS Co-ordinator at Deepak Foundation on 16th November, 2016.

8 MoU between State Health Society, Gujarat and Deepak Foundation for establishment of a Comprehensive Emergency Obstetric and Newborn Care Unit at CHC, Jabugam, Taluka Pavi Jetpur, District Vadodara(2015-2017) available at https://nrhm.gujarat.gov.in/Images/pdf/DCT-Vadodara-MoU-CEmONC-2015-17.pdf accessed on 21st January, 2017.

This Centre was started within the premises of the Community Health Centre at Jabugam - and DF sought to develop it as a successful model for provision of emergency obstetrics and new born care at the CHC level. Under the MoU, the DF has constructed a separate building for providing comprehensive emergency and newborn care known as the *"Mata and Baal Sambaal Kendra-Tatkalik Saarvaar"* (which in Gujarati means "Mother and Child Care Centre-Emergency Services") within the premises of the CHC. The Centre was constructed by DF and the total cost of construction was ₹ 34 lakhs. In the first year of its operations, entire funding and human resources was provided by the DF. Subsequently, the government contribution increased and currently government provides most of the running costs. It must be noted that the Centre has been providing quality obstetrics and newborn care services to the tribal population free of cost since 2006.

The Role of DF and Government at the Mother and Child Care Centre, Jabugam

Under the MoU, the responsibility of the DF is to provide for a well equipped operation theatre, a neonatal and a childcare unit as well as an ambulance at the center. DF is also authorised to appoint temporary and adhoc staff for delivering the specified package of services in consultation with the SHS so as to avoid the duplication of the staff already appointed by the government at the CHC. It is also responsible to recruit specialists such as gynaecologist and paediatricians as well as paramedical staff trained in neo-natal care for the effective functioning of the unit. It is also necessary for DF to provide staff quarters for its appointed staff at the Centre.[9]

The government is mandated to establish and maintain a blood storage unit at the CHC. It is also to pay the water and electricity charges of the Centre and provide for security and food for the patients. Government is also responsible to approve the purchase of equipments and medicines for the CHC as suggested by the purchase committee of the Centre. It is also required to reimburse the amount paid by the DF to the beneficiaries of the *Janani Suraksha Yojana*. The government is to monitor the Centre by undertaking regular visits and by undertaking quarterly progress review meetings with the DF.

Organisation of Care

Any person visiting the Jabugam CHC for seeking medical care in case of general illness is treated at the CHC. However, any cases related to the obstetric, gynaecological or newborn services are referred to the DF's Mother and Child Care Center. This, Centre has a fully equipped operation theatre, a round the clock laboratory and a pharmacy, counselling services for promoting postpartum care, a birth waiting room known as *Mamta Ghar,* waiting facilities for relatives and free ambulance and drop back services after childbirth called *Khilkhilahat* services. The centre is also equipped to perform planned as well as emergency obstetric surgeries round the clock, provide for paediatric care and ensure newborn stabilisation. There is also a provision of blood storage and blood transfusion in case of complications during childbirth.

Given the high prevalence of anaemia amongst the tribal women in this region, there is often a requirement of blood in high risk pregnancies. For instance, in the year 2016-17, around 730 patients needed blood transfusion. DF is also required to administer iron sucrose injections for severely anaemic women.

The government team at the CHC is responsible for providing medical care to the general patients and as well as undertake the implementation of all the National Health Programmes.

The registration counter, the blood storage unit, laboratory, pharmacy, nurses, medical officers and ambulance services are shared between the CHC and the Centre. The OPD timings for both the Centre and the rest of the CHC are from 9 am to 2 pm and 3 pm to 5 pm during which all the two medical officers and seven nurses were present.

The Centre operates on two day shifts from 8 am to 2 pm and from 4 pm to 10 pm. In the night shift

9 Ibid.

(10 pm-8 am) there are four nurses, one medical officer, one laboratory technician, one pharmacist (cum Data Entry Operator), two para-medical nursing assistants and one operation theatre assistant (on need basis) at the Centre apart from the Assistant Hospital Administrator, support staff and security guards who are available round the clock.

The Centre has been providing outpatient and in-patient services since its inception. Around 100-150 women visit the OPD services daily for antenatal, postnatal and newborn care services. Around 10-12 deliveries are conducted at the unit on a daily basis. In most of the cases it is a normal childbirth, while caesarean section was done only in high risk cases depending on the condition of the women. There were 10 beds in the post operative female ward which were fully occupied. It was also clear from the discussion with the staff that the unit has 100% bed occupancy throughout the year. The following table shows the number of deliveries conducted at the unit from 2006-16.

Table 3: Number of Deliveries and C-Sections Conducted at the Centre, Jabugam

Year	Total Deliveries	Total C-Section
2006-07	201	0
2007-08	666	29
2008-09	1748	103
2009-10	1776	117
2010-11	2603	225
2011-12	2518	298
2012-13	2630	295
2013-14	2777	302
2014-15	2426	227
2015-16	2913	434

Source: Various Reports-Deepak Foundation

It is clear from the table that over the years, there has been a steady increase in the number of normal deliveries being seen in the Centre. The caesarean section deliveries at the Centre has been well within the WHO prescribed limit of 10-15%. (many of these C-sections could have been at the referral district hospital)

Referral Linkages

The forward linkages for maternal and child health referrals is with Sir Sayajirao Gaikwad District hospital in the city of Vadodara. This is facilitated through a Help Desk, managed by DF that is situated at the district hospital. The Help Desk aims to provide patients and their relatives information on medical services available in the district hospital and to reduce the procedural time in case of an Emergency referrals from the Centre at the CHC. Such referrals happen if the specialists in the CHC, particularly the Anaesthetist is not available, or the case is too complicated for management there. It is clear from the table that in the initial years of its functioning i.e. in 2007-08, it was mainly the cases related to post natal care and gynaecology which was referred to the district hospital. Over the years, there has been a steady decline in this numbers. However, there has been an increase in the referrals of new born babies. The following table shows the number of patients referred from the Centre to the SSG District Hospital, Vadodara.

Table 1: Number of Referrals from the Centre to the District Hospital

Year	Number of cases Referred	Delivery	ANC Cases	PNC cases	Gynec related	New Born
2006-07	Data not available					
2007-08	83	6	0	40	34	3
2008-09	144	4	83	16	1	40
2009-10	112	7	67	13	5	20
2010-11	82	0	46	11	3	22
2011-12	92	0	45	16	4	27
2012-13	102	0	49	8	1	44
2013-14	68	1	24	23	4	16
2014-15	65	0	30	20	2	13
2015-16	171	0	87	13	2	69

Source: Various Report-Deepak Foundation

For coming to the Centre in an emergency and even for normal delivery, people mostly use the Government 108 ambulance services and for out-referrals from the Centre to other referral hospitals Deepak Foundation's ambulances are used which is available 24*7 basis.

The outreach women workers at the village level under the SMCS project of the DF were later absorbed as Accredited Social Health Activists (ASHAs). It is their job to follow up with every pregnant and nursing women in the village and motivate them to access medical services either at the Sub-Centres and

Primary Health Centres or refer them to the Centres. One important way of community mobilisation for promoting the increased access and utilisation of the Centre is through the Training and Capacity Building of community health workers such as the ASHAs that Deepak Foundation undertakes. It is important to note that in 2011, DF also established a state-of-the-art Public Health Training Institute (PHTI) for training and skill building of the grassroots level health functionaries in Gujarat.

The Mother and Child Care Centre also undertakes community engagement programs that facilitate the mobilisation of the community and various grassroots functionaries. This is periodically undertaken through the group meetings with field level functionaries, medical officers and village representatives to apprise them about the services of the unit. Community awareness sessions on ante natal care (ANC), post natal care (PNC), Infant and Young Child Feeding, identification of danger signs in pregnancy and infants, etc. are also routinely organized.

Human Resources

Prior to the starting of the Centre, the CHC was stated to have been, to a large extent underutilised. One of the major reasons for the same was the absence of medical staff and lack of specialists at the CHC. Thus, most of the cases related to the obstetrics and gynaecologist were referred to the district hospital resulting in delay in seeking medical care. Under the partnership MoU, DF was required to provide skilled medical and para-medical as well as specialists at the Centre. The following table shows the status of human resources at the Centre.

Table 2: Number of Human Resources at the Centre, Jabugam, 2015-16.

Post	Sanctioned in the MoU (2015-17)	In Position
Gynaecologist	2	2
Paediatrician	1	0
Medical Officer	2	3
Nurses (OT and Staff Nurses)	17	14
Hospital Administrator	1	1
MIS officer	1	1
Accounts and Admin Officer	1	1
Pharmacist	2	1
Lab Technician	3	4
Family Planning Counsellor	1	2
Computer Operator	1	3
Support Staff	12	14
Driver	2	2
Total	46	48

Source: PPT- Strengthening of CEmONC unit through a unique PPP model at CHC, Jabugam-Chota Udepur District, Gujarat for a National Workshop on Best Practices in Tribal Health, October 11-13, 2015

During the visit to the Centre on 15th November, 2016 there were two Gynaecologists in position and one medical officer – the latter a Bachelors in Homeopathic Medicine and Surgery (BHMS). The post of Paediatrician was vacant due to the lack of a suitable candidate. The salary for the Paediatrician is fixed at ₹ 80,000 while the amount sanctioned under the NRHM norms for the year 2013-14 was ₹ 60,000. Thus, DF provides the top up of ₹ 20,000 to the Paediatrician at the unit. There are six nurses available at any particular time at the unit. At present the two gynaecologists have been working at the unit since the last 1 year 10 months. The monthly salary of the gynaecologist is ₹ 125,000 while the NRHM norms for 2013-14, provided only for ₹ 60,000. All the staff appointed by the DF was on contractual basis. It was pointed by the MIS Coordinator at DF, that one of the major problem at the unit is the high attrition amongst the young medical staff.

There were also two family planning counsellors at the Centre. They motivate women to undergo tubectomy operations after giving birth to two children. These operations are routinely conducted at the Centre by the MOs. There is no fulltime anaesthetist at the Centre and DF has a tie-up with some anaesthetists in the region who are available on call basis. There were two pharmacists working on rotation basis at any point of time in the day. All the medicines were provided free of cost to the patients.

Financing

In 2006, when the MoU was signed DF provided 100% investment on capital and it provided all the

operating cost for nearly two years. Bringing the Centre into operation, including the construction of the building and recruitment of staff is estimated at a total cost of around ₹ 60 lakhs (US$100, 000).[10] Over the years, with an objective to make Centre sustainable and to ensure government ownership of Centre, the contribution of DF declined. In 2013-15 the cost sharing between the Government of Gujarat (via state health society) and the DF was 80:20. Presently (2015-2017), it is 90:10.[11] For 2013-15, the annual sanctioned budget for Centre was ₹ 1.74 crores which was shared by the Government and the DF in the ratio of (80:20) which came to ₹ 1.26 crores and ₹ 47, 88, 444 respectively.[12]

The salary of specialists at the Centre was borne by both by the Government as well the DF. Depending on the qualification of the medical doctor, the government provides its approved salary while the DF provides the 'top-up' in order to ensure a higher remuneration to the medical doctors and the specialists. For instance, while discussing with the Senior MIS Coordinator at Deepak Foundation it became clear that the government will pay its share of salary as per the NRHM norms while the DF will contribute over and above the salary to make it attractive for the specialists to work at the CHC. For instance, in 2016 the government paid ₹ 90,000 as remuneration to the doctors while the DF provided ₹ 60,000 known as 'top-up' thereby making the salary attractive enough at ₹ 1,50,000 per month to retain the specialist. Since it is a tribal district most specialists were not willing to work and the increased salary was, according to the coordinator, one of the incentives for ensuring their retention at the Centre. DF also utilise its funds for getting 'on-call' specialist services especially with respect to paediatricians and Anaesthetist.

10 Evidence based Private Partnership Model for Saving Lives in India- Note prepared by Deepak Foundaiton.

11 MoU between State Health Society, Gujarat and Deepak Foundation for establishment of a Comprehensive Emergency Obstetric and Newborn Care Unit at CHC, Jabugam, Taluka Pavi Jetpur, District Vadodara(2015-2017) available at https://nrhm.gujarat.gov.in/Images/pdf/DCT-Vadodara-MoU-CEmONC-2015-17.pdf accessed on 21st January, 2017

12 MoU between State Health Society, Gujarat and Deepak Foundation for establishment of a Comprehensive Emergency Obstetric and Newborn Care Unit at CHC, Jabugam, Taluka Pavi Jetpur, District Vadodara (2013-15) https://www.nrhm.gujarat.gov.in/Images/pdf/MoU_deepak_2013_15_CEmONC.pdf

In Summary

This Centre also (referred to officially as CEmONC unit) has been functioning successfully for the past ten years leading to a reduction in the maternal and infant mortality in the region. It is providing free of cost emergency obstetrics and new born care services to the tribal population. However, there are few challenges that Centre have been facing over the years. Being a functional CHC, most of the patients are referred to the Centre resulting in unnecessary referrals. However, despite the obstacles the model has been considered to be one of the best practices in tribal areas with respect to providing obstetrics and neonatal services. It is interesting to note that people as far as the Alirajpur region of the Madhya Pradesh also visit the CHC to access free medical services and the Government of MP had invited the DF to replicate the model in this region. [13]

Lessons from the case-study

This is one of the best CSR models we were able to identify. There are much strengths in this model.

First- it brings in additional investment to the public health sector without compromising or changing its public character. It could be a called a build-operate- transfer model- though the ownership of the unit still remains shared. It started with 100% CSR funding, even to make operational- and then shifts to government funding gradually.

Secondly- Even after the initial funding is over the CSR brings in funds for covering a small part of running costs- but even this small part is a critical value addition. It is largely going to pay a top up on government salary that is needed to attract and retain specialists and medical officers who would not otherwise find it possible to work here.

It could be argued that government itself could have paid the extra top-up in remuneration since incentives for working in difficult areas is a major part of the national health policy- but such are the rigidities of government rules- that it was simpler to take the CSR route to achieving it. No doubt

13 Interview with Director of Deepak Foundation on 14th November, 2016.

management support and respect to the doctor could also be superior to what general administration provides- and could help retain them.

Third- the CHC itself is not outsourced; it is only a particular package requiring a greater specialist presence. It has strengthened the functioning of the CHC, not weakened it- nor diverted away its clientele. Situating it within and as part of the CHC has brought in one great strength. It remains very well linked downwards with PHCs and beyond that the sub-centers, ASHAs and the community. And it retains and has strengthened the referral links with the district hospital- which though built around CHC would possible help for a much wider set of referrals.

Fourth the choice of external management is determined by an agency whose value structure drives them to undertake this task. We note that it is not the incentive structure or the commercial opportunity that is at work here. Rather it is a public service that a private entity wants to engage in. As long as the CSR agency has to make a substantial investment at the beginning, and then continue to contribute monetarily, the state would have a reasonable assurance that the necessary values of public service as compared to private profits are in place. ₹ 45 lakhs outflow per month is not a small amount. A partnership as defined as an operation where the private agency shares in the investment, in the risk and in the rewards. And where the rewards are not monetary, but social recognition and ethical satisfaction, we certainly have a strong case for such a choice.

Finally this is not based on user fees. It is on free services where the government pays. It is not also based on any elaborate contract that represents a form of purchasing with output targets. The selection based on the ability to bring in substantial investment by a private not for profit agency with no expectation of returns, has made it possible to get good results even on an input based financing.

One set of concerns are its very selective focus- and how one can reconcile one part of the CHC which due to better investment and attention, while another part languishes. Hopefully this sort of selective thrust is a legacy of the past and there is greater attention to making the service more comprehensive.

The other set of concerns would relate to whether this model is sustaining. The ability to retain doctors and specialists without the necessary professional and social environment- just on the basis of monetary incentive is limited. And one would not be surprised if increasingly it provides institutional delivery but faces challenges in providing specialist care. The increasing referral to the Vadodara general hospital is ominous. This excessive referral of cases with complications to higher centres was one problem that Chiranjeevi grappled with and was never quite able to solve. Since the incentive package does not provide a perverse incentive for such skimming to happen that is less likely. But without a professional incentive or an ethical value driven management, this problem could recur even within such a financing approach.

6
CHAPTER

RE-VISITING ARAVIND EYE HOSPITAL
In times of Universal Health Coverage

Madurai (Tamilnadu) | *T. Sundararaman*

It is 24 years since Harvard Business Review published its famous case study of the Aravind eye hospital. A case study that not only brought international recognition to Aravind, but also became a model of a case study. As of 2012, 150,000 copies of this case study had been distributed to over 20 top business schools of US alone. One of the most widely read and successful of all case studies.

It is a time to revisit the hospital and the case study. The big idea of that case study is of Aravind as an example of MacDonaldization in Healthcare. An idea that showed that there is "the fortune at the bottom of the pyramid." "Businesses" CK Prahlad wrote "can gain three important advantages by serving the poor - a new source of revenue growth, greater efficiency, and access to innovation." The charm of this model is essentially there could be a business model that is profitable and scalable, while remaining very socially conscious and innovative. Written in the start of the structural adjustment years, when the prescription was to limit government to a few essential services and leave the rest to the markets, this study is often cited when making the case for engaging with private sector to meet public health goals. Dr. V's quote on why can't eye care be organized on the lines of MacDonald also gets a central positioning in the presentation.

This case study draws from the earlier Harvard case study, but with a focus on the institutional design – the organization of service delivery and a health systems perspective.

The vision and origins

Aravind Eye Hospital is a family run not-for-profit enterprise (Trust) that draws its inspiration and its philosophy from two sources. One is the towering figure of its founder Dr. V and the other is the philosophy of Aurobindo, a philosophy that Dr. V was a conscious and ardent devotee of Dr. V (Dr. G. Venkataswamy - the G is not expanded in Tamil practice) was 58 years old when in 1976 he started off with an 11 bed Aravind eye hospital. 58 was then the retirement age - and Dr. V had just retired after a lifetime of public service in one of Tamilnadu's leading government medical colleges - the Madurai medical college. It is not difficult to imagine that in the crowded medical college hospitals he clearly saw the need for services– and in the nineties he

also saw the limitations imposed by policy and political will in expanding public services. But he responded to the public crisis in a private manner - thinking through what *he* could do to supplement government's efforts and playing down the role of telling the government what *they* should do about it. (This is a feature that one finds in Aravind to this day - but more about that later). "High volume, high quality and affordable cost" was the mantra. Though case studies interpret this to mean that there is a business model available where with high volume and low prices one could still make a profit - it is not clear that there was any such motivation in the Aravind. Rather the leadership articulates it differently. "Private sector is very inefficient" Thulasi tells me. "With the same amount of investment one can reach out to far more people and provide much greater volume, quality and diversity of services."

The difference is not semantic. It is central. It is the heart of the difference between the notion of efficiency in the public and in the private. Imagine Aravind as a corporate. The measure of success of the latter would be by the dividends it pays its shareholders - the rate of returns on investment - and not necessarily the revenue earned in absolute terms. But for Aravind to a large extent revenue earnings means more space for cross -subsidy, more space for innovation. Expansion too, but that is limited by the fact that its values get transmitted much more slowly than its financing. But it's not the fiscal space that drives the volume - rather it's the perception of lack of efficiency as lost opportunity to have provided greater coverage. For a public hospital too what matters is how many people you can reach out within the given budget - the value for money proposition.

But why does a private player take such a view? There we may need to look at how the Aurobindo Ashram and its philosophy plays out. Much like the contribution of the protestant ethic to the rise of modern capitalism, there was an ethic generated by the independence movement that called upon Indian private sector, especially the large "nationalist industrial houses – Tata, Birla, Godrej -etc. to see their private assets as public assets held in trust - to be leveraged for building a nation. Aurobindo Ghosh, himself a revolutionary fighter for Indian independence, sets out in his "Ideal of Human Unity" - a progressive vision of human and societal development. It is a philosophy that is compatible with (perhaps actively promotes) a notion of a private ownership that is ethical and responsible and contributory to human development. There are many industries which draw their inspiration from this ethic and philosophy - and though one has seen questions about their internal labour policies - largely they are bound by a strong business ethic of contributing to the public good. What the latter means for each enterprise in each historical context varies. And it is fascinating to study what it has meant for Aravind in the 90s, in the first decade of the 21st century and now in the second decade.

The Nineties Period

At 1990, the Aravind Hospital had three hospitals, the main one at Madurai had 600 beds and two smaller hospitals and Theni and Tirunelveli with 200 and 400 beds respectively. Together they were doing about 50,000 surgeries a year. By the year 2003, this had risen to five hospitals - one in Coimbatore and one in Pondicherry and the number of surgeries had increased to 200,000 a year.

Aravind spends nil on advertisement. It does not believe in it. It expects the message to be carried through word of mouth - satisfied patients telling their friends and relatives. It also had a schedule of meticulously planned eye camps where it identified those in need of services and brought them in. It works.

One necessity of this model of course is that there has to be a careful allocation of scarce resources. And in all of Healthcare, manpower is therefore the most critical resource. In the initial years the doctors took much less pay then their market worth - but as the organization's finances became better, they are able to ensure that the tier of consultants are able to get pay packages commensurate with the private market.

Efficiency is gained by engineering processes to maximise productivity. One interesting innovation was the introduction of a hospital management information system which had one of its several out puts, the ability to predict the out-patient attendance on each day of the coming year - and in

each outreach camp proposed for the coming year. It did so by averaging the previous year's out-patient attendance, the day of the week, festival days and holidays and if it was a camp the attendance in the camp the previous year. The number of doctors allocated for camp and out-patient duty would change according to this prediction.

A second innovation was built on the observation that doctors tended to take more time towards the beginning and speed up towards the end of the out-patient session. Now based on the predictive model, each doctor would be allocated cases and would know by 10.00 am whether he was at the optimal rate of consultation. Also, noting that most patients come early in the morning, more doctors would be posted in the out-patient department in the mornings and the operation theatres would start up a bit later.

A third innovation was having two operating beds in each operation theatre with the second patient going into the pre-operative preparations like draping when the other patient was completing the surgery and coming of it. This not only increased the capacity of the team, it decreased the overall resources needed (space, equipment, HR etc) and increased the output per surgeon. Time management within the operation theatre has brought down the time per cataract surgery to about 15 minutes per patient.

But such optimization and acceleration of processes was inherently risky with regard to quality of surgery. To address this problem, a software developed in-house monitors the outcomes of every single patient and infection and other complications rate and is able to provide a quality of care output for each surgeon. A monthly review spots any sub-optimal result - and through a discussion with the chief the problem is identified - and corrective measures taken, which could include a stint of surgery under supervision. This complication rates are kept much lower than any comparable norms.

The number and intensity of camps could be increased when patient load decreased, so that the system was always taut - with no slack. If there were inevitable slacks like a festival day, then academic and teaching/learning programmes would be structured onto that day. A camp usually has the capacity to screen upto 300 patients per day and as many as 20 percent of them could be brought back for consultation and surgery on the subsequent days. The camps is therefore not a supplementary strategy. It was central to the model - that required mobilizing the demand - not by administration but by outreach. It was a model that over the year has been tweaked to perfection for cataract surgery, and is similarly being developed for other elements of eye care.

Thus across its hospitals and camps in a given year (2014 -15) the system would receive close to 35 lakh out-patient visits - of which 19 lakhs are paying patients and the remaining 16 lakhs are direct walk-in free patients at the hospitals or are from the camps, or from Vision Centres and Community clinics. (Vision centres are primary care units established in villages as part of the Aravind efforts towards universal eye care. Instead of a camp taking place a few times in a year, there is now an established centre where case detection, and follow up is a regular activity). The total number of surgeries performed in that same year was 4 lakhs and of these 2.6 lakhs were cataracts. Of the 4 lakh surgeries about half were paying patients (at market rates) and the other half were either subsidized "direct walk-in" patients at the hospitals or free brought in from the camps.

Human Resources for Health

Very little has been written about Aravind's human resource strategy. Aravind has today 4700 staff, of which about 500 are medical doctors. Of the rest, the major part – about 3500 - are composed of a category of paraprofessionals – who are largely young women with a nursing profile.

Of the 500 medical doctors about 223 would be medical consultants, about 178 are fellows and about 132 are post graduate resident-students of either the Diploma in Ophthalmology, or MS or DNB courses. The residents are paid a stipend of ₹ 25000 pm (with an annual raise of ₹ 1000) with subsidized hostel, which is adequate to sustain them during an intensive training programme, where most of the time is anyway spent in the hospital. The Fellowship programme is at wo year training programme

that attracts qualified ophthalmologists from all over India and other developing countries, who seek to develop their skills in specialised fields of ophthalmology. They are paid ₹ 25,000 per month. This is certainly lower than what they would get elsewhere in private practice - but since the Fellows are hereby choice to develop skills and confidence and since there is a very planned and intensive programme to ensure such skill development - it is quite acceptable. Each year some 10 to 15 fellows complete and are retained as consultants - while the rest move on to start up their own clinics or join hospitals across the country. The full time permanent doctors are the consultants - who get a starting salary of ₹ 100,000 per year and then good increments every few years - so that at the start they match the best of the public sector - and later on they are comparable with even much of the private sector - though never rising too high.

The "paraprofessional' nurses are taken in from the villages and trained in the hospital network. They are placed in one of 9 streams - and for all of these the remuneration is the same. These could be medical records, out-patient care, refraction, operation theatre, ward, counselling, ophthalmic dispensing, and house-keeping. It is interesting to note that though the perceived status of these jobs could vary greatly the young women are paid equally and have the same terms of service across all of them.

Most of these para-professionals are recruited from the locality where the hospital is situated. All of them have passed school (10+2) and single. Their training programme has them as residential student nurses for the first two years, paid a stipend - which covers their accommodation and food and uniform expenses, two trips to visit their family in the year. Necessarily their posting in this period is in a hospital which is distant from their home-town. From the third year onwards they are paid a wage meeting statutory norms (about ₹ 8,500 pm) plus housing, subsidized food and uniforms and their twice a year travel home. In the fourth year they are transferred back to the hospital near their home. Their pay increases by about 15% per year, after that. They may stay on for anywhere from 2 to 6 years, usually till they get married. Once married, few remain in the same locality, and if they choose, they can continue their employment. The reality is that most leave the job because of the changed circumstances of their lives- but marriage is not a mandated exit of filter. Thus from recruitment to marriage is about an 8 to 10 year period.

The para -professionals who are well experienced as refractionists (prescribing glasses for refractive errors) with an additional 3 months training develop the skill sets of an optometrist. They along with a coordinator are then posted to independently manage one of the rural Vision Centres. They are assigned Vision Centres that are in or very close to their village or town and this allows several of the married staff to continue to work in the system.

One of the key issues of patient care is the attitude towards patients. Much more so for nurses, who have to physically help patients with different degrees of physical dependence due to visual loss or in in-patient and surgical care. This is how the problem is described in the book Infinite vision:" In India, the power dynamic of caste still asserts itself throughout society, insidiously influencing relationships and outcomes. Many nurses hired to work at that Aravind hospital came from high-caste families. Many of them rebelled against helping poor, and presumably low-caste, patients put on the sterilized socks worn for surgery. They felt it was beneath their dignity to perform a task that involved touching a patients feet. The work of Aravind's paraprofessional staff includes many interactions that are rooted in a sense of equality and caring for patients from all backgrounds. They are a fundamental part of the model, and the organization relies heavily on them to render its colossal scale kind and human. Each Aravind hospital would need to find nurses better suited to deliver compassionate, high -touch care." (pg. 218, Infinite Vision - with minimal paraphrasing for context).

Bringing around such a change is not easy. So Aravind has over time thought this through. When a new hospital is decided on –a start-up team arrives. The entire doctors and paraprofessionals are from the existing teams at other hospitals. Then 10% of locals are recruited, and over the next five years another 20% of new local recruits per year. These locals are sent to two Aravind hospitals where they work with others already into such a culture of care. And by the time - the fourth year - they are back here, the culture is well established.

Access to Affordable Technology

The other frontier is technology. Can a new organization of service delivery be based only on existing technologies? Aravind's adaptations of technology are instructive. No talk of disruptive change here. Only quiet, steady incremental advance.

Firstly - to go to scale, to be based on revenue generated and yet be affordable, to keep in pace with the latest in care and yet escape the price spiral that goes with it, Aravind had to go beyond organization of service delivery to addressing access to technology at a very fundamental level. By the mid-1980s intra-ocular lens implantation had become the norm of quality cataract care. One could manage without it - but that would be second rate care. On the other hand the costs of intra-ocular lens, and for that matter eye sutures and other essential eye care material was prohibitive and they all had to be imported. The official programme refused to consider it; "the World Health Organization, the World bank and other international agencies maintained that using IOLs in developing countries was not merely unsustainable, but irresponsible." (ibid150) And they would not encourage local production either - citing concerns of quality and regulation. Aravind did not participate much in the public debates - but it decided to quietly go in for a proof of concept prototype. One of their mentors on this process at this stage, Dr. Litwin describes his learning as follows.." It really taught me that if you are going to do some sort of innovative work, the way to go about it… do it on the smallest scale you can manage, so that you can say, " this is how it works." Otherwise every theoreticians will debate endlessly about the hypothetical results of that account. And they did - after a relentless internal debate, on the fourth floor of the hospital building in a facility named Aurolab, in 1992, the first prototypes were manufactured. The price of an IOL which was $ 80 to 150 apiece - quite unaffordable except for the rich in those days could now be made available for about one dollar. (₹ 60+apiece). The initial aspiration was for in-house needs - 150 pieces per day. But today it has risen to 7000 pieces or over 2 million a year. It now commands over 10% of the global IOL market and over 22 million people in 120 nations have used it. There is a similar story for eye sutures where it commands close to 15% of the world market - and is the dominant supplier in the Indian market.

For a cost comparison consider this. In 2012, the NHS of UK did approximately 5 lakh eye surgeries whereas the Aravind system did about 300,000. The NHS spent 1.68 billion pounds on this - whereas the Aravind system spent 13.8 million pounds - roughly 1% of the amount. It is about savings due to technology innovation as well as the overall better organization of work processes that leads to such efficiency. Costs in the USA, which is the model of care that de facto we are moving into - would have been much higher than even the UK estimates.

Like every care delivery innovation of the last two decades use of information technology has played a key part. Notable is the fact that they have designed their own hospital information system as early as 1990, configuring it to give a set of indicators and information that works effectively for them. The contrast with most other hospital information system experiences is remarkable. Most hospitals struggle to put it in place, and then land up unable to use the data or even to recognize what is data of relevance. Aravind does not know of such problems because they defined their own uses. They do hope to market what is clearly a most successful device as part of their consultancy work, but are somewhat nonplussed to find that its replication in other hospital settings is not quite taking off. But that is not to our mind surprising.

Another remarkable effort at innovation was their early foray into telemedicine. With the help of some enthusiasts from Berkeley in 2004 they pioneered a Wi-Fi basedwireless network that could transmit images and information from their rural Vision Centres to their headquarters. That this approach to wireless transmission became rapidly redundant in the recent years with further developments in the telecom technical environment is beside the point. The point is the readiness with which they embrace technological innovation for both problem solving and model building.

The financing system

One of the most important aspects of Aravind is that there is a clear intent that no one is denied an adequate quality of care, merely because of his or her inability to pay for it. This Bhore committee (1946)

injunction was interpreted to mean cross-subsidy or more precisely charging the patient in proportion to their ability to pay. The latter is a Mudaliar committee (1960) recommendation and indeed large public hospitals have a free general ward and then private wards of category C, B and A. it is not only the bed charges that vary with the quality of the bed/room, even the charges on medicines, consultations and surgeries very with this categorization. In the public system this was not meant as cross-subsidy - but as resource optimization.

In Aravind's hands it became scaled up and a cross -subsidy. Roughly one in four patients are in the zero-priced ward, another one in four are in a subsidized category and the remaining half pay the full fee or even a premium. Aravind positions 'free care" not as a charitable hand -out but as one of the many options in a self-selecting fee system. Its price range is from zero "to market rates." Zero can be a legitimate price point," Thulasi is quoted as saying (pg. 75)." The charity or cross-subsidy element is not highlighted to the public - because low costs and work for charity or too often associated with poor quality and the model requires to be attractive even to the middle class patients and elite sections.

The outpatient consulting fee is ₹ 50 which is valid for three consultations and which includes basic tests. Then surgery for the poor is usually charged anywhere from ₹ 400 to 700. The market rates which are charge for those who can afford is at ₹ 5000 for a cataract surgery in one eye. Standard commercial low volume clinics charge at the rate of ₹ 25,000 per eye - so even the ₹ 5000 market rate is a very reasonable price.

There is a scheme of government reimbursement rate for the poor - and about ₹ 1000 is paid by the government per surgery. But there are inefficiencies in such pay-out and outstanding bills are in the range of several crores. The model allows space to benefit from government purchasing, but never becomes dependent on that.

One very important element is whether there is referral in or referral out, whether there are prescriptions for drugs or diagnostics - no commission/kick-backs in any form is allowed. Any such margin is passed on the patient as a subsidized cost from the vendor. This is important to state - because such commissions have become the norm in most other hospital segments.

Unlike Mission hospitals Aravind did not have donors to pump in the initial capital investment. The capital for the first major investment for building the hospital came from bank borrowings against the mortgage of personal assets. This had to be and was paid back. The operating costs in the early years were met largely through sweat capital – the core team worked for very little or no salary. Capital investment for subsequent expansions came from the surplus that existing operations generate. When it comes to activities like research the strategy is seek grant funding which is often competitive. Its consultancy work also is relatively low cost and low profile - and self-sustaining. This is not a model that either requires or can support private equity based investments. Nor does the Trust structure allow it.

Thus an income and expenditure statement for the year 2014-15 shows a total income of ₹ 292 crores. Of which about 168 crores is from surgery and about 37 crores is from the consulting fees, laboratory fees and other treatment charges taken together. We have already noted that about half the patients receive free or well subsidized charges. Donations and grants total only ₹ 11 crores - less than 4% of the total. Bank interest is one major source of income (₹ 58 crores) - and there are small but significant incomes (₹ 1 to 5 crores) from consultancies, royalties, training programmes etc.

The total expenditure for the year is only about 70% of the income - making the approach not only viable, but leaving enough surplusesfor its expansion. The management is salaried - and salaries are adequate though not competitive with hospital industry CEO salaries. And there are no dividends, bonuses or performance linked compensation.

Of the expenditures 59 crores goes to consumable and of these ₹ 27 crores is the intra-ocular lens alone. No doubt from a health systems approach the costs of drugs would be more if what is prescribed for purchase is included. Salaries are about 63 crores of which the doctors salaries are about 27 crores. Since the net surplus is about 129 crores, the system would be viable even if the para-professionals

were paid at the rate of nurses in the government system. But then income is from many sources like consultancies and at higher salary rates the margin for expansion and safety gets eroded. Interest from saved surpluses is also a major source of income. On the other hand if the free and subsidized care were to get reimbursed by the government on a regular and reliable basis - even if it were only part re-imbursement - the workforce would be at par and the system would remain stable, sustainable and with enough of what they call "sweat capital" which can be used for expansion.

Scaling up phase of 2000 to 2010 – The MacDonald impulse

For all its talk of MacDonaldization, Aravind's expansion had been painfully slow and patient. This was to change in 2005. To quote "Until this time, for all of Dr. V's MacDonald's analogies, there had never been any concrete plans for nationwide expansion of global franchising. But in 2005, the Aravind Eye Care System announced a new goal: expansion to 100 eye hospitals under a new partnership model with the aim of collectively performing one million surgeries a year by 2015."

A stimulant to this change was without doubt the impetus that was gained by a famous interaction which the Aravind team had with CK Prahlad, a well-known management guru. Prahlad exhorted the team to scale up in a big way. The team responded - that though many hospitals had approached them for management collaboration or franchising their approach is to "teach those interested what we know - and then you must run it yourself. We don't want to spread ourselves thin there's too much work remaining within our own service population." Another stimulus was from Ms Birla who was willing to sponsor their expansion into Kolkata, and later a push from Rahul Gandhi to revamp the eye care services in the hospital under the Rajiv Gandhi foundation, in his constituency in Amethi. Clearly there was a demand – but what should be the approach?

The planned model of expansion adopted was now indeed typical of the MacDonald approach. Partner hospitals would contribute funding, infrastructure and local ties. Aravind would be involved in planning, training – and no doubt also branding - in return for an annual fee.

The new partners and hospitals got going in Kolkata, in Amethi and Lucknow in Uttar Pradesh and in Amreli in Gujarat. But it was not very satisfactory. After the first two to three years, and the full system was in place, the Aravind team and the local became increasingly out of sync. One example was in marketing. Old school Aravind did not see marketing as a virtue (in medical ethics taught in those days - marketing was categorized as an unethical practice) - but its partners did. Business expansion brought new capital in, usually as bank loans or in the form of equity funds. But Aravind was sweat capital - their own savings - never private equity. There were also core values to be considered - no kickbacks for referrals could be one. The patient centric approach, and even the notion of efficiency as how many persons reached with the same capital outlay, rather than as how much revenue earned per dollar invested. By 2010, Aravind consciously stepped back. It called of its 100 hospital goal. It did not give up expansion - but that was in its older style - brick by brick -at a pace that allowed it to build core values and leadership qualities and gain peoples trust.

Eye care it turns out is not, after all, very much like hamburgers. Hamburgers do not require trust. And providers have to care, have to have a relationship with their providers whereas at MacDonald's it is enough to get the ambience right. And patients are not customers - they have to be actively involved in the production of their own health. The provider is their guide, their friend - but it is the patients themselves have to get well and do what it takes to remain healthy.

But if one route was closed down - another opened wider. LAICO - the consultancy and knowledge transfer wing grew rapidly. LAICO helps organizations with a strong motivation for public service world-wide to get their intervention into eye care modelled on Aravind, going. Seva Foundation, Grameen opened two hospitals in Bangladesh. There are centres that are working in Nepal too. There are also centres in Africa and Latin America

which have built on transfer of knowledge from Madurai. In the Madurai center, there is now a large training center which receives trainees from over a 100 nations across the world. There is considerable interest for example from China one of the countries which has sent the largest number of trainees. LAICO also undertakes consultancies for established eye hospitals struggling to break even - by on the spot assessment and hand-holding to help them pick up volumes and quality of care.

In this phase Aravind opens up a major research wing, and starts to address research questions of relevance to India and developing countries which have much less interest elsewhere. Fungal infections of the eye, responses to corneal healing subsequent to acid injuries, and so on.

It is worth noting that in this same year 2005, another model got going - Vasan Eye clinic. This was much more in tune with modern corporate logic. Primarily a business model, it was built on private equity - a 100 million dollar fund from Sequoia capital and then many others. Private equity aspires for a 500% return on capital invested - and settles for nothing less than at least a 50%. The industry average for the service sector is in comparison about 15%. Vasan rose from two hospitals in 2005 to over 150 by 2012 - one of the most rapid expansions ever–and if their claims are to be believed, over took or at least caught up with the number of surgeries that Aravind was doing (perhaps). It was a franchisee model. There was royalty to be paid. One of the driving ideas was to replace the loyalty to the individual clinician with trust and loyalty to a brand name and to incentivise the clinicians on the revenues they brought in – indirectly bringing in pressure to upsell. Clearly the only thing that they learnt from Aravind is what Prahlad has emphasised that there is a potential fortune to be made. And what was a real problem - Vasan's base and its major expansion in Tamilnadu was close to and all around Aravind - a competitor. It would be interesting to follow up what became of that model in another essay. But that is not the focus of this case study.

Aravind's response was to further examine its roots and reiterate to itself its core values. Infinite Vision, published 2012, by independent authors - but more like an authorized biography of the institute discusses these challenges and then states - this was part of his (Dr. V's) aspirations for Aravind, and because of it, he held himself and his team to a set of powerful, unwritten directives:

Stay rooted in compassion: Skilfully channelled compassion can drive and dictate inclusion, equality, efficiency, excellence and scale. It can do this in such a way that each of these elements reinforces the others and strengthens the whole….

Serve and deserve: The austere constrain of self -reliance imposed on Aravind.. unleashes hidden resources. When the core of your energy and attention is focused on serving unconditionally, the boundaries of your perception shift. You discover value and relevance in unexpected places. The work acquires a magnetic, generative force. It builds trust and good will. It sustains and aligns resources with the mission in ways that money alone cannot…

Create a movement, not dominance:…. Hoarding expertise limits impact. Sharing your strengths amplifies the effect of the work many fold. …You build a resilient brand based on relationships and mutual respect that has little to do with an advertising budget. In this way, you tap into collective possibilities that far surpass proprietary efforts.

Practice for perfect vision:… The evolution of an organization ultimately hinges on the evolution of the individuals within it. Clarity in thought and action requires a discipline of mind and heart….You become a more conscious instrument of a higher calling.

So much for MacDonald. One decade of their own experience and of observing corporate agencies who actually organized themselves on the catch-phrase so amplified and popularized by the Harvard case study had led to a re-affirmation of their roots, a reconciliation and re-articulation of Aravind the business model and Aravind as public service.

Post 2011 - The UHC Phase

Aravind management has always been sensitive to the changing health sector environment around them. One approach to responding to it is a policy intervention – viz meeting policy makers and seeking a policy change. This is a path of action many large

industry players and their associations undertake and which Aravind could consider now, given their stature. Aravind's approach is to give more emphasis on how they could address the new environment by building upon what they can do within their own network. Given the size of their operations, even by this route they can make a sizeable impact.

Somewhere about 2001, Aravind started experimenting with vision centres as a supplement and later substitute to their outreach camps. Today their network of 60 vision centres caters to a population of 3.5 million people. A vision center typically caters to about 50,000 population. Its infrastructure is a simple shop-front clinic like the typical Indian GP clinic. It seats two para-professionals. A service user checking in, is registered, a history taken, clinical examination done and all this data entered digitally. Then in real-time, the doctor at the Madurai clinic comes online. On his side both patient and the patient's record is visible, and he or she can proceed to ask further questions to the patient over their telemedicine link - being visible to the patient on the computer screen. The interaction ends with the doctor entering the prescription and sending it - to be printed out at the local end - and given to the patient along with counselling by the para professional. Patient may then come weekly or monthly for follow up to the local clinic. If required they are referred to the hospital and that referral is honoured by recognition at the hospital end, with a feedback given to the referring para-professional for the follow up. If it is a patient needing urgent attention the para-professional would ensure compliance; if needed accompany the patient to the hospital. This is the same minimum wage para-professional who has now been given an extra training - and getting the same wage despite the extra responsibility of running a centre independently. There is no question of any performance based payment.

The current figures are as follows: On an average about 30 patients visit each Vision Centre (primary eye care clinic) per day, or about 1300 to 1800 across the 60 centres. All of them get a telemedicine consultation from the base hospital - where adequate doctors are deployed for just attending to this. The age distribution of the patients is roughly 11% in the 0 to 4 age group, 18% in the 5 to 19 age group, 22% in 20 to 39 years, 31% in 40 to 59 years and 41% above 60 years.

There is word of mouth publicity and few house-visits to encourage patients to use the clinic. This builds up the case load. The other important feature is that it is no longer a focus on cataract - it is also refractive errors, glaucoma and diabetic retinopathy and soon prematurity related retinopathy of the newborn. There is no house-to-house screening but based on the information of those who have registered, the center can and does generate the necessary population based data, compare it with epidemiological projections to estimate what is the proportion of people in need who have utilized services and then the outcomes as well. Curiously the articulation of this finding is stated as further possible improvements in efficiency - how many more persons could be reached for the same level of investment.

Population based coverage

Aravind's vision center network covers 3.5 million people, of which 50% or about 1.75 million are above the age of 30. Of these epidemiological studies indicate that approximately 10% - about 178,000 would be diabetic. Of these, based on studies, 50% or 88,849 are known diabetics and of these 35062 or 39% have registered. This rate of detection took over 5 years to reach - but at this level it plateaus. Potentially it could reach more.

Similarly the epidemiological estimate of glaucoma patients in their population is 1% - which Aravind computes to be 35540 anticipated patients. They have 6,558 registered patients of glaucoma, diagnosed and on follow up with them - just 19% of the anticipated. Which is an accurate measure of the UHC gap.

On refractive errors they use an epidemiological estimate of 20% in need which is 710792 and of this currently 224343 (32%) have been diagnosed and prescribed glasses - and of these 113070(3.3% of the entire population but about 50% of those diagnosed) have bought and are using glasses. Remarkable data.

And all of this without any house to house survey or elaborate effort and expenditure. Their data also shows that as compared to the camp based approach the vision center based approach is almost

two to three times as productive in identifying those in need of services and many many times more productive in follow up before and after surgery - and at much lower costs. No doubt standardization in the form of standard protocols have helped, but such follow up would not be possible without both the technology (telemedicine format) and the dedicated human resource at the referred end (the doctors attending to this full time) and the humane and friendly human contacts that allows a personalized interface, adequate space for clinical judgement and adaptation from guidelines One further advantage of this approach is since the doctor's prescription is printed out in the local vision clinic and the paramedic is only dispensing it - the legal strictures against her prescription are not a barrier. It's not so much an issue of the legal barrier as the confidence within the providers and patients themselves. For follow up visits where only the same treatment is being repeated the medical consultation is not necessary - unless there is a specific reason to request for it or a change of prescription that is needed.

Financing" The user fees and revenue model

The patient is charged ₹ 20 which covers three visits in three months. The medicines and glasses prescribed are bought out of pocket - but low cost medicines are made available and glasses are affordable. Some of them are produced in-house and sold at the center to lower costs. The cost of setting up a center is in the range $15,000 or ₹ 9 lakhs. The running costs of the center–are largely the expenditure on of two para-professional salaries and the operational overheads of the clinic and this would break even with about 20 patients per day. However without the referral services of the hospital the system as a whole would not work or even achieve sustained financial break even.

Lessons from Aravind

There are a number of important questions that can be raised about this model. One of the key questions was on scalability but a few others that we choose to discuss here are: Can the Aravind hospital and its primary care outreach together be seen as a replicable model that demonstrates that public health services that can reach the poor, can be run without state support? Can the model be extended to health services other than for eye care? What are the lessons that public services and health systems design can learn from the Aravind eye care model?

Clearly we have no sympathy with the idiom of MacDonaldization as the approach to scalability. The heart of a MacDonald model is in building a strong brand image; visible presence with the same appearance and ambience with location in multiple frequently visited areas, standardization of product and work process as for both quality and costs control, and constant innovation in product mix to maximize revenue flow and maximize clientele. Superficially examined the Aravind hospitals have at least some of these features. But these flow not as marketing technique but as the necessity to communicate and practice some essential values and to maximize health outcomes with a certain quality. Scalability through sharing of values and by transfer of knowledge and skills is however very much in tune. Like in clinical care, there has to be cost recovery of these processes - but they are not in themselves means to further revenue maximization.

For this very reason Aravinds cannot be proof of a concept that purchase from private hospitals could substitute for public service. Aravind eye care is essentially a form of public ownership - a sense of private players holding public assets in trust to serve the public good. Public by other means. Often providers in public hospitals do not have the same public spirit - but as their own efforts at expansion show - neither do the usual private hospitals have it. The fact that a profit can be made is neither sufficient nor even desirable to create private sector that has such a spirit. Yet when we are talking of contracting in private sector we are largely talking of contracting in hospitals who are based on a business model where the revenue generated per bed or per dollar invested is the measure of its success. At best Aravind model instructs policy makers to recognize that the private sector is very heterogeneous - and there are players within this sector - who are more public than the usual public hospital itself. LV Prasad eye hospital chain has a very similar reputation - but

few other players has both a large scale presence and such a public reputation.

But then why is there such a *limited* record of partnership success of Aravind with government hospitals? And that too in the area of cataract surgery which is one of the few areas where public private partnership has succeeded in the health sector. This is quite difficult to answer. The main 'visible' reason is a huge backlog of payments from the government. It is also worth noting that insurance routes have also not helped Aravind much. And despite a very superior performance in quality measurement - Aravind has not achieved, and perhaps will never achieve, NABH quality accreditation. Which makes us wonder why when many hospitals have been able to use these schemes (PPPs, Insurance, NABH, etc.) to increase their revenues they do not work as well for pro -poor affordable care hospitals.

Is the Aravind eye care model possible to replicate for other healthcare needs - cardiovascular care for example, or for cancers or for infectious disease. There are some inherent advantages of this approach. The whole enterprise has one singular object of care and source of revenue – cataract surgery. Outreach centres that detect cataract early can do nothing to prevent it or even prevent its progress. Prior care is generally not needed and follow up care too is very limited. The pool of potential patients is large. That is the nature of the disease. The cost of detection is low, the costs of surgery is the main expense and the main source of revenue. Cataract surgery being a single discrete procedure, is easily verifiable and with almost certain results - elements of uncertainty and information asymmetry are at its lowest. The volumes can be expanded to achieve full cost recovery and more.

When the model expands beyond cataract surgery to include conditions like diabetic retinopathy and glaucoma and refractive errors - one has to plan for both prior preventive care to prevent progress and life-long post-operative care as well. The need for surgery is not as verifiable and moral hazards could be higher.

But that is precisely why at this stage of evolution, the lessons of Aravind eye care model, which had limited relevance for replication beyond eye care earlier, become greatly instructive.

Firstly we have in its universal eye care model built around vision centres, a model that is a) population based b) that is focused on prevention – not on cure and c) that has a good continuity of care between prevention and cure, and between primary, secondary and tertiary care and resists posing a false dichotomy between these elements and d) that is not without doctors, but is not dependent solely on them.

This model makes smart use of technology for mobilizing and re -organizing its resources, re-engineering work-processes so that the technology is built into it - instead of being an additional work layer imposed on existing work processes. There are no instances of technological solutions having been imposed or even of existing solutions adopted to the local needs. Rather there is a bottom up development of technology used for overcoming service delivery barriers, optimizing use of scarce human resources, ensuring quality of care and ensuring universal outreach.

Their use of information and its link with the management culture is also a major lesson. Information flow is purposely designed to aid the staff at all levels – frontline operational staff, managers and leadership. Most of this information is fed in real time. In the public sector, the information is very sketchy and often in one (up) direction and usually for "information" purpose, made available after considerable time lapse.

Aravind is a model of incremental change - not disruptive change at all. Population based systems need not be achieved overnight. They grow at a comfortable pace with a measure of progress and feedback loops to make the UHC gap visible at all times. It is also important to note what other features of the new public management is not there. Most important of these there are no monetary incentives, no payment for performance at any level of the system.

Such a model can very well be replicated by both the public system and by the private, for all of Healthcare, provided the values that are central to Aravind are embedded in it. And whether it is the public or the private it is not the exhortation for achieving these values, or the lamentation of the lack

of it, that address this issue - but a patient thoughtful sustained effort at embedding these values in the processes of growth, in the institutional design and in the workforce at every level. Theoretically, it would be easier to carry these values into the public system where the providers are, or rather ought to be, ring fenced from monetary gain, as compared to the private sector where monetary gain is the driver. What the public system, inherently will find far difficult to replicate is the level of design and technological innovation that private ownership provides the space for - and which is essential for its success. How can we build an architecture which builds on these strengths of the respective sectors?

7
CHAPTER

ST. STEPHEN'S HOSPITAL
Community Health Centre

Delhi | *T. Sundararaman*

Introduction

The St. Stephen's Institution is a seasoned and evolved faith-based institution with a history dating back to around 131-years. This case study explores the organization of urban primary Healthcare in the form of a community health centre by the institute.

The more well-known part of this organization is St. Stephen's hospital – a leading tertiary care hospital, in the older part of Delhi known as Tis Hazari. At present St. Stephen's hospital is a 595 bedded private hospital serving around 5,000,000 people residing in the walled city of Delhi and much more from Haryana, Uttar Pradesh and Bihar.

One key difference from St. Stephen's Hospital and other private tertiary care hospitals in Delhi - is its philosophy. It's motto 'In Love Serve One Another' is written prominently as you enter its premises .While other private hospitals project best outcomes and patient experience as their goals, St. Stephens Hospital's stated objectives are love and care and comprehensive Healthcare to all sections of the society especially the underprivileged.

To take this objective further, St. Stephen's Hospital established in 1983 a community health centre and this is the main focus of our case study. A more recent one similar to this has been established in Gurugram (Gurgaon). This case study documents the unconventional St. Stephen's urban healthcare model and its effectiveness in inclusion- reaching out to the poorest of the poor for delivery of care. But to fully appreciate the ethos and vision of the St. Stephen's model we re-tell the founding history of the organization.

Beginnings and growth and overview of the St. Stephen's Hospital

St. Stephen hospital's cherished history began with Ms Winters who in 1858, at the age of 16 arrived in India from England to take over the work of her educationist brother who had died in India's first war of independence or the mutiny as it is popularly known. While taking forward her brother's work in education for women and children Ms Winter's got exposed to their plight and the abysmal state of healthcare. She started providing basic preventive

healthcare treatment to women and children during a cholera outbreak. Her pioneering work as a health worker for women has stated to have begun on the banks of the river Yamuna, armed with nothing more than a box of medicines to serve the poor. From then on over time a small dispensary emerged, founded through the 'White Ladies Association' of the city. And then in 1876, a nurse training centre in a rented apartment was started, with donations from Punjab and Delhi governments.

Mrs. Winter died at the age of 39. It was in her memory that a small 50 bed St. Stephen's Hospital, the first hospital for women and children in Delhi was opened at Chandni Chowk in 1885. This hospital was scaled up and reinvested in several locations in Old Delhi before the foundation stone for the current site was laid in 1906. A regular nursing school was started in 1908. The hospital continued its expansion both before and after Independence. The Maternity wing was inaugurated by Mrs Indira Gandhi in 1969. The foundation stone of the new General Hospital was laid by Shri V. V. Giri, President of India in 1972. The MRI centre was inaugurated by Mrs. Shiela Dixit, the Chief Minister of Delhi in 1999 and Dr. A. P. J. Abdul Kalam, President of India, renamed the mother and child block as "Dr. Lucy Oommen Mother and Child Block" in 2005.

The hospital today has 47 departments with approximately 1300 permanent and 600 contractual staff. There are about 280 doctors of which 96 are consultants. There are about 450 nurses. There are social workers who are responsible for vetting discount for the treatment of patients. Also, free clinics for poor patients offered every Wednesday and Friday afternoons at the St. Stephen's Hospital.

The St. Stephen's Community Health Centre (SSCHC) - the case study

The St. Stephens community health centre (SSCHC) came into existence in a progressive phase for India's Healthcare when in the aftermath of the "emergency", the homeless and under privileged of the society were relocated from Old Delhi to Sunder Nagri. To take care of the health needs of the poor, the government invited private hospitals to open primary care units, to which St. Stephen's Hospital in 1981 was one of the few who responded.

The SSCHC has located about 16 km away from the main hospital in a slum and resettlement colony in North East Delhi one of the most disadvantaged and the most congested areas in the national capital.

The Services

The SSCHC caters to 8190 families and a population of 55,821 plus nearly 10000-12000 migrant population as per the annual report of the centre. This is a slight decrease from an earlier catchment of 82,730 in 2010 because one slum- Rajiv Nagar (under Uttar Pradesh) had to be eventually dropped. The current area is all of the Sunder Nagri areas and as the programme maintains good population-based information- on key demographic indicators like crude birth rate and death rates, immunization rates, effective couple protection rate and infant and maternal mortality rate. This data shows that there has been significant progress on all these indicators over the last 10 years. .

This same area also has a government dispensary in F2-block where services like immunization and most of the pregnancy related care provided to the population. The government services became active with the introduction of Accredited Social Health Activists (ASHAs) from 2011 and this obliged SSCHC to cut back on the Reproductive and Child Health (RCH) services it used to provide. The SSCHC, provides a number of services to this population which are listed below:

a). General Outpatient services, speciality clinics and RCH services- at the center

b). Integrated Health unit – this refers to an extensive outreach programme which began with only RCH activity but has now developed a more comprehensive focus.

c). Community Mental Health Programme

d). Special outreach programmes for the Urban Vulnerable

   i. Senior Citizens

   ii. Homeless-rehabilitation including Mobile Clinics,

iii. Children from vulnerable backgrounds- Crèche

iv. Child to Child Education Programme

v. Auto drivers programme,

vi. School health

e). Community Outreach- Inter-Sectorial Areas:

i. Self Help Groups & Federation

ii. Tree plantation and urban horticulture

a) The General Out-Patient Services

The General Out-Patient Services provide comprehensive outpatient care with the necessary pharmacy and diagnostic support. The timings of the out-patient clinic is from 9:00 am to 5:00 pm. The patient gets a computerized registration slip and goes to the doctor. To reduce the waiting time at the OPD, the clinic has divided specific days for services such as:

Monday	General Out Patient (GOPD)
Tuesday	Non-Communicable Diseases (NCD) clinic
Wednesday	Child & Adolescent Friendly Clinics
Thursday	GOPD
Friday	Ante Natal Clinics (ANC)
Alternate Days	DOTs clinic for TB patients
Once in a week	Malnutrition, family planning, NCDs, Eye and mental health
Second tuesday of every month	Gynae clinic

Approximately 35,890 patients were seen in the general clinics (Table 1) in the course of a year- or about 3000 per month or about 100 per day. The most reported morbidities were respiratory illnesses(24.3%), anaemia (9.3%)viral fever (8.4) and non-specific body pain respectively.

All the specialist clinics listed above together catered to an additional 7240 patients in a year or 600 patients a month which are about 140 patients per week. In a year there would be 3296 eye patients, 2235 mental illness patients, 845 NCD patients, 430 child malnutrition, 373 gynecological patients and 166 for DOTS.

In addition there are in the area of reproductive and child health services, and 831 pregnant women registered for Anti-natal care (ANC) or 1873 ANC check-ups completed and 1797 immunizations given to children under 5. The numbers in the family planning (FP) clinic are very small (only 25 per day) but rest are significant.

If we now further factor in the 33386 outpatient's cases seen through what are called specific outreach efforts to reach the vulnerable, (table 2) then the total thus rises to 81449 cases seen by the St. Stephens community health centre, and this is not counting the senior citizens and many other community programmes.

Most of the patients reporting in outpatients clinic are from within the catchment area. However, irrespective of the catchment area, anyone who comes, is not denied care. Except for mental illnesses where they are specifically identified and called from the community.

Access to medicines: One important fact is that most prescriptions for drugs are available in the pharmacy and these are provided free of charge to all patients without any means testing. The pharmacy is managed by three pharmacists- one of whom also serves on the mobile clinic.

Access to diagnostics: The SSCHC houses a room designated for the laboratory investigations where a trained lab technician is responsible for undertaking the tests, indenting the results and also disposing of the used lab consumables/supplies and bio hazardous material following stated guidelines for discarding or disposing of bio-hazardous materials/ supplies of each type. There are around 28 basic blood tests are being performed at the centre ranging from haemoglobin, malaria, cholesterol, uric acid to lipids at a very minimal cost. There is a provision of quality check of the laboratory by the St. Stephen's hospital where the laboratory drains sample is collected once a month for inspection. The computerized lab tests results are neatly enveloped, and given to the doctors for a cross checking and signing, before handing over to the patients.

No user fee: It is to be mentioned that medical services such as consultation, procedures, treatment,

medicines are provided free of cost, there is no user fee charged to the patients.

Immunization: At the centre, currently no immunization programme is undertaken. Since 2015, the government dispensary in F2 block is providing and managing immunisation service at the community level.

Directly Observed Treatment Short Course (DOTS) clinic: The CHC is an authorized DOTS centre with a dedicated DOTS provider. If TB is suspected, the patient is referred to F2 dispensary for two times sputum testing. If found positive, the report with a red mark is provided. Once patient brings this report, DOTS provider finds out through MIS whether the patient belongs to Sunder Nagari area or not. Once confirmed, they start patient on Directly Observed Treatment Short Course category marked by doctors. During Intensive Phase of treatment, the patient has to come every alternate day for his/her treatment/medicine in front of the DOTS provider, thereafter for the Continuation Phase, weeks supply of anti-TB drugs have been supplied to the patient by Guru Teg Bahadur Chest Clinic.

b) Integrated Health Unit

This is central to the work of the SSCHC. It consists of a population-based organization of care. The main providers are the 6 Auxiliary Nurse Midwives (ANMs) and one Lady Health Visitor (LHV). The ANMs daily visit the community from 9:15 am to 12:30 pm for making home visits to at least 20 houses. Each household has a folder where all the details of the family are recorded. The ANMs in the afternoons enter the collected data in the Computerized management information system (MIS). Thus, digitalized the demographic, gender and socio-economic profile of Sunder Nagri.

Earlier the household visit focused on the pregnancy, immunization, and family planning i.e RCH. Now this has been changing as the government gradually taking over these functions since years 2011- 2015. The ANM's, however, do inquire during their home visits about pregnancy and whether they have received the check up and (ANC) care as due, as well as about the immunization status. If there are gaps found, then ANM's facilitates in accessing to the available government services.

During the home visits, the ANMs also inquire about any sickness, measures the Blood Pressure (BP) of family members over 35 years of age, and records all the information. Those found with symptoms of diabetes or other chronic illness mental illnesses are encouraged to visit the nearest NCD or psychiatric clinics.

The household visit is also looking after and useful for enrolling the children and elderly into specific programmes or in other appropriate clinics run by the centre.

Where there is a poor person requiring immediate medical and/or social care- a referral is made for either of the three hospitals - Guru Teg Bahadur Hospital, General Hospital, and St. Stephen's Hospital– and if referred to St. Stephen's Hospital this makes person eligible for free or discounted treatment at the hospital. To make sure the concession is being provided to the the real poor and destitutes, the existing MIS used to evaluate the patient's family economic status and accordingly the concession marked on their referral form.

The centre was part of a multi-centric study on Non-Communicable Diseases (NCDs). It was conducted in the area by Indian Council for Medical Research (ICMR) and All India Institute of Medical Sciences (AIIMS) from 2009 - 2011. It had shown great numbers of people having Non-Communicable Diseases such as Hypertension and Diabetes. The centre since 2015 has started the NCD coverage and currently, the data is being entered in the new MIS for NCDs. As the NCD outcomes, out of total 16,481 patient age 35 years and above (8845-Males and 7636-Females), 1985 were found as NCD patients (546 males and 1439-Females).

The centre also organizes a few community outreach programmes for reproductive health such as 'Subhkamna' and 'Milan'. Under Subhkamna newlywed couples are visited at home with a gift hamper which contains IEC material, condoms, and few edibles. There is significant progress found in the Subhkamna programme since 2005 till now. In

2005, the newly married couple contacted by the programme is 42, which increases to 141 in 2015. Under Milan programme, they are invited for a three-hour workshop.

c) Community Mental Health Programme

The centre has started its gradual shift to focus from RCH to NCDs and mental health conditions. The community health centre received a grant from The Hans Foundation to start Community Mental Health Programme in the year 2014. The centre has designated with a senior General Duty Medical Officer and 6 community mental health workers for this work. The statistics of a one-year-old Community Mental Health Programme noted 1893 cases (new=722, old=1171).

This programme has two components. One the outreach component where the community mental health workers (CMHWs) make home visits to those suspected of mental illness, and for support to the patients and their families which have such a patient in their midst. They refer the patients to Psychiatry clinics at the centre. The second is the mental health clinic at the centre, which is organized for two days every week by a psychiatrist from base hospital. This is the site for diagnosis, follow-up for complications and access to consultations. The drugs are given for fifteen days- but the insistence is for patients to come and collect the drugs. This is a pioneering effort in the direction of Community Mental Health.

d) Special Community outreach programmes for vulnerable sections

What makes St. Stephen's more community driven is its focus on social inclusion and for providing care to the poorest of the poor with different programmes running for different age groups in the Sunder Nagri slum. The table below gives an overview of the projects and programmes undertaken. These have been discussed in detail below.

i). **Prem Chaaya programme; Reaching the elderly:** The Prem Chaya programme is run by the centre since 2007 to provide geriatric care and support. The elderly of the community in Sunder Nagri are welcomed at the centre which is few houses away from the clinic. These elderly people come in the mornings and go back to their houses in the evenings. They are provided lunch and medical care at the SSCHC free of charge. A registration system and a regular attendance register are maintained. Since the elderly move in and out of the centre several times in a day they either have to sign or put thumb impressions in the movement register. There are also some simple and appropriate recreation's available like television, newspapers, reading material- and there are places to lounge or chat with each other. This Recreation centre gets a grant of ₹ 20000/- per month from Department of Social Welfare, Govt. of NCT Delhi and ₹ 15000/- per month from the St. Stephen's Hospital Patient Welfare Society. This is an affordable approach towards geriatric care.

ii). **Reaching the Homeless:** One of the most vulnerable and marginalized communities in urban Delhi are the homeless. The Community health doctors worked closely with the government as a form of bhagidaari for rehabilitation of homeless from August 2009 to June 2016. There were four NGOs running five Homeless Resource Centres (HRCs). The SSCHC was the Mother NGO for organizing and managing the whole programme for the Homeless Citizens under Mission Convergence (Samajik Suvidha Sangam) in Delhi

During the winters, woolen blankets which were then distributed to the homeless. In the year 2015 -16 there were approximately 10,173 homeless who received ambulatory care from the team. There used to be also a 24x7 homeless rescue programme that registered 2272 persons in that year.

There is also a number of mobile clinics which are used to reach this population. Last year, there were 467 such mobile clinic visits to sites- averaging about 30 to 50 per month. The mobile clinics are supported at least in part by Indraprastha Gas Limited (IGL).

iii). **Crèche: Reaching the vulnerable toddlers:** The CHC runs an in-house crèche where kids in the age group of 2 - 6 years comes every day. There are around 45 poorest of poor children

in the crèche who comes everyday. There are selection criteria maintained by the crèche for accepting these children. The selection criteria are to ensure that the children from extremely disadvantaged backgrounds either due to poverty, or lack of parental support are prioritized. The selection of children relies on the recommendation of ANMs who go on regular field visits. The SSCHC charges a very subsidized fee of ₹ 5 per month from the family of such child or children.

The children come in the morning at 8:30 am and stay till 4:00 pm in the evening. They start the day with regular physical exercises. Three highly motivated women Creche Teachers, working here for the last 15-20 years, teach the children by the play-way method and orient them about the importance of personal hygiene. There is an earmarked kitchen attached to the creche. The children are served something to eat 4 times a day which includes proper lunch too. A menu chart is put up for maintaining a balanced diet. The children are also provided with a well-stocked play room with soft toys.

The children are also provided timely medical check-ups. The children registration details and their health report is electronically well documented.

iv) **Child to Child Education Programme:** The Child to Child Education Programme (CCEd) is a programme of educational support to children from the poor community who are often first generation learners, going to local schools of variable quality. This programme enrolls school going children from the community, to support their extra studies and assignments. The extra classes are available for standard 2 to standard 10. Each batch has a student's strength of 10-15. The boys come in the mornings from 8:00 to 9:30 and also from 9:30 to 11:00 am. As a part Child Volunteering, senior students teaches the lower standard students. Each motivated volunteer student who are selected for teaching, based on merit and performance, charge ₹ 15 per month. They also get paid ₹ 130 by the Hospital. There is one Youth Volunteers for every 5-6 Child Volunteers. They look after CCEd. programme including its administration. They are paid an honorarium of ₹ 600 per month. This model not only seems to address of education among underprivileged efficiently and effective but also employment generation for the students which further assist them to sustain their studies and builds a sense of confidence and responsibility towards the younger in the community.

There is a monthly quality check for the CCEd programme, done by the Development Assistant In-charge and the Social Worker.

v). **The Auto driver's (Swasth Saarthi) health check-up camps.** The community health doctors of St. Stephens hospital are running a health check up for auto drivers. This programme is supported by Indraprastha Gas Ltd. (IGL) as part of their Corporate Social Responsibility (CSR). The health checkups camps are conducted for auto and commercial vehicle drivers at CNG stations in Delhi-NCR for the past two years under 'Swasth Saarthi Programme'. A total of 240 (150- General camp and 90- NCD's camp) camps covering 7413 auto-drivers were organized in 2015-16 across Delhi, Noida, and Ghaziabad.

vi). **School Health programme:** The community health doctors have collaborated with St. Thomas School, Delhi and with St. Crispin School, Gurgaon for providing regular medical check-ups of their school students. This programme runs on a revenue generation model.

e) Community Outreach- Inter-sectorial programmes

For empowering the women in the local community of Sunder Nagri, the centre runs innovative programmes with the aim of providing financial support and opportunities for self-development and collective organization in the form of self-help groups. There are 51 such groups with around 10-12 women in each group.

While much of their work is in micro-credit, one of them has registered themselves as 'Mahila Sah

Shakti Cooperative Limited'. One such effort is the masala (Income Generation) unit which procures raw material from wholesale spice market in Delhi and is used to make various packaged masala's that can be sold locally or at a dedicated counter set up at the St. Stephen's hospital. The programme was started in 1996 at a time when these ladies maintained social seclusion and had no real exposure to the world outside the Sunder Nagri slum. Over time the masala unit picked up momentum when an Indian fast food chain Nirula's becoming a regular client. At this point, the general management of the business was mostly handled by the community women. Over time the masala unit slowly reduced its function and now runs a counter in the St. Stephen's hospital selling mostly to the users of the hospital. These women also run a kitchen in the centre supplying food and spices to the staff and to the community, based on their demand. The problem of economies of scale and contending with the market forces eventually weakens such programmes.

The SSCHC also runs a nursery which donates free saplings for plantation in Sunder Nagri slum to improve the local environment. This programme was started from donations by HUMANA. The nursery is located in the terrace area of the centre close to where the CCEd. classes are held. This programme aims to have a positive effect not only in respect to environmental health but also the mental health in the community. It generates a sense of urban horticulture and a connect with nature.

Human Resources for Community Health

A large number of activities undertaken requires a corresponding HR policy

Doctors: The SSCHC has a total of 11 doctors- 4 of whom are the specialist- consultants, one senior resident, three general duty medical officers and 3 DNB students. During health outbreaks such as Dengue to manage case loads, there is the flexibility of taking staff to the main hospital. All medical personnel are recruited as staff in the community health department through the usual regular advertisement and interview process. Most of the doctors have been working for a period of 5 to 15 years. The DNB students are registered with the National Board of Examination for a Diploma in Community Medicine- through their selection process. There is one student taken on per year. For teaching and training of the DNB students, there is Prof. Emeritus Dr. S.K Kapoor who was before retirement the HOD of Preventive Social Medicine at AIIMS.

Lady Health Visitor & Auxiliary Nurse Midwives: The outreach programmes have their own contractual staff. Heading the integrated health unit is a Lady health visitor (LHV) and there are 6 Auxiliary Nurse Midwifery (ANM) working with her. There are also 6 part-time community mental health workers (CMHW). The ANM's at the St. Stephen's community health centre at an average have been working from 7 -25 years at Sunder Nagri. They also have regular classes and meetings more or less on a monthly basis.

Development Assistants: There are six development assistants and they look after some of the specialised outreach functions- the Child to Child Education Program, the Self Help Groups & Federation, the Social & Health Communication, the DOTS program and a Physical Instructor in Judo Karate – who works with adolescents and in the Child to Child Education programme.

Crèche Teachers: There are 3 crèche teachers.

Lab Technician: The lab technician belongs to the Sunder Nagri area and was earlier part of Child to Child Education Programme. He was provided two years training at St. Stephen's Hospital and joined in as the Lab technician with Community Health Department.

Technical support staff: Other technical support staff include a computer programmer, a social worker,

Other support staff: 2 cooks, 2 fourth class employees, two helpers and 4 security staff.

The nurse-trainees from the St. Stephens College of Nursing are posted in Sunder Nagri centre as part of their training programme. During these postings, the nurse-trainee is required to make community visits and participate in Health Education of people.

Pharmacists: The centre houses an in-house pharmacy with 2 pharmacists who are responsible for stocking the pharmacy. The pharmacists are well trained and provide proper instructions to the patients while handing then their medicines. The pharmacy stocks medicine based on seasonal variations and usual trends in a prescription on medicines. The medicines are provided by the St. Stephen's hospital with the stock sent in every month. These are indented and through a simple communication channel between the pharmacy and the hospital, the medicines are provided. Though the pharmacy contains no cold storage, as the medicines usually dispensed do not require to be cold stored. Patients are not charged user fees for the medicines.

Access to Technology- and continuity of care

Diagnostics: A similar approach is for diagnostics – where 28 blood tests are available at a subsidized cost. There is no X-ray and ECG and those requiring these are referred. The St. Stephen's community health centre at Sunder Nagri provides purely outpatient care but it is supported by a very well established an effective referral system.

The Referral System: The SSCHC location has a geographical advantage in respects to proximity with tertiary hospitals. The massive Rajiv Gandhi Super Speciality Hospital lies one-kilo meter away from the centre. The centre also regularly refers patients to Guru Tegh Bahadur hospital, General Hospital and St. Stephen's Hospital for secondary and tertiary care. The referral system with proper respect and treatment provided to the patients by base hospital doctors, to whom the cases are referred is one of the strengths of the system. Three doctors are authorized to refer extremely disadvantaged patients to St. Stephens hospital for discounted or completely free secondary or tertiary care.

Computerized Management Information System (MIS)

The community health centre in Sunder Nagri has Information and communication technology (ICT) support in place. Registration is computerised, so is workforce, inventory and budgetary management. There is a dedicated computer room where much of this work takes place.

The medical records unit uses a health watch 1.0 software where the family records of the integrated health unit are stored. The family record contain member details and their basic health profile i.e. if they are suffering from any malnutrition, infections or NCD disease. The administrative office has a well-organized and marked households mapping of the community.

Computerized MIS is maintained for laboratory as well as registered cases. These records are not interconnected and most of the diagnosis and prescription records of out patient visits to the centre, are kept on patient-specific health cards, which the patients also use when they are referred to higher centers.

Governance and Management: The St. Stephen's community health centre is headed by Dr. Joyce Felicia Vaghela who is also the Deputy Director (Material Management) at St. Stephen's Hospital, Tis Hazari. Supporting her is Dr. Amod Kumar, a MD in community medicine who has led the development of this model over the years- and a well-acknowledged leader in this field. There are two other specialists at this leadership level. Between them, they provide leadership to all the work in the centre and also guide the outreach activities.

The outreach units are under the development assistants described earlier- and the entire elaborate outreach programme is organized into units. They are supervised by various committees of the department.

In terms of governance, the community health centre is part of the community health department of St Stephen's Hospital. There is a governing board that appoints the director and to which he reports.

Financing : The St. Stephens Community Health Centre is largely financed by the St. Stephens Hospital- a cross-subsidy based on the revenue it earns from its private patients. The HR salary is part of the Hospital's pay roll. Including HR, the financing

from St. Stephens hospital is in the range of ₹ two crores per year. In addition, there are number of projects done under the CSR provision, which generates fund of about ₹ 95.95 lakhs per year. Much of the contractual HR in the projects is paid from the project-funding. . Thus expenditure works out to be only about ₹ 493/- per person per annum.

Learnings from the Case Study

This case study explores the organization of urban primary Healthcare in the form of a community health centre by St. Stephen Hospital. When asked to summarize their main features and take home messages for others- this is how they express it:

"One key difference between St. Stephen's Hospital and other private tertiary care hospitals in Delhi is - its philosophy. While other private hospitals project best outcomes and patient experience as their goals, St. Stephens Hospital's stated objectives are love and comprehensive Healthcare to all sections of the society especially the underprivileged ones. Today it stands true to the vision of it's missionary founder - Ms Priscilla Winters and to the WHO definition of health. A notable expression of this spirit is that much of the expenditure on this primary level care is a cross-subsidy based on the revenue it earns from its private patients.

It is important to note that medical services such as consultation, procedures, treatment, medicines are provided free of cost, there is no user fee charged to the patients. The centre is able to provide Healthcare at a minimum cost of ₹ 493/- per person per annum, for a population of sixty thousand.

One of its main experiences that should be replicated is its example of running special community outreach programmes for vulnerable sections of the society. It provides a number of health and social welfare services to this slum population. This includes a Community Mental Health Programme, Non communicable Disease programme and Swasth Saarthi Project (under Indraprastha Gas Limited CSR). It also includes a very cost effective child to child education programme which reaches 300 to 400 students, managed efficiently with only two to three staff.

The regular highly motivated workforce is working here for 7 to 25 years- but is supplemented by Child Volunteers, Youth Volunteers and students who are mobilized for this purpose.

Collaboration with government is excellent by its synergy and referral linkages with an urban government run Dispensary which is the main government facility for the primary health needs of Sunder Nagari. The Directly Observed Treatment Short Course (DOTS) clinic is run under the government's Guru Teg Bahadur Chest Clinic and the Recreation centre for senior citizens is supported by a grant from Department of Social Welfare, Delhi."

To the research team looking at cross cutting issues across case studies there were many further learnings which we summarize in the final chapter. What attracted inclusion in this case study for the research team is that this one of the few projects that has integrated care for the most vulnerable sections- both homeless and geriatrics into its urban Healthcare model. Also that it has population based data- and records on all its enrolled families. Further that despite being open to user fees as a concept they have found it necessary to keep primary Healthcare free of charges- even for essential medications and diagnostics. The model is sustainable only because it is externally financed- but these are very affordable rates for government financing as well.

Authors Note: This case study comes along with 10 detailed tables which can be had on request. We hope to make them accessible as web-appendices.

TABLE 1 : Community Health Department: Sunder Nagri

From 1st April' 2015 to March'16															
Month	Gen. Clinic	ANC (New)	ANC (Old)	Immunit. (years)		Referal	Specialist Clinics								
				0-2	1-5										
							Eye	Gyne	FP	Malnutri-tion		NCD Diabetic + Hypert-ension	TB	Mental Health Clinic	Specialist clinic Grand total
										05	5-15				
April'15	3307	87	89	174	11	95	381	17	2		19	98	11	262	790
May'16	2854	119	129	139	66	73	245	21	3		19	78	19	236	621
June'15	2884	84	96	156	92	123	271	18	3		13	77	17	240	639
July'15	2719	108	158	221	10	118	266	19	8		32	87	16	262	685
Aug'15	3866	94	80	109	38	120	253	21	1		21	65	11	288	660
Sept'15	4361	67	114	182	43	160	286	24	1		21	121	12	802	767
Oct'15	3428	54	104	114	26	102	255	11	4		8	88	14	187	567
Nov'15	2686	50	76	83	24	81	224	17	4		18	116	11	79	469
Dec'15	2550	26	51	113	37	71	288	148	2		25	115	5	89	672
Jan'16	2395	65	63	0	14	40	235	23	1	37	30	60	12	117	515
Feb'16	2600	43	51	0	0	65	286	31	1	62	33	112	20	92	637
Mar'16	2240	34	31	0	0	71	306	23	0	50	41	123	18	101	662
Grand Total	**85,890**	**831**	**1042**	**1,241**	**556**	**1114**	**8296**	**873**	**25**	**149**	**280**	**845**	**166**	**2255**	**7240**

Table 2 : Community Health Department Outreach Clinics for the Vulnerable

From 1st April' 2015 to 31st March'16									
Month	**No. of Paid Mobile Clinics**	**Health Checkups for Homeless under homeless Resource Centres (HRCs)**	**St. Crispin Co-Ed School**	**School Health (St. Thomas Girls School)**	**Auto Drives Health Checkup - Indraprastha Gas Limited (IGL)**	**Smile on Wheels (SOW) Clinics After-noon's**	**Homeless Rescue (Mngo)**	**Lab Tests**	**Grand Total**
April'15	43	1156		632	781	167	167	391	3294
May'15	51	1141		41	798	301	165	327	2773
June'15	52	1102		Nil	487	332	171	355	2447
July'15	52	1115		555	495	250	206	344	2965
Aug'15	44	926		123	396	333	227	483	2488
Sep'15	30	990		359	696	266	257	1434	4002
Oct'15	51	875		256	903	264	337	810	3445
Nov'15	28	820	1170	48	902	265	149	366	3720
Dec'15	29	742		207	738	297	207	219	2203
Jan'16	29	422		174	Nil	465	270	252	1583
Feb'16	29	394		466	304	503	215	349	2231
Mar'16	29	490		211	696	416	108	314	2235
Grand Total	467	10173	1170	3072	7196	3859	2272	5644	33385

8
CHAPTER

HOSPITAL AND ASSOCIATED PRIMARY CARE SERVICES AT KUNKURI, JASHPUR DISTRICT, CHHATTISGARH

By Faith Based Healthcare Providers

Jashpur (Chhattisgarh) | *John Verghese*

Introduction- the context

Kunkuri, a small town in the north-eastern Jashpur district of Chhattisgarh state, is a difficult place to reach. One can either get there by a four-hour bus journey along a 150 km long district road from the nearest railway station of Jharsaguda in Orissa, or one can drive down by car or overnight bus from Raigarh (300 km) or the state capital of Raipur (450 km) or the other nearby railway head of Ambikapur which gets one train a day- and is 150 km away. The nearest airport would be Ranchi or Raipur both very far away indeed.

Jashpur is one of the most remote districts in India, and one of its least developed. Its under-5 mortality rate is above 100 per 1000. Though a completely tribal district bordering Jharkhand's Gumla (former Ranchi) district, it is relatively free of the tribal conflicts that characterize the southern districts of Chhattisgarh. This along with Ambikapur and Koriya were part of the princely states integrated into India during Independence- but their former princely families continue to hold influence. Jashpur is the district where Hindutva 's work amongst tribals through the Vanvasi Kalyan Kendra's is headquarters and at one time it was one time also known for its Ghar Vapasi drives. But this is also an area where the church had over the last 100 years has been active – in its missionary work as well as interventions in health and education.

The Healthcare initiative in this area is unique and pre-dates the formation of Chhattisgarh state. Indeed before the formation of Chhattisgarh, this district then a part of Raipur district was even more remote- almost 24 hours from the then state capital. It was here in a town called Kunkuri that a 150 bedded hospital came up, and just about 60 km away headquartered in another town called Pathalgaon that the RaigarhAmbikapur Health association launched alarge innovative primary Healthcare programme built around the notion of community based medical insurance. For fame the hospital of kunkuri is overshadowed by the church of Kunkuri, a huge sprawling architecturally innovative structure that is proclaimed as Asia's largest – at least locally.

The Holy Cross Hospital Kunkurithat is a 150 bedded primary care facility catering to the needs of the population in Jashpur and the surrounding areas in the state of Chhattisgarh and to a multitude of people in the border Chhattisgarh shares with Orissa, Jharkhand and Madhya Pradesh. This is the

only private hospital in the district, except one or two very small nursing homes owned by individuals.

As part of the united Madhya Pradesh state, Jashpur was a remote corner of the Raigarh District and facilities were almost non existent. The creation of Chhattisgarh and the subsequent strengthening of public health system led to a number of functional CHCs and primary health centers and sub-centers- and the strengthening of the district hospital. Broadly one can state that the district hospital functions at the level of functionality expected ideally from a CHCs, and CHCs in turn are about as functional as PHCs should be – but still on the whole- there is a major change in access to services in the last ten years.

The origins of the Kunkuri Mission Hospital

The hospital was established in 1958 in the then undivided state of Madhya Pradesh. The then bishop of Raigarh-Ambikapur diocese of the Roman Catholic Church, Most Rev. Bishop Stanislaus Tigga, requested the sisters of the Mercy of the Holy Cross, in Hazaribag, to come and start educational and healthcare facilities in Jashpur. Two other similar hospitals in the same region are the Ambikapur Holy Cross hospital and the Raigarh Mission Hospital which are about 150 km away. Ambikapur is the most advanced of these three with considerable ongoing tertiary care work, whereas Kunkuri is the most primary care focused.

Like most other long standing non-government health missions the founding legends are told and re-told and helps renew and relate to the sense of values that drove the initial effort. Kunkuri mission's origins are built around missionary sisters from Switzerland and Germany[1]. As told to us by Sr Helen a 89 year old veteran, who came to work in Kunkuri along with the original team, a year after the first sisters arrived- " The first sisters to come were Sr. Geroldina Kroiher as local superior and Sr. Hortensia accompanied by Rev. Mother Waldemar, the then mission superior. They had reached up to Gholeng through the dusty roads by motor vehicle. On 10th February, 1958, they reached Kunkuri, after walking fifty miles from Gholeng. A dispensary was started in Kunkuri for the immediate needs of the people. By the next year Sr. Dr. Hermenigild, a German sister-doctor joined in from Hazaribag, carrying with her basic equipment for a functional clinic. This was the year, I joined also. People here were suffering from a high prevalence of Malaria, Cholera, Typhoid, Tuberculosis and Tetanus. Many patients were animal inflicted injuries snakes, bears, elephants mainly. People believed more in witchcraft and evil spell, more than sickness and medicine. This area was a forest then. People had no hope of surviving if they fell sick. We were so moved by their situation. We did not get time even to rest. Patients were brought from far off places also. Those who could not walk were carried on 'katia' (coat like structure made of bamboo or branches of trees with linen spread on them) and they used to stay in the premises under the trees. There was a big tree here which gave shelter for many. We tried all possible methods to save them; and succeeded in most of the cases with the grace of God. They use to lie down and sleep even on our verandah. Sr. Dr. Hermenigild, with an open surgery book at her side as her only guide and withether anesthesia, did many surgeries to save patients."

Even today after so many years, many people- not only in the hospital but also in the community recount the stories of the past, and how their parents and grandparents were cared for. There were some very rudimentary government facilities in the area- but not having enough facilities to serve the needs of the population.

Their journeys are also captured in chronicles written by those foreign missionary sisters in English in legible handwritten texts. One extract from such a chronicle probably dated to 10th February 1958 reads : "We have not been really scared and discouraged. With the firm hope and trust in God's providence, with Jesus in our hearts, Our Lady and the Guardian angel at our side, why should we be afraid?.... From the people sure we have nothing to fear. They are good to us and they love us. …..As we had no other place to treat the women-patients we partitioned off our little chapel from the dressing room with a curtain….. Our sick room is long occupied by

1 Holy Cross sisters started their Indian unit first in 1894 at Bettiah, in North Bihar. Their service was very much appreciated from then onwards.

patients who cannot be sent home and so the verandah. Now we did start putting them under the nearby trees, fenced it with bamboo-mats and with a burning lantern hanging at the entrance at night to ward off the wild animals. The big shady tree gives a good protection from the sun and at night it is very cool and patients liked it although they were lying on the ground on mats. We have only four cots for the fractures and the most seriously ill. No rain is expected at this time of the year".

Two cases recorded in this text give a vivid image of those early times…: "Phulmani, an 8 year old girl with 3rd degree burns over the whole body has been brought to us fortnight after the accident. Our sterile dressing was soon used up, even our old used cloths. So her mother every day went to the river to wash the cloth and sterilized it all the day in the hot sun". The second case is: "One serious case of Tetanus has been brought, the father of a family. We had him isolated in the building, but no tetanus Antitoxin was available. We prayed with the family and treated him with Glucose and Magnesium Sulphate injection and supported the heart. He was a strong man and to the joy of all, recovered".

Not surprisingly the number of patients increased daily- and the Holy Cross Hospital Kunkuri emerges, with buildings and facilities and other capital investment added through foreign contributions- largely from Holy Cross sisters of Switzerland. With a vision of long term sustainability, and local development, the sisters started a school of nursing offering GNM in 1970. In the year 1987, this school was shifted to the larger holy cross hospital of Ambikapur, but in 1992, ANM courses re-started started inKunkuri and during the NRHM driven expansion of nursing in 2009, under the guidance of the Holy Cross headquarters to stay in favour of the poorer girls, GNM was restarted in Kunkuri. In 2016 as result of a change in state policy the ANM schools were stopped again. (The state government had, by this time, sanctioned many ANM training centres across the state and felt that the requirement of ANMs in the public sector were filled up.)

Closelyrelated,geographicallyandprogrammatically is the "Raigarhand Ambikapur Health Association (RAHA)" set up in 1969, and expanded from 1974 onwards under the leadership of a Belgian Jesuit Father Charles Van Besouw as aprimary Healthcare movement. From 2000 onwards it is Sr Elizabeth and then Sr Georgina who have led the association. The two districts where RAHA started Ambikapur and Raigarh are now divided into 6 districts- Raigarh, Jashpur, Ambikapur, Korea, Surajpurand Balrampur. RAHA has 93 rural health centers- each with its own infra-structure and each managed by a staff nurse and an ANM. These are linked to the three Referral Mission Hospitals of the region-Ambikapur, Kunkuri and Raigarh.

The Services and its organization

Currently the hospital sees a considerable number of patients- and this continues to increase- even more rapidly of late. The table below gives the picture over the last 15 years.

	2001	2006	2015
OPD	21071	25104	51755
IP	5080	7315	15525
Lab tests	69995	72133	205,668
X-rays	3368	3166	9375
USG	533	2785	10756
Minor Surgery	652	682	1512
Major surgery	158	550	1655
IP death	177		357
MP +ve		2948	995

In terms of deliveries in the year 2015, the hospital managed 1654 normal deliveries, 41 required forceps assistance and as many as 1124 went for C-section !!.

Sr. Laisa explains "We encourage normal deliveries. We used to have more normal deliveries than LSCS. But this is a referral centre not only for sub centers, PHCs and CHCs but even the District Hospital. We have to be equipped to handle at any time, complications, often referred late, thus increasing the number of Cesarean cases. Previously we had about one-third of the cases going into Cesarean and now it has come down to one-fourth". In her perception 250 to 300 deliveries happen in Holy Cross Kunkuri in a month. Among them 70 to 80 may turn out to be cesarean. The figures however show that it is almost close to 40% !! However we also need to know that even the district hospital may

not be providing C-section and the nearest center is either Ambikapur Raigarh or Jharsaguda - 150.km in each direction !!

The hospital had with help from "Sight Savers India" established an ophthalmic center and started up on surgeries- and considerable range of eye care. However after 2013, when the specialist left, this could not be sustained- and the infrastructure and equipment lies in waiting. There is an ICU, which is fully functional managed by the medical team between themselves. The pediatric ward is also functional and is managed by the resident pediatrician- a specialist who hails from that locality and who has been ready to settle and work in this hospital. The Neonatal intensive care unit is overcrowded, often with two to three babies on a bed. It has 15 warmers, 4 Phototherapy units and accommodates as much as 30 babies at a time– though officially it is a 15 bed unit. From 1st April, it will be 20.

One important fact to note is that whatever the specialty background they hail from, the specialists share the general medical work- both outpatient and inpatient between them.

Anemia is a major problems that is attended to. So are sickle cell anemia and thalassemia and many genetic disorders that are high in these highly consanguineous social society- and these two have little alternative sources of treatment. Approximately 4 cases of sickle cell anemia are identified daily. Even Kala-Azar is found occasionally. Other common medical problems managed are hypertension, heart disease, diabetes, and stroke too.

Surgical emergencies too are common. Frequent in this category are cellulitis and gangrene foot. People still resort village quacks for treatment – even for fractures, strokes and snake bites and often reach the hospital in late stage and when complications supervene. Road traffic accidents are very frequent, almost everyday accident cases are rushed to the hospital. During festival, plantation and harvesting time the whole village may work together and the owner gives drink and food for their work in lieu of wages. This year, at harvesting time, HCHK attended to 22 RTAs in a single night.

The laboratory reports show that 13923 patients were tested for Malaria and among them 995 were found positive. In 2016 about 120 cases are found positive for malaria on average every month. Holy Cross is also a designated microscopic centre for RNTCP-DOTS. At present 110 patients are taking medicines for TB from the Holy Cross community health centre and its subsidiaries.

For biopsies, Thyroid function tests and Torch tests, samples are sent by courier to Raigarh and the results come by email. This is done as per the written agreement with Diagnostic labs in Raigarh. All suspected cases of cancer are sent to higher centres in Raipur or Ranchi for further consultation.

Blood transfusion is conducted with all the required screening and tests done. The blood bank is supervised by the recently joined Pathologist in the district hospital, who is the only Pathologist in the district. The number of sickle patients who require transfusion and the lack of any other support in case of life threatening emergency is a pressing reason for ensuring that this service is not discontinued. One option that most hospitals practice in such contexts is the use of UDBT as a life saving measure. The district authorities understand the situation and hence the supervisory arrangement- but a more permanent solution would be to legitimize the use of UDBT as is done for the army. The management has prepared the plan and design for building a diagnostic block which would include a regular blood bank and the project is expecting sanction shortly.

Sanjeevani Ambulance Service of the state government provides ambulance services for the patients. Although it is not encouraged for taking patients to private hospitals, the district authorities have considered the service of Holy Cross as a referral centre- and a supplement to the public system.

Primary Care Linkages

One of the strengths of the Kunkuri hospital is its very robust primary care linkages. Immediately across the road is the hospital's community health centre which serves 34 villages in the neighborhood. The focus of the CHC is Immunization, TB treatment under RNTCP, treatment for minor illnesses. It also carries out the following activities- home visits, health education, preparation of herbal medicines and School health programmes, and central to all of this is membership mobilization of

RAHA[2] (Raigarh-Ambikapur Health Association: detailed below). This center is also the main vehicle of collaboration with government's National Health programmes.

In the year past 8 months Holy Cross Community Health Centre (HCCHC) gave treatment to a total of 975 patients, including 729 RAHA members. There is a membership of 2273 individuals including 1565 students in the RAHA MIS (Medical Insurance Scheme) who are linked to this center. In these 8 months a total of 2216 immunizations were given and 108 patients with Tuberculosis are under treatment in the DOTS regime, largely with the support of anganwadis in the area. The house visits are done with multiple tasks of giving health education, follow up of hospital-discharged patients and health needs assessment. Herbal medicines for scabies, asthma, diarrhea, cough & cold, anemia, piles and jaundice are promoted. Deworming and iron tablets are given to school-children. First aid box is prepared and given to student hostels and training is given from time to time. Advice are given to people on prevention of malnutrition and promotion of kitchen garden. Women empowerment programmes, self-Help-Groups and food for work programmes are also being promoted through community centre.

Inter-linkages with Government Facilities

One important development in the last ten years is the strengthening of the government Healthcare facilities. There is now a Community Health Centre (CHC) of the state government within a kilometer distance from Holy Cross. A visit to the facility gave a better understanding of the situation. Kunkuri has a Community Health Centre which offers services round the clock including deliveries. It caters for 101,291 people living in 94 villages in an area of about 20 square kilometers. The services are offered under various schemes of the government such as JSS, RSBY, Janani Shishu Suraksha Yojana, Immunization, Tuberculosis Control, Leprosy Control, Programme for Care of New Borns, AIDS control programme, School health programme, Mathru Suraksha Programme and, Malaria Control Programme. It has three allopathic medical officers, one dentist and one Ayush (Homeopathic) medical officer. 10 staff nurses (GNM) are working here. There are also 3 lab-technicians and a pharmacist. The male and female wards have 14 beds each; but only four each were occupied. Administrative office, NRHM office and Solar system office are on the first floor along with the wards. Vaccines are well kept in refrigerators. A big store and two staff do dedicated work to maintain the stock of medicines and supplies. Anti-rabies, anti-venom, Iron & Folic acid tablets and (photo) most of the essential medicines are being distributed from here.

The Government CHC OPD has about 200 to 250 patients a day. The govt CHC laboratory is functional, and there are user fees comparable to what exists in Holy Cross hospital. The patients have to pay for services from lab and dental units also. Three to four Malaria positive cases are detected daily. The monthly immunizations are about 150, including out-born children. TB is detected among ten patients a month. Comparing, one many national health programmes, there is a similar case-load though significantly less than the Holy Cross Hospital. This could be very well due to the fact that the range of services available is far more limited.

About 50 to 60 deliveries are conducted monthly. Although an operation theatre is available, no surgeon or anesthetist is available. All surgical cases and MLCs are referred to Holy Cross

There is on the ground considerable collaboration between the two facilities. Anti-venom is given free of cost by the government to Holy Cross hospital also from this centre. The X-ray unit is functional, but was being shifted to ground floor.

There are five sub-centres in the service area of this CHC.

Peripheral Facilities-supervised and reporting to the Community Health Center which is linked to the Kunkuri Holy Cross Hospital

The Community Health Center supports a number of rural health centers, which are now known and

2 RAHA is the abbreviation for Raigarh-Ambikapur Health Association which is offering Healthcare services to its members by a risk pooling mechanism through a subscription, at present, of ₹ 30 per head per year. The services are offered through a network of health centres in the coverage area.

functioning as community centers. At Ginnabahar, a village about 5 kilometers from Kunkuri, such a community centre works with a single nun nurse as its only manpower. She gives first-aid to about six patients daily, including students of the high school very near to the clinic.

Another community centre at Pathalgaon, operates at a level of good primary health centre. Doctors' rooms, three wards with 4 beds each, facility for lab and pharmacy were all available there. Previously even deliveries were conducted there by trained nurses. But with the implementation of Clinical Establishment Act and the insistence that there should be a registered doctor in every health facility this had to be stopped. Now designated or packages as a mere first-aid centers, it is still being visited by a multitude of people.

There are in all 31 Rural Health Centers or community centers as they are now called, affiliated to the CHC under the Holy Cross Hospital, Kunkuri. Each of these health centers run by the Sister Nurses has an average of 18- 20 villages. From among those villages, each Health center is supposed to focus on 5 villages for intense work like health teaching, RAHA care, Herbal garden, School health program etc. Each village has a village health worker monitored by village health Supervisors. 8 Supervisors are appointed by RAHA for the supervision of all these work of the 31 health centres.

The doctor (Sr. Dr. Laisa) supervises the functioning of the centers, arranges for input sessions during the quarterly meeting for the in-charges of these centers. The sisters/nurses who staff these centers all follow Standard Treatment Guidelines which Sister Doctors have formulated in consultation with CHAI. These extension centers are also responsible for the preventive and promotional aspects of the health of the people in their area with the help of Village Health promoters, and these work in close collaboration with RAHA in achieving its goal.

These 31 are part of the 93 Rural Health Centers (RHCs) set up by RAHA and these 93 are linked to the three hospitals. Each rural health center is meant to cover 5 focus villages and thus RAHA's Community Health Programme extends to about 475 Focus Villages, The RHC Programme includes

a. Healthcare by the RHC Nurses, for health promotion, prevention and treatment,
b. Training and sustaining of Village Health Workers,
c. Prevention and Control of Malaria
d. Enabling the revival and use of Herbal Medicines with setting up herbal gardens
e. Increasing nutrition inputs through promotion of Kitchen Gardens,
f. Increasing agricultural productivity through introduction of better methods such as the Madagascar technique of Systematic Rice Intensification (SRI)
g. Micro-Savings and Community Action through membership in Self Help Groups.

A team of 16 RAHA Field Supervisors, men from the community, each one supporting 5 RHC's and 25 villages, make regular visits to enable the above programmes,

In healthcare RAHA pioneered a risk pooling beginning with ₹ 2 annual fee towards a Medical Insurance Scheme, which is now ₹ 30 per individual per year. Clearly this is more a token amount- but there are 98,000 members across the 6 districts. In return the sum assured is ₹ 2500 per year. This "sum assured" *cannot* be shared with their family members but curiously it can be carried forward to the following years. The treatment can be availed either at the Rural Health Centers/extension centers or in the hospitals.

The Clinical establishment Act (2010) was enforced in Chhattisgarh adversely affected the functioning of all RHCs because of having qualified doctors present in each of them. Consultancy support by phone and periodic training of the nurses by doctors in Kunkuri and Ambikapur hospitals was not an acceptable alternative to regulators who insisted on presence of MBBS doctors in each unit. Many health centres, some of which were on par with PHCs in infrastructure and facilities, are now closed. Some have been developed into resource centres and contact points for various activities.

RAHA converts these otherwise independents Health Centres and Hospitals into a mutually supporting Network, providing Technical Assistance through

Training and Consultancy, Advocacy Support, opportunities for fellowship and growth.

RAHA work is not limited to Healthcare. Its works spans primary health, education, agriculture, social issues, women empowerment and all issues of life in this area. 93 Village health workers working under animators are the main functionaries of this system. There are social issues that they have to address. Important social determinant that are addressed include adolescent pregnancy, illegal abortions, inappropriate healthcare seeking behaviours, unsafe sex. A vigorous school based health education programmes addresses some of these issues. RAHA also organizes medical camps, health check-ups, eye check-up, preparation and distribution of herbal medicines, training for the blind, rehabilitation of the physically challenged, awareness classes, advocacy, demonstrations, campaign for social welfare and protection, training on organic farming, training for women on domestic management and, fight against unhealthy practices are all part of the various activities of RAHA. Watchdogs to prevent human trafficking and guidance centre for any family in any of its needs are also part of the functions of a rural health center.

Rehabilitation and education of the physically challenged boys and girls is a major work of RAHA. Girls up to 8th standard are accommodated in a boarding near the school and are taken care of by the sisters. Their orthotic and prosthetic requirements are served free of charge. A monthly fee of ₹ 600 per head per month is being received from the state government as aid. Their boarding, food and study materials are provided by RAHA. For high school education, they move to another higher secondary school and hostel a little far from the RAHA centre. Four staffs, including two nuns who had one year training in making orthotics, prosthetics and artificial limb work in the centre to give physiotherapy and manufacture the personal support devices.

The blind were given a series of skill training in RAHA centre. Some of them play musical instruments and some others type on computers. Their parents are also given awareness on how to make them self-reliant and dignified. A few students who are members of RAHA are supported for higher studies.

Human Resources at the Kunkuri Hospital

At present the hospital has 3 medical officers and 5 specialists- one of whom is a surgeon, one a pediatrician and three of whom are gynecologists including Re v. Sr. Dr. Laisa who is a sister- doctor and also the medical superintendent. One of the medical officers is in General Medicine, another in General Surgery and a third in the Pediatrics departments. One of the three MBBS who serve here are under the 'rural bond' scheme of St. John's National Academy of Medical Science, Bangalore. Except for the surgeon who runs a private clinic, all of them are on full-time service and they stay in the campus.

There are also two hands trained under the PMHM (Practitioner in Modern and Holistic Medicine) programme of the state government. This is also known as the three year Rural Medical Assistant Programme, which has since been shut down- though the original batch were almost completely absorbed into the public health systems. These two mid-level care providers assist the doctors in their daily practice, and are becoming efficient with practice. Rev. Sr. Grace Mathew, the administrator of the hospital has great appreciation for their service. She said: "They are very able, well trained and do very committed service". The mid-level care provider has an important place in the National Health Policy 2017 – and in Kunkuri as well.

All the consultant specialists are paid above one lakh rupees. MBBS graduates have a starting pay of ₹ 40000.00. The PMHM (Practitioner in Modern & Holistic Medicine) hands are paid between 35000 and 40000. Graduate paramedics are paid 11000 or more and the diploma holders get above 9000. The ANMs are drawing ₹ 9000 or above which is lower than what the permanent ANMs get but on par with what contractual ANMs get. The clerical staff get about 8000 each. The unskilled workers also get above 200 per day. Leaves and other statutory benefits are given to all the 250 staff.

The biggest challenge HC Kunkuri faces, like most hospitals of rural areas is the non-availability of trained doctors and specialists to work in this area. The hospitals has three qualified nurses trained in

anesthesia technology and another radiographer trained in ultrasonography to get professional support.

With respect to nursing staff the hospital has 31 GNM staff nurses, 58 ANM staff- a doctor nurse ratio of 1: 9. Clearly a lot of work depends on the nurses- a founding condition which remains relevant to this date.

In the availability of nursing staff the School of Nursing of Holy Cross Kunkuri. This is the only nursing training institute in this area. It has all the required facilities and hostel for the students. 19 batches of GNM and 24 batches of ANM passed out from here. Almost all of those who pass out join Holy Cross hospital itself as staff nurses, and within two to three years they secure a job in the state government health service Hence there is high turnover of staff nurses and the absence of senior nurses is a challenge in nursing service. At present 31 GNM staff and 58 ANM hands work here. Usually the nurses work on three-shift duty, ie. from 7 am to 3 pm, 3 pm to 11 pm and 11 pm to 7 am. They are paid extra for the overtime work if they are required to work. Training sessions are taken by the nursing superintendent for the nurses. But there is no designated nurse for infection control or for nursing quality management or night supervision. On Sundays and holidays the nursing superintendent makes a morning rounds and makes herself available on-call.

There are also 5 pharmacists, 26 para-medicals, 4 nursing aides, 65 ward aides, 22 supportive staff and 14 administrative staff. There is enough work for all of them. All of them are locally recruited and trained on the job.

Availability of qualified lab technicians are also a challenge here. Of the 14 laboratory technicians, 5 have been brought in from Kerala. They come here for the professional challenge and learning. "We are having a good learning also here. We have not seen sickle cases and Kala-Azar cases in Kerala. Many of the patients, especially the women are anemic. Quite a lot of patients who require surgery show very low Hb in pre-operative screening. Malaria and TB are not so common in Kerala as it is here".

Access to Technology

Access to medicines is not an issue any longer. There is no scarcity in either the government or in the mission hospital. Any medicine, if run short of stock, will be delivered in a day or two by the suppliers.

Diagnostics is well organized. High volume, lower technology investigations are all done internally and a significant source of user fees. High tech, low volume investigations are outsourced with clinical material couriered, and reports emailed back.

Clinical learning and access to knowledge, is helped by the CHAI network, which provides training and support. The standard treatment guidelines for example are made with their assistance. A system of supervision also helps.

There are other challenges. Power is scarce in Kunkuri. Generators are used to ensure supply to the facility. Solar power is used for water heating, for street lights and for producing steam used in autoclaves. The concave solar water heater is quite innovative and energy saving. (Photo). With the support of CHAI, a solar back up system with 10 KvA UPS was installed in July to support the ICUs. In about a quarter of year 5000 units have been consumed from this source.

Use of information and communication technology is minimal- and except for billing no other section is computerized. Every Patient however has a record and an unique number that is given for one year, and this is used to pull out the case record whenever the patient visits again. If the visit is after a year a new case record is opened. Which means a rather large medical records room and division where records of patients for the last 7 years at least are maintained. MLC Files are stored in separate store and so are X-rays.

Financing

There are four sources of financing for the hospital and RAHA.

- The main source – that takes care of all running costs are user charges made on a fee for service basis. There is some degree of cross-

subsidy from these charges for exempting charges to some patients.

- The second- which ought to be large but is not is the RSBY and MSBY insurance programmes through which governments purchase secondary care on behalf of the poor. Though insurance contributed little till about 2010 today it contributes close to 40 to 45% of all revenues
- The third is donations from charitable agencies- largely Christian- but this goes only to capital investment and anyway has been dwindling in recent time.
- The fourth is ₹ 30 subscription collected from families as subscription to the MIS scheme.

There is a considerable number of patients seen at the RSBY customer help desk in the hospital. JSY and other insurance schemes are accepted in Holy Cross. RSBY is for BPL and the MSBY (Mukhya Manthri Swasthya Bhima Yojana) is for the APL in Chhattisgarh. This schemes have helped- and in the most recent year 2015-16, close to 44% of the total revenues came as RSBY reimbursements. However there remain considerable gap between expectations and implementation of the insurance schemes. To quote "We are here for the poor people of this tribal belt. We know that. We give a lot of charity. This RSBY (Rashtriya Swasthya Bhima Yojana) is a loss in many of the cases. There are times when we spend for treatment is much higher than what the insurance company repays. But we cannot deny the patient treatment even if the government denies the claim. Even otherwise the tariff of the hospital services is much lower, despite having a monopolistic market.

The schedule of user fees charged are given in table 2 below: The relative contribution of each to the items to total revenue collected needs to be ascertained.

S. No.	Item	General Ward	Private room
1	OPD registration	50	50
2	Subsequent visits in the same month	10	10
3	Visit after a month	50	50
4	Admission fee	30	30
5	Hospital bed charge/day	100	600
6	Hospital diet	75	150
7	ICU charges	500	600
8	Chest X-ray	200	220
9	Abdomen X-ray	300	320
10	Normal delivery (Total)	5000	6000
11	LSCS	4000	6000
12	Abdominal Hysterectomy	4000	6000
13	Vaginal Hysterectomy	5000	8000

Interesting to note in this schedule is that there are two slabs in rates for everything – one for general ward and another for private ward- a formula that government have used in the past. One also notes that though LSCS charges are only about ₹ 4000 in general ward and ₹ 6000 in the special ward, the total expenditure on bed stay, consumables, and OT is projected at ₹ 15,000- which is also the reimbursement rates under RSBY.

All financial assistance from the mother house of Holy Cross sisters at Ingenbohl, Switzerland has come to a standstill. Most of the sisters in Europe are now retired, in their nineties, and they are also financially constrained now. The Mother-General Rev. Sr. Marija Brizarwho was on her visitation to Kunkuri shared with us the changes in Europe and the difficulty in getting any resources there. In effect they are on their own now:

The pattern of expenditure is as follows

About 40.8 per cent of the total expenditure of the hospitals was spent on salaries in the financial year ended 31 March 2015 and 42.37 percent in the year 2015-16.

The percentage of total expenses on medicine purchase was 26.6 in 2014-15 and 28.4 in 2015-16. A considerable part of medicines expenses would be on outside prescriptions- and therefore this is an under-estimate of the cost of care.

The maintenance expenses were 9.1 percent and 4.05 percent of the total expenditure in the years 2014-15 and 2015-16 respectively.

The finance officer is a post graduate in Commerce and working as the finance officer. She informs us that she prepares the budget every year in consultation with the heads of all units in the hospital. The priorities are fixed there. The final draft of the budget is sent to higher forums of Holy Cross institute for approval. Most often the expenses go beyond the budgets, but not far beyond the estimations. The hospital is self-reliant, but for any development (viz. capital investment) we have to find funds from other sources".

Financing of RAHA's programmes come from both the membership fee or premium of ₹ 30 per person per year (about 30 lakhs in 2015) plus donors. Of the membership fee of ₹ 30, ₹ 22 is retained at the HC to treat minor ailments- and ₹ 8 is passed on to RAHA's central funds that are used to reimburse hospital bills. In addition MISEROR, the German aid agency- pays a subsidy of ₹ 2500 per hospital patient for about 900 patients.

Donors largely support specific programmes like disability management, or eye centers, or specific educational initiatives. An average RHC costs about ₹ 500,000 per year to finance, and since there are 93 of them that is quite a lot of doing. However management of these is distributed across many congregations each of which support- their share. That makes it easier- but it is still complicated.

Governance and Management

Legally the Holy Cross Hospital functions as an offspring of the registered charitable society named Madhya Pradesh Ave Cruz Sisters' Association, Kunkuri (registered in 1975)[3].

In terms of governance, the hospital and its field work all come under the order/congregation of the Holy Cross sisters. The head of this order, the Superior General, visits all units of Holy Cross sisters once during her tenure of six years. There are 17 provinces for the congregation and provincial superiors head them. It is this provincial council which makes appointment of the top level administrators to Kunkuri hospital.

3 The name carried "Madhaya Pradesh" because it was established in the then undivided Madhya Pradesh. When Chattisgarh was formed in 1999, Jashpur district became part of it.

The Managing Committee of Holy Cross hospital is comprised of the Administrator, the Assistant Administrator who is also the Medical Superintendent, the Nursing Superintendent, Principal of the School of Nursing, the OPD Co-ordinator, the Community Health in-charge and the Finance Officer. They are responsible to the society and between them and the health of house-keeping also the management responsibilities are shared. The religious spirit helps team bonding.

The RAHA programme has a separate management team that works out of its headquarters in Pathalgaon. There is good coordination between them and the Kunkuri hospital- which is much more networked to the primary care work than the other two.

The challenges of management in such a setting are immense. It requires immense dedication and innovation. What drives this team to achieve this. They point to an extract from the chronicle- their original charter: "On 26th of March 1958, the Eucharistic Lord took His dwelling in this humble place (A tabernacle was installed in the chapel on that day). During Holy Mass the sanctuary lamp was lighted. We are now happy that He resides with us under the same roof and we work and sleep near Him, under His very eyes. We prayed that *this little sanctuary lamp lighted today may never be extinguished, but continue to shine into the remotest future, and may the Holy Cross Hospital while it cares for the sick bodies not forget the souls of those who still sit in the darkness and the shadow of death, but help to kindle the light of faith and the flame of divine and brotherly Charity in all who shall people this place in the years to come*".

Lessons learned from the model

The model is so suffused with spiritualism, that it is difficult to see the essential features and learnings of this approach beyond its faith based values. However there is one reason why this model is one of the most important amongst the many mission hospital programmes that we have examined. Whereas all Mission Hospitals are faith driven, it does not prevent many of them many of them from becoming more and more corporate tertiary

care hospitals. 'Success' gets defined in terms of its professional credibility, front line in technology use, ability to attract paying patients and generate a surplus. There is some entry for the poor- but it no longer remains a hospital for the poor. Primary healthcare, so central to its origins almost gets excluded from the mandate. At the other end are Mission Hospitals engaged in pro-poor primary Healthcare with a necessary level of secondary care support. But these fail to generate the revenue need to sustain their operations- either due to a subjective or objective constraints in moving beyond primary Healthcare. Low- cost primary healthcare alone is not a sustainable option, and very ethically run secondary hospitals may sustain- but will seldom generate the levels of surplus needed to cross-subsidise primary Healthcare.

The combination of RAHA and the Holy Cross Hospital seems to have gone further in addressing this conundrum, than any others we have studied. They remain very affordable secondary Healthcare linked closely to a large primary care network. No doubt the entry of publicly financed health insurance has helped in a big way- but it is more than that.

One reason is that there are separate governance and financing structures for primary and secondary care- which collaborate but remain distinct. Another reason is its HR policies. A third is some modest degree of external funding that reaches primary care activities.

The big challenge this model is facing is from legal and regulatory, related to, but not limited to, the clinical establishments act. The impact of many of these measures is to drive out affordable Healthcare in one of the most remote and challenging terrains of the country, where these infringements are a life or death adaptation, while many of these flourish in urban areas in the commercial private sector.

9
CHAPTER

BEYOND THE BOUNDARIES
Duncan Hospital, Raxaul!

Ruxaul (Bihar) | *John Verghese, Dr. Adithyan G.S*

Layers of mud splashed all around as the wheels of the auto-rickshaw treaded painstakingly through the narrow stretches of road leading to Duncan Hospital, Raxaul. It was indeed a herculean task for the driver. He sweated it out without a murmur as a routine affair. Walking along such a muddy road would have been the worst option. "Can you imagine what would have been the situation when Dr. Duncan came here, almost a century back?"-my friend wondered."Unimaginable! He must have suffered a lot",I replied. He then started talking about how miserable was the existence of the people of Raxaul in those days. Raxaul would have been the ideal choice for locating a Healthcare institution considering its remoteness, deprivation, poverty, illiteracy, and poor living standards. Raxaul, being a place in the boarder of India and Nepal, is in a way a no-man's land. Nepal, in those days was also a challenge for Christian missionaries. Combined with those factors, Dr. Duncan had to spread the message of gospel as well. Raxaul, a small town in East Champaran district in North-eastern Bihar, and a traditional gateway by road to Nepal, had all the prerequisites to be the centre for missionary work as well as Healthcare activities he had in mind.

The Origins

Dr. Cecil Duncan, established a clinic and brought it up to a thirty bedded hospital while he served here from 1930 to 1941. It remained closed for about seven years when Dr. Duncan was called back in 1941 to serve the Royal Army during the Second World War. Then in 1948 it was rejuvenated and developed to a fifty bedded facility by the zealous missionary couple Dr. Trevor Strong and Dr. Patricia Strong. As time passed, many joined hands with them to take it forward. It functioned as a registered charitable trust 'Regions Beyond Boundaries (UK)' till 1974 which handed over the management of the 175 bedded hospital to The Emmanuel Hospital Association (EHA), under which it continues to function. At present Duncan hospital is a 350 bedded secondary care facility with a nursing school attached to it.

EHA is a faith based Christian protestant organization whose mission is to provide Healthcare. This organization has 20 hospitals and 40 community health centres and 7 nursing schools across the country. Each hospital functions under its parent trust. EHA is the federal body of all these facilities. EHA helps all these facilities by recruiting and

appointing professionals, financing, planning and evaluation. EHA has hospitals functioning in five regions in the country - East, North, North-East, North Central and Central India. There are none in the South or West.

The Epidemiological Context

The epidemiological picture of East Champaran district is typical of the double burden of disease that poor countries and nations are facing.

Dr. Sharon of the community department explained us about the maternal and child mortality situation in Raxaul. "Infant mortality is very high in this part of the country as well as in the rest of Bihar. Though there is considerable denial of this in official figures, in practice, people know that their children are very vulnerable. Family sizes are large, since six or seven children would ultimately end up only in a size of family with three or four children surviving into adulthood. Early marriages and domestic violence and the general neglect of women's health have an adverse impact on neonatal and infant mortality. Many maternal deaths and neonatal deaths also happen because of the poor condition of roads here. There is no other nearby facility which can manage high risk pregnancy or complicated cases".

Infectious diseases like Malaria, Kala-azar, hepatitis, TB, leprosy are still having a high incidence in Raxaul. There are something like 600 admissions per year are due to snake-bites- one of the most important of the neglected tropical diseases.

But in parallel chronic illnesses such as Diabetes Mellitus, Hypertension, IHD and renal diseases are also being reported in high numbers. Geriatric problems such as dementia, Parkinsonism, and stroke are also on the rise. The highest number of patients who comes to the OPD is with the complaint of Chronic Obstructive Pulmonary Disorder (COPD)".

Mental health issues are on an increase in Bihar. Suicidal tendency is very high. There were about 700 patients brought to Duncan emergency unit with failed attempts of suicide in the past year. The number of suicidal deaths and unreported events are to be added to it. According to the study conducted by Duncan medical team, family conflicts have been the major reason for 95 per cent of the suicides. Was it just a spontaneous act because of a mere family quarrel or whether there lies the underlying socio-economic factors associated with it, needs to be further studied.

Violence is also a reason for quite a few hospitalizations here. Victims of assault and violence get admitted across border to escape from police. The PRO explained to us regarding this: "The existing laws do not permit us to release medical records to Nepal police unless they approach us through the consulates. Hence the MLC cases are neither fully reported in India nor in Nepal. But undoubtedly, they are on increase every year". The privilege of staying in the open border of India and Nepal has been well exploited by many, especially the youth here. Smuggling across the nations has been a big business in this area. Even children are being used as carriers of such items. A small area is left as 'no man's land' between India and Nepal. Out of the jurisdiction of both the nations, many youth indulge in drug abuse, particularly IV drug abuse. As Dr. Philip said, depression is on increase among the people below the age of thirty years. Divorce, assault, domestic violence and suicides are reported recently in high numbers.

A considerable part of the burden of disease either faces or is due to wrong treatment. One out of fifteen people use steroids for various diseases like osteoporosis and skin diseases. Many of these are dispensed directly from medical stores which to them is faster and cheaper – though in reality such treatment is unsafe, addictive and leads to iatrogenic disease especially of the liver.

Thehealth systems context

Duncan Hospitals is the only secondary care facility for the population in the East Champaran district of northern Bihar, other than the district hospital at Motihari (district headquarters of East Chambaran) which is two hours or about 80 km away. The district hospital has limited services- and an equal range of services the next point is four hours of drive away is the Muzaffarpur town. The state medical college hospital- the nearest tertiary care center is in Patna, the state capital about eight hours of drive. The relevance of the existence of Duncan is undisputed.

A visit to the hospital

It was a bright sunny day in October 2016 when we visited Duncan hospital. We were greeted by the guard on duty as we entered the threshold of the hospital. As we introduced ourselves, his cordial greetings conveyed that he was expecting us. He took us the dining hall for tea- and then to our rooms. The dining hall was in a century old building and was a small hall of about 15x10 feet size with a table at its centre built of bricks and concrete top. It caters to the non-medical staff of the hospital and its allied institutions. The other side of the same old building is used as the registration counters, administrative section and the OPDs. The building looks like a structure that evolved over the years with rooms and corridors added on whenever the resources became available. It silently speaks of tradition as well as resource constraints. The structure had an ethnic originality which merged with the lush greenery outside.

The brick tiles laid 'private path' ended in a pair of modern buildings where the consultant doctors and their families stay. Our 'Gordon House' apartment was also part of it. Very near to that we could see the staff accommodation. Most of them stay with families in apartments and the singles stay in separate facilities. Nearby from 'Anandgruh', the club house, we could hear the staff families playing or watching badminton, table tennis, caroms and chess- without any heirarchial distinctions of doctors, administrators or support staff. We were later told by the administrators- that this family and club like atmosphere has a great role to play in keeping not only the social and professional isolation of a remote professional colony at bay- but also in reducing professional jealousy and rivalries, and building team spirit- which they considered as essential not only for their local credibility but also for their mission of saving lives.

The availability and utilization of services

On average, 600 patients come to the hospital OPD daily. After registration they proceed to the nursing desk in the OPD where the nurses check and record their blood pressure, temperature, pulse and respiration. As their turn comes they get medical consultation and if any diagnostic test to be done, they proceed for the same. The test results are seen by the consultants in the afternoon and prescriptions given. There are three windows for dispensing, three for medical store billing and five for registration.

Total OPD visits for the year were 122584, including staff and dependents patients (4295) and Golden Health Project patients. (See Annexure)

The 350 bed hospital reports 15108 in-patient admissions for the year 2015-16 and half of which are OBG patients. Major surgeries happened were 1654 and the minor surgeries were 2405. This includes 36 hysterectomies. Surgical new cases were 1007 and old cases were 2347.

Medical OPD had 8503 new cases and 13281 old cases. Psychiatric cases were 350 (new) and 811(repeat) between 2015 August 15 to March 31, 2016.

The number of deliveries happened in this hospital are 5434 (2015-16), in which 3664 are normal, 1214 are LSCS, 398 vacuum, 10 forceps, 120 breech. The babies were 2985 males and 2449 females. Family planning operations (tubectomy) were 638 and IUCD insertion 17 and no vasectomies done. Maternal deaths were 15 in the year, and Neonatal deaths were 61 (29 of these deaths were of neonates referred to DH from outside). Maternal deaths were 13, 9,13,15 in the years 2012-13, 13-14,14-15,15-16 respectively. Neonatal deaths for the same years were 269, 103, 60, 61. Still births were 248. The immunizations given in the hospital were 5368 (new) and 11709 (repeat). Dental cases were 2998 (new) and 8185 (repeat). ANC and PNC visits were 12220 (new) and 31169 (repeat).

The hospital has a neonatal intensive care unit, which is 12 bedded level 1 and 6 bedded level 2 facility, the occupancy was cent percent. But the reality is that almost seventy percent of the NICU admissions are male. This discloses the gender discrimination prevailing in the community.

The hospital has all the 11 departments expected of a district hospital in the Indian Public Health Standards. These include General Medicine, General Surgery, Pediatrics, Obstetrics and Gynecology, Orthopedics, ENT, Psychiatry including a clinical psychology

division, Ophthalmology, Anesthesiology, Dentistry ,Physical Medicine and Rehabilitation and a Community Health departments. A 24 X 7 emergency unit also functions in the hospital. The hospital also has a licensed blood bank where on an average 3 blood transfusions take place daily. There arecritical care units for neonates and adults. A palliative care unit also functions here.

In terms of imaging diagnostics there is aX-ray room with 300 MA static X-ray and a portable X-ray and Ultra Sonogram and ECG. In terms of Clinical Laboratory diagnostics they have Hematology, Biochemistry and Microbiology units.

There is no ambulance owned by the hospital; but about ten of them are available very near to the main entrance, owned and operated by private parties.

Each of the wards is partitioned into high-dependency beds and general beds which are less dependent on nurses. In addition there are private rooms.

As is typical even of the district hospital- there is no clear distinction between primary care functions and secondary care. A huge crowd was noticed around the mother and child unit, where many pregnant women had come for ANC check-up. The obstetrics and Pediatrics department caters to more than half of the patients coming to Duncan. A panel of nurses - about five of them -do the preliminary screening – history and examination, height and weight and then these are presented to the doctors. There is only one Gynecologist in Duncan but a number of junior doctors on round the clock duty to help him.

One amazing feature is that the hospital has secured a senior specialists in Spine Surgery and another in Endocrinology who are able to live and work in the modest, non-air conditioned low tech setting of these hospitals- in what is literally a far corner of India. There is a Canadian named Ms Mary Ann working here as an Occupational and Physiotherapist for last 16 years and she has been instrumental in developing a physical rehabilitation unit there. This unit now has a full-time doctor, a couple of therapists and a few support personnel. Many children were found waiting for their turn for therapy. The number of physically challenged children is quite high in this locality. In the words of Sr. Grace, a nun who is heading a rehabilitation centre in the same Raxaul town: "There are many children with physical challenges in this area. The parents do not know what to do with them. We visited a small village of nearly 80 families and identified 40 of them. We have resource constraints to serve more than that. But Duncan Hospital is having a very good unit and so many children are being helped. With paraplegic or quadriplegic children at home, the parents are unable to go for work and impoverishment worsens day by day. We try to help the children to gain as much autonomy as possible. The government has no schemes to support us in our work, nor these children directly". This is the Indian reality.

Referral Links

Duncan hospital has no formal agreement with any facility for referral cases. Higher referrals are sent to Muzafarpur Medical College and Patna Medical college. Patients are encouraged to go to Birganj (Nepal) or Patna if they require CT scan or any tertiary care support. CMC Vellore accepts referral cases from Duncan and gives them treatment on credit against letter from EHA. For advanced laboratory tests, there is a written agreement with Thyrocare diagnostics. They come and collect specimen from Duncan on daily basis and send the reports by email.

Health Information

Computerization has very limited introduction though the administration is keen on this. At present, the Medical records are written up by hand and hard copies are maintained for about 14 years. The provisional birth certificates are issued from here. Medico-legal files are kept for much longer. In the year 2015, about 438 MLC cases records are filed. Up to September 2016, the number counts 234.

The Human Resource Management Practices

Duncan Hospital is the largest hospital under EHA and has the staff strength of about 400, comprising of doctors, nurses, paramedics and administrative and support staff. In addition, there are about

50 personnel working under various projects of community health and development department. This shows the aim and ambitions of the care givers working behind the scenes in the Duncan. Their idea is not just medical care, but all round development of the population to which they cater.

Work in such a remote location where there is considerable professional and social isolation and major epidemiological challenges requires an appropriate human resource strategy. Much of this depends- not on monetary benefits, but on creating a very positive work environment.

A day in Duncan Hospital begins at 8.00 a.m. with the 'devotion' which is a voluntary gathering of all the doctors and staff and family members in prayer hall, singing, praying and sharing the message of the Bible. Almost all employees are part of the Christian faith- and attend this session- though attendance is not obligatory.

Next, as everyone proceeds to their work, the medical team assembles for their daily meeting. The critical patients in IP, the referrals sent out during the previous night and any peculiar cases they found in OP or IP will be taken up for discussion. As part of this team spirit, for cases shared by anyone, every other doctor gives his own suggestions and comments. Both this 'daily sharing' and the more structured 'concurrent medical audit', serve three purposes of quality improvement, team building and empowerment of junior doctors. The approach here is: *report, review and problem solving*. Some of the junior doctors who are keen on getting admission for specialist training later were taking notes. A few potential multiple choice questions and their answers were also stated by some of the consultants to reinforce this. Clearly preparation for MD/MS entrance examinations is a motivator.

Dr. Prabhu explained this to us as follows: "We have been successfully helping them to unlearn certain things they learned from their college days and help them to re-learn the values and ethos of EHA. They also help the juniors by offering them classes and case presentations which will be useful also for the entrance examination for higher studies. The patient overload and supportive attitude of the consultants are favourable for the juniors to gain sound clinical experience also. Hence the availability of junior doctors is not a challenge for the management of Duncan even though retention among them for long years is a challenge." Dr. Sairah, the deputy managing director added: "The Christian Medical Colleges of Vellore and Ludhiana support EHA and Duncan Hospital by accepting sponsored candidates for admission to MBBS and PG courses. The PG surgery students of CMC Vellore come here to get exposure. MBBS students from these colleges come in groups for exposure in various disciplines. The candidates sponsored by EHA for post-graduate or medical studies have to work for EHA units for two years after getting qualified. Duncan Hospital also takes local doctors. However preference is given to Christian doctors, especially those with missionary enthusiasm. Mentoring, training and investing in the lives of young doctors have been an integral part of Duncan Hospital. Eight young doctors joined the hospital in the year 2015 and seven in the first part of 2016. All came voluntarily to work in missions.

A typical case study is that of Dr. Joel, a medical graduate from Kerala, the southern end of the country who came to work in Duncan at Raxaul, at the northern end of the country, attracted by the promise of a positive work culture and the atmosphere conducive for learning which he came to know of from his friends. We found him in the dining hall taking his late lunch even as we reached for our evening tea. Dr. Joel had completed serving about ten patients presented in the emergency unit on that day. The average number of patients brought to emergency unit is 20 per day. In the order of demand for service the hierarchy from the most to the least is Obstetrics & Gynecology, Pediatrics, General Medicine, General Surgery and Orthopedics. The recently opened Psychiatry department is also on an escalating scale of demand. Dr. Joel states: "I like this hospital not only because it is a mission hospital, but also because it gives tremendous opportunities for the junior doctors to learn and grow. I was so busy in the emergency unit that I could not come out for lunch on time. But I am happy, because I can serve the poor and also gain good experience here". It is a world far removed from the enclaves of the greed that many so called hospitals have become.

Mr. Michael, the facilities manager, who took us around the campus discussed the workforce

approach further. Duncan provides family accommodation in and around the campus for all its staff, and educational support for their children up to a sum of ₹ 30, 000 a year, takes care of their entire basic healthcare needs. Even advanced healthcare treatments are facilitated through EHA by risk pooling method through contributions from its member institutions. These policies also enhance retention of the staff.

Nursing cadre and its retention: Duncan has a nursing school attached to it, functioning in the same campus. All the 7 nursing schools run by EHA are either GNM/ANM schools. Duncan Nursing school offers GNM with an intake of 25 students per year and is affiliated to the Mid-India Board of Nursing. The nurses trained in EHA schools are also under obligation for 2 years of service. They are allocated to various hospitals under EHA from its central office in Delhi. Many of them, as in the case of EHA sponsored doctors who graduate from CMC Vellore and Ludhiana, do not stay longer with EHA. After their bond is over, they look for opportunities with better economic benefits. Dr. Saira commented on it: "Service obligation is not rewarding in terms of staff retention. Most of those who remain with us are trained in government hospitals, not sponsored candidates". According to Dr. Uttam the Managing Director, "The most important challenge faced is the lack of professional HR. Attrition among doctors and nurses is about 30 percent". Duncan is happy that at least for two years they get the service of those hands. Not only GNMs but Ashas, anganwadi teachers are also trained here under various projects.

A considerable number of the staff in Duncan are also from Nepal. By the time we had already noticed that the staff team is a well-knit cross section of India with personnel from Kerala to Delhi and from Rajasthan to Manipur. We were now impressed on how a sense of a shared mission could unite people beyond boundaries.

Financing of the Duncan Hospital

"IC or NC?" we overheard a question raised by a patient at the cash counter. Mr. Michael, our guide explained: "We have about half of the patients coming to Duncan from Nepal (Nepal border is less than a kilometer from Duncan). They may be having Nepal Currency (NC). People can pay their bills in Indian Currency (IC) or NC. The exchange rate is that one Indian rupee is equivalent to 1.6 Nepali Rupees.

We could not but ask that critical question about the sources of finance for all these activities. Dr. Santhosh was happy to take it up. He said: "Foreign funds are not the major revenue sources for the hospital. 90 percent of our revenues are from the user fees collected from the hospital itself. We get foreign as well as local contributions for capital investments which form about ten percent of the turnover. The community outreach projects however are fully funded by foreign aid agencies which include Christian, government, NGOs, international agencies and many philanthropic organizations. On occasion, Indian and foreign individuals give donations for treatment of certain individual patients".

Financial management in Duncan depends on reducing expenses in terms of salaries and administration overheads by employing doctors with a missionary zeal at the top level- not only for specialized clinical skills but also for key administrative roles. Senior consultants are being paid only between ₹ 40,000 and 50000 monthly. Experienced Junior Residents are paid 32,000 per month and the fresh graduates were paid 27,000. The graduate nurses were getting a modest monthly ₹ 12,000. The lowest paid monthly salary in the roll was 7000 for the casual laborers- the minimum wages. Duncan is transparent in its financial policies. Even if they are finding it difficult to get professionals, they would not pay them exorbitantly or allow unethical commissions and kick-backs. The HR manager Mr. Johny put it thus: "patients are our top priority and not the professionals. Hence we look for those who like to work with such a commitment and willing to do mission work".

Raising funds also requires personal efforts of everyone in the team. Dr. Prabhu tells us "We try to give the best care to our patients even with these limited facilities. We also ask our friends abroad to send us their used devices and collect them. We try to overcome our resource constraints through dedicated service and quality clinical team work. Our track record of the previous years does substantiate the truth".

Duncan Hospital is not like other doctor-owned private nursing homes in Raxaul, both in its service quality and clinical excellence. Hence the demand for services is very high, although the patients have to pay out-of-pocket user fees. The management of Duncan Hospital is conscious that the poor could be left behind or face a threat of impoverishment. There is a systematic "means grading" done for them, and based on that subsidies are given to them, even up to 75 percent on the bills. But according to the management, often patients take advantage and understate their means. Dr. Prabhu explained it thus: "The poorer are still not reaching the Healthcare facilities. They risk their life for the fear of the expenses. Even when they reach the hospital, they do not know how to avail the charity discounts. The poorer population show more integrity. They even sell their house and all belongings to pay for treatment. But the better off pretend to be poor, demand for charity and get influential people to recommend for them. The richer becoming more greedy and poorer becoming more marginalized is the phenomena we see today. We are helpless in making a deeper socioeconomic analysis of each patient as it required skilled expertise and more expensive".

One example we encountered was the hospital PRO walking into Dr. Phillip the CMO's office with a hospital bill attached to a medical record file. "Doctor, this lady has nobody to support her. Her husband left her long back and she has no children. She is bursting in tears and no one is there to help her pay off her bills. What shall I do? This seems to be very genuine", he expressed his concern. Dr. Philip acknowledged that he knew the patient and had observed her as eligible for charity. So he received the papers and recommended for charity discount over and above what he had already suggested. Doctors are the designated hands to sanction charity discounts. They also seek the opinion of nurses and PRO to get clearer picture of the economic status of the patients

Engagement with the government

Training Programmes

A certificate training course on Family Medicine under the auspices of CMC Vellore is being organized for the doctors in Bihar. This is held at Duncan Hospital. Except one, all in the 19 member batch whom we met were from Bihar government service, working in PHCs across the state. Their feed-back on the course was: "We are really impressed by the knowledge the trainer doctors are having and moreover by their willingness to share it with us. They were only happy to answer all our questions. Here in this part of the country, we do not usually share with others whatever we know. Hence we are very thankful to the doctors, especially those from south India for having come to the people of Bihar for no reason other than their kindness and shared there immense knowledge with us". It is not only the skills- they were also getting the spirit and the motivation of public service.

There were also other training programs conducted by Duncan Hospital. The training programs conducted last year includes: Post Graduate Degree in Family Medicine (PGDFM) distance education program from CMC Vellore for Junior Medical Officers, PGDFM course for Bihar government medical doctors under National Rural Health Mission (NRHM) coordinated by the Distance Education Department of CMC Vellore, Secondary Hospital program for undergraduate medical students from CMC Vellore and CMC Ludhiana, Community Lay Leaders Health Training Certificate (CHLTC) program in collaboration with CMC Vellore.

Quality Improvement, Accreditation and partnerships.

The hospital was registered under the Clinical Establishment Act. Efforts are made to improve the quality of the hospital to meet the standard of NABH.

About the future plans of Duncan Hospital, the Managing Director, Dr. Uttam shared with us their plans. "We have to try for NABH accreditation, as it is almost a necessity now. It will also help in getting government cashless treatment schemes delivered through us. Old buildings have to be rebuilt. We also look forward to improve the facilities and modernize them in order to offer quality healthcare as expected by the people. Internal audits for gap identification and costing of the hospital departments were done

as an initial step towards quality improvement. Bank loans have been taken towards the improvement of infrastructure and we have been able to procure many equipment to improve patient services."

They are conscious of the needs to balance the requirements of equity in access with quality. To quote Dr. Saira: "We will continue to focus on the poorest and those who are still not able to reach the healthcare facilities. We try to keep the balance by reaching out the poorest through our CDHP activities. The rich has increasing demands for high quality care. We are not after them. Our focus is on the poorest who are denied even the primary care. Our priority is them". The head of community services Dr. Vandana's words may be added to this: "Sustainability is the challenge of the government. NGOs may have their targets and limits for resources. They can withdraw any time. But the government is for the people and by the people. Hence we work with the government, for the government and certainly for the people and with the people".

The Community Health and Development Projects

Mr. Sumith, a co-coordinator in one of the community projects run by Duncan Hospital, who has been with this for last 5 years, briefed us on this project. He took us to a village called Nandi that is about 14 kilometers from the hospital.

Outreach activities were conducted by the hospital in surrounding and far off villages but over time this aspect decreased mainly due to financial and human resource crunch. A 'community department' in its proper form was started by Dr. Bell in 1989. He started a 'primary health center' at Champapur, about 13 kilometers away from Duncan Hospital, offering predominantly maternal and child health services to the poorest and needy. But an evaluation done on the functioning of community department in 1991 pointed out that the focus had to be shifted from offering health services to community empowerment. From then onwards, community development was also made as an integral part of the primary Healthcare activities of the hospital.

"Why should there be social and economic development projects facilitated by a healthcare organization"? Dr. Santhosh, a senior physician and former chairman of EHA answered: "EHA conducts evaluation of its projects every ten years. Health and development of the community along with mission work is what we strive for. Health gets more relevance than the other two. But we have noticed that healthcare services without development works will keep the people only as our dependents. Hence to empower them to live by their own, we do many projects which are development oriented. Our services are limited to seven blocks of this region and mainly concentrated on Adapur, Raxaul and Ramgariah blocks".

The relevance of community out-reach activities and primary Healthcare in East Champaran's context was explained thus: "The poorest of the poor do not go to any hospital until the health issue became so serious and affect their daily wage labor. Out-of-pocket expenditures are nightmares for them. The daily wage earned by a casual laborer here ranges between ₹ 100 to 150. It's even less for a women. There are many other factors also which restrict them from accessing even primary healthcare. Poverty combined with sociocultural factors also keep aloof health in the top of their priorities. We are of the strong belief that hospital cannot be equated with healthcare. There are a lot many other factors which contribute to healthcare. Hence we try for a transformation through care. We reach them through our community outreach projects. There is also a mechanism which operates in which the community workers refer genuine poor patients to us, and we give them treatment at very reasonable cost. An evaluation in the year 2001 revealed that our impact was limited, and we moved to larger population coverage, more holistic approach and a partnership with government."

Even though National Rural Health Mission (NRHM) was launched in all over India since 2005, many BIMARU states were very slow in implementing it at the respective state level, especially Bihar. The reasons are many ranging from funds, functionaries, infrastructure, HR challenges, lack of political will and civil society pressure. The District Health Society (East Champaran) which was formed in the year 2013 is still in its nascent stage. According to Dr. Vandana Kanth: *"Bihar lags*

20 years compared to the rest of India in terms of development- whether it is infrastructure/education/ health or any other aspects. The people as well as the system is corrupted, and it is not easy to bring about changes in Bihar." So the hospital undertook the path of working with government for strengthening the existing government structure of primary Healthcare, which they think is the only sustainable solution.

Current community health and development projects of Duncan Hospital that work in seven blocks include the following:

- ***CHETNA Project:*** Works with community members to strengthen the VHSNC's (Village Health, Sanitation and Nutrition Committees) so that "health for all" can be realized for all. The main intervention is to educate and empower the people in the selected blocks to make benefit of the facilities in the PHCs and other public health facilities for their healthcare needs. This includes training offered to anganwadi workers, ASHAs, VHSNC members etc about Healthcare entitlements and services. This is the way the Duncan leadership with its decades of experience in Bihar believes that a change can be brought about in Bihar.The basic idea is to avoid people having to go to private services for those basic services which are available in the public facility. The PHCs are strengthened by the Chetna project through deploying personnel, largely nurses, recruited by the project and placed in them. Their remunerations are also paid by Chetna. There are also other NGOs working in the same manner in this district.

- ***Karuna Project:*** Providing specific interventions to women and children in order to reduce maternal mortality and infant mortality.

- ***ROSHNI Project:*** Improving awareness and access to medical services for people with mental illness and helping community members to reduce alcohol abuse and domestic violence.

- ***ACT (AIDS Control and Treatment) Project:*** Promoting awareness of HIV and AIDS and facilitating access to treatment for those affected or infected with HIV/AIDS.

- ***CBR (Community Based Rehabilitation) Project:*** Giving hope to people with disabilities and their families, through therapy, advocacy, counselling, special learning centers, provision of equipment and access to medical care.

- ***SVJ (Samalit Vikas Jankari) Project:*** Helping people with disabilities to access government entitlements through the formation of self-help groups known as Disabled Persons Organizations (DPO's).

- ***ASISH Project*** aims at reducing the risk of human trafficking. This project started in 2014 with exclusive focus on human trafficking across Indo-Nepal borders. It also focuses on child labour and bonded labour. The three major objectives were prevention, prosecution and protection. Direct involvement for prevention is being tried, protection is being done with the support of other NGOs, while prosecution has not been ventured into due to lack of expert manpower. This initiative inspired the state government to make district task force for trafficking, appointment of district child protection officer and district labour officer started collaborating with the project.

- ***PED Project (Project Education Duncan Academy):*** Providing opportunities for girls from needy families to attend school at Duncan Academy.

- The primary Healthcare model followed by the hospital is quite unique to an extent that rather than creating more additional primary care units in the block (which they earlier had), the major focus is on empowering the community to use government primary Healthcare center in Raxaul and strengthening the government facility at various levels and through various measures. There are also primary care service delivery functions by the hospital in terms of conducting village health camps, screening programs, awareness programs etc. at the community level. But the major emphasis is now on empowerment of health rights of the people to use government facility.

Governance and Management

The administrative leadership of Duncan Hospital is organized as its Unit Management Committee (UMC). The committee is comprised of Managing Director, Medical Director (CMO), Deputy Medical Director, Nursing Superintendent, Principal of Nursing School and head of Community Health and Development Projects (CHDP).

The senior positions are all held by clinicians who also have administrator roles. The Managing Director is the surgeon and coordinates all the units and subsidiaries of Duncan. The Medical Director is also the Orthopedician. All the clinical and diagnostic services are his portfolio. The deputy medical director is on full-time administration duty, heading the operations and administrative departments. HR and finance departments are headed by trained and experienced hands. The PRO also works in administration. The Nursing Superintendent, assisted by a deputy takes care of the nursing services. The principal of the school of nursing is responsible for GNM training. Wider span of control, multi-tasking and open door policy of these committed personnel who work for long hours contributes to reduction of overhead expenses and their commitment enhances the effectiveness.

Once in two weeks the core committee meeting is held and the major decisions are made. There are various committees namely infection control committee, work committee, clinical service committee, purchase committee, Housing committee, spiritual life committee, PSH committee and child protection committee. The committees are constituted of doctors and representatives from the staff.

The UMCs are accountable to EHA central office. Policies and policy level decisions are made at EHA central office at Delhi. The appointments to the UMCs are made by EHA executive committee. Annual meeting of heads all EHA units (Duncan Hospital is one such unit) are held for strategic planning, policy making, reporting and budgeting at the headquarters.

Motivations- Economic, Professional and Spiritual.

Dr. Prabhu Joseph, the medical director of Duncan Hospital recalled the days he was in Raxaul as a junior doctor soon after his MBBS from CMC, Vellore. People were happy to receive consultation from any doctor and any procedures done by any doctor were welcome. To quote: "There are many instances when the consultant in surgery was not present here, people requested me to operate their patients. I had told them that I was only a junior doctor and not a surgeon. But they were readily willing to accept surgeries done by me. We did Caesarian Sections, even Laparotomies in those days. People did not want to take their patient to a higher facility, because they were so sure of death on the way during such long transport of a critically ill patient. But things have changed. It is a sign of the times. Now days, they are very demanding. As they come to the hospital they want the senior consultants to attend to them immediately. They insist on service of specialists and super specialists, in the absence of whom they go to Patna the capital or elsewhere, where mostly they end up in the hands of quacks and spend a lot on unnecessary tests and procedures".

Dr. Santhosh Mathew Thomas who served as the head of EHA at New Delhi and then came down to Raxaul also echoed the same concern. He said: "We do not suggest unnecessary tests and procedures. We follow ethics and fair practices in medicine. But sometimes people take us as wrong and end up in the hands of unethical practitioners and quacks". Let us add to it the words of Dr. Prabhu: "Doctors have become just money oriented and trust between patient and doctor is weakened. This is, I believe, an outcome of medicalization and globalization. We are trying our level best to undo this trust deficit between the patients and doctors". His words gave us a clear picture of the rot set in our medical ethics. The blame game is going on for quite some time. But the authorities are tight lipped. However, it is heartening to hear someone speaking truth and practicing the same.

One question that arises is whether it professional ethics or religious beliefs that shape such action. Is it the oath of Hippocrates or the spirit of Jesus Christ that leads them to a path of light? The cherished ideal '*Manavaseva is Madhavaseva*' (Serving the poor is like worshipping the God) is in practice here, no doubt.

There is some ambiguity in how these two ethics contrast or overlap. When these were raised into

discussion the responses are instructive: Dr. Philip states: "Medicines are available here. We try to give them low cost and generic drugs. But people are demanding branded medicines. They even expect us to give free medicines also. They believe that doctors who opt to work in villages and charitable hospitals are less qualified and professionally not as good as the ones in cities. Here, most of us (consultant specialists) are well qualified, even gold medalists, and majority of us are trained from the prestigious CMC, Vellore. We have a reason to choose to work in a rural mission hospital, and that is nothing other than sharing the love of Jesus Christ with those who have not heard of Him".

Clearly the good doctor was interpreting or even equating" being professional" to mean giving more branded drugs and having the perceived stature or rather glamour of specialists. Not really what he aspired for. !! His motivation was clearly therefore drawn from the spiritual rather than the professional.

A corollary question rises. Is the motivation trying to preach the Bible in the clinics? His clarification was that they love these marginalized people and love them with the love of Christ they experienced. To quote Dr. Santhosh: "You mean to ask whether we are trying for conversion into Christian faith? My answer will be yes and no at the same time. No I say because we are not trying to make any conversion in the technical and legal meaning of the term. Yes I say because our aim is to spread the message of the love of Jesus with all. We serve them out of this love. We pray for them, we pray with them. But we do not force anyone to become Christian. Because of our work if anyone accepts Christ we will be more than happy". His stand was clear. Belief is something that cannot be thrust upon anyone.

We also visited the Christian Counseling Center (CCC) in the hospital. The staffs explained us about it's functioning-" Don't think that it is a conversion center. The staffs of the CCC spend time with patients and their relatives, offering compassion especially to those who are in sorrow and distress over an illness that they or their family member are experiencing. Along with other hospital staff, we contribute to holistic care with a desire to see transformation in the lives of the individuals who come to us for medical needs". A total of 580 patients have been counseled in last year.

The short stay in Raxaul was thought-provoking in many ways. One hand this was stark Indian reality. At another there was a brave team which was taking the challenges head on and in their own way succeeding. As one of the social workers in Raxaul clearly stated- "Of course religion is a key element in all their (Duncan Hospital's) activities. But the larger picture is social service itself .Giving faith and redeeming people from suffering is not a bad idea. It is a role that the state ought to have undertaken, but missed. If an alternative set up emerges and carry out that role, it cannot be a case of intrusion".

Lessons learned from the model

Duncan Hospital is a good benchmark for a public district hospital. It shows how secondary care can be organized, especially in any rural and remote area. It is benchmark for the variety of ailments to which care is provided, in the quantity and quality of case-loads managed and in many dimensions of human resource policy that needs to complement this. The link with innovative medical education and regular nursing and paramedical education is also a central feature of all such hospitals and is useful to attract or build and retain human resources.

Another key learning is how one gets a minimum complement of staff in such a remote and difficult area of the country. Clearly there is a considerable effort that goes into building a very positive professional and social environment- where at least those who have decided to some and work here can be retained. This requires very flexible human resource management policy. It is not so much disciplining, but encouragement, and support and professional leadership that is the key.

Another important aspect is their recognition of the need for a primary Healthcare linkage- but instead of building their own PHCs, Duncan hospital has built a network with government PHCs- where it adds in additional staff and resources – thereby also strengthening primary Healthcare in the process. But clearly all primary healthcare needs external funds- and cannot be based on user fees.

As external funds reduce, and the nature of clinical practice changes, the model comes under pressure- which the leadership is aware off and complain off. They need a large proportion of paying patients who can be charged- but for this they need to upgrade in technology and other features such as quality accreditation. But these cost and drive up costs- in which circumstance they increasingly become more exclusive of the poor. Possibilities for cross-subsidies are limited. Government funded insurance could make a difference- but this has not yet entered in any major way.

10
CHAPTER

CHRISTIAN FELLOWSHIP HOSPITAL

Oddanchatram (Tamilnadu) | *Geetha Rana, Adithyan G.S*

Introduction

Christian Fellowship Hospital (CFH) is a Mission Hospital, which aims to provide Healthcare that is affordable for the poor. This case study is relevant as it is a renowned and successful hospital from the South- which continues to be inclusive and functions effectively in one of the deprived areas of Tamil Nadu. It is not part of any of the major church hospital networks- but like the other Mission hospitals, their motto is "We treat, God Heals". Another core value is "simplicity of living comparable to the average standard of life of the community they serve."The hospital depends largely on its local resources, and donations are minimal.

The Origins

Oddanchatram, the town where the hospital is situated, was a backward famine and drought stricken rural area in Dindigul district in the southern part of Tamil Nadu. The hospital was started in 1955, in response to the medical, social and spiritual needs of the people in the region. Malnutrition and communicable diseases were rampant in the region-with a high prevalence of tuberculosis and leprosy. In the hamlets of dalits, the prevalence of TB and leprosy was stated as being as high as 60-80%. There was no protected water supply and water-borne diseases were very common. Dr. A.K Tharien and a small group of dedicated doctors from CMC Vellore who were interested to serve the poor and needy were the founders of CFH.

The hospital started as a single room outpatient unit. Many visiting doctors from CMC Vellore served the hospital for free in the initial years and they were supported by locally trained health workers who were mostly women. Along with the health workers team, CFH expanded their services to nearby villages through mobile roadside clinics. When medical services were first started in CFH, there was neither any trained Healthcare provider nor any health facility within a radius of 35 kilometer near the hospital.

Today the hospital is a 300 bedded, multi-specialty, secondary care hospital with post graduate teaching services and is a major referral centre, between Coimbatore and Madurai. The Hospital is a paying, 'not for profit' hospital. However, the hospital aims that no patient is denied services for want of payment. The hospital has gained a reputation for

being "patient friendly" due to its internal cross-subsidies. It caters to patients from neighboring and distant districts of Tami Nadu and even Kerala, apart from local population.

Curiously, the principle of the hospital is stated as providing services "to each according to his/her need, and from each according to his/her ability". The fact that is the key definition of the higher stage of communism in Marx's 1848 Communist manifesto is not recognized by anyone there- but it cannot be coincidence that the wording matches so completely.

The Health Facilities in Dindigul & Oddanchatram

Dindigul has a population of 21.6 lakhs (2011). There are 950 in-patient beds in the government sector and the total number of doctors is 158, giving a doctor population ratio of 1: 13680

Government services are organized as two Health Units- Dindigul Health Unit and Palani Health Unit**.** There are 5 Taluk Hospitals and 6 Non-Taluk Hospitals in the district. There are 14 blocks, each block having a population of about 100,000 and one upgraded PHC/CHC and about 3-4 PHCs. Dindigul Health Unit has 33 PHCs and Palani 27. The number of Sub-Centres is 167 and 144 respectively under each of the two health units. There are 2 Comprehensive Emergency Obstetric and Neonatal Care (CEmONC) facilities, at Dindigul District HQ Hospital & Palani Government Hospital (GH), one located in each Health Unit.

In the "Private for Profit" sector in Oddanchatram, there are about 15 clinics and 10 hospitals with inpatients, the largest having not more than 50 beds. In terms of "Trust/Not for Profit" hospitals there are three- the Gandhigram Hospital, Christian Fellowship Hospital, and the Christian Community Health Centre, Amblikkai.

Services delivered and the Organization of Service Delivery

It has an average daily input of 1200 out- patients and about 200 in-patients. The heath care needs as in rest of Tamilnadu are described best as the double burden of diseases- continuing problem with infectious disease while there is rising non communicable disease. A large part of outpatients in CFH are diabetic patients (at least 100 diabetic patients every day), hypertensive patients or with cardiac disorders.

There are daily special clinics for diabetes, cardiology, Gastroenterology, TB/HIV & Infectious Diseases and Family Medicine. There are also weekly or bi-weekly special clinics for nephrology ,Immunization, Nursery patients, Rheumatic Heart Disease, Thalassemia, Developmental Delay, Diabetes, Thyroid disorders, Asthma and Seizures.

The hospital is also emerging now as a surgical center of excellence in Tamil Nadu and is doing around 5000 surgeries per year. A major proportion of the surgeries are C-sections. The ICU at CFH is a 16 bed unit, with 5 beds allocated to the Coronary Care Unit (CCU) and 16 beds in the High Dependency Unit (HDU). The ICU has 3 ventilators and 1 standby ventilator. There is a separate NICU, staffed by the Paediatric Department.

The Patient Flow

Patients who come in are registered, issued a hospital number, ID card and provided with OP cards which are retained for three years and IP cards which are retained for 5 years at least. Therefore CFH has an active medical records department. The medical records department also serves as a cash counter. One interesting feature of CFH is the attention that they have given to organizing patient flow, since the waiting time is a major complaint as patient load increases. The hospital has also started an evening clinic by a senior doctor, between 4 to 7 pm. The patient has also to navigate on their own to the different functions- laboratory, imaging, and pharmacy with some help from others.

If a patient comes again for repeat visits, there is no system at present, for him/her to see the same doctor. However the patient card has all details from the doctor who last saw the patient, ensuring a reasonable degree of continuity of care within the facility

The Outreach Centres & Home visits- The Primary Healthcare link

At present, the hospital provides primary Healthcare through peripheral clinics in six Sub-Health Centres (SHC) located at Gandhinagar, Sattayapannur, Kollapatti, Naganampatti, Thumpichampatti and Pachalur. CFH has strategically selected these 6 SHCs considering remoteness of the area, the socio-economic status of the people residing in those areas and non-availability of other government primary care facilities in the vicinity. Each SHC has two health workers and taken together they cater to about 500-600 patients per week. So on an average day, a SHC sees 14 patients per day. The population coverage of the six SHCs together is 50,000.

The Pachalur SHC, which is the largest among the six SHCs has a family medicinetrainee resident on the premises 3 days/week. A nurse is resident 5 days/week. Dr. Raj (from KC Patti PHC[1]), visits the SHC once a week on Wed & provides general out-patient services, and Dr. Mary Raj visits on Tue to look after ANC and Gyneac patients. Besides providing services, the husband &wife duo provide training to the Family Medicine trainee and other members of the health team. Nursing students and a tutor also come to Pachalur SHC, during their community postings.

In each of the other five SHCs except Pachalur, doctors from CFH visit and provide primary care services once a week and health workers provide services on the remaining days of the week.

Services offered in SHCs: Preventive, promotive, curative and spiritual Healthcare services are offered at the SHCs. Preventive care consists of education on nutrition and health education for diabetics, problems associated with early marriage and pregnancy, use of tobacco and alcohol etc. Spiritual counseling and counseling on depression, marital problems is also provided by a visiting Pastor and trained counselor once a week. Curative services provided consist of general outpatient care and palliative care. One in four patients seen at these clinics is a case of diabetes, and these are registered in the Chronic Disease Follow-up Register. Antenatal care is provided once a week at Sattayapannur clinic, by a gynaecologist or family medicine registrar. Cervical cancer screening is also provided at Sattayapannur SHC, for at risk and symptomatic patients.

Home Visits: Home visits are a normal part of the services provided by the Community and Family Medicine Dept. of CFH. Most of the home visits are done to follow up chronically ill patients. Patient on the Chronic Disease Follow up Register defaulting from treatment is followed up initially by a HW and subsequently by a doctor and HW. Home visits by specialized personnel such as Physiotherapists are also provided. Patients on palliative care-catheterization and other procedures are performed on these home visits, as indicated. Geriatric or very sick patients who are unable to travel to the SHC are also treated through home visits by the health team of CFH.

Community initiatives: The major and ongoing community initiatives of CFH include:

School health in government schools: School health education is provided to 50 government schools in and around Oddanchatram. The topics include reproductive and adolescent health, such as sexual health, menstrual hygiene, good touch bad touch, life skills etc. for Classes V, VII, IX and XI.

Adolescent health: training has been started in 2016, and is being imparted to students and teachers at a local private school and a college.

Boys' Home: Started in 1965 with 20 inmates, there are 16 inmates currently with 3 new students joining this year. The Home has been registered under the JJ Act. The hospital provides support to the inmates of the Boy's Home to complete their 12th standard and for higher studies.

There are many mor e community initiatives in which CFH is a partner with the state government.

1 PHCC KC Patti is a full-fledged PHCC, where Dr. Raj (Family Physician & Physician), Dr. Mary Raj (Gynaeclogist) and their health team, provide primary preventive, promotive, curative, emergency and spiritual health services. The population coverage is 17,000 and includes Pachalur. This clinic has been a lifeline to the tribal population of the surrounding hills. CHF has an MOU with KC Patti and a formal system of referral between these two facilities.

Continuity of Care: The Referral Chain

Patients referred to CFH

There is an internal referral system between the CFH and the six SHCs. KC Patti PHC also has a formal referral system with CFH, which functions similarly.

The SHCs & KC Patti PHC, send referred cases to the daily Family Medicine OP at CFH, with the patient bringing the SHC/PHC OP card. They receive priority at the Family Medicine clinic and are referred to the CFH specialty clinics if indicated. From these clinics they may also be referred to tertiary care centres. When patients are discharged, the summary and investigations during the hospitalization episode are attached to the patients SHC/PHC OP card.

Patients are also referred to CFH Casualty/Emergency from private hospitals with a referral letter from private practitioners in the town. After treatment, the patient returning to the referring physician carries the CFH hospital Discharge Summary, and investigations.

Patients from adjacent government facility-from government PHCs and even DH also often come to CFH for secondary level care.

Patients referred from CFH

Patients are referred from CFH for tertiary care. These patients are given a referral letter to tertiary care government institutions or to a corporate private tertiary care, depending on patient's affordability. Since there is no formal MOUs, no priority is given to these patients. However at a personal level, some consultants at Corporate Hospitals may give discounts. Patients needing investigations such as MRI, which are not available at CFH are referred to centres in Maduari or Dindigul. CFH also negotiates an understanding with such institutions for standardized rates.

Patients with chest pain and eligible for inclusion under the Government of Tamil Nadu's STEMI Project are referred to Kovai Medical Centre, under the Govt Stemi Project, as a formal arrangement.

Human Resources For Health

Christian Fellowship Hospital has 472 staff. The doctor to patient ratio is 1:15 Staffing consists of 113 Doctors (53 Consultants, 33 junior doctors & 27 Specialists), 138 Nurses, 15 pharmacy staff, 27 lab staff, 9 X-ray staff, 5 Physio/occupational therapists, 25 Office staff, 13 Opthal assistants, 13 School of nursing staff and so on.

The salary scale aims to address equity and parity, as per the philosophy. The salary of a doctor which is the highest in the scale is no more than 5 times that of the lowest paid staff. The salary of a consultant specialist who has a DM or MCh is not more than 41000/-, inclusive of 60% DA and a conveyance allowance of 5%. This remuneration is low compared to the private sector as well as other mission hospitals. Whereas, the salary scale of other staff in the hospital is comparable with the private sector locally.

Recruiting doctors

However the Hospital continues to attract doctors, vacancies is not advertised and applications are by word of mouth. There are three streams whereby doctors are recruited to the hospital.

1. Christian groups and mission hospitals send doctors to CF Hospital. Many doctors, who have been at CFH earlier either as an intern or junior doctor, tend to return to work at the hospital. A third group consists of Christian doctors who (before NEET) were sponsored by CFH for post-graduation at Christian Medical College Vellore. They are eligible to apply for sponsorship only after working at CFH or an allied mission hospital, for 2 years and meeting strict criteria for sponsorship. After obtaining their post graduate diploma/ degree at CMC Vellore, again they have to serve a compulsory bond of 2 years for a diploma and three years for a degree, at the sponsoring hospital.

2. There is a regular intake of doctors through CF Hospital's various post graduate training programmes. The DNB training programmes, have been on-going for more than 20 years.

Presently the hospital is accredited for Family Medicine and General Medicine. The intake for Family Medicine is 4 doctors annually and for Medicine 2 doctors annually. Both training programmes are well reputed nationally and in demand. Among Family Medicine students, CFH is known to be among the best training centres in South India. The hospital also trains candidates appearing for the MD GP programme accredited by FCAMS and Tribhuvan University Nepal. The annual intake is 4 candidates, annually. These candidates are usually sister doctors serving in rural hospitals under the church. More recently candidates appearing for the M Med (Distance Learning Family Medicine) course of the MGR University, taught & managed by CMC Vellore, are also opting to work at CFH.

3. Doctors wishing to refresh their skills also apply to work at CFH, as the hospital has a high case load, and it is possible to work under the supervision of highly qualified and experienced consultants. All consultants are resident on the premises and take on call duties.

Attracting and retaining Doctors

The junior doctor faces no major stresses during his stay at CFH as there are no conflicts among the senior staff and the junior staff. Among the DNB and Family Medicine trainees, the hospital is known for its academic activities- classes several days a week, journal clubs, case presentations and an associated high pass rates. The hospital has a 23 acre campus and provides residential accommodation with good security for all doctors. Thus this serves as an incentive, and even more so for women doctors.

The hospital has a mess, which provides low cost, clean food. The senior doctors also take their afternoon meals from the canteen quite often, which further ensures that quality is maintained. The hospital has a playground, gym and recreation center. Many co-curricular activities are organized regularly and there is also a big annual sports and cultural programme every year. Requests are received fairly frequently from super specialists who wish to work at CFH and visit the hospital a couple of days a week. Instead, the hospital has chosen to develop super-specialists, from among its own specialists, who are willing to work within the existing salary scale. These doctors are trained at CMC Vellore.

The HR challenge of the nursing staffs: The situation for nurses is very different. There is a nursing college which offers B.Sc. Nursing and GNM training. Most students on the nursing course are given a 50% subsidy, in return for which they are expected to work in the hospital for 2 years following completion. It is seen that most nurses are not willing to stay on, once they have completed two years' work at CFH following their training. Those nurses, who are from the locality, mostly continue to work at CFH. Nurses, particularly those who are non-local, would tend to look for opportunities in tertiary level institutions, which would serve as a stepping stone to a job in the Gulf markets.

Besides the problem of retention following completion of training, there are also fewer applicants for CFH's 3 yearlong GNM training course. However, there is a greater demand for nurses with a BSc degree than a GNM, both in country and also in the Gulf market. Thus many families are opting to send their children for BSc Nursing, in preference to GNM training at CFH.

The Hospital has 32 skilled and experienced ANMs recruited from the Amplikkai Christian Community Centre, which has a good training school for ANMs. There are no problems associated with recruitment or retention of ANMs. However, in recent years, government nursing HR regulations do not include ANMs, as nursing staff of hospitals so its pointed out that CFH does not have adequate number of nurses, as ANMs will not be included in the count of nurses.

Staff Benefits The staff benefits include Provident fund, Gratuity and house rent allowance. Benefits for children include Children's allowance of ₹ 300/- month per child from birth up to schooling. Staff who have completed 10 years at the hospital are eligible for College Education Scholarship, but not for PG. Loan scholarships (interest free) are also available for college education. All staff are eligible for in house free treatment. If referred outside for tertiary care, 33-66% treatment cost paid by CFH. All the staff children get free treatment till 25 years

or marriage. The staff dependent (parents & spouse) get 50-75% free treatment, which is applicable after 2 years of service.

Staff are also eligible for interest free loans for house construction up to a max of 1.5 lakhs, for house repair etc. All the staff who has completed 5 years of service are eligible for a land purchase (max 5 cents) at Naganampatti at 50% of the prevailing government price. It is a conditional sale and the land cannot be re-sold – can only sell it back to CFH

Training Programmes and Courses: The Hospital has a DNB post graduate course in family medicine and in general medicine- with an intake of 4 and 2 respectively. There is a well established GNM training school ongoing for 40 years with a 14 member faculty. The annual intake is 35 where most students are local and are entitled to a 50% subsidy.

CFH also offers a number of diploma programmes accredited by CMAI which prepares a number of technical support staff- in radiology, in medical records technology, in laboratory technology, and in anesthesia assistance for nurses. They are seeking formal accreditation by department of medical education as well.

Access to Medicines and Diagnostics

Pharmacy

CF Hospital has a pharmacy on its premises. The Main Pharmacy Store is managed by a Sr. Pharmacist, along with 15 Pharmacists and an Assistant. The Pharmacy is open from 8 am to 10 pm. every day.

Patients are expected to pay for the drugs prescribed. This accounts for almost 40% of revenues from out-patient department. Many of the drugs are sold below the MRP. Partialsubsidy is given to many patients as judged by the examining doctor. Full subsidy is given rarely to individual patients who cannot afford to pay**.**

The Hospital procures about 470 drugs. Among that, 20% of drugs are procured through LOCOST Therapeutics, a pharmaceutical company that produces low cost high quality generic drugs.10% are procured through the Comprehensive Medical Services India, a Public Charitable Trust promoted by the Inter- Church Service Association. The remaining drugs are purchased from reputable brands. The hospital buys medicines worth ₹ 38 lakhs and sells at ₹ 53 lakhs approx. each month. The average cost of a month's prescription for a patient with diabetes and hypertension, would come to approximately ₹ 200/-.

To prevent stock outs, the pharmacy maintains a minimum stock of 2 weeks and the main store maintains a stock of about 4 weeks. The Drug Department Inspector from the Tamil Nadu Government visits the Hospital, takes samples for quality and efficacy checks, and have reported 95% efficacy.

There is an emphasis on rational drug use. Focus group discussions showed that public perception was of low cost of drugs as compared to other private hospitals/pharmacies with reliable quality. Doctors tend not to give excessive medicines and do not prescribe injections unless indicated.

Laboratory

CFH has an in house laboratory, which performs most of the tests ordered by doctors at the hospital. They have a well-equipped biochemistry and microbiology lab as needed for secondary care. Prices for lab tests are set with a small mark-up over the cost price- but this is an important source of revenue. CFH participates in the Christian Medical College Vellore's External Quality Assurance Scheme (EQAS) for Haematology, Biochemistry and Microbiology, and renews its membership in this scheme every year. MOUs have been signed with three NABL accredited Laboratories, for the few tests that are outsourced- Thyrocare, Microbiological Laboratory Coimbatore and Dindigul Blood Bank.

CFH has a blood bank, which has a license to store whole blood.

Quality of Care: Hospital is conscious of quality and has already taken an ISO certification which allows it to put in place its own quality systems and standards. It is now preparing for Level 1 accreditation by NABH.

Information Systems in Use

The hospital is moving towards greater use of information technology. The hospital has 100 computers linked into a local area network (LAN). Using Hospital Information Systems (HIS), there are various modules for various services. In the MRD, HIS is used for OP and IP registration and managing appointments and discharges. Recently the hospital has also started the use of computer printed discharge summaries, though it still provides a hard copy of the summary. Purchase orders from Lab, Pharmacy, and Surgical Stores are generated, goods receipts and stocks are maintained using HIS. In the Blood Bank, Electronic recording systems registers donors, blood bags maintenance, issue of blood bags, and stock maintenance and expiry. All the Bills are also now computerized

Financing & Resource Allocation

The total revenue of the hospital during 2015-16 was ₹ 2,634 lakhs.

Financial resources were raised from

- Hospital patient services (94%)
- The State Government's CMCHIS (2.8 %)
- Income from training programmes (2.2 %).
- Interest from fixed deposits (3%).
- Each staff member charged ₹ 50-150/- month for medical care.

User fees, exemptions, subsidies

The one-time registration fee is ₹ 20 for each new patient. A consultation fee (CF) is charged ranging from ₹ 10 to ₹ 100.A minimal hospital charge (HC) of ₹ 10 for 1 week of drugs, up to ₹ 70 for 2 months of medications. No patient is turned away due to inability to pay. 10.8 % of the hospital income is given as free treatment. All the Consultant doctors are given the right to authorize free care, though junior doctors and registrars can only up to a ceiling of ₹ 2000 as a policy, the hospital does not accept church support, support from local bodies, Rotary Club etc. and no foreign contributions. The hospital also does not take loans.

Allocation of Resources

There is no earmarked allocation of resources, as there is only one major source of income and that is hospital patient services.

The proportion of resources in 2015-16, is as below:

Expenditure head	% of Total Collection	Amount collected annually
Salaries	41%	Of total collection ₹ 2634,00,000
Maintenance (excluding salaries)	2%	₹ 4702517
Consumables	26.5%	₹ 697,46,480
Outsourced support services	7.8%	₹ 205,06,115
Hospital budget	10%	

The Chief Ministers' Comprehensive Health Insurance Scheme (CMCHIS): was introduced in 2012 at CFH and has categorized the hospital as A3.

Cost incurred by CFH & re-imbursement under CMCHIS are as below:

- ₹ 9711612 was incurred by the hospital
- ₹ 7505232 was allowed under hospital claim.
- The hospital gave ₹ 2206380/-, i.e. 23 % of the free treatment given to patients.
- Another 7.7% of the total cost is deducted as tax deduction at source.

Costing of hospital care

The total number of outpatients seen during 2015-16 was 384846; and inpatients were 16077. The estimated per capita cost received was ₹ 7645 for inpatients and that including free treatment was ₹ 6880 for inpatient.

Costing of primary Healthcare

The earnings from the 6 SHCs was ₹ 25,53,002 and the per capita cost of primary Healthcare was ₹ 102/-. And that inclusive of free treatment was ₹ 92/-.

Governance

CF Hospital has a governing body, which is the Christian Fellowship Society Council and consists of the Fellowship Members. The Christian Fellowship Executive Committee, consists of the Chairperson, the Medical Superintendent, the Treasurer and Secretary, and reports to the CF Society Council. This committee meets only in extraordinary situations and emergencies.

The administration of the hospital is under the Medical Superintendent, while the Administrator is responsible for the day to day issues pertaining to the various sections under his jurisdiction-- secretarial staff, accountant, and leave clerk, obtaining and maintaining all licenses, registrations, certificates. These posts also rotate, much in the style of CMC, Vellore. The Medical Superintendent is responsible for all liaisons with the government and non-government systems. The Heads of department reports to him. The position of Heads of Departments is a rotatory post, based mainly on seniority, and willingness. Most Fellowship Members lead at least two Departments in the hospital- in the area they have specialized in and in a support service. Meetings are frequent and participatory.

Lessons Learnt

The challenges for the hospital in sustaining its vision and mission, sixty years after it was set up. As the founders of the hospital are no more, and there is a generational change in leadership and constituency, the task is to keep the original vision and to pass on this vision to new doctors, and all layers of staff of the hospital. To continue as an ethical, honest and transparent institution, in these changed times, working within a corporatized health sector is a challenge- and so is the challenge of managing within the revenues it generates. This brings limitations to what it can do to primary Healthcare.

One reason why CFH is able to survive is because it has been able to attract and retain considerable skilled professionals and reasonable salaries- much less than private sector and more or less on par with the public sector. But this it does by creating a very vibrant and professional practice environment. It has also been modern in its approach to quality of care and management information systems- and despite the costs of doing so maintained a good case record system.

But primary Healthcare so central to its origins is perhaps limited by this need for sustainability Like in all mission hospitals- the challenge is to remain sustainable, professionally competent and yet inclusive. The last is becoming a challenge. The needs of sustainability require it to attract more patients- and higher paying ones. For this one reason it does not highlight the services it does for the poor. Also the district hospitals and PHCs in tamil nadu are much more functional. And though CFH has some exemptions for the poor, its charges are high enough to act as a barrier.

One way of coping is to shift the mandate to training medical and nursing graduate and diploma holders- but again to be equitable, one has to bring in candidates from the most discriminated and poorest sections of society.

11
CHAPTER

GOOD SAMARITAN HOSPITAL

Amboory, Trivandrum (Kerala) | *John Verghese*

Away from the state capital, in the serene natural beauty of Amboory Grama Panchayat is The Good Samaritan Hospital located. It was built with the financial support of *Entraide Et Fraternite*, Belgium, and was inaugurated on 13th September, 1970. Amboory is a remote village about 40 kms away from Trivandrum city in the hill station near Neyyar Dam. The only mode of public transport is the public road transport facility which serves a trip in an hour to this village from either of the stations of Trivandrum, Kattakkada and Neyyattinkara. Apart from this people depend on private and shared taxi jeeps for logistics.

Majority of the migrants were Catholics and hence the church, the Syrian Catholic archdiocese of Changanassery, came to their service and the missionaries helped to bring the village up by making roads, bridges, schools and other necessary facilities including a hospital which can provide basic medical services.

The Good Samaritan Hospital is founded on the Christian charity and has been trying to offer basic healthcare services to the people of Amboory. GSH has got about 40 acres of land and a total of 20,000 sq.feet of built up area spread in 4 buildings in the same campus. The hospital, staff accommodation, doctors' bungalow and the Good Samaritan Home for the Aged are the buildings in the campus- much like most mission hospitals.

The local population has tribal inhabitants (Kani) and migrants from central Kerala who came and settled here for agriculture. The 'Kani' tribals are the major beneficiaries of this PHC which has been revived with the presence of a doctor about four years back. The 'kanis' are, according to the local people, due to the benefits of various government schemes, rich enough. In the absence of the doctor in PHC, they come to GSH for treatment and pay out of pocket.

However this is a case study of a Mission Hospital that has found it difficult to sustain and to survive. This is presented to understand another side of the Mission Hospitals. Though we have presented three case studies of success the experience of most is that most hospitals are finding it difficult to survive. Those who survive either are moving on to the provision of high technology tertiary care in the metropolis or high technology secondary care in rural areas where both public and private sector are seriously under-developed. Success with only primary Healthcare, linked to supportive secondary Healthcare which

is the model with which most began is rare- and increasingly becoming more difficult.

The Services Available and their utilization

The services offered at present in GSH are only primary care and first aid. One side of the building offers ayurvedic services and the other end offers allopathic services. The latter is outsourced to a visiting physician - Dr. Pratapan, a retired doctor of Anappara CHC who is held in high regard. They come to him for all their basic Healthcare needs either at his facility at Anappara, 9 kms away, which is small clinic in a rented building, or to GSH. Another part of GSH is being presently utilized for Ayurveda centre under the direct management of the owners.

On an average 70 OP patients, among which 20 are new cases, are given consultation in the Out-Patient department. Monthly average number of in-patients is about 10 and the average length of stay is 3 days. The bed charge (only general ward) is ₹ 100/day. About 10 patients visit this facility daily for Insulin injection, mostly ladies, and no paediatric patients. Average amount of in-patient treatment is ₹ 1000/ hospitalization. The tribals (kani) who come to this facility find to be more affordable and most of them have reimbursement.

Accident victims are not brought here unless they survive with very minor injuries. The hospital is not having agreement with any insurance company neither is it empanelled for any 'cashless' service of public or private organizations and employers.

Infected patients are treated in an isolation room for a maximum of three days and if no progress, they are sent to Government Medical College Hospital Trivandrum.

The aysuh services are provided by Mr. Jacob K V, a senior practitioner of traditional medicine and a consultant in GSH. He finds himself having the advantage of knowing the herbs from which he extracts the materials for treatment. According to him most others who practice the indigenous systems use materials readily available in the market and do not know their core elements and compounding. Most of his patients are those who are declared as uncurable by the modern medicine practitioners. Disc and joint problems, arthritis, spondilosys, and stroke are the major complaints treated for. He gets the raw materials "angadi marunnu" from local shops.

The local tribals (Kani) has their own system and practice of medicine which they do not disclose to others. The head of the tribe (mooppen) controls the tribe and he will not allow the tribe to pass on their knowledge to others. The tribals come to GSH for treatment and pay out of their pocket for the same. Majority of them go to PHC at Mayam (5 kms from Amboory) and in the evening and when there are no doctors there, they come to GSH. The traditional medicine is offered at very low cost in GSH. The focus is treatment is the damages caused to the 'marmas' (trigger points) and unnecessary treatments are avoided. Physical examination is the major technique of diagnosis. But if the patient brings lab results and medical images, they are also referred. In case the patient shows less confidence in the diagnosis, they are asked to follow modern diagnostic techniques including scanning and confirm the diagnosis. To the question whether he requires the back up of modern medicine in the event of mishaps in treatment, the answer was that so far we never had any such events. He added: "In case of any serious threat of life (or other forms of severe damage) we will not hesitate to seek their support".

In earlier times there was considerable demand for delivery service (about 55 per year in 1991) but these have sharply declined by year 1999 (less than 15) and there is now no such services in place. No vaccinations are offered in GSH.

Almost all basic and emergency drugs are available here. The doctors prescribe branded drugs. Pharma distributors from Trivandrum visit the facility often and they deliver ordered medicines and supplies within three working days. Dog and snake bite cases are referred to Karakkonam Medical College or to Government Hospital, Parassala. In case of snake bite, people of the locality could often prefer a local traditional healer (nattuvaidyan) who is a resident of the village and has expertise only in treating snake bites.

The other nearby facilities are: PHCs at Mayam and Anappara have taken up a large part of the primary Healthcare in this area.

Basic laboratory tests are done here. Advanced lab investigations are offered in tie-up with DDRC which collects the samples every evening and serve the results by next morning. Profit-sharing is the adhesive force of this service- and it is a modest source of revenue.

ECG is done in GSH itself, while X-ray facility is available only at another missionary hospital at Panachanmmodu (12 kms). There was an effort to establish an XRay here but it was difficult to raise the funds- and once installed it did not pay for itself, leading to high liabilities and forcing outsourcing of the hospital itself.

Scanning requirements are mostly referred to Karakkonam Medical College, with due respect to the free choice of the patient, because the doctors do not accept any incentive for scan cases. Most of the referral cases are sent to KJSM Medical College Hospital, Karakkonam (18 kms away), although there are no agreements made with them in this line.

Community out-reach programmes, health education and medical camps have not been in the agenda of GSH since inception. Lack of manpower is considered as the excuse for the same. Hence, when asked about the hospital, some of the respondents among the population around responded saying: "We do not know what do they do, whether there is doctor and which doctor is now serving there."

Human Resources

The staff strength in the GSH at present are staff nurses (9), nursing supervisor (1), lab technicians (2), Pharmacist (1), doctors (3-common for two facilities) and a manager. Nurses are on three shifts duty, pharmacist works only from 8.30 am to 5.30 pm, laboratory works round the clock, nursing supervisor on 4 days a week (only on day shift) and the manager is on full time duty (including night on-call). The staff are paid a lumpsum amount (much lower than the minimum wages stipulated by state authorities) and they are happy because they are employed in their home village itself. Most of the statutory benefits are not paid to the employees as the number of employees fall below the minimum required for coverage. However they are given over-time benefits if they are required to work beyond their duty hours.

Financing And Governance

The management had put all their effort to run this facility as a health facility under modern medicine until 2010 when the total outstanding liability cumulated to about six lakhs. Then the unit was closed down. Since the major part of the loan was for the purchase of the X-ray machine, the same was sold out for repayment of loans.

After six months a new director, a native of Amboory, was appointed at the facility. GSH was restarted with Ayurveda on one end of the hospital building and allopathy on the other end. A young doctor of Kannada origin with much social commitment who returned from the Persian Gulf joined as consultant. But he could not continue for long as his family was facing challenges of providing quality education to their children and his wife was feeling alienated in this remote village. The management further tried many doctors who would not continue for long either due to maladjustments with the local population or due to failure in getting staff support. A proposal to rent out the facility was the option the management choked out. Almost at the verge of signing an MOU, the management recognized the physician who was willing to take it for rent as fraudulent and withdrew from signing the agreement. The second one came forward was a specialist in General Medicine and took over the facility on rent. But his predominant commercial interest was well expressed through his tariff and service. At the end of the year the management did not want to continue with him. The next choice was Dr. Pratapan who had already expressed his interest to run the facility. But as a retired person he is happy to provide services for modest remuneration. . He explains it in the words: "As a retired government civil surgeon, I find it boring to sit idle at home and do not like to work as an employee in private hospitals. Hence I do the service possible within my limitations as a charity". But he is not going to drive forward any revitalization of the center.

The other professional- Mr. Jacob K V, learned the art of preparing the treatment requisites (kuzhampu, kashaya, vasti, dhara, kizhietc) from 'masters' (asan) and from his grandfather who was a practitioner. He is trying to pass on his knowledge and skill to his youngest brother. However the laws regarding license to prepare medicines and practice of medicine prohibits him from doing proper practice which he overcomes with the help and supervision of a registered Ayurvedic practitioner.

In the words of the present director, this hospital was *not* gaining the acceptance of the people in the vicinity because we were not adopting latest technology. He points out the much delayed and recent addition of X-ray as an example, at a time when the facilities in the city are offering CT and MRI scans. People do not like to risk their life and like to go to the best and safest hospitals at the very beginning of the episode of the disease itself. About half a century back when this hospital was started, there was no good road and hardly anyone in this village had a car. But now the road infrastructure is better and more than half of the families own cars. The capital city is now reachable within an hour and better facilities are round the clock available. Hence the patients who come to this facility for treatment are mostly for minor illness and low-risk complaints.

There is also the competition. The medical shops in the vicinity (three shops in Amboory town) have some displeasure about the recent improvement of GSH because of the loss in their business.

It is thus becoming increasingly difficult to sustain. Salaries account for most of the expenditure and then some low cost medicines. Revenues are from sale of medicines especially herbals.

Table:1 Expenses on various items as percentage of total expenses (2012-2015)

Items	2012	2013	2014	2015
Salaries	24.4	26.3	40.5	49.9
Maintenance	17.2	8.6	4.7	2.4
Allopathic Med	16.8	18.5	50.3	18.7
Herbal Med	1.2	1	1.6	1.3

Table 2 : Income from various services as percentage of total income (2012-2015)

Items	2012	2013	2014	2015
Med & Inj	53.4	54.8	64.6	32.1
Herbal	15.7	14.8	21.1	27.1
Lab	4.2	6.2	5.4	3.4

The management also find the rules to be a barrier to survival. In the words of the director, against private sector including charitable hospitals. Government machinery insist upon us all rules very stringently, even including waste disposal in this area with much of land filling possible. On the contrary none of these rules are followed by the PHC and other nearby public facilities. Such affairs add to the expenses of the hospital. But the charitable nature of the institution leaves the patients with an expectation of low cost services. The documentation hazards forced GSH to refrain from offering its services to RSBY patients.

The supervision of the experienced nurse is the way to assure the quality of the services delivered GSH. Biomedical waste is disposed through IMAGE (Indian Medical Association Goes Eco-friendly). The need of a documented quality policy and manual are not felt by the service providers.

GSH is not using any HMIS and IT support except for billing. All the medical records are manuscripts and paper files with unit numbering system.

Lessons learned from the model

GFH hospital operates in an area where there is considerable unmet need for healthcare. Yet a not for profit hospital with very high motivation fails to thrive- a problem not unknown to public health systems.

One central issue is that primary Healthcare especially for the poor does not pay for itself- on any type of user fees. Nor even does secondary care if located in an area where access to paying patients (the highest economic quintile) are not there, or have better options. But it is not only the financing.

The package of services too is sub-critical. The human resources policy is unable to attract or retain a viable team – due to lack of revenues, as well as the inability to address issues of professional and social isolation. The fact this primary Healthcare is not owned by or part of a network reporting to a CHC or district hospital equivalent- itself isolates them. Could it be that the only circumstances under which such a stand-alone primary or secondary care center survive (perhaps) is when a motivated doctor, or more typically a married doctor-couple set up or take over such a center. Otherwise it must have a critical size in itself or be a part of a network. This is not a requirement for a small commercial nursing home- but it would be for inclusive models of care that are meant to reach the poor. Even very well financed stand-alone models – Sughavazhvu in Thanjavur for example- face this problem. Its not mainly about financing and ownership- it is a lot about the organization of health services- and in this the linkages it has for continuity of care has become of central importance.

12
CHAPTER

P.V. RAMACHANDRA REDDY'S
People's Polyclinic

Nellore (Andhra Pradesh) | *Adithyan G.S*

Introduction

The peoples' polyclinic is a unique institution. One of the longest surviving worker run hospitals, it has been an inspiration to many who work for a pro-poor, or pro-people alternative healthcare system. In conception it was a model of integrated Healthcare- where primary, secondary and tertiary care were organized as continuity. However over time, the model struggled to replicate itself and even to hold true to its original vision of integrated care. It however never compromised on its dedication nor in its capacity to deliver a high quality of Healthcare that even the poorest could afford. It is one of the lessor known models- and is important not only for what it is today- but the many roads that it attempted over its 75 year long history.

The Origins & Revolutionary Roads Crossed

People's Polyclinic (PPC) in Nellore is an organization dedicated to the core ideology of socialism. It was started by Dr. P.V Ramachandra Reddy popularly known as PVR, who is also the brother of Comrade P. Sundarayya- one of the founders of the communist movement in India and later the first general secretary of the CPI(M). After completing his basic medicine degree from Madras Medical College in 1939, PVR trained in surgery at Stanley Medical College.. He was the founder member of Madras Student's Organization, which later became a part of the All India Student's Federation (AISF). He was trained under the best surgeon of his times, Dr. Visvesarayya at Stanley Medical College. As a student itself, he was very popular among the students and even the public. He was very brilliant and outspoken at the same time.

PVR and his team were part of a medical team which went for relief work to the Great Bengal famine of the forties- and were so moved by the senseless disaster that they witnessed that they dedicated themselves to Healthcare. Guided by Com. Sundarayya they decided to establish a health movement "to take care the life and health of the people so as to make them fit enough to be in the productive process and the struggles ahead". Inspired by information on 'bare foot doctors' concept emerging in China and their own conviction they started with a movement

for 'health in people's door steps'. Somewhere there was also the vision of the peoples polyclinic as a base hospital to support the revolutionaries in the revolution that then seemed so imminent.

Nellore was a revolutionary crucible- many progressive movements - Telengana Rebellion, peasant movements and the library movement at the time of independence, and later Literacy Movement, anti-arrack movement, self help group movements and the health Movement, all had their epicenter at Nellore.

The PPC health center started up under a trust that was set up in 1953 with ten members including PVR and his wife who was a doctor plus other para-medical staffs. In the initial phase the PPC selected educated people mainly teachers in Nellore and trained them in primary care activities. They experimented with locally available resources in combating vitamin deficiencies, malnutrition and other common diseases. PPC at its origins was not just merely a Healthcare center providing care and treatment, but an institution, which motivates and equipped many to liberate themselves from the fetters of capitalism and feudalism.

PVR passed away in 1965. It was under Dr. Sesha Reddy, his nephew who took charge of the hospital, that the peoples polyclinic now renamed the PVR peoples polyclinic grew into a unique medical institution. From a thatched house run by a small team to a 250-bedded hospital that trained doctors for rural service across the state, all without any external support, and which was the source of inspiration not only for the peoples health movement but for many contemporary health leaders, the journey PPC crossed was indeed through the 'revolutionary road'.

Governance Structure

From the beginning, democratic decision-making is shared value – and the sense of hierarchy is minimal. The hospital is governed by a trust. At present the trust has 25 members. Most of them are committed hospital doctors and there some from other staff sections. There is one external party member, Mr. J Venkayya, a respected member of communist movement in Nellore- a former district secretary and a MLA. The major administrative decisions are taken by the 'Executive Committee' consisting of 10 senior doctors, most of them who are committed Marxists and are serving the hospital for more than 20 years. The administration holds itself accountable to the larger political movement and party- but in practice it has every autonomy and the larger body only acts as a source of counseling and wisdom when there are difficult decisions to make.

The Service Delivery

The hospital is for the most part providing primary and secondary care. It is people from the poor and the lower middle class who are mainly utilizing its services now. Around 800 to 1000 out- patients attend on an average working day. Except for Sunday, outpatient (OP) units function on all days from 9 am to 4 pm, and on most days the timings extend beyond these limits, as there are still patients to be seen. When a patient comes for the first time he/she will go to the registration counter, pay an amount of 20 ₹ and earns a lifetime membership. At this point the patient receives a *patient file* with his/her basic details, a Unit Medical Record (UMR) number and chosen doctor's name in front page, which he/she needs to bring with him/her during all the following successive visits. The patients have the liberty to opt for any doctors during OP visits and the service is on first come basis. If the patient doesn't opt or is unaware about any doctor's name- the staff in the registration counter will select a doctor according to availability. Whenever an outpatient comes- whether new or old, the patient should go to registration counter to enter his/her visit before going to the doctor. If the doctor advises the patient for any lab test or diagnostic test, the patient should again go to the registration counter, do the payment and then proceed to the lab/ diagnostic facility. The doctors made it mandatory to see all the results of investigations on the same day. If the doctors feel that, there is need for referral care, he/she will refer it to higher tertiary care center. There are 19 OP units functioning everyday- 13 general OP, 5 Gyneac OP and 1 Surgical OP. Senior doctors manage all the OPs.

The hospital has 250 beds. The in-patient (IP) unit and casualty units function on all days and has 18 units. A senior doctor heads each unit- in addition

to the OP unit they are in charge of. Under him one or two junior doctors will be working. For the junior doctors there is a compulsory rotatory posting in all units so that they get adequate training in all areas. This multi-specialty training is one of the attractions for them to work in this hospital.

The hospital has two OTs. It also has in diagnostics an X Ray machine and ECG and a laboratory that does a range of 35 blood tests.

Human Resources & Challenges

There are around 40 doctors on roll. More than half of the doctors are graduate doctors. There are only very few specialists- Gynecologists, Surgeons and Pediatrician. At times of need as for a specialized surgery the hospital also invites and pays specialist surgeons and anesthetists for the procedure. Previously the doctors with only MBBS qualifications did all the surgeries. The policy of the hospital is to train MBBS doctors vigorously over a 2 year period to become good what we would call family physicians today- except that it increased an adequate training in surgery. All of the senior doctors have mastery in surgical practice through the training, which they got.

There is a reason for this. The Nellore polyclinic saw itself as evolving a system of access to the poor for essential Healthcare. It would recruit motivated doctors from the left student networks of the medical colleges and bring them in for a two-year all round training. Once completed they would be encouraged to set up their independent practice in other districts of Andhra Pradesh – especially in remote areas. At its peak more than a 100 such polyclinics were set up- and many of them continue to have links with the party and maintain their inclusive character. However more of them do not- and indeed some make use of the brand image that the peoples polyclinic as a term has acquired without adhering to its inclusive and pro-poor character.

Even at Nellore, recruitment and retention of new junior doctors has become a challenge. According to many senior doctors, it is very difficult nowadays to get good junior doctors with the proper vision, values and orientation. Previously there were waiting lists for one to two years to get employment in PPC as a doctor. Even though the hospital currently has a good number of doctors, there is a perception amongst seniors that many of them are working because of the decent remuneration they are getting (in par with the private facilities) and personal career ambitions- and not the desire to serve the under-privileged people that marked the earlier generation. .'*Now young doctors are seeing the medical profession as a business for money making. This is just an outcome of the privatized medical education and health sector'* added a senior doctor.

The hospital also has 80 nurses. To get nurses, they are not facing much difficulty, since the hospital is also running a Nursing College to train GNMs (30 per year). All the GNM students come from the low socio-economic background and are studied on scholarship provided by the government. There are also 3 pharmacy outlets, which are operated by 8 compounders trained within the hospital and not formally qualified pharmacists. Till ten years the pharmacy was outsourced to a private entity. Then at one point, responding to complaints from activists that the pharmacy was operating only with a profit-motive and not able to incorporate concerns of inclusiveness, the hospital took charge of it. This was a big decision – which came after considerable consultations and internal discussions.

From a Surgical center of excellence to a medical center

At present due to changes in medical practice environment, the PPC has decreased the specialized surgeries it does. Two major reasons are behind this. One was the introduction of 'Arogyasree' health insurance scheme by the government, which provides insurance coverage to many surgical procedures also. The hospital did not get empanelled as a provider under this scheme. There were concerns as to what such empanelment would bring in terms of government pressures, and also there was an established internal culture of low costs with occasional cross-subsidies, which could get lost. The district collector made some valiant attempts to bring them- but PPC held out- not wanting to be seen as legitimizing a shift of government from

provider to purchaser and not being convinced at a political and public health level about the design of this scheme. This was a brave attempt to remain true to their core vision in which the hospital is only a form of public hospital held in trust- and not a private entity in the usual for-profit usage of the term. But all this reduced the surgical load in the hospital. In the meantime, partly driven by the arogysree scheme there was a blooming of many specialty hospitals in and around them, all over Nellore town. This also created a dilemma in the PPC leadership- when poor people insists to do a surgery in PPC paying for it, due to the trust they repose in it when there are other empanelled hospitals nearby where they could do it for free.

The second factor was a change in public perception and norms – where even though it is legally tenable, it is expected that only a qualified surgeon should only do any surgery. Potentially if a legal contestation happens, then courts and medical bodies could blame the hospital for not using qualified surgeons or specialists for surgery. Though not usually subject to litigation, occasionally legal cases had been filed- and in the competitive practice environment that was evolving, there was every likelihood that less ethical competitors would encourage this development, even if the patients themselves did not push for it. There was also the declining quality of MBBS doctors passing out each year. Whereas earlier some surgical experience was a mandatory part of internship, nowadays that was an exception. The in-house training requirement was much higher. These reasons culminated in bringing what was for almost four decades, the one and only surgical center in the district, and indeed in that region, into a mainly medical center that only occasionally did surgery.

Other dimensions of hospital management

The hospital has not gone in for any formal quality accreditation programs- and indeed it would not be an economic proposition for them. The costs of accreditation would far outweigh the benefits of it. For quality assurance in the laboratory they randomly compare their lab results with external benchmark reports. Not very systematically done, but available. There are academic sessions every day for junior doctors which is poorly attended. There is some patient education on video- with limited reach. Other quality measures like standard treatment guidelines and patient care review or medical audit are also poorly institutionalized.

Computerization is also slow to develop- and most records are on paper. There is some collection and use of data- but again neither as a management tool or as a patient quality tool. Part of the problem is the low cost model- where the capital investment needed for this is hard to come by. Till recently in their culture of frugality, even air-conditioners were frowned upon.

Financing

Financial management is a matter of highly skilled tight rope walking. The hospital does not accept external funding and all running costs are from the very modest fee- for- services from patients. The basic out-patient consultation charge is ₹ 40 and for Gyneac and pediatric consultation- it is ₹ 70 and ₹ 90 respectively, all which will have validity for one month. It is the managerial ability that takes it through. In rare instances, like from individual benefactors, they had accepted external funds.

It is not only for registration. The hospital charges very minimal amounts for all its procedures including pharmacy, diagnostic facilities and procedures as compared to any nearby hospitals in Nellore. Thus in a way it indirectly acts as the 'rate limiting factor' for other Healthcare centers in Nellore. When profit making is a disease among the private Healthcare sector, PPC stands out with its core values intact.

The senior doctors (individually) have the discretionary power to waive charges to patient (fully or partially) according to the patient's economic condition. For all charge waivers, patient needs to directly contact the designated senior doctor and there is no separate administrative or accounts section which carries out this.

One curious decision is the decision not to avail of insurance. One set of concerns is the fear that they will be seen as hypocritical if in theory they oppose a shift to insurance as the main government

policy but themselves avail of it. The opposition to insurance is because of government abandoning public provisioning- but this should not be ruling out supplementation by hospitals like Nellore- which are also "public" though in a larger sense. Or is it- that despite the so called push to get them empanelled- when they come close to it- there are many barriers and they get denied it. Insurance could have solved many of their problems- but why not. To keep control over the runaway costs of Arogysree, one of the strategies that government follows is of limiting the number of hospital empanelled under the scheme- and not including in the package the secondary care surgeries which are more common here. Also Nellore PPC could fail to meet their minimum conditions for empanelment – like surgery without surgeons etc.

Primary care and community engagement

In its founding days and well into its first two decades of existence, preventive and outreach work and community engagement were important elements of the PPC. It was PPC that introduced vector control in the district way back in the 50s. It also experimented with solutions to nutrition supplementation in the days of famine. Famine had been their founding stimulus- and it was not surprising that nutrition became a cornerstone. Regular health education campaigns and outreach health camps were also frequent.

Over time this attention to primary care declined. There was an important revival of this work when the hospital, or at least many of its activists became actively involved in the literacy campaign and later in what was called the literacy to health campaigns. In the mid-nineties these programs extended to over a 100 villages. This polyclinic and its activist team led by Dr. Sesha Reddy was one of the important crucibles from which the peoples science movement and later the peoples health movement (the Jan Swasthya Abhiyan) was born.

These primary care initiatives did not survive. There are no existing primary care models that pay for it – and there were no sustained funds available. A fee for service model with locally recruited health volunteers was pioneered but it did not go far. The effort has not altogether been given up and there are some efforts at addressing chronic illness through community structures including patient groups. This loss of the primary care dimension and the retreat to a hospital centered primary and secondary care was unfortunate but perhaps inevitable.

Lessons and possible futures

This is another hospital that is committed to being inclusive. It provides both a wide range of primary and secondary care services. In many ways it is similar to the experience of mission hospitals- with some important differences. First and most important it defines itself by a notion of solidarity and as an adjunct to a larger peoples movement. At its early stages its work in public health, primary Healthcare and secondary Healthcare were all essential interventions since there were no other agencies active in these areas- and there was almost no physical access to most essential Healthcare services. By the eighties, there were government public health and primary Healthcare programmes in place. Though not as effective, there was little that the PPC could offer on a voluntary basis that could even significantly supplement it. However secondary care remained out of reach. So the hospital focus logically is on hospital based primary and secondary care- and there is enough service users from amongst their own fraternal organizations to which they are an adjunct and the poor and middle class in that area for a viable operations. There was a time, when the Nellore polyclinic was seen as a replicable model- and a very large replication did occur- but the mechanisms by which the values that drove this hospital could also be replicated and sustained in the new polyclinics set up in other districts were never worked out. Some did retain this spirit. Many did not. It is worth studying why this was so?

Modern hospital practices such as quality assurance systems and health management information systems are also slow to catch on. At one level this shows that such systems make only a limited contribution to inclusive Healthcare- and often add needless costs. But it also shows that innovation, a strong point in its early phase, is much more limited now.

One big lesson remains- of which Nellore was the big pioneer- and that is of the basic specialists- the equivalent of Nepal's MD in general practice, or the MD in family medicine. It is indeed ironic that when the national health policy has come around to seeing the creation of such a specialist as essential, the PPC is itself moving away from this.

Another strong feature of the hospital is that though it has had great leaders the institution is not built around individuals. It is public ownership by a organization, representing the interests of workers and peasants that governs- and which ensures there is a continuity of leadership and a renewal of the vision.

There is considerable internal discussion on whether to move to primary Healthcare and how to move to it- considering that PPC will not and should not accept corporate funds or funds from international aid agencies. Even on accepting government funds, there is great caution. But without integrating with primary care or in some way engaging with questions of approach to organization of health services it is difficult to ascertain whether they would remain an approach for learning from and replicating. But then do they define themselves by such a goal? Their main objective is to serve the common people who come to them in search of healthcare – and this they provide- with great sense of compassion and dignity. So do they need to be innovators in healthcare delivery as well?

13
CHAPTER

SHAHEED HOSPITAL
A Testimony to the Success of Peoples Struggles

Dilli Rajhara (Chhattisgarh) | *Adithyan G.S*

The Genesis

The birth of a hospital: From neglect and apathy

The creation of Shaheed hospital is related by the current leadership as the brain child of a visionary leader who had risen from the masses and been the founder-leader of their trade union the Chaattisgarh Mines Shramik Sangh which later became a part of the larger polticial movement- the Chhattisgarh Mukti Morcha.*"Toiling masses will have their own hospital"*- was the dream as attributed to Shankar Guha Neogy, the CMSS leader. The need for this initiative grew out of the neglect and indifference shown by the Bhilai steel plant (BSP) administration and the hospital management towards the contractual tribal workers in the BSP's captive mines. The BSP has a well developed hospital and Healthcare system which provides a good quality of coverage for its regular employees. But much of the work in the mines is implemented through contractors who hire workers on a daily basis or monthly at contractual terms, and most of whom are tribal backgrounds. They, in contact to the regular employee are all deniedlabour entitlements. Even the main trade unions focus on the regular employee. The callousness and neglect with which these contractual workers were treated lead to desperation and anguish and in response to this, a new trade union movement that had arisen amongst them took up the challenge of an institute for the welfare of labourers and their tribal community as a challenge. No doubt in the spirit of the mid nineteenth century trade unionists of Germany, this also contributed to worker solidarity in a workforce that was divided between many multiple owners. One triggering incident was the death of Com Kusum Bai, a tribal worker, during childbirth- when the official hospital failed to provide care to her.

Shaheed Hospital (or Martyr's Hospital) as it is known, was built and managed by the workers of iron ore mines in Dalli Rajhara, Chhattisgarh. The name The name was in tribute to eleven workers, including a child, who died in police firing in 1977. In that year, about ten thousand mine workers, dissatisfied with their then leadership on the settlement of a bonus dispute, left their unions to form a new trade union, named *Chhattishgarh Mines Shramik Sangh (CMSS)*, under the leadership of Shankar Guha Neogy. Under this union, the workers also created a number of participatory activity areas in health, education,

women's rights, youth, sports and so on. The health front started with two slogans,*"Mehnat Kaso ki Swasth ke Liye, Mehanat Kaso ki apna Karyakram (work for our health, work for our livelihoods)" and "Swasth ke Liye Sangharsh Karo" (struggle for health).* The very first health facility that started up in 1981 was a small dispensary, which also served as a delivery centre, organized as an abundant garage in the union office of CMSS.

The construction of the Hospital was the a symbol of their unity and strength. The workers accomplished it literally brick by bricks, contributing not only the money, but also the physical work force. One veteran worker and one veteran farmer inaugurated the hospital. Thus Shaheed dispensary became Shaheed Hospital on 3rd June 1983. Workers raised money among themselves and used to work in mines in day time and hospital in night. It was workers who played the role of the health worker, nurse, lab-technician, pharmacist, accountant and many more. Even today worker –volunteers perform a number of administrative services as part of their contribution to worker solidarity.

"I had stayed in Neogyji's modest cottage the night before and early morning he took me out for tour around. We came to a vacant area near a small hillock full of shrubs which was apparently used by the locals as an open air toilet and Neogyji said 'this is where we build the hospital. You come and join us and you will have the hospital ready in three months'- recalled Dr. Ashish Kundu in his memoir. Dr. Kundu was one among the first doctors to serve Shaheed Hospital along with Dr. Binayak Sen and Dr. Saibal Jana. Even though many including Dr. Kundu had expressed serious doubts about the starting of the hospital, they were clearly inspired by the personality and determination of their leadership : "It is important to dream and then to strive to make it as reality. There is no hurdle on earth that can stop you for full filling your dream if you are serious about it." It took two years for the workers to build their own hospital. Neyogiji's aim was to let the workers have the taste of building their own hospital so that even if anyone destroys it, they will build another one. His dream of building a workers hospital was rooted in the philosophy of "*Sangharsh aur Nirman*" (fight and create) which is even now the guiding slogan for the workers in Dalli Rajhara.

Shankar Guha Niyogi was murdered in 1991- by contractors who hated the rising empowerment and solidarity amongst workers. Though the lower courts held them guilty, in a sad tale of judicial failure, the high court let them off for lack of evidence. The hospital and the union survived.

The initial years of health activity and activism

Shaheed hospital has a strong bonding with surrounding tribal villages as all the workers who were part of the movement to build the hospital, belonged to these villages. They have been involved in all activities of the hospital since its inception. The hospital started their work with health education programmes amongst the mines workers, villagers and Mohalla people. From the very beginning hospital staff tried to address the health problems of the community with participation of the local people themselves. They prepared different kinds of IEC materials and used in for community health education. The health workers were also effective communicators on key health issues. For preventing diarrhoea outbreaks, (Tatti Ulti ka campaign) the health workers team used to go to villages for teaching them how to prepare ORS preparations locally, effective hand washing techniques and water purification methods. There was also a campaign running against malaria, which has a high prevalence in that area. The slogan for that was 'Malaria mein mrityu abhi nahi.. kabhi nahi...' that is, "No death by Malaria – not now, notever." Carefully crafted slogans – a skills of the political activist- were effective communication tools, reaching the imagination of the common man, even the illiterate. For many campaigns, the hospital additionally involved a *Kalajattha team* (Chhattisgarhi folk art drama and dance team), which goes into villages to spread the message to fight against malaria, cholera etc.

The team was also actively involved in an anti-liquor movement among labourers in initial days, since alcoholism was highly prevalent among the tribal community. There were about 10,000 labourers who together pledged that they will not touch alcohol again. These people planted a lemon tree in front of their house as a sign that they were part of that pledge.

This movement was also initiated by Neyogiji. The Shaheed team also told us of 'many health-related superstitions that prevailed among tribal community which were exploited by quacks and it was needed to wage a war against it, reinstating the faith of the people in scientific healthcare practices through their healthcare programs.' The health worker team also promoted the rational treatment with generic medicines and raised their voices against all types of corruptions in health sector existing at that point of time. Like this, Shaheed hospital was involved in numerous community Healthcare activities, most of which are not documented till date. Also not related is the work of this team in taking up various workers problem apart from their health problems as one would expect of true champions for workers' rights on all aspects.

This "sangarsh and nirman" approach is not limited to Healthcare. Workers started realizing the power of solidarity in a wide number of areas- which led them to start their own schools, crèches, co-operatives, agricultural help centers and many more. They also had their arbitration mechanisms where domestic and neighbourhood disputes were resolved. It has the makings of communitarian living – which is somewhat easier to understand and achieve in a tribal landscape.

Governance

The hospital is registered under the Indian Trusts act. However its functioning is as society with a 13 member governing body mostly drawn from CMM and one from Jan Mukti Morcha (a faction of CMM headed by Niyogi's son Jeet). All decisions are taken on participatory basis through discussions and debates including all the staffs including health workers. In many crucial issues of administrative importance, the trust members will also be consulted for opinions.

Services

The total number of out-patients who came to Shaheed during January 2017 was 4093 (1418 males, 2245 females and 430 children). Approximately, the hospital sees around 150 to 200 OPs per day. In a year it sees close to 50,000 outpatients.

The total number of in-patient admissions for the month of January, 2017 was 674 (435 female patients and 167 male patients; and 72 child cases). The hospital has currently 100 beds- but as the in-patient load increases, the hospital is constructing a new in-patient building with an additional 70 bed capacity.

Most of the people who access the hospital for treatments are from the socio-economically weaker sections especially SC/ST community. Most of these people see Shaheed as the first and last resort for medical care. The Bhilai Steel Plant got mechanised post liberalisation, which reduced the manpower working in the BSP. This results in huge unemployment among the working class in these localities which pushed them to migrate to other areas. This may be one major reason for the decline in population.

Even though Shaheed hospital developed as a general hospital, mother and child care is given a high priority at times when due to lack of beds there is triage. In January 2017, 193 deliveries happened in Shaheed Hospital (Normal-102, forceps 24 and LSCS- 67). Of them, 145 mothers got maternity benefits (1400 ₹ during institutional delivery) under the JSY scheme. The number of C- Sections happening in the hospital is around 35% of the total deliveries. This is high due to two important reasons as explained by the senior doctors & senior OT staffs of the hospital. One important reason is that, there is no other health facility available in the district (to a radius of 100 km) which can do a C-section delivery. The District hospital in Balod is also referring its complicated delivery cases to the Shaheed hospital. The Bhilai Steel Plan (BSP) Hospital, now in the Durg district after district re-organisation, is not affordable to the poor people who do not qualify for free services there. The other reason was that, most of the patients that come here, come late and with complications, when it becomes so difficult to do a normal delivery. Eclampsia cases are also high among the patients coming. The hospital policy is to avoide C-sections as far as possible, and to undertake it only when it is inevitable.

For ANC visits in Shaheed hospital they won't get any entitlements under JSY (first & second installments of maternity benefits), hence most of these mothers

prefer to go to the government PHCs for their ANC visits. Mortality remains a problem- there were 2 neonatal deaths & 8 intra-uterine deaths happened in Shaheed in January, 2017. Other than this there were 18 adult deaths registered for the same month, which was mainly due to chronic diseases.

Organization of work processes

The Out-patient clinics starts at 9.00 am everyday which continues till 2 pm. When there is huge patient load, these timings may get extended. Tuesday is a holiday for Shaheed but Sunday is working. But every month's last Tuesday is kept exclusively for diabetic out-patients since the hospital felt that there is an increase in diabetic cases in the locality. Even though Tuesday is supposed to be a holiday, if any outpatients come on that day, doctors are never hesitant to do the medical examination and treatment. There will be 4 to 5 senior doctors in the OPD on a usual day. Even though there are separate OP units, all the doctors will be sitting in one room round a table at most times. There is also a separate examination room.

When a patient comes for the first time he/she will go to the OP registration counter, pays an amount of 20 ₹ and gets the 'patient card'. For successive visits, a patient pays a minimal amount of 10 ₹ only. There is a separate IP registration counter. IP charges are also similar to OP charges.

At the registration counter, the staff at the desk will ask for the basic details of the patient (name, age, sex, caste, address, contact number, RSBY eligibility etc.) and the chief complaint. They will fill the details in the 'Hospital Management System' (HMS), which is still at its nascent stage. After the inception of the HMS, the patient waiting time has increased, since the staffs are not fully accustomed with the technology and now they have to make a digital entry as well as enter in the patient card also. After that, the patient's height, weight & BP will be measured by a trained support staff near the OPD and write them on the patients card and send to the doctor's room.

The patients will be allotted doctors during OP visits according to their availability and the service is on first come basis. Whenever an OP comes- new or old, the patient should go to registration counter to enter his/her visit before going to the doctor. If the doctor advises the patient for any lab test or diagnostic test, the patient should again go to the billing counter (separate from the registration counter), do the payment and then proceed to the lab/diagnostic facility. The doctors made it mandatory to see all the results of investigations on the same day in most cases. The medicines are also dispensed through the billing counter. If an OP case needs to be transferred to IP, the doctors write that in the patient card and send him to the IP department for admission. The patient then needs to go to the IP registration counter again and the staffs there will update his details in the HMS as *'patient transferred from OP' and* will be allotted bed according to the availability. The patient doesn't needs to pay separate fees here if he is referred from OP. If there is need for referral care or advanced diagnostic/lab tests, he/she will refer it to higher tertiary care center.

The in-patient department works in 3 shifts - 6 am to 2 pm, 2 pm to 9 pm and 9 pm to 6 am. The in-patient facility is divided into two 20 bed general wards, one for medicine and another for surgical cases, and one pediatric ward with a nursery, as well as another male and female general ward. There is also a special TB ward with 4 beds. There is also a 'Special and Private ward' which charges a little higher than the other wards, but most often occupied by patients of general ward itself who are paying the usual general ward rates. There is also something known as the 'floor beds', where patients will be given a mattress without a bed near the *verandah* of the wards– a provision resorted to when there is no bed availability in the wards. On an usual day, it will be in 10 to 15 floor patients but during an outbreak of epidemics this number may get high. The District Government Hospital is also available in Balod District headquarters, and there is a CHC nearby but patients prefer Shaheed Hospital because of the trust and bond they share with the hospital. The Shaheed hospital has an unwritten rule of never sending any patient back because of the unavailability of beds or money. Even though only one attendant is allowed with an in-patient at night the whole family will often be camping at the hospital. Many of the family members are

permitted to stay near the OP building at night after taking a free pass from the registration counter in the evening. There is also a separate cooking space for the attendants near the IP building, where the family cooks for itself and the patient inside- a cheaper option than buying from the nearby hotels. The hospital doesn't have a canteen as such- but it has linkages with two hotels run by women's self help groups which are reasonably priced, clean and supply food on demand.

There are two Operation theatres. Other than C-sections, the surgeries performed include tubectomy, hysterectomy, hernias, acute abdomen, and surgical emergencies. More complicated cases are referred. There is also an emergency & casualty services available in the hospital round the clock. The hospital is also having two ambulances round the clock which charges only ₹ 12 per km for patient transportation.

The hospitals gets more in-referrals than what they refer out to other higher centers. Thein-referrals range from the DH, Balod and nearby PHCs to private clinics & dispensaries. The out-referrals are mainly to AIIMS, Raipur, and Raipur Medical College- both over 150 km away. The referrals to BSP Hospital- a public sector undertaking, some 70 km away are minimal since medical care is highly expensive out there – and this despite having insurance.

The journey of the hospital from a 'delivery center' without any proper bed or electricity in 1983 to a 100 bedded hospital today is quite a remarkable story.

Disease specific Services and outcomes

The hospital maintains its records – both in registries and as case sheets. The major services it provides are for care at delivery, followed by communicable diseases, then for surgical care and non communicable diseases.

Care in Pregnancy :The total number of deliveries happened in the hospital during 2016 was 2621 (Normal- 1487, Forceps- 222 & C-section- 912). Of these the total live births were 2548 (1372 males & 1176 females). This included 18 twins. The total still births/IUDs were 109 (48 males & 61 females) and total early neo natal deaths (in first week) were 28. This brings the 'Still Birth Rate' to 42.7 per 1000 live births (109/2548*1000= 42.7) and Perinatal Mortality Rate to **53.7** per 1000 live births (137/2548 * 1000= 53.7).This is serious to the given fact that, it is way high above the national and state PMR. The number of infants with low birth weight (below 2.5 kg at birth) was also very high- 1055 (41.4% of live birth). The reasons for this as stated by the doctors and health workers was the social determinants of health combined with the fact that this hospital caters to the poorest sections of society. Dr. Jana the head of this hospital tells us that poverty, malnutrition is still high in these areas and anaemia is very common among tribal women. One contributory factor that a staff member suggested was that most of these IUD happens to women who come directly for the delivery without any previous ANC visits. Many mothers who had IUD are also referred from other hospitals and clinics to Shaheed at the last moment. The shrinking of Shaheed Hospital to a secondary hospital from its previous primary healthcare activities could also be a factor. This was also a pattern which was observed in Nellore PPC where the Healthcare facility which started with a comprehensive primary Healthcare approach later narrowed down to a secondary care center with no or little focus on primary care. At present, Shaheed has re-energised their community involvement process by started working among adolescent school going girls in few villages under the leadership of a young engineer turned social worker.

Medical Conditions : Malaria, Tuberculosis, foot infections, snake bites are some of the most common infectious diseases seen. So are pelvic inflammatory diseases. Amongst non –communicable diseases hypertension, thin diabetes, rheumatic heart disease, nephrotic syndroms, alcoholic addictions and related disease and cervical cancers are most prevalent.

In surgical conditions : road traffic injuries predominate followed by a wide variety of relatively common surgical conditions- hemorrhoids, hernia, hysterectomies, cataracts and so on.

Pharmacy, Lab & Diagnostic Facilities

There is one central store in the hospital where all the drugs are placed and then distributed to the pharmacy and ward outlets. The drugs are purchased through tender process. The pharmacy is integrated with the billing counter. There are two billing counters- one near the OP department and one in the IP department. The doctors prescribe generic version of the drugs in most cases and the prescribed drugs are collected along with the payment.

Shaheed hospital is also having a blood storage center. The nearest blood bank present is in Durg district. In emergency cases, the hospital will do unbanked blood transfusions. Approximately, 1368 blood transfusions happened in the hospital during 2016- most of which are necessarily unbanked blood transfusions.

There is one Ultrasound machine, X ray unit and ECG machine available in the hospital. For advanced diagnostic tests, patients are referred to other higher facilities. There is a full-fledged laboratory available at the OP department which does all the blood tests and other common biochemistry analysis. For other advanced laboratory tests, like hormone analysis, histopathology analysis, the hospital will refer the patients to other advanced diagnostic facilities at district headquarters. There is no system of collection and couriering of samples. Usually in-referrals are more than out referrals in the lab facility.

There are no formal use of standard treatment protocols nor any formal quality mechanisms- and this is a conscious decision since the latter has considerable costs. According to Dr. Jana, 'equity in healthcare is preferred over quality' in Shaheed hospital.

Human Resources

The hospital currently has 8 doctors. It includes one qualified anaesthetist and a gynaecologist- but even they other than their specialist services do generalist work. The head of the hospital and its leader – in effect, the man who built up the hospital to what it is today is Dr. Saibal Jana who has been working here since inception. His wife is also working here as the nursing head. The junior most doctor at Shaheed is Dr. Pawan an MBBS working here for 2 years, who is now well trained to do much of the surgical procedures undertaken here including C-Sections. There are 3 on-call specialists (ENT, Orthopaedics & Urologist) who will come once in a week or two. At times of need, a few doctors who are well-wishers will come and offer their services at Shaheed. The hospitals makes us recognise that much of what is considered specialist care can be done by a general practitioner with a basic MBBS degree. Dr. Jana himself is testimony to this fact. All doctors are available round the clock for any emergency since they stay in the quarters near to the hospital.

At present there are 35 qualified GNM nurses working in Shaheed. Few of them are doing correspondence courses to get their B.Sc. Nursing degree too. Shaheed is also giving a basic 1 year nursing training to 20 girls, mostly from the SC/ST background every year. The basic eligibility criterion is 12th pass. They are selected through a competitive exam followed by an interview. During this one year, they will be given theoretical classes as well as rotatory internship in all IP departments. They will be given a 500 ₹ stipend every month. At the end of this year they get a certificate issued by the hospital itself. Most of them will be absorbed by Shaheed itself or will go to other private clinics in Dalli Rajhara and Balod. There are also a few trained nursing staff in Shaheed, who were mine workers and working in the hospital from its inception. They are trained as midwives.

At present, there are 20 ward staff, 7 lab assistants, 7 OT staffs, 2 trained X-ray operators, 3 ambulance drivers and 6 computer staff who does the HMS entry and manage registration and reception desk. There are also a set of multi-purpose workers, who were members of CMM, working in the hospital from its origin. At present (Jan, 2017), they have 87 permanent staffs and 15-20 contractual staffs in the hospital. This does not include the intern nurses. Even though, the hospital faces HR crunch, according to the doctors, it is placed far better than any other hospitals in the district in HR availability and retention.

Remuneration : All the senior doctors are getting above 75,000 basic pay per month and the junior doctors will get in the range of 50,000-60,000 INR. The senior nurses will get in the range of 13,000-15,000 and junior nurses in the initial years gets ₹ 10,000. All the permanent staffs apart from their basic pay is also eligible for a DA (15% of the basic pay), HRA (5% of basic pay or 500 ₹ whichever is maximum), travel allowance (₹ 12 per day), telephone allowance (200 ₹ per month). An amount of ₹ 250 will be deducted from their salary per month for LIC deposit in their names and another amount is deducted and deposited as PF. The staff also have the provision to take interest free loans, ranging from ₹ 1000 to 50,000.

There are no special training programmes, but there is some weekly clinical discussion. Performance is based a lot on motivation as adjudged in the selection process and as inculcated from the peer group.

Information Systems

The 'Hospital Management System' of Shaheed hospital, is at its infancy- less than 6 months old. It was developed free of cost by a well-wisher from IIT, Hyderabad. One technical person who was in the developing team of the software is presently residing at Shaheed and giving training to the staffs on HMS. It has the usual problems being an additional layer of work and consuming time, but with little returns in either quality of care, or administrative inputs.

Shaheed hospital generates important information related to disease surveillance but this is infrequently and inadequately collected.

Patient record systems are maintained on paper- and hospital statistics are generated on a monthly and annual basis.

Financing

The hospital is funded by the workers. They have no external source of funding. The hospital is built in the land belonging to BSP and even now there is a legal contestation going on in this aspect. In the initial days, workers gave time and labour to build the hospital and gave monetary contributions as well for its development and this accumulated into a substantial corpus to run the hospital. In the 1980s all the mine workers put their one month's allowance into a corpus which created an initial corpus of ₹ 3 lakhs to the hospital. Many doctors of that time also contributed substantially to the corpus- the initial set of equipment being donated by a group of doctors from West Bengal. Shri. Janak Lal, who got elected as an MLA under CMM also contributed all his salary of 5 years term to the hospital.

Most of the current hospital revenue or running costs is from user fees. The hospital charges a nominal amount from the patients on a fee for service basis – and then uses it with an incredible degree of efficiency to manage most of its requirements within this amount. This was the only source of revenue from 1983 till about 2010 when government funded public insurance started making a difference.

Currently both OP and IP charges are ₹ 20 and ₹ 10 for new and old cases respectively. For inpatients, bed charge are an incredibly low ₹ 5 per day, admission charge is ₹ 15 and treatment charge is ₹ 25 per day. For medicines, they have to pay separately. Normal delivery is priced at ₹ 500, and a forceps delivery at ₹ 600 and a C-section at ₹ 3000. Tubectomies cost ₹ 500.

Part of the reason why they are able to charge so nominally, the management informs us is because they are able to use RSBY for generating revenues that can cross-subsidize even those who are not enrolled in the insurance scheme. For a trade union movement built around the concept of solidarity the idea that one could use earnings from RSBY reimbursements to provide free care to those who are too poor or too unfortunate to even acquire a RSBY for themselves, comes naturally. Around 80-85% of in-patient cases coming to the hospital are linked to the 'Rashtriya Swasthya Bima Yojana' (RSBY) or Mukyamantri Swasthya Bima Yojana (MSBY). These schemes have very good coverage in this part of Chhattisgarh. After the medical college hospital in Raipur, the second largest number of claims reimbursed is this hospital- though there are many much larger hospitals in public and private sector in the state. A family of four is entitled to get ₹ 30,000 per year for hospitalisation under these schemes-

much below what Shaheed hospital charges for any procedure. Most of the delivery cases happening in the hospital are also entitled to get JSY benefits (1400 ₹). Thus not only all running costs are recovered but even after cross-subsidies there is a modest surplus that is now being used to expand and modernise amenities. Doctors too who used to be paid only about ₹ 30,000 per month even in the senior most level can now be paid at rates which are near market rates- and the crush in medical officers that was there in the initial decades is all but over.

Box : When an IP patient with RSBY card comes, he/she will be registered in the system. After the doctors' initial diagnosis, the patient's case sheet (with any lab results) is scanned and sent to the insurance company and his/her card is blocked to get the sanction from the insurance company (Medicare Insurance Co.). In most cases, they will get the approval in the next working day. At times, the insurance company asks for more clarifications & makes it pending until all necessary details are given. At rare instances, they will outright reject the claim also. Under the scheme, patient is also entitled to get food from the hospital. But on the first IP day, since most of the claims won't get approval, patient needs to buy their own food. Box ends:

In the claim year 2016, total claims made by the hospital was 6485 out of which 5844 got sanction & 133 got rejected. 508 cases were kept pending till January. The total claim money received was approximately ₹ 3.16 Crores for the year 2016.

The community sees this hospital as their own hospital and Shaheed from the beginning is striving to provide affordable care to the poorest. The hospital is currently giving free treatment to all previous mine workers (pensioners) and CMM activists who do not have insurance coverage.

Going through the register one finds that in 2016, 60% of the patients were from SC/ST background and 35% from the OBC. Only 5% of general category patients accessed Shaheed for their delivery. Also, 70% of these patients were BPL card holders. This data itself shows which categories of people are accessing Shaheed for their healthcare needs. The words of Dr. Jana to his staff in a meeting where this data was presented is worth reproducing 'We will fail in our endeavour if the number of SC/ST people coming to our hospital will decrease to less than 50% of the total admissions and the general category increases substantially'.

In every hospital this team has visited and in all reports the RSBY payments are projected as grossly inadequate. In fact the main government proposal for purchasing care being considered at the national level is to expand the sum assured from ₹ 30,000 to ₹ 1.5 lakh. But if Shaheed hospital experience is the benchmark then there is no need to expand this sum assured. Hospital managers especially in the public sector hospital can learn about how to manage efficiently with the earnings that RSBY is bringing to them also in this era of strategic purchasing.

Learning's from the case study

Shaheed Hospital is a remarkable story in many ways. It makes us re-look at superficial categorization into public and private. Clearly in terms of public's sense of ownership over the hospital and the public-spiritedness of the hospital providers themselves- this is more public than the usual public hospital. Also clearly they have the trust of the people they serve.

But it is much more than the values. It is also a human resource policy. The payments are comparable to the average in the neighbouring public sector, than less then earnings in the private sector. What retains the staff is once more the combination of a positive work environment with opportunities for learning more skills and a strong team spirit.

The fact that there is a comprehensive package of services- a one stop services that takes care of over 90% of healthcare needs is also no doubt an attraction. It is also very poor friendly- spaces where patients relatives can stay, cook for themselves, feel at home, and where most of the work-force are of the same cultural and socio-economic group- all of it helps. Like Nellore's PPC there is not enough surplus to cross-subsidize any large primary care unit- but then secondary care is as affordable as it gets.

In terms of value for money- Shaheed Hospital is a tremendous proposition. The levels of efficiency are so high that the RSBY payment which most

private hospitals complain about- are so much more than the Shaheed hospitals costs of care- that they see this as source of revenue for cross-subsidy to those too poor for RSBY. And this is not due to poor quality. Though infrastructure is still of modest quality, even this is changing rapidly. The land is not paid for, but this is true for almost all corporate hospitals in central metropolitan locations. Policy directions which raise the sum assured and the reimbursement ceiling per case while limiting the number of empanelled hospitals, in effect incentive inefficiency and moral hazards of insurance. On the other hand if these are kept low and well monitored, there is scope to encourage more ethical and public minded providers and shape the private sector to behave more like the public. So much of health sector reform is about shaping the public sector to behave more like the private sector. What is really needed, in this framework of analysis, is to redefine public and private, and shape private sector to act more like the public.

A participatory style of governance helps- and the fact that there a number of leaders of well –the workers organizations in the board also ensures long term sustainability of the vision. But like in most such organization, there are likely to be sharp internal differences as well. As long as Dr. Jana is at helm- these tensions would be kept well in check. In the long run- no one is sure- but surely Shaheed Hospital has a better chance of survival and growth than the usual NGO.

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CHAPTER

THE PUBLIC MEGA-HOSPITAL

Jipmer (Puducherry) | *John Verghese*

Introduction

This is the case study of a public mega-hospital. The public mega-hospital is a term we coin to deal with the large number of public hospitals, which have over a 1000 beds and over 5000 OP visits per working day. JIPMER has 2000 beds and averages over 7000 OP visits per working day. Typically these are tertiary care centers which provide a large number of tertiary care services, but where in numerical terms the primary and secondary care services they provide are even higher. They serve the poorest of the poor, because they are free of user fees or at best have very nominal user fees. Because of the lack of amenities and the long queues put off any healthcare seeker except those who have no where else to go- though this is not always true- as this case study shows.

The urban public mega-hospital is not only an Indian phenomenon. Till very recently the US of A also had a number of famous mega-hospitals- Cook County, Chicago; Philadelphia General, San Francisco General or Bellevue New York-to name a few. A very mechanical understanding of primary care as taking place only at the primary health center- fails to see the important role of the entire eco-system that is required for primary Healthcare to succeed. A recent paper on public hospitals in the USA arguably the most privatized and most hospital centric Healthcare system in the world had this to say: "Public hospitals in the United States play a key role in urban health. In many metropolitan communities, public hospitals maintain the Healthcare safety net. Most urban public hospitals have evolved to not only provide care for the indigent but also to serve their communities in other ways, including serving as major providers for tertiary services such as trauma and those that support homeland security; serving as the foundation for primary care services; continuing to train a significant number of physician, nurses, and other medical personnel.."

In this collection we present two such case studies – KEM hospital in Mumbai and JIPMER hospital in Puducherry.

Origins

Public Mega-Hospitals usually have a long history. JIPMER's history is traced back to year 1823, when the "École de Médicine de Pondichérry" (College of Medicine, Pondicherry) was established by the French

Government. Though little is known on the period from 1823 to 1956- the he curious coincidence of the date of origin has to be more than a coincidence. [1823 in the history of medicine is co-terminus with the beginnings of the creation of the institutions of modern medicine, as we know it today. This process is well captured in Foucault's seminal work – Birth of the Clinic- which describes the origins of modern medical science and the hospital in France.. This was the time that in Paris some of the most famous post-revolutionary educational institutions- the Polytechnique, the Ecole Normale Superiere etc were being established]. The Ecole was located centrally in Pondicherry town, in what was called the White town, amidst the main institutions of colonial government from where it probably catered to the city elite of civil lines and the barracks. After Pondicherry was handed over by the French to the government of India in 1956 as part of this transfer, the medical college, was also transferred and it was then briefly called "Dhanvanthari Medical college". Later in 1964 the medical college moved to its new buildings in a new 195 acre campus and was named the Jawahar lal Institute of Post-graduate Medical Education and Research (JIPMER)- where it still is located. It grew rapidly in the first three decades and then at a much slower pace in the nineties. In 2008 after a long process of negotiations, contestations it became an autonomous institution by an Act of Parliament and was declared as an institution of national importance. Since then it has been expanding again at a breathless pace.

Services Provided – an Overview

The daily average number of patients treated in the Out-Patient Department is above 7000. The year 2014-15, (on which annual report we base our discussion) the annual total of out-patient visits crossed 22 lakhs.

Other figures are equally impressive. The total in-Patients treated is more than 80,000. This included 15,000 deliveries and over 55,000 surgeries. There was over 45 lakhs laboratory investigations done.

The range of services that JIPMER provides is impressive. If we assume that about two-thirds of its outpatients could have been managed within district health systems- then every day it is primary care providing care equivalent to about what 50 PHCs would be providing daily. If we assume that half of its 2100 beds are providing secondary care that a district hospital should have managed, then JIPMER is providing care equivalent to 5 to 10 district hospitals. And in tertiary care, it provides a range of care comparable to the best in corporate sector. This includes high technology care like bone marrow transplantations, cardiac catheterization, valve replacement and pacemaker implementation, neurosurgery for tumors, liver transplantation, bariatric surgery and now recently starting up heart transplants as well.

The Organization of Out-Patient Services

But to the casual visitor and the majority of Healthcare seekers- "Crowded" is the most common first impression that most persons have of the hospital. It is crowded everywhere- in the out-patient clinic, in the afternoon special clinics, in the emergency room, even in front of operation theatres and in-patient wards. With every patient, there are relatives and visitors also who contribute to this crowd.

The daily average size of the crowd waiting at 4 o'clock in the morning to get OPD tickets is 500 or more. The rule is this. Anyone can walk in and stand on the queue. The registration rooms close at about 11.00 am. Anyone the end of the day- will see who makes it in by that time however long the queue. Were the time to be extended no doubt that at least another 1000 would enter- and therefore like most public hospitals- there is some sort of informal rationing of services that is mandated. But on the other side- unlike for the poor coming in, if they are willing to brave the queue, there is some assurance of quality care.

The catchment area for the hospital is wide. The percentage of patients from the state of Pondicherry who visited the OPD of JIPMER was 22 per cent in 2014-15. Although it hiked to 24 percent in 2013-14 and it fluctuates around this figure. Most patients – about 75% - are from Tamil Nadu. The remaining 2 to 4% come from the other states of

Karnataka, Andhra Pradesh, Kerala and a trickle from eastern and northern states also. The proportion of Pondicherrians as in-patients is marginally higher than for out-patients.

There is a steady 9 to 10% increase in out-patients and in-patients year on year for at least the last 5 years and except for daily average bed occupancy the index value growth is above 110 percent per year. Surgeries see a 148 per cent index growth. It is difficult to explain this growth.

Pondicherry has seen a booming growth of other medical college hospitals including two more in the government sector- and all of them to get their required number of patients often offer free or subsidized care. 8 medical colleges for a population of 10 lakh is really an overkill. Despite this JIPMER booms. There is a huge mushrooming of private Healthcare facilities and private medical insurance. Despite this JIPMER sees constant and rapid growth in clientele.

All of the clinicians interviewed agree that a considerable number of Out-Patients visiting JIPMER could have been handled at lower levels of care and a considerable part of the burden is best managed at a primary Healthcare level. The estimate of this (based on specialist perception) varies from 70 percent in General Medicine to 20 percent in Ophthalmology. There is also considerable clarity that it decreases resources available for tertiary care, which is what was meant to be the focus. Surgeons point out that patients with malignancies requiring immediate investigations to initiate treatment may spend a full day in the end of a queue made up largely of primary Healthcare seekers, and the delay this causes in their case is a compromise in the quality of tertiary care. There are other forms of triage. To quote one surgeon: "We are not getting enough time for patients who really require tertiary care. We have limitations on number of beds. For example, a patient with diabetic foot occupies a bed for many days. Because of that many patients with identified malignancy may have to wait so long". They also added "If the primary care centres around us are empowered, many cases can be handled there itself. At least some follow up and dressings they must take over".

There are many reasons for such primary care seeking at a tertiary care site. One important consideration is the lack of user fees and access to free medicines. This has recently become national health policy, but it is worth remembering that this has been retained in JIPMER thanks to vigorous public health action. In fact the steadfast local opposition to granting autonomy to JIPMER was the fear that the hospital would be required to raise its own resources. It was only when firm assurances that this would not happen, that the local opposition relented. And it is a policy concession that is zealously safeguarded by robust public opinion and public action.

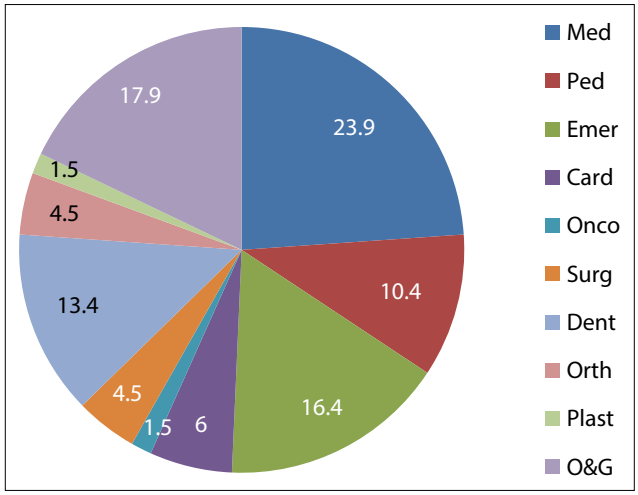
JIPMER being a central government facility offers total free care and free medicine for 30 days for chronic patients. Many of the doctors are mixed in their support to this feature. One specialist tell us "*Here they do not have to pay any fees. They can walk in and get free consultation and care. JIPMER provides free medicines. Medicines are given for a month to chronic patients; whereas anywhere else they get medicine only for 5 days or a week maximum. Hence they have to go there many days a month. I think nowhere in the country they get medicine for a month at a time*". It is a carefully neutral articulation- refusing to criticize or to praise it. But if success of a healthcare facility is in terms of outreach- clearly there is a positive lesson here for primary care facilities- not a negative lesson for public hospitals.

But one has to also commiserate and deal with the other side of the problem- quality in tertiary care. *"If crowd can be reduced by some means, we can dedicate more time for patients requiring tertiary support"*. Many doctors, both those interviewed formally and those who made casual comments at various locations of meeting repeated these same words. One solution that has been arrived at is the creation of what is called a "screening OPD" whereby primary care ailments will be treated and only those, which require higher management, will be considered further. A new building is coming up next to JIPMER's emerging school of public health to house this General OPD. But there is concern about whether this solution would work. One anxiety is the specialist concern about "missing the real problems. After all, many patients may appear to have trivial problems- but they have made this long journey

and effort- because they were dissatisfied with care elsewhere. Should we not be respecting this choice? Some doctors expressing their anxiety and concluded saying "*Unless specialists are available there, chances are higher for the system to fail*".

A exploratory survey to test an approach to measuring health-seeking behavior interviewed a small sample of 67 patients over two days. The sample had 67.2 percent females and 32.8 percent males. The sample was constituted of patients from the departments of Medicine (23.9 percent), Pediatrics (10.4), OBG (17.9), Emergency (16.4), Cardiology (6), Oncology (1.5), Dental(13.4), Ortho (4.5), Surgery (4.5) and Plastic Surgery (1.5). Among them 28.5 percent were from Pondicherry, while 1.5 percent were from Kerala and the rest all were from Tamil Nadu.

Fig:1 : Distribution of sample according to department



About half the of the respondent were on their first visit to JIPMER for treatment while about 15 percent said that they depend on JIPMER on a regular basis for their healthcare. Only about 22.5 percent of them were referred from any health facility of whom about 10 percent has a formal referral letter form the first consultant. The patients interviewed in the Emergency unit were directly brought to JIPMER without any previous consultation. Some of them responded to the question about reference and said: "We are sure that we will get quality treatment and expert doctors in JIPMER. Therefore we did not go elsewhere". Out of the 7 pediatric patients three were for common ailments like cold and cough while the other 4 had serious problems including heart diseases. In the obstetric out-patient clinic half were for routine ante-natal consultation. This study is too limited to draw any conclusions, but clearly strategies to address and limit inappropriate care seeking, whether though general out- patient clinic located internally, or through feedback referrals or through gate keeping and facilitation mechanisms- must all be based on a much better quality of evidence than is available currently. There are, as we know it from other studies, seven pathways to health seeking in a mega-hospital. One can describe these as follows:

1. Referred from any primary or secondary care provider with a formal referral letter stating reason for referral to a tertiary care site.
2. Referred from any primary or secondary care provider- with an oral instruction to seek care in JIPMER or just in " any higher facility." Since appropriate services were not available there.
3. Seen at a primary or secondary care site but due to lack of services, or lack of confidence in the care provided, having come, on one own volition, to the tertiary care site. Often without information to the primary provider.
4. Having come directly based on the reputation of the place and/or because the needed services are free, but a correct decision – as it turns out.
5. Having come directly based on the reputation of the place and/or because care is free, but could have been managed at the primary care site.
6. A patient with chronic illness coming to the hospital to access 30 days of drugs at a time. If the drugs could be accessed nearer home, then perhaps this visit could be avoided.
7. Was an attendant of an appropriate patient- and decided to have a health check up when here.

The first and most desirable pathway is the least. The general outpatient/or screening out patient clinic would take care of the 5th and the 7th pathway- but may not address the rest. This would therefore help in about (presumptively)10 to 20% of patients- but

not be effective enough. For the other pathways- there is much work that JIPMER would have to engage with outside its walls to have an impact.

Organization of In-Patient Care

The organization of in-patient care is another challenge. In patient care in JIPMER is spatially distributed across different blocks: In the institute Block (four floors), the Infectious Diseases block (2 floors), Regional Cancer Centre (3 floors), Super Specialty Block (5 floors), the Physical Medicine Block (2 floors), Women and Child Health block (5 floors) and Emergency Service block (six floors). The administrative block is separate and there are separate blocks for academic/teaching and research functions of the Medical College, the Nursing College and various other paramedical courses.

Most doctors are of the view, that the problem of primary Healthcare seeking in a tertiary care site does not affect the in-patient care. Almost all departments felt that most of the in-patients are those requiring this level of management. To quote one of them: *"Mostly the referrals are problem based. Patients with multiple issues are also being referred to us, because the lower facilities are not able to handle them. But our observation is that within their limits, the lower level facilities, especially the government facilities try their best before sending them here".*

In the case of the emergency cases, some of the patients are shifted to JIPMER by private hospitals deliberately. "*Private sector often exhausts all the money of the patients and finally shifts them here for no reason other than to avoid death. Even with ventilated patients they bring here, leave with us and go. From peripheries, most of the service providers do not even ring up to make sure that we have vacant bed or ventilator or such necessary support available for the patient they bring. Hence situations are created where we find ourselves helpless*". This patient dumping – a major feature of private insurance driven private care- described so well in publications of the US public hospital, was always a problem for JIPMER, but with the rise of insurance, the problem is probably being exacerbated.

The emergency medical service block is now one of the most crowded sites. It has many patients lying even on the floor with just a mat spread there. The crowd in the emergency unit is most often beyond the reach of the considerable staff strength deployed there. This includes a daily average of about 20 patients requiring admission and or resuscitative support – including substantial numbers of trauma, acute poisoning, and other medical emergencies and surgical emergencies. Trauma care units' beds are insufficient to handle these numbers and they occupy casualty beds for long time congesting the casualty services area.

Part of the problem of emergency services management is the spill over from the out-patient services. To quote :"*A good number of cases who come late to the OPD also come here. Because when they come late they do not get token to get consultation. So if they are sick some kind soul would advice them to go to EMS. Even minor abscess which we would usually not need tertiary care, come here- because for them it is pain and suffering. We can call our EMS primary, secondary and tertiary care unit (said as a satire).*"

More informally physicians would inform us that some patients requiring a more detailed examination that there is no time or space for in the rush of the morning outpatient and on whom a triage decision on admission would have to be taken from many given many potential in-patients are sent to the emergency services- as some sort of intermediate clearing house.

All of this becomes much more difficult to manage in seasons of epidemics. When the everyday routine is of crisis and triage, how does such a system cope with disasters or sudden peaks as brought on by an epidemic or an accident. Whenever there are mass casualties the public response is to send all of them here. Almost seventy percent of them according to the doctors could be managed at peripheries- but the mega-public-hospital is the ultimate sink- the repository of all that should happen and does not happen anywhere up and down the system.

Quality of Care

JIPMER takes considerable pride in its quality of care. But in stating this they refer largely to clinical

effectiveness. One index of this is that there would almost be not a single instance when staff members would seek care for themselves or their families outside JIPMER, while employed here or even as pensioners. This in itself makes for a substantial case load- and to make the services available for the staff and families, special OPD units are set up in different departments of JIPMER. This helps only in part. Most staff members at all levels feel obliged – by social norms – to get a consultation and treatment done within the hospital. The value addition they provide may be in terms of time saved on the queue, or sometimes just to get noticed by the provider- a personal touch in the midst of the huge depersonalization that accompanies such mass care. But not everyone can share this point of view. A furious patient on the queue complains bitterly: "The staff come with their families and friends. They know the way to get their service done fast. We are here waiting for long and we have no one to help us".

A recent development, in part driven by the arrival of insurance and in part by a modernization impulse is quality of care as extending to other patient comfort and satisfaction dimensions. A JIPMER Quality Committee, comprised of members from across JIPMER departments, is monitoring this larger quality movement. Action has taken place on some priorities. For example fire-safety systems are renovated and extended to the older buildings also on an urgent basis. But there is much more to be done. The committee is busy with its work preparing JIPMER to go for the NABH accreditation. They would do well to closely study the experience from other public hospitals and pro-poor hospitals like Aravind Eye Care before they go further on this perilous journey. Having said that, there is much that a total quality management approach can do to improve the patient experience- with or without accreditation.

JIPMER already has some robust internal systems with respect to quality of care with respect to clinical effectiveness and safety. The most important of these is the monthly medical review meeting usually headed by the head of department of pathology. The department reviews all cases of deaths and picks up cases which have a learning lesson to offer- either because there are errors in the care regime, or because there are findings of clinical interest, or where the autopsy/pathology reports differ or confirm uncertain diagnosis. This in turn requires a very good system of in-patient case records and the compilation of hospital statistics- at a level of quality and rigour far beyond what most hospitals, public or private have to offer. There are no doubts many gaps on this- but one needs to build on this.

Deaths occurring in JIPMER are categorized into within 48 hours (where presumably late arrival could be a contribution and after 48 hours (which would be more reflective of hospital efforts. In 2013-14 there were 831 death before 48 hours and 1516 (2013-14) deaths after 48 hours. – a gross death rate of 3.22 in 2013-14 and a new death rate of 2.08.

Human Resources for JIPMER

Personnel for JIPMER are recruited directly by the Human Resources department of JIPMER. The Board has to approve and so has the internal finance of Ministry- but once this is done, JIPMER can proceed with the process.

There is a total sanctioned strength of 4563 employees and an across the board 19% vacancy. In large systems, such levels of vacancy merely reflect a turnover problem and with some improvements in governance and recruitment efficiency can be reduced to an acceptable 10% level. Potentially therefore filling up these vacancies at any level is not a problem- though some of the higher specialties pose special challenges. The larger question is that given this level of case loads, are the sanctioned numbers adequate. One area where they clearly are not adequate is the emergency services. But even in the outpatient services the "time per patient" is low. There is a case for estimating HR requirements in a scientific manner, especially if one is able to limit outpatient loads to only appropriate healthcare seeking in parallel

The numbers: (annual report 2014-15)

Category	Sanctioned strength	Existing staff	Vacancies
Faculty	361	288	73
Group 'A'	145	118	27
Group 'B'	1727	1555	172
Group 'C'	1744	1286	458
Total	3977	3247	730
Senior Resident	375	272	103
Junior Resident (NPG)	93	69	24
Junior resident (PG) (Up to Jan 2015 session)	118	110	8
Total	586	451	135

Clearly the system depends on the nature of residency work for managing this clinical load. Residents typically start at 8.00 am on a working day and then on their duty day go on without a break into an all-night emergency shift staying up and remaining busy all night- and then leave at 8.00 am to return by 11.00 am for ward work and rounds the next day. As everyone in the teams know 7.00 am in the morning is bad time for an emergency to come in. In fact it is a bad time for every in-patient for the system is at break –point.

Salaries for junior staff are significantly better than what they would get in the private sector- and for senior staff are significantly lower than what they would get elsewhere. The difference between nurses and doctors salaries especially with increasing years of services is also less here than in the private sector.

What about work culture? If incentives do no drive it, what makes this work? A strong element of professionalism in its most positive form contributes. But it is also an established norm. Private practice by government doctors is a bane in most public hospitals – especially in the urban mega-hospitals. It is almost completely absent in JIPMER. Afternoons are for academic work with residents, either presenting articles from journals or interesting clinical cases, or subject reviews. Afternoons are also for special procedures, counseling sessions for patients, discussions with students etc. By 5.00 pm the hospital empties out except for the staff on duty and in some departments evening rounds to see the sick patients and those operated on that day. The emergency duty days – especially for the busy departments are at best once or twice per week.

The faculty looks forward to their weekends- and most have a duty weekend day once a month. They look forward even more to their 30 days off in May/ June (one has a choice) and 15 days in December/ January. The space usually occupied by private practice and money-making is taken up by academic work, cultural pursuits, family time or just lying back with a book. This is a choice that those working in JIPMER make. And this was the original architecture – the government provides the housing, a school for the kids, an adequate salary for ones needs, so that undisturbed the employee can focus on public service and the pursuit of knowledge. The understanding that it is an incentive environment that drives performance, is a very recent import- and not yet taken hold here.

Access to Medicines & Diagnostics

Medicines are given free for all patients from its pharmacy. JIPMER's community centres both rural and urban also give free medicines. There are about 900 items in the formulary of JIPMER. Apart from these, there are two drug stores within the campus to provide branded prescription medicine not available in the pharmacy. They work round the clock and the medicines are priced at a rate lesser than the MRP.

Diagnostics too are free- though for some higher imaging services, which are elective waiting times, may be considerable. The biochemical and hematological tests are over 45 lakhs annually- a little more than 2 tests per out-patient. The range of diagnostics available is impressive, though it may still fall short of what would be needed on line with national or international best practices.

Information Systems

JIPMER has a long tradition of using hospital information to improve quality of care. It has a large medical records division where all in-patient case records are stored for at least 10 years. Out-patient cards can be sketchy and replaced often. But the moment a patient is categorized as requiring investigations and follow up a full case record is ordered and this enters the data base. In patent case record is a separate section which is maintained in the record room with only the discharge summary being attached to the out-patient case sheet. There is scrutiny of the in-patient records and supervision to see that these records are complete. Internally many may complain that is a bit of a mess- but still few hospitals have this level of records.

Hospital statistics are also compiled on a monthly basis and used for review and administration purposes.

Digitized hospital information systems are in the implementation phase. They are already in use for some administrative transactions- but not yet making an impact on the clinical domain. This is of course a problem in all hospitals- public and private, and there is so much hype and expectations of digitization, that one does not quite know which experiences are really succeeding. JIPMER would do well to carefully and critically study experience from elsewhere as it process with computerization. Its own past efforts and their limitations must also not be acknowledged and lead to thinking differently on this.

Finances

JIPMER is managed almost exclusively on budgetary support- and that too of the central government. In year 2013-14 and year 2014-15 it is approximately ₹ 350 crores. The only other major source is the TN Chief Minister's Insurance Programme which brings in 14 crores and another 4 crores for "services charged" which may be user fees of different services- especially from the special wards.

If we estimate 6 outpatients as one in-patient (a form of estimation that is established in costing studies), then the total number of patients managed in year 2014-15 is 4,40,000 and this would work out to ₹ 7727 per patient. Which is an immensely cost-effective proposition. However it would be still be an over-estimate since it also includes the following services:

1. Approximately 150 postgraduate students per year (or 450 in all), 150 doctors (or 70 medical students), 100 nurses (about 400 nurses in all) and about 300 other graduates, pass out every year. Fees charged from them are very nominal and mainly for hostels- and most of the expenses come up from this budget. Almost one third of the faculty time of the teaching faculty must be attributed towards this education. A large part of the workforce is residents who are working but also attending classes, studying and learning.
2. A high level of scientific research and academic activity. This would include work on expert committees. Though in monetary terms the expenditure on research is about ₹ 40 lakhs, at least one fourth of the faculty time could be attributed to research and academic activity other than teaching. It should ideally be much more.
3. There is considerable medico-legal work undertaken- close to 900 autopsies per year, most of which are due to medico-legal reasons, plus considerable work in medico-legal cases and attending courts.
4. Maintenance of the residential campus and hospital environments.

Thus a more realistic estimate should attribute only 50 to 60% of the total budget to patient care- which would reduce cost per patient to somewhere between ₹ 3864 to ₹ 4636 per patient !! If we look at JIPMER as a tax funded insurance scheme then there is great value for money that the system is generating- even as compared to most modestly funded where the spend per patient treated is in the range of ₹ 12,000. (reference required)

One concerns with respect to this costing: Is it not over-estimating the work done if primary care seekers are equated, even on a 6 to 1 basis with tertiary care in-patients. Clearly as a health system rather than as a hospital there would be a greater efficiency if primary care patients are handled peripherally and the specialists of the tertiary care hospital are seeing more complex cases. However since the major costs are in specialist work time, the difference may not be as much in costs of care in the hospital.

This debate about the cost-effectiveness of JIPMER is likely to continue. But if examines it through the lens of risk pooling, one concern is that JIPMER also provides advanced tertiary Healthcare to some patients. So suppose we have a situation where less than 10% of patients consume over 70% of the estimated 170 to 200 crores spent on patient care, this could either push out the lower cost care which many persons speak or deny the advantages of risk pooling to those who need it most. This is one reason why the recent development when supply side budgeting is supplemented by "strategic purchasing of care" by the government is a most welcome development. In 2014-15 such purchasing, almost exclusively by the Tamil Nadu Chief Minister

is Health Insurance Scheme brought in ₹ 18.37 crores. Of this the major share went to advanced cardiology care. In 2014-15 in the Cardiology department alone, 1837 Coronary Angiographies were done, 180 Diagnostic Catheterization, 76 Peripheral angiographies, 149 Electrophysiology studies, 617 PTCA and stinting, 78 Percutaneous Balloon Valvotomies, 62 ASD device closure, 31 PDA device closure, 105 Pacemaker implant, 13 CRT implant, 17 AICD implant, 126 Simple RF ablation and 21 complex RF ablations were done!!

All without any charges. Truly remarkable.

Dr. Santhosh Satheesh, the head of department cardiology, explains that an informal rationing of number of procedures they could perform has now been withdrawn since this purchasing fills the critical gap in revenues needed for increasing the number of high cost high technology procedures.

From the data available we make out that a total of 11,119 patients were seen in the last one-year and this number has been sharply rising. It is important to note that in 2015 about 50% of all cardiology procedures done in JIPMER are covered by this scheme. Corresponding figures for other departments are as follows: CTVS 36%; pediatric surgery 30%, plastic surgery 22%, pediatrics 18%, urology 17%, neurosurgery 14%, surgery 9%, medicine 5% and neonatology 2%. Which would mean that about 98% of neonates managed or about 86% of neurosurgeries were NOT covered. One of the reasons is that on cardiology it is easier to get the necessary pre-authorization and paper-work done on the elective case and take it up only when it is authorized. But in neurosurgery or neonatalogy it is an emergency and it cannot wait. There is clearly much more that can be done to streamline purchasing.

But it is also important to note that there are many cases which are not covered because the insurance package as available to JIPMER does not cover them. Thus in 2015 out of 1896 cardiology patients, 946 were under the scheme (50%). But in medicine out of 16,149 in-patients, only 777 (5%) were covered in the scheme. In general surgery out of 7762 patients, only 698 (9%) were covered under the scheme. In cardiology the money earned on TNCMHIS could cross-subsidize those who did not have the cover- with some top up from the budgetary support. But in medical and surgical cases, though the number of cases provided cover was second highest, most of the cases were financed from the budget and not through the purchasing mechanism. The purchasing mechanisms thus seem to be largely deployed to expand high end care without compromising the more frequently required secondary and simpler level of tertiary care. (the latter requires smaller budget per patient but because of large number of cases larger budget requirement).

The Tamil Nadu Chief Ministers' Comprehensive Health Insurance Scheme (TNCMCHIS) gives financial protection to the poor in Tamil Nadu. All those below an annual income of ₹ 1 lakh are included which brings in close to 80% of the population. JIPMER is also empanelled for treatment under this scheme- but on par with the private sector. This difference is important. A large number of surgeries are reserved for the public sector since the public hospital in Tamilnadu have the capacity to manage it. Thus most secondary care requirements that would have otherwise come to JIPMER get directed into district and medical colleges of neighboring districts. This is not a bad development though there is a strong argument made by JIPMER to be cover these patients also, since they are poor, and use other means to channelize these secondary care cases. This segregation of patients to be treated free and not to be treated in a facility like this is very difficult as the clinical impact of such a decision would be at the cost of many lives. Hence JIPMER goes one step further. It takes the surplus that gets generated from TNCMCHIS into a institute insurance fund which it then uses to finance those who are eligible on insurance criteria but because of some reason did not manage the card, or because their disease entity did not have the coverage.

The total income form the TNCMCHIS shows brisk increase over a period of three years (2013-2015) and is now in the range of ₹ 18 crores per year.

The RSBY scheme however has not made an impact. RSBY packages cover largely secondary care- and the documentation work and hassles do not match the earnings- which is very different from the context of rare and costly procedures that tertiary care

insurance covers. The Tamil Nadu Chief Ministers Scheme is also reported to be much more prompt and reliable settlement of claims than RSBY.

The administration of the insurance scheme is a dedicated, round the clock service support that the hospital took some time to put together. There was talk of some incentives for the providers who have to work far more as case loads increased. The request was only for group incentives- and that too largely non-monetary, but even that was not agreed upon. In these modern times when all Healthcare management is about incentive environment- JIPMER seems to exist in a moral space that time left behind. But for how long? It is important to think this through and arrive at some very innovative solutions- where incentive is not the driving force, but there is recognition for additional work done.

It is clear that strategic purchasing as articulated in the National Health Policy 2017, has clear advantages for a hospital like JIPMER. The range of advanced tertiary care services offered is truly amazing. JIPMER has South India's largest renal transplantation programme and all of it is free of costs. It has the largest pacemaker implantation programme. It has an extensive bone marrow transplantation programme. It offers a wide range of neurosurgeries for trauma and for tumors. It has a liver transplantation programme – and now beginning a heart transplantation programme.- all for free and all accessible to the poorest. Whoever subscribes to the cliché "Healthcare for the poor is poor Healthcare" must be made to come to JIPMER and eat their words. One can counter- argue that the most efficient and effective Healthcare is only when it tries to reach the poorest.

Senior clinicians note that the coming of insurance since 2012 has helped in other ways also. There is a much better understanding of costs of care and resource allocation. Billing of patients is introduced for all patients in many departments- though those note covered by insurance are just stamped as exempted from payment. But this gives a clear idea to patient of what he or she got out of public provider (in return for his tax-funded insurance). Another important dimension is the additional emphasis it has given to improving quality of care. And of course the most important is that the limitations of the global budget no longer leads to exclusion of high quality high tech care since one is not dipping into it when it comes to providing high end care.

Does Healthcare in JIPMER provide full financial protection? Clearly it will provide more financial protection than any other approach- but there are still residual expenses. For one non-medical costs rise, due either to travelling to treatment every day for the duration of treatment (88% of our sample) and others are housing themselves in cheap rental accommodation that has sprung up around at about ₹ 250 to 500 a day. Of our 67 respondents who did daily travel, 59.4 percent spent less than 100, 78% spent less than ₹ 200 and 94% percent spent less than 500. More than ₹ 1000 was spent by 5 percent and the maximum was ₹ 3000 per day. It was noted that higher expenses of ₹ 2000 or more was spent by those had fracture leg or such major difficulties in logistics. Costs due to food are however minimized. The patients also get subsidized food from the public canteen and the students' canteen at very low rates. The staff co-operative society runs a canteen from 9 to 5 near to the administrative block. The staffs get food at very low price from this facility. ₹ 10 for meals, ₹ 5 for tea are examples. Despite all this the argument for push back into primary care remains, on grounds of costs, convenience and ethics ..that care that can be provided nearer home must be so provided.

There is another special feature of financing of Healthcare in JIPMER that needs to be noted. JIPMER has close to 120 beds in its special wards. These are categorized in C class (two beds, common washrooms) B class (two beds, attached washroom) and A class (single bed, attached washroom.). Not only are there significant bed charges graded by class- but many drugs and all diagnostics and procedures for these patients are charged and the charges for the same procedure vary with the admission class. They are of course much lower than prevailing market rates- but would be close to RSBY rates. The money that is generated from the special wards is limited. But it is important. For one it means that most staff members are eligible for free admissions here and that makes them choose to be treated here, rather than elsewhere. There are doctors and nurses working in JIPMER who have been never been to any hospital or care

provider for any of their family's Healthcare needs in their entire life time. They would not have made that choice if admission was to be in the general ward. This also means that government officials and pensioners and middle class families can all choose to receive healthcare here. Of course often they do not because surgery and imaging dates take time, but quite often they do. This provides a great deal of voice and feedback to quality improvement and to public credibility for JIPMER.

Does it take away attention from the poor patient- with doctors spending more time in the special wards? Not really, especially since there is no monetary incentive to do so. On the contrary on occasion, one could even get neglected due to spatial isolation. Is this a denial of the principle of free care for all? One can argue both ways- but it clearly has worked for JIPMER and one would argue to retain, even build on it.

Academics

JIPMER is well known for its undergraduate and postgraduate medical courses and has contributed excellent medical professionals to the nation and to the many other nations. JIPMER runs a MBBS course with an annual in-take of 150 students. Postgraduate programs (MD/MS) are offered in 24 disciplines. Super Specialty programs (DM/MCh) are conducted in 16 disciplines. There are PhD programs in 6 disciplines and Fellowship courses in 4 disciplines. JIPMER college of Nursing is also famous for its academic excellence. The college offers basic B.Sc, M.Sc and specialized diploma courses. JIPMER also conducts other courses including MSc (Medical Biochemistry), BSc (MLT), BSc Allied Medical Sciences courses, MSc MLT (Microbiology), MSc Cytopathology, MSc Medical Physiology and Master of Public Health (MPH). Admissions to all the courses are through national entrance test. Reservations are given to the weaker and special categories, including candidates from North Eastern states, as per the norms of the government of India. The long-term objective of JIPMERis to become a national resource centre for capacity building for national workforce development in healthcare. The institute has granted nearly one crore intra-mural funds for junior researchers to do research in their area of interest, while senior researchers have brought in nearly 30 crore rupees as grant for research in the year 2014-15. Research outputs are good. JIPMER published more than 650 articles in the year 2014-15 through various journals of reputation and impact- and this is other than chapters in books, conferences, CMEs and so on.

Conclusion & some lessons

It is not clear how much space still remains for public hospitals like JIPMER in India's changing policy scenario. Certainly the space survived into this National Health Policy 2017, which acknowledges their role and commits to the sort of care of which JIPMER is a prime example. But learning from the fate of public hospitals in the USA one needs to be cautious and one needs to think forward into the future positioning of public hospitals with the Healthcare ecosystem. There are not many JIPME ₹ - and the general view is that Healthcare that specifically addresses the needs of the poor, would be poor healthcare. JIPMER is not poor Healthcare- and one evidence for this is how every JIPMER employee and faculty, as well as many of the VIPs of the state would anytime prefer to consult here to anywhere else- since it is the best. Of course where hospitality arrangements is a concern- JIPMER would lose out- but at least it has some special wards where the middle class and employees are able to access.

JIPMER would challenge a lot of market based health sector reform myths. Free care does not lead to inappropriate consumption of care- on the other hand there are many forms of rationing at work. It is not true that people do not value what they do not pay for. It is not true that doctors or nurses with fixed salaries are unaccountable for performance. Its efficiency in terms of persons treated per rupee spent is probably a lot more than any comparable private hospital. But because it is so much better than the competition does not mean that it can be allowed to compete with private sector hospitals for as neo-liberal theory advocates. The experience from USA shows that under such a circumstances it can be pushed out. USA had a number of similar high performing public hospitals upto the 80s- when these were largely marginalized and often shut down- thus excluding almost one third of the

population which had no health insurance from any healthcare. But it also meant that the private sector in the US could now increase its prices much more steeply. It is interesting to note that prioritization of purchasing from public hospitals (one meaning of strategic purchasing) brings additional funds that helps provide high cost high-tech care- even when all of this means much higher workload for the providers and no additional rewards.

Is JIPMER an exception? Not quite – many leading urban public mega-hospitals and certainly institutions like PGI Chandigarh, work in the same spirit. What is perhaps an exceptional feature of JIPMER is that whereas most of them have significant user fees, especially for high cost procedures, JIPMER has none. This feature owes more to political will shaped by public pressure than any such consensus in the specialists themselves.

What makes this possible? A well-established work culture and the strong sense of public values is definitely one. Professional achievements and recognition and stature also is a great compensation for those who join here. A close link between academics and practice enriching both is another feature- a feature unfortunately lost in most other secondary and tertiary care services. The supervision of junior staff that takes the form of the ward rounds is far superior to the mere administrative monitoring that characterizes the usual district health systems (except in Tamilnadu)

We understand that some of these conclusions are insufficiently evidenced and much more study of these is required. Unfortunately where there are many studies of public sector failures, there are almost none of public sector achievements and their explanations. One reason could be the theoretical frameworks we use.

But JIPMER as an institution also needs to understand its role and scope in public health. A large infrastructure is under construction for the JIPMER School of Public Health, and a modest MPH programme has started up. But there is little recognition of what this means and how this differs from the traditional P&SM. The latter is one department of the medical college. But hospital care-even of such a behemoth, is only one division under public health. The fact that close to 60% of JIPMER outpatients are primary care seekers and that much of the care which is currently provided by the specialty clinics could be provided at the community and primary care level- is one frontier that JIPMER can address. JIPMER and its school of public health must be able to re-imagine the organization of Healthcare services as required in the Indian context, and this requires both empirical research and a critical re-examination of theoretical frameworks.

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CHAPTER

KING EDWARDS MEMORIAL HOSPITAL

Urban Public Mega Hospital & the Dis-economies of Scale: Lessons for Organization of Healthcare Services

Mumbai | T. Sundararaman (with inputs from Nikita Pandey's field practicum study)

The normative organization of public healthcare services in India has traditionally described it as a *"Healthcare Pyramid"*. At the bottom of this pyramid are primary healthcare teams- which typically are located in a primary health centre and which include health sub-centers and beneath them community health workers, outreach centers and village level structures. The next level of secondary care is the block level hospital and the district hospital- which should provide between them all the referral support that primary Healthcare needs and take care of the major part of hospitalization needs. At the third and the highest level are the tertiary care centers which are sites of handling complex, technically and professionally demanding curative care – acting as referrals for secondary care facilities, undertaking research and also teaching and training new generations of skilled Healthcare providers. As viewed in the pyramid, 70% of the health services shall be rendered at the primary level i.e. the base and middle of the pyramid. Only 5% of the services shall be offered at tertiary care which forms the tip of the pyramid.

This normative model may be true to some extent at the rural and district level, but certainly would not be true of the urban scenario of at least the million plus cities. Here a few urban public mega-hospitals could be providing the bulk of all primary, secondary and tertiary care services. Literally this would mean that the majority of primary Healthcare needs are being met at the tertiary care site - what the technical resource group of the national urban health mission characterised as the *Inverse Pyramid Phenomenon."*

This study of KEM Hospital, the quintessential urban public mega-hospital- is a study of this phenomena- to understand why it happens and how it happens and how hospitals perceive this phenomena, and how they respond to it- coping with it, resenting it and encouraging it. And also to understand what it does to tertiary care within the hospital and primary and secondary care outside it.

King Edward VII Memorial (KEM) Hospital &Seth Gordhandas Sunderdas Medical College

This hospital like many of India's mega-hospitals were established under colonial rule. King Edwards

Memorial Hospital, by name reminds us of this association. Established in 1926, with about 940 doctors (390 staff physicians and 550 resident doctors), the 1800 bedded hospital treats about 1.8 million out-patients and 85,000 in-patients annually and provides both basic care and advanced treatment facilities in all fields of medicine and surgery.

KEM is a hospital under the governance of the Municipal Corporation of Greater Mumbai (MCGM) – which covering an area of 434 km sq. is the largest civic organization in the country with a 11.98 million population. To provide Healthcare to this population the MCGM manages a total of 168 health posts, 163 dispensaries,28 municipal maternity homes, 14 maternity wards and 16 peripheral hospitals attached to 4 teaching hospitals and 5 specialized hospitals. Mumbai has also perhaps India's largest density of private hospitals – and of the approximately 40,000+ beds in the city, about 10,000 to 11,000 of them are under public providers almost all of them working under the umbrella of MCGM. According to a report by the Bombay Community Public Trust, as many as 10 million patients are treated annually in the Out-Patient Departments (OPDs) in the MCGM hospitals. And about 10% of them are seen at KEM.

The Services Provided at KEM

Overview: The annual outpatient encounters are approximately 6,73,025 new patients and 12,79,341 old patients- or a total of 19,52,456- or in other words 1.9 million outpatient encounters. This worked out to approximately 2229 new patients and 4237 old patients which adds up to 6465 patients per day. These are seen in the 62 outpatient clinics which are distributed under 10 clinical departments. In addition there are 2, 11,355 patients seen annually or an incredible 700 per day in the emergency casualty department- many of them as new cases. The KEM performs 59586 surgeries of which 30321 are major (199 surgeries of which 100 are major per day). The general hospital performs many functions- it is also a place to die- and on an average 18 persons die daily – or about 6300 over the year. (all figures are from 2016 Annual Report).

Out-patients: The Organization of the flow: The main point of entry is the General OPD – which screens all patients, either providing primary care and exit or referring them to one of the other of the clinical departments. This is therefore the most heavy out-patient clinic. There is a token user fee of ₹ 10 for the first registration which is valid for two subsequent visits within the next ten days. About two of five patients would be referred to another department for further consultation- the rest would be seen, provided a prescription and exit from there. Even those who had a well written referral would be processed through the general OPD. The number of new cases reported at the GOPD was therefore the highest among all the functioning OPDs and was almost 4 times that of the old cases. Once the patient had been registered to a specific out-patient then the subsequent follow up visit could be directly to that clinic- especially within the next 10 days.

The next most frequently visited out-patient is the skin department – with almost half the cases as the general outpatient and an equal distribution between new and old cases. And the surgical and medical out-patient departments.

In clinics with specialize in chronic illness like diabetes and hypertension old cases are 4 times and 9 times respectively to the number of new cases reporting to these clinics. In mental illness it is six times.

Patient Experience and the Organization of Patient Flow: The patient experience for attending the out-patient is described in this individual case study- "A 59 year old patient with chronic pain in knee joints presents at the general outpatient and after standing in queue for about 5 minutes, pays a token fee of ₹ 10 is given a receipt and sent to the next counter for issue of case paper for General OPD. The queue for the case papers at GOPD counter was very long yet systematic and 10 minutes later she emerges with the papers. She then has to find her way across 300 meters of confusing pathways and with some generous help from other patients reaches to GOPD another 10 minutes later. The GOPD had 5 units running parallel to each other where the patient gets to see the attending physician or resident within another 5 to 15 minutes. The doctor –patient interaction time is less than 2.5 minutes and the decision is that as chronic arthritis it is referred to Orthopaedics OPD. This brings her

back to registration counter and fresh paper for Ortho OPD. But by the time she reaches back to the counter, the time for issue of fresh case papers was over. So she goes back to the GOPD and gets prescription of medicines for symptomatic relief. The wait in pharmacy counter for free drugs is almost 35 minutes. After two hours, the patient has received this relief and an advice to come back next day to consult the orthopaedic clinic."

Clearly this is not satisfactory for the patient. After all this waiting, the quality of patient- provider interaction is uncertain. In the general out-patient clinic the average time per out-patient could be less than two and half minutes per patient. In the referred to speciality out-patient clinic the interaction time is quite carried depending on the case- and could range from a couple of minutes to 10 to 15 minutes- leading to prescription of diagnostics and presumptive treatment. Often a laboratory confirmed diagnosis would be difficult and presumptive clinical diagnosis is the basis of care. The likelihood that the patient would get back to the same doctor in the follow up visits is low- and the case-sheet entries have to be relied on- which in out-patients could be very minimalist. Ideally, one requires about 15 to 20 minutes per patient for each visit, which means 4 patients per hour or 24 patients per day per doctor. The practice is that this could be the level of patients seen per hour. However a number of patients who are diagnostic conundrums or unusual cases in some way, may get noticed and attract a fair degree of attention and care- and therefore from their view the care they give me the best they can provide. It is just that there is no way to count the number who slipped past with sub-optimal care.

We need to understand what drives such a huge care seeking load to the KEM.

KEM as Referral Center: What is the contribution of referrals within this crowd- and who refers and for what? A small study done by TISS student interviewed 219 patients from the three busiest outpatients- general OPD, skin and surgery. Out of the total sample interviewed, 79% of the patient reported without any referral to the tertiary care hospital. Of those 21% patients who came with referral, less than half (8.4%) had a written referral with them and of these only one patient reported that having a referral slip had facilitated easier access.

Of the 21% who had a referral half (50%) were from a general practitioner – and one third (31%) from a government hospital, and about 11% for private hospitals. Almost half of the referrals were made from the source within 1 month of consultation or less than 3 visits of consultation for reported illness.

The quantum of Primary Healthcare: Since there is a general OPD in function which screens almost all new cases- it was easy to estimate the number of those who were considered better managed at the primary care level. It was estimated that 58% of the patients had healthcare needs that could have been taken care of at the urban primary health-centres and another 12%were on the boundary where one consultation with a specialist to rule out any complexity was likely. In another 9% of the cases the attending residents felt that opined that though the expert consultation and diagnosis was required- they no longer needed to come here. Only in 20% of the patients reporting to the KEM Hospital actually required tertiary care attention.

Why do people seek primary Healthcare at KEM? : Why do so many persons come to the tremendous crowd and discomfort of KEM for their Healthcare needs. The most simple and dominant reason is that the services they require are not available at the peripheral facility or the peripheral facility is itself unavailable or its existence unknown. A21- year old female patient on queue in the skin OPD asked about her neighbourhood primary care health post had this to say "Those centres are meant to take care of only cough, cold and fever," Clearly the notion of what is called a general outpatient- is so abused that even minor skin ailments fall out of its purview.

Of those who came directly to KEM, three –fourth were unaware of any other public primary care facility where such care as was required by them was available- and often had confirmation from friends and relatives or their own past experience that such care was available in KEM.

There is also a loyalty and trust element: Even if it takes so long- one is able to trust the provider. And this is both self-experienced and communicated.

One mother interviewed said, "I have delivered both my children at KEM, hence come back to KEM for any of the illnesses, I don't consult anywhere else." The trust with the care delivery of the tertiary hospital was also built upon positive experience of patient's relatives who once suffering from serious illnesses were treated successfully at KEM Hospital. In situations of such strong faith mechanism, long waiting time, overcrowding and wage loss were said to be insignificant by few of the patients interviewed as they claimed.

A third contributor is the large number of attenders of patients with tertiary care illness either under treatment in KEM or the neighbouring Tata Memorial Hospital for cancers who decide on a health check or have a chronic illness when they have the opportunity and time- or because they develop an inter-current illness. Considering the large numbers of both in-patients and at tenders and care providers in these two complexes- it is not surprising that even 10% of the out-patient clinic could come from this group.

A fourth and major contributor to the outpatient load- and possibly the most avoidable of all are those coming only for the repeat of drugs. Thus in a year KEM sees 4851 new cases of diabetes, but it sees four times as many (20371) old cases of diabetes. It would see about 2000 new cases of epilepsy but 14,000 old cases of epilepsy. It would see 6095 new cases of mental illness but 44,350 old cases.

The mother of one of the mental illness patient's tells us, "*I have been coming to KEM for my son's medicine for 20 years now, every month. I am the only earning member. I can't get my blood tests for sugar done as I get no leaves, but I have to come for the sake of my son. I wish he dies soon.*" The patient's attendant was a 65 year old widowed lady who said that availability of drugs at some nearby centre at the same cost as KEM Hospital would definitely ease her responsibilities of taking care of his 40 year old son suffering from Schizophrenia for last 20 years. The Psychiatry OPD had almost 6 times old cases than that of new ones. The department was divided in two sections – Old case OPD and New case OPD. Out of all cases reporting in a single day in old case section almost 95% of the respondents were patient's attendants or patients seeking renewal of the drug prescription to take away their monthly dosage of drugs. One of the residents sitting at the Skin OPD, *"Mostly the relatives of the patients come for getting follow up drugs. The patients don't come themselves generally."*

On informal interaction with the patients standing in a queue at the blood sample deposition window in Department of Endocrinology, reported that they come here every month or in three months to get the blood tests done for their blood sugar level. The reasons cited for not getting the investigations at a nearby public hospital was mostly due to the lack of faith in the validity of the blood reports both by the patients and the attending physicians at KEM. Though few of them also complained about the number of visits they have to make to deposit the blood sample and collect the report for the same which is a two day process.

All of these could be referred back to a nursing station or primary care center or health post or nursing station where they could get access to these drug and the follow up care- - and yet be followed up on the same case sheet or at least be visible to the other – by digital means- but this sort of planning is not even on the agenda.

In-Patients: The 85,000 in patients cover almost all specialities. The single largest is of course general medicine- close to 25,000 admissions, followed by general surgery. Obstetric admission though high at about 6000 – are similar to what a well-functional district hospital has.

It is difficult to determine what proportion of cases are secondary hospital cases that could have been managed at a district hospital. If we assume that it is about 80% (there is no evidence to support this- just to understand magnitudes), then KEM provides secondary care equivalent to what 10 to 20 district hospitals would have done (at about 10 to 20 surgeries per day per district hospital)

The real problem with in-patients is the very limited quality of hospitality arrangements. But even this is an immense effort in diet and laundry and nursing services.

There are no special wards. If medical doctors need to get admitted one of the duty-doctors rooms may

be used- but much more likely they would not get admitted here at all.

But there is also the major problem faced by those patients who actually desparately need tertiary care. One of the most exhaustive of the pathways being followed by the patients coming to KEM Hospital is the one wherein the patients went to several private and public hospitals, got exhausted of all the resources financially and finally resorted to KEM Hospital with the hope to be cured. KEM as the ultimate destination- as the final dumping groud.

Listen to this case study: "A 35 year old lady was standing in the queue for depositing blood samples of her mother who was sitting on the floor next to her. The patient was clearly critically ill. The patient's attendant was a migrant labour and was the only earning member of the family. On further conversation she told that the attendant's mother was admitted in a private hospital following episodes of severe stomach ache, vomiting and loose motions. As she could not afford to pay the fees of admission for even a day at the private hospital she was referred to a nearby secondary care government hospital.

Due to unavailability of CT Scan machine at the secondary care hospital she was referred to KEM Hospital. The patient was discharged and she was taken to KEM hospital where she was asked to continue treatment after investigations by the attending physicians at secondary care hospital.

At the Medicine OPD she was asked by the residents to get a number of tests including HIV, Hepatitis B and other blood investigations along with CT Scan to be done. The attendant informed that she has all the reports of investigations from the earlier hospital but the resident insisted on repeating all the investigations and said, *" You want to save your mother or get a CT Scan done. Do as I say."*

The attendant of the patient during the interview said, "*I am the only earning member of the family and I have not been going on work for a week now. My mother is very ill and they are asking to repeat all the tests we got done only a week back. I am standing here from 4 a.m. in the morning as we did not know when shall the counter open. It has been 6 hours and they have not admitted my mother. She might die."*

This patient could have perhaps afforded this level of expense and delay earlier- but time and money has run out- and KEM may take all the blame (when it deserves only a part of it) but for the patient this is end game. The absence of a clear onward and upward referral system also has a huge costs.

Human Resources

The KEM employs considerable numbers of human resources and it also generates human resources for health.

Student Intake: In year 2016, 180 students joined the MBBS course, 182 in MD/MS, 53 in post graduate clinical diploma and 42 in super-speciality courses- and most of these courses take anywhere from 2 years to 5 years (for MBBS) to complete. There are also a few other masters programmes with relatively small intakes and nursing school with a 100 student annual intake for a four year course.

Medical and Nursing Workforce: The entire clinical post-graduate force is available as junior residents plus some more- so that there are in all about 600 junior residents and 120 senior residents other than about 200 interns contribute to the medical workforce. And then there are 558 faculty from all disciplines taken together. The medical workforce thus works out close to 1500 doctors. The nursing strength is 1172. The nursing school also contributes a further 400 nurses into the workforce.

There are no inherent problems of availability of workforce. This is Mumbai where the entire medical profession would want to be and private practice is allowed for those want it with non-practicing allowance for those who do not. Residents do not have private practice but most of the others do. This is also the best opportunity for training for generations of new students –unlimited case material and unlimited access to the same. There is also little problem about skills- what the individual lacks is made up in the group work of clinical teams with its inherent strengths in mentoring and mutual support.

The concerns are long term. It is about the culture that gets in-grained into those who are churned out of these clinical factories. If at the time of

their moulding, the young professional gets used to disposing of patients at an average time of two minutes per patient, if there is no interest or accountability given to continuity of care, if there is no particular urgency in initiating treatment or completing treatment within a given time frame- and no concern at all for the patient experience- then these are attitudes that persist long and pass on to wherever they go. When we go to a primary Healthcare unit and see the young doctor 'dispose' all his 50 cases of that day within 2 hours and then while away the rest of the day, we wonder whether its origins are in the fast disposal of the outpatient clinics of the mega-hospitals. In the mega-hospital this is a necessity for the afternoons would be – like in JIPMER- filled with research programmes, clinical procedures and post-graduate teaching programmes, case reviews etc. But in the primary health center that 50 cases should have been spread out over 8 hours at least- at 10 minutes to a patient. District hospitals and even a number of state medical colleges empty out in the afternoons having disposed their cases in the forenoon and enabling the doctors to go for private practice. Thus the role models and legitimacy of this behaviour tends to get established in this period.

Workforce performance is otherwise not an issue. The resident workforce is answerable for performance to the faculty- and it relates also to their successful graduation. They are the backbone of clinical care. Faculty are also more conscious of bedside manners and the role model effect it has. But that would not be a consideration when it comes to all other categories of the staff. Here there is unionization and a high level of grievances and a general dissatisfaction with their performance- but all of this does not translate into any clear management strategy.

The big issue in workforce is the relationships with the community. The huge delays in attending to the patient, the entire de-personalization that happens within the crowd, the many tensions that patients and their attendants deal with during the health crisis- anxiety about outcomes, anxiety about other work deferred, anxiety about finances, lack of trust- are all a tinder box- and flare ups are routine (much like road rage). So periodically there are reports of doctors beaten up by patient at tenders or even by staff. Some of these flare up into a state wide strike of doctors, leading to demands for tougher and tougher regulations and repeated issue of stern assurances that doctors would be protected. And then when everyone has let out the pent up tensions, the system re-sets and it is back to work as usual. Including planning for even more doctors, nurses and patients.

The Values that define and drive the system

One important question is the values that define and drive the system- something that Gulserene Dastur captures well in her documentary on the KEM hospital (2012). First – is the strong message of universality and inclusiveness. Repeatedly the emphasis is on 'We never turn away any patient. Whatsoever the case- we have to provide care." Many of the public who came late or on the wrong day, or where the emergency department declared their suffering to be a non-emergency may object- but the motto is still true. That definitely defines one of the key values of KEM. That informal systems of rationing – closing registration counters at 11.00 pm, triage done in the emergency rooms, running out of ventilators- after the existing 110 are fully occupied, long queues for key surgeries exist – only testifies that the motto is taken seriously.

Secondly at all levels of the permanent faculty- the leadership, the faculty, the nursing staff, the support staff- there is clarity that this is public services- and that public services are meant to be free. Most have made a choice that though this may be less remunerative than what Mumbai's booming healthcare industry would pay- this is what they want to do. Private Practice is allowed in KEM hospital – and they can do so after 4 pm. Those who decide to forgo private practice get a non-practicing allowance, but this is far less than what any of them with their level of experience and seniority would earn in the private sector. And about one in four do opt for private practice. However about three in four do not. The act of providing the highest quality of care and the maximal level of quantity of care without any linkage to higher personal incentives is a strong tradition. For the faculty – the

act of teaching is as much a source of fulfilment as the act of care provision. For some research too is a driver- but when overwhelmed by such huge care giving and teaching workloads- for most research and even exploring new frontiers in care would be a back-seat.

For residents this is a passing phase. A sort of trial by fire that they must pass through before the good life can begin. Do the core values rub off onto them? This is difficult to state. Most would perhaps be happy to move on from the milling crowds, even if there is nostalgia about where they come from. But no doubt there are some, who respond to and remain attuned to the needs of the poorer sections life-long.

Opinion amongst the community of the sensitivity and public spiritedness of the providers of KEM would nevertheless be divided. To many, the experience would have been de-personalizing, rough and rude- where each individual is just one case amongst many. Partly this is not an aberration- but is woven seamlessly into the logic of the system. Witness for instance the specialist telling his graduating students - "to lifelong hold in gratitude the poor for you learnt medicine at the cost of a poor patient who allowed you to poke him a 1000 times and examine him in all sort of ways." This is the unwritten exchange of the public hospital so well described by Foucault describing the birth of modern clinical/hospital practice in the early 19th century : "And in accordance with a structure of reciprocity, there emerges for the rich man the utility of offering help to the hospitalised poor; by paying for them to be treated he is by the same token making possible a greater knowledge of the illnesses with which he may be affected; what is benevolence towards the poor is transformed into knowledge that is applicable to the rich.

But doctors would be justifiably surprised at any accusation of callousness and neglect. Because after they have run through the entire list of patients for the day- their gaze settles on some of them where they exercise their maximal efforts of selfless care-taking up all the time that they can humanly give- and from their standpoint cannot quite see the many who drop out of their vision- and which the system cannot accommodate. And close to 700 patients seen in the emergency per day and of these about 150 admitted from there- every day is like disaster management and a triage is always at work.One would need to have the right level of illness and combination of circumstances to attract the benevolent gaze of the KEM behemoth.

Technology

KEM is a technology leader in terms of its ability to do many advanced surgeries and procedures. However this may be far less than the demand for tertiary care services.

There are some drugs supplied free, but many drugs and consumables have to paid for and bought in the many pharmacy shops at or around the hospital. Within the hospital itself there are about multiple types of pharmacy- a free pharmacy of the hospital, a Jan Aushadi Kendra, and three or four others.

Similarly with diagnostics. Many are free for all, some are charged and because of waiting times some are prescribed outside. The sheer volume of laboratory tests done are massive and their variety would meet the range in most corporate hospitals. One count from the annual report would put the estimate at 27 lakhs per year. Impressive as this number may be given the high numbers of secondary and tertiary cases seen- the per patient tests would be only about one test per patient for one fifth test per outpatient seen, or about 0.2 tests per patient. Anecdotally, this is not dissimilar to the figure from many public hospitals. A desirable average even in primary care would be in the 2 to 3 per patient range!! (again need for evidence for stating this figure).

The same can be said of radiology where more than 160,000 tests are done per year- or over 600 per working day. And this is possibly an under-estimate.

If we look at access to blood transfusions the annual report states that everyday close to 150 to 200 units of blood are transfused- or about 75000 per year.

KEM does have the capacity for a considerable number of sophisticated procedures. For examples it has done about 12 bone marrow transplants, 24 renal transplants and one liver transplant in the

previous year. Similarly it does a wide range of medical and surgical procedures. However needless to state, it is still only a small fraction of those who need these services.

Information Use

The KEM has systems that are able to aggregate numbers of patients seen- but for some of these even this data is difficult to come by. The case records system is not fully developed- and some departments- especially those that have complex chronic cases have their own records. The functionality of systems for simple chronic illness and acute simple illness is almost non-existent. Case records are not digitised. Some administrative functions are to some extent digitised. This too needs to be assessed in some details. There is very limited if any population based analytics in place. Even the contribution of the data of this institute into the HMIS needs to be verified.

There are moves to introduce a comprehensive hospital information systems. But these are still early days for this.

Financing of KEM

The main source of financing for KEM is from the Municipal Corporation.

There are three other sources of revenue. One is user fees. There is a small registration fee of ₹ 10 for every visit- which is valid for three visits within 15 days. There are also charges for some diagnostics but RGJAY patients are exempted. Diagnostics are free for inpatients, Outpatients have to pay ₹ 200 for immunological tests- but basic blood and urine tests are free. Surgical charges are ₹ 200 for minor surgeries and ₹ 500 for major ones. But all implants and prosthesis have to be bought by the patients. A number of the high end procedures are charged unless covered by insurance. Medicines are free for inpatients but have to be purchased from the pharmacy stores for outpatients- unless they are covered by RGJAY- when the same pharmacy dispenses it for free. Similarly radiology charges are exempted for RGJAY patients – but others are charged at very reasonable rates- ₹ 30 for an Xray, ₹ 100 for an ultrasound, ₹ 1200 for a CT and ₹ 2500 for an MRI. However these charges could add up to levels where the poorest quintiles could get excluded.

A second traditional source of funds is donations. There is an effort to increase this as evident from its presentation in the annual report. However most of it is for specific purposes like equipment or some amenities within specific departments and is not a significant source of revenue.

The fourth and increasingly important source of revenue is from RGJAY- the Maharashtra Government funded health insurance scheme that covers both secondary and tertiary care for all those with an income below ₹ 1 lakh per year. It provides a sum assured of ₹ 1.5 lakhs per year. There is a special set of counters that facilitates registration and admissions under RGJAY. The procedures which these pay for- and the needs which these do not pay for also need to be determined. Gulserene's documentary on KEM is built around a patient raising funds for the child's highly subsidised operation – a process that takes the family almost three years. But this may have dramatically reduced now- with the introduction of RGJAY scheme. How KEM and the community leverages "public purchasing" as supplementing "public provisioning" needs to be studied. More complex and costly procedures like renal transplants have become much more accessible due to RGJAY. For those few patients who come to KEM but are not eligible for RGJAY because they are from outside the state, or because they are above the income ceiling- funds have to be raised in part from charities and their poor patients funds- and part by the patient.

The proportional contribution of each of these four sources of income are to be determined. But it is most likely that tax based financing from the Greater Mumbai Corporation accounts for over 90% of all incomes.

Cost-effectiveness: It would be interesting to compute the cost-effectiveness of the services KEM provides. Because of the scale of the operation, and the economies of scale the large budget of KEM would translates into a very modest sum per patient. This is of course possible only because of serious compromise in quality. But for the poor who

have nowhere else to go, KEM remains the last port of call.

Conclusion: The Dis-economies of Scale

Is the urban public mega-hospital a valid solution to at least the curative care needs of that large section of the people who cannot pay for it? The main reform measure that all the mega-hospitals are considering is further expansion- a 1000 more beds and an additional number of human resources. Currently the daily case load is about 6000 out-patients and about 1600 in-patients- to manage with there are approximately 1500 doctors (including 600 junior residents who are also students) and about 772 nurses (plus 400 nurse-students) and an indeterminate (to us as of now) number of support staff.

There is no doubt that even now more staff is required- especially in nursing. But are more beds and doctors the solution? There are valid reasons for expansion:

a. Firstly because there is a huge need. There is no reason to believe that it is drawing away patients from where services are accessible. As can be seen from the huge crowd of the dermatology patients- there is a non- availability of services other than of immunization, ante-natal care and delivery services in the urban primary Healthcare sector and peripheral hospitals are too far apart and too few and do not have assured services.

b. Secondly because there are economies of scale.

c. Because even primary and secondary care patients are required for teaching purposes.

However there are many reasons why one needs to be careful about this logic- and a need to cap this expansion and de-pressurize the hospital of a large part of its primary and secondary care load. The reasons for this could be stated as follows:

a) There is nowhere else where the poor can go for advanced tertiary care services. While this is unfortunately true even for many primary healthcare needs, the difference is that potentially we could build other sites for primary and secondary care- but such a range of tertiary care and at such costs would be difficult to replicate. The need to increase the proportion of tertiary care patients to at least 70% of the case load is important.

b) The patient experience for all secondary or tertiary are in such a crowd is de-humanizing- and causes a huge degree of suffering and an unknown level of morbidity and mortality. Such cost effectiveness is only at the cost of healthcare quality. The right of access to healthcare must mean the right of access to quality healthcare. In terms of clinical effectiveness of care there is no reason to suspect poor quality of care- for those who manage to attract and hold the gaze of the doctor and system. The system of residency and supervision by two levels of faculty leads to considerable quality in clinical care. Where it has a huge blind spot is in patient centeredness - in the patient experience in terms of waiting times, comfort, satisfaction, dignity, communication, autonomy etc. The break-outs in terms of violence are signifiers of a system that survives at the brink.

c) When staff numbers are so large there would be considerable sections of working staff who would have poor levels of performance. There would be similar gaps in performance in many services. It would be difficult to ensure efficiency in management optimization of inputs-outputs in all sectors. We note that most busy corporate hospitals have 300 beds or less and only one or two have above this- and none above 1000. It would be interesting to consider a hypothesis that in government there would be a relationship between quality and size- which could be bell-shaped- increasing with size to a point and then decreasing. If this were true then after a certain level of case load and bed-size the government should go in for a second hospital, rather than expand endlessly.

d) Also of the concern is the image of primary care and the larger organization of care it creates in the graduating doctors and specialists. One

it legitimises for almost all time to come the rapid fire approach to disposing of the primary care patient. Each new primary Healthcare patient requires a minimum of about 15 to 20 minutes of interaction time- but what most get is anywhere from 1 to 3 minutes. This does not mean that some patients would attract sufficient attention to get 20 minutes or more. The attending doctors would believe that anyone who deserves it on clinical grounds gets it- but that is unlikely to be true. This pattern of behaviour then spreads to all government run public hospitals and facilities where all patients are to be disposed of within minutes – except for a few interesting cases that are singled out for attention.

e) The second serious gaps in KEM as a site for primary Healthcare training (or even for secondary and tertiary care) is the failure to understand and build experience in handling continuity of care. Thus KEM sees a modest number of about 2000 new epilepsy cases each year but ten times that number have to come all the way just to receive drugs and medication which could have been delegated even to a primary Healthcare provider- through a proper feedback referral mediated by social workers or case managers. But our interviews show that not only are there practical problems in doing so- there is a hard attitude against doing so- a feeling that things would go wrong with the primary provide if it is left unto them. To quote a senior resident who when asked for judgement on the level of care required for a particular case said, "All cases in skin are tertiary care only. They cannot be taken care at primary level. Ours is a speciality department." It is worth noting that a large number of the cases he was referring to was simple Tenia cruris and he was concerned at the inappropriate use of steroid ointments. There is reason for such fears especially with private sector- but these could be addressed. May be also there are good reasons for KEM to be unable to build back referrals. But a culture is set up. A perception takes root of primary Healthcare as some form of general outpatient clinic disposing patients and dispensing symptomatic care- while all chronic illness care is perceived as a function of speciality clinics. There is a huge price that communities and healthcare systems pay for this distorted perception.

f) The problem of too much primary Healthcare seekers is often sought to be prevented by "gate-keeping"- which raised fears and resistance that it would become '"pricing and policing" to keep the poor out. Or at best a failure of primary healthcare that others outside the hospital should do something about. The management at KEM recognizes the overcrowding as a problem but responds to it only through efforts to manage the crowd at the infrastructural physical level- measures like:- Establishing GOPD, reduction in the time of paper distribution for various OPDs, increased human resource. A typical response from the administration was *"We are doing our job well. Go to the peripheries, ask them why do they send patients here? See if the peripheries are working or not"*. This disassociation of the mega hospital settings with primary care has in a major way contributed to the disruption of whole referral and back referral system designed to facilitate the care seekers and ease in the access of care. However as these case studies show, the urban public hospitals also make a contribution to these dysfunctions- and one way it does so is by defining considerable volumes of chronic illness care as a speciality clinic function.

g) There is a case therefore for increasing the efficiency and effectiveness of hospital care by establishing much stronger links to secondary and primary Healthcare centres through a concept of zoning and designated feedback referral points. This would include creating primary Healthcare teams in urban areas- so that first contact care for a much wider range of minor illness as well as continuity of care for all chronic simple illnesses can be managed by these teams.

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AAM ADMI MOHALLA CLINICS (AAMC)
A New and Evolving Urban Healthcare Model

Delhi | *Rakshita Khanijou, T. Sundararaman*

Introduction

The Mohalla clinics is an innovative approach to the provision of urban healthcare that was introduced by the Aam Admi party a year after it had come to power. It vision statement calls the Mohalla clinic "to be the focal point for all preventive, promotive and curative care in the vicinity of the population (Mohalla)." Its mission statement reads "Provide easy and equitable access to Healthcare based on the needs of the community."

The Delhi government set itself a target of 1000 Aam Admi Mohalla Clinics (AAMC). As of today it has established its pilot project of 100 Mohalla Clinics and 62 newly built porta cabins. In its plan these Mohalla clinics will be networked with 150 polyclinics that will be a point for specialist referral services. This would in this understanding help de-pressurize the urban public mega-hospitals like Safdarjang and RML which are meant for tertiary care- but where due to lack of alternatives the poor go even for primary and secondary Healthcare needs. It would also bring Healthcare closer to the people.

Potentially the Government of Delhi has the fiscal space needed for such an initiative. The percentage of public health expenditure by the government of Delhi as compared to its total budgetary expenditure has been around 14.56 % in 2015-16 as compared to 11.55% in 2012-13. For 2017-18 the total budget allocation to health is even higher. The budget allocation for the previous year for AAMC was around 500 crores.

The design

The AAMC is an initiative to ensure accessibility to quality Healthcare which is accessible to the residents of Delhi. The design is to establish a network of primary care centres in the city that would cater to the general population, interpreted in this context to mean both the poor and middle class. Once fully developed, one AAMC is required to provide care to a catchment population of 10000 people (approximately 2500 families). It would have a repository of the Healthcare records of each individual and family in this population and provide them with comprehensive primary Healthcare- which would include preventive, promotive as well as curative services. Schools would also have clinics- so as to encourage promotive Healthcare with longer term outcomes as well.

The clinic aims to run on an IT platform," transforming the conventional manual Healthcare practices to an Electronic Health Record system automating the process of consultations, lab diagnostics, pharmacy as well as generation of remuneration of the empaneled staff" and "using back-end algorithms to protect patient information". A few internet based applications were to be deployed to ensure easy dissemination of information and a platform to discuss the various issues faced to model easy solutions.

The initial understanding was that it would be set up in rented premises and would be operated with the help of private (empanelled) doctors. Soon after it was also decided that many centers could be run by doctors and staff in Delhi government employment.

The pilot phase of 100 Mohalla Clinics started in 2015 on this basis- but as suitable rental premises at affordable rates and at choice locations were difficult to come by, the idea of establishing clinics in pre-fabriacatedporta cabins in government land, picked up. The initial sites designated for the establishment of the clinics had been objected to at certain places which then had to be shifted to different locations.

It was decided therefore to add 65 mohalla clinics in porta cabins to the first 100 pilots. These clinics have now been set up in various locations which include slums, urban housing societies, schools as well as on the space available along major roads. The porta cabins established at various schools are constructed within their premises with a separate entry and exit points for the students.

Payment to empanelled private providers was to be on a per patient basis and diagnostics based on a per diagnostic test conducted. Each clinic was thus to have a doctor who would diagnose and prescribe, a phlebotomist who would draw blood for samples and a supporting health worker. Initially there was a ASHA assigned to each clinic – but this was later changed to an ANM per clinic. The services were to be free. The doctors were to refer the patients for specialist consultations to the polyclinic and to the hospitals for surgical and more complex referrals. The CDMO's deployed various officials at the district level to mentor and monitor the functioning of these clinics.

Now the government is poised to scale up to 1000 partly because of the pressure to do so and this would no doubt bring new challenges.

One interesting design issue is that the technical support for this effort comes – at least to a major part – from WISH Foundation which has a commitment to engage the private sector. WISH Foundation, is a CSR agency which has also been providing assistance to Rajasthan government for outsourcing PHCs. Its theme is also innovation – and we can see a lot of that happening. It has a major role in the evolution of this programme and in its implementation. Another interesting design feature is the outsourcing and centralization of diagnostics. This too evolved at a particular stage in the programme.

This case study is a documentation at this stage of what has been tried and the way it is playing out in the field at this stage of the experiment. The first field visits showed aa wide variety of clinics in operation – differing by location, by infrastructure and by staffing. Locations could be slum based, on the roadside, or in schools, or in middle class apartments. Infrastructure could be a rented house or a porta cabin. Staff could be regular government staff deputed to the clinic and paid a salary, or contractual NHM staff paid a salary or what is called empanelled private providers and staff paid based on measured outputs. There are different combinations of these features- making for a wide variety of experiences. What is presented below is a series of 5 Mohalla clinics that tries to capture this diversity. The caution is that this is not an evaluation- but a documentation.

1) The Peeragarhi Mohalla Clinic A government staff operated clinic

The first pilot of the Aam Admi Mohalla Clinics was done at the Peeragarhi Relief Camp in West Delhi almost 2 years back. The start was done with the help of community profiling and microplanning which helped them to determine the needs of the community. The staff at the clinic was working at the center since its inception and were recruited through the NHM. The facility was designed to cater to the needs of the catchment area which

comprised of 12000 population. The community mostly comprised of the adults with fewer children as it was a rehabilitation colony.

The facility provides out-patient consultation and basic diagnostic services- of which widal, hemoglobin and blood sugar are performed at the clinic, while others are done centrally. ANC services, Immunization and medicines for acute and chronic illnesses are also available. Referral for specialist consultation is the nearest polyclinic and for surgery to nearest hospital.

Patients are referred to the nearest polyclinic (about 8 km away) in case there is a need for a specialist for review or to the nearby hospitals for any case which required surgery.

Even though the space for the clinic functioning was constrained it was well equipped with the oxygen cylinder, baby weighing machine, fridge for vaccine storage as well as the BP machine and weighing machine.

The patients report at the reception where the ANM registers the patient and enters the details regarding their age, gender and other demographic details along with their phone number/unique identification number (Migrants who visit the clinic for treatment but do not have any residential proof, and this could be a problem).

No user fee is charged from the patients. The patients are given the paper slips and the process for the prescription is done manually. The medicines are dispensed after the doctor prescribes them and the dispensed medicine is recorded manually in the registers. The average waiting time for the patient was low and the time per patient was also low.

The clinic was being run in two shifts, morning 7 am to evening 7 pm and on an average 150 – 170 patients were being seen in the morning hours and about 60-70 in the evening shift. This is a unique feature for this mohalla clinic as it is the only one which runs an evening shift as of now.

On an average, the clinic has seen 4324 patients in the month of march which increases with the onset of the monsoon. The higher number of cases were reported during the months of with the higher cases reporting with fever etc.

Medicines were prescribed for 15 days for patients reporting with chronic diseases and for a period of 3-5 days for acute illnesses. The doctors could prescribe the routine lab test for which the reports would be provided for on the same day.

Two doctors were available at the time of visit. One had been scheduled to undertake field visit for the polio campaign in the community and the other doctor was attending the patients. Both the doctors were on a regular pay scale under the government of India, one under NHM and the other doctor was working with the Delhi Government and had been posted at this clinic. The facility was also equipped with an MPW and a pharmacist to ensure the smooth functioning of the clinic. They are all under the NHM and paid as contractual employees of the Delhi Government.

There is provision of drinking water at the clinic with the help of dispenser and the bottles are delivered as and when the requirements arise. The facility was equipped with the waste disposal system which was collected on daily basis.

The patients are required to carry their old OPD slips in case the doctor has to look at the old records as no past records are maintained at the clinic, except for an entry in the register. The OPD slips for the patients are valid for a period of 1 year from the date they have been issued for future consultations. But, the patients often forget to bring their old prescription or do not bring it stating that the medicines had been prescribed for some other ailments, so it held no relevance.

At the instance of WISH foundation an effort was made to introduce the Swasthya slates (a digital patient provider interface platform) for patient registration and prescription, but it did not work out. This was an additional layer of work, whose value was not apparent to both the doctor and the pharmacist- and its outputs did not seem relevant to them. They had to keep to paper anyway for generating the outputs they needed- like stock available etc. So the manual system was brought back in place.

The desktop at the facility is utilized by the data entry operator to enter the details of the patients in the MCTS and generate their id. The DEO would visit the facility twice in the week to complete these procedures and she was helped by the ANM in filling these details.

Trust and Satisfaction: There is considerable welcome for the services of the clinic. Chronic ailment patients like those with arthritis or epilepsy were particularly happy if drugs could be issued to them – without the long waiting times that it takes in the hospital. OOPE reduces with improved access of a clinic in the neighborhood and free drugs.

Issues raised by the community included more patience and tolerance from providers for the large number of senior citizens attending, and a strengthening of the referral system- so that they were given a priority at the referred facility

The doctors felt that in comparison to their counterparts who run an empaneled clinic the remuneration received by them was less. Training on administration was also a desirable. They would also like flexibility in the essential list to be able to cater to other chronic illness- like there was a demand for eltroxin used for treating hypothyroid- a common problem not usually mentioned as part of any package. Surprisingly TB drugs are not available- not even as DOTS providers.

No separate guidelines exist for the ANM have been given and they are functioning under the norms laid by the NUHM which includes immunization of children and ANC checkups which are undertaken by her. Initially an ASHA was provisioned with the AAMC which was later replaced by an ANM with the addition of some responsibilities. The model is still undergoing changes to understand what fits best where.

2) The Peeragarhi Porta Cabin clinic- government staff operated

The porta cabin functioning at Peeragarhi has been started in the last 15 days and is located at the pavement on the busy main road. Space is the issue. The clinic is staffed by one MBBS doctor, one NO (nurse orderly) and one ANM- all employees of Delhi Government. The clinic opens at 9 am but the patients usually start reporting in from 10 am in the morning. The facility remains open till 2 pm. The doctor in-charge of the place was working was the pediatrics department at a government hospital and has recently been shifted to this location. The provisioning of drinking water is on the agenda but has still not happened.

Manual prescriptions and dispensing of medicines is being done and tablets are not in use.

Medicines are available like in the earlier described clinic- and supplies are once a week from the nearby polyclinic. However in contrast the the earlier clinic- even for chronic illness medicines are only for 3 days. Clearly there is a need to ration.

The lack of water and the unavailability of the lab services is a problem. The ANM is deployed to dispense medicines- but not immunization and ANC which she would prefer to be doing- and she is unhappy with this change. Though the work timings were suitable for her at this place, the distance she had to travel was more, as well as she felt underworked as her skill set was not being utilized in the current setting. She felt that the patients and their relatives often utilized this clinic to seek shelter from the summer heat and rest for some time. A few showers in Delhi left the porta cabin leaking in a few places, which had to be informed to the respective PWD officials and they would conduct a zonal audit of the clinics so that they could be corrected while they were still in the initial phase of construction and transfer.

All in all in contrast to the earlier case study, there is considerable dissatisfaction amongst both patients and providers – for lack of services, and medicines and mismatch between expectations, skills and design. Still on the whole patient feedback is positive- simply because it is closer to home- and at least for the acute simple ailment, there is somewhere near and affordable to go to- need not even cross the busy main road for their medicines. Though on the main road and accidents are frequent they are not equipped to stabilize accidents or provide first aid.

3) The Empanelled Private Provider in rented apartment space: Prateek Apartments

The clinic is situated in an urban locality in a rented apartment and meant to be run by an empanelled provider. However there has been a change of over 6 doctors, empanelled and regular in the clinic within the last few months. The current doctor took charge three days back. There is an ANM and phlebotomist- the former was a substitute and the latter on leave. This was also the nodal point for the collection of the lab samples from this area. No samples were collected that day- which was perhaps fortunate since the courier who came to collect it was not properly maintained the temperature control in the ice-box carrier.

The clinic was well equipped with the basic necessities as per design. The doctor and other staff were sitting at the same table and the patients were being diagnosed and prescribed medicines. The doctors room was available at the site, but was not being utilized for providing consultation- which had implications for privacy and even for frequency of physical examination. The doctor is paid ₹ 30 per patient seen- and there is therefore a motive to record a high patient seen turnover. But since the OP functions for only four or five hours- the time per patient is limited. The person collecting blood (phlebotomist) gets paid ₹ 8 per sample.

The doctors were also prescribing lab tests quite frequently- and some of it at least as seen during the visit could be excessive or inappropriate.

Availability of medicines was 3 days for acute illness and 15 days for chronic illness. The clinic was also equipped to handle waste management system. The functioning was based on 4 key human resources. One observation was that in a middle class area, beneficiaries of the CGHS and railway schemes also visited the polyclinic to avail consultation and medicines. The ANM also felt that their resources were being underutilized as the clinics had not yet rolled out the immunization programme and ANC checkups were not happening. The also felt the need for the recruitment of pharmacists at the AAMC as they were better qualified for dispensing the medicines, which the AMN felt less confident of doing.

The seating area at the clinic had a number of chairs, but patients usually walked in and there was no token system which was placed. Manually the patients were screened for their time of entry and referred to the doctor at their turn. The same process was followed for the distribution of the medicines. The entries were done manually and the digital tablet though available was not deployed on that day.

4) The empanelled Private provider in a slum area - Sultanpuri

The Government of Delhi had put in a request in the local newspapers for renting out space which the residents had to offer at their residences/commercial space. A number of these places were rented out and turned into Mohalla clinics. Two such clinics are rented in the Sultanpuri area in the north of Delhi. The rented accommodation often are single or double rooms which have been let out. Therefore, the basic structure is not customized to the construction or functioning of a clinic. The adequate space required for their day to day functioning is often compromised and the access is limited. Nevertheless, it is located among the people who need utmost attention and care.

The clinic the researcher visited in this area was difficult to locate. With the help of the local shop-owners and residents, the premises which was rented out of an independent house was located. It had an area for seating of the patients and a washroom attached. The seating space was quite cramped and it was difficult to wade past a number of patients who were waiting to be seen by the doctor. On entering the room which was designated for checkups was also filled with a number of medicine box and limited space for any movement. It was difficult to open the cupboard to pull out the medicine stock without disturbing the others seated in the room. The doctor, ANM and phlebotomist were seated next to each other, where the phlebotomist was entering the patient details onto the tab with expertise. The seating for the patients was also cramped even though it was housed inside the premises, it was difficult for the patients and the

staff to use the washroom as the door was blocked with the seating chairs for the patients.

The doctor had been empaneled with the AAMC, had been shifted from another facility to this center as the previous doctor had difficulties in adjusting to this location due to space constraint.

The doctor currently in-charge had taken up this position in December 2016.On an average they were seeing around 80 patients daily. Mostly these patients belonged to the nearby colonies which some of them travelled from as far as 8 kilometers to get treated. The doctor was polite and heard the complaints which patients were reporting with.

The sample collection for the lab was done in the mornings between 8:30 am to 9:30 am before the patient rush for the normal OPD started. The clinic was open till 2 pm every day. All blood samples are collected from the clinic around noon, which means a delay between the time of withdrawal of the sample, its collection and final delivery to the lab at Lajpat Nagar, New Delhi.

The doctor who was empaneled had his own private practice in the evening. In his morning hours he did not anyway have too much private patients- and therefore this clinic gave him additional earnings- of about ₹ 2400 per day. His private sector patients he said were different. Here most were only wanting to collect their drugs and move on. He was optimistic about the functioning and the provision of services under the Mohalla clinic. The major concerns which the doctor voiced were regarding the space constraint owing to the rented facility and inability to use the examination table

The consumables at this clinic were being procured from the dispensary. Like in other mohalla clinics, the medicines had to be procured by the staff from another larger government helath facility on a weekly basis. There is move to shift to delivery to the clinic from above. There are concerns about the storage of the medicines due to the shortage of space.

5) Dwarka – A School based Mohalla Clinics.

They are the porta cabins which have been established in the school premises recently. The clinics visited had been opened 4-5 days before. The infrastructure was similar to the other porta cabin units and was equipped with the basic functionaries of an AC, fridge, LCD for display, seating for the patients, space for doctor's examination and OPD room etc. The entrance to the porta cabin was kept separate from that of the school, even though there was a provision to enter the school premises from the back gate of porta cabins.

Full strength of the staff was placed with the clinics and they had been recruited from the DGHS. There was a lot of inappropriate posting – like a gynecologist or pediatrician from a tertiary hospital assigned to the mohalla clinic- but this could be a temporary arrangement to get it started- when the election code of conduct is on new recruitments cannot be done.

The services and medicines were like in the other clinics.

Wish Foundation : As a knowledge partner

On 1st April 2016, an MoU with the WISH foundation or the Lords Education & Health Society ('LEHS') was signed. WISH is a knowledge partner for AAMC pilot and has provided technical assistance without any financial obligations to DGHS|GNCTD during this phase. The WISH foundation has agreed to provide management and monitoring support to the DGHS in the overall functioning – management, monitoring, supervision of the programme, secretariat and documentation and coordination. A full time monitoring team of 10 staff (1 per 10 clinics), a full time of supervision cum mentoring team (1 supervisor for 10 monitors) and a senior programme manager to overlook the functioning of the project. They also assist DGHS in supervision of the clinics, monitoring the deliverables and generating the monthly remuneration to the AAMC for the 100 doctors.

WISH came into the picture post the unsuccessful attempt with the swasthya slate. WISH offered its solution instead- and now every Mohalla clinic has a tablet where key reports are entered. They are also in the process of building an IT enabled platform for a health management information systems

for meeting performance standards and ensuring compliance with delivering quality of care. They have developed a software which is enabled to handle the OPD consultations, manage the drug inventory and facilitate the EHR based system reporting. The initial design was too elaborate and there were problems in deployment. It is simplified to asking doctors are required to enter ID details of every patient they examine and the medicines they prescribe. Even this was difficult. ID details include their Adhaar Card number, Phone Number, Local Address or their Mothers name. A number of the patients who were migrants did not have their aadhaar cards or were not aware of their local addresses. A number of patients also had a common mobile number which they used. In the current application, a provision to manually enter any one of these parameters is essential to generate an unique ID – which is a must. WISH foundation provides the dongles to every AAMC where it is imperative that they upload their daily OPD numbers for the generation of their monthly reimbursement. There are still a number of technical and institutional problems are being sorted out- and WISH is confident that this would eventually be done. This is important because the system aims to capture in a reliable way the output of every single staff across the city and pay them accordingly- per patient seen or per test done- and are relying on IT to prevent providers from gaming the system.

The vision of the Delhi Government, that this is also expected to enable, is to generate health cards based on the population level data collected from these clinics. It will also be enabled to transfer money to this card which can be saved for any health catastrophe which the patient might face in the future.

Other WISH initiatives include- online data base for medicines stock, a screening device for breast cancer (deployed in 5 pilot AAMCs), PICO (point of care) labs, and an app for transmitting OPD attendance data. Based on the last of these WISH reports that for the previous year April 2016 to February 2017, WISH reports a total of 28,03,267 patients were provided with the Healthcare services at the clinics, of which 4,07,372 were registered manually and 23,95,895 were registered through the app. The maximum number of patients who had visited the clinic were in the age group of 19-49 years with more number of females availing the services at AAMC. On an average 2 tests were prescribed per patient and a total of 295,950 diagnostic tests were prescribed during this period. The ratio of prescription of tests was much higher in the females as compared to the males. According to the WISH foundation, the average number of patients from the 100 AAMC was in the range of 80 to 130. This depended on the location of these clinics and the services provisioned by them which enabled access to more services being provided to them.

Unipath Labs : Diagnostic services provider

A diagnostic center which is located in the central Delhi caters to the lab based diagnostic needs of the 100 AAMC. The porta cabins are not functional with the provision of the lab services. Each of the 11 districts in Delhi has a nodal clinic where the samples from all the other locations of the Mohalla clinics is collected and sent to the lab for their analysis.

The phlebotomists which have been deployed at the various centers are provisioned and trained by the lab. As of now, no official guidelines have been issued for the educational requirement of these technicians and 60 to 80 % of the employed staff are diploma holders. In the past experienced candidates were also enrolled for the clinics and feed-back from the doctors was sought for the continuation of their services. They were replaced in case any complaint was raised regarding their functioning or code of conduct. Frequent training sessions are conducted for their skill updation and revision of procedures is conducted. This included in training the phlebotomists with the order of draw and frequent familiarizing them with the vials which are used for the collection of different samples.

The initial issues had been reported regarding the reports being missing or were wrongly done against the actually which had been ordered for a particular patient. This had resulted in a number of complaints regarding the quality assurance of the lab tests on the whatsapp group created to discuss the day to day issues and a platform to address the concerns of the doctors connecting them to the other stakeholders in the provisioning of these services. The lack of a cold chain maintain mechanism in

the earlier stages was checked in the process and now temperature controlled ice boxes with a digital temperature recorder was placed. A check list has also been added which needs to be entered by the doctor in charge of the AAMC to ensure adherence.

The issues faced by the diagnostic services provider was related to the distances which needed to be covered as the AAMC were spawned across different locations in Delhi. The co-ordination for picking up samples from the various clinics after they had been withdrawn and at the same time delivering them to the central laboratory where the tests were run, were some of the initial challenges which were faced by the administrators. The unavailability of runners to obtain these samples was an issue on the Alipur – Bawana stretch where 5 AAMC are located. The distances to be traversed and the interior location were a deterrent for a person to be employed in this sector, this issue was resolved with various permutations and combinations. A similar area was in the region of Bhatti mines, here a local resident has been deployed for sample collection and delivery of reports thus making the system more reliant and enables retention of the employee.

They have minimized the human interface in the running of the diagnostic test to minimize the errors which had been reported previously. This has been done with the help of bar coding of the samples with a unique number and simultaneous entry into the system after which the tests are performed and the reports are generated in accordance with the bar coded numbers. This is still done based on a manual prescription of the doctors and the tests ordered are sent to each clinic for a doctor's approval before the final requisition for the payments are made. The doctor can make changes or give inputs if he/she feels that the number of tests do not match with the clinical records. The phlebotomist is paid ₹ 8 per patient for whom diagnostic tests have been ordered whereas the MPW is payed ₹ 2 for every patient who is seen at the clinic. They also have the provision of providing reports of certain tests on urgent basis if desired by the doctor in case of an emergency. This was also confirmed with the help of doctors who confirmed that during the peak season or in case of an emergency, if they desired early reports the lab had provided them with the same.

The issue faced at the laboratory end is with the provisioning of consumables like gloves, syringes etc. They have tried to monitor and deliver these based on the consumption patterns of the clinics, but a definite inventory is not maintained regarding the numbers utilized. The stakeholder also felt that if this could be supervised, we can also maintain quality indicators for the phlebotomists based on the number of pricks for each patient who has been advised a diagnostic test. The other concern was regarding the time lag between the sample collection and the sample delivery at the lab for testing. This could also be a quality check indicator as the time lag increases for the sample, its accuracy for delivering accurate results for the prescribed test reduces dramatically. In the summer months in Delhi, this delay could possibly result in deterioration of the samples at a faster rate as compared to the winter months. Regular availability of the printer rolls and other stationary also was issue when the consumables were concerned. Though the issue had been addressed with the regulation of its supply, a nodal area for the delivery of these supplies was not available.

The waste management and discarding of the contaminated waste was put in place for the AAMC. It was collected on regular basis to reduce the chances of cross infection and prevent injuries due to improper waste management.

The online reports are not yet available on the tablet, but these can be requested on email/phone/internet based app by their respective doctors. Due to some software integration issues on the tab, this provision has not yet been made even though attempts were made towards singularizing this process.

Lessons from the case -study

These are very early days yet- and it would be difficult to anticipate what direction it would take. Despite this caution, a wide variety of national and international sources have welcomed it. Part of the reason is that this is the *most desired solution* that many advocates in this second wave of health sector reforms seek. But we also note that there is public welcome, as evidenced in the form of a considerable attendance in each of these clinics.

Such is the absence of urban primary Healthcare that a clinic close to home where one can get 15 days medication for chronic illness without wasting an entire day in the hospital queue and quick access to care for acute simple illness has made the Mohalla clinic very welcome. However both sustainability and growth could face problems.

This most desired solution we refer to earlier is an idealized normative model very popular across the world in current policy discourse. This normativeand notional modelisbuilt around contracting in of GPs, who are to be paid by performance for providing primary care services. These services would be package of consultation and some basic diagnostics for a set of specified disease. If this unit of care- the contracted GP- replicates to become a network, then at some point the management of a chain of such providers can be outsourced to a corporate agency and a new model of primary care delivery is thereby achieved. The complexity of paying a myriad number of providers on a fee for service basis with very small unit sums is expected to be solved by the innovative introduction of IT where every health encounter is recorded and every patient is verified by a unique ID. Moral hazards of providers gaming the system are to be expected, but with further IT deployment around STGs and patient identification, this could be checked. The problem of diagnostics at the peripheri is solved by outsourcing to a central agency. Once this system of purchasing is in place all the complexities of continuity of care, of population basing of care, of building in the values needed to provide Healthcare services to the poor, and the problems of defining services in response to needs- all of these are expected to become irrelevant- since now markets are at work.

The model on the ground is dissimilar to this norm in many ways and there is no reason to believe that the government has a conscious decision to achieve each of these features. Quite often the intentions of those dominant in policy making do not play out as expected during implementation. This makes the programme evolve- and new unexpected features develop. We list below some of the features and challenges as they have evolved:

1. The empanelled private providers are individually contracted in. More like contractual employment on a fee per service basis. It has been difficult to retain them or ensure quality of care. After 4 pm they return to their private practice- when this is precisely the time when the working population can seek Healthcare. The trend therefore is to increasingly rely on government staff albeit on contractual terms. Is failure to empanel and use empanelled private providers- cause or consequence of this? Is the expectation of empanelled providers preventing government creating posts? Are there providers willing to work on such terms in a sustained way?
2. The HR policy is especially a weak area. Phlebotomists- which is not a recognized course- are drawing blood, and substituting for both lab tech and nurse. The pharmacist work is often being done by ANM displacing her own work, which now gets neglected. Government staff appointments suffer from anomalies in postings and there are concerns expressed that empanelled private providers are either going to drop out or demand government jobs.
3. The IT system which would be the basis for making payments based on output numbers has to stabilize and prevent providers from gaming the system. A doctor seeing 50 patients per day would earn about ₹ 37,500 per month, and another seeing ₹ 100 per day would earn ₹ 75,000 per month. Most aspire to see 130 patients with five hours- which would bring them ₹ 1 lakh per month. Already there are reports of over-prescriptions of diagnostics and concerns about numbers of patients seen. There is tension around how this would be resolved- but IT tools are expected to resolve this. This has not yet happened- but with IT there is always a lot of hope and hype.
4. It is not clear whether there is sufficient quality of care at any level. The system design anticipates that a doctor- working more or less alone would, see 120 patients in 4 to 5 hours (9 am to 1 pm) means that a doctor would have only about 2 to 2.5 minutes per patient. And this would include the time for data entry. This is less than what a urban

public mega hospital provides. Ideally quality care, and that too primary Healthcare, would require 10 to 15 minutes per patient at least. There are also no case records to enable follow up. There is an underlying perception that this sort of care- which is basically a dispensary- is enough for the urban poor. There is as yet no continuity of care either upwards or downwards. Clearly in this pay for performance based system, primary healthcare is perceived very differently from the value based, close personal relationships between provider, patient and community that one usually associates with primary Healthcare. However given the immense gap between needs and availability of services, even this relief measure is being welcomed.

5. There is no system of training, let alone inculcation of core values. The primary care provider as guide to the family and gate-keeper to the system and as provider of preventive and promotive care services are all not possible in the empanelled private provider model- as it is now seen on the ground.
6. Population based preventive care – especially screening for NCDs- is on the agenda, but work on this has to be initiated. Though the design envisages families as being allocated to each Mohalla clinic- the team work that would be needed to cover such a catchment area needs to be planned for. It is not a single doctor task.
7. Integrating immunization and ANC into this Mohalla clinics has remained weak.

However the desire to have a model based around contracting a large number of private providers in urban areas is the model being so highly and persistently advocated by sections of policy makers in this round of health sector reforms. Given this fact, one remains in search of a working example of such a model, and the Mohalla clinics may be the nearest we have come to it. Undoubtedly this model will evolve further- buffeted by political opinion, public sentiment on one hand and the community of health policy makers on the other. It would be interesting to see how it finally shapes up.

17
CHAPTER

GANESH DAS HOSPITAL
Benchmark for the Public District Hospital

Shillong (Meghalaya) | *Alacrity Muksor*

Objectives and Philosophy of the Organization

Ganesh Das Hospital was established on the 3rd December, 1935. During this period, medical facilities were still lacking in Shillong. A hospital was needed at Shillong and it was also understood about the plight of the poor people residing in and around Shillong in those days. Considering the immediate and genuine needs of the population of Shillong, Late Rai Bahadur Jeevan Ram Geonka, a Philanthropist, Social worker and one of the oldest and prominent citizen of Shillong, donated a substantial amount for the establishment of a good hospital in the memory of his late father Ganesh Das Geonka at the Capital-Town Shillong.

The Ganesh Das Hospital, is a referral general hospital for women and children, standing as a landmark on the top of the area known as Lawmali or Pasteur Hill.

As Shillong has grown enormously population wise, and people from all over the state of Meghalaya have to depend on Ganesh Das Hospital for the Healthcare of women and children. The predecessors with their uncanny foresight having foreseen the need for the special care for women and children of the future got together under the auspices, Countess Duffer in Fund raised and collected funds to build the hospital. Late Ganesh Das Babu (Father of late Jeevan Ram Geonka) contributed the major part of the amount to the fund, so the hospital was named after him. The foundation stone was laid by Lady Keane on the 22nd November 1933 and the hospital was completed and officially opened on the 3rd December 1935.

The bed strength at the time of opening was 32 beds, but the demand was so much that the bed strength was increased to 68 within a short time. The number of beds officially stands at 400 at present but during the times when epidemics arise or even normally during the summer months there are more than 400 patients and usually children are the worst sufferers.

The hospital caters for a large number of women and children patients. Of the women patients the majority are Ante-natal and Post-natal cases while others are gynaecological, Medical and Surgical cases. The paediatric patients are mainly the cases besides the new born.

The hospital is fully equipped with all the facilities both in the inpatient and the outpatient department. It is the only institution in the State which has three categories of nursing training. The hospital is having the school for general nursing, training for family health worker (formerly known as Auxiliary Nursing and Midwife) and training in midwifery for those who have finished general nursing.

The Ganesh Das Hospital has a quality policy in place. It states that Ganesh Das hospital is committed to offer quality healthcare services with courtesy and smile for the local community and public at large through quality treatment and continually improving its service towards patient satisfaction. Also the Hospital is striving to provide quality healthcare services to the needy people through continuous training of all the categories of staff and effective implementation of Quality Management System. The quality policy also states that "We always keep in mind that human life is precious, so we must act to the best of our ability".

The hospital is being financed by the State Government and partly by the Central Government through NHM and the Reproductive and Child Health Programmes. The hospital got an ISO certification in 2011 and continues till date. The main objective of the hospital is to provide quality healthcare services to women and children especially for the poor and needy so as to reduce the infant and maternal deaths.

The specific objectives of the hospital are:

1. To make the hospital a good working place environment with all the available means for the staff as well as for the patients.
2. To reduce the length of hospital stay to 10% in one year.
3. To ensure that patient satisfaction that comes for OPD will be more than 70%.
4. To ensure that satisfaction of patients who are admitted in the hospital will be more than 85%.

The hospital at present is planning to provide Assisted Reproductive Technology as well. This is financed by the National Health Mission.

Context of the Case Study

The inception of the Ganesh Das Hospital was initiated by the British Government of India, that there should be one women and children hospital. Though the building was built on the contributory effort, the running and staffing was done through the Women Medical Services (WMS) which was an all India cadre of the Government Service.

In 1949, the hospital was provincialized and placed under the Director of Health Services, Assam. Just before it was provincialized, the Countess Dufferin Fund sanctioned a sum of ₹ 30,000/- (Rupees Thirty Thousand only) for the extension of the hospital, accordingly the bed strength was increased to 108 and eventually to 150. At present, the hospital is under the Directorate of Health Services, Government of Meghalaya.

The hospital is providing all the services related to health promotion through IEC that are conducted in the community as well as through posters both at the in-patient department and out-patient department. Preventive services are also being provided through immunisation of both of the ante nataal mothers at the ANC room and children at the well-baby clinic. The hospital also provides curative and rehabilitative services (Nutrition Rehabilitation Centre). These services are provided for all who are coming to seek care without any discrimination on the basis of caste, class, sex, religion and "migrants".

There hospital is located near the Pasteur Institute, which is the research Institute under the Directorate of Health Services, Government of Meghalaya. Next to the research institute, there is a centre for anti-rabies vaccination, Regional Blood Bank and the Food and Drug Research laboratory. There is also the Meghalaya Institute of Mental Health and Neuro-Sciences (MIMHANS) and the Emergency Management Research Institute (EMRI) which are located next to the hospital.

These institutions in and around the hospital co-ordinate and are working together, for example in provision of blood in case of emergency in the hospital, testing of the drug, and provision of laboratory services that cannot be carried out within the hospital.

The health problems that are common in the state are malaria, tuberculosis, anaemia, under-nutrition, and other childhood illnesses. The other problems are large family size, due to which this leads to poverty. Most of the people who reside in the rural areas did not accept family planning in spite of the efforts made by the Healthcare providers. The reason being that children are considered as a boon or God's gift. The belief is strong and people are resistant to change. This area would need an active intervention from church leaders for a change. There is also resistance to immunisation and the Megha Health Insurance Scheme Card- again on religious grounds. The state has a Christian majority- but elsewhere in the nation Christian faith is not associated with such beliefs. The reasons it acts as a barrier to health and healthcare needs in this state needs to be explored further.

Organization of Work Processes

Out-patient registration is 9:30 AM-12:30 PM, from Monday to Saturday. There are plans extended beyond 12:30, as patient from faraway places also comes to the hospital because they consider it as the best and the one located nearby their village are considered by them as not adequate. The department has a sister-in-charge that is co-ordinating all the activities. The ground floor has the registration counter where all the patients who come to the hospital stand in a queue for registration. There is also an ANC room for pregnant women who are coming for check-up. In the ground floor, there is the dressing room, drugs counter, family planning counselling room, ICTC and the laboratory. In the first floor the services that are available are, well baby clinic, dental, homeopathy, paediatrician, Malaria/DOTS, paediatric general, E.C.G, Medical general, medical specialist, gynaecology specialist, gynaecology general and IUCD. The other services that are available at the next level are RBSK (District Early Intervention Centre) and General Surgeon.

When the OPD opens the patients are registered and their details are entered in the computer after which a ticket is generated with the help of the printer and based on their symptoms they are sent to the different room numbers for consultation by the doctors from different speciality. For pregnant women who are coming for ANC there is a separate room for registration and for check-up. The user fee is exempted for pregnant women and children, whereas for other patients a sum of ₹ 10 is charged as the user fee.

The total number of OPD attendance in the year 2015 was 102,331 and in 2016 there were 129715. The total number of pregnant women who came for Antenatal Check-up in 2015 was 21,667 and in 2016 it was 22,571. Out of which the number of pregnant women who received three ANC were 7007 in 2015 and 8351 in 2016.

The total number of patients who attended the service provided by AYUSH (Homeopathy) was 329 in 2015 and 598 in 2016. The total dental procedures performed were 444 in 2015 and 305 in 2016. The total number of adolescent who attended the friends' corner were 1482 in 2015 and 1688 in 2016. (though a modest figure this adolescent clinic has possibly a higher annual attendance – then we have seen in most such clinics anywhere. Even the choice of the name is innovative).

All the services that are available has a different room with room numbers written at the entry so as to make it easier to communicate to the patient which room number do they have to go. There are three state government staff who attended the registration counter, and most of the nurses who attended the OPD are ANMs except the sister In-charge who is GNM. The counsellors at the special clinics or services are Masters in Social Worker. There are three pharmacists who dispense medicines at the drug counter.

The analysis of the total in-patients from the reporting format provided by the Ministry of Health and Family Welfare, shows that there were 2868 male and 2281 female children who were admitted in the year 2015 and in 2016 there were 3225 male and 2783 female children who were admitted in the hospital. The adults who were admitted in the hospital were only females and in 2015 there were 23,395 women who were admitted and in 2016 there were 22,121 admissions. The total major operation conducted in 2015 was 2184 (including hysterectomy) and in 2016 it was 2448 (including hysterectomy). The total

number of minor surgeries was 1342 in 2015 and 818 in 2016. There are no male adult in-patients in this hospital since this is by earlier design the female district hospital. The male district hospital is the civil hospital- which is not necessarily under the same spirit of reform.

The number of caesarean section conducted at the hospital in 2015 was 1940 and in 2016 was 1966. The total numbers of deliveries including C-section were 10,925 in 2015 and 11,124 in 2016.This is the about the expected rate of 10% C-section rate for a district hospital.

The total number of deaths due to maternal cause was 7 in 2015 and 11 in 2016. The total numbers of infant deaths (less than one year) were 440 in 2015 and 448 in 2016, the major cause being birth asphyxia, respiratory distress and severe pneumonia. The total number of under-five mortalitywas 62 in 2015 and 49 in 2016. The total number of child mortality was (5-18 years) was 37 in 2015 and 41 in 2016 and the adult mortality was 9 in 2015 and 15 in 2016.

The analysis of the data from 1st January 2016 to 28th February 2017 shows that there were 9845 new cases and 6556 old cases of pregnant women below 19 years of age registered for ANC. The data also shows that there were 9064 spontaneous delivery, 1458 vacuum extraction, 18 forceps delivery, 45 extended breech delivery, 274 assisted breech delivery, 1686 LSCS, 545 LSCS with tubal ligation and 378 still births. There is something quite remarkable about these figures. In most centers vacuum extraction- a most useful tool is given up. Here the extensive management of complicated deliveries without resort to C-section is what is making a great difference.

Family Planning: The hospital also has a family planning counselling room with two counsellors recruited by the NHM. As per the data (monthly reporting) from the Family Planning Counselling Room, in 2016 there were 432 IUCD insertion, the number of clients receiving OCP were 397, and 633 cycles, condoms were distributed to 213 clients, there were 813 total PPIUCD insertion, 619 female sterilization, 387 post-partum sterilization and 151 clients received injectable contraceptive. The total women counselled in the ward were 1098 and in the OPD for ANC it was 2420.

The hospital has a well-equipped emergency department, along with nurses there are three day duty and two night duty MBBS doctors. There are also seven specialists on call from the different speciality. There are four ambulances provided by the state government and if needed they can also call the EMRI 108. The details of the patients who are coming to the emergency are registered in a computer. There is a septic operation theatre for any injury cases. After the check-up is done by the doctor, if needed the patients are admitted to the different wards in the IPD, depending on the cases. The In-patient department has the Antenatal ward (Maternity ward), postnatal ward, gynaecology ward, the labour room with new born care corner, sick new born care unit (SNCU), paediatric ward. Medical ward, surgical ward the three private wards (A,B and C), paediatric ward and the Nutrition Rehabilitation ward. The hospital also has a fully functioning Operation Theatre and the Intensive Care Unit funded by the North Eastern Council.

On discharge all the laboratory reports are given back to the patients along with the discharge slip where the doctors' recommendations for follow up care are written down. The discharge certificate is also entered into and saved in the computer.

Special Clinics/Special Services

1) Adolescent Friendly Health Clinic/Friend's corner/RKSK: The services are provided for the adolescent belonging to the age group of 10-19 years. The clinic work is from 9 am to 4 pm and on all days except Sunday. All the services provided are free. The services provided are Contraceptive methods (EOCP, IUD, Condom), IFA tablets, Counselling (at the OPD, ward and if there is any emergency cases in the emergency department) and pregnancy test. Stocks are replenished as soon as critical thresholds are reached. There is only one counsellor who is taking care of the clinic. The National Health Mission provides ₹ 50,000 every month as maintenance cost, for out-reach services ₹ 150 per visit and the salary for the counsellor is also provided by

the NHM. Programs are being conducted at the school and colleges every month and for every visit a sum of ₹ 150 is provided by the NHM. All the adolescent who are coming to the hospital and below 19 years of age are referred by the doctors to this centre- which is perhaps why this clinic functions while so many across the nation do not.

2) District Early Intervention Centre/RBSK: The RBSK program was integrated in the Ganesh Das Hospital in the year 2015. The services are as per the hospital OPD timings and meant for children from 0-18 years. Screening is done for the 4 D's Defects at birth, Diseases, Deficiencies and Developmental delays including disabilities. The centre has the following staff: One Medical officer, one Dental Surgeon, a Physiotherapist, a Psychologist and an educator. It also has an Ophthalmology Assistant, a Laboratory technician. An Audio and speech therapist, a Social worker a Staff nurse and a manager. Funded by the NHM, other than human resources operational costs are ₹ 15000/- per month. Outreach services that are being carried out by the Mobile Health Team. The MHT consisting of AYUSH doctor, Laboratory technician and Nurses. As part of the out-reach services the MHT conducted screening of all children in Government aided schools and the Anganwadi centres. The out-reach services is planned to be conducted for the eight blocks of the district and 20 days per month.

All the cases that come to the paediatric OPD, ward and if there is any defect that is being detected at birth in the hospital are referred to this DEIC. From the DEIC if the case cannot be managed it is then send to NEIGRIHMS or to GNRC (Guwahati Neurological Research Centre, Guwahati). The centre provides treatment for all the screened cases free of cost. However for all the heart cases the patients are referred to Manipal Hospital in Bangalore and Mission Smile in Guwahati. The follow-up is done by the cardiologist from Manipal Hospital for all the heart cases at Ganesh Das Hospital who also visits at times for guiding screening.

There is a memorandum of understanding between the State, NHM and two private hospitals for the treatment of cases that are being referred – one for cleft lip surgery and the other for congenital heart disease. All the treatment cost are borne by the program, and if the family is having the MHIS card, all the costs are reimbursed based on the receipts submitted by the family to the centre.

1) Iohlynti (One Stop Crisis Centre): A support centre for women which is a joint initiative of the social welfare department, health and family welfare department government of Meghalaya and North East Network. The main reason for the centre to be located at the hospital is to make it accessible for all the women who are coming to the hospital for health check-up. According to the counsellor at the centre, if itis located at other places it will become a problem for the woman who faces any kind of violence, so to avoid the judgemental attitude of the people the centre is located at the hospital with the objectives of providing support to all the women and children who faces violence. Complaints can be lodge and this will be taken to court, however if the cases goes to the court, there will always be a delay in solving the matter.

2) Nutrition Rehabilitation Centre ward: The hospital has a fully functioning NRC ward run by the NHM. The bed strength for this particular ward is ten. The service was provided from September 2012 for all the Severely Acute Malnourished (SAM) children who belong to the age group of 6-59 months, however rarely the service are also provided for the children who are three months old. The human resources were recruited, selected and financed by the NHM except the nodal officer which is remunerated by the state government. There is one medical officer and along with her there is a paediatrician (nodal officer) who also treated the cases at the ward. There is one nutritionist-cum-counsellor, four staff nurses, one cook and two ward attendants. The services provided are: Free diet up-to 14 days of stay at the hospital for both the patient and the care-takers. This service is still provided if the hospital stays

exceed 14 days. Free drop back facility for all the children even beyond one year (special services for NRC under JSSK).

The child is usually discharged after meeting the target weight gain. However, there are problems with follow up, due to financial constraints the mother cannot take the child regularly to the hospital. Also it is difficult for them to purchase nutritious diet and according to them the food like pulses that are being provided at the Anganwadi centres are not enough. This becomes a challenge for the Healthcare providers related to continuity of care; therefore collaboration with the Anganwadi centre is needed so as to ensure that the child is maintaining the expected weight through provision of adequate and nutritious diet and regular assessment of growth.

One interesting feature is that the patients who are coming again and again to the hospital did get to see the same specialist and when their specialist would be available is communicated to them. This is an invaluable step for patients with chronic illness. Simple as this feature may sound- it is quite remarkable- and most government hospitals do not provide for it. However for the general doctor, who is usually consulted for acute simple illness, sometime they see one doctor the next time will be the other one. All the treatments given are being noted at the patients ticket, and whenever the patient comes for check-up they have to carry the same ticket so as to know about their status.

Linkages Outside the facility: The hospital also has a room for the field workers, who can use it to rest when they come in escorting patients or to pick up drugs and supplies. Field workers – both ASHAs and ANMs are going regularly to the field for the provision of services like immunisation, IEC activities, and on every health day for example the National Deworming Day. All these programs are being conducted by the ASHAs at the community.

There are ambulances services available in the hospital. The cases are referred mainly to NEIGRIHMS, which is a tertiary care centre run by the central government, and the Civil Hospital (District hospital).

Human Resources for Health

The hospital has the following staff, mostly financed by the state government, except for the staff in the departments like Friend's corner (RKSK), District Early Intervention Centre (RBSK), Nutrition Rehabilitation Centre ward and family planning counselling where the staff are financed by the National Health Mission.

Designation	Number
Medical Superintendent	1
Obstetricians and Gynaecologists	6
Paediatricians	4
Anaesthetists	3
Pathologist	1
Biochemist	1
Dental Surgeon	1
Radiologist	1
General Surgeon	1
Paediatric Surgeon	1
Medicine Specialist	2
Specialist (Grade-II)	1
Senior medical and health officers	15
Medical and health officers	11
Matron	1
Staff Nurses	98
Nursing Sister	23
Health Educator	2
ANM and LHV	8
Grade-IV Staff	116
Pharmacists	5
Vaccinator	1
Radiographer	2
E.C.G. Technician	2
X-Ray Technician	2
Laboratory Technicians	4
Laboratory Assistants	3
Senior Laboratory Assistant	1
Junior Laboratory Assistant	2
Laboratory Attendant	1
Receptionist	2
House Keeper	1
Stenographer	1
Tailor	1

Designation	Number
Plumber	1
Librarian	1
Electrician	1
Store Keeper	1
Drivers	6
Handyman	2

School of Nursing

Designation	Number
Principal GNM School	1
Nursing Tutor	10
Clinical Instructor	3
Warden	1
Assistant Warden	1

Office Staff

Designation	Number
Head Assistant	1
Upper Divisional Assistant	6
Lower Divisional Assistant	14
Peon	4
Duftry	1

The facility is located at Shillong which is the capital of Meghalaya, and majority of the staff are from the state.Even amongst doctors and specialists. There is no high turnover as most of the staff is paid by the State government which provides job security for all the staff, also there are allowances that are being given to them. This serves as a motivation for all the category of Healthcare providers and deliver the best services to the patients. There are trainings that are being conducted for the doctors and the staff nurses as well. Most doctors have chosen to undertake public services- and are not doing private practice on the sly.

However, based on the interview with the staff of the NHM, they said that they are satisfied with the job and are happy to work at their own place, they said they feel homely, and the work they are doing is the best they could give for the poor and needy patient, however when they have a family, they find that the salary couldn't meet all their expenses and especially when they are having children. The lack of cultural gap between provider and provided clearly helps in this level of satisfactions. It was also said that even with the same qualification, the salary is different from one staff to the other. This is with regards to contractual staff. This is one of the factors that de-motivate the staff to work especially when they have so many works to do.

Though on first glance manpower seems high, when compared to the range of services and the high number of in-patients there is a lack of manpower in the hospital since the sanctioned post by the state government remains the same due to financial constraints. However when there is any vacancy, if the staff went for study leave or maternity leave, the post is filled by others (officiating). The other reason being that as women from all over the state except those from Garo Hills preferred to seek care from Ganesh Das Hospital. They consider that this is the only government hospital where they could get quality services. Though the hospital is 400 bedded still the number of patients admitted exceeds the bed number. *The senior specialist said that as this is a government hospital we cannot refuse any patients who are coming to us and the patients are also ready to sleep on the floor as long as they get to stay at the hospital.*

Access to Medicines and Diagnostics

The hospital has a drug counter where all the essential medicines are dispense. Outside the hospital there are pharmacies but not part of the hospital. All the drugs are supplied from the central drug store and the NRHM warehouse after the quality of the drugs are ensured. There is a Pasteur Research institute near the Hospital, which has a Food and Drug testing laboratory under the Directorate of Health Services Meghalaya and all the drugs are tested here if there is any changes that is observed by the pharmacist at the Drug counter in the OPD and the Drug store room in the IPD. There is a drug inspector who is in-charge of the standardisation of the medicines by checking the quality and the expiry dates of the drug.

The procurement of medicines is done by the state. Indent of medicine is done quarterly by the pharmacist. The medicines that are available at the

hospital are classified as desirable, vital and essential by the pharmacists. However on comparison to the WHO list of essential medicine, there are still many medicines which are not available. The state is still working on the list of essential medicine to be followed by all the Government Healthcare facility. The reason for which at present the pharmacist are not able to give the percentage of stock out medicine. For the medicines that are available the duration of stock-out is minimum two weeks and maximum one month.

All the medicines that are available at the hospital are provided free of costs to the patients. If the medicines are not available, the patients have to purchase from the pharmacy and if they have the MHIS card all the costs are reimbursed provided the receipt is shown to the Healthcare providers.

The hospital has a fully functioning laboratory, equipped with manpower and all the laboratory equipment. The tests that are available at the hospital are clearly communicated; there is a bill board that is hanged at the entry of the laboratory. The costs for each test is subsidised based on the decision made by the Ganesh Das Hospital Management Society which is the governing board of the hospital. If the tests are not available at the hospital, then the patients are instructed to go to the Pasteur Research Institute, where the tests are again being conducted at a subsidised rate. If the patient cannot pay at all the fee is exempted.

Following are the laboratory services that are available at the GDH laboratory:

1. Haemoglobin estimation
2. Total Leukocyte count
3. Differential Leukocyte count
4. Absolute Eosinophil count
5. Absolute Lymphocyte count
6. Absolute neutrophil count
7. ESR
8. Micro ESR
9. Malaria Parasite
10. Widal
11. ASO
12. Rheumatoid factor
13. C-reactive protein
14. Complete Haemogram
15. Platelet count
16. Bleeding time and clotting time
17. Total Erythrocyte count
18. Blood grouping
19. VDRL and Syphilis test
20. HIV
21. Mantoux test
22. Serum electrolytes
23. Peripheral smears
24. Sputum for AFB
25. Urine for albumin, sugar and microscopical examination
26. Stool for ova, cyst, occult blood
27. Gram staining
28. HBsAg and HCV
29. Pregnancy test.

The other tests that cannot be done at the hospital but conducted at the Pasteur Research Institute are:

1. Culture Sensitivity Test (Body fluids/pus, urine/CSF)
2. Serology test for JE, Dengue, Chikungunya

The minimum cost of the test is ₹ 30 and the maximum is ₹ 150, this rate is approved by the members of the Ganesh Das Hospital Management Society.

For the patients that are admitted in the ward if needed there is an X-Ray room and Ultrasound machine. The cost for X-Ray and ultrasonography are subsidised, the minimum cost is ₹ 200 and maximum is ₹ 250. For the other test that are not available the patients are advised to go to NEIGRIHMS or to Woodland Hospital (a private hospital in Shillong), the cost of which is reimbursed if the patient or his/her family have the MHIS card.

Quality of Care

The hospital has a quality management system in place. Before any inspection by the ISO, the team members conduct a quarterly meeting for one year, as a form of internal review or audit. The ISO 9001:2008 Quality Management System is constituted of the following core team members: Medical Superintendent who is the Convenor in ISO team and in ISO language called the Management Representative, one senior specialist called the deputy MR, 6 other specialists from the main departments, five doctors, the hospital manager, the matron and the sanitary inspector and stores in charge. The system allows them to define their own standards- which are more like areas of concern. In each they map out the current processes followed, develop how it needs to be re-engineered for better quality of care, then train the process-owner on what needs to be done, and then document the process from which it can be reviewed and audited. Measures like improved signage's, cleanliness, infection control, patient amenities, improvements in patient flow, measurements of provider and patient satisfaction have all emanated from this. This system was put in place by a hospital management consultancy agency selected by NHSRC, paid for by the state- but is now maintained by its own team – with the hospital manager playing a critical role.

The hospital has won the Kayakalp award for cleanliness as cleanliness is built into its quality improvement programme. It receives ₹ 3 lakhs every year to maintain its quality standards where now the standards are defined by NQAS - the National Quality Assessment System of the MOHFW under NHSRC guidance.

A feedback form is distributed monthly to the patients in the ward and the OPD. The form includes the public perception about the services given at the hospital .The score from all the feedback form are entered and analyse in the computer so as to get the percentage of patients' satisfaction. The most frequent responses by the patient as to why they come to this hospital, supported by qualitative information are 'Trust', 'used to come here', 'all the services are available'.

Information Systems in Use

The hospital is using software provided by the National Informatics Centre known as Hospital Management System. This software is available at the registration counter, emergency department, MHIS counter and all the wards. The hospital has a medical record department where all the case records of patients admitted in different department are maintained in a hard copy. Based on the patients registration number the case records are kept in an envelope. The administrative records are also computerised.

Community Processes, Participation and Engagement

The community health workers are selected, financed, trained, supported and sustained by the state government- as part of the ASHA scheme. One woman from the locality represents the women organisations in the community is a member of the hospital's management society (RKS). If there are any grievances this woman will speak about it at the meeting of the Ganesh Das Hospital Management Society.

Financing/Resource Allocation

Sources of financing

Government budgets: It includes plan and non-plan budget, under the different heads the amount goes to staff salaries (Recruited by the state government), wages, medical treatment, travelling expenses, office expenses, supplies and materials, minor works, other charges, motor vehicle, machinery and equipment. The budget also goes to rent rate and taxes and to scholarships and stipend for the nursing students.

District Health Society: Out of the total amount received (₹ 2.4 crores) per annum, ₹ 1.18 crores goes to the staff salaries recruited by the NHM, ₹ 79.7 lakhs goes to maternal health (JSY, Rural, Urban, JSSK-Diet and referral transport), ₹ 26.80 lakhs goes to child health (Consumable revenue expenditure, SAM-NRC, JSSK referral transport), ₹ 5.8 lakhs goes to family planning (Sterilization, staff incentive and world population fortnight), ₹ 2.41 lakh goes to

expenses on training and ₹ 4.85 lakhs goes to RKSK contingency, RBSK-DEIC (contingencies, medical reimbursement and training).

Megha Health Insurance Scheme: The hospital received a sum of approximately ₹ 80 lakhs per annum out of which 70 % goes to hospital fund (patients' welfare-reimbursement of medicines, diagnostic tests and surgeries) and 30 % goes to staff incentives.

The distribution of the 30% staff incentives has guidelines in place. Half of it is to doctors and other half to the rest of the staff.. The distribution amongst doctors is as follows: 25% goes to surgeon or main physician or doctor treating the case, 10 % goes to surgeon assisting the surgery or other physician, or doctors involved in treating the case or else it will go to the main doctor is he is managing alone. The remaining 15% is for anaesthetist or doctors of other department actively involved in case management through case referrals or else will go to the administrative pool. The other 50% of the 30% is shared out to the rest of the staff. Out of which 5% goes for consultations or call duty and if the amount is not sufficient, money from unspent amount of the first 50% that goes to the administrative pool can be given, 12% goes to staff nurses, 8% goes to nursing assistant and hospital attendant (grade I and II), 5% goes to Laboratory technician, 5% goes to X-Ray, or ultra sound scanners or CT or ECG or Scan technician, 10% goes to administrative pool including record keeping or system management and 5% goes to PRO if in place. This is an interesting innovation- and since the overall returns from the MHIS was 80 lakhs – the staff component works out to almost 24 lakhs- of which ₹ 12 lakhs which would have been shared amongst 50 doctors- not very much- but may be of some interest and recognition of work.

Ganesh Das Hospital Management society: All the fees from the registration counter, diagnostic test, private wards, goes to the Ganesh Das Hospital Management Society. A sum of ₹ 2,70,300/- is being taken from the District Health Society as loans. These amounts are being spent for patients' welfare like purchasing the X-Ray machine, ultrasound machine and for salary of staff salary recruited by the society on emergency. There are no clinical services- laboratory, imaging, pharmacy etc. which are outsourced. If there is anything that is needed for the patients welfare and in case of any emergency that the hospital required a contractual staff, the Ganesh Das Hospital Society will respond to it by purchasing the equipment necessary or recruit contractual staff. The exact distribution must be seen but it is likely that the most active obstetrician earned one or two lakhs more and the technicians a few hundreds or thousands more. Small though it is, in government service it always feels good to get a perk. But a top gynaecologist may earn this much every week or even every day- and therefore this too would be a reasonable but not high incentives. At this point of time, it seems to work. A sum of ₹ 3 lakhs per annum is received from the ISO.

Institutional Design/ Performance- Effectiveness, Efficiency, Quality

The hospital has a governing body known as the Ganesh Das Hospital Management Society with the commissioner of health as the chairman, the Medical Superintendent is the member secretary and the other members are the doctors from the different specialities. There is also one woman who represents the community from the same locality where the hospital is located. The Medical Superintendent is chosen on seniority basis. The decision making processes is participatory. The society makes the rules and practices with respect to workforce, objectives, performance review, rewards, expansion of services etc.

Lessons from Ganesh Das Hospital

If all district hospitals were to function at the level of quality and quality and efficiency, the problems of public secondary care services would go away. But most do not. So what explains Ganesh Das? What did they get right that others missed?

First- what does not explain it ?

- It is not due to any charismatic leader. Leadership changes are routine, and not particularly selected by any special process. They have been usual.

- Second it is not due to any remarkable change in ownership or contracting. There are no public private partnerships. No outsourcing of services which are seen.
- On the whole salaries are fixed and employees are contractual. There is some incentive introduced due to the insurance scheme- but these are small and infrequent payouts.
- There is some level of autonomy, but it is very limited.
- In short, none of the prescription of neo-liberal theory and new public management apply. The way such theory addresses a narrative like this piece on Ganesh Das is to ignore it.

What in our view could explain it? What could we learn from it?

First is that it has relatively a very comprehensive range of services- at least for reproductive services and for child health. The remarkable range of child health services much of it driven by NHM, is certainly a great step forward. Adult male in-patients are still excluded, and chronic illness management with continuity of care still not prominent. But despite this as far as RCH care – this is far more comprehensive that usually encountered.

Secondly user fees are very limited- almost as a token that can ward of casual visits. Otherwise most diagnostics and drugs are free. With the insurance scheme also kicking in financial barriers and out of pocket expenses are now very low. However some caution is needed since we do not have precise estimates of net out of pocket expenditures.

Third because fee for service incentives are not driving care, there are no moral hazards involved. No trend to overuse C-sections which are seen even in pro-poor cross subsidy models of care.

Fourth and most important- the hospital has put in place, with professional help – a quality assurance system that is appropriate for public hospitals. This brings attention to patient comfort and satisfaction with services. We note that no case study in our list of inclusive healthcare models could make it to NABH however much they tried- and there was lot of evidence on the inapplicability of these models. But here is something that seems to be working.

The use of information is at a pace and form which is compatible with institutional capacity. Thus some administrative processes are computerised whereas most clinical processes remain on the written case record system. From here they have moved to digitising discharge summaries alone- which is a manageable step for their level of development. Modest steps forward but appropriate.

Fifth – is the specific device of allowing chronic patients to go back to see the specialist of their choice and familiarity. The reason for choice of provider is most often trust and continuity. Very often the choice between public and private provider is not based on the nature of financing- but on the quality of trust. This comes out clearly in the systems QA surveys. We note that surveys like NSSO do not include trust and familiarity with provider as the basis for choice of provider- subsuming all of it into an omnibus quality of care title. But with a different lens we see better the relationship of trust to choice of provider. Also the QA survey brings out the role of comprehensive package of services.

The role of the community is muted- but it is present- both in the form of the community health worker and in the form of representation of womens organization in the management committee. The management organization is dominated by government officers, but within this limit the style is still participatory.

Eighth- the human resources, though still short of requirements, are above the critical threshold required for such volume and variety of services. At first glance 50 doctors (including specialists) and 120 nursing staff seems good- but for a 400 bed hospital with over 100% bed occupancy and over 29,100 inpatients per year, it requires to be at least double this. (KEM and JPMER have about 85000 inpatients per year) No doubt student nurses, and patient's relatives themselves are filling up the gaps. But the nurses are qualified and well supported. However quality of care would be at risk. But in terms of efficiency, it is unlikely, that any commercial for profit private sector could offer to match this. Critical thresholds in specialists are particularly important for rarer more complex procedures. The fact that

the hospital has 6 gynecologists, 4 pediatricians and 3 anesthetists here is no doubt one reason why this district hospital provides round the clock emergency obstetric services for 365 days per year- though many other hospitals fail to do so. Over the years, Meghalaya has been sending its students as sponsored candidates to medical colleges in other states, getting them educated in medical and specialist skills and then attracting them back to the state. There is a compulsory public service bond and some students pay the forfeit of ₹ 10 lakhs to get out of it- but many others use this as an entitlement to secure a government job. There are gaps- but it is still a HR policy that works at least in the state capital of one of India's most remote and least developed states.

Ninth- the hospital does not mind entering into strategic purchasing for critical gaps with the private sector- notably in this case for cleft lip plastic surgery and congenital heart disease. Or for technology intensive diagnostics which they need in low volume. All else is produced in-house

And tenth- most important- there is an interesting- perhaps optimal- mix of financing strategy. One part is from state government and is fixed and pays for core services and infrastructure. Another part is from NHM which pays for the expanded range of public health priorities in RCH especially in child health. And a third part is from reimbursements from government funded insurance- which goes to higher end procedures. The total income from this source is limited- but it acts to facilitate the delivery of these services- where risks are higher. Of the money that comes from re-imbursement about one thirds can be spent on incentives to staff. How actual pay-outs are done needs to be studied. 70% goes to hospital development funds. User fees are a very small contribution and here too the exemption increase steadily.

There are three big concerns with this model.

First is the poor attention paid to chronic illnesses especially in the adult males where morbidity and mortality rates are now over five times the rates in women. One can only hope that either Ganesh Das includes this into its ambit or that the civil hospital which currently handles this is benchmarked for performance to this hospital.

Second is the week feedback linkages and downward referrals - part of the problem of the failure to understand primary Healthcare for chronic illness.

And third is the way the insurance is likely to play out. As the private sector grows and becomes more competitive, will it through fair means or foul push out the public sector. This may be less of a problem if there are motivated not for profits involved- but more of a problem if it is commercial private sector. Already we can note that while number of claims increased by a modest 88%, the pay-out increased by close to 218%- and such expenditure could lead to a number of moral hazards in future.

Still the GD hospital defines the archetype of a public district hospital. Benchmarking rather than scaling up or replication is the correct idiom to apply to GD hospital. Wherever there is a 300 to 400 bed district hospital one can set this as a minimum level of achievement for a wide range of services.

Why are there not more examples like GD hospital? One hypothesis we advanced earlier is that can health sector reform theorists deliberately overlook such examples since it does not fit into their narrative. Another we could advance is that the incentive environment for the administrative leaderships of health departments is no longer to run such hospitals- rather it is to find ways to justify selling them?

World Health Organization

India