6 Accessibility of Health Care for Pastoralists in the Tibetan Plateau Region: A Case Study from Southern Qinghai Province, China

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6.1 Introduction

According to China’s 2000 census, there are 5,416,021 Tibetan people in China, most of whom live in the Tibetan plateau region (which includes a large portion of Qinghai Province, the geographic focus of this chapter). The Tibetan plateau region covers 25 per cent of China’s total land area, i.e. around 2.5 million square kilometres. Approximately 45 per cent of the Tibetan population subsists on farming, while a further 40 per cent are nomadic or semi-nomadic (animal husbandry). Only 15 per cent of the population resides in urban areas (Zhang and Zhu 2002). The harsh climate, an average altitude over 4,000 metres, rugged mountainous terrain and lack of infrastructure in vast parts of the plateau are all adverse factors that have contributed to the isolation of the region, as well as to the difficult socio-economic and physical living conditions that affect the majority of the population.

The organisation and development of health care provision in rural China has been going through a difficult period of transition since the early 1980s, particularly with the onset of major economic reforms and a parallel decline of the nation-wide Cooperative Medical System (CMS) (Foggin and Foggin 2006). Most notably, since the end of the communes, many minimally trained primary health care workers either disappeared due to lack of public funding (usually going back to their agricultural work) or re-established themselves as private doctors supported by the sale of medicines, often over-prescribed (for obvious financial reasons) (Wu 2001). With this economic transition, came increasing inequities in health care (Gao et al. 2002). Recognising the emerging dilemmas of providing adequate health care for its rural populations, the central government recently established what has come to be known as the New Cooperative Medical Scheme (NCMS) for rural areas (World

However, notwithstanding these developments, health and health care on the Tibetan Plateau are among the poorest in China (table 6.1). In this vast and sparsely populated region there is a high incidence of diseases, in some areas resulting from malnutrition, and generally a significant lack of medical infrastructure and basic health education. International health organisations and the central government have often failed to report meaningfully on the statistical disparities in health that exist between the wealthier and more densely populated regions of eastern China and the remoter areas of western China, including the Tibetan Plateau region. However, the China Development Report 2005 (UNDP 2005) is especially enlightening in this regard. In this document, human development indices (HDI) are reported for each province separately, and for urban versus rural areas within each province (see table 6.1). For example, life expectancy (one of the three criteria of the HDI) is greatly conditioned by infant mortality rates. It is in fact believed that Tibet may have amongst the highest newborn and infant mortality rates in the world. According to some reports, Tibetan women are three hundred times more likely to die than women in developed countries from various pregnancy- and delivery-related complications. Infant mortality rates are reported at close to 100 per 1,000 live births, and maternal mortality is in the range of 200 per 100,000, approximately three times higher than the average for all of China. Postpartum haemorrhage may be the leading cause of death. Furthermore, when a mother dies, her surviving children are three to ten times more likely to die within two years, and her surviving children are more likely to die young and less

<table>
<thead>
<tr>
<th>Province / Region</th>
<th>HDI (rank, of 31 province-level entities)</th>
<th>Life expectancy (male, female)</th>
<th>Adult literacy rates</th>
<th>Per capita GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>0.943</td>
<td>82.0</td>
<td>99.0 %</td>
<td>–</td>
</tr>
<tr>
<td>Shanghai</td>
<td>0.909 (1st)</td>
<td>79.0 (77.1, 81.0)</td>
<td>94.1 %</td>
<td>46,718 CNY</td>
</tr>
<tr>
<td>Beijing</td>
<td>0.882 (2nd)</td>
<td>76.8 (75.1, 78.8)</td>
<td>95.4 %</td>
<td>32,061 CNY</td>
</tr>
<tr>
<td>Thailand</td>
<td>0.778</td>
<td>70.0</td>
<td>92.6 %</td>
<td>–</td>
</tr>
<tr>
<td>China average</td>
<td>0.746</td>
<td>71.4 (69.6, 73.3)</td>
<td>89.0 %</td>
<td>9,101 CNY</td>
</tr>
<tr>
<td>Vietnam</td>
<td>0.704</td>
<td>70.5</td>
<td>90.3 %</td>
<td>–</td>
</tr>
<tr>
<td>Qinghai</td>
<td>0.684 (27th)</td>
<td>68.8 (67.3, 70.4)</td>
<td>76.6 %</td>
<td>7,277 CNY</td>
</tr>
<tr>
<td>India</td>
<td>0.602</td>
<td>63.3</td>
<td>61.0 %</td>
<td>–</td>
</tr>
<tr>
<td>Qinghai (rural)</td>
<td>0.599</td>
<td>65.8 (64.3, 67.4)</td>
<td>–</td>
<td>3,712 CNY</td>
</tr>
<tr>
<td>Tibet A.R.</td>
<td>0.586 (31st)</td>
<td>65.8 (64.2, 67.4)</td>
<td>45.1 %</td>
<td>6,871 CNY</td>
</tr>
<tr>
<td>Myanmar</td>
<td>0.578</td>
<td>60.2</td>
<td>89.7 %</td>
<td>–</td>
</tr>
<tr>
<td>Nepal</td>
<td>0.526</td>
<td>61.6</td>
<td>48.6 %</td>
<td>–</td>
</tr>
</tbody>
</table>

likely to attend school or complete their education. No official data on morbidity and mortality exist for the Tibetan Plateau region as a whole.

Tibetan society is one of the few in the world where a tradition of trained birth attendants does not exist. Poor nutrition, lack of trained health personnel, long travel distances and limited access to emergency care place Tibetan women and infants at high risk of birth-related deaths. The vast majority of births take place at high altitude, in a cold environment and without access to electricity or health care. In spite of active campaigns by the government to encourage women to give birth in a medical facility, more than 95 per cent of Tibetan women still give birth at home. Most babies are delivered with the help only of the woman’s mother or mother-in-law whose assistance is primarily limited to cutting the umbilical cord. Many Tibetan women deliver their babies completely on their own (Dang et al. 2004).

In addition to diarrhoea, arthritis and pneumonia, which vary in prevalence throughout the geographic area, it is also reported that the Tibet Autonomous Region (TAR) has the highest rate of tuberculosis in China, and one of the highest incidences in the world of the rare Kashin-Beck (Big Bone) disease, which causes deformities and stunted growth. Beijing’s economic development strategy for the western regions of China, including the TAR and Qinghai province, tends to focus on large-scale infrastructure projects, such as roads, railways and power stations, while often neglecting ‘soft’ infrastructure such as the provision of health care and education. Adequate and affordable health care is still not available to the majority of Tibetans.

On a global scale, there are an estimated 600,000 pregnancy-related maternal deaths worldwide each year and 99 per cent of these occur in developing countries (Okonofua 2006). This translates to a worldwide mortality rate of slightly more than one mother dying every minute. Twenty-four percent of those deaths occur prior to labour, 15 per cent during labour, and the majority (61 per cent) happening in the first week after delivery. As Hackett has pointed out, the two most effective means of reducing maternal death in developing countries are (1) the presence of a skilled birth attendant at the delivery, and (2) timely access to emergency obstetrical care. Over half of maternal deaths are due to severe bleeding, infection or obstructed labour (Hackett 2004). Improving maternal and child health is therefore essential to helping to preserve the health of the Tibetan people.

The present day organisation of health care in rural areas of Qinghai province, and much of western China, is hierarchical: county hospital – township health centres – local clinics – village doctors. This in some ways resembles the CMS as it existed in the early days of the ‘barefoot doctor’ medical system; the main difference of course being that previously there was a ‘safety net’ for all. Now each family must indepen-
dently assume most of the expenses for health care (more on recent attempts to introduce health insurance follows below). At the local level, village health centres (clinics) are served by village doctors (mostly men) who usually have between three to six months of training often after only several years of schooling, plus possibly two to three weeks of in-service training per year. Township clinics reportedly have approximately ten beds and are directed by a doctor who has had three years of training following secondary education. The doctor may share responsibility with other colleagues of the same level, as well as being assisted by village doctors (Tang and Bloom 2001). In some areas, at the township level one can find preventive health care programmes, centres for mother-and-child health (MCH), as well as family planning stations (Shu and Yao 1997). Township level provision may be much less than this in the more sparsely populated areas on the Tibetan Plateau. In county seats – there are 40 counties or districts in Qinghai, 71 in the TAR (Li 1987: 200, 205), out of a total of 2,182 for all of China – are small to mid-size hospitals, most with MCH programmes, as well as Centres for Disease Control and a variety of privately-operated clinics (Foggin and Foggin 2006). County hospitals have better trained doctors (with four to five years of formal training), assisted by support staff including nurses and technicians.

The goal of the 2002 reform with the creation of vast numbers of new cooperative medical centres (NCMS) is to make health care accessible to the entire rural population by the year 2008. Currently clinics are rapidly being built in many remote areas and these allow the administration of government health insurance schemes. There are therefore some steps being taken to improve the health care system in China, and while the goal has not been met entirely, still a significant proportion of herding communities in the project area now have a village-level clinic within reach (e.g., more than half of the villages in the western district of Zhiduo county now have local clinics, each staffed by at least one doctor, and sometimes also by one or two women’s health workers). It is against this regional backdrop, described above, that we now will focus attention on a specific area, a large administrative area near the centre of the Tibetan Plateau, Zhiduo County in Yushu Tibetan Autonomous Prefecture, Qinghai Province (see figures 6.1 and 6.2).
According to official sources the population of Zhiduo County in 2000 was 24,194 people, in 5,202 families (Ju 2002; Zhang and Zhu 2002; Zheng and Li 2004). Ninety-eight per cent of the people are Kham Tibetan, and around 90 per cent are pastoralists. Altogether there are over 475,800 head of livestock in the county, mostly sheep and yak (over 1 million ‘sheep-units’). Even when the western uninhabited region of the county is excluded (an extensive area of alpine desert steppe admi-
nistered by the Forest Bureau as the Kekexili Nature Reserve), the average population density still amounts to only 0.57 people/km². Throughout the Tibetan region, the traditional way of life – nomadic pastoralism, or livestock herding with seasonal mobility – has been developed over hundreds of years and Tibetan herders have acquired an intricate knowledge of their natural environment (Jones 1996; Khazanov 1984). A wide variety of livestock and rangeland management practices have enabled them to survive in the extremely harsh environment, including seasonal mobility of their livestock herds and a flexible, opportunistic approach (i.e., turning potential obstacles to their advantage) to many aspects of their pastoral livelihood (Foggin 2000). Today, however, the level of socio-economic development in most Tibetan areas of China remains exceptionally low. Among pastoralists in Qinghai Province, around 65 per cent of men and 95 per cent of women are functionally illiterate. Until recently few children had access to even basic education. With poor road conditions and limited access to vehicles, the sale of livestock products and hence opportunity for economic development also has long been restricted (Foggin 2006). Limited access to information – itself tied closely to education and literacy, and to health – equally means that what economic opportunities might be available to local herders are often missed, or that the herders are cheated by outside merchants because of their low level of literacy or numeracy. As stated above with regard to the Tibetan Plateau region as a whole, in Zhiduo County people’s health also remains cause for serious concern, with high levels of infant mortality and limited (but improving) access to health care services. As in many rural areas of western China, people may call on a village health worker who has limited formal training; there are no traditional midwives; nearly all health workers are men; and local women have virtually no monitoring in pregnancy. If serious problems arise, it may take several days for transport to be found to reach the county hospital, and many people still can not afford the hospital care when they arrive (Foggin et al. 2006).

6.2 Proposed interventions

In 2003 the five-year Yangtze Headwaters Sustainable Development Project (2003-2008) was launched by Plateau Perspectives, an international non-profit organisation, in collaboration with the Zhiduo County Health Bureau and the grassroots NGO, Upper Yangtze Organization. In this specific local context, local communities and the county health bureau have sought Plateau Perspectives’ assistance in the following plan which has shown promising potential in the first few years of implementation
Village doctor training

Given the trust in the local doctors in the context of at least parts of Yushu prefecture (Zhiduo in one of Yushu prefecture’s six counties), one clear way forward is to train the village doctors to diagnose and treat common conditions and to have a good understanding of medicines (including their side effects) in order to improve health care and avoid inappropriate use of medication.

The training also includes:
- Methodologies to help enable communities to seek ways to improve their health;
- Disease prevention targeting the commonest illnesses, the most serious preventable diseases and the uptake of immunizations;
- Training in immunization, includes the development of a good understanding of their purpose, their administration and the cold chain;
- Woman and child health including the early detection and management of problems in pregnancy and delivery.

Given the large number of households who have recently contacted their village doctor (which indicates that some do have access to, and use, the services of the local doctor), the main starting point for training purposes needs to be these doctors whom they see on a regular basis. As many of these doctors do have experience assisting women in delivery and pregnancy, it is important that they receive further training to improve the quality of their care and allow them to detect difficulties early. However as they are men, in the framework of strict (limited) gender relations within the Tibetan nomad cultural context they tend only to be called upon if problems arise, and this almost always later on in the process. Women express a desire for female health care workers to assist in pregnancy.

Training of women’s health workers

Furthermore, in response to a request from the county health bureau, young women were gathered from every village to come for training in women’s health work (around 25 women in Zhiduo county and 15 women in Zaduo county). The training modules were given by two doctors and a midwife. The students enjoyed the course, participated well (e.g., writing health songs and engaging in role play) and made considerable progress in terms of knowledge and skills gained over the course of the two-week teaching workshops. Some of these women were invited to the village meetings (usually only attended by men) to give training in...
health and hygiene. Further training of these women’s health workers has been requested and there is still a great need to train some women to a higher level of competence. However the women who have been trained will be the vanguard of a new kind of health worker in the county, perhaps more attuned to the needs of MCH, and particularly of women in general.

Establishment of village clinics and the introduction of a health insurance scheme

When the initial request came to assist in the construction of clinics, the first main question asked was how this would improve the health of the community or even the quality of health provision. However both the community leaders and the health bureau leaders put forward strong arguments:

1. The health bureau leader explained that for most people and for most conditions, the county hospital and township clinics were inaccessible. The most accessible level is that of the higher village level (dadui). Here local leaders appoint the best trained doctor from each area, and pay him a salary such that he could always be available. With the construction of a clinic building the health bureau would be able administer a government health insurance scheme. They would also be able to store, administer and keep track of medicines. It should be noted that, currently, many local village doctors give out medicine from their own pocket, given the fact that the patients are either close friends or relatives and, consequently, it is difficult to ask for payment. A well-organised local clinic should enable them to overcome this problem.

2. The community leaders agreed with the above and added that the clinics would provide a centre for the community. They also offered that a village committee would organise the purchase and selling of medicine so that the doctor’s prescribing practices would be unaffected by this. The doctor would have no direct personal gain from the sale of medicine. The clinic could also provide beds for the more seriously ill who had travelled further from home.

3. In addition to this, the administration of immunizations has been made possible from these centres.

The health bureau and the village (dadui) communities have consistently appointed the best doctors from the training courses. They have continued to run these clinics in such a way as to leave the doctors free to see patients. Furthermore, some of the communities have set the women’s health workers up within these clinics such that they can go out to work from these health centres, while having back-up and support from the village doctors. These clinics have proved more successful
than even Plateau Perspectives predicted. With such community support behind them and with the backing of the health bureau, the clinics are being run well. By adding a very small increase to the price of medicine (to pay for the transport of the medicine and the operating costs of the clinic) village leaders are running the clinics at no loss and utilisation rates are high. Many of the village doctors are highly motivated and very invested in improving the health of the people who come from the community.

6.3 Conclusion
Based on the experiences described above we believe that the construction of clinics, after the training of the village doctors and women’s health workers to staff them, may indeed provide improved accessible health care provision for people in the remote areas. The success does however depend on the support, enthusiasm and participation of the communities as well as the health bureau and government to ensure that the village clinics are sustainable and of good quality. To improve the outlook for pregnant women, and reduce the rates of postpartum haemorrhage and maternal death as well as infant loss, the doctor and women’s health worker training courses also require specific instruction in the assistance of women in pregnancy through the postpartum period. This training needs to include discussion with the women and with local doctors about how best to reach the women, to listen to their needs, and to improve their understanding of their specific health care needs in pregnancy and for early infant care. Discussions with older and younger women, including those who have had children, are needed to guide in the development of the training programme. Ideally these same individuals should be involved in the hands-on teaching process. A system of on-going medical update training also needs to be agreed upon to ensure that the standard of care can be maintained. Such a plan can provide very accessible and inexpensive health care, without the use of new, large and on-going financial inputs such as might have to be used in towns or cities for an equivalent level of service provision (Foggin 2008). Provided this type of training is maintained at a high level, and the candidates from the communities are well selected, conscientious and highly motivated, the quality of such health care delivery should and can be of the highest calibre.
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