Tibet Health Personnel Capacity Building Program

Volume 1
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ACRONYMS

ACIAR	Australian Centre for International Agricultural Research
ACR	Activity Completion Report
AusAID	Australian Agency for International Development
BMHRDP	Bureau Management HR Development Program
BoH	Bureau of Health
CDC	Centre for Disease Control and Prevention
CHSC	County Health Service Centre
CLTA	Chinese Long Term Adviser
CPS	Country Program Strategy
CSTA	Chinese Short Term Adviser
DOFCOM	Department of Commerce
GOA	Government of Australia
GOPRC	Government of the People's Republic of China
GOTAR	Government of the Tibet Autonomous Region
HHR	Health Human Resources
HHRM	Health Human Resource Management
HR	Human Resource
HS	Health Systems
HSD	Health Systems Development
IDD	Iodine Deficiency Disorder
IMR	Infant Mortality Rate
INGO	International Non-Government Organisation
IPR	Independent Progress Report
KPI	Key Performance Indicators
LTA	Long Term Advisor
M&E	Monitoring and Evaluation
MC	Managing Contractor
MCH	Maternal and Child Health
MMR	Maternal Mortality Rate
MOFCOM	Ministry of Commerce
MOH	Ministry of Health
MSC	Most Significant Change
MTR	Mid Term Review
OECD	Organisation for Economic Co-operation and Development
PCC	Program Coordination Committee

PDD	Program Design Document
PHC	Primary Health Care
PMC	Program Management Committee
PMO	Program Management Office
PMT	Program Management Team
RMB	Renminbi or Yuan, the Chinese unit of currency
SDA	State Food and Drug Administration
TAG	Technical Advisory Group
TAR	Tibet Autonomous Region
THSSP	Tibet Health Sector Support Program
TL	Team Leader
TNA	Training Needs Analysis
TOT	Training of Trainers
TRBH	Tibet Regional Bureau of Health
TUMC	Tibet University Medical College
WHO	World Health Organization

Executive Summary

Background - Program Origin and Design Preparation

For the last twenty years the Tibet Autonomous Region (TAR) has been a beneficiary of Australia's development cooperation program with China. Australian aid to the TAR has been principally in the health sector and activities have addressed: primary health care and water supply; iodine deficiency; polio eradication; HIV/AIDS; and health system strengthening.

The largest activity was the Tibet Health Sector Support Program (THSSP) which started in 2004 and ended in June 2010. THSSP was a change management and capacity building program, and its contribution to staff training and its flexible approach to working within the Tibet environment were held in high regard by the Tibet Regional Bureau of Health (TRBH).

As a result of THSSP's success, the TAR Government requested that Australia remain engaged in the Tibet health sector. Consequently a scoping mission to Tibet in November 2009 produced a concept paper proposing a new program that focused on Tibet health human resources and management. The design team mobilised in July 2010 to test the feasibility of the ideas proposed in the concept paper and develop a design for a new five-year program.

Health Sector Problem Analysis

On 6 January 2011, the Chinese Health Minister Dr. Chen Zhu announced the objectives and main tasks for the development of the health sector across China during the 12th Five Year Plan period (2011 – 2015). The objectives are that by 2015 access to basic medical services will be further strengthened; and infant and maternal mortality rates will be reduced to 12 per 1,000 live births and 22 per 100,000 respectively. The main tasks the Minister identified to achieve these objectives were capacity building of health institutions, improvement of service delivery quality and the standardization of county hospitals[1].

The TAR's health indicators are the poorest in China. In 2008 the TAR's infant mortality rate was 27.1 per 1000 live births and its maternal mortality rate was 233.96 per 100,000[2]. (In Australia, the infant mortality rate was 4.1 per 1,000 live births in 2008[3] and the maternal mortality rate was 8.4 per 100,000 in 2005[4]). In 2005 life expectancy in the TAR was five years lower than in China as a whole (67[5] compared to 72[6]).

The national and TAR governments have responded to these poor health outcomes by allocating more resources for health. The TAR's *Eleventh Five Year Plan for Health Sector (2006-2010)* identified a lack of health human resources (HHR) as a major constraint to health service improvement and the corresponding TAR *Health Human Resource Development Plan* provided for increased staff numbers. However, while there has been numerical growth in the health workforce, significant HHR problems remain. These include the need to improve management capacity for more efficient deployment and utilization of the workforce, and to improve the quality of technical and clinical skills for more effective service delivery.

Basic and continuing health worker education in TAR is limited. The capacity of educational institutions and experienced health staff to provide effective technical and clinical training and mentoring is low. Training does not usually cover problem-solving skills and critical thinking.

[1] The Chinese Ministry of Health's website www.moh.gov.cn
[2] *China Health Statistical Yearbook 2009*
[3] Australian Bureau of Statistics' website www.abs.gov.au
[4] Article '*Maternal death rare in Australia'* by Australian Institute of Health and Welfare on www.sciencealert.com.au
[5] Tibet Autonomous Region Government's website www.xizang.gov.cn
[6] China National *11th Five Year Plan for Health Sector Development*

There is an absence of standard guidelines which would enable managers to identify current critical skills gaps in a systematic way, and would inform training needs analysis.

The TRBH is well aware of these problems. It has clearly told AusAID and the design team for the new program that donor support can be most effective by assisting it to make better use of the considerable resources it receives from the national and regional governments. It sees the major development challenges for health in the TAR as low capacity to manage and use the resources it has, and low clinical and technical skills to deliver services.

Program Strategy

The new program will therefore focus on these shortcomings in the TAR health system. In doing so, it will be helping the TRBH to implement the main tasks identified by the Chinese Health Minister for the whole country over the next five years. It will develop the ability of TAR health management to make more effective use of staff and will also help provide clinical and technical training to staff. It will build on the achievements of THSSP and use approaches that THSSP found successful such as work-based projects to implement change, and annual planning to ensure overall program flexibility. It will also draw on the broader Chinese and international evidence base on health workforce development.

In response to low teaching capacity in health, the new program will focus on improving the training skills of both institutions and experienced health staff. The principles underpinning the new program will be: leadership by TAR counterparts; complementarity with national and TAR policies and processes; sustainable capacity building; and flexibility to respond to new needs as they arise.

The new program will aim to spread good HR practices across as many divisions of the TRBH as possible, and it will improve clinical and technical skills in target areas. Beyond that, its influence on other aspects of the health system will only be indirect. It is unlikely that it will be able to change the operation in the TAR of China's national quota system for public sector employment which is a legacy of the command economy and can tend to make workforce management decisions more rigid. But as this program builds HR management capacity it will help generate more needs-based evidence for resource allocation decisions.

Similarly, the new program does not address functions the WHO says must be aligned if health system reform is to be sustainable, e.g. financing. But the Tibet health system receives ample funding from the central government and it is the decisions around where to direct that funding that the program should be able to influence. It is feasible for example that resource allocation decisions in areas such as equipment and essential drug supplies will be made that reinforce the improvements to health services gained through the program's clinical and technical skills training. Constraints that could compromise the ability of the program to deliver fully on its objectives are highlighted in the risks assessment section of this design document.

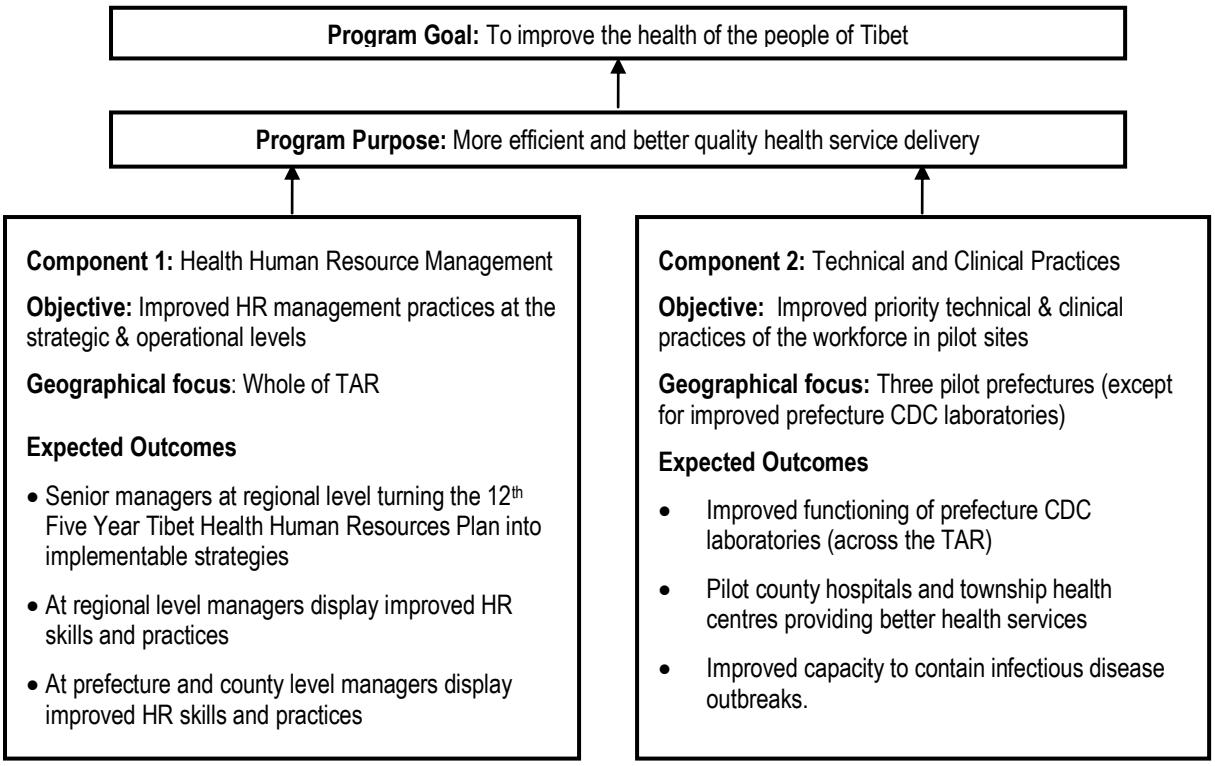
The THSSP sought to build capacity through organisational change in health institutions and clinical and technical training. The new program differs from the THSSP by being about half the size and focusing more specifically on health human resource management (HHRM) skills at senior levels, and on building *capacity* to deliver technical and clinical training. While the Tibet Regional Bureau of Health (TRBH) was the implementing agency for THSSP, the program's activities were implemented mainly with Centres for Disease Control and Prevention (CDC). The new program will engage with at least seven divisions within the TRBH and assistance to the CDCs will be channelled through the TRBH.

Program Description

The overall **Goal** of the program is to improve the health of the people of Tibet.

The program **Purpose** is to achieve more efficient and better quality health service delivery. Success at the Purpose level will be measured by improved resource allocation that better reflects priority health needs of the TAR (efficiency), and reduced case-fatality rates in pilot sites (effectiveness/quality).

There are two program Components*:* (i) Health Human Resource Management (HHRM); and (ii) Technical and Clinical Practices. The implementation of the two components will contribute to the achievement of the program purpose, and ultimately the program goal. The program structure is shown in the following figure.



Activities under Component 1 will result in Bureau managers at regional level better able to develop and implement human resource (HR) policy, and to undertake HR planning in the health system. The skills building approach will be highly structured and interactive, and will be based on best practice adult learning methods to encourage critical thinking and problem solving, including off-the-job training, implementing projects in the workplace, and study tours to other parts of China, and if appropriate, internationally. Follow-up support (expert mentoring, support for individuals or teams of managers to undertake projects related to HR) and a mentored learning set[7] approach will ensure that new skills and knowledge are applied in the work place. An annual, regional TAR HHR Forum will be established to provide opportunities for managers at different levels to consider problems, and identify and share solutions. These forums will include international themes, to enable TAR participants to gain insight into relevant HHR developments in other countries.

[7] A learning set is a work based group, usually of 4-8 people that meets regularly in order to explore solutions to real workplace problems and decide on action to take.

Selected prefecture and county level health managers will be offered training and capacity development that focuses on operational aspects of HR management. Training needs analysis, which was used successfully by the THSSP, will inform the content of all training. Current TRBH training courses and modules will be used or adapted as appropriate. Training will use a range of modalities, and follow-up support will be integral to the learning program. Selected groups of these managers would also be involved in the TAR HHR Forum to sensitise them to policy developments occurring at the regional or national level.

Activities under Component 2 will help build the technical and clinical skills in the workforce. The TRBH has requested that capacity in prefectural-level CDC laboratories be increased. The Bureau recognises that accuracy and timeliness of testing for diagnosis and treatment of patients needs to improve across the TAR. Training and on-the-job support and mentoring will be provided by a Chinese Long Term Adviser Laboratories (CLTA Lab) affiliated with a relevant Chinese institution. The program may procure some essential laboratory equipment to ensure effective delivery of training and sustainable impact. This activity will commence very early in the program, initiated by a TNA to identify areas of most need.

There is no overall set of guidelines that standardise the functions and staffing skills for Tibetan county hospitals and township health centres. The program will support a Guidelines Technical Group to develop them. The guidelines will then be a core reference for hospital and health centre managers to identify skill and staffing gaps in their institutions.

To increase the capacity to deliver training to technical and clinical staff, the program will develop a pool of trainers skilled in, and able to apply, adult teaching and learning methodologies. Closely linked to this will be a series of activities that increases staffing skills and capacity in priority technical and clinical areas. These areas are likely to include aspects of maternal and child health, trauma management and preparation and response to contagious disease outbreaks. The capacity building will be aligned with TRBH's own professional development programs and will focus on areas of unmet technical need. Trainers will be drawn from the newly established pool of trainers.

Cross cutting issues

Since 1949 equal rights and equality of opportunity for women have been official Chinese government policy. The protection of women's rights and the promotion of women in administration filter down through the various layers of government. By way of example, the *Women's Development Plan for Lhasa Municipality (2001-2010)* sets out strategies to encourage the participation of women in economic and social development of the Municipality.

The goal of AusAID's gender policy[8] is to *reduce poverty by advancing gender equality and empowering women*. As an overarching principle, gender equality is addressed through each of the Aid program's four themes. For each theme, the policy has a corresponding gender outcome:

[8] *Gender Equality in Australia's Aid Program – Why and How*. AusAID 2007

AusAID program themes	Gender equality outcomes
Accelerating economic growth	Improved economic status of women
Fostering functioning and effective states	Equal participation of women in decision making and leadership including in fragile states and conflict situations
Investing in people	Improved and equitable health and education outcomes for women, men, girls and boys
Promoting regional stability and cooperation	Gender equality advanced in regional cooperation efforts

This new health program will contribute to the first three of AusAID's gender equality outcomes by ensuring that men and women have equal opportunity to participate in capacity building initiatives, opportunities to improve decision making and leadership capabilities, and improved technical and clinical skills that will result in better health care provision to both males and females. This perspective will be promoted in all relevant activities of the program, and mechanisms to monitor this will be established in the M&E Framework.

The foreseeable impact of the program on the environment is likely to be negligible, with the exception of activities that may emerge under Output 2.5. This will be monitored by the program implementing team.

Form of Aid

Given the absence of any substantial health activities funded by other donors in Tibet, there is no opportunity for a new Australian program to work through co-funding or a sector-wide approach. The program will work through TRBH systems and procedures to the maximum extent possible but the Government of People's Republic of China (GOPRC) does not encourage donors to use its financial management and procurement systems and AusAID does not have experience of how those systems operate.

A bilateral program, similar to THSSP, is therefore the only viable approach. End-of-program outcomes are defined and program interventions contribute to achievement of those outcomes. An annual planning process will allow implementation strategies to be re-defined as necessary, with the flexibility to revise activities and outputs as the program rolls out, and with the possibility of modifying end-of-program outcomes if contextual and performance information points that way. Program funds will be channelled through a Managing Contractor (MC), and not through the GoPRC, the TAR government or the TRBH.

Program Management

The TRBH is the key implementation partner; the Department of Commerce (DOFCOM) is the coordinating agency at the Regional level. A Program Coordination Committee (PCC) will be established, comprising representatives of the GOPRC (Ministry of Commerce - MOFCOM), the TAR government (Department of Commerce, TRHB) and the Government of Australia (GOA - AusAID). This will be the formal committee for GOPRC and GOA discussion and decision-making, and will provide strategic direction to the Managing Contractor (MC). It will meet twice in the first year, and annually thereafter.

A Program Management Team (PMT) will be established at start-up with responsibility to develop annual plans, implement the program, coordinate activities, report on progress, and inform the PCC of progress.

The TRBH component of the PMT will comprise the Director General or a Deputy Director General as the Chinese Team Leader, to be nominated by the TRBH. In addition, two full time staff nominated by the Bureau will have responsibility for supporting and coordinating the two program Components. The PMT will work with the following TRBH divisions: Human Resources; Disease Control (which oversees the CDCs); Rural Health; Maternal and Child Health and Community Health; Finance; Medical Administration (which includes Science, Technology and Education); as well as the Emergency Response Office. Other divisions may be added when additional technical priority areas have been confirmed.

The MC component of the PMT will comprise an Australian Team Leader and three Chinese Long Term Advisers (CLTA).

Amongst the key stakeholders are the Regional Human Resource Bureau in relation to the development of the five-year Regional HR Plan, and the Regional Education Bureau in relation to engagement with training institutes. Partner training institutes will be identified as the program rolls out and will include, wherever possible, those institutes in other parts of China that are familiar with health workforce training in Tibet through engagement with THSSP. Other important stakeholders will include targeted prefecture, county and township groups and individuals who will be direct beneficiaries of program activities.

Duration, Funding and TRBH Contribution

The program will last for five years, from 2011 to 2015, which is the timeframe for China's (and the TAR's) next planning cycle. It also coincides with the next AusAID China country program strategy period. The program will have a budget of approximately AUD 10 million. Of the total budget, around 25% will be disbursed in each of the first three years of the program, with spending reduced in the remaining two years as the TRBH takes over full responsibility for more of the program's activities.

The TAR Government will make a substantial in-kind contribution to program resourcing. The TRBH will provide a Chinese Team Leader, two permanent staff placed in the PMT and high-level engagement from relevant divisions. It will also provide office space and general assistance and facilitation.

Performance Assessment

The program will be monitored at the Activity, Output (process) Component Objective (outcome) and Purpose (outcome) levels. Achievement of the Goal will not be measured by the program. However, given that TRBH collects data on maternal and infant mortality rates, attempts will be made where possible to assess the program's contribution (as distinct from direct attribution) to changes in these indicators, e.g. in pilot sites.

Monitoring and review of the program will occur through regular reporting as well as other mechanisms such as meetings, Technical Advisory Group (TAG) visits, and reviews. An Independent Progress Report (IPR) or Mid Term Review should occur within the first four years of the program.

The M&E Team (1 CSTA, 1 International STA) will establish mechanisms to measure program achievements, leading the evaluation at the same time as involving the TRBH and other CLTAs in M&E. Greater involvement of TRBH will help to build ownership and understanding of the role of evaluation in the program, and may help to overcome some of the difficulties with regard to access to information and confidentiality that THSSP experienced.

Wherever possible, the program will employ indicators already in use by the TRBH and for which the Bureau collects data. Other data collection will be undertaken through surveys (qualitative, quantitative) including the collection of baseline information, and other methodologies. Case studies will be an important source of information on the impact of the program on management practices, and the Most Significant Change methodology may also be applied. Activity evaluation will be critical where the program is hoping for TAR-wide take up of an activity such as the county hospital guidelines. At the start of the program the M&E Team will lead an evaluability assessment at which time indicators proposed in the PDD will be verified, additional indicators identified and data collection methodologies confirmed.

Feasibility and sustainability

THSSP was able to make sustained achievements in what can be a difficult operating environment. Its flexible design, which allowed it to respond to evolving TRBH needs, was largely responsible for this, as was its focus on building the capacity of organisations and individuals. This new program has a similar focus; its targeting and its implementation approach come straight from the lessons learned from THSSP. It is modest in its resourcing and realistic in its anticipated outcomes. And it takes the logical next step forward from the THSSP.

Other indicators that the benefits of the new program will be sustainable are: strong support from the national Ministry of Commerce for a continued Australian presence in the TAR health sector; TAR government commitment to improving human resources management capacity and high-level engagement in the design; management arrangements within the design document that support TRBH policies and leadership in the implementation of activities across a variety of divisions; opportunities for career progression for health staff through participation in program activities; and use of Chinese advisers to establish sound working relationships with the TRBH and service providers.

1. Analysis and Strategic Context

1.1 Program Origin

In Australia there is a strong interest in the TAR's development both from within whole-of-government and the public. The Australian Government has funded development cooperation in the Tibet Autonomous Region (TAR) since 1991. Assistance has covered agriculture and animal husbandry, through the Australian Centre for International Agricultural Research, and community development and scholarships, through the Australian Agency for International Development (AusAID).

But the most significant investments have been through AusAID in the health sector. They include: the A$2.25 million Tibet Primary Health Care and Water Supply Project in Shigatse municipality from 1997 to 2000; the A$2.9 million Region-wide Iodine Deficiency Disorder Prevention Project from 2000 to 2003; an HIV/AIDS strategy and planning development project under the China Australia NGO Scheme Program (to June 2002); funding to the World Health Organization's polio eradication Program; the Lhasa HIV Prevention Project (operating since 2002 and implemented by the Burnet Institute and the Lhasa Municipal Health Bureau); and the A$19.3 million Tibet Health Sector Support Program (THSSP) which was completed in June 2010.

THSSP was an organisational development, change management and capacity building program. Through formal and informal training it helped to broaden the management, clinical and technical competencies of large numbers of TAR health workers. The TRBH considers that this training was the most valuable of THSSP's interventions. THSSP also won a reputation from the TAR government as a practical and flexible partner that was sensitive to the Tibetan operating environment.

Given THSSP's success, the Government of the Tibet Autonomous Region requested that Australia remain engaged in the Tibetan health sector after THSSP ended. In response, AusAID organized a scoping mission to Tibet in November 2009. A concept paper was developed proposing a new program that focused on Tibet health human resources and management. A design team mobilised in July 2010 to test the feasibility of the ideas proposed in the concept paper and develop a design for a new five-year program. The Aide Memoire which the team presented to AusAID and the TAR government is at Annex A.

1.2 Country Strategy and Health Sector

The China Australia Country Program Strategy (CPS) 2006-2010 highlights "China's remarkable economic transition and growth since 1978" and notes that in response to growing economic, demographic and health challenges, China's current leadership had defined a long term vision of creating a harmonious society.[9] To achieve this vision, China is adopting a "balanced development" approach, which means balancing: (1) urban and rural development; (2) regional development (within China); (3) economic and social development; (4) economic growth and the environment; and (5) domestic development and further opening up to the outside world.

Reform of the health sector is imperative for progress towards a harmonious society. In March 2009 the Chinese Government issued "*Suggestions on Deepening the Reform of Health Care*

[9] *China Australia Country Program Strategy 2006-10*, page 2.

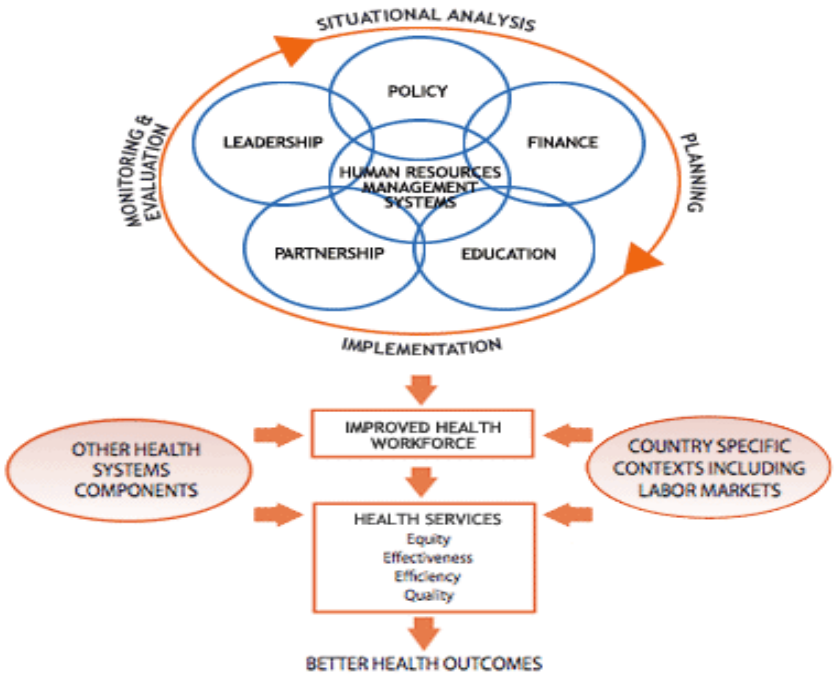
System"[10]. It set a target of building the basic medical and health care system to cover the total population living in urban and rural areas, and to provide safe, effective, convenient and cheap medical and health care service for everyone. The central government prioritized five initiatives for the healthcare reform plan in the next three years[11]:

(i) Expand basic medical insurance programs;
(ii) Establish national essential drug system;
(iii) Develop primary healthcare services system;
(iv) Provide equal access to public health services for urban and rural residents; and
(v) Accelerate public hospital reform.

On 6 January 2011, the Chinese Health Minister Dr. Chen Zhu announced the objectives and main tasks for the development of the health sector during the 12th Five Year Plan period (2011 – 2015). The objectives are that by 2015 access to basic medical services will be further strengthened; and infant and maternal mortality rates will be reduced to 12 per 1,000 live births and 22 per 100,000 respectively. The main tasks the Minister identified to achieve these objectives were capacity building of health institutes, improvement of service delivery quality and the standardization of county hospitals.[12]

The success of all these national priorities will in large measure depend on effective use of human resources within the health system. Human resource management has a key role to play in determining the quality of the health workforce and the ability of any health system to deliver equitable, effective and efficient services (see Figure 1)[13].

Figure 1: Human Resources for Health Technical Framework: Achieving a Sustainable Health Workforce

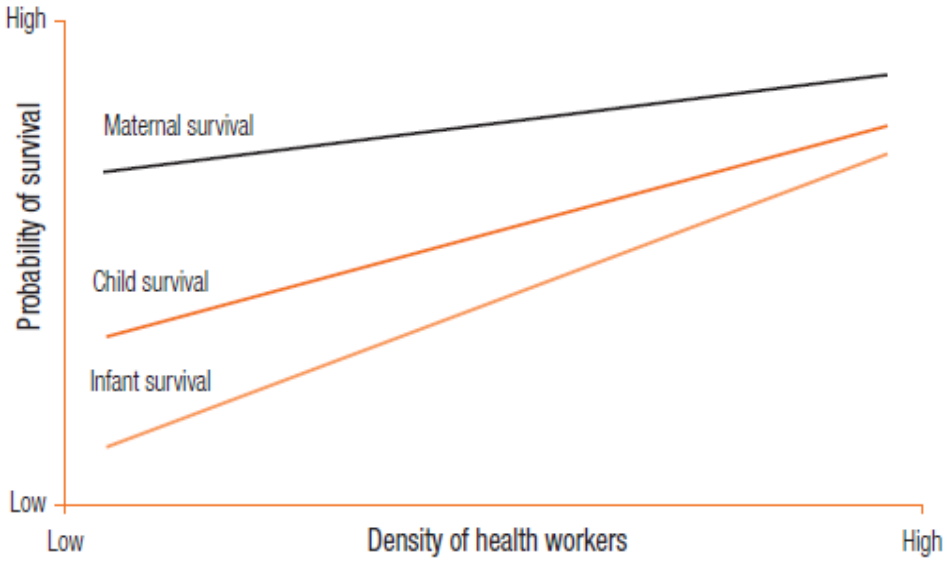


The international literature shows that the quality and numbers of health workers are positively associated with key indicators such as immunization coverage, outreach of primary care, and

[10] CPC Central Committee and the State Council, *Suggestions on Deepening the Reform of Health Care System*. 2009
[11] *Priority Implementation Plan for Health Care Reform (2009-2011)*
[12] The Chinese Ministry of Health's website www.moh.gov.cn
[13] WHO, The World Health Report 2006 – *Working Together for Health*, page 137.

infant, child and maternal survival [14] [15](see Figure 2). The quality of doctors and the density of their distribution have been shown to correlate with positive outcomes in cardiovascular diseases. On the other hand, child malnutrition has been shown to worsen after staff cutbacks associated with some health sector reform[16].

Figure 2: Health workforce save lives![17]



1.2.1 Health Human Resources: China

In 2009, there were a total of 7.8 million health workers in China. The geographic distribution of the health workforce was uneven, with higher ratios of staff in urban areas, and in the eastern regions. Whilst the ratio of doctors and nurses per thousand population in China exceeds that of the average level in Asia, it is still lower than in most developed countries, and many staff are insufficiently trained. For example, a recent OECD review[18] noted that "The number of doctors has increased rapidly but their qualification levels are often modest and their geographical distribution does not match local needs". The review commented that "It will also be important that hospitals are managed more efficiently, with less hierarchical structures".

This marked variation in the level of qualification of the workforce is shown in Table 1 below. More than half have only high school or secondary technical school education. The number of health professionals with senior qualifications (professors and associate professors) comprises seven percent of all health professionals; twenty seven percent have medium academic qualifications and two thirds of all health professionals have only a junior qualification or none at all. Health professionals with higher academic degrees and high professional qualifications are principally located in relatively large tertiary hospitals, or national and provincial Centers for Disease Control and Prevention (CDC). Health professionals in institutions at the grass-root level are mainly technical school graduates.

[14] Sudhir Anand et al, *Health workers and vaccination coverage in developing countries: an econometric analysis*
[15] Niko Speybroeck et al, *Reassessing the relationship between human resources for health, intervention coverage and health outcomes*
[16] The World Health Report 2006 *Working Together for Health* notes
[17] WHO, The World Health Report 2006 – *Working Together for Health*, page xvi.
[18] OECD (2010) Economic Survey of China 2010: *Improving the health care system*

Table 1: % of health professionals by education in 2005

	Health Professionals						other technical	manager
	total	doctor	nurse	pharmacist	laboratory	others		
Doctorate	0.3	0.8	0.0	0.0	0.1	0.1	0.3	0.1
master's degree	1.3	2.8	0.0	0.2	0.8	0.5	0.9	0.8
university	15.5	29.1	2.7	6.6	10.3	10.2	10.0	15.3
junior college	29.2	32.2	28.9	22.4	31.1	23.9	26.5	35.3
secondary technical school	43.3	29.4	60.4	44.3	46.4	45.2	26.8	24.9
high school and below	10.3	5.9	7.9	26.5	11.4	20.0	45.5	23.6

Data source: *China Health Statistical Yearbook 2009*

Official documents such as the Ministry of Health's 2006 *Report on Health Human Resources Research in China* acknowledge that the overall competence of the health workforce is not high. The problem is compounded by an uneven skill-mix, and geographic imbalance. There are also limitations in management capacity and in health human resource management systems and regulations. For example, only 24% of health managers have a management education background. Eighty percent of hospital directors general graduated in medicine or public health. Most health managers have devoted their careers to clinical work. A survey on 500 hospital directors general showed that 70% of hospital learned their management knowledge on-the-job or were self-taught. Seventy nine percent of them hope to get training on management knowledge and skills[19].

The *National Health Services Survey* conducted by the Ministry of Health across 31 Provinces/autonomous regions in China in 2008 identified several critical challenges, including the need to strengthen the capacity of health institutions at grass roots level, and the quality of health services. The S*urvey* found that many grass roots health workers had no qualifications, and that poor skills were one of the factors contributing to low satisfaction with health services[20].

1.2.2 Health Status and Health Human Resources: TAR

In the TAR the health status of the population has improved over recent decades[21]. For example, serious epidemic diseases like tuberculosis, iodine deficiency disorders and Kaschin-Beck disease had been controlled. Iodized salt had been introduced to sixty-six percent of the population and more than ninety-seven percent of children are immunised. However, TAR's health indicators remain the poorest in China. Its infant mortality rate in 2008 was 27.1 per 1000 live births and maternal mortality rate was 233.96 per 100,000[22](In Australia, the infant mortality rate was 4.1 per 1,000 live births in 2008[23] and the maternal mortality rate was 8.4 per

[19] *Report on Health Human Resources Research in China:* Human Resource Department and Statistical and Information Centre of the Ministry of Health 2006
[20] Ministry of Health, *Analysis Report of the National Health Services Survey in China*, 2008.
[21] *Report on the Economic and Social Development of Tibet*. China Tibetology Research Center , March 2009
[22] *China Health Statistical Yearbook 2009*
[23] Australian Bureau of Statistics' website www.abs.gov.au

100,000 in 2005[24]). In 2005 life expectancy in the TAR was five years lower than in China as a whole (67[25] compared to 72[26]).

The TAR's *Eleventh Five Year Plan for Health Sector (2006-2010)* singled out low HHR standards as a major constraint to health service improvement. The associated TAR *Health Human Resources Development Plan* noted that infectious diseases were more prevalent in the TAR than elsewhere in China and that the health workforce and maternal and child health services in nomad areas in particular were insufficient and of poor quality[27].

The national and TAR governments have responded to these poor health outcomes by allocating more resources for health – both "hardware" (facilities and equipment) and staff. However, while there has been numerical growth in the workforce, significant HHR problems remain. These include the need to improve management capacity for more efficient deployment and utilization of the workforce, and to improve the quality of technical and clinical skills for more effective service delivery.

According to Ministry of Health (MoH) statistics, in 2005 there were 9,781 health workers (including 1,016 contractual i.e. not permanent staff) in the TAR. They included 4,043 doctors, 1,676 nurses, 370 pharmacists and 371 laboratory technicians. Compared to the national average for China, the Tibet health workforce has a relatively low qualification structure. Table 2 presents a comparison of qualification levels of the TAR workforce[28] with the whole of China.[29] One quarter of Tibet health workers have no qualifications, compared to one tenth of the national workforce, and only one quarter have a college diploma or degree, compared to almost half in China as a whole.

Table 2: Comparison of Tibet and whole of China health workforce qualification levels (%)

	Qualification level				Total
	Bachelor degree or above	**College diploma**	**Technical/secondary school diploma**	**No qualifications**	
China	17.1	29.2	43.3	10.3	100
Tibet	8.2	15.45	53.3	23.05	100

1.3 Problem Analysis

1.3.1 Analysis

Health care is labour intensive. Effective health systems require effective use of human resources. The TAR *Health Human Resources Development Plan for the Eleventh Five Year Plan (2006-2010)* identified difficulties with insufficient numbers of health workers, uneven distribution between urban and rural areas and across staffing levels, and limited capacity to develop and retain high level health professionals. These weaknesses in the health system affect patient confidence in services and thus utilisation rates e.g. utilisation rates of hospital beds are low despite an adequate (and higher than the national average) supply.

These HHR challenges are compounded by the small population (2.8 million) dispersed across 1.23 million square kilometres, living at an average altitude above 4000 metres, with extremely

[24] Article 'Maternal death rare in Australia' by Australian Institute of Health and Welfare on www.sciencealert.com.au
[25] Tibet Autonomous Region Government's website www.xizang.gov.cn
[26] China National 11th Five Year Plan for Health Sector Development
[27] The TAR Health Human Resources Development Plan for the 11th Five Year Period (Tibet Government Endorse No.69, 2006)
[28] The TAR Health Human Resources Development Plan for the 11th Five Year Period (Tibet Government Endorse No.69, 2006)
[29] China Health Statistical Yearbook 2009

cold and arid winters. Annual vacation breaks for health staff can be as long as three months which affect the planning and delivery of health care. Likewise, the seasonal and nomadic work patterns of the predominantly rural population limit access to health services.

Many of the HHR challenges relate to the need to increase management and leadership capacity and to improve the level of training of individual health workers. These factors were identified in research conducted with assistance from the THSSP. A survey published in March 2010[30] identified four major factors contributing to inefficient HHR allocation and utilization:

- the constraints of the human resource management system including rigid staff deployment practices (in part, due to the top-down "quota");
- insufficient clinical and operational training opportunities and ineffective training, plus difficulties in organising training because of problems getting "cover" for absent staff;
- limited motivation and incentives for health care workers, compounded by a harsh working and living environment, leading to turnover of basic-level workers particularly;
- low staff capacity causing equipment to be allocated without proper assessment of local needs and used inappropriately.

Basic and continuing health worker education in TAR is limited. Many managers are health professionals and technical staff; they have not received formal training in management or administration. Training capacity, in terms of institutions and individuals who can provide effective technical and clinical training and mentoring to staff, is limited. The teaching and training that does exist is often didactic and does not cover problem solving skills and critical thinking. There is also an absence of standard guidelines which would enable managers to identify current critical skills gaps in a systematic way, and would inform training needs analysis.

These HHR challenges are not unique to the TAR. Analysis of HHR policy developments in countries that face similar constraints in terms of low capacity, access and quality can provide insights and assist in identifying possible reforms for Tibet. For example, whilst taking account of contextual differences, there is scope to draw relevant lessons from case studies in Bangladesh, Ethiopia, Ghana, India and Malawi commissioned as part of the WHO Task Force work on task shifting [31]. The global work on health workforce scaling up [32], and on the use of financial and non financial incentives to motivate health workers[33], as well as the more recent WHO-led evidence based policy recommendations on retaining health workers in remote areas[34], could all be relevant. One key message from these initiatives is that there has to be commitment to sustained improvement in HHR at the most senior level in government, that there needs to be effective HHR management systems in place, and that "scaling up" the health workforce is not just about "more" or "different" workers. It is about investing in training, and developing and deploying the current workforce as effectively as possible.

A more detailed discussion of these issues is found at Annex B.

[30] Study on Health Resource Allocation and Utilization in Shigatse Prefecture. Tibet University Medical School, Shandong University Health Management and Policy Study Center. March 2010

[31] WHO (2008a) Task shifting: global recommendations and guidelines. http://www.who.int/healthsystems/TTR-TaskShifting.pdf

[32] WHO (2008b) Task Force on Scaling up Education and Training of Health workers --Scaling Up, Saving Lives

[33] World Health Professions Alliance (2008) Guidelines: Incentives for Health Professionals. http://www.whpa.org/PPE_Incentives_Guidelines.pdf

[34] WHO (2010) Increasing access to health workers in remote and rural areas through improved retention: http://www.who.int/hrh/retention/guidelines/en/index.html

1.3.2 Program response

The TRBH is well aware of these problems. It has clearly told AusAID and the design team for the new program that donor support can be most effective by assisting it to make better use of the considerable resources it receives from the national and regional governments. It sees the major development challenge for health in the TAR as low capacity to manage and use the resources it has, and low clinical and technical skills to deliver services. The capacity it is seeking AusAID help to build is primarily in HHR management but also in clinical and technical skills.[35,36]

The new program will improve management capacity through exposure to new ideas and new leadership models, and change management approaches in the workplace. Managers to be targeted will be working at regional level, at prefecture level and at operational levels in hospitals and township health centres. Training will include strategic thinking, human resource performance and change management, team work, motivation, and information management and utilisation. There is also a need for managers to be better informed about HHR policy at national and regional level, so that there is greater alignment between policy guidelines and day-to-day practice. Improvement in management capacity will lead to more effective deployment of the workforce, improvement in performance, and more consistent implementation of HHR policy and procedures.

The evidence base on the impact of HHR improvements on health service effectiveness and outcomes, summarised in Cochrane reviews, suggests: in-service training may be followed by improved health professional practice[37] ; that lay health workers in primary/community care can have positive impacts on MCH and management of infectious diseases[38]; that educational meetings/workshops may improve professional practice[39], and that tailored interventions, including focus group discussions of healthcare professionals, can remove barriers to change and can change the practice of health professionals[40].

The program will also help to fill gaps in the technical and clinical skills of the workforce. The TRBH recognises that accuracy and timeliness of testing for diagnosis and treatment of patients needs to improve and has requested assistance in building capacity in prefectural-level CDC laboratories across the TAR. The Bureau has also asked that the program address trauma management, e.g. for victims of traffic accidents. Training is also likely to include aspects of maternal and child health such as safe deliveries, as well as preparation and response to contagious disease outbreaks.

The new program is therefore following on from the best of THSSP. The THSSP sought to build capacity through organisational change in health institutions and clinical and technical training. The new program will also build clinical and technical skills, but it will focus more on health human resource management (HHRM) at senior levels, and on building *capacity* to deliver technical and clinical training. Like THSSP, it will use Chinese more than international

[35] Tibet Health and Environment Facility Program Scoping Mission, AusAId 2009

[36] Concept Paper of Tibet Health Human Resources and Management. AusAID 2010

[37] Opiyo N, English M. In-service training for health professionals to improve care of the seriously ill newborn or child in low and middle-income countries (Review). Cochrane Database of Systematic Reviews 2010, Issue 4. Art. No.: CD007071. DOI: 10.1002/14651858.CD007071.pub2

[38] Lewin S, Munabi-Babigumira S, Glenton C, Daniels K, Bosch-Capblanch X, van Wyk BE, Odgaard-Jensen J, Johansen M, Aja GN, Zwarenstein M, Scheel IB. Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. Cochrane Database of Systematic Reviews 2010, Issue 3. Art. No.: CD004015. DOI: 10.1002/14651858.CD004015.pub3

[39] Forsetlund L, Bjørndal A, Rashidian A, Jamtvedt G, O'Brien MA, Wolf F, Davis D, Odgaard-Jensen J, Oxman AD. Continuing education meetings and workshops: effects on professional practice and health care outcomes. Cochrane Database of Systematic Reviews 2009, Issue 2. Art. No.: CD003030. DOI: 10.1002/14651858.CD003030.pub2

[40] Baker R, Camosso-Stefinovic J, Gillies C, Shaw EJ, Cheater F, Flottorp S, Robertson N. Tailored interventions to overcome identified barriers to change: effects on professional practice and health care outcomes. Cochrane Database of Systematic Reviews 2010, Issue 3. Art. No.: CD005470. DOI: 10.1002/14651858.CD005470.pub2

experts, and develop professional links with Chinese institutions, with the intention of creating longer term alliances and thus contributing to sustainability of program interventions.

While the Tibet Regional Bureau of Health (TRBH) was the implementing agency for THSSP, the program's activities were implemented mainly with Centres for Disease Control and Prevention (CDC). The new program will engage with at least seven divisions within the TRBH and assistance to the CDCs will be channelled through the TRBH.

The new program will not have the resources to directly influence other aspects of the health system. It is unlikely that it will be able to change the operation in the TAR of China's national quota system for public sector employment which is a legacy of the command economy and can import rigidities into workforce deployment and management. But as the program builds HR management capacity it will help generate more needs-based evidence for resource allocation decisions.

Nor will the new program address other health system components such as financing and medicines that the WHO says must be aligned if improvements are to be sustained[41]. But the Tibet health system receives ample funding from the central government and it is the decisions around where to direct that funding that the program should be able to influence. It is feasible for example that resource allocation decisions in areas such as equipment and essential drug supplies will be made that reinforce the improvements to health services gained through the program's clinical and technical skills training.

To improve the delivery of health services, health sector reform must ensure that both demand and supply side[42] issues are being addressed adequately.[43,44] This program has chosen to address primarily supply side elements of the equation, largely because resources do not allow for it to do more than this, but also because the TRBH has identified this as where donor support can have the most impact. The risk of course is that if other elements of this demand/supply framework are not simultaneously being addressed then the likely impact of this program will be compromised. Table 3 below identifies some agreed elements of this framework, and where this program is contributing.

Table 3: Supply and demand side mechanisms being addressed by the program

Supply side		Demand side	
Category	**THPCBP focus**	**Category**	**THPCBP focus**
Service delivery	Yes	Demand side financing	No
Health workforce	Yes	User behaviour	No[45]
Health information systems	Limited[46]	Participatory approaches	No
Access to essential medicines	No	Demand side accountability	No
Financing	Limited	Human rights/equity	No
Leadership/governance	Yes	Multiple sector/stakeholders	No

[41] WHO (2010) Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf

[42] Definitions: Supply side - service delivery inputs such as human resources and supplies provided on the basis of formal sectoral planning by technical planners and managers. Demand Side - behaviour and inputs of the recipients or intended recipients of these efforts: individuals, households and communities.

[43] WHO (2007), *Everybody's Business: Framework for Action*

[44] Understanding the 'demand side' in service delivery: Definitions, frameworks and tools from the health sector. Hilary Standing, Institute of Development Studies, University of Sussex, UK. March 2004

[45] Note: this was addressed in the THSSP MCH intervention to address utilisation rates.

[46] The Program will have limited influence in that it will as part of M&E examine current data collections of relevance to the Program and be prepared to advise on strengthening those, and will introduce survey instruments that could become a routine part of health system assessments

The TAR and TRBH will need to ensure that remaining factors that contribute to effective delivery and utilisation are being addressed through other avenues. This risk is assessed at 3.8 below.

1.4 Lessons Learned

Relevant lessons learned from other TAR activities that have informed the current program strategy are highlighted here. These include lessons from the Tibet Primary Health Care and Water Supply Project in Shigatse and especially the THSSP. Lessons have been grouped under three broad headings: (i) Program Focus, (ii) Program Approach and Implementation, and (iii) Sustainability.

Program Focus

(i) Projects should support implementation of national and regional policies.
(ii) A focus on change management and capacity building, situated within a strong conceptual framework, including the use of operational research[47] as a learning and advocacy tool, is appropriate in low capacity settings.

Program Approach and Implementation

(iii) A flexible approach can be a contributor to meeting program objectives, and can be facilitated by designs and contracts; a highly-structured and rigid implementation plan is not desirable in the Tibet setting; flexibility allows for a program that is demand-led and responds to emerging, initially unidentified needs.
(iv) Emphasis on program principles provides a good foundation for understanding and success.
(v) Supporting the willing (or "progressive engagement") is a valid approach to initiating health systems change.
(vi) A long-term team is essential in a low-capacity setting.
(vii) Increasing reliance on Chinese expertise to lead activities; the Chinese Long Term Advisors were key facilitators of progress under THSSP.
(viii) Orientation sessions or seminars for project partners would help explain a project's development objectives and approaches, and minimise risks due to misunderstanding of roles, responsibilities and implementation strategies.
(ix) Care should be taken with the timing of project commencement as there are periods of the year when some activities are almost impossible due to religious or cultural festivals or the weather.
(x) Engaging with the existing higher level administrative structure (provincial or prefecture) is important, even when the primary implementing partner is at the municipal or county level. This may help the project to anticipate and adapt to changes in the policy environment that may impact on project performance.

Sustainability

(xii) Even in projects that encourage self-reliance of villagers and townships, program benefits are unlikely to be sustained after donor inputs cease unless there is institutional capacity available to 'backstop' the maintenance of these benefits. For the future this may require some 'earmarked' recurrent cost funding from the TRBH to enable continuation of program benefits.

[47] Operational research: in the context of THSSP the term refers to 'work-based projects' to implement a change in the workplace based on what has been learned in a training course.

(xii) Build relationships between institutions that will endure beyond the timeframe of the program.
(xiii) While models and pilots can teach processes, significant external resources (for example, from central government) may be required for replication.

Those that are absolutely key to shaping the new program are flexibility, demand-led, capacity building through progressive engagement, the use of operational research as a learning and advocacy tool, and building relationships that will endure beyond the timeframe of the program. These are discussed in more detail in the following Section 1.5.

1.5 Consistency with the Australian policy context and other donor programs

1.5.1 AusAID's China Country Program Strategy (CPS)

A new CPS is currently under development, due for release in mid-2011. Australia's current aid program to China (2006-2010) works in collaboration with the Chinese Government to reduce poverty through support for "balanced development" policies and programs. AusAID works mainly with central agencies, building capacity in governance, environment and health, and creating sustainable institutional linkages between both countries. It engages in China's policy reforms that are designed to improve the quality of basic services and make them more widely accessible.

The CPS principles that are most relevant for this design are:

- responsiveness to changing circumstances with increasing focus on high-level policy engagement;
- aligning with China's own programs and policies;
- institutional analysis of the absorptive capacity of partner agencies as well as the cultural context;
- building on existing relationships and existing activities; and
- program integration with Chinese systems.

The focus of the new Tibet program is consistent with AusAID's national level program with the Ministry of Health in that it will be working within the health system under the leadership of local institutions through institutional capacity building to help advance China's health reform priorities. In this way, we improve the health system's capacity to address the needs of the poorest. Indeed, the focus of this program is completely in line with the main tasks the Chinese Health Minister has announced for national health system reform over the period 2011-15.

The TAR Government is sensitive to the needs of the poorest segments of the Tibetan population and has instituted programs to reduce barriers of access to and quality of care. Health insurance and in some cases transport to clinics and hospitals is guaranteed to all Tibetans. The poorest Tibetans are often nomads in the most remote and harsh areas, many days travel away from Lhasa where few health professionals are prepared to go. To target them exclusively would be prohibitive for a program with a budget of A$10m or less over five years. The most efficient way for the program to improve services for the poor is to help the TRBH manage its resources more effectively and improve their quality. In this way so that it can.

1.5.2 Other donors and activities in the Tibet health sector

Burnet Institute

The Lhasa HIV Prevention Project has been operating since 2002 and is implemented by the Burnet Institute (Tibet Office) and the Lhasa Municipal Health Bureau. The project aims to increase awareness of sexual and reproductive health, and prevention of STIs and HIV among vulnerable groups in Lhasa. These include: sex workers, transport workers (such as truck and taxi drivers), tour guides and young people. The project is small and is funded principally by AusAID through the Australian NGO Cooperation Program.

Italian Development Cooperation

Assistance has focused on the development of basic and emergency health care to improve primary health care and mother and child health i.e. primary and preventive medicine, including prevention of emergencies. The program is being implemented primarily through the establishment of an emergency centre in Regional No.1 People's Hospital, Lhasa. This support will probably end in March 2012 and is unlikely to be renewed.

EU

EU is funding a small program which is being implemented by the I NGO, ASIA Onlus, to increase access and build capacity in the health sector in Panam County (population around 41,000), Shigatse Prefecture. It focuses mainly on health management and will run at least until the end of 2011.

Another EU funded project, which covers TAR, Yunnan, Xinjiang and Beijing, is implemented by the Save the Children with a total budget of €579,836 for three years (2010 to 2013). The project aims to strengthen the capacity of marginalized urban and rural families and communities to access quality early childhood care and development services.

UNICEF

UNICEF, in cooperation with the MoH, has implemented several national programs in the areas of primary healthcare, maternal and child health (MCH), Iodine Deficiency Disorder and expanded program for immunization. TAR has been covered by all these national programs.

Over China's 12th Five Year Plan cycle, UNICEF will continue to work in these areas. A new UNICEF program will cover approximately 30 poor counties in six western provinces, including five counties in the TAR. The program will be focusing on MCH service governance, financing, service quality, human resources, information systems and related health literacy.

1.6 Rationale for AusAID Involvement

THSSP gained a reputation from the TAR government as a practical and flexible partner sensitive to the Tibetan operating environment that helped build managerial and clinical skills at systems, organizational and individual levels. The TRBH considers that THSSP contributed to recent falls in infant and maternal mortality rates. The TAR has requested a continued Australian presence in the health sector to build management capacity and technical and clinical skills. No other donors to the TAR are operating, or are likely to operate, on the scale that Australia has in these areas. Australia has significant expertise in capacity building in health management, health system reform and clinical and technical skills. There are sound

developmental reasons for Australia to use its comparative advantage through a new program. The Australian Government has been a consistent development partner of the TAR since 1991 (see Section 1.1 above) and sees no reason to end that relationship.

2. Program Description

2.1 Principles underpinning the program

The following principles will be used by the new program:

Complementarity with TAR processes, policies and resources

(i) Support to the TAR focus to develop health human resources: the program will align with National and Regional priorities, providing support to the development and implementation of the national and regional policy framework, ensuring program activities are relevant, appropriate and supportive of counterpart priorities.

(ii) Avoiding duplication of effort: program resources will complement activities being implemented with government funding; working closely with the relevant Divisions of TRBH will ensure that program training is not duplicative and complements other activities initiated within TRBH.

Complementarity with other donor activities

(iii) The program will seek opportunities for synergy with other donor activities, particularly with UNICEF's new program in the areas of human resource development, management capacity building and technical training. There is potential for the AusAID program to use UNICEF networks in China to source and coordinate short-term expertise. On mobilisation the AusAID program will consider the value of working in one or more of the counties where UNICEF is present.

Counterpart driven

(iv) While numerous Outputs have been identified in the new program, they will be counterpart-driven, allowing for new opportunities to arise and for new streams of activities and new relationships with training institutions and TAR agencies to flow from them.

Value for Money

(v) All procurement will be consistent with Australian government guidelines and will represent value for money.

Flexibility

(vi) The program will adopt a flexible approach to identifying and supporting activities during implementation so that it is responsive to emerging TAR needs.

Capacity Building

(vii) Capacity building underpins the program: this is consistent with its commitment to long term sustainability and is achieved through:

- Progressive engagement: supporting the willing or progressive engagement with highly motivated service providers to test and replicate models.
- Evidence-based policy development: activities will contribute to evidence-based policy development by developing and evaluating pilots as models to inform

policy decision making, and supporting operational research to investigate areas of concern and/or priority for change within individual work settings.

- Utilisation of Chinese technical expertise: the program will use predominantly Chinese long and short term expertise; THSSP found that in the TAR environment they were often more efficient and effective than international short term technical advisers.
- Through recognition that work place learning and development, fostered by mentoring and learning sets, is necessary to sustain change.[48]

Enhancing likelihood of sustainability

(viii) Developing models for replication: the program will test models that can be replicated by the TRBH beyond the program timeframe.

(ix) Ownership: the program will ensure ownership of TAR stakeholders by using training needs analyses to identify capacity building priorities, and encouraging individuals nominate the areas in which they want to make change. Learning programs will respond to changing needs and will be tailored to both individuals and groups. Where possible they will build on existing training modalities and modules, adapted as necessary.

Building on achievements of THSSP

(x) Learning from THSSP: The lessons of THSSP have informed the new design.

2.2 Goal, purpose and objectives

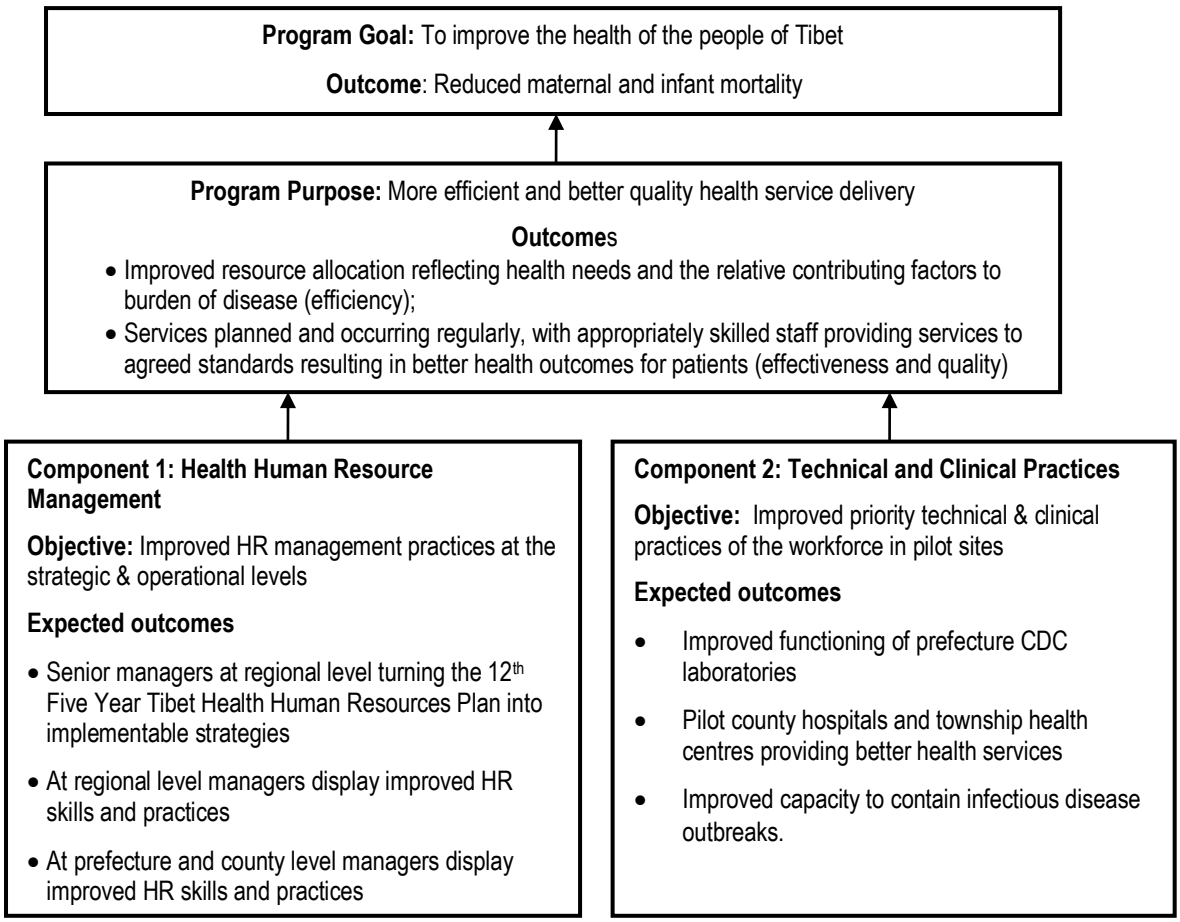
Program Goal: To improve the health of the people of Tibet.

Program Purpose: More efficient and better quality health service delivery.

Component Objectives: There are two component objectives*:* (i) under Component one - Health Human Resource Management (HHRM): improved HR management practices at the strategic and operational levels; and (ii) under Component two - Technical and Clinical Practices: improved priority technical and clinical practices of the workforce in pilot sites. The implementation of the two components will contribute to the achievement of the program purpose.

[48] More detail on the approach to capacity building is found in Annex K.

Figure 3: Overall Program Structure



2.3 Expected Component outcomes, outputs and activities

As a result of the program well-trained staff will be where they are needed, delivering better quality health services. Health funds will be used more effectively and good examples of health resource allocation decisions will be available for replication by TRBH across the TAR.

2.3.1 Component 1: Health Human Resource Management

Geographical focus: the whole of the TAR.

For this Component the Chinese Long Term Adviser Health Human Resources (CLTA HHR) will co-ordinate activities, with support from TAR and national experts as required.

Activities in Component 1 will support improvements in HR management practices at the strategic and operational levels across TAR, through the use of training, study tours and learning sets[49] and workplace projects and learning. The program will align with and support the implementation of the Tibet 12th Five Year Health HR Plan. The idea of 'progressive engagement' with other Bureaus will be encouraged. There will be evidence of improved and applied HR policy and planning, and evidence of improved and applied management practices, for example, a new staff performance system could be developed in a hospital.

[49] A learning set is a work based group, usually of 4-8 people that meets regularly in order to explore solutions to real workplace problems and decide on the related action which should be taken

Expected Outcomes

Through delivery of outputs under Component 1 it is expected that by the end of the program there will have been three key outcomes:

- Senior managers at regional level turning the 12th Five Year Tibet Health Human Resources Plan into implementable strategies
- At regional level managers display improved HR skills and practices
- At prefecture and county level managers display improved HR skills and practices

Outputs

There are four key outputs for this Component.

Output 1.1: Capacity building in HHRM undertaken for Bureau managers and Directors at regional level

Target group: Regional Bureau Managers and Directors of institutions under direct leadership of TRBH, including managers and directors of CDC, Health supervision centre, Hospital and Traditional hospital at Provincial/Regional level.

The activities of this output will result in Bureau managers at regional level having improved ability to develop and implement HR policy, and to undertake HR planning in the health system, including practical implementation of aspects of the TAR 12th Five Year HR Plan.

Activities include running a Bureau Management HR Development Program (BMHRDP) (with senior Bureau managers and Directors of institutions under the direct leadership of BOH as participants - approximately 60) in the first two years of the program. Training courses will be modified to suit the needs of each of the sub groups in this target group (see Annex C). All training will be held within the TAR or elsewhere in China. BMHRDP content will promote sustainable system change and co-ordinated implementation of the TAR 12th Five Year HR Plan, and will link to Output 1.3, Output 2.2, and to Output 2.4.

The design and content of the BMHRDP will be based on findings from the initial technical analyses which are undertaken at start-up of the program. The program will be flexible, individually tailored, and highly interactive, and will encourage critical thinking and problem solving. The initial training is ideally[50] a 10-15 day course based in TAR. Other activities will be: (i) follow-up training and individual mentored support from national experts (trainers, managers in the same field in eastern Chinese provinces)[51]; and (ii) study tour(s) conducted elsewhere in China, and where relevant, internationally, to give insight into effective approaches to HHR policy and planning, to provide motivation to senior leaders and develop "champions" for the program.

Participants in the BMHRDP and the study tours will be selected on merit to ensure the most appropriate people attend, and reflect gender and ethnic balance.

[50] The feasibility of managers begin able to attend a course of this duration will be assessed as the program commences.
[51] To be identified at program start up with the possibility of establishing a national expert group, including experts from HHR management and HR policy.

<u>Output 1.2:</u> Follow-up support to Bureau managers and Directors at Regional level to implement improved HHRM knowledge and skills

Target group: Regional Bureau Managers and Directors of institutions under direct leadership of TRBH

New skills and knowledge can be best deployed when there is sustained support and scope for team-working amongst managers. This output will lead to improved use of skills, and improved teamwork.

Activities will result in sustained support for further development of managers, once initial training and development of the Bureau managers has been completed. Their ability to think and act effectively within the work context will be supported by the program through mentoring and by group and individual work based projects, involvement in applying HR policy, and continued exposure to new ideas and HR related research, both in Tibet and nationally.

Activities will include a formal learning set approach which will be developed and supported across the timeframe of the program, to support a shared understanding of HR developments and challenges. The learning set approach is based on structured support for a work based group, usually of 4-8 people that meets regularly in order to explore solutions to real workplace problems and decide on action to take.

Other activities will include: (i) input to the implementation of the 12th Five Year HR Plan for TAR (2011-2015) and (ii) the establishment of an annual HHR Forum which will provide a mechanism for analysis and discussion of the Plan's implementation. The Forum will be hosted by the TRBH, and forum members will include all BMHRDP participants, other managers from the health system, other relevant stakeholders from TAR, and national and international HR experts. There will be the possibility of linkage between this and the national health forum just established, linking to the national conference. The HHR Forum should take a regional, national and international perspective, to provide the opportunity for TAR based managers to gain insight into how other regions and countries are addressing similar challenges of scaling up, task shifting and incentives for improving retention in remote areas. (iii) Support for HR policy research projects which will be conducted on critical issues of HR policy and planning. These should focus on aspects of HHR that have the potential to deliver positive change and improvement in the health system - for example, the use of non financial incentives to motivate and retain staff; the use of local performance management approaches and effective management of staff absenteeism.

<u>Output 1.3:</u> Capacity building in health management undertaken for Bureau managers at prefecture and county level

Target group: Prefecture Bureau of Health (BoH) Directors, hospital directors, CDC directors and division chiefs, hospital technical division chiefs; County BoH Directors, hospital directors, CDC directors, hospital technical division chiefs. In total it is anticipated that 912 participants will be trained and developed.

Management capacity at operational level is constrained and uneven. This output will lead to improved understanding of HHRM issues, and more consistent and improved management practice. Activities will specifically result in prefecture and county level health managers having the capacity to apply standard management skills, knowledge and practice, particularly in HR management and to implement aspects of the 12th Five Year HR Plan.

Details of these training and capacity building activities will be determined by a training needs analysis (TNA) undertaken at program start-up which assesses the current skill levels of the target groups of managers, reviews existing approaches to training provision, identifies critical training gaps and develops a flexible approach to training delivery. This initial TNA will adapt training modules developed by the Health Human Resources Development Centre under the Ministry of Health. A working group (comprised of one or more TRBH Managers, one management expert from an eastern/central province of China, the CLTA HHR) will use the results of the TNA to develop a best practice systematic approach to training deliver, which will include standard and tailored modules as necessary. Training providers at TAR and national level will be engaged to deliver the training.

Whilst detailed content will be informed by the TNA, there will be 4 linked modules of the training program: (i) understanding relevant national health policies; (ii) HR policy and management; (iii) financial management; and (iv) facilities and logistics management. The first two modules will be "core" for all participants, but overall training will be flexible to meet individual needs. There will be joint training for prefecture and for county level managers. Training activities will include in-service/on-the-job training, work placements, short course/workshops and distance learning.

Trainees will be selected on merit to ensure the most appropriate people attend, and reflect gender and ethnic equity.

Output 1.4: Follow up support to Bureau managers at prefecture and county level to implement improved health management knowledge and skills

Target group: Prefecture BoH Directors, hospital directors, CDC directors and division chiefs, hospital technical division chiefs; county BoH Directors, hospital directors, CDC directors, hospital technical division chiefs.

Bureau managers at prefecture and county level will receive sustained support to develop further their ability to think and act effectively within the work context, enabling implementation and monitoring of changed practice.

Activities will include: (i) group and individual work based projects, involvement in local application of HR policy, and continued exposure to new ideas and HR related projects; (ii) support for formal learning set to share understanding of HR developments and challenges; (iii) involvement in the TAR HHR Forum (see Output 1.2 above); and (iv) small funds and technical support for local HR projects on issues identified as priorities by participants. These projects would assess current HR issues and lead to clear outputs, such as the development of new HR tools and procedures at a local level, or the identification of practical solutions to local problems.

Since follow up activities will require significant inputs from long and short term advisors the sheer number of county level managers to be trained could overwhelm the resources available to the program. Activities under this output will therefore only take place in the same pilot counties as Component 2, at least in initial stages.

2.3.2 Component 2: Technical and Clinical Practices

The rationale for Component 2 is based on the knowledge that the skills base of technical and clinical staff is uneven and inadequate to meet clinical and technical needs, enable optimal access, and support effective service delivery. Improved clinical and technical performance is often dependent upon incentives that reward such performance. It is expected that through achievements in Component 1 better management practices will result in opportunities to recognise and reward improved clinical and technical practice.

The emphasis is on scaling up by skilling up. Activities will lead to improvements in priority technical and clinical practices of the workforce in pilot sites. It is likely that MCH will be identified as a priority in the current program pilot areas. China has achieved the target of the Millennium Development Goal 4 on IMR ahead of schedule and is likely to achieve the Millennium Development Goal 5 relating to maternal health. However, there are still large disparities in IMR and MMR between Tibet and the national level.

Geographical focus: Three pilot prefectures, except for Output 2.1 which will be TAR wide.

The focus of Component 2, for Outputs 2.2 to 2.5 will be in three pilot prefectures, which will be selected as "good", "medium" or "poor" based on level of resources, and degree of geographical remoteness. The objective is to develop new approaches to training delivery in these pilot prefectures, based on training needs analysis, and the development of guidelines for functions to be provided in typical ("model") county hospitals and townships health centres, with the aim of then rolling out to the rest of the TAR if these approaches are found to be effective.

In each of the selected prefectures, 2 counties will be selected on the basis that they are motivated to participate in the program. In addition, up to 4 townships in each county will be included in the pilot, in the main to enable assessment of county level management and practice outreach and support to township level. The schedule will avoid training winter, when travel is difficult and many staff are on leave.

Expected Outcomes

The end result will be that there will be more effectively trained staff available to deliver better quality health services. It is expected that by the end of the program success will be demonstrated by the following:

- Improved functioning of prefecture CDC laboratories across the TAR
- Pilot county hospitals and township health centres providing better health services
- Improved capacity to contain infectious disease outbreaks.

Outputs

There are five key outputs for this Component.

Output 2.1: Training of prefecture CDC laboratory staff conducted

Target group: Technical staff working in prefecture CDC laboratories

Strong laboratory capacity ensures accurate and timely testing, rapid and correct diagnosis and treatment. Inadequate skills in laboratories constitute a weak link in the TAR health service chain. THSSP showed that clear outcomes can be achieved in this area and there is high demand for better laboratory skills.

Activities will include: (i) training needs analysis to identify laboratory technical skills gaps; (ii) the provision of training to improve skills of laboratory staff, using sustainable formal training programs, on-the-job reinforcement of skills and knowledge, and continuing education supported by national experts; (iii) procurement of a small amount of basic essential laboratory equipment to support effective delivery of training and sustainable impact; and (iv) evaluation of the first year of delivery, and curricula content and delivery modes adapted as necessary. Training will be provided to 35-50 laboratory staff; training will be delivered by the CLTA Lab affiliated with an appropriate national institution.

Trainees will be selected from laboratory sites on the basis of current skills level and potential for up-skilling.

Output 2.2: Guidelines for County Hospital and Township Health Centre developed
Target group: Pilot County Hospitals and Township Health Centres

There are significant skills/staffing gaps in the workforce in some hospitals and township health centres, but an accurate and systematic assessment of the size of this gap and its variation across the system is hampered by a lack of service standards. While service standards are in place in other parts of China, there are none for the TAR. This was identified as a need during the design mission.

Activities will result in guidelines being developed that identify the minimum level of service to be ideally provided at the county hospital and township health centre level, and the related staffing profile required to provide these services. The guidelines will be pitched at "model" county hospital and township health centres, i.e. these will describe the full complement of functions that should be provided by a fully established county hospital or township health centre.[52]

Likely activities will include: (i) the establishment of a Guidelines Technical Group (comprised of representatives of regional, prefecture and county level management facilitated by the CLTA HS, with support from national experts as required) to review current guidelines; (ii) development of new guidelines which focus specifically on functions that should exist in a "model" county hospital and township health centre; required staffing profiles would also be identified. (iii) Once developed, the feasibility of the guidelines will be tested in selected county hospitals and township health centres and are then evaluated and modified as necessary. (iv) Finally, within the program the potential for regional rollout of guidelines will be assessed by the Guidelines Technical Group. Any subsequent decisions on rollout of the guidelines would be the responsibility of TRBH.

Output 2.3: A pool of technical health trainers developed

Target group: Regional and prefecture clinical and technical staff in pilot sites; for TOT training, staff from training centres of hospitals and the Tibet University Medical College (TUMC).

The provision of effective training in clinical and technical skills is undermined by a shortage of staff trained in effective training methods and approaches.

[52] Guidelines for infrastructure and equipment requirements have been developed at the national level.

Activities will result in a pool of approximately 50-100 GOTAR trainers skilled in and applying adult teaching and learning methods. The pool will deliver training at technical level (Output 2.4) and will be made up of existing trainers and the beneficiaries of a new TOT program. This pool will be expanded as new priority technical areas are identified (see Output 2.4), and pool members will receive updated skills training as necessary. They will continue working at their normal place of work but will be available for short term deployment in support of technical training. It is expected that the pool will be accessed by managers as they plan for training of their staff. The identified initial critical areas for this pool will be based on guidelines development undertaken under Output 2.2, and results of training needs analysis.

Likely activities will include: (i) identifying existing trainer capacity in critical areas; (ii) developing an outline of the training objectives; (iii) selecting appropriate trainees for the TOT program from the training centres of hospitals and TUMC with a view to building capacity of local institutions; (iv) developing a TOT training program; and (v) providing training to an initial cohort of 30-50 in the first year. This will skill up the trainees in a range of relevant training modalities; participants from the regional and prefecture clinical and technical locations will already be experienced practitioners in their technical and clinical areas.

This will be co-ordinated by the CLTA HS with a "package" of TOT delivered by national level technical experts, including initial training, and follow up support and monitoring as necessary. The CLTA HS will provide mentoring.

Subsequent activities will include evaluation of the first training program to make any necessary improvements to content. Additional rounds of TOT to new cohorts of recipients will be undertaken as needed, to broaden the technical areas covered by the pool, once these new technical priority areas have been identified, and to maintain adequate numbers of trainers.

Output 2.4: Training of technical staff for identified priority areas

Target group: Technical staff in the identified priority areas, at prefecture, county and township levels.

Technical and clinical skills gaps in the workforce are undermining the effectiveness of health care delivery. A more systematic approach to identifying priority areas for training interventions is required. This Output will result in health services in identified priority technical areas being improved through increased staffing skills and capacity. Building on demand from THSSP, confirmed by the scoping and design missions, priority areas are likely to include: obstetric care; childhood diarrhoea and nutrition; trauma management; and prevention and treatment of infectious diseases.

Activities will complement rather than duplicate current training activities being provided by TAR and will focus on technical needs which will be identified through the guidelines development in Output 2.2 and/or by training needs analysis.

Activities will include formal training programs, on-the-job reinforcement of skills and knowledge, and continuing education. Trainers with relevant technical skills will be drawn from the trainer pool, supplemented as necessary by additional TAR and national experts. Training delivery and outcomes in the initial technical areas will be evaluated after the first year of delivery, and curricula content and delivery modes adapted as necessary.

Trainees will be selected on the basis of their current skills levels and work location within the pilot areas.

Output 2.5: Building preparation and response capacity for containing infectious disease outbreaks

Target group: Centres for Disease Control (CDC).

During the design process TRBH identified the need for the program to support preparedness and responses to disease outbreaks. Since the SARS outbreak the Bureau has been required to develop and maintain a preparedness plan but it has little relevant expertise. THSSP's work in one CDC in this area was highly-valued. After THSSP assistance, the accuracy of disease control work done by the Linzhi county CDC increased markedly. CDCs not supported by THSSP achieved only 30% of the national reporting requirements, compared to Linzhi's 80%.[53] The capacity building from THSSP helped equip Linzhi CDC to rapidly contain an outbreak of the plague in 2008.

The new program will improve epidemic preparedness, promotion, response and reporting in the three target prefectures. It will tie in with the prefecture CDC laboratory staff training under Output 2.1. Activities will include training in epidemiology, field studies, and simulation exercises (drills).

The funding available for this Output will decrease over the timeframe of the program with a view to TRBH taking greater responsibility for responding to these needs within its own budget before the program concludes, thus increasing the likely sustainability of this intervention.

The Program Logframe is found at Annex D. A detailed description of the program is found at Annex E. Position descriptions for key positions are found at Annex F.

2.4 Form of Aid

Given the absence of any substantial health activities funded by other donors in Tibet, there is no opportunity for a new Australian program to work through co-funding or a sector-wide approach. The program will work through TRBH systems and procedures to the maximum extent possible but the Government of People's Republic of China (GOPRC) does not encourage donors to use its financial management and procurement systems and AusAID does not have knowledge or experience of how those systems operate. Therefore, a bilateral program approach, which channels funds through a managing contractor, not through the GOPRC, the TAR government or the TRBH, is the only viable one for this new program.

The program approach (as opposed to a project model) means that end-of-program outcomes are defined and program interventions are logically expected to contribute and add up to achievement of those outcomes. Flexibility is ensured through an annual planning process that allows for implementation strategies to be defined and re-defined as necessary, with the flexibility to change activities and outputs, and with the possibility of also revising end-of-program outcomes if contextual and performance information changes.

[53] Case Study #2 on Health System Change (Page 107 of THSSP ACR).

2.5 Estimated Program Budget and Timing

2.5.1 Duration and budget

The program will last for five years, from 2011 to 2015, which is the timeframe for China's (and the TAR's) next planning cycle. It also coincides with the next AusAID China country program strategy period. The program will have a budget of approximately $10 million ($9.7m for budgeted items and $0.3m for contingencies). Of the total budget, around 25% will be disbursed in each of the first three years of the program, with spending reduced in the remaining two years as the TRBH takes over full responsibility for more of the program's activities.

The overall budget and its indicative phasing are summarised in Table 4, below. An indicative budget breakdown is included at Annex G and a resources schedule at Annex H.

Table 4: Gross Indicative Budget (in AUD '000) by Year of Implementation

Year	Reimbursable Long Term Personnel	Reimbursable Short Term Personnel	Reimbursable Operational Costs	Reimbursable Contractor Administration, Equipment Costs	Total
Year 1	575.5	345.6	**658.5**	**361.7**	**1941.3**
Year 2	584.8	756.0	**1350.5**	**147.6**	**2838.9**
Year 3	510.4	459	**1461.5**	**147.6**	**2578.5**
Year 4	473.2	198	**409.5**	**147.6**	**1228.3**
Year 5	473.2	270	**229.5**	**147.6**	**1120.3**
TOTAL	**2617.1**	**2028.6**	**4109.5**	**952.1**	**9707.3**

A degree of flexibility in allocation of funds across priority areas and some year-on-year variation will be necessary. Therefore, the yearly allocation by categories in the budget in Table 4 above needs to be viewed as indicative only. It shows annual expenditure being more pronounced in Years 1, 2 and 3, reflecting greater costs of initial capacity building and a requirement to bring in national experts and institutions.

2.5.2 Procurement Arrangements

There will be some procurement costs, including office start-up costs, annual running costs, approved program equipment, and work related transport and in-country travel. The MC will be responsible for all procurement, and will comply with GOA's Procurement Guidelines. Program funds will not be channelled through GOPRC or GOTAR agencies or through any third parties.

2.5.3 Australian contribution

Personnel

Table 5 presents indicative personnel inputs funded by the Government of Australia (GOA). It is indicative only as final details depend on the spread of skills between the TL and two main CLTAs and specific program needs.

Table 5: Indicative GOA-funded Personnel

Position	Nationality	Month/Days
Long Term Advisers		**Months**
Team Leader	International	50
Health Human Resources Adviser	Chinese	60
Health Systems Adviser	Chinese	60
Laboratory Specialist	Chinese	27
Long Term Management Support		
Translator/Interpreter	Chinese	60
Driver [1]	Chinese	60
Driver [2]	Chinese	60
Administrative Assistant	Chinese	60
Short Term Advisers		**Days**
Program Technical Director	International	207
M&E Adviser	Chinese	540
Program M&E Specialist	International	300
Training Adviser	Chinese	600
Unallocated TA 20% of fixed short term	Chinese	240

Procurement

The Australian contribution funds equipment for the efficient operation of the Program Management Office, including two vehicles. This includes responsibility for recurrent costs, including consumables and maintenance of equipment in the program office. Two 4-wheel drive vehicles will be used for program activities and managed by the long-term technical advisers.

Essential equipment to support program activities is procured during Implementation and includes:

- Essential basic laboratory equipment for CDC laboratories under Output 2.1.
- Books, research articles for Component 1.
- Some essential equipment for priority areas identified under Output 2.4.

Training

The Australian contribution will cover the cost of training by external trainers or institutions (packages of training), per diems and accommodation for all trainees attending training courses, and the cost of training materials. It is expected that mostly off-the-shelf training materials or already developed courses will be used. The cost of study tours and placements are also included in the training budget, with the exception of a possible international study tour which is a separate line item.

Other

Other budgeted program costs include:

- Establishment and consumable costs for the program office, including for agreed mobile, long-distance and international telephone calls, and electronic communications.
- All running costs for the two vehicles managed by the program advisers, including maintenance, petrol, insurance, tax and registration.
- The operation of a translation facility to translate key documents and reports into either Chinese or English.
- Monitoring and Evaluation (M&E) activities defined in the M&E Framework, in addition to technical analyses/baseline work carried out during the first year.
- Unallocated planning meetings and workshops.

2.5.4 Contribution of the Government of the PRC (GOPRC)

The contribution of the GOPRC will be largely in kind, and will include:

- Program office accommodation for the life of the program
- Program personnel – located in the Program Management Office (PMO).

Personnel

Nominated staff from the TRHB, prefecture, county health bureau and township health centre will be counterparts on the program. Details of counterpart personnel will be agreed as part of each year's annual plan. Counterpart staff who will be involved long term as direct participants in the program will be those working in the PMO, and those having a long term role as trainers and as counterpart staff for long and short term advisers. In addition other staff will be involved on a short term basis as trainers and/or participants in capacity building and workplace projects and learning sets at Regional and County level. A range of staff will participate in the M&E activities with a view to improving skills in this area and adopting approaches to M&E for use on a long term basis.

Office Accommodation

GOTAR will contribute office accommodation for the lifetime of the project (as five years). This includes cleaning and maintenance costs, electricity, telephone connections, heating and water.

3. Implementation Arrangements

3.1 Management and Governance Arrangements and Structure

The leading counterpart agency for the overall program is the TRBH. The governance of the program will rest with the **Program Coordination Committee (PCC)**, comprising representatives of the Government of the People's Republic of China (MOFCOM) and the Government of the TAR (DOFCOM, TRBH). MOFCOM, together with AusAID will be responsible for appointing members to the Program Coordinating Committee. The PCC is the main formal committee for GOPRC and GOA discussion and decision-making. The role of this committee will be to provide strategic direction to the program. It will be responsible for reviewing progress toward achieving the objectives; reviewing and addressing matters affecting the program performance; approving annual plan and budgets; and approving the program M&E and reporting approaches. It will meet at least twice in the first year, and annually

thereafter. Secretariat support will be provided by the Managing Contractor (MC). The MC will attend meetings but not be a member of the PCC.

A **Program Management Team (PMT)** will be established at start-up. The PMT comprises the Chinese team and the MC team. The Chinese team will comprise the TRBH Director General (DG) or Deputy Director General (DDG) as the Chinese Team Leader, to be nominated by the TRBH. In addition, two full time staff, nominated by the TRBH, will have responsibility for supporting and coordinating the Components.

The MC team will comprise the TL, one international STA (M&E) and three Chinese Long Term Advisers (CLTA). These Advisers will between them have significant Health Human Resource Management skills and Health Systems and Health Service Delivery expertise, to cover off Component 1 and Component 2. The third CLTA will be recruited as the Laboratory Specialist for a continuous period of 27 months. These long term positions will be complemented by Chinese short term Advisers with training expertise, and relevant technical and clinical expertise, identified as Component 2 rolls out and priority areas are identified. A CSTA M&E will provide 18 months input over the duration of the program to set up mechanisms for monitoring achievements across both Components (baseline, end-of-program data collections), working jointly with TRBH partners.

The function of the PMT will be to develop annual plans, implement the program, coordinate activities, report on progress, and inform the PCC of progress. Roles of all key stakeholders will be clearly articulated at program start-up. The PMT will work with representatives from Divisions in the TRBH – Human Resource, Disease Control, Medical Administration (includes Science, Technology and Education), Rural Health, Finance, MCH and Community Health and Emergency Response Office. Other Divisions may be added when additional technical priority areas have been confirmed. The PMT will meet regularly to assess progress, identify barriers, and ensure that activities are consistent with GOTAR priorities, that they feed into the development of annual plans and ensure that the program remains responsive.

3.2 Roles and Responsibilities of key groups

The management stakeholders in THPCBP are MOFCOM, DOFCOM, TRHB, AusAID and the Managing Contractor.

MOFCOM

MOFCOM's main responsibility is as Central coordinating agency for the program, ensuring that program activities are occurring in line with national policies and agendas.

DOFCOM

DOFCOM's main responsibility is as Regional coordinating agency for the program.

TRHB

TRHB is the counterpart organisation for the program. It will nominate a senior manager who will coordinate TRHB's inputs into the program, and TRHB's engagement to meet the following responsibilities:

- effective and efficient communication with GOTAR and the MC;
- promote internal TRBH and other GOTAR government agency coordination and reporting;

- seek advice on the program strategy and approaches from relevant local and national departments, or assist the MC with introductions and advice to obtain it;
- integrate the program's M&E and research activities into TRBH M&E and research, participating actively in all levels of M&E of the program;
- ensure the program's engagement in TRBH planning and coordination activities;
- ensure TRBH regular participation as a standing member of the PCC; and
- act on recommendations from the PCC.

AusAID

AusAID will identify an activity manager for all aspects of the program. This person will coordinate AusAID's inputs to meet the following responsibilities:

- effective and efficient communication with AusAID and the MC;
- joint appointment with MOFCOM of additional members of the PCC;
- internal AusAID coordination and reporting plus financial management, including advice on annual allocations;
- seek advice on program activities from other relevant AusAID sectoral programs, or assist the MC to obtain it;
- ensure AusAID's participation as a standing member of the PCC (refer Section 3.1.3);
- monitor and report on the performance of the MC and a Technical Advisory Group (TAG) (if appointed);
- act on recommendations from the PCC; and
- manage the contracts with the MC and the TAG.

The Managing Contractor

The MC's responsibilities include:

- Selecting and managing a team of key Advisers;
- Preparing reports and other documents for AusAID;
- Supporting the TL in country; and
- Ensuring MC attendance at PCC meetings.

Detailed management arrangements are found at Annex I.

3.3 Implementation Plan

3.3.1 Program management

The following are key activities that will occur in the first few months of the program:

(i) Program offices will be established, with appropriate staff, equipment and administrative systems in place.

(ii) The MC will ensure that the program team and counterparts are well prepared and resourced.

(iii) Orientation programs are in place for all personnel pre-departure and on arrival in TAR.

(iv) An Orientation Workshop brings together key stakeholders to: build relationships between AusAID, the implementation team and GOTAR partners; provide support for GOTAR leadership and ownership including for meaningful participation in technical analyses and planning for Year 1, clarify roles and responsibilities; discuss the focus on gender in the program; and introduce the role of M&E in the program.

(v) Rigorous management, financial, and administrative systems are established to support the smooth implementation of the program. These systems conform to AusAID requirements and those of GOPRC and GOTAR.

(vi) The program includes likely procurement of a range of equipment. The program team undertakes all procurement, adhering to the Australian Commonwealth Procurement Guidelines. The PCC and/or another appropriate decision making group makes procurement decisions, based on meeting minimum standards and evidence of greatest need, and including appropriate other criteria:

- Equipment meets priority needs of health services with least resources, and supports essential service provision;
- Staff have skills to effectively operate the equipment, or are provided with sufficient training to use the equipment effectively;
- The equipment selected represents good value for money, including for ongoing maintenance and repairs; and
- Agreed arrangements for ongoing equipment maintenance and repair are in place.

(vii) Confirm a strategically oriented annual plan/program implementation plan setting a clear direction for Year 1.

(viii) Develop and implement program monitoring, evaluation and reporting systems, initially holding an M&E workshop, and undertaking an evaluability assessment[54] at which time indicators are verified and additional indicators identified, facilitated by the M&E Adviser.

3.3.2 Implementation of the technical program

The detailed Implementation Plan is found at Annex J. A Year 1 Annual Plan will need to be finalised by the end of the second quarter of the first year. With respect to timing of activities, flexibility will be required in the first instance to accommodate the constraints that the winter months impose on implementing program activities, as they are scheduled in the PDD. This is dependent on when mobilisation occurs, and adjustments will need to be made accordingly. This will apply particularly to activities under Outputs 1.1 and 1.3, and associated Outputs 1.2 and 1.4.

There are fewer dependencies in Component 2. It is proposed that Activities under Output 2.1 commence quickly. This is in response to the request by the TRBH that the design identify some activities that can start early. Output 2.1 is not dependent on activities within other Outputs, but the constraints of winter weather on program delivery will have to be recognised.

This is also the case for Output 2.2.

Output 2.3 is to an extent dependent on the development of Guidelines in Output 2.2, as well as on TNA. It will therefore follow the main activities of Output 2.2. Should there be slippage in Output 2.2, elements of Output 2.3 can be informed in the first instance by separate TNA, but this is not the preferred approach.

[54] *Evaluability assessment* is the process of assessing whether a program or project is capable of being evaluated. Glossary of M&E Terms. Prepared by the Evaluation Technical Working Group of the Joint United Nations Programme on HIV/AIDS (UNAIDS) Monitoring and Evaluation Reference Group. June 2008

3.4 Monitoring and Evaluation (M&E) Plan

3.4.1 Approach to M&E

M&E will be lead by an M&E Team comprising one CSTA and one International STA. They will be responsible for establishing the mechanisms for measuring achievements of the program together with counterparts from TRBH and other key TAR institutions. They will involve the TRBH and other CLTAs in evaluation through active engagement in all levels of M&E activity. Active and targeted involvement of TRBH will help to build ownership and understanding of the role of evaluation in the program, and may help to overcome some of the difficulties in accessing information that THSSP experienced.

The intention of the overall approach will be to make use of current data/indicators where these are available and appropriate; and to aim to have any monitoring activity embedded in system improvement so that it can be used to improve performance of individuals, teams and organisations during the lifetime of the program and beyond. As such, the approach to monitoring will be inclusive and based on involvement of, and timely feedback to, staff and management to enable them to reflect on practice, and change practice.

Capacity will be built into the M&E Framework to monitor cross cutting issues such as gender (essential) and environmental impact issues, should they emerge.

3.4.2 Performance indicators and outcomes

Key Performance Indicators (KPI) to monitor outcomes and outputs

The program budget is adequate for a reasonable quality and range of M&E activities. The overall approach to program monitoring and evaluation is comprehensive. Evaluation will be used as a continuous quality improvement tool, to ensure (i) a clear and strategically oriented program (ii) ongoing technical analyses as relevant and required; (iii) feedback to stakeholders and participants, for reflective management and changed practice; and (iv) program impact.

Monitoring and evaluation methods are selected based on relevance, cost-effectiveness, common sense, and available resources. The approach to monitoring outcomes and outputs will be refined at commencement of the program (during evaluability assessment) when fuller assessments can be made about the feasibility of using the indicators discussed below.

At the **goal** level, the objective is to improve the health of the people of Tibet. The indicators to be used are **reduced maternal mortality,** and **reduced infant mortality**. These have been selected as verifiable proxy indicators of a better managed health system specifically because: (i) MCH is a critical area for the TAR which has the worst indicators for this health outcome in China; (ii) clinical areas for improvement in Component 2 are likely to include MCH as a result of initial assessments of need; (iii) MCH is where one can measure achievements over a relatively short time period; and (iv) These data are routinely collected by TRBH so it is measurable. Whist it is recognised that other factors can contribute to improvements in these indicators, they are considered to be valid measures of service delivery efficiency and effectiveness. However, while achievement of the Goal will not be measured directly by the program, attempts will be made to assess the program's contribution to changes (if any) in these indicators as distinct from direct attribution e.g. in pilot sites.

At the **purpose** level the indicators to measure what success will look like will be **improved resource allocation** (efficiency) and **reduced case-fatality rates in pilot sites** (effectiveness and quality). The indicator "improved resource allocation" will need to be clearly defined at program start-up. "Resource allocation" includes health institution, beds, personnel, professionals, and health expenditures, etc, which can be found directly in the Yearbook or TRBH HIS. These could then be synthesized into one indicator, or each used separately to reflect "resource allocation"

Changes expected as a result of the combined achievements of the two program components will include:

- Services will be planned and occurring regularly, and resource allocation will reflect health needs and the relative burden of disease (factors contributing to morbidity, mortality);
- Appropriately skilled staff will be providing services;
- Services will incorporate agreed standards;
- Better health outcomes for patients will be reflected in reduced case fatality rates; and
- HR policies will have improved service delivery and access through staff distribution, performance and training.

At the **Component** level, the objective of **Component 1** is to improve the HR management practices at strategic and operational levels. Potential indicators include:

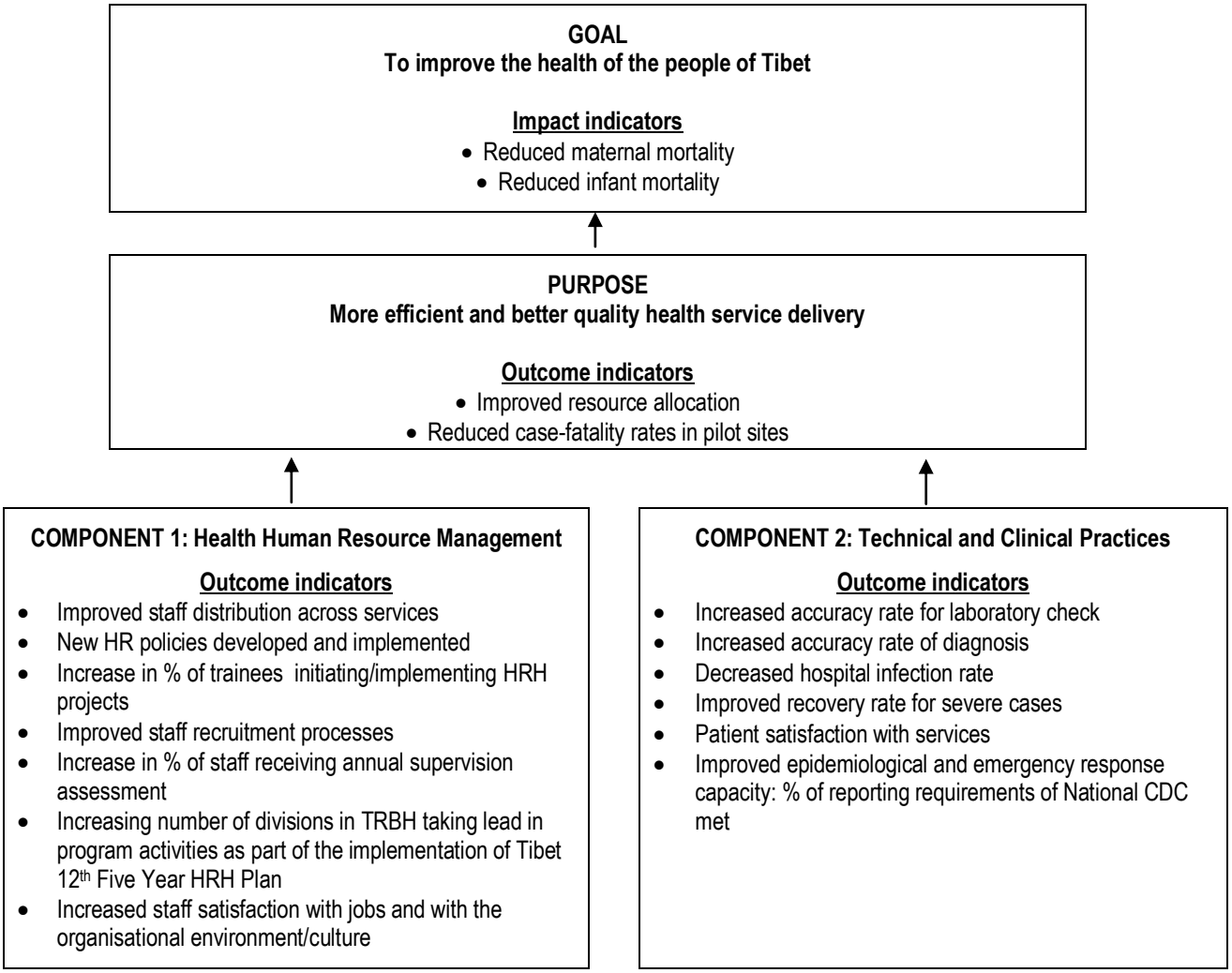
- Improved staff distribution across services
- New HR policies developed and implemented
- Increased % of trainees initiating/implementing HRH projects
- Improved staff recruitment processes
- Increased % of staff receiving annual supervision assessment
- Increasing number of divisions in TRBH taking the lead in program activities as part of the implementation of Tibet 12th Five Year HRH Plan
- Increased staff satisfaction with jobs and the organisational environment/culture

The objective of **Component 2** is to improve the priority technical and clinical practices of the workforce in pilot sites. Potential indicators include:

- Increased accuracy rate for laboratory check;
- Increased accuracy rate of diagnosis;
- Decreased hospital infection rate;
- Improved recovery rate for severe cases;
- Patient satisfaction with services; and
- Improved epidemiological and emergency response capacity: % of National CDC reporting requirements met.

Figure 4 provides a summary of the progression of achievements from the component level through to purpose and goal, highlighting the logic of progression from "lower" to "higher" levels of achievements or outcomes.

Figure 4: Hierarchical progression of indicators to measure achievements from the objective level, through to purpose and goal



At the **Output** level, the indicators selected are set out in Table 6 below.

Table 6: Outputs and their indicators

Output		Indicators
Component 1		
Output 1.1	Capacity building in HHRM undertaken for Bureau managers at regional level:	• Comprehensive capacity building completed
Output 1.2	Follow up support to Bureau managers at Regional level to implement improved HHRM knowledge and skills:	• Supportive follow-up occurring • HR policies, procedures informed/ developed by project research
Output 1.3	Capacity building in health management undertaken for Bureau managers at prefecture/county level:	• Comprehensive capacity building completed
Output 1.4	Follow up support to Bureau managers at prefecture and county level to implement improved health management knowledge and skills:	• Supportive follow-up occurring • HR policies, procedures informed/ developed by project research
Component 2		
Output 2.1	Training of prefecture CDC laboratory staff	• Training to lab staff completed

Output		Indicators
	conducted:	
Output 2.2	Guidelines for County Hospital and Township Health Centre developed:	• Finalised County Hospital and Township Health Centre Guidelines • New service items developed
Output 2.3	A pool of technical health trainers developed:	• Trainers trained
Output 2.4	Training of technical staff for identified priority areas conducted:	• Training completed in identified areas
Output 2.5	Building preparation and response capacity for containing infectious disease outbreaks	• Simulation exercises undertaken • Any infectious disease outbreak quickly contained

Data sources

Where possible, data will be collected from existing GOTAR data sources, but it is recognised that there are limitations in relying on this source, both in terms of data availability and in capacity to collect data on a systematic basis. At the goal level it is anticipated that only small changes in the indicators will occur over the five years of the program. During the start up phase additional appropriate change indicators, based on the assessment of the M&E Team with counterparts, may be developed for goal, purpose and component levels. Additional sources of data across the life of the program will be interviews and case studies; these are discussed in more detail in the next three sections.

The following table identifies data collection requirements at the goal, purpose and component levels, and thus resource implications for undertaking baseline studies and end-of-program evaluation. The details of this table will be confirmed during the evaluability assessment at program start-up at which time some indicators may be deleted or replaced with others. That assessment will also clearly identify the role that counterparts will play in the M&E exercise. Hence, as part of the evaluability assessment this table will be expanded upon to include roles and responsibilities, resource requirements, etc.

Table 7: Sources of data for goal, purpose and component level indicators

Program level	Impact/Outcome indicators	Sources of data to measure outcome
Goal: To improve the health of the people of Tibet	• reduced maternal mortality • reduced infant mortality	TRBH HIS
Purpose: More efficient and better quality health service delivery	• Improved resource allocation • Reduced case-fatality rates in pilot sites	• TRBH HIS; Yearbook data collection • Health facility data
Component 1: Health Human Resource Management (HHRM)	• Improved staff distribution across services • new HR policies developed and implemented • increased % of trainees initiating/ implementing HRH projects • Improved staff recruitment processes • Increased % of staff receiving annual supervision assessment • Increasing number of divisions in TRBH taking lead in program activities as part of the implementation of Tibet 12th Five Year HRH Plan • Increased staff satisfaction with jobs &	• Workforce surveys • Facility surveys, records • Trainees' surveys; HR surveys; case studies • Case studies • HR records • HR records • Case studies • Staff satisfaction survey

Program level	Impact/Outcome indicators	Sources of data to measure outcome
	organisational environment/culture	• Most Significant Change stories
Component 2: Technical and Clinical Practices	• Increased accuracy rate for laboratory check • Increased accuracy rate of diagnosis • Decreased hospital infection rate • Improved recovery rate for severe cases • Patient satisfaction with services • Improved epidemiological and emergency response capacity: % of reporting requirements of National CDC met	• Facility surveys in pilot sites • Laboratory surveys, records • TRBH HIS; Yearbook data collection • TRBH HIS; Yearbook data collection • TRBH HIS; Yearbook data collection • Patient satisfaction survey in target program facilities • National CDC reporting checklist • Case studies

Data collection methodologies, including baseline data

Activity evaluation will be critical where the program is hoping for regional roll out of an activity, for example, for the county hospital guidelines. Both quantitative and qualitative data will be used in developing methods of assessment of the immediate impact of the program. Existing sources of data will be used where possible e.g. the source of Yearbook data, facility records, HR records. However, the evaluability assessment exercise will need to verify these sources of data including Yearbook data indicators. THSSP reported on patient and staff satisfaction (THSSP Activity Completion Report [ACR]), but detail of the survey instruments was not found. These need to be followed up as they may be useful for further application in this program.

Trainees' survey will be used in order to measure the effect of the training. When one training class is completed, the trainees will be asked:

- Was the content you have learned useful for your work?
- Do you want to use the method or what you have learned in your institution?

If the answers are "yes", following up with HR surveys and case studies will provide further data.

Case studies will be used in order to capture the context and complexities of the pace of change in managerial and technical and clinical practice. A modified Most Significant Change Approach should also be considered; this was used by the THSSP and has potential to reveal the assessment of key individuals and stakeholders who are involved in the change process. Key issues to cover in the Most Significant Change approach would be:

- What were the most important changes engendered by the program?
- What other changes were noted?
- Did the answers to those two questions vary from year to year and between different levels in the health system? (Individual and organisational)
- What were the impact, outcome and capacity changes? (Impact refers to health status, outcome refers to performance of the system and organisations; and capacity to changes in the various determinants of organisational and systems capacity)
- Will program activities be sustained without external inputs?

Such a mixed methodology approach will provide scope for feedback and reflective management and practice, and will give rich data which could also be used in a compendium of "success stories". This was a requirement of TAR counterparts during early discussions of the program design process.

To ensure a clear, relevant, and appropriate M&E Framework, the major inputs of the M&E Team during program start-up will be to contribute to: (i) the selection and design of technical analyses, including baseline data; and (ii) evaluation of the Logframe and indicators to ensure that they are true indicators of the stated objectives (evaluability assessment). The M&E Team will also work with key stakeholders and beneficiaries to identify M&E needs over the life of the program, and for the annual planning phase; in this activity one objective will be to ensure that there is transfer of evaluation skills, and "buy in" from country counterparts.

The approach to M&E in this program differs from the approach taken in THSSP in that it will use existing (TAR, National) data collection instruments together with program specific data collections. It will also focus on building interest within the TRBH to adopt new monitoring tools to become regular TRBH assessment tools.

Monitoring and evaluating cross-cutting issues

Gender: Gender will be a focus throughout the program, and responsibility for monitoring gender equity in the program will occur at various times:

- During the annual planning process, in order to monitor strategies, monitor progress towards targets and gender impacts, and to review strategies and targets;
- During PCC meetings to review project design strategies and resource needs in the light of progress towards milestones and gender impacts
- During program evaluations and reviews, to assess the progress, efficiency, effectiveness, impact and sustainability of particular projects and programs, including from a gender perspective.
- Particular gender perspectives to be monitored and evaluated will include: men and women entering management roles; gender participation in succession planning (if relevant); gender distribution in TOT training. Other indicators can be identified during the evaluability assessment.

Data collection methodologies will be explored at program start-up, which can be both quantitative and qualitative. Case studies will attempt to capture experiences of both men and women as a result of the training to which they have been exposed.

Capacity building: Capacity building cuts across all elements of the program. This can be best captured in case studies; data collection methodologies used in THSSP may also be explored.

Challenges for Monitoring and Evaluation

The program's M&E Framework aims to capture relevant outcome indicators through program activities, but will also use case studies and interviews with key stakeholders. This mixed methods approach builds on the lessons of the THSSP. It is notable that the THSSP final report (ACR) focused on reporting on outcome-level achievements and presented evidence from advisors, reports, key stakeholder interviews and other sources, noting that "Fundamental to the original design of the M&E system was access to TRHB health information system (HIS) for health status data, which mostly proved impossible due to its sensitivity".

The THSSP M&E system therefore utilised annual evaluation interviews of key informants to provide evidence of achievements, drawing from the Most Significant Change evaluation approach. However, an essential difference was that THSSP interviewed individuals rather than relying on focus group discussions normally used in the MSC approach. This was reportedly because "interviewees are at different levels in the hierarchy and experience showed

that staff do not tend to speak out in front of their leaders". The THSSP ACR also made detailed use of selected organisation case studies to provide information on impact and outcomes.

In this new program, an early key contribution of the M&E Team will be to check if proposed indicators are verifiable and that the capacity exists within the system to provide data related to the indicators on a systematic basis across the life of the program.

3.4.3 Reporting requirements

The reporting requirements to be met by the MC include:

(i) Year 1 Annual Plan: provided by the PMT to the PCC.
(ii) Six monthly activity reports: The MC will be responsible for providing six monthly reports to AusAID. These will succinctly summarise progress, major issues, risks and strategies, and progress in implementing program principles. The M&E matrix will provide summary comment on progress against Components and Outputs.
(iii) Annual Reports plus Annual Plans: provided by the PMT to the PCC; annual plans will include a review of the past 6 months; may be adjusted following discussion at the PCC meetings; provide a sound assessment of progress over the preceding year, problems encountered, lessons learned, and management of risks.
(iv) M&E Plan: provided by the PMT to the PCC. This Plan confirms indicators, and provides detail of data collection methodologies, responsibilities for collection of data and analysis, frequency of collection, and approaches taken to capacity building of counterparts in M&E.
(v) An Activity Completion Report (ACR): The ACR is a contractual requirement produced by the MC and provides a balanced assessment of activity performance against design objectives at the completion of the project when AusAID funding ceases.

3.4.4 Other monitoring mechanisms

In addition to routine reporting, other mechanisms will be in place to monitor progress of the program, including:

(i) PCC meetings: the PCC will meet twice in year 1 and annually thereafter to review progress and provide strategic direction to the program.
(ii) Technical Advisory Group (TAG): A TAG will provide advice to AusAID and MOFCOM. Three TAG visits will be conducted during the program (in Year 2, Year 3 and Year 4). The TAG will consult widely, assess program technical and monitoring reports, and review progress against the logical framework and the M&E framework, including progress of capacity building. The TAG will involve MOFCOM, TRBH and AusAID along with external experts, and will occur just prior to PCC meetings so as to bring its findings to that meeting.
(iii) Independent Progress Report (IPR): This is a Mid Term Review (MTR) which will occur within the first four years of the program. The key objectives of the MTR will be to assess program progress, review the appropriateness of the program design in view of any relevant changing circumstances, and assess the lessons learned and local absorptive capacity.
(iv) Independent Completion Report (ICR): the ICR is undertaken by an independent team in Year 5 using data found in program documents and reports and information provided by key stakeholders and beneficiaries.

More detail on M&E is found at Annex K.

3.5 Sustainability

3.5.1 Definition of sustainability

In the context of donor-funded development programs and projects, sustainability can be defined as: *the continuation of benefits after major assistance from a donor has been completed.*[55] For this program discussion of sustainability requires an examination of the capacity of the TAR, without further external assistance, to support sustained capacity building of its clinical and managerial workforce, and implementation of standard management procedures.

Sustainability must consider three key areas: technical, financial and institutional sustainability.

Program activities are designed to support national and regional priorities and plans, including the implementation of elements of the TAR 12th Five Year HR Plan. Capacity building and skills transfer is a key focus for the program. Individual and team support and mentoring is provided to management development program participants. Train-the-trainer is used to build up sustainable capacity for training and development in TAR. Activities are development oriented and grounded in the fiscal realities of GOTAR; they are intended to have long-term affordability for TAR. Recurrent budget implications of program activities are minimised and are formally agreed by GOTAR, before inclusion in annual plans. There is emphasis on activities that have scope for adaptation and wider application. A further discussion of the program's approach to capacity building is found at Annex L.

This approach is supported by program principles and by other design features including:

- Extensive consultation with counterparts during the feasibility, design, pre-tendering, and tendering phases.
- The implementation of the program will be based on consultation and technical analyses to emphasise responsiveness to GOTAR needs and GOTAR ownership and leadership.
- The emphasis on appropriate development skills in the program team.
- Component 1 and Component 2 with linked objectives, to promote health system synergy and sustainable system change.

3.5.2 Evidence of likely sustainability

A number of factors suggest that the program impact will be sustained beyond the period of external funding. These include:

- TRBH "buy in" to all the program and its Principles;
- Government commitment and leadership evident throughout the design period;
- Management arrangements that support TRBH leadership across a variety of divisions for implementing activities, improving the likelihood of activities being rolled out and institutionalized across TAR;
- Commitment to improving human resources;
- Commitment to improving human resources management capacity
- Opportunities for career progression as a result of the program activities;

[55] AusAID. Promoting Practical Sustainability. Australian Agency for International Development (AusAID), Canberra, September 2000

- Significant use (and greater than THSSP) of Chinese Advisers to establish sound working relationships with the TRBH and service providers; and
- Clear support to GOTAR and GOPRC policies.

3.5.3 Evidence that sustainability could be compromised

Technical and financial sustainability is hard to predict after five years but could be compromised by:

- No clear demonstration that TAR funds will be available for continuing education for its workforce;
- No clear demonstration that central government funds will be managed appropriately; and
- Insufficient progress on, or TAR support for, activities intended for broader application, e.g. development of a training pool, development of guidelines for county and township health services.

3.6 Gender

China has a long tradition of promoting equality of opportunity for women, and official gender policies have been implemented for several decades. Consequently, national policies promoting equal opportunity for women, the protection of women's rights and promoting the role of women in government administration filter down through the various layers of government. By way of example, the document Women's Development Plan for Lhasa Municipality (2001-2010) sets out strategies to encourage the participation of women in economic and social development of the Municipality.

The goal of AusAID's gender policy[56] is to *reduce poverty by advancing gender equality and empowering women*. As an overarching principle, gender equality is addressed through each of the Aid program's four themes. For each theme, the policy has a corresponding gender outcome:

AusAID program themes	Gender equality outcomes
Accelerating economic growth	Improved economic status of women
Fostering functioning and effective states	Equal participation of women in decision making and leadership including in fragile states and conflict situations
Investing in people	Improved and equitable health and education outcomes for women, men, girls and boys
Promoting regional stability and cooperation	Gender equality advanced in regional cooperation efforts

This program will clearly support achievement of the first three of AusAID's four gender equality themes by ensuring that men and women have equal opportunity to participate in capacity building initiatives, opportunities to improve decision making and leadership capabilities, and improved technical and clinical skills that will result in better health care provision to both males and females.

A gender perspective will be promoted in all relevant activities of the program. The program will ensure that the different needs of women and men are addressed, the program will not

[56] *Gender Equality in Australia's Aid Program – Why and How*. AusAID 2007

discriminate by sex for selection of long- or short-term[57] trainees and that the sexes are represented in program supported activities in the same proportions as they are found in the health services. It is thought that in TAR men generally form a greater proportion of the managerial positions within the health system, while women are more frequently represented in clinical positions.

A more detailed discussion of gender issues in the TAR is found at Annex M.

The gender focus of the program will be included in the first program orientation meeting, and will include discussion about the need for the focus, how it will be addressed in the program, and how it will be monitored. Gender will be "everybody's business". As a starting point the program will ensure that sex disaggregation of training participant numbers has been monitored to ensure representation of men and women that is proportional to their representation in clinical and management areas. Further discussion of monitoring gender within the program is found in Annex K.

3.7 Environmental Impact

The foreseeable impact of the program on the environment is likely to be negligible, and the design as it stands identifies no elements that could potentially affect aspects of the environment that are highlighted for consideration in AusAID guidelines.[58] However, implementers will need to consider issues as they emerge under Output 2.5 which might require consideration. As activities likely under this Output will only be identified as they arise it is not possible to say what they could be at program design stage, but examples could include outbreaks of zoonotic diseases where disposal of animals may be implicated.

3.8 Critical Risks and Risk Management Strategies

Coordination between key stakeholders and implementers: A strong and cohesive PMT led by TRBH will be essential to ensure that the necessary coordination of activities occurs. Continuity of both Chinese and Australian/expatriate team members will contribute to minimising this risk.

Delays in set up of program office and start up meetings/events: The timetable for program action is predicated on timely support to set up office, administration and start up meetings. It will be important to work with stakeholders to maintain timing, and review delivery and impact of start up meetings.

Availability of key groups for training: the program will be providing many capacity building opportunities for a potentially large number of people. It will be important that annual planning identifies when training is to occur and beneficiaries can be supported by management to incorporate these activities into their schedules.

Availability of trainers at required times: annual planning and communication with trainers will contribute to reducing this risk.

Lack of engagement and/or support from key regional stakeholders: The annual planning process, the annual Regional HR Forum, follow-up support and relationship building by members of the PMT will all attempt to reduce this risk.

[57] Short term definition: one who is not engaged for a continuous period of time, but has intermittent inputs
[58] Integrating Environment into Aid Activity Design, 2010

Delay in implementation of the TAR 12th Five Year HR Plan and other relevant policies: to reduce the impact of delay of one key activity in the development of the plan on rollout of associated program activities a number of factors are identified: maintaining engagement with key people; and negotiating involvement in the implementation process itself.

Scope to influence change: There may be systems barriers that impede implementation in the workplace of what is learned. This needs to be monitored as part of the M&E of the program, and the PMT use its regular coordination mechanism to negotiate addressing those barriers.

Imbalance between demand and supply mechanisms: if all elements of the demand/supply framework are not simultaneously being addressed by TRBH and the TAR then the likely impact of this program will be compromised.

Unanticipated disease outbreaks diverting staff from involvement in program: the occurrence of outbreaks is out of the control of the program; the flexibility that is inherent in the program will permit rescheduling activities should that be needed.

Lack of full engagement of some pilot sites: Motivation as a site selection criterion will minimise this risk.

Quality of existing data collections: Quality of existing data collections for M&E may be of poor quality and difficult to change. Ensure key advisers' relationships with counterparts are strong to engender trust.

Altitude sickness: All program stakeholders and staff from outside the TAR will be advised of precautions to take in order to minimize the risk of altitude sickness.

The Risk Management Matrix is found at Annex N.

Annexes

Annexes are found in Volume 2