Situation Analysis of health status and health system in Kotra Tehsil

Pavitra Mohan
Sharad D. Iyengar
Kumaril Agrawal
Virendra suhalka

Action Research & Training for Health

December 2003

Executive summary
In view of the poor status of health in Kotra block and heightened interest in the area in recent years, department of health and family welfare, Government of Rajasthan, approached ARTH to conduct a situation analysis of the status of health and heath system in the block. The analysis was expected to lead to recommendations to improve the health status in the block. Situational analysis was conducted in the months of April to June, 2003, using a mix of methods that included: listing of health providers, in-depth interviews with community members and healthcare providers, focused group discussions with community members, rapid facility assessment of select PHCs and private nursing homes in neighbouring districts, and review and analysis of available data.

People living in Kotra suffer from longstanding malnutrition, high load of illnesses (ARI, diarrhea among children, Tuberculosis among adults), injuries and bites. Coverage of government services; preventive (such as immunization and skilled attendance at childbirth) as well as curative (treatment of childhood illnesses) is extremely poor.

Major reasons for extremely poor utilization of government services appear to be non-availability of providers, distance from households, high cost incurred, insensitive attitude of staff, non-availability of drugs and poor technical quality of management. However, several paramedics are popular for providing curative care. Physicians as well as ANMs appear to be unmotivated and lack adequate support from the system. A typical example is posting new vulnerable ANMs without a subcenter, residence, equipment and training to arguably one of the most difficult areas. The hilly terrain, scattered habitation, underdevelopment of the area as well as perceived difficult behaviour of the community, and the community's mistrust of the government system contributes to difficulty of the government providers to work in the area.

Certain perceptions of the community such as faith on traditional treatment for snakebite, as well as customs such as bair pratha also adversely affect their health and healthcare. However, status of woman within a family and in the society appears to be better in this block than in other parts of the state. A few large committed NGOs work in the area and are sensitive to the health needs of the area. One trust hospital and several good quality private facilities, capable of providing specialised and emergency care are available in the neighbouring areas.

We propose that the paramedics in the area should be entrusted with larger role (such as treatment of childhood illnesses) and greater support to carry out these roles in order to fill up the vacuum created by lack of assured availability of trained physicians in the government or private sector. Besides providing services at fixed site, they could increase the coverage of preventive services (such as ANC and immunization) by holding fixed site outreach clinics. The required investments that are essential to make this happen are outlined. To improve the reach to secondary level care, 2-3 PHCs in the block should be equipped to provide services round the clock. Required physicians could be arranged from a pool of postgraduates in Udaipur Medical College, supervised by visiting specialists from neighbouring towns. Need to implement a community based health insurance scheme is argued. In view of the flexibility required in implementing the above recommendations, a separate Project Management Unit is proposed.

Background

Kotra is one of the 11*panchayat samitis* (PS) of Udaipur district, whose administrative area is spread over 304 revenue villages. Kotra is located 125 kms away from the district headquarters, surrounded by Aravali hills. Kotra is surrounded by the neighboring state of Gujarat, and Sirohi and Pali districts of Rajasthan. Large areas of Kotra are dense forests and /or hilly. In terms of education levels, coverage with electricity, metalled roads and safe water, Kotra is the most backward block in the district, and has been further affected by the drought in past years.

The block is largely inhabited by two tribes: *garasias* and *gameti*, constituting about 85% of all population. Most families live in scattered hutments, often on hilly areas. They often engage in seasonal agriculture, collection of forest produce, and wage labour. Many younger men also migrate out to surrounding districts to earn livelihood. Deforestation in last few decades has further narrowed their options for livelihood and sustenance.

Difficult terrain and scattered patterns of settlement, coupled with poor development status makes it difficult to deliver services. Isolated existence of the tribals for several centuries and remoteness from rest of the district also affect the delivery of services. Despite several efforts by the government, health status of the communities in Kotra continues to be poor and is a cause of general concern among the government, donor agencies and non-governmental organizations. In order to plan for improving health status in the area, it was deemed important to assess the current status, reasons for the poor status and to identify opportunities. District administration and Department of Health and Family Welfare, Udaipur commissioned Action Research and Training for Health (ARTH), a non-governmental organization, to conduct an appraisal of the status of health and health system of Kotra for this purpose.

Action Research & Training for Health (ARTH) is a non-profit, non-governmental organization that uses research and training initiatives to help communities access health care. ARTH's current priorities are to find solutions to problems related to improving access and quality of health services to rural communities, especially maternal and child health services in rural Rajasthan and similar North Indian rural areas, and assist the government and non-governmental organisations in applying these solutions in diverse settings.

Objectives and scope of the current assessment

1. To perform a rapid appraisal of the health problems affecting rural communities, especially women and children in Kotra
2. To conduct a situational analysis of the status of health system (formal and informal) in Kotra.
3. To provide recommendations for improving the status of health system in the tehsil, keeping in mind the socio-cultural, developmental, systemic and geographical context

Methodology

The assessment was conducted in the months of May to August 2003, and involved the following methods:

1. In-depth interviews with women and men of the communities
2. In-depth interviews with primary care providers (formal and informal)
3. Focused group discussion with women and men
4. Listing of all healthcare providers (formal and informal) of the tehsil
5. Listing of all angnawadi workers
6. Facility assessment of 4 select PHCs of the tehsil
7. Consultation with panchayat members of the tehsil

8. Consultation with representatives of NGOs that operate in Kotra
9. Rapid appraisal of health facilities in neighboring area of Khed Brahma
10. Review of secondary data

Details of methodology are annexed (annexure-1).

Results

Status of health and nutrition in Kotra

Health status of people living in Kotra was assessed by reviewing and analyzing data collected to assess health and nutritional status of children living in 5 blocks of Udaipur district (ARTH, 1999), including Kotra; interviews with service providers and group discussions with women and men of the area.

Table-1

Status of health and nutrition in Kotra vis-à-vis 4 other blocks of southern Rajasthan[1]

Indicator	Kotra (n=758)	Other blocks (n=3853)
Median maternal height*	149 cms	151 cms
Delivery at a health center	12 (1.6%)	569/3853 (14.8%)
Median parity	4	3
Median number of live children	3	3
Earlier child death	275 (36%)	1077 (26.4%)
Any illness in last 2 weeks (children 0-35 months)	345 (46%)	1874 (48%)
Diarrhea	163 (22%)	976 (25%)
Cough or rapid breathing	230 (30%)	1153 (30%)
Fever	175 (23.1%)	1119 (29%)
Careseeking from any source	181 (52%)	1268 (67.2%)
Nutrition status (children 5 months to 3 yrs)	**n=542**	**n=2987**
Wasting	92 (17%)	710 (24%)
Stunting	406 (75%)	1559 (52%)
Underweight	395 (73%)	1892 (63%)

Following inferences can be drawn from the above table:

1. High load of childhood illnesses, though not substantially more than in other blocks of southern Rajasthan
2. High levels of child mortality, significantly higher than in other blocks
3. Higher levels of fertility; however higher child mortality means that number of live children is similar
4. High levels of malnutrition among women and children, chronic malnutrition much more common than in other blocks
5. Acute malnutrition however is less common than in other blocks
6. Careseeking from any source is much less in Kotra than in other blocks
7. Very low levels of deliveries in a health center, markedly less than in other blocks
8. Very low levels of immunization coverage, markedly less than in other blocks

Besides information from the above study, other significant health problems that appear common from the accounts of providers, service records and interviews with women and men of the area are:

1. *Tuberculosis*: We reviewed the laboratory records of the CHC in Kotra, and found that 83 new sputum smear positive cases of tuberculosis were identified in Kotra CHC in a six-month period form Jan to June 2003.
2. *Anemia among women*: As described later, many families seek care from the neighbouring towns in Gujarat, Sirohi or Pali. We interviewed three providers in on such town. All referred to severe anemia as extremely common among women coming from Kotra tehsil.

[1] these 4 blocks are: Salumbar, Abu road, Reodhar and Mavli

3. *Injuries/ falls and snake and scorpion bites:* Many men and women living in Kotra with whom we interacted as part of the appraisal reported that trauma and injuries due to falls and physical fights were extremely common in the area. Almost all also reported that the area has many snakes and scorpions, and many people are bitten by them.

Availability of providers

A large number of formal and informal providers provide healthcare in *Kotra.* Listing of all the providers in the area reveal that paramedics, including PHC nurses and ANMs are the single largest category of providers in the area. There are also many private unqualified providers in the area. It is to be noted that there is not a single qualified private physician in the area, and the qualified government physicians are also very few (table-1) The small numbers of NGO workers primarily provide health education and distribute a few health products but do provide full primary curative care.

Table-2
Number of providers available in Kotra tehsil, by type

Type of Provider	No.	Percent
1. Government physicians	9	6%
2. Male paramedics* (MPWs, Nurses)	26	17%
3. Ayurvedic Doctors	8	5%
4. ANM	64	42%
5. Pvt unqualified providers	23	15%
6. NGO workers	21	14%
Total	**151**	**100**

** 3 were retired, rest are in-service*

We asked the communities in each panchayat area as to which providers (modern) do they consult most often so as to assess who are the most popular providers. The results are depicted in table-2. Of all providers, about 1/3rd were reported to be popular by the communities. ANMs were the most common popular providers, followed by unqualified private providers (*Bengali doctors*).

Table-3
Type of providers in Kotra, by type and popularity

Type of Provider	All providers	Popular providers
Government physicians	9	6
Male paramedics* (MPWs, Nurses)	26	6
Ayurvedic Doctors	8	1
ANMs	64	28
Bengali	23	10
NGO Worker	21	0
Total	**151**	**51**

Care-seeking practices

From the discussions with community members, panchayat representatives and NGO members, it emerged that the families would usually consult a traditional healer for their illnesses initially. If the person does not get better, they then consult a paramedic or a private unqualified provider in the vicinity.

If the person still does not get better or in case of an acute emergency, and if they can mobilize money, they then visit on of the neighboring towns to consult a qualified private provider in one of the nursing homes that provide specialized care. Three are four towns contiguous to Kotra where these families visit for seeking care: Khed Brahma, Sirohi and Swaropganj and Udaipur.

We examine each of these category of providers to help explain this pattern:

Traditional healers

A listing of all traditional healers in two panhcayats of Kotra (*Lamba Haaldu* and *Ukhaliat*) revealed that they exist in large numbers and are often specialized for managing specific conditions. Overall, there were 167 such healers (126 men and 26 women) in these two *panchayats* that had a total combined population of 7929.Comparing with the modern healers (151 in the whole tehsil), this is a huge number. They treat a range of conditions, such as snake and scorpion bites, diarrhea, pneumonia and malnutrition. Many also conduct deliveries, including several male healers. They use a range of methods to treat: branding, herbs, *makki utaarna,*sucking out poison for bites and others.

Based on discussions with the healers and with village men and women, we got some clues as to why families prefer them to modern providers as the first or many a times the only source:

Perceptions that certain conditions are not amenable to modern care: This appears to be especially true for snake and scorpion bites and malnutrition.

Proximity: Many participants in focussed groups said that they first seek care from traditional healers because they are available close by, while other providers are distant.

Low Cost and flexibility in making payments: Many others mentioned the low cost for traditional care and high costs of modern providers as major reasons for resorting to traditional healers. Besides, they also found it easier to pay the traditional healers, since they do not demand money; accept goods instead of money or accept payment at a later date.

Poor alternatives

Almost all mentioned that the treatment from modern providers is often expensive, difficult to access and often ineffective. “The treatment does not help, what is the use (to consult a government provider)” responded a participant in a FGD with men when asked why they prefer traditional healers.

Utilization of government services

From the OPD registers of the 4 PHCs that we studied in detail, it appeared that on an average 10-15 patients visit the OPDs on each working day (except for in Kotra CHC, where average was ~40). In contrast, many private unqualified providers and some paramedics claim to see as many as 50 patients per day[2].

[2] A visit to some of these providers showed that this figure is not an exaggeration, many patients could be seen outside their “clinics” during our visits.

Immunization coverage of the *tehsil* is also very low as suggested by results of a survey conducted by ARTH in 1999. Only 1% of children were completely immunized (for the same year, immunization coverage reported by the national family health survey for rural Rajasthan was 13%).

Similarly, utilization of family planning services is very low as evidenced by the fact that of three out of four PHC sectors studied, only 48 tubectomies were performed in the last year (number of tubectomies is likely to be the most authentic indicator for utilization of family planning services).

Reasons for poor utilization of public health system
Availability of services: Several positions of ANMs were vacant in Kotra tehsil. This limited the access of the families to government service providers (table-**).

Table- 3: Position of ANMs in Kotra, as on 21-05-2003,CHC-Kotra (*Source-Medical officer incharge CHC Kotra)*

	PHC Name	Sanctioned		Filled		Vacant	
		Old	New	Old	New*	Old	New
1	Kotra	9	10	8	7	1	3
2	Mamer	10	7	7	---	3	7
3	Bikarni	7	4	7	3	---	1
4	Mandwa	6	5	4	1	2	4
5	Bekaria	6	6	6	5	---	1
6	Malwa ka Chora	7	9	6	7	1	2
7	Padawali	5	5	4	3	1	2
	Total	**50**	**46**	**42**	**26***	**8**	**20**

**In recent months, several ANMS were newly recruited on co ntract. "new' refers to these newly appointed ANMs.*

Even in places where an ANM was posted, many people expressed that the government nurses (ANMs) are not available on the center and hence they do not go there.

> --(ANM) comes from Udaipur, they need to take salary, (they) do not have any other work. In the government system, work is not done appropriately--- the government nurse is not visible, where do we go?
>
> ***During focused group discussion with men***

While conducting the facility survey of the select PHCS, one PHC was found locked twice during the working hours on a working day, with no one knowing where the staff was. It is however interesting that though ANMs are not perceived to be accessible, they were reported to be consulted most often among all providers (table-3). This probably reflects their large numbers and absence of other options in the area.

Availability of drugs
People also strongly expressed that they do not get any medicines at the government health facilities, and the drugs that they get are all of "one type" and hence not effective.

"---same pill for fever, same for cough, same for cold, here you receive the same drug for everything".

"We do not get all medicines here. They refuse (to give medicines) –say drugs are not available"

During focused group discussion with women

Panchayat representatives also reported that drugs are not available in the government health facilities. For themselves or for those known to them, they "force" the physicians to give the medicines from the store, but others have to buy drugs from medical store. They do not have any information on the drugs supplied by the district health office to the PHCs or CHCs in their area.

On the other hand, we inspected the drug registers and realized that large number of drugs and supplies are received that appear to be more that adequate for primary care purposes. Why the community members report that they do not receive any drugs from these health facilities is not clear.

Providers' behaviour
It was the general impression that providers do not behave well with the patients and their families. This was articulated most clearly by the panchayat representatives who reported that the doctors do not talk nicely with the patients --- sometimes even drive them out of their (consulting) rooms. "if you go to a government hospital, nobody pays any attention at first. Even when they (physicians) see the patient, they give a long list of medicines to be purchased from the (chemist) shop" A panchayat representative, during consultation

These observations on poor quality and availability of services were substantiated during facility surveys. At two PHCs, we never managed to find any physicians despite visiting twice during the clinic hours. In one of them, the physician resides primarily in Udaipur. At one CHC, the physicians were either not available or were not seeing patients, who were being "disposed off" by the paramedics.

Absenteeism without prior information or approval and coming late appears to be the norm for all categories of personnel. In one PHC, two class-IV employees have not been reporting on duties for a few months.

The problems faced by government workers in providing services
Physicians either get themselves posted out from Kotra or do not reside there (most commute intermittently). Even if they have to work here because they could not "manage" transfers, they remain frustrated because of what appears to be physical, social and professional isolation. As one of the young physicians who had been posted here on the first posting said "I am just waiting to get out of this place------no, I do not work here, what can you do here?"

Of ANMs posted here, most reside within the villages. This is in contrast to other parts of the district where large majority do not reside within their sub-center area (ARTH, 2003). This could be because of its distance from the district headquarters that makes commuting unviable and because the *tehsil* is almost uniformly underdeveloped, and hence residing outside the work area does not offer any significant advantage.

Many ANMs were recruited recently by the district administration on contract, almost one month before the survey. Most of these have already left the job, most likely because of difficult living conditions. Despite the vacancies, there is one ANM for almost 2600 population, which is within the norms for hilly areas. But considering the difficult terrain and remoteness, this is clearly inadequate.

Anybody familiar with the *tehsil* can appreciate the difficulties involved in living and working there, especially for women workers. However, we realized that most of the times, these difficulties are exaggerated and offered as excuse by the workers and administrators alike for not performing.

Difficult living conditions: Several ANMs reported difficult living conditions. Hilly terrain and spread out habitations mean that they have to walk long distances on hills to reach the families in their work area. This is compounded by the general perception of threat from the drunken men; drunkenness being quiet common in this area. In the recent years, there has also been an apparently increasing incidence of robberies and other crimes in the area, that further make their working difficult.

> **"—**there is a general atmosphere of robbery and loot, drunken men roam around, indulge in brawls, even hit a teacher in ###, broke the lock and looted. There is no transport here. One has to walk—houses are on hills, spread out. In such a situation, I am able to cover only 10-12 houses in a day."
> *An ANM who has been in area for many years*

The panchayat representatives refute the allegation that people harm the government providers. They say that if the ANM is good and helpful to the people, they would never harm her. They even help her and see to it that others do not harm her.

It was observed during our field visits that only those ANMs were residing in the work area who were married (often a local person), or those who had several years of experience. These were also supported in their field work either by their husbands, by some community members or by an NGO functionary.

Support from the System
ANMs also expressed inadequate support from their own system in coping up with these problems. They did not either have residential quarters, or electricity and water was not available. This was most acutely seen in the case of the newly recruited ANMs. These ANMs were posted in villages where there were no sub-centers and hence no residence. Being young and inexperienced (for most, this was the first posting) most could not cope up and left the jobs. Some others coped up by renting out a house in large village jointly with others, and commuting to their villages. The system however did not provide any support.

> "—there is no sub-center in the village. and there is no water or electricity. It is not therefore possible to live or work here.
> *A newly recruited ANM*

The ANMS also felt that inadequate and erratic drugs supplies also affect their relationship with the communities who often demand drugs from them.

^^We do not have adequate drugs, on going there (to the village), it is difficult to face the people. People ask for drugs, what do we give? It is not possible to treat them without drugs"
A newly recruited ANM

The physicians in the area seem to have acute professional and social isolation. Besides while working here, they do not come to interact with or get shelter from their professional peers. Being trained in hospitals, their education does not equip them with skills to manage patients in a primary care setting. Their education also does not prepare them to work with and live in culturally and socially different communities, and they appear to feel at loss at interacting with them.

The private health services
Private services consulted by families in Kotra are of two types:

Private unqualified providers (or semi-qualified providers): These are the unqualified providers that have learnt some healthcare by apprenticing with physicians in bigger towns; or paramedics that provide curative care (multipurpose workers, male nurses and other employees of the health system)[3].

These providers live in the villages and therefore are available to the communities round the clock. Families often consult them after having perceived that the illness is one that is amenable to modern treatment, usually after they have tried traditional forms of treatment at home or by a healer. On asking why they are so popular, a panchayat member said" In the government (health center), if they infuse a bottle (IV fluids) and give an injection, it costs 100 Rs, here (in a private facility) also they charge 100-125 Rs., but the treatment here is good—and they are always available—the government runs only on fixed hours and there too, they (doctors) are not always available"

The government health functionaries feel that families value the treatment that comes at a cost from private providers, while they do not value the free treatment that they provide. As an ANM put it: " People feel that what good be these free pills that we give them--- they are satisfied when they give Rs 50—even if they are then infused a plain water bottle"

These practitioners themselves reported that they provide as good care as possible within their limited capabilities. They admit to have limited competence and wherewithal to deal with many acute emergencies and some of them suggested that the government services should have such facilities for emergency management and referral.
"the facilities that are available in the government (health centers), that is also not utilized adequately. If some ill patient comes, they refer—and do not even provide them with ambulance" *A private provider from Kotra*

Private qualified and specialized providers in the neighboring towns
In two circumstances, the families visit a distant town in search for healthcare: for acute life-threatening conditions, including obstetric emergencies (and sometimes simpler condition such as acute diarrhea with dehydration), and for chronic illnesses that have not got better despite prolonged treatment from local providers (including Tuberculosis).

Based on gropgraphic location within Kotra block, people seek services in different directions:

[3] In one instance, we found a peon in a PHC who is a popular provider

- From Kotra and Mamer, people visit Kher Brahma, Laxmipura and Idar
- From Bekaria and Mandwa, they visit Abu Road, Sirohi and Swaropganj
- From Malwa Ka Chaura and Bekaria, they visit Pindwara and Udaipur

Three towns are favorite sites: Kher Brahma, Swaroopganj and Sirohi. We visited two of these sites and inspected the quality of services available. The health facilities utilized by the families from Kotra are small nursing homes with facilities managed by private specialist doctors—gynecologists, surgeons and general medicine specialists. These facilities have the following facilities:

1. Outdoor consultation
2. Admission facilities ~ 10-12 beds
3. Round-the-clock emergency management
4. Operation theatre, with capacity to perform obstetric and general surgery
5. Blood transfusion (linkages with blood banks in bigger towns or bleed and transfuse)
6. X-ray, ultrasound, and laboratory facilities
7. Dispensing

These facilities are in general clean, the patient's dignity is maintained and the staff's behavior is courteous. In addition, the charges though high appear to be flexible. Besides, there is a trust hospital in Laxmipura that is large tertiary care hospital, where the cost of treatment is low and consultations are free.

Patients from Kotra visit neighboring towns for specialized services---

50 Kms from Kotra (block HQ) is a small town in Gujarat called Kher Brahma. The road is metalled and is in reasonable shape. Several private jeeps ply between the two towns throughout the day and are overloaded. Fare for a one-way travel on jeep between Kotra and Khernbarhma is about 25 Rs. It takes almost 11/2 hrs to reach there.
There is one government dispensary in Khed Brahma that has one general duty doctor. Very few patients visit this facility and no one from Kotra utilize the services: they probably do not perceive the quality of care in this dispensary as especially better than that available in Kotra

As in other parts of Gujarat, however, private health sector is well developed. There are six specialists (including surgeon, gynecologist and a physician). There are laboratories that conduct basic pathological tests. In addition, there are four general duty physicians (MBBS).

All the private facilities run by specialists have an in-patient facility—this is in form of one floor of a shopping complex, with several rooms. They are usually clean and well maintained, and have ancilliary facilities such as X-ray machine and ultraosound. They conduct surgeries such as hysterectomy, caesarian section, hernia repair and hydrocele. Blood is arranged from a private blood bank in Idar (25 kms away). In emergency situation however, they bleed relatives, conduct screening tests on this blood and transfuse blood to the patients directly.

The nursing homes here charge about Rs 1000/- for conducting a normal delivery of primigravida and about 800 Rs for a multigravida. Hospitalization costs around 100 Rs per day and on an average. Total costs for hospitalization for non-surgical purposes are about Rs 500. One unit of blood transfusion costs about Rs 500. The physicians often subsidize care but charge enough to break even. If the patients cannot afford anything, they encourage them to seek care from the trust hospital at Laxmipura (~7 kms away)

Community characteristics & perceptions

Perceptions on family size and family planning

Based on discussion with women and men, we realized that the community considers about 4 children as ideal number of children to a couple. They expressed various reasons for this: large number of children helps in facing the thieves and animals. Work is also shared and can be dome easily if there are more hands to work. In addition, high child mortality also probably encourages them to desire more children (As is evident from data on parity and living children). However, women appreciate the need to space the pregnancies.

Most women and their families appear to be against the tubectomies for limiting their families. This is reflected in extremely low number of tubectomies conducted here, despite intense pressure on the ANMs. Two major reasons emerged for this apparent fear of tubectomy:

- Many women felt that they had to do heavy work and after “operation” they would not be able to perform heavy work for several days.
- Under a traditional custom, many women walk off the first marriage and remarry with social sanction (*naata*). The worth of a woman for going on “*naata*” also depends on her ability to bear children. Once tubectomised, chances that she will be able to find a suitable match if required decrease.

- Husband and the parents-in-law fear any complication, in which case the girl's family could ask for substantial contribution.

Service providers also appeared to be unenthusiastic about pushing tubectomy:

> Even if we get them operated by force, then if they have any (unrelated) illness (in future), they say we have got operated, that is why this problem. Now we would get this (illness) treated for free from you. It is then on us because we have got them (motivated) for operation.
> *An ANM*

Discussions with women revealed that they were familiar with common methods of contraception i.e. tubectomy, oral pills, condoms and Cu-T. Panchayat members feel that ANM s are responsible for poor use of non-terminal contraceptives:

> ANM does not inform them about the spacing methods. The methods are available. But how to use them, what are the side effects? —this they do not explain--- the medicines that need to be given at such time (in event of a side effect)---that also they do not give
> *A panchayat member, in the meeting of elected representatives, Kotra*

Service figures show that use of Cu-T for contraception is substantially more than that for tubectomy (in 3 of the 4 PHCs visited, 304 IUDs were reported to have been inserted in the last reporting year, as compared to 48 tubectomies). Whether this reflects the preference of women for a perceived "safer" and reversible method, or fudging of data could not be ascertained.

Perceptions on childbirth
Most deliveries are conducted at home by traditional attendants, many of whom are male[4]
If there is some problem or if there is prolonged labour, then they call the ANM. Some women reported that ANM charges about 500 Rs while the TBA costs much less (20-25 Rs), hence they call an ANM only for some complication. In difficult situations, when the ANM cannot manage or is not available, they take on of the two recourses: either go to one of the large facilities in the neighbouring towns or villages or consult a private unqualified provider (who sometimes takes the risk and assists the delivery or more often refers her to a larger facility).

Cultural customs & practices and their impact on healthcare
Bair Pratha: is a prevalent custom among the tribals here. If there is an illness or death of a person due to a physical fight, accident or neglect of somebody else, the family asks for monetary compensation. This extends seemingly to unnatural death of a married woman, in which case family members of the woman asks for compensation from the husband's family. It also extends to asking for compensation from a healthcare provider in event of death or disability of the patient while on treatment.
This custom appears to impact healthcare in the following manner:
Health care providers explain this as a reason for referring the patients rather than risking treatment themselves if they have the slightest doubt. Some explicitly blames this custom as reason for not practicing actively.

[4] Some people reported that male TBAs are preferred because one needs to push hard for delivering a baby, and men can do that better.

In-laws, fearing demand for compensation from the woman's family also pressurize the provider to pay compensation if anything goes wrong with the woman. They also do not allow the woman to undergo tubectomy or get an IUD, fearing that any complication could get them in trouble. Providers, in turn also do not pursue the women for a tubectomy or for IUD fearing the demand of compensation from the family should anything go wrong.

Naata Pratha: Naata pratha allows the woman to walk of a marriage that is not working and to remarry another man. However, her negotiating power in the remarriage depends on her ability to bear children as well as her being able-bodied. As mentioned earlier, women do not prefer terminal methods such as tubectomy since this would limit her ability to remarry another man, should it be required.

Status of woman
There are several pointers to believe that status of woman is fair among tribals and especially in Kotra block. Some of these pointers are:

- *Purdah* is not followed amongst the tribals in Kotra
- *Naata pratha* provides greater status to the woman in her in-laws household (though in many instances, parents have a greater influence and vested interest in the process than the woman—in such cases, rather than providing greater autonomy to woman, it makes her a commodity for parents to transact). This also allows widows to remarry, and settle down.
- Kotra is the only block in the state that has a sex-ratio favourable to women.
- Married couples in Kotra are often seen going out together to fairs and to towns, something that is rare in other areas in Udaipur.

Better status of woman however does not reflect in the better status of their own health or health of their children. This could be because effective healthcare actions are constrained by inadequate information and poor access to healthcare. Once these women are provided with information and access to health services, their greater autonomy is likely to facilitate greater improvements in healthcare than might not be possible in areas or communities with poorer status of women.

Alcoholism
That alcoholism is very common among men (and also among women to some extent) is vouched by almost everyone who has worked in this area. While some ascribe this to their traditional customs, others see this as outcome of an organized effort by several power brokers who stand to lose were the tribals to become less dependent on alcohol. Mostly, they consume country liquor brewed of *mahuda* leaves in their own backyard.
Though no epidemiological studies have been conducted to identify the occurrence of diseases associated with excessive consumption of alcohol (such as liver disorders, malnutrition etc.), these disorders are likely to be quiet common here.

Besides direct medical effects, alcoholism is also likely to affect health of the families indirectly. Money and time spent on boozing could erode the limited resources available for healthcare. By causing marital disharmony, it further weakens the capacity of the family to address issues such as healthcare. Besides, it is often reported that alcoholism is responsible for fights between different families. This erosion of community ties could further limit the "social capital" required to seek healthcare and face illnesses.

Presence of Non-governmental organizations
A few NGOs have been working in Kotra for several years, notable ones among them being *Seva Mandir, Aastha* and *Vanvasi Kalyan Parishad.*

Seva Mandir provides health education to the families and encourages them to avail of immunization and other preventive services. They have planned to extend their area of operations in Kotra block. They have a high credibility base among the villagers as well as the government system.
Aastha has been working to organize communities and to strengthen the Panchayat Raj institutions (PRIs) in the area. Besides, they have also undertaken several reform issues, notable among them are negotiating good prices for *tendu patta*, and anti-alcohol movement. Kotra is among the high priority area for the organisation.
Vanvasi Kalyan Parishad had undertaken tuberculosis control program for some years in the block and now organize periodic health camps.

Conclusions
People living in Kotra suffer from longstanding malnutrition, high load of illnesses as well as injuries. Coverage of government services, preventive (such as immunization and skilled attendance at childbirth) as well as curative (treatment of childhood illnesses) is extremely poor.

Major reasons for extremely poor utilization of government services appear to be non-availability of providers, distance from households, high cost incurred, insensitive attitude of staff, non-availability of drugs and poor technical quality of management. However, several paramedics are popular for providing curative care.

Physicians as well as ANMs are demotivated and lack adequate support from the system. A typical example is posting new vulnerable ANMs without a subcenter, residence, equipment and training to arguably one of the most difficult areas. The hilly terrain, scattered habitation, underdevelopment of the area as well as perceived difficult behaviour of the community, and the community's mistrust of the government system contributes to difficulty of the government providers to work in the area.

Certain perceptions of the community such as faith on traditional treatment for snakebite, as well as customs such as *bair pratha* also adversely affect their health and healthcare. However, status of woman within a family and in the society appears to be better in this block than in other parts of the state.

A few large committed NGOs work in the area and are sensitive to the health needs of the area. One trust hospital and several good quality private facilities, capable of providing specialised and emergency care are available in the neighbouring areas.

SWOT analysis of health system in Kotra
Strengths
Public System:
- Good infrastructure of primary health centers
- Large pool of paramedics

Community: Better status of women

Private/ non-government:
- Availability of specialized services in the neighbouring areas of Gujarat and Rajasthan
- Presence of committed NGOs

Weaknesses
Society:
- Poor cohesion in the society

- Weak Panchayat Raj institutions

Some harmful customs/traditions

System:

- Poor motivation of the staff and poor living conditions
- Poor support to the staff difficult terrain and habitation patterns,
- ? Boldness to think afresh

Opportunities

High level of interest among donor agencies (UNFPA), government health officials, district administration and the NGOs to improve healthcare in Kotra

Threats

Interest in improving healthcare in Kotra takes a lower priority in order to focus on achieving sterilization targets. The attempts to improve situation are limited to cosmetic changes, failing to recognize the deeper causes.

RECOMMENDATIONS

Strengthen paramedics for primary curative and preventive care:

Well-trained and well-supported paramedics can provide most primary curative care, as has been shown in several settings, including in rural Rajasthan. In Kotra, since they are large pool of existing resources, and in view of near crisis situation of healthcare, their roles should be enlarged to include curative care. [5]Several ones of them are already practicing, but in absence of any clarity on their roles and expectations, this is ad-hoc in nature. To strengthen their role in primary curative care within the government health system, following inputs are required:

Role-definition: There is currently ambiguity in the roles of paramedics as far as primary curative functions are concerned. ANMs are expected to provide some basic management of childhood illnesses, treat malaria but are not officially allowed to do much else as far as curative care is concerned. They can be trained to perform integrated management of childhood illnesses as well as to provide treatment for several gynecological conditions.

While ANMs are still expected to perform some curative functions, PHC nurses (who have longer training than the ANMs) are only supposed to assist physicians (who often do not exist). They are huge trained resource, and their role needs to be extended to other curative and preventive functions.

Training in primary curative care

Their pre-service training content reflects their current role, with little emphasis on curative care. If they have to assume larger role, they need to be adequately trained. Fortunately, evidence based training strategies such as IMCI exist that can be imparted to the paramedics in a short enough time to be practical.

However, to be effective they would need to be provided periodic field based retraining. For training to be effective, regular supply of minimum drugs and supplies would need to be ensured.

Two ANMs (or one female nurse and ANM) at each sub-center

In view of their several functions that require her to reach out to the communities, one ANM cannot be expected to be available at the sub-center when the families need them for curative care. Besides,

[5] Various means to ensure that physicians reside in Kotra have often failed. Even if they do stay, most PHCs will remain inaccessible to most of the villages.

two ANMs liv*ing together provide* companionship and support to each other, which can help them to cope up with living in what is perceived to be a difficult place to work and live in.

Better living infrastructure
Bare minimum for a woman paramedic is:

- Safe accommodation separate from the clinic (in the middle of habitation)
- Regular electricity source
- Safe water source

Support workers who facilitate adjustment of an ANM in her work area in initial phases
These could be drawn from NGO workers, teachers or health staff who support the ANMs during their initial months in the place of postings, and help them develop a trustful relationship with the community.

Periodic (monthly) paramedic outreach "clinics" for providing immunization and antenatal care

To ensure provision of preventive services to villages other than the sub-center village (which can often very far in Kotra) on a regular basis, a team of paramedics should hold outreach clinics at least once a month in each village on a fixed date, time and venue. To be successful, this would require following inputs:
Explicit high priority to these clinics (meeting etc should not be reason for not holding the camps)
Adequate and assured mobility
Local support to organize and utilize services
An MIS to regularly track utilization of outreach clinics
A small group (expertise in making sense of MIS) watched over by collector to monthly review the performance

Promotive activities through less qualified village level workers (possibly NGO managed/ contracted out)
These activities would include health education, creating demand for services and distributing health products such as contraceptives, ORS and micro-nutrients. Since these activities do not require much technical expertise, lesser-educated village women can perform them after suitable training. However, besides training they would require regular supervision and support on the filed. Currently, there is not enough capacity within the government health system to take up this responsibility of recruiting, training, supervising and supporting such workers.
Professionally managed large NGOs that work on the ground can be well suited for carrying out such a role.

First-referral/ referral curative care: Strengthen ~2 CHCs/ PHCs as FRUs or / and link up with neighbouring private facilities

Currently, there is no facility in the block that has resources (human and others) to provide secondary or referral care. However, absence of specialized care not only means that many lives are lost in its absence, but also that poor families have to spend large sums from seeking care from neighbouring private sources. It also erodes the credibility of public health system. Therefore we propose that 1-2 CHCs/PHCs should be upgraded to act as FRUs.

Most critical resource in providing specialized care is human resource and it is also the most difficult to arrange in context of Kotra. However, there are two potential options. While such care require specialists, resident doctors backed with daily visiting (and on-call) specialists may be

adequate. While for resident, one could draw from the pool of residents in the medical college (on a rotatory basis), young specialist doctors can be provided sufficient incentives (professional and monetary) to provide daily services by visiting these facilities from the nearest town (such as *Pindwara* or *Khed Brahma*). Young specialist couples should be especially targeted.

Community based health insurance

Many people are already seeking specialized care from nursing homes in neighboring towns. However, the cost involved in transport delays seeking care and dissuades many others from seeking care at all.

There is an urgent need to pilot a community based health insurance to encourage people to seek care from the available nursing homes promptly. One such scheme, Universal health insurance scheme has been launched at a national level. To make the scheme useful for families in Kotra, following is proposed:

Subsidise the premium: The premium for a family of five (Rs 560) is still beyond the capacity of most families in Kotra. Government could provide the subsidy to Kotra families in order to allow them to buy this insurance. The required money could be generated from the allocation currently being made on the BPL scheme.

Link with a panel of nursing homes/ trust hospitals: Linking with appropriate providers would have two advantages. Firstly, this would encourage the families to seek care from appropriate providers from whom the insurance company could negotiate appropriate rates and minimum standards. Secondly, a contract with providers could also ensure that the families do not need to make payments at the time of using services, but the insurance company could reimburse the providers directly.

We feel that above measures are minimum required to allow people of Kotra to live with basic health and dignity.

Management structure

In view of the especially disadvantaged status of Kotra, and the need to be flexible and quick, we propose a special management structure to implement the above recommendations. Such a structure should build on the capacity of the government to undertake large scale operations.

We propose that a Project Management Unit should be established that draws on Public Health Managers (from within or outside the government) with experience and training in managing public health programs. The unit should be provided with larger autonomy than currently available to the district administration, and a separate budget that is not linked to the allocations from the district budget. The unit should have autonomy in terms of recruitments, transfers, remuneration and contracting with non-governmental providers, within an agreed upon framework. The unit should have specified targets, a definite time-bound work- plan to achieve the targets and an in built mechanism to monitor the performance. The unit could report directly to the directorate of health and family welfare.

Table-4: Improving healthcare for Kotra: a framework for action

Type of care	**Provider options**	**Site at which delivered**
Curative care		
Primary care	• Paramedics (ANMs, PHC nurses, MPWs) • Graduate doctors • Unqualified private providers	• Sub-centers & PHCs • Outreach clinics
Secondary/ referral care	• Graduate physicians • Specialist physicians	• CHCs or equivalent • Neighbouring private nursing homes • Neighbouring trust hospital
Preventive care • Immunization, antenatal care, IUD insertion	• Paramedics (PHC nurses, ANMs, MPWs), AWWs • Community members, NGO workers, paramedics	• Outreach fixed site & day clinics • Community
Promotive care • Health education • Contraception distribution • Anti-alcohol campaign	• NGO workers, community volunteers, AWWs • NGOs	----------

Acknowledgements
We are thankful to the Department of Health and Family Welfare, Government of Rajasthan, who placed faith in us to carry out the study. We are thankful to the district and block health officials for providing us with the official support. Many individuals who have substantial understanding and experience of working in Kotra provided us with useful insights: Bhanwar Singh, Chandan (Aastha), Krishnavatar Sharma, Rajiv Khandelwal (Sudrak), Neelima Khetan and Roopali (Seva Mandir). Large number of individuals working in governmental and non-governmental sectors provides services to the families in Kotra under extremely difficult situations. We are thankful to them for sparing time to share their understanding with us. In the end, we would like to thank all the community members who participated in discussions and shared their dreams and perceived realities.