

# **Making health a reality for the Thar Desert communities of India**

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## **1. The context**

Increasing unavailability of health care services is an issue of major concern in rural areas of India. Home to over 1 billion people, India is the second most populous country in the world after China. The country has inadequate health care facilities causing severe health concerns to a large population, especially those living in rural areas. The state of Rajasthan is one amongst 27 states and 5 union territories that form Democratic Republic of India.

The Thar Desert spreads across the Western half of the state of Rajasthan in India. The Thar Desert occupies about 60% of the area of Rajasthan and further spreads into the Indian states of Gujarat, Punjab and Haryana and continues in Pakistan. Burgeoning crops among sand dunes, protected forests and farms in isolation dot the landscape of the Thar. Thar is the biggest inhabited desert in the world. This area is marked by high intensity of heat, scarcity of water, lack of green vegetables, a great degree of temperature variation from day to night and dusty storms especially during summers. Frequent droughts are very common feature in this area. Majority of the population is rural and live on their farm lands (*Dhanis*), which are mostly linked with the main settlements/roads through unapproachable terrain.

Distinguished by its erratic rainfall and dry climatic conditions, the Thar desert is undoubtedly one of the most backward regions of the country. The region is extremely drought prone causing great losses to livelihood. Community health care has always been an issue of major concern in the arid state of Rajasthan. Feudal society, poor socio-economic status of women and prevalence of social evils have been predominant features of the rural communities in Rajasthan over a long time. Amidst numerous problems regarding the living conditions that the rural communities face in the Thar Desert, not surprisingly, health care does not draw serious attention. It is easy to understand that the inhabitants of Thar can not afford to spend much time and money on health, when the priority is water, food and fodder. Lack of education and awareness among the rural population worsens the situation further. The health care services in rural areas are almost non-existent.

## **Magnitude of health problems in the Thar**

According to a WHO definition, health is a state of complete physical, mental and social well-being and not merely absence of the diseases. The Thar Desert is placed way behind looking at above aspects of health even in year 2004, four years after the Alma Ata declaration of “Health for All by 2000 AD”. The state of Rajasthan is ranked amongst the lowest states in India in terms of basic health indicators. One obvious and important reason for this situation is that the state suffers a great deal due to frequent droughts resulting into malnutrition and poor economy, however, inadequacy, inefficiency and lack of planning on the part of health care are also equally responsible. Let us focus on some of the major health problems of this region.

### **Women and children’s health: a serious threat**

There is a general, widespread neglect of women’s health in Rajasthan resulting in high pregnancy rate, high miscarriage rate, premature infant death and high risk of mortality & morbidity during labour. The current health status of children is seriously affected by this neglect. A significant number of children under the age of fifteen are malnourished and suffering from a variety of diseases as a result of the wholly inadequate health care facilities. For example, it is estimated that 82% of children under the age of three in this region are anemic.

The state of reproductive child health is extremely poor in the state. Following tables provide a comparison between figures for Rajasthan and the rest of India showing a marked increase compared with other areas in terms of infant mortality rate and lack of medical attention to the birth deliveries.

Estimated infant mortality rates per 1000 population (State of India’s Health, VHAI, 1992)

	<b>Total</b>			<b>Rural</b>			<b>Urban</b>		
	Total	M	F	Total	M	F	Total	M	F

<b>Rajasthan</b>	84	84	83	<b>87</b>	<b>88</b>	<b>86</b>	62	59	66
<b>India</b>	74	75	73	80	80	78	52	33	51

Percent distribution of live births by type of medical attention received by mother at delivery by residence (State of India's Health, VHAI, 1992)

	<b>Institutional</b>			<b>Attended by trained professionals</b>			<b>Attended by customary midwives (untrained)</b>		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
<b>Rajasthan</b>	8.1	3.8	32.5	24.4	<b>22.0</b>	37.8	67.5	<b>74.3</b>	29.7
<b>India</b>	22.3	16.9	54.7	27.7	<b>26.7</b>	33.8	50.0	<b>56.4</b>	11.5

High maternal mortality rate is an alarming issue in the region. Talking on this issue at a national level, the situation in India is worse than many other developing countries including African countries and Latin American Countries. Main factors attributing to it are inadequate health services, lack of control over fertility, overwork during pregnancy, inadequate nutrition and poverty and lack of sanitation. Following table provides a comparison of maternal mortality rates in different countries and regions of the world.

Maternal mortality rates (MMR) in different countries (Women, Health and Development, UNICEF, 1983).

Countries	MMR
India	500/100,000
Tunisia	310/100,000
Ecuador	210/100,000
Kenya	190/100,000
UK	11/100,000
USA	10/100,000
Sweden	1/100,000

Above table suggests that the MMR in India is 50 times higher than in the US and 500 times higher than in Sweden. At an estimate, in India, a woman's chances of dying during pregnancy are 1 in 18 (Dr. Roger Rochat, Emory University School of Medicine, 1987). It is further surprising to know that the MMR in the Thar is well over 670, well over the national figure of 500 for the country. These are unacceptable figures for today's world of modern medicine.

### **Inadequate nutrition**

Nutrition is an integral part of health. In order to be in good health, it is essential to have nutritive foods in adequate quantity. Lack of crop productions caused by droughts and poverty cause severe undernourishment in rural areas of the Thar. Consequently, the rural inhabitants of the Thar suffer with a wide range of health problems caused by inadequate dietary intake including anemia, malnutrition and vitamin deficiencies.

Undernutrition is definitely linked to poverty and illiteracy. About 59.2 percent children are undernourished who have illiterate mothers in India, and about 50.4 percent children are undernourished who have moderately literate mothers (State of India's health, 1992).

### **High prevalence rate of infectious diseases**

Malnourished population of the Thar is extremely vulnerable to develop infectious diseases. The major infectious diseases of the region are pulmonary tuberculosis, malaria and gastro intestinal infections. A large number of population in the region suffers with pulmonary tuberculosis. The Government of India has launched a nation wide Revised National Tuberculosis Programme (RNTCP), but the programme has not achieved the kind of success that was anticipated, primarily due to lack of education and awareness. Malaria, even today, remains a severe health concern. Women and children are often the victims of malarial infection. The severe form of malaria, caused by Plasmodium Falciparum is also quite commonly found, which may cause life threatening situations such as cerebral malaria.

### **Occupational Lung Diseases – a simmering health hazard**

Rajasthan has about 2 million mineworkers working through out the state. 15% of them are children and about 22 thousand of them are in the age group of 10 – 12 years. 37% of the total mineworkers are women and more than 80% of all the mineworkers are in the age group of 16 – 40 years, in the prime of their age. There are only 7% of mine workers in the age group of above 40 years. Most of them become incapacitated, health wise, after 40 years of age. Western Rajasthan is famous for its stone mines. The Thar Desert districts of Jodhpur and Nagaur have a large number of mines in which nearly 120,000 persons are working (Profile of Sand Stone Mine Workers in Rajasthan, S. M. Mohnot and Harsh Jaitley, 1994).

Silicosis is the most widely spread disease and is caused by continuous inhaling of silica dust at the working site coupled with lack of nutrition. There are an estimated 500,000 (25%) silicosis, TB & silico-tuberculosis patients among the mineworkers in Rajasthan. About 72% of the mineworkers complain of some or other respiratory tract problems in the region.

### **Poor status of eye care**

The status of eye health is a major concern in the state of Rajasthan and situation is particularly alarming in the Thar Desert region. Lack of education and awareness about eye care among rural population, poor nutritional status caused by lack of vegetation and recurrent droughts, unhygienic conditions, scarcity of water, extreme and harsh climatic conditions and lack of specialized eye care services in remote villages are the main reasons behind this situation.

According to the Survey of Blindness in India carried out under National Programme for Control of Blindness in the year 1986-89, the highest prevalence per 10,000 population was reported in Jammu and Kashmir (280) and Rajasthan had the second highest number (224). It is necessary to mention here that Cataract plays a major role in development of blindness. According to a study conducted by ICMR, the present prevalence of blindness in Rajasthan is 2.24% and Cataract is responsible for 84% of all the cases. It is estimated

that the State of Rajasthan has nearly 1 million blind people. The table given below clearly indicates that Cataract is the commonest cause of blindness in India and Rajasthan. (Present Status of National Programme for Control of Blindness, 1992).

Causes	India (%)	Rajasthan (%)
Cataract	81.00	<b>84.59</b>
Corneal Blindness	3.00	<b>2.92</b>
Refractive error	7.00	<b>5.97</b>
Trachoma	0.20	<b>2.22</b>
Glaucoma	2.00	<b>1.66</b>
Others	6.76	<b>2.64</b>

Not surprisingly, the prevalence rate of blindness is much higher among rural population and particularly among poorer and weaker sections of the society. Prevalence of blindness in different community groups in the state has been given below (Present Status of National Programme for Control of Blindness, 1992).

Community groups	Prevalence per 1000 population
Rural	249
Urban	92
Male	214
Female	236
SC (Scheduled Castes)	273
ST (Scheduled Tribes)	204
Backward	163

Under the 1986-89 survey projected for census, all the States and Union Territories of the country have been divided into four categories based on blindness prevalence and endemicity. According to it, the state of Rajasthan falls in the fourth – “Very High” category along with M. P. and Jammu & Kashmir.

A recent report published by National Blindness Control Committee states that the percentage of blindness among total population in Rajasthan is 1.9% and the Cataract surgical coverage is only 66%.

### **Low life expectancy**

Above stated health problems result in low life expectancy of the inhabitants of the Thar. According to Sample Registration System (SRS) in the period 1991-95 life expectancy in Rajasthan was 59.1 years (58.3 for men and 59.4 years for women), 57 and 64.2 years in rural and urban areas respectively. During the same period of time, all India life expectancy figures (60.3 years - 59.7 years for men and 60.9 years for women; 58.9 in rural areas and 65.9 in urban areas) were higher. (State of Health in Rajasthan, UNDP Human Development Report, 2000)

### **Recent emergence of AIDS**

AIDS, the biggest medical health threat today, is emerging and rising in Rajasthan. According to NACO, the figures for rural men and rural women in regard to HIV/AIDS infection are 1.72 percent and 0.021 percent respectively. But organisations and individuals working at grass roots believe that the infection rate is similar among men and women, which means that the disease has moved from the high risk groups to the general population. AIDS infection averages as high as 8.2 percent in some rural pockets of Rajasthan according to the findings of Francois Xavier Bagnoud (FXB), a Swiss NGO that has been testing and counselling people in the rural districts of Rajasthan (Jayalakshmi Sengupta, Indiatimes Health, 2004). The figures are alarming.

People in rural Rajasthan are extremely unaware about HIV/AIDS and are not comfortable to talk about sexually transmitted diseases. Lack of diagnostic facilities in the rural areas and even in the urban areas worsens the situation further.

In a recent health analysis conducted by the Independent Commission on Development and Health in India and Voluntary Health Association of India, major Indian states have

been surveyed and accordingly the districts of the states are classified under a different Vulnerable Health Index (VHI). Almost all the 27 districts of Rajasthan State and all the 12 districts of the Thar Desert were found “very vulnerable” in the above analysis. (Health for the millions, India, June, 2004).

## **2. Introduction of the research**

Looking at the above health problems, there is a great need to make improvements in the system of health care delivery in rural Rajasthan. With the above objective in mind, I have been working with a non-government organization that is committed for integrated rural development in Thar Desert, Rajasthan, India. In addition to organizing a wide range of rural development activities, the organization is also working actively in the sphere of health care and runs a small but fully equipped rural hospital. Above research is an attempt to study the possible changes that could be made to improve the quality of health care work being organized in rural Rajasthan.

### **2.1 Objectives of the research**

- To develop an action plan in order to improve the health status of the region
- Design strategies to seek active involvement/participation of civil society in health care activities and setting up health funds in rural areas
- Develop tools for awareness generation on health related issues
- Evolve methodologies to set up an effective network of non profit organisations, government services and community based organizations in order to ensure effective delivery of health services in rural areas

### **3. Observations**

During my research at the Duke University, I tried to understand some of the main issues related to the delivery of health care in rural areas, both in India and internationally. Here, we would focus on these issues:

#### **Poverty, inequality and access to health care**

Over the past few decades, there has been a remarkable improvement in the health status in the most countries. Infant and child mortality rates in developing countries have reduced to a great extent; where as mortality rates due to major causes such as CHD (Coronary Heart Diseases) has reduced a great deal in developed countries. However, despite these general improvements, there remain substantial inequalities in health between different countries, socio-economic regions and individuals and, the inequalities are consistently widening. The above phenomenon is more visible in developing or low-income countries, but, in fact, with in a number of high-income countries, including the UK, there is evidence of increase in relative inequalities in health (David A. Leon, Gill Walt, 2000).

Equitable access to basic health care is an important public policy goal for a nation. However, with the progress of medical sciences, it has been seen that the access of health care services is becoming more and more unequal. Rural population are becoming more vulnerable with respect to access to health care because of poorly developed and fragile health infrastructures, high prevalence rates of chronic illness and disability, socio economic hardships, and physical barriers such as distance and availability of transportation, including a lack of public transportation (Rowland and Lyons, 1989). In the United States, rural people, those under the age of 65, are less healthy and suffer more with chronic illnesses and the injury related mortality rate is higher in non-urban areas (Braden and Bearegrad, 1994).

The inequalities in access to health care are much more wider in the developing countries. There are huge inequalities between rich and poor and urban and rural populations in these countries. 20% poorest people account for 35.7% of all deaths in developing world (Murray and Lopez, 1996). Further, the gap of death rate between poor and rich is considerably large in the age group of 0 to 4 years. Under five mortality rate according to the places of residence has been found to be 1.5 to 1.8 times higher in rural areas than in urban areas in countries such as Indonesia, Morocco, Pakistan, Philippines and Turkey (Bicego and Ahmad, 1996). Similarly according to the father's occupation, the under five mortality has been found 1.9 to 2.6 times higher in the agriculture background fathers (low income groups) as compared to technical, professional and clerical backgrounds in these countries.

Poverty and poor health are linked to each other. Health problems and heavy expenses on health care have been major reasons for majority of families for their decline into poverty. In a survey conducted by Dr. Anirudh Krishna of Duke University in Rajasthan, it has been found that more than half of the families decline into poverty due to expenses incurred on health care (Anirudh Krishna, 2003). It also leads to indebtedness as the poor incur debts in order to get treated. In India, the indebtedness leads to further socio-economic deterioration of the family and sometimes may lead to child labour, when children need to work to repay the debts incurred by their ill parents, and the cycle becomes vicious.

The differences in terms of access to health between rich and poor and between urban and rural are not surprising. However, in a country like India, where one third of the population lives below the poverty line and many more are just above this line, and where nearly 80% population is rural, this issue is of great importance and must be looked at with serious attention. WHO in 1999 had suggested "because ill health traps people in poverty, sustained investment in the health of poor could provide a policy lever for alleviating persistent poverty."

## **Lack of doctors and trained health professionals working in rural areas**

India, overall, has inadequate number of trained doctors and health professionals to serve the huge population of the country. At an estimate, there is a doctor in India for every 2200 patients. Further, most of the doctors like to stay in the urban areas; hence the number of doctors working in the rural areas is extremely low. This results in lack of doctors working in the primary health care facilities set up by the Government in villages or in the hospitals/clinics set up by NGOs or charitable organisation. This leaves a huge impact as health care centres in rural areas become defunct.

Above problem is not confined to India or developing countries only. Talking about the United States, for example, about 20% of the population of the nation lives in rural areas and only 9% of the doctors are working in these areas (Bureau of health professions, 1992). Furthermore, most of the doctors working in the rural areas of the US are foreign medical graduates. The number of foreign medical graduates working in the US has increased from 7,227 in 1988-89 to 22,565 in 1995-96, an incredible increase of 321 percent in just seven year (COGME, 1997). It is easy to imagine that situation regarding the availability of rural doctors in the US would have been much more critical without the foreign medical graduates, who leave their home countries for better salaries. It is also seen that the rural areas of the US lack specialized doctors. The more highly specialized the doctor, the less likely he or she will settle in a rural area. Overall in the US, in 1996, the availability of specialist doctors in metro areas was 190 per 100,000 population, where as it was only 54 per 100,000 population in non-metro areas (Rickets III, Thomas C., 1999).

Geographical maldistribution of doctors is a serious issue affecting health care in rural areas of world. In a country like India, the problem becomes all the more significant as about 80% of the nation's population, close to 800 million people, live in rural areas.

## **Health Insurance**

In the United States, the health insurance began in 1847, when the first policy was issued of public demand for protection from the increasing number of steamboat and railroad accidents. With beginning of 20<sup>th</sup> century, the insurance companies started providing income lost due to illness. Thus it was actually disability insurance rather than the health insurance, as we know it today. In 1929, the hospitals started charging patient fees and hence, the middle class became aware of the economic consequences of illness and hospitalization. Soon, the need of health insurances covering medical and hospital benefits was felt. An experiment was started in Dallas, Texas, in which 1250 teachers were provided health insurance on a prepaid premium basis with Baylor Hospital. This was so successful that it became the foundation of Blue Cross. It followed by several other companies joining in the process (Thomas R. Mayer and Gloria R. Gilbert Mayer, 1984). Today, health insurance has become a basic requirement in the US and developed world.

On the other hand, for most people living in the developing countries, health insurance is an unknown word. However, the need of having health insurance schemes is being increasingly recognized in developing world. In the limited areas of developing world, where health insurance schemes are available, they are confined to urban and not poor sections of the community. In the developing world, strong evidences have been suggesting that the health insurance attribute a great deal in the health development of these regions. In a survey organized by Center for Development Research, Bonn, it has been found that in Senegal, the communities attached to a local insurance scheme have much better access to health care regardless of their income. Another important finding of the survey was that these communities now have less health worries, and they are mentally healthy (Johannes Jutting, 2001).

In India, the coverage of health insurance schemes is very limited and confined to large cities only. Smaller cities and rural areas practically do not have any health insurances

whatsoever. This goes to show that the insurance has become a commodity linked to richness and urbanization. In the developed world too, it is true. In the US, 20% of the rural residents are uninsured as compared to 16% of urban residents (ACHPR, 1996). At an estimate, nearly 17% of the US citizens do not have an insurance policy because they cannot afford it. There is a need of ensuring equitable health insurances for all so that basic health could be provided to everybody.

### **Rural Health Networks**

In rural areas, networking of health service providers is essential. By coalescing into alliances or networks, rural service providers expect to reduce their costs, manage their scarce resources, and increase their bargaining position with other institutional actors, such as insurers and regulators (Zuckerman, Kaluanzy, and Ricketts, 1995).

Defining rural health networks is not a clear-cut task. The following definition is intended to draw a bright line around what is and what is not a network. A rural health network is – a formal organizational arrangement among rural health care providers (and probably insurers and social service providers) that uses the resources of more than one existing organization and specifies the objectives and methods by which various collaborative functions will be achieved (Moscovice et al., 1996). This definition has four major components:

1. The organizational arrangement is formal.
2. The membership is specified.
3. Resources are committed by members.
4. The network is purposeful.

#### **Horizontal and vertical networks**

Rural health networks are often described as either horizontal or vertical depending on the composition of their members. The term horizontal network has come to mean a

network composed of all of the same type of members – for example, a rural health network composed only of hospitals. A vertical network, on the other hand, has come to mean a network composed of different types of members – for example, a network of doctors and hospitals or a network of community health clinics, hospitals and public health agencies. Individual horizontal and vertical rural health networks will vary in their degree of integration from those that are highly integrated to those that are not integrated at all.

Horizontal rural health networks tend to be somewhat older than vertical networks. They typically are composed of members who do not compete actively with one another and who come together to share information and services of strategic value to them. Vertical rural health networks are a new type of cooperation organization and are formed to reduce duplication across providers, improve continuity of care, and position providers to prosper in a managed care environment. (Thomas C. Ricketts III, 1999).

Rural health networks form for a variety of personal and institutional reasons. These motivations can be grouped broadly into three categories: resource acquisition, information needs, and political gains (Knoke, 1988). In the United States, current knowledge of rural health networks characteristics is limited to those networks with at least one rural hospital member. Although rural health networks without rural hospital members exist, no studies have been conducted to date to identify them and report on their structural and operating characteristics (Thomas C. Ricketts III, 1999).

In the developed world, and in the US in particular, the rural health networks are playing a major role in the delivery of health care to rural people. They are functioning systematically and with a purpose. In a survey organized in 1996 in the US on the legal status of these networks, it was found that 70.4% of them are not-for-profit and only 9.4% are for-profit, where as the rest are government and contract networks (Moscovice, Wellever, Krein, 1997). Further, 90.6% networks have a governing board, 35.6% have community board members, 80.6% have written by laws and the average size of the governing boards is 12.3 people (Moscovice, Wellever, Krein, 1997).

In the developing world, formation of rural health networks is essential. They may not be as formal and as diverse compared to the US, but they can still play a great role in provision of primary and preventive health.

### **Role of voluntary organizations (NGOs) in promotion of health care**

The issue regarding the role and involvement of the voluntary organizations has been debatable over a long time. There are several views to look at health care. The first view sees health care as a commodity to be bought and sold. Under such a view, health care would be provided by market mechanisms to those who provide a desire for it, and more importantly, who could afford it. The second view sees it as a means to keeping the workforce healthy and hence productive. This view targets resources on those whose productivity can be most easily increased. The third view sees it as a fundamental aspect of human life and as such believes it should not be dependant on an individual's potential productivity or his/her ability to purchase health care (Andrew Green, Ann Matthias, 1997).

Looking at the above views, the third one seems to be most appropriate and real. It also goes to suggest that health care is a basic, fundamental right of every human, hence there should be "health for all". The above view then emphasizes on the need of voluntary organizations participating in the delivery of health care services.

Voluntary contribution or human contribution is essential for the success of any health programme. Such human contribution can be divided into the following three levels.

1. Informed citizens like university graduates, under graduates and Panchayat leaders, who having the basic knowledge on health matters themselves should in larger measure share the knowledge with the underprivileged members of the community.

2. Services organizations

3. Illiterate citizens who to a large extent are the beneficiaries must contribute a great deal to the success of any programme.

(Sanjivi K. S., 1988)

In India, over last few decades, a lot of emphasis has been put on the need of voluntary organizations actively contributing to health care. The National Health Policy (1982) of Government of India makes a conscious statement for rehabilitating the role and importance of voluntary health actions at all levels and voluntary organizations vis-a-vis government's role and responsibility in this area. The policy envisages a very constructive and supportive relationship between the public and private sectors in the area of health by providing a corrective to reestablish the position of the private health sector. (Sanjivi K. S., 1988)

The seventh five-year plan of government of India suggests the following as the possible roles for voluntary organizations:

- To supplement govt. effort so as to offer the rural poor choices and alternatives.
- To be the eyes and ears of the people at the village level
- To set an example. It should be possible for the voluntary agency to adopt simple, innovative, flexible and inexpensive means with its limited resources to reach a larger number with less overheads and with greater community participation.
- To achieve the delivery system and to make it effective at the village level to respond to the felt needs of the poorest of the poor.
- To disseminate information.
- To make communities as self reliant as possible.
- To show how village and indigenous resources could be used, how human resources, rural skills and local knowledge, grossly under utilized at present, could be used for their own development.
- To demystify technology and bring it in a simpler form to the rural poor.

- To train a cadre of grassroots workers who believe in professionalizing voluntarism.
- To mobilize financial resources from within the community with a view to making communities stand on their own feet.
- To mobilize and organize the poor and generate awareness to demand quality services and impose a community system of accountability on the performance of village level government functionaries.

Clearly, voluntary sector can play an effective role in health care in India and in other countries too. Voluntary organizations are closer to common people, the beneficiaries, and hence have great potential to play the role of connecting links between government agencies, health service providers and beneficiary communities. More voluntary organizations should be motivated and trained to work actively in the sphere of community health care.

### **HMOs (Health Maintenance Organizations)**

Coming to know about HMOs was one of the very interesting observations of my research. Apparently, in the US, a number of HMOs are operating providing a cost effective alternative to the health insurance coverage schemes. An HMO is an organization that provides comprehensive health care to individuals and families in exchange for a regular fee. Unlike insurance, it has no deductibles. An HMO is:

- A system that provides a complete range of health care services to its members.
- A group of trained health professionals (doctors, nurses, physicians' assistants, lab technicians etc.) working together to provide this care.
- A unified assembly of health care facilities working together for HMO members.
- A financial plan that enables families and individuals to receive total health care in return for a standardized fees.
- A large group of members who pay this fee and who in return receive comprehensive health care.

- A management organization that resumes the responsibility for the quality of care, for the day-to-day operations of the facilities, and for the legal, fiscal, and other obligations of the HMOs.

(Thomas R. Mayer and Gloria Gilbert Mayer, 1984)

In comparison to health insurances, the HMOs emphasize on preventive health care, where as the insurances focus on treatment of current diseases. Although the choice of doctors or specialists in HMOs is limited in comparison to insurances, the HMOs are direct services provider. On the other hand, the insurances are only indirectly linked to the patients and are basically the reimbursers. In conclusion, HMOs are more cost effective and have the more appropriate approach with focus on prevention rather than cure.

(Thomas R. Mayer and Gloria Gilbert Mayer, 1984)

### **Health education**

Health education is the key to better health. Health education was summarized in the report of the first expert committee on health education in Geneva in 1953 in following way – “The aim of health education is to help people to achieve health by their own actions and efforts. Health education begins, therefore, with the interest of people in improving their conditions of living, and aims at developing a sense of responsibility for their own health betterment as individuals, and as members of families, communities or governments.”

In India, where a large population is still illiterate, there is a great need to educate population on health care issues so that enable them to bring closer to preventive and curative systems. Keeping this objective in view, the Government of India formed the Central Health Education Bureau (CHEB) in 1956 under the aegis of Ministry of Health. This center works as the apex body in the country for health education and information services. A number of NGOs are also working in India on health education; however, a large number of Indians are still uneducated on health care.

## **Community participation**

Success of a health programme for rural communities lies in the involvement of the communities. There is a great need of involving the communities in every step of a health programme – in planning, in implementation and in monitoring. Village level committees or organization could represent the village communities and should be formed at village level. Adequate emphasis should be put on their capacity building.

## **4. Looking ahead**

My observations have lead me to think of several steps which could help in brining positive inputs in health care delivery in the Thar Desert. I am intending to incorporate above steps in the planning and implementation of health activities back home in India. If these suggestions could be of help to other health organizations, it will be a great outcome of my project.

## **Capacity building of communities and seeking their active involvement**

In order to develop a community ownership of the health activities and ensure sustainability of the initiatives, there is a need to form a village health committee in each village. These committees will play a major role in formation of the rural health networks and setting up health credit funds in the villages, which I will discuss further in this note. In addition, these committees will play active role in promoting health education and bridging the gaps between health care providers and beneficiaries.

In the context of India, great emphasis will be needed to ensure that there is equal representation of all castes and sections of the rural communities in these committees. Similarly, there should be equal gender participation. This would help in binding a village community together.

The committee members should be provided brief orientation training sessions. For such trainings, appropriate training contents should be designed in local language and with illustrations and pictures, so that the rural communities can absorb it with ease. In these sessions, the members could be briefed about basic health aspects of health care, with particular focus on prevention. There is a need to organize refresher-training sessions too for the committees at regular intervals.

### **Formation of rural health networks**

Networking of service providers is going to be the most important tool, if health care has to reach rural communities in the Thar. It has been discussed in this note before that these networks have been very successful and effective in the United States. In the beginning, I envision setting up a rural health network in the three major districts of the Thar where I am working. The nature of these networks should be vertical so that different types of organizations/individuals could come together and comprehensive services could be provided. The components of these networks would be:

Village health committees

Village health workers

Primary health centers run by the Government

Rural hospitals providing secondary level services

Group of doctors

Voluntary organizations or NGOs

District level health administration

Tertiary level hospital

The network would begin at the grass root level with the formation of the village health committees. It would then coordinate with village health workers and primary health care centers run by the Government. Allying with the group of doctors and setting up rural hospital providing secondary level services would be quite challenging, as it would need substantial amount of money. But, both these components are vital for the network.

The network should involve the government health services and there should be a productive collaboration between the rural communities and government health services with voluntary organizations playing the role of linkers or facilitators. Each network should be linked to the top medical facility at the district level – a tertiary hospital, so that the critically ill patients could be benefited.

### **Setting up health credit funds**

I envision health credit funds as a cost effective alternative to health insurance. As mentioned earlier in the note, health insurance has become a facility for non-poor and urban people in India. Health credit funds would target to benefit who are poor and rural, and who never had a health insurance.

The basic component of the rural health networks, the village health committee, should take the responsibility of initiating the formation of health credit funds. Each household of the village should contribute a small some of money in the fund at a regular basis. The amount of money could be decided by the villagers collectively and should vary according to the family's size and their income. The process would need the help of a voluntary organization working with the local communities. Consequently, the fund should be deposited in a bank. With the time period, the fund would gain interest on the principal amount.

Further, the voluntary organizations working with the particular village community should make efforts to raise money from International agencies for the credit funds, in form of a matching grant. The money deposited in the fund would be used by the villagers in cases of illnesses. The fund would be regulated and controlled by the village health committees. This fund would be linked to the different partners of the district level rural health networks, so that the villagers could benefit by medical services.

### **Setting up secondary level rural hospitals at district level**

These hospitals would be a critical component in a rural health network. These hospitals would provide medical aid to patients in most of the diseases and emergencies and would refer patients to tertiary level according to requirement. Without the secondary level hospital, the rural health network cannot exist and function. Therefore, both the Government and voluntary organizations should make efforts of setting up secondary level rural hospitals in each district.

### **Capacity building of voluntary organizations (NGOs)**

Currently, not a large number of voluntary organizations are working for the delivery of health care in the Thar Desert. One of the main reasons for that is they lack expertise and trained health professionals. There is a need to build the capacities of these organizations through training programmes so that they could join the rural health networks. With increased number of voluntary organizations, the effectiveness of rural health networks could be enhanced to a great extent.

### **Conclusion**

M. K. Gandhi had said, “Health is wealth and the basic requirement for every kind of happiness. There can be no happiness for any one of us until it is won for all.” So, health is important and it is important that it is provided to all. Planning of health programmes should greatly focus on ensuring that health reaches all regardless of income and background of people. Observations of my research would help to update the health work being done by my organization – GRAVIS in the Thar Desert, India.

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