Data Collection Survey on Health Sector

Country Report
Republic of the Union of Myanmar

October 2012

Japan International Cooperation Agency
(JICA)

KRI International Corp.

TAC International Inc.

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Exchange Rate

US$ 1=854.30 Myanmar Kyat

（JICA rate, July, 2012）

This report is prepared to support JICA's country operation in health through strategic programming. The contents, however, may need to be supplemented with the latest and more detailed information by the readers since the report is mainly based on literature review and not on field study, with the exception of some countries.

Foreword

Background

The current situation surrounding the health sector in developing countries has been changing, especially at the start of the 21st century. Based on the recommendations from the concept of "Macroeconomics and Health"[1], development assistance for health has greatly increased to accelerate efforts to achieve the Millennium Development Goals (MDGs) by 2015. The development assistance for health has risen sharply from USD 10.9 billion to USD 21.8 billion in 2007[2]. Moreover, development assistance was harmonized by the common framework developed at the three consequent high-level forums in Rome (2003), in Paris (2005) and in Accra (2008).

Regardless of such favorable environmental changes for the health sector in developing countries, the outcomes do not seem to reach the level of expectation in many countries. Many developing countries, particularly Sub-Saharan African countries, will not achieve some of their MDGs 4 (Reduce child mortality), 5 (Improve maternal health) and 6 (Combat HIV/AIDS, malaria and other diseases) by 2015. Therefore, while raising more money for health is crucial for lower-income countries striving to move closer to universal coverage[3]; "More Money for Health[4]", it is just as important to get the substantial health gains out of the resources available; "More Health for Money[5]". Efficiency is a measure of the quality and/or quantity of output of services for a given level of input, and improving efficiency should also be seen as a means of extending coverage for the same cost and the improved health outcomes.

Considering this situation surrounding the health sector in developing countries, in a recent movement of its development assistance work, JICA has been working on country-based analytical work. This consists of macro level and sector wide analytical work aiming to clarify JICA's aid direction in each country by looking at priority areas of concern and aid mapping. The purpose of the Data Collection Survey on Health Sector is to contribute to JICA's analytical work efforts. In the past, JICA's analytical efforts were concentrated on the project planning purpose, as a consequence, information gathered in such analytical works were naturally limited to be around the particular projects. It is therefore thought to be important for JICA to conduct a country-based health sector review to gather complete information and analyze the whole sector to learn about the situation of the country and identify high priority problems and issues to be tackled in the health system.

Objectives of the Study

The key to the formulation of a good project is having conducted thorough sector reviews. Good sector reviews and analyses help us to understand the health situation and its determinants, and the capacity for health project implementation in the countries. They also help us to contribute to the countries for identifying the feasible projects in the context of priorities and developing the necessary policies and strategic planning for the health service delivery. It is also necessary to conduct such health sector review studies on a regular basis in order to develop and implement effective and efficient health projects. Based on this concept, JICA decided to carry out the sector review studies of 23 selected countries. The objectives of the sector review are to give recommendations to JICA on the aid direction for the health sector in each country, and to improve strategic approaches and the efficiency of aid cooperation.

Structure of the Report

The health sector study country report consists of seven chapters. Chapter 1 is the summary of the socio-economic situation of each country. Chapter 2 is an analysis of the national health policy, strategic approaches, and plans. Chapter 3 describes the health situation of each country to show the priority health problems by using health information and data. Chapter 4 is an analysis of the health service delivery function of each country, while Chapter 5 is an analysis of other functions of the country's health system namely: human resources for health, health information systems, essential medical products and technologies including the health facilities, health financing, and leadership and governance. Chapter 6 is an analysis of the development partners' assistance and cooperation. Based on the above analysis, Chapter 7 provides recommendations to JICA on the strategic areas of cooperation and its approaches.

[1] WHO announced "Macroeconomics and Health: Investing in Health for Economic Development" in December, 2000. This regards Health is an intrinsic human right as well as a central input to poverty reduction and socioeconomic development and the process helps place health at the centre of the broader development agenda in countries.
[2] Ravishankar N., Gubbins P. Cooley J.R., et. al; June 2009; Financing of global health: tracking development assistance for health from 1990 to 2007; the Lancet 373:2113-2132
[3] According to WHO, Universal coverage (UC) is defined as ensuring that all people have access to needed promotive, preventive, curative and rehabilitative health services, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship. (http://www.who.int/health_financing/universal_coverage_definition/en/index.html)
[4] In the World Health Report 2010 (WHO), the report advocates it with the following concrete three suggestions as the requirements; 1) Increase the efficiency of revenue collection, 2) Reprioritize government budgets, and 3) Innovative financing. As the forth suggestion, it advocates increasing development aid and making it work better for health.
[5] The World Health Report 2010 also suggests the needs of improving the efficacy in the health systems and eliminating the inefficiency/waste will enable the poor countries to improve the availability and quality of the services.

Abbreviation and Acronyms

3DF	Three Disease Fund for AIDS, Tuberculosis and Malaria in Myanmar
3MDGF	Three Millennium Development Goal Fund
ACT	Artemisinin-based Combination Therapy
AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-retroviral Therapy
ASEAN	Association of Southeast Asian Nations
AusAID	Australian Agency for International Development
CCM	Country Coordinating Mechanism
DAC	Development Assistance Committee
DFID	Department for International Development
DG	Director General
DOH	Department of Health
DOTS	Directly Observed Treatment Short-course
DMS	Department of Medical Sciences
DPT	Diphtheria, Pertussis, Tetanus
DHP	Department of Health Planning
EPI	Expanded Immunization Programme
EU	European Union
FRHS	Fertility and Reproductive Health Survey
GAVI	The Global Alliance for Vaccines and Immunization
GNI	Gross National Income
HA	Health Assistant
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IDU	Injected Drug Users
IHLCA	The national-wide Integrated Household Living Conditions Assessment
IMF	International Monetary Fund
IRS	Indoor Residual Spraying
ITN	Insecticide-Treated Mosquito Net
JICA	Japan International Cooperation Agency
LHV	Lady Health Visitor
LLIN	Long Lasting Insecticide-Treated Net
MARC	Artemisinin Resistance Containment in Myanmar
MCH.C	Maternal and Child Health Centre
MDG	Millennium Development Goal
MDR	Multi Drug Resistance
MICS	Multiple Indicator Cluster Surveys
MMA	Myanmar Medical Association
MOH	Ministry of Health
MSF	Medecins Sans Frontieres
MSM	Men who have sex with men
NAP	National AIDS Program
NCSMMS	Nationwide Cause-Specific Maternal Mortality Survey
NCHS	National Center for Health Statistics
NGO	Non Governmental Organization
NHC	National Health Committee
NSP	National Strategic Plan on HIV/AIDS
NTP	Natinoal Tuberculosis Programme
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
ORT	Oral rehydration Therapy
PHS	Public Health Supervisor
PMTCT	Prevention of Mother to Child Transmission
PSI	Population Service International
PPM	Public Private Mix
RDT	Rapid Diagnostic Test

RHC	Rural Health Centre
SBA	Skilled Birth Attendant
Sch.HC	School Health Center
SEAR	Regional office for South-East Asia（WHO）
SHC	Sub-rural Health Center
SLORC	State Law and Order Restoration Council
SPDC	State Peace and Development Council
TB	Tuberculosis
TMO	Township Medical Officer
TSG	Technical and Strategy Group
UHC	Urban Health Centre
UNAIDS	The Joint United Nation Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VCCT	Voluntary confidential counseling and testing
WHO	World Health Organization

Source: http://www.freemap.jp/blankmap/ (Accessed on 1st October, 2012)

Republic of the Union of Myanmar

Summary

1. Although widespread pro-democracy demonstrations throughout Myanmar in 1988 brought an end to the 26 years rule of a socialist government, the military government gained control over the country. Due to the delay of democratisation, the US, EU countries, and Australia have imposed economic sanctions against the country. With the recent progress in democratisation, especially with the 2012 April elections, it is expected that the international community will reduce economic sanctions and actively assist the country in its socioeconomic-development while the government implements economic and other reforms.

2. The Myanmar government has formulated five-year national development plans since the fiscal year 1992, summarising each ministry's five-year business plan and acting as a response to many of the Millennium Development Goals (MDGs). In the newly approved 2008 Constitution, which is the foundation for health policy initiatives of the government, the government assures the improvement of public health and enactment of necessary laws. A national health policy, Myanmar Health Vision 2030, and the National Health Plan (2006-2011) were formulated and strategic plans for child health, reproductive health, HIV/ AIDS, malaria, and tuberculosis independently developed. In terms of achieving the main MDGs in the health sector, there is a need for further efforts to achieve the targets of infant mortality rate, under-five mortality rate and maternal mortality ratio. Regarding statistical information such as health indicators, IMF and WHO have pointed out difficulties in the establishment of a health management information system (HMIS) and the timely dissemination of health information in activity reports.

3. Child mortality in Myanmar is the highest in the region, second only to Cambodia in Southeast Asia. Regarding infectious diseases, the adult HIV prevalence rate in Myanmar is the highest, second only to Thailand. Similarly, the malaria infection rate ranks first in the region, second only to East Timor. The prevalence rate of tuberculosis is the 4th highest after Cambodia, Timor, and the Philippines. The maternal mortality rate also ranks high after Laos, East Timor, Cambodia, and Indonesia. Among the top causes of deaths in 2008, infectious and parasitic diseases rank the highest (26.7%), followed by cardiovascular disease (16.2%), injuries, accidents, addiction, and trauma (10.5%). The cause of the death originating in the perinatal period accounted for 10.3% of total deaths.

   In terms of the leading causes of morbidity, the rate of infectious and parasitic diseases also ranks first (20.5%), followed by complications from pregnancy, childbirth, and postpartum (16.1%). Along with morbidity from certain conditions originating in the perinatal period (4.1%), the morbidity rate of the maternal health is equal to that of certain infectious and parasitic diseases. More than 50% of deaths of neonates (babies aged less than 28 days) are caused by prematurity and birth asphyxia, which can be avoided with appropriate measures being applied during deliveries. There are noticeable gaps in maternal mortality ratios and child mortality rates among the regions/states. The statistics shows that the situation of maternal and child mortality in the Central Plates is the worst in the country.

4. In terms of infectious diseases, the numbers of malaria deaths have decreased due to the increased availability of Rapid Diagnostic Test and Artemisinin-based Combination Therapies (ACTs). Regarding HIV/AIDS, it is reported that the HIV prevalence among adults (15 to 49 years old) is 0.53%, while 1.1% of pregnant women using antenatal facilities have tested HIV-positive. UNAIDS and WHO define a "generalised epidemic" as a situation in which HIV prevalence exceeds 1% among pregnant women attending antenatal clinics. Myanmar falls into the category and effective HIV prevention efforts are continuously needed. HIV prevention Programmes have been focusing on the high-risk populations such as sex workers, men who have sex with men (MSM), and injecting drug users in recent years.

Co-infection with HIV and MDR TB will be a major issue in the future. Also, an alarming increase in the numbers of co-infections with TB and HIV is expected in the near future. Only 3% of TB patients received HIV tests, thus scaling up the HIV tests for patients, including those with TB, is required. As for HIV treatment, the number of people living with HIV who receive ART is the lowest in the region, while newly detected TB cases and MDR TB cases are the highest among the neighbouring countries. Both TB detection and notification rates are high and treatment success rates are maintained at more than 70% since 2000. Seasonal epidemics of dengue fever are observed and tend to increase in the regions of Yangon, Mandalay, Bago and Mon State. Although leprosy is under control, it requires continuous prevention programmes and improved quality services. Non-communicable diseases, such as heart diseases with high risk factors of hypertension, smoking, diabetes, high salt intakes, obesity, and hyperlipidaemia are also becoming increasingly problematic and must be closely observed. The number of cancers has increased in recent years as well.

5. In Myanmar, the number of pregnant women who visited ANC more than four times is higher than that in neighbouring countries, but only 64% of births received assistance at delivery from health professionals, and only 23 of those deliveries occurred at the health facilities. A 2007 survey report shows that 62% of the maternal deaths occurred at home. Although the utilisation of ANC looks better, the maternal mortality has not improved yet. This is caused by the vicious cycle of poverty, inadequate transport system, and poor quality of health care. 45% of under-five mortality is caused by pneumonia and diarrhoea. The 2007 survey report states that 51% of children with diarrhoea who were transported to health facilities received ORT, while 17% of children with diarrhoea received ORT outside of the health facilities. Regarding the treatment for pneumonia, UNICEF reports that 66% of children were suspected to have pneumonia in 2011, however it is not clear how many of them were treated with antibiotics. Although under-five mortality caused by malaria is high in Myanmar, INT distribution rate was only 5% in 2010, whilst Cambodia and Laos, where malaria is as much a problem as in Myanmar, distributed 28% and 19% ITN respectively. EPI programmes have been implemented at nearly 90%, however, the measles immunisation coverage for children under the age of 1 has decreased among the poor and in the reported areas. There are notable gaps among the regions and states.

6. Although WHO recommends that 23 health professionals need to be placed per 10,000 population in order to provide adequate coverage of primary health care services, in Myanmar 13 health professionals are placed per 10,000. In Myanmar approximately 70% of the total population live in rural areas and the majority of basic health services are provided at health facilities such as Rural Health Centres, Sub-rural Health Centres, Urban Health Centres, School Health Centres and Maternal and Child Health Centres while people who need special care are referred to Station Hospital, Township Hospital and District Hospital. Doctors and nurses are placed at the hospitals only and many local health care facilities have only midwives. Midwives receive only 1.5 years education whereas a nurse receives a four-year university or three years technical school education. In order to reduce child mortality, the strengthening of referral services to the hospital in which sick children can receive the required treatments for such as bronchitis, pneumonia, diarrhoea is urgently required. At the same time, there is an urgent need to strengthen the human resource capacity of the health centres which are in the frontline of the health services, and to improve the quality of the health service at the health centres. Assessing the conditions of the health infrastructure and extending reliable and efficient basic health services are key issues.

7. With respect to health financing, the status of total health care cost per capita, total expenditure on health, total government expenditure on health, household out of pocket spending on health, is worse than those in neighbouring countries. Households suffer from a very heavy financial burden (81% contributed by household). The shortage of health budget causes a serious shortage of health workforce, lack of

capacities both in technical and administrative/management among health sector professionals, inadequate essential medicines, medical equipment and health facilities and lack of communication and transportation systems. As a result, people are not receiving proper health services. Disparity of health services in regions/states is large There is an urgent need expand the reliable and effective health services, to increase the health workforce and to improve the health infrastructure in the rural areas. In addition, further population influx to urban areas due to job searching is expected, therefore enhancing health services for the poor in the urban area will be a priority in the future. There is a need for research in population trends, epidemiology, and health status of people due to physical and social environmental change in the urban area as a foundation for cost-effective health service supply in the future. It is also necessary to strengthen the capacity of experts in those research areas.

8. Development assistance to Myanmar has changed due to events in the history of internal affairs such as the establishment of the military government, oppression of democratisation, the relocation of the capital, extensive damage by the cyclone, the adoption of a new constitution, and latest movement of democratisation process. As the outcome of recent political changes , it is expected that UN organisations, ASEAN and other regional organisations, bilateral development partners, especially the western countries that imposed economic sanctions, as well as international NGOs, will restart and extend their development assistance in the near future. Currently, the development assistance for the health sector has been implemented through international initiatives in the areas of infectious diseases and maternal and child health. Bilateral assistance provided by Japan so far has been limited. A coordination mechanism among development partners in the health sector will be an important requirement.

9. The biggest challenge in the health sector in Myanmar is the immense shortage in the health sector budget. Because of this, the government and the people are facing many challenges such as deficient quantity and quality of health workforces, lack of administrative/management capacity of implementing the health policies, lack of strategic planning, lack of monitoring the implementation and budget management for the activities of the various health strategic plans, inadequate essential medical supplies and medicines, health facilities, and communication and transportations systems. Since 70% of the population lives in rural areas, basic health services have to be improved in those areas and MDGs in the health sector have to be achieved. It is important to provide appropriate budgets and ensure efficient use for such prospective resources, both internal and external, for the health sector. The Japanese government has been providing development assistance and cooperation to Myanmar. Building on this experience and expertise, the Japanese government, in order to strengthen and expand basic health services in the country, can contribute towards strengthening the management capacity and technical capabilities of health staff.

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Chapter 1 Country Situation

In the Republic of the Union of Myanmar ("Myanmar" hereafter), the socialist government that ruled for 26 years was brought down by a nationwide democratisation movement in1988. The national military suppressed the demonstrations, organised a State Law and Order Restoration Council SLORC) and controlled the government (in 1997, SLORC was reorganised into the State Peace and Development Council, SPDC). Since then, economic sanctions were imposed by western countries. A referendum for the adoption of a new draft constitution was conducted in May 2008, and the president and vice president were elected based on the results of the general election held under the new constitution. The political power was transferred from SPDC to this new administration in March 2011 and the promotion of democratisation began. In response to this, western countries have been in the direction of easing economic sanctions and economic reforms are being implemented in the country.

Table 1-1 shows a comparison of major development indicators of Myanmar and neighbouring countries.

Table 1-1 Major Development Indicators of Myanmar and Neighbouring Countries

Indicators	Myanmar	Vietnam	Thailand	Laos	Cambodia	Japan
Population(2010)	47,960,000	86,930,000	69,120,000	6,200,000	14,140,000	127,450,000
Population Growth Rate(%) (2010)	0.8	1.1	0.6	1.4	1.1	-0.08
Life Expectancy at Birth(2010)	64.7	74.6	74.0	67.1	62.5	82.9
Crude Birth Rate (%) Per 1,000 (2010)	17.3	16.7	12.1	22.8	22.5	8.5
Crude Death Rate (%) Per 1,000 (2010)	8.6	5.2	7.4	6.3	8.0	9.5
GNI per capita (USD)(2010)	N/A	1,160	4,150	1,040	750	41,850
Annual Economic Growth Rate (2010)	10.4	7.4	7.5	5.1	5.4	3.8
Adult literacy Rate	92.0(2008)	92.8(2009)	93.5(2005)	72.7(2005)	77.6 (2008)	N/A
Human Development Index (place out of 187 countries/value (2010)	0.49/149	0.593/128	0.682/103	0.52/138	0.52/139	0.901/12

Source: World Development Indicators, World Bank (March 2012) [1]
Human Development Report 2011, UNDP [2]

Myanmar is located in the west of Indochina and is bordered by Thailand, Laos, India, Bangladesh, and China. It has diverse terrains and is divided into four zones: Northeast and west of Hilly areas, Central Plain, Coastal area, and Delta area between the Bay of Bengal and the Gulf of Andaman. The country has abundant mineral resources such as oil, gas, and coal. Myanmar is made up of 135 ethnic groups, and 100 languages and dialects are used. The seasons are divided into three seasons[6]. The country consists of 14 states and regions[7], 67 districts, 330 townships, 64 sub - townships, 2,891 wards, 13,698 village tracts, and 64,817 villages.

[6] Summer season: mid-February to mid-May, Rainy Season: mid-May to mid-October, Winter season: mid-October to mid-February
[7] Regions were recognized as divisions before April 2011

Chapter 2 Government Policy and Plans

2.1 National Development Policy

2.1.1 Myanmar Constitution 2008

As a foundation for the Myanmar government health policy, the 2008 new Myanmar constitution declares that "the nation shall a) earnestly strive to improve education and health of people and b) enact the necessary law to enable national people to have active participation in matters of their education and health" (Article 28). The constitution further stipulates that the nation will care for mothers and children, orphans, fallen Defence Services personnel's children, the aged, and the disabled (Article 32). Article 351 says: "Mothers, children and expectant women shall enjoy equal rights as prescribed by law", and Article 367 states: "Every citizen shall, in accord with the health policy laid down by the Union, have the right to health care" [3].

2.1.2 National Development Policy

Since the financial year[8] 1992/93, the Government of Myanmar has formulated a five-year National Development Plan that summarised the operational plans of each ministry every five years (with the exception of 1992/1993, which was done after four years). However, those National Development Plans have never been published and the latest version has yet to be finalised because it is still undergoing the National Assembly approval process.

On the other hand, each development sector such as health, education, agriculture, and environment has developed their development plans and has announced them publicly.[9] At the UN 44th Session of Commission on Population and Development on Agenda Item 4 (General debate on national experience in population matters: fertility, reproductive health and development held at New York, April 2011), Myanmar government representatives stated that the main objectives of the National Development Plans are to accelerate economic growth, to achieve equitable and balanced development, and to reduce the socioeconomic development gap among remote border areas, rural, and urban areas of the country. The major aspects of MDGs are covered in the National Development Plans and the National Development Plans while programmes reflect many aspects of the MDGs[10] [4].

2.2 Health Sector Development Plans

2.2.1 National Health Policy

The National Health Policy was developed with the initiation and guidance from the National Health Committee in 1993. The National Health Policy has placed the Health for All goal as its prime objective using the Primary Health Care approach. The National Health Policy is described below:

1) To raise the level of health of the nation and promote the physical and mental well-being of the people with the objective of achieving HFA goal using the primary health care approach.

[8] Fiscal year of Myanmar is from April to March in the following year.
[9] Publication of the latest Health Sector Development Plan has not been confirmed yet.
[10] Statement by Nyi Nyi, Deputy Director, Department of Population 44th Session of Commission on Population and Development on Agenda Item 4: General debate on national experience in population matters: fertility, reproductive health and development, UN New York, April 2011,

2) To follow the guidelines of the population policy formulated in the country.
3) To produce sufficient as well as efficient human resources for health locally in the context of the broad framework of a long-term health development plan.
4) To strictly abide by the rules and regulations mentioned in the drug laws and byelaws which are promulgated.
5) To augment the role of co-operative, joint ventures, private sector and non-governmental organisations in delivering health care in view of the changing economic system.
6) To explore and develop an alternative health care financing system.
7) To implement health activities in close collaboration and also in an integrated manner with related ministries.
8) To promulgate new rules and regulations in accordance with the prevailing health and health related conditions as and when necessary.
9) To intensify and expand environmental health activities including prevention and control of air and water pollution.
10) To promote national physical fitness through expansion of sports and physical education activities by encouraging community participation, supporting outstanding athletes and reviving traditional sports.
11) To encourage medical research activities not only on prevailing health problems but also giving due attention to carry out heath system research.
12) To expand health service activities not only to rural areas but also to border regions so as to meet the overall health needs of the country.
13) To foresee any emerging health problems that would pose a threat to the health and well-being of the people so that preventive and curative measures can be initiated.
14) To reinforce the service and research activities of indigenous medicines to international levels and to involve in community health care activities.
15) To strengthen collaboration with other countries for national health development.

2.2.2 Myanmar Health Vision 2030

The Ministry of Health established the "Myanmar Health Vision 2030" as both the long-term and short-term health development plan and formulated a national health plan every five years. "Myanmar Health Vision 2030" presents directions to tackle health development issues over a period of 30 years (2000-2030) and encompasses national objectives i.e. political, economic and social objectives of the country. The vision is meant to be the framework for health care policies and all development programmes in the health sector in Myanmar. It is concerned with health policies and related laws and regulations, health promotion, health services, human resources of the health sector, the promotion of traditional medicine and research activities, collaboration with private sector, partnership for the health development, and international cooperation.

The following is the major objectives described in "Myanmar Health Vision 2030" and Table 2-1 shows the major indicators of “Myanmar Health Vision 2030".

1) To uplift the Health Status of the people.

2) To make communicable diseases no longer public health problems, aiming towards total eradication or elimination and also to reduce the magnitude of other health problems.
3) To foresee emerging diseases and potential health problems and make necessary arrangements for the control.
4) To ensure universal coverage of health services for the entire nation.
5) To train and produce all categories of human resources for health within the country.
6) To modernise Myanmar Traditional Medicine and to encourage more extensive utilisation.
7) To develop Medical Research and Health Research up to the international standard.
8) To ensure availability in sufficient quantity of quality essential medicine and traditional medicine within the country.
9) To develop a health system in keeping with changing political, economic, social and environmental situation and changing technology.

Table 2-1 Major Indicators of Myanmar Health Vision 2030

Indicators	2001-2002 (Baselines)	2011	2021	2031
Life expectancy at birth (years)	60-64	-	-	75-80
Infant Mortality Rate/1000 Live Birth	59.7	40	30	22
Under five Mortality Rate/1000 Live Birth	77.77	52	39	29
Maternal Mortality Ratio/1000 Live Birth	2.55	1.7	1.3	0.9

Source: Health in Myanmar 2011, Ministry of Health [4]

2.2.3 National Health Plan 2006-2011

National Health Plan (2006-2011) was developed as a response to the Millennium Development Goals. It is recognised as one of the important two wheels of the national development plan, the other being the National Economic Plan. The main points of the National Health Plan (2006-2011) are shown in Table 2-2.

Table 2-2 Main points of National Health Plan (2006-2011)

Objectives:
1) To facilitate the successful implementation of the social objective, "uplift of health, fitness and educational standards of the entire nation"
2) To implement National Health Policy
3) To strive for the development of a health system, that will be in conformity with political, economic and social evolutions in the country as well as global changes
4) To enhance the quality of health care and coverage
5) To accelerate rural health development activities

Components: Community Health Care, Disease Control, Hospital Care, Environmental Health, Health System Development, Human Resources for Health, Health Research, Traditional Medicine, Food and Drug Administration, Laboratory Service, Health Promotion, Health Information System

Source: Health in Myanmar 2011, Ministry of Health [4]

2.2.4 Strategic Plans for Major Health Issues

Along with the development policies mentioned above, the Ministry of Health has formulated strategic plans for five individual areas. Strategic plans for the individual plans are described in Chapter 4.

1) Five Year Strategic Plan for Reproductive Health(2009‐2013)
2) Five Year Strategic Plan for Child Health Development(2010-2014)
3) MARC: Strategic Framework for Artemisinin Resistance Containment in Myanmar(2011 - 2015)
4) NSP: Myanmar National Strategic Plan on HIV/AIDS(NSP I: 2006-2010, NSP II: 2011-2015)
5) Five-year national anti-tuberculosis TB strategic plan(2011-2015)

Chapter 3 Health Status of the People

3.1 Overview

Table 3-1 shows a comparison of major development indicators of the Millennium Development Goals (MDGs) in Myanmar and neighbouring countries. Myanmar together with Cambodia scores lower in terms of child mortality and infectious disease. The malaria situation is particularly serious when compared to neighbouring countries. Although the maternal mortality is lower compared to Laos and Cambodia, child mortality is the highest amongst the five countries.

Table 3-1 Major Health Sector MDGs indicators of Myanmar and Neighbouring Countries

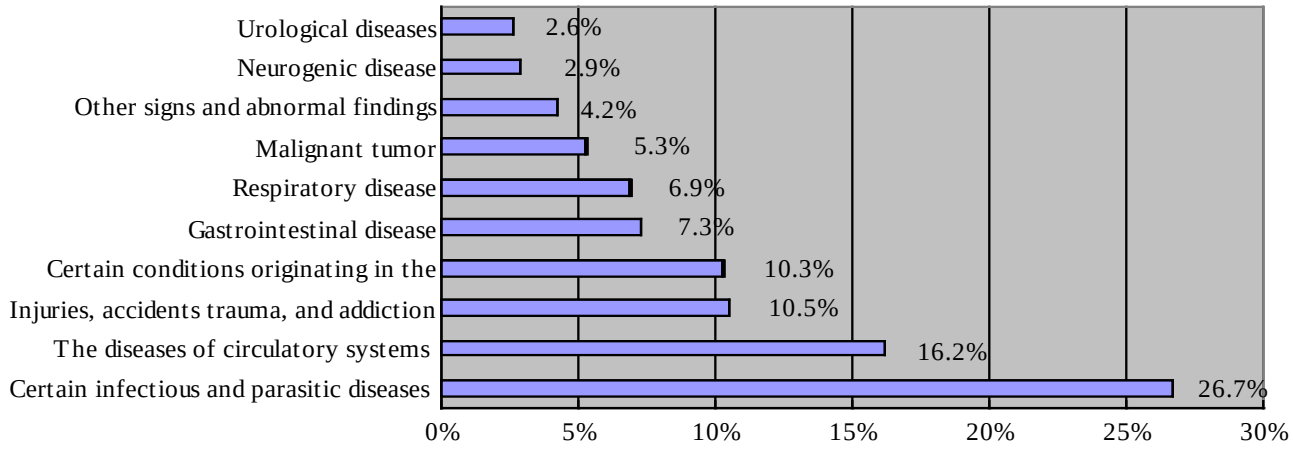
Goal		Year	Myanmar	Vietnam	Thailand	Laos	Cambodia
Goal 4 Reduce Child Mortality	Child mortality rate per 1,000 live births	2010	50.4	18.6	11.2	19.9	42.9
	Under-five mortality rate per 1,000 live births	2010	66.2	23.3	14.0*	24.3	51.0
Goal 5 Improve Maternal Health	Maternal Mortality ratio per100, 000 live births	2008	240	56	48**	580	290
Goal 6 Combat HIV/AIDS, Malaria & other diseases	HIV prevalence rate (%) among the adults (15 to 49 years old)	2009	0.6	0.4	1.3	0.2	0.01*
	Incidence rates associated with tuberculosis per 100,000	2009	597	333	137**	344	693*
	Incidence rates associated with malaria per 100,000	2008	7,943	55	320	327	1,798

Note: *2008, **2010

Source: World Development Indicators, World Bank (March, 2012) [1]

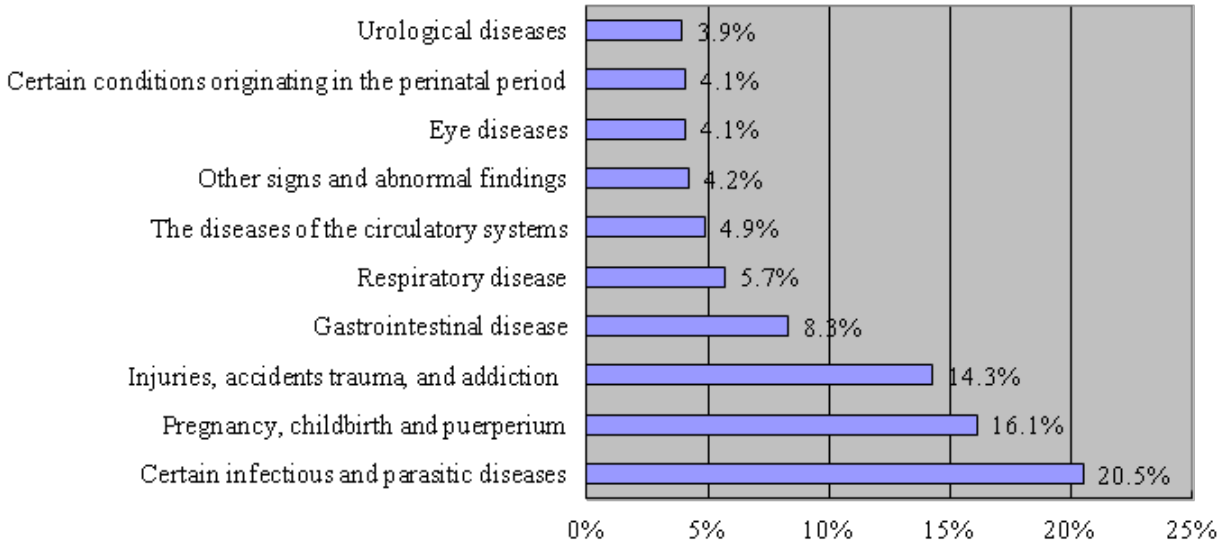
3.2 Health Status of the People

According to government statistics (as shown in Figure 3-1) leading causes of mortality for 2008 are certain infectious and parasitic diseases (26.7%), diseases of the circulatory system (16.2%), injury, poisoning and certain other consequences of external causes (10.5%), certain conditions originating in the perinatal period (10.3%), and diseases of the digestive system (7.3%). Leading causes of morbidity (as shown in Figure 3-2) based on hospital records for 2008 are certain infectious and parasitic diseases (20.5%), pregnancy, childbirth and puerperium (16.1%). Along with the morbidity from certain conditions originating in the perinatal period (4.1%), the morbidity rate of maternal health is equal to that of certain infectious and parasitic diseases.



Source: HMIS 2010, Dept. of Health Planning, Ministry of Health [3]

Figure 3-1 Leading Causes of Mortality (2008)



Source: HMIS 2010, Dept. of Health Planning, Ministry of Health [3]

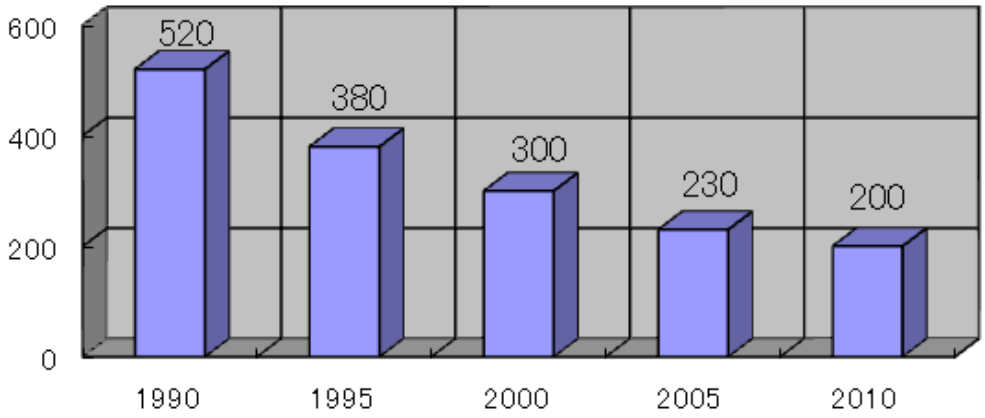
Figure 3-2 Leading Causes of Morbidity (2008)

3.3 Maternal and Child Health

3.3.1 Maternal Health

(1) Maternal mortality

Approximately 100,000 births take place annually in Myanmar. The maternal mortality rate was 240 (Adjustment) in 2008. As shown in Figure 3-3, World Health Organisation (WHO) / United Nations Children's Fund (UNICEF) / United Nations Population Fund (UNFPA) / World Bank estimate that the maternal mortality rate in Myanmar had decreased from 520 in 1990 to 200 in 2010 (per 100,000 births). While this is a major accomplishment, the target of the Millennium Development Goals is to reduce this rate to 145 (100,000 births) by 2015, therefore further efforts must be made to accomplish this goal.



Note: Adjusted means that the numbers were estimated by the regression model based on the information of delivery conditions and HIV infection and others)

Source: World Development Indicators, World Bank (March 2012) [1]

Figure 3-3 Trend of Maternal Mortality Rate (Adjustment*: per 100,000 births)

The Ministry of Health conducted a Nationwide Cause-Specific Maternal Mortality Survey (NCSMMS)in 2004 with support from UNICEF. The survey reported that among 251,000 households, there were 71 maternal deaths[11] and 12 late maternal deaths[12]. As Table 3-2 shows, according to NCSMMS the maternal mortality rate is 316 per 100,000 births, but there are gaps from 132 to 449 among the areas. The Hilly Area has the lowest figure (132, 47-216) and Central Plain has the highest figure (449, 317-581). In the ratio according to the area among the total maternal deaths, Central Plain occupied 58%. According to surveys of child mortality described later, a particularly bad situation is found in the Centre Plain.

Table 3-2 Maternal Mortality by Region (2004/2005)

	Maternal Mortality Rate	% Of Total
Hilly Area	132	33%
Coastal Area	264	38%
Delta Area	337	24%
Central Plain	449	58%
Union	316	100%

Source: NCSMMS 2004-2005, MOH/UNICEF [5]

NCSMMS reports that 75% of maternal mortality cases underwent a normal delivery, and the deaths occurred mostly during labour. The survey also analysed the causes of maternal deaths using the verbal autopsy from the close relatives of the women who died (mainly a husband or mother).

As shown in Table 3-3, the survey, analysing 71 maternal deaths, found nine direct causes to maternal deaths and three kinds of indirect causes. These causes of maternal mortality, including postpartum haemorrhage, hypertensive disorders, and eclampsia, can be prevented with appropriate care and treatment for malaria and iron deficiency anaemia during pregnancy.

[11] Women who died within 42 days after the end of pregnancy. Although it is not related to the duration of the pregnancy and the body parts, it includes all those related to the pregnancy or its management, or any causes that were worsened by anything. However, accidental or incidental causes are excluded.

[12] Women who died with obstetric causes, directly or indirectly, in less than a year but 42 days after the end of pregnancy. Maternal deaths are caused by any causes, including obstetric, obstetrical tetanus, and HIV/AIDS.

The fact that abortion accounts for nearly 10% of deaths shows that the improvement of family planning services is as important as the improvement of pregnancy and delivery care. As puerperal sepsis accounts for 7% of maternal deaths, the improvement of hygiene during delivery and other surgical operations is strongly needed.

Table 3-3 Causes of Maternal Mortality

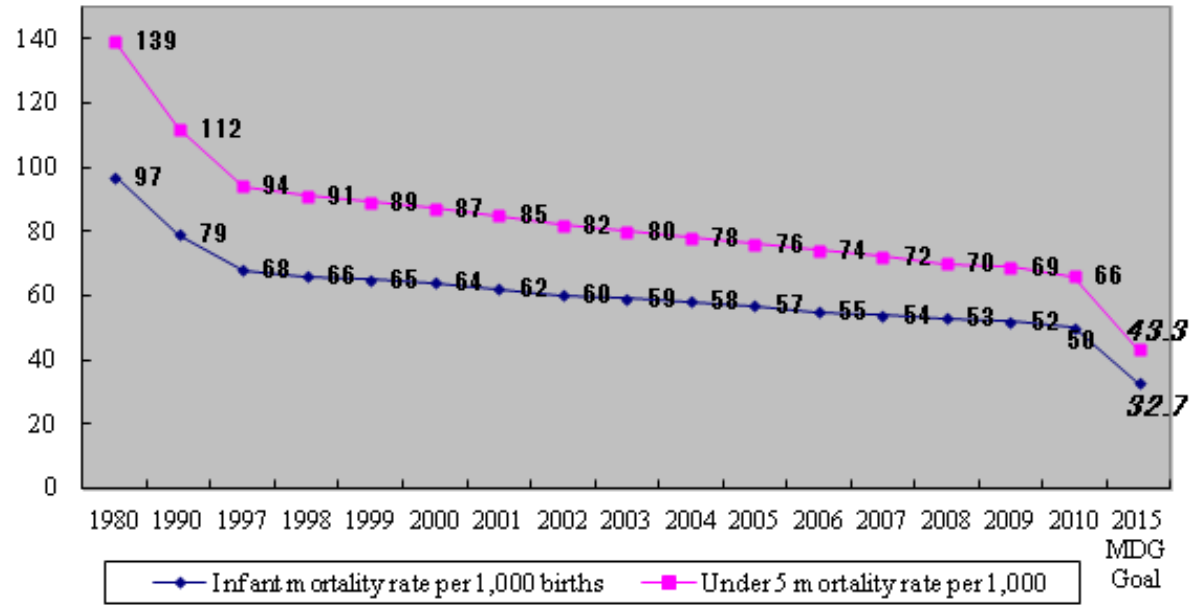
Cause	%
Postpartum haemorrhage	30.97%
Eclampsia	11.27%
Abortion	9.86%
Hypertensive disorders	5.63%
Puerperal sepsis	7.04%
Protraction delivery / parturient stop	8.46%
Antepartum haemorrhage	4.23%
Uterine rupture	4.23%
Embolism	1.41%
Indirect causes(Malaria, TB, chest infection)	16.90%
Total	**100.00%**

Source: NCSMMS 2004-2005, MOH/UNICEF [5]

3.3.2 Child Health

(1) Child mortality

There are noticeable gaps among the regions and the mortality rates of children in rural area are considerably higher than those of the urban area.



Source: Five Year Strategic Plan for Child Health Development (2010-2014) [6]

Figure 3-4 Trends of Infant Mortality and Under Five Mortality Rates

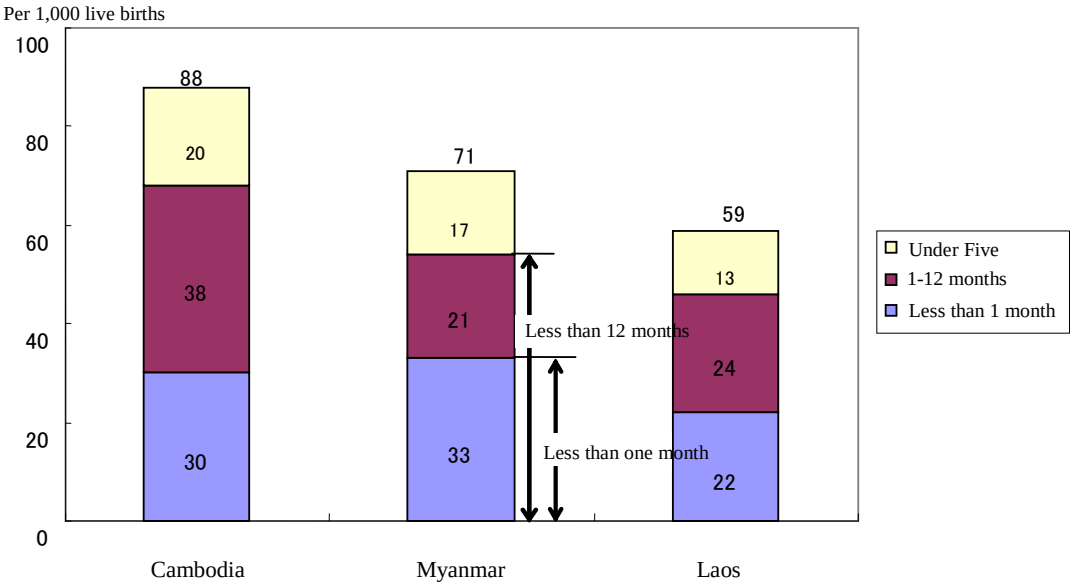
According to statistics of UNICEF, the under-five mortality rate in Myanmar is 71 per 1,000 live births (2009). Broken down by age of the child, out of 71, 54 (76%) are infants (children less than 1 year old) and 33 (46%) are neonates (children less than 1 month old). Generally, children less than 1 year old and newborn babies occupy most of the infant mortality around the world, but in the case of Myanmar, the degree is higher compared with neighbouring countries.

Table 3-4 Major Child Health indicators of Myanmar and Neighbouring Countries

	Unit	Period	Myanmar	Thailand	Cambodia	Laos	Vietnam
Under-Five Mortality Rate	Per 1,000	2009	71	14	88	59	26
Under-five mortality rankings (193countries)	Rank	2009	44	125	36	52	93
Infant Mortality Rate	Per 1,000	2009	54	12	68	46	20
Neonatal mortality rate	Per 1,000	2009	33	8	30	22	12
% of infants with low birth weight	%	2005-2009	15	9	9	11	5
Underweight(NCHS/WHO)Moderate・Severe	%	2003-2009	32	9	-	37	20
Underweight(WHO)moderate/severe	%	2003-2009	30	7	29	31	-
Underweight(WHO)severe	%	2003-2009	9	1	9	9	-
Wasting(WHO)moderate/severe	%	2003-2009	11	5	8	7	-
Stunting(WHO)moderate/severe	%	2003-2009	41	16	40	48	-
Estimated Number of HIV positive children(0-14years)	Number	2009	-	-	-	-	-

Source: The State of World's Children 2011, UNICEF [7]

Laos has a considerably lower vaccination rate than that of Myanmar[13]; the under-five mortality rate of Laos is 12 points lower than Myanmar. When comparing the mortality rates of infant (1-12 months), neonatal and under-five of Myanmar and Laos, the neonatal mortality rate of Myanmar (33) is 11 points higher than that of Laos (22), while the infant mortality rate of Myanmar (21) is 3 points lower than that of Laos (24). Among these figures, Myanmar's high neonatal mortality rate raises the total child mortality rate, which generates serious concerns for the quality of care during delivery and neonatal care.



Source: The State of the World's Children 2011, UNICEF [7]

Figure 3-5 Breakdown According to the Age for Under-five Mortality Rate

[13] Described in Chapter 4.

There are many challenges concerning the quality of care during delivery and neonatal. As shown in Table 3-5, causes of high neonatal mortality such as birth asphyxia and sepsis, which caused 50% of the child deaths, can be avoided with appropriate treatment for the newborn and the mother at the time of delivery.

Table 3-5 Causes of Death in Children Under-five Years Age (2002/2003)

Cause	Neonates (less than 28 days age)	Above 28 days and less than 5 years age
Prematurity	30.9%	
Birth asphyxia	24.5%	
Sepsis	25.5% (includes pneumonia)	5.8%
Pneumonia		27.6%
Diarrhoea		17.6%
Brain infections		17.1%
Malaria		7.6%
Beriberi		7.1%
Others	19.1%	17.2%
Total	100.0%	100.0%

Note: The cause of death was estimated by verbal autopsy
Source: Five-Year Strategic Plan for Child Health Development in Myanmar 2010-2014, MOH/WHO/UNICEF [6]

In addition, as shown in Table 3-6, causes of under-five morbidity in hospitals are often associated with infectious diseases.

Table 3-6 Causes of Under-five Morbidity Treated in Hospital

	Cause	%		Cause	%
1	Diarrhoea and Gastroenteritis of presumed Infectious origin	16.9%	9	Febrile convulsions	1.9%
2	Unspecified Acute Lower Respiratory Infection	10.1%	10	Birth Asphyxia, unspecified	1.7%
3	Pneumonia, organism Unspecified	9.1%	11	Fever, unspecified	1.6%
4	Neonatal Jaundice	8.9%	12	Convulsion, not elsewhere Classified	1.5%
5	Dengue Hemorrhagic Fever	6.3%	13	Injury of eyes and orbit	1.2%
6	Viral Infection, unspecified	5.5%	14	Bronchopneumonia	1.1%
7	Unspecified malaria	4.0%	15	Pulmonary Respiratory TB	1.0%
8	Beri Beri	2.3%	16	Other Causes	26.9%
			Total		100%

Source: Annual Statistics Report 2007, DHP [8]

Table 3-7 shows the survey results of the nutritional status of children under five years of age from Multiple Indicator Cluster Surveys (MICS) that UNICEF has carried out on a regular basis. Until 2003 the survey showed some improvement in the numbers, but the figures seemed to come back to the level of 1997 in the latest survey. UNICEF/Myanmar mentioned in its 2007 activity report that due to high inflation in recent years, approximately one-third of the total population facing extreme poverty cannot meet the daily nutritional requirements. UNICEF/Myanmar states in the same report that the protracted armed conflicts with the central government contribute towards this poverty, thereby giving a negative impact on child nutrition, education and housing environment. Under such circumstances, with the assistance from the other countries including Japan, UNICEF distributes vitamin A and B, iodine salt, iron, folate and

nutritional supplements, encourages breastfeeding, implements parasitic extermination, and provides special meals for the treatment of malnutrition.

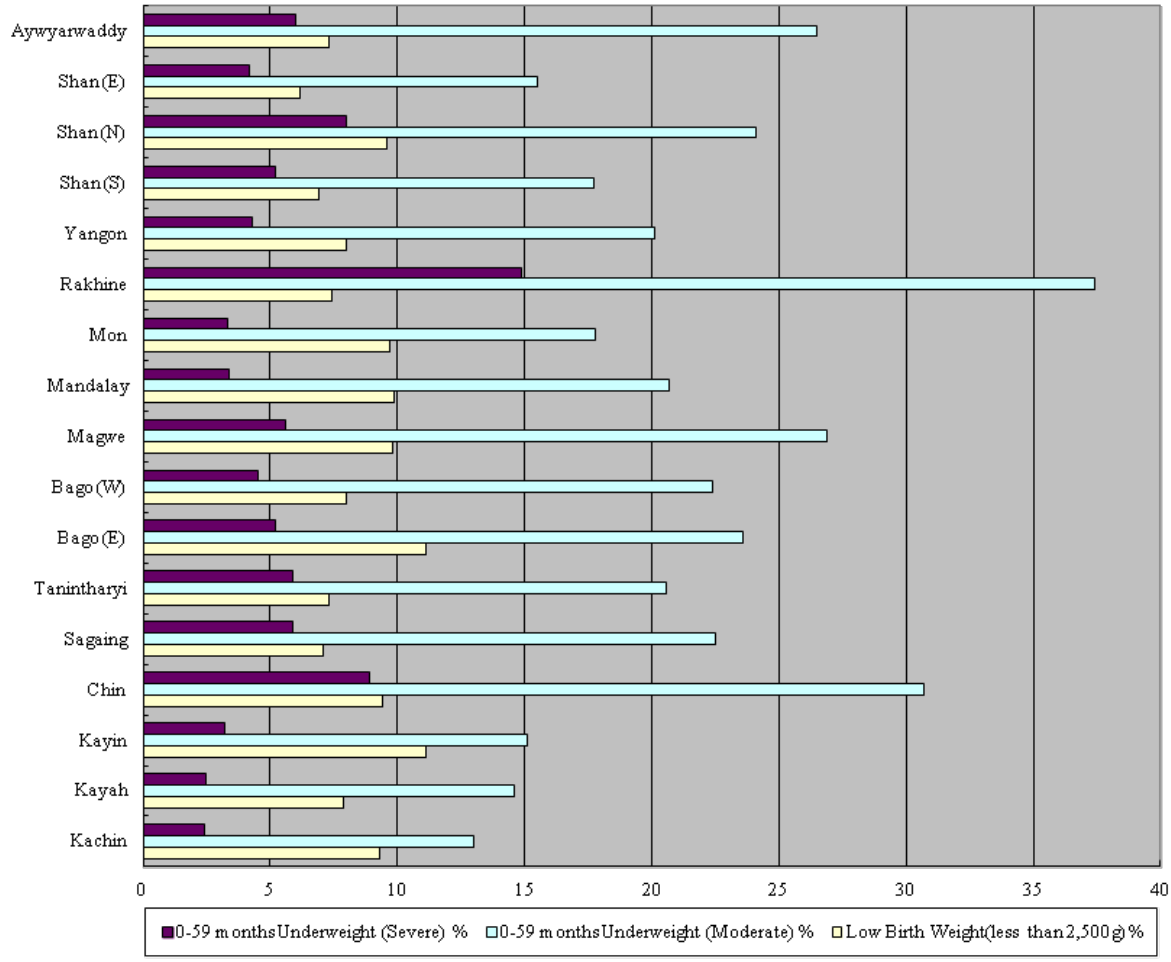
Table 3-7 Nutritional Status of Under-five Children

Nutritional status *	1997	2000	2003	2009-2010
Under nutrition(moderate)	38.6%	35.3%	31.8%	22.6%
(serious)				5.6%
Stunting (moderate)	41.6%	33.9%	32.2%	35.1 %
(serious)				12.7%
Wasting(moderate)	8.2%	9.4%	8.6%	7.9%
(serious)				2.1%
Total	88.4%	78.6%	72.6%	86.0%

Note: Figures until 2004 are the totals of moderate and serious.

Source: MICS 1997、2000、2003、2009-2010 [9]

Figure 3-6 is the MICS report (2009-2010) of the malnutritional status of children by states/regions (Underweight and Low Birth Weight). It shows that the number of children with underweight (Moderate) and Low Birth Weight (less than 2,500g) in Chin and Rakhine States along the Indian border zone has increased due to the Cyclone Narguis in 2010. Generally, gaps among the regions are observed.



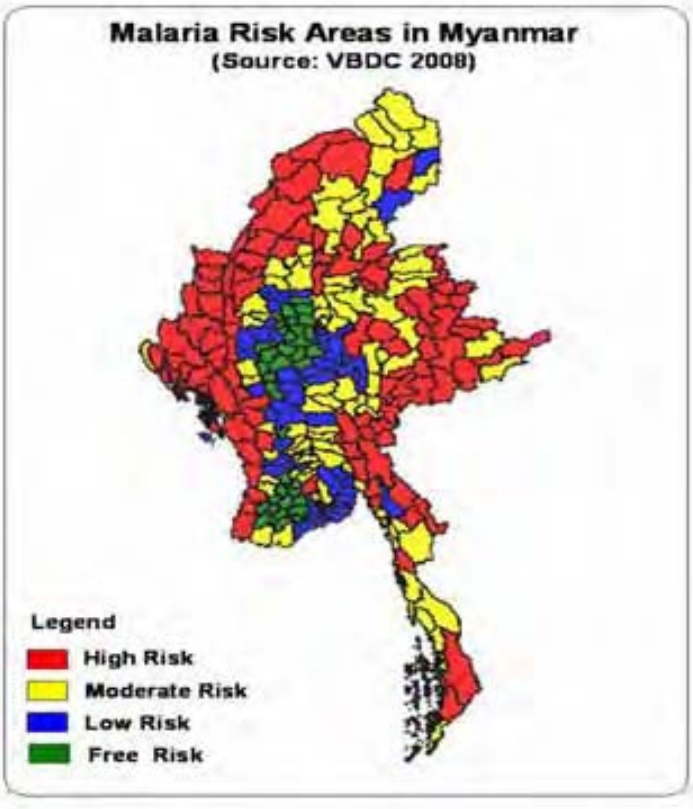
Source: MICS Myanmar Report 2009-2010 [9]

Figure 3-6 Malnutritional status of children by states/regions (%)

3.4 Situation of Infectious Diseases

3.4.1 Malaria

Malaria is another major public health problem as it is a leading cause of morbidity and mortality in Myanmar[14]. 70% of the population lives in malaria endemic areas. The malaria prevalence rate in 2011 was 11.7 (per 1,000), and mortality rate was 1.33 (per 100,000) in 2010 [10]. 75% of all malaria cases in 2008 were falciparum malaria. With the improvement of diagnosis and the treatment system, the number of malaria related hospitalisation cases was reduced from 85,409 (2000) to 47,553 in 2008 and the number of deaths due to malaria decreased from 2,756 in 2000 to 1,088 in 2008. Of the total number of hospital admissions in 2008, the number of hospital admissions due to malaria was 6% in 2008 (16% in 2000) and the number of deaths due to malaria decreased to 11% of all deaths of hospital admissions in 2008 (19% in 2000) (Table 3-8). However, WHO mentioned that these government statistics (420,808 new cases and 788 deaths due to malaria in 2010) suggest that there is some improvement in the malaria situation in the country. However, the reasons behind these trends - such as improved diagnostic practices or the effect of increased use of ACTs - are not clear and increased resistance to chloroquine and sulfadoxine/pyrimethamine is observed.



High-risk area (Red): 25%

Moderate risk Area (Yellow): 27%

Low risk area: (Blue): 23%

Potential risk and/or free area Green): 25%

Source: Strategic Framework for Artemisinin Resistance Containment in Myanmar (MARC) 2011 - 2015 [11]

Figure 3-7 Malaria Risk Area in Myanmar

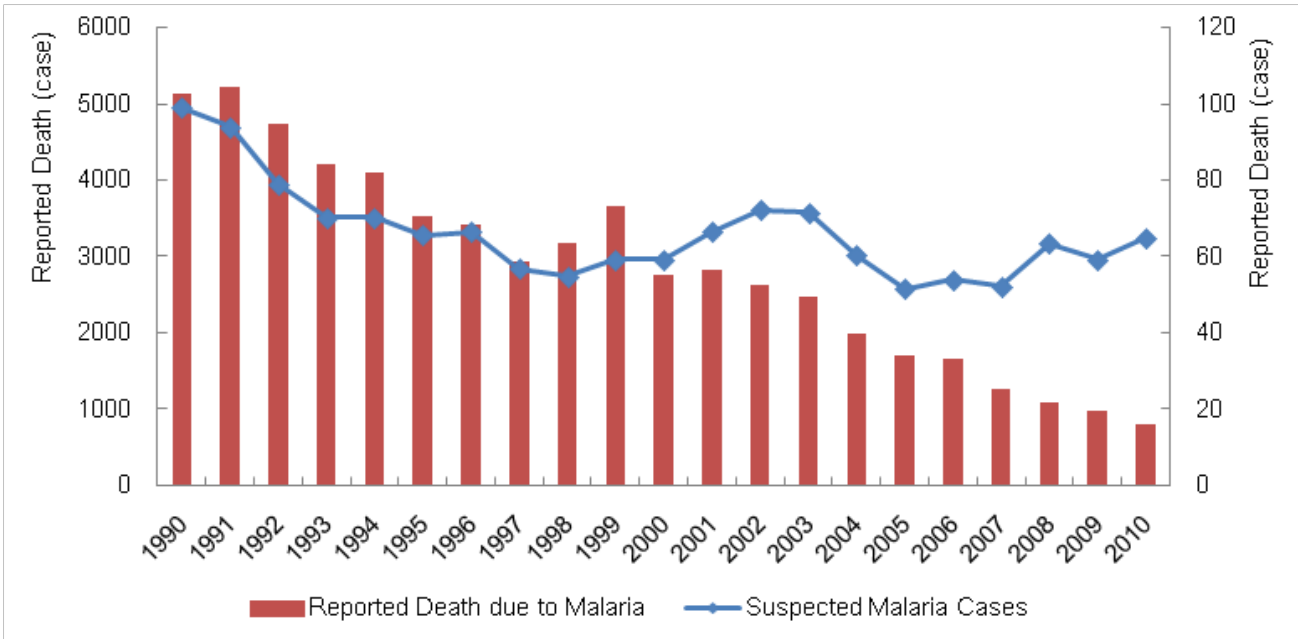
[14] See Annex 2-1, Figure 2-1-1

Table 3-8 Malaria Indicators of Myanmar and Neighbouring Countries

	Unit	Year	Myanmar	Thailand	Cambodia	Laos	Vietnam
High risk population	Person	2010	23,981,506	5,529,779	6,220,832	2,232,322	31,625,440
% of High risk population	%	2010	50	8	44	36	36
Suspected malaria cases	Case	2010	1,233,956	1,777,977	386,420	280,549	2,803,918
Confirmed malaria cases	Case	2010	649,522	32,480	49,356	23,047	54,297
Malaria admissions	Case	2010	43,602	10,213	10,590	3,126	38
Malaria deaths	Person	2010	788	80	151	24	1

Source: World Malaria Report 2011, WHO [12]

Although much of the population is at risk for malaria, the most vulnerable segment consists of non-immune migrant workers involved in gem mining in forests, logging, agriculture, and construction. Confirmed cases of malaria in Myanmar have increased due to improved diagnostic activities in recent years. The confirmed cases in 2000 were 120,029 cases, 447,033 cases in 2008 and 420,808 cases in 2010. The numbers of hospital admissions due to malaria have decreased (85,409 cases in 2000, 43,601 cases in 2010). As Figure 3-7 shows, the numbers of deaths due to malaria have also decreased (2,752 deaths in 2000 and 788 deaths in 2010).



Source: World Malaria Report 2011, WHO [12]

Figure 3-8 Trend of Reported Malaria Deaths and Suspected Malaria Cases

The following are the malaria statistics of under-five children from the Ministry of Health (Table 3-9):

Table 3-9 Malaria indicators for Under-Five Children

Suspected malaria OPDs	805,488 cases	% of total OPDs	5.96%
Confirmed malaria cases	47,986 cases		
Malaria admission	6,701 cases	% of total hospital admission	6.97%
Malaria deaths at hospitals	137 deaths	Malaria mortality rate at hospitals	2.04%

Note: Denominator is the number of under-five children

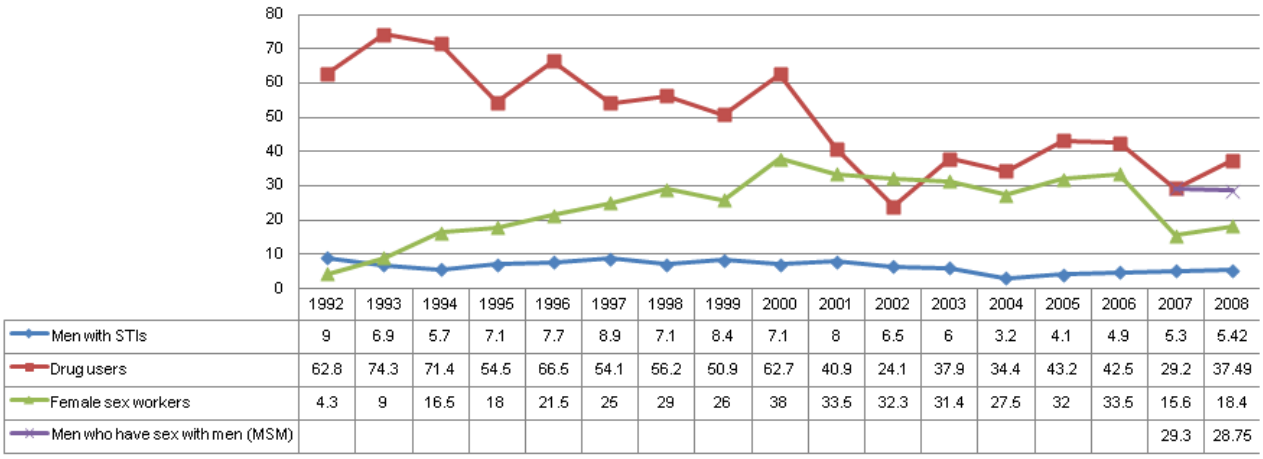
Source: Five Year Strategic Plan for Child Health Development (2010-2014) [6]

3.4.2 HIV/AIDS

According to the statistics from the Ministry of Health, it is estimated that there in 2011 there were 216,000 people living with HIV of which 18,000 people died due to HIV infection. In addition, according to the Ministry, 8,000 new infections were reported in Myanmar in 2011.

It is estimated that the HIV prevalence rate among the adult population (aged 15 and above) was 0.53% in 2010. A characteristic of the HIV infection in Myanmar is that the HIV epidemic is concentrated, primarily occurring in high-risk groups15 and as shown in Figure 3-8, there is no noticeable improvement trend. The results from the sentinel surveillance in 2011 showed that HIV prevalence rates are 9.39% among female sex workers, 7.8% in men who have sex with men (MSM), and 21.9% in male injecting drug users. Since 2007, MSM have come to be included in the sentinel surveillance.

As described in Chapter 4, while the number of deaths due to HIV infection and the number of people infected with HIV by states/regions are not published, more people access the HIV programmes in Yangon, Mandalay, and Ayeyarwady. Therefore, we can assume that most high risk people live in those states/regions[16].



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Men with STIs	9	6.9	5.7	7.1	7.7	8.9	7.1	8.4	7.1	8	6.5	6	3.2	4.1	4.9	5.3	5.42
Drug users	62.8	74.3	71.4	54.5	66.5	54.1	56.2	50.9	62.7	40.9	24.1	37.9	34.4	43.2	42.5	29.2	37.49
Female sex workers	4.3	9	16.5	18	21.5	25	29	26	38	33.5	32.3	31.4	27.5	32	33.5	15.6	18.4
Men who have sex with men (MSM)																29.3	28.75

Source: UNGASS Report 2010 [13]

Figure 3-9 Trend of HIV Prevalence Rates among the High-risk Groups

In 2008, among 1,067 reported AIDS cases, including 39 paediatric cases, 32.3% are female and 67.7% are male. 72.8% are sexual transmission, 3% are transmission by injecting drug, 1.7% is transmission by blood transfusion, 2.8% are by mother-to-child transmission, and the remaining 19.7% are transmission by others.

As shown in Table 3-10, in comparison with neighbouring countries HIV prevalence rates in pregnant women are as high as 1.1%. Since UNAIDS / WHO defines the country where the HIV prevalence rate

15 Female sex workers and their clients, men who have sex with men and injecting drug users are categorized. Regarding the trend of HIV prevalence among the low risk groups, please see the Annex 2-1, Figure 2-1-2

16 Number of female sex workers who have access to the government/states/regions HIV programmes: 1 Yangon (22,987), 2 Mandalay (14,395), 3. Ayeyarwady (11,078). Number of men who have sex with men (MSM) who have access to the government/states/regions HIV programmes: Yangon (23,275), 2 Mandalay (17,836), 3. Ayeyarwady (9,814) , 4. Bago (9,503). The number of people living HIV who receive ART: Yangon (9,471. 44.8%), 2 Kachin (3,495. 16.5%), 3. Shan (2,757. 13.0%), 4. Mandalay (2,039 人, 9.6%)There are 6 sentinel surveillance sites for injecting drug users in Myanmar and 3 of them are located in Shan States and 1 is located in Kachin state. Therefore it is assumed that the people who receive the ART could be the injecting drug users.

among pregnant women attending ANC is 1% to 5% as generalised epidemic area, Myanmar is considered a generalised epidemic area. Enforcement of effective prevention activities is crucial to address the situation.

Table 3-10 HIV/AIDS Indicators of Myanmar and Neighbouring Countries

	Unit	Year	Myanmar	Thailand	Cambodia	Laos	Vietnam
People living with HIV(Adults+children)	person	2001	250,000	640,000	92,000	<1,000	140,000
		2009	240,000	530,000	63,000	8,500	280,000
People living with HIV(female older than 15 years old)	person	2001	67,000	220,000	51,000	<500	39,000
		2009	81,000	210,000	35,000	3,500	81,000
HIV prevalence rate(15～49 years old)	%	2001	0.8	1.7	1.2	<0.1	0.3
		2009	0.6	1.3	0.5	0.2	0.4
People newly infected(Adults+children)	person	2009	17,000	12,000	1,700	-	-
Deaths due to HIV infection (Adults+children)	person	2001	16,000	52,000	7,400	<100	5,500
		2009	18,000	28,000	3,100	<200	14,000
HIV prevalence rate among pregnant women	%		1.1 (2008)	0.65 (2009)	0.71 (2009)	0.30 (2006)	0.37 (2006)

Source: UNAIDS 2010 Global Report、UNAIDS Knowledge Centre, HIV Data [14]

3.4.3 Tuberculosis (TB)

Myanmar is among the 22 countries[17] categorised by WHO to have the highest number of TB related problems [15]. Myanmar notified 131 590 new and relapse TB cases to WHO in 2010 (274 per 100,000 population). Although WHO estimates that there are 8,300 (171 per 100,000 population) new TB cases annually, approximately 130,000 patients actually receive the TB treatment per year. Recently, Multi Drug Resistance (MDR) tuberculosis and co-infection with HIV are new challenges.

The Ministry of Health conducted a nationwide TB infection survey [18] in 2009 and 2010 (participants: 51,367 people over 15 years old) and reported 123 smear-positive cases and 188 culture positive cases. Based on these findings, the smear positive rate was 242.3 in 100,000 populations and the culture positive rates along with the bacteriologically positive cases are 612.8 in 100,000 populations. Assuming that 0.7% of the bacteriological positive cases are children, smear-positive TB prevalence rate is 172 per 100,000 populations and the culture positive TB prevalence rate is 437 per 100,000 populations. This survey also showed that among the people who are 15 years old or more, smear-positive TB prevalence rate is higher in states than in regions[19] (369 in states and 191.6 in regions), TB prevalence rate is higher in urban areas than in rural areas (330.7 in urban and 216 in rural) and the TB prevalence rate is higher among men than among women (397.8 among men and 122.2 among women).

As shown in Table 3-11, the new TB cases and MDR TB cases of Myanmar are the highest among the neighbouring countries. The number of deaths due to TB (excluding people living with HIV) is the number of new cases of tuberculosis MDR, and the number of deaths excluding those coinfected with HIV ranks second after Vietnam.

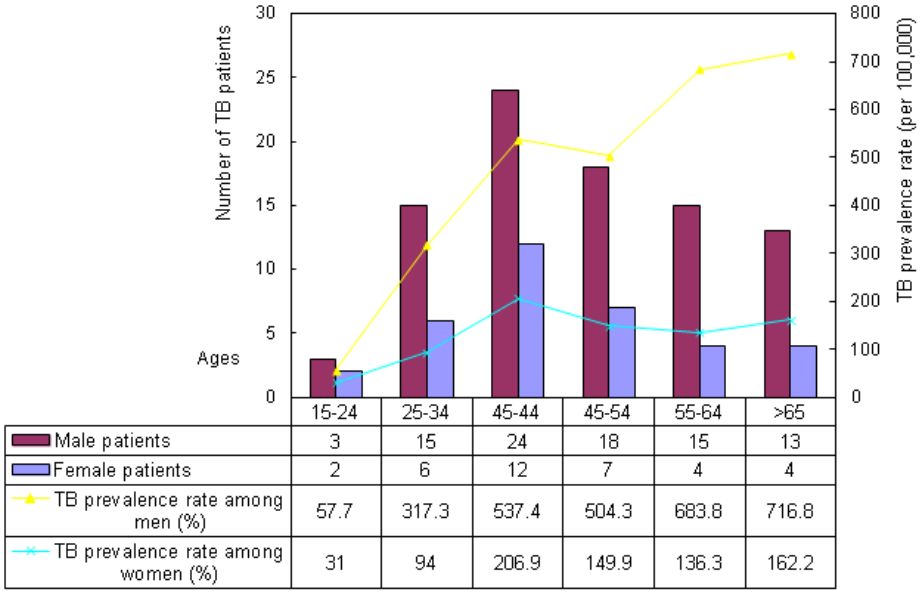
[17] Afghanistan, Bangladesh, Brazil, Cambodia, China, DRC, Ethiopia, India, Indonesia, Kenya, Mozambique, Myanmar, Nigeria, Pakistan, Russia, South Africa, Thailand, Uganda, Tanzania, Vietnam and Zimbabwe
[18] Report on National TB prevalence survey 2009-2010, Ministry of Health, Myanmar
[19] Regions: Ayeyarwady, Yangon, Mandalay, Tanintharyi, Bago, Magway, Sagaing. States: Kayah, Shan, Chin, Kachin, Kayin, Mon and Rakhine

Table 3-11 Tuberculosis Indicators of Myanmar and Neighbouring Countries

	Unit	Year	Myanmar	Thailand	Cambodia	Laos	Vietnam
Deaths due to TB(excluding people living with HIV)	person	2010	20,000	11,000	8,600	710	29,000
New TB cases	case	2010	127,134	64,512	39,994	4,836	88,033
NEW MDR TB incidence rate	%	2010	4.2	1.7	1.4	5.0	2.7
MDR TB cases	case	2010	192	-	31	2	101

Source: 2010 Global Report, UNAIDS [14]

As shown in Figure 3-9, by sex and age groups, TB prevalence in men is higher, especially in their late 40s.



	15-24	25-34	45-44	45-54	55-64	>65
Male patients	3	15	24	18	15	13
Female patients	2	6	12	7	4	4
TB prevalence rate among men (%)	57.7	317.3	537.4	504.3	683.8	716.8
TB prevalence rate among women (%)	31	94	206.9	149.9	136.3	162.2

Source: Report on National TB Prevalence Survey 2009-2010, Ministry of Health [16]

Figure 3-10 TB Patients and TB Prevalence Rates by Age and Sex (Survey participants: 51,367)

HIV prevalence rate among the general population (aged 15-49) in 2009 was 0.6% while the number of new TB cases was 127,134 during the same period. Therefore, it is assumed that the issue of TB and HIV coinfection will be an important one in the future. As shown in Table 3-12, in Myanmar the number of TB patients who know their HIV status[20] is overwhelmingly low compared to other countries. However, it is assumed that actually the proportion of HIV and TB coinfected people[21] is considerably high.

Table 3-12 TB Indicators of Myanmar and Neighbouring Countries

	Unit	Year	Myanmar	Thailand	Cambodia	Laos	Vietnam
TB patients who know their HIV status	person	2010	4,362	52,753	32,236	1,537	42,356
	%	2010	3	77	77	38	43
HIV -positive TB patients	person	2010	961	8,544	2,112	181	3.515
	%	2010	22	16	7	12	8
TB patients with HIV test results	person	2010	6,417	25,278	-	597	-
Percentage of HIV-positive TB patients treated with ART	%	2010	94	53	45	-	43

Source: WHO Report 2011 Global Tuberculosis Control [15]

[20] "The person who knows their HIV status" means that TB patients get tested for HIV and know their test results. As shown in Table 3-11, in Myanmar, only 3% of TB patients have received HIV tests. This figure is much lower compared to that of neighboring countries. The scaling up of HIV tests including TB patients is included in the National HIV/AIDS Strategic Plan and National TB Strategic Plan

[21] People living with HIV who tested for TB and know their coinfection with TB as well.

The Ministry of Health has conducted the sentinel surveillances of HIV and TB in 20 locations since 2005. It is reported that 10.4% of new TB cases in adults aged 15 to 54 years (0.7% -27.9%) were HIV positive in 2010. Ministry of Health reported that in their 2 surveillance sites 4% (2002-2003) and 4.2%(2008-2009)of new TB cases are Multi Drug Resistance Tuberculosis (MDR-TB) patients. The Ministry of Health has estimated that 20,000 of approximately 200,000 TB patients are also infected with HIV, while WHO [15] puts the estimate at 24%, while MSF estimates that 20% of TB patients are HIV positive.

3.4.4 Others

In regards to other infectious diseases, the seasonal dengue fever tends to increase particularly in Yangon Region, Mandalay Region, Bag Region and Mon State. Although leprosy is no longer a public health problem in Myanmar, continuous quality service and control programmes are needed.

3.5 Other Health Issues

As for the non-communicable diseases, hypertension, smoking, diabetes, high salt intake, obesity and heart problems caused by hyperlipidemia are becoming increasingly important risk factors. Although cancer has been increasing in recent years as well, there are no means for early detection, and cancer is only diagnosed when the condition has advanced. According to the survey of non- communicable diseases conducted by WHO in 2003 at the Yangon Region, the diabetes prevalence was 14.42% in urban area and 7.4% in the rural area. Additionally, snake bites, injuries, blindness, and casualties by natural disasters are major causes of morbidity and mortality[22].

Serious health damage caused by arsenic in drinking water has been pointed out, and the Ministry of Health of Myanmar conducted a small scale investigation of the water quality at the community near the Irrawaddy River in cooperation with UNICEF and the Save the Children (UK) in the early 2000s. Although the sample size was small, in the findings, 67% of water from the river exceeded the standards (WHO standards of 50ppb/ Myanmar standards 10ppb). It was reported that the residents surpassed the standard by keeping water in a pot overnight, after which 37% exceeded the standards [17]. About the arsenic problem, the Ministry of Health mentioned in Myanmar Times in 2008 that ”although the serious health damage was not observed in the investigation in the early 2000s, the Yangon district was not the subject of investigation, and an investigation is not performed afterwards. There are a lot of questions, thus further investigation is needed” [18].

[22] Source: WHO Country Cooperation Strategy 2008-2011 Myanmar, February 2008, WHO [30]

Chapter 4 Health Services

4.1 Situation of Reproductive Health Service

4.1.1 Policy

The Ministry of Health drafted the Five Year Strategic Plan for Reproductive Health (2009-2013) with active support from UN agencies (WHO, UNICEF, UNFPA). The Plan prescribes the strategic plan towards achieving MDGs based on the general situation of Myanmar and the analysis about the current state of reproductive health, and hopes to improve the quality of life of the people of Myanmar by improving its reproductive health. According to the goals and targets of the Plan described in Annex 2-2[23], the government declares that the overall objective to improve the quality of life of the people can be achieved through improving the reproductive health of women, men, and youth. The Ministry of Health aims to improve maternal mortality by improving family planning, antenatal, and postnatal care

4.1.2 Service Provision and Coverage

As shown in Table 4-1, although the rates of contraceptive prevalence and skilled care attendance during childbirth are lower than that of Laos and Cambodia, the number of pregnant women who visited antenatal clinics more than 4 times is the highest.

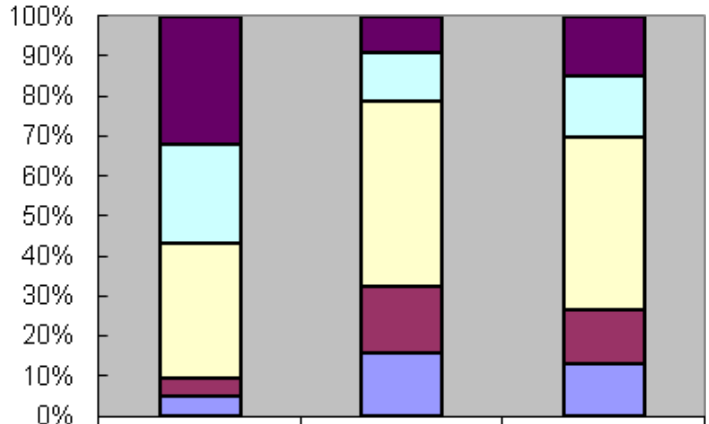
Table 4-1 Reproductive Health indicators of Myanmar and Neighbouring Countries

	Unit	Years	Myanmar	Thailand	Cambodia	Laos	Vietnam
Contraceptive prevalence rate	%	2005-2009	41	77	40	38	80
Antenatal clinic: more than 1 visit	%	2005-2009	80	98	69	35	91
Antenatal clinic: more than 4 visits	%	2005-2009	73	-	27	-	29
Proportion of birth assisted by skilled birth attendant[24]	%	2005-2009	64	97	44	20	88
Proportion of delivery at health facilities	%	2005-2009	23	97	22	17	64
Proportion of Cesarean section	%	2005-2009	-	-	2	-	10
Contraceptive prevalence rate among woman of 15-49 years of age (any kinds of methods)	%	1990/2010	41	81	40	38	80
Contraceptive prevalence rate among woman of 15-49 years of age (modern methods)	%	1990/2010	38	80	27	29	69
Unmet needs for family planning (spacing, contraceptive, etc.)	%	1992/2009	19	3	25	27	5

Source: State of World's Children 2011, UNICEF [7] State of World Population2011, UNFPA [19]

As shown in Figure 4-1, the proportion of those who received antenatal care at least three times is more than 70%, and even in rural areas more than half of pregnant women visited antenatal clinics more than three times.

[23] See Annex 2-2, Table 2-2-1
[24] Births attended by skilled health personnel



	Urban	Rural	Union
More than 10 visits	31.8	9	14.8
6~9 6 to 9 visits	24.7	12.2	15.4
3 to 5 visits	33.7	46.4	43.2
1 to 2 visits	4.8	16.6	13.6
No Visit	5	15.9	13.1

Note: Surveyed 32,416 households nationwide. 8,352 Married women (15-49 years)and 6,106 Unmarried Women(5-34years)participated in the survey.

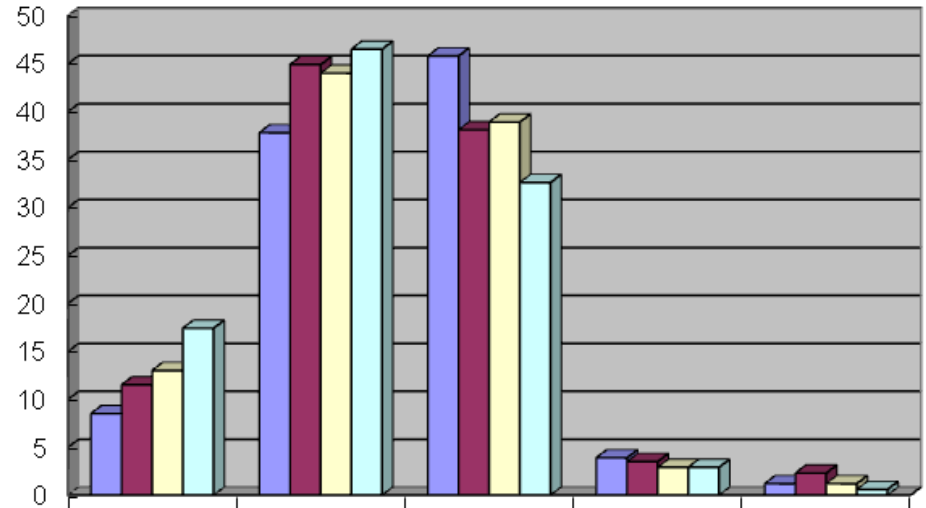
Source: The Fertility and Reproductive Health Survey Report (2007) [20]

Figure 4-1 Antenatal Care Coverage

The fact that the high maternal mortality rate has not improved, despite the face that antenatal care utilization is good, is caused by three major delays which Myanmar women face when it comes to seeking medical care for reproductive health and deliveries. These are: (1) a delay in decision making at home, (2) a delay in reaching a health facility, and (3) delays in getting adequate care at the health facility. These factors are common and reflect the vicious cycle of poverty, inadequate transportation infrastructure in remote areas, and lack of quality care [21].

As shown in Figure 4-2, births attended by skilled health personnel (doctors, nurses and midwives) have improved from 56.4% in 1997 to 63.9% in 2007. However, as shown in Figure 4-4, the 2007 Fertility and Reproductive Health Survey (FRHS)[25] reported that 76.4% of deliveries were carried out at home and that a majority of maternal deaths occurred during those home deliveries (62%). Only 38% of pregnant women in complications were transported to health facilities and among them 24% arrived safely and received proper care at the health facilities. 14% died before arriving at the health facilities due to a delay in transportation arrangements.

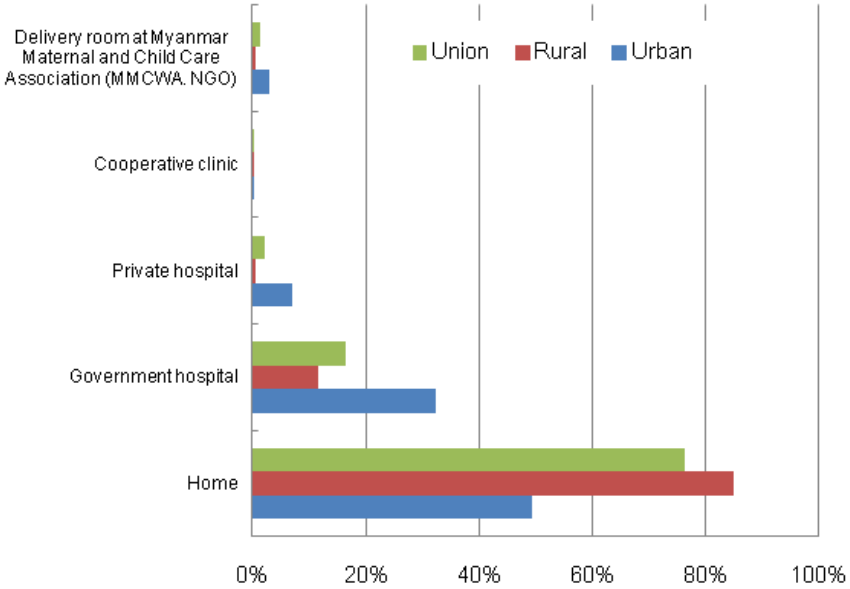
[25] FRHS were conducted in 1997, 2001, 2007 and 2011. A similar type of survey, Population Changes and Fertility Survey (PCSF,)was conducted。 by implementing agencies UNFPA and Ministry of Immigration and Population



	Doctors	Nurses/ Midwives	Traditional Birth attendant	Relative/others	Herself
1991 PCFS	8.5	37.8	45.8	3.9	1.2
1997 FRHS	11.5	44.9	38.1	3.5	2.3
2001 FRHS	13.0	44.0	38.9	2.9	1.2
2007 FRHS	17.4	46.5	32.6	2.9	0.6

Source: The Fertility and Reproductive Health Survey Reports (1997,2001, 2007) [20]

Figure 4-2 Types of Assistance at Delivery



Source: The Fertility and Reproductive Health Survey Report (2007) [20]

Figure 4-3 Places of Delivery

UNFPA in its Report on Situation Analysis of Population and Development, Reproductive Health and Gender in Myanmar, 2010, states that the greatest barriers to quality reproductive health care are inadequate midwifery services and supplies of essential drugs, non-adherence to established standards due to lack of knowledge and skills, unavailability of supplies and availability of authorisation for a staff to perform the clinical intervention [21]. This is why births attended by skilled health personnel do not readily increase,

The prevalence rate of modern contraceptive methods was 37 % in 2001 and increased to 41% in 2007. The target in the National Strategic Plan is 45% in 2013. According to the FRHS 2007, it is reported that 5% of

all pregnancies are aborted while 11.39% of 15 to 19-year-old pregnancies and 9.07% of university student pregnancies end in abortions [20]. The youth survey conducted in 2004 reported that 78% of interviewers said they chose traditional birth attendants for abortions. The third cause of maternal mortality is abortion (9.86%) [21].

4.2 Situation of Child Health Service

4.2.1 Policy

Table 4-2 summarises the objectives of the Five Year Strategic Plan for Child Health Development (2010-2014) and the impact and coverage targets are listed in Annex 2-2[26].

Table 4-2 Objectives of Five Year Strategic Plan for Child Health Development (2010-2014)

(1) To accelerate and scale up the implementation of key child health interventions with maximal impact on mortality through a focus on child health in the prevention and treatment of diseases and achieve national coverage.
(2) To collaborate with reproductive health, EPI, nutrition and control of communicable disease programmes to strengthen the health system for implementing continuum of care using a life course approach at all levels of health care.
(3) To engage with all concerned partners for bringing about behaviour change aimed at increasing the demand matched with quality of health care to contribute to reduction of mortality and promotion of child development.
(4) To strengthen the delivery of child health services through outreach and schedulable services and individual care of sick children in health facilities and hospitals.
(5) To adopt the strategy of nationwide implementation through joint planning and more equitable distribution of resources and scaling up so that maximal mortality reductions can be achieved during the next five years to reach MDG.

Five Year Strategic Plan for Child Health Development (2010-2014) [6]

4.2.2 Service Provision and Coverage

The statistics for nutrition, vaccination, and treatment of diarrhea and pneumonia in Myanmar and neighbouring countries are summarised in Annex 2-2[27].

(1) Treatment of Diarrhea and Pneumonia

Regarding the diarrhoea treatment, FRHS 2 reported that 51% of children with diarrhea who went to the health facilities received oral rehydration therapy (ORT), and the proportion of self-treatment was 17%. FRHS 2007 reported that the treatment of pneumonia is inadequate. Care seeking for suspected pneumonia was estimated in State of World's Children report (2009 UNICEF) at 66% but it is not clear what proportion received appropriate antibiotics for the treatment of pneumonia [7].

(2) Malaria

According to the 2010 report of UNICEF [22] and the Ministry of Health, the proportion of children under 5 years old who sleep under Insecticide-Treated Mosquito Net (ITN) has increased from 12% in 2003 to 38%

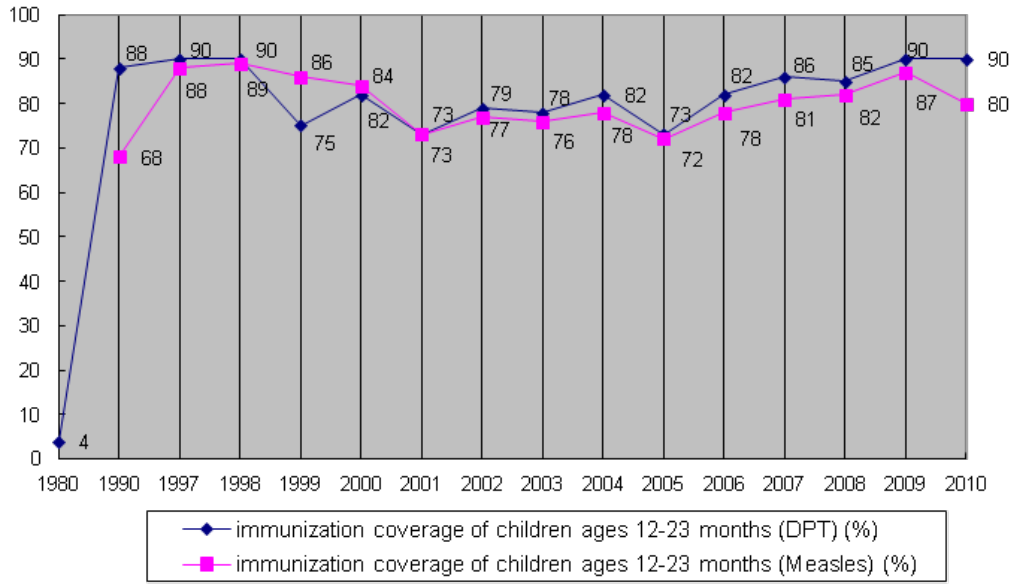
[26] See Annex 2-2, Table 2-2-2
[27] See Annex 2-2, Table 2-2-2

in 2005 and 58% in 2008. However, WHO World Malaria Report 2011 pointed out that the saturation level of ITN in Myanmar is extremely low at 5% (2010) and Cambodia and Laos, which also have high malaria prevalence rates, have the ITN coverage at 28% and 19% in 2010 respectively.

(3) Expanded Programme for Immunization

According to the statistics of UNICEF (Annex 2-2[28]), various vaccination rates in Myanmar are nearly up to 90% and the Ministry of Health reported the improvement and expansion of their EPI Programme. However, as shown in Figure 4-4, although the survey results between 2005 and 2010 have shown a slight improvement, Table 4-3 shows that measles coverage was declined for 1 year-old children among the poor and rural areas.

As shown in Annex 2-2[29], there are big gaps among regions/states. Very low immunization rates can be seen among the non-poor in some regions/states. From 2008-2010 the Ministry of Health, in cooperation with UNICEF, implemented the "EPI-plus" in an area stricken by cyclone Nargis, distributing vitamins A and B, mosquito nets, and delivery kits for midwives



Source: World Development Indicators, World Bank (March 2012) [1]

Figure 4-4 Trend of Immunisation Coverage of Children Ages 12-23 Months (DPT/Measles)

Table 4-3 Comparison of Measles Vaccination Coverage for 1-year-old Children (2005 and 2010)

Year	Poor	Non-poor	Urban	Rural	Total
2010	75.5%	85.6%	91.5%	79.6%	82.3%
2005	78.4%	81.4%	79.7%	80.4%	80.3%
Difference	-3.7%	5.2%	14.8%	-2.2%	2.4%

Source: IHLCA Survey 2004-2005, IHLCA Survey 2009-2010 [23;24]

(4) Nutrition

Nutrition Section of Department of Health at the Ministry of Health has implemented the following five initiatives in the field of nutrition:

[28] See Annex 2-2-3
[29] See Annex 2-2-3

Table 4-4 Major Interventions Against Nutritional Problems

	Problems	Intervention	Current status& Activities
1	Protein Energy Malnutrition (PEM)	Growth monitoring activities at sub rural health Centres of registered areas Community Nutrition Centre: supplementary feeding for moderately malnourished children especially in urban areas Hospital based Nutrition Rehabilitation Units (HNU) for severely malnourished children Village Food Banks, etc.	WHO New Growth Standard is going to be used as pilot in surveillance townships starting from 2012
2	Vitamin A Deficiency Disorders (VAD)	Biannual high Potency Vitamin A Capsules Supplementation to all children aged 6 to 59 months All lactating women receive one dose of Vitamin A capsule within 42 days after delivery	This Programme is achieving high coverage and successful. The impact will be assessed in 2011-2012
3	Iodine Deficiency Disorders (IDD)	Universal Salt Iodization (USI) Licensing for production on iodised salt for animal and human consumption in 1999	Iodised salt consumption rate-95.08%
4	Iron deficiency Anemia (IDA)	Iron foliate supplementation to all pregnant women throughout the country and adolescence school girls in selected townships Nationwide deworming campaign was launched in 2006 to all children age between 2-9	Piloting Initial trial on Multiple Micronutrient (MMN) sprinkle Supplementation and Conducting the effectiveness study of MMN
5	Vitamin B1 Deficiency (Beri Beri)	Distribution of Vitamin B1 tablets to pregnant women one month before delivery and lactating mothers 3 months after delivery in all townships Supply of Injection B1 ampules for treatment of beri beri cases	Vitamin B1 deficiency Surveillance system was Established in 2005 with the data collected from 55 hospitals.

Source: Health in Myanmar 2011, MOH [4]

4.3 Infectious Disease Control

4.3.1 Malaria Responses

(1) Policy

National malaria control measures are implemented with following strategies

- Prevention and control of malaria by providing information, education and communication up to the grass root level
- Prevention and control of malaria by promoting personal protective measures and/or by introducing environmental measures as principle methods and application of chemical and biological methods in selected areas depending on local epidemiological condition and available resources
- Prevention, early detection and containment of epidemics
- Provision of early diagnosis and appropriate treatment
- To promote capacity building and programme management of malaria control programme (human, financial and technical)
- To strengthen the partnership by means of intrasectoral and intersectoral cooperation and collaboration with public sector, private sector, local and international non-governmental organizations, UN agencies and neighboring countries

- To intensify community participation, involvement and empowerment
- To promote basic and applied field research

The following is the activities of National Malaria Control Programme reported in Health in Myanmar 2011

1) Information, Education and Communication

Dissemination of messages on malaria with the emphasis on prevention and early diagnosis is carried out through various media channels in different local languages for various target groups by NGOs, religious organizations and local authorities at different levels.

2) Preventive activities

Stratification of Areas for Malaria Control

In 2007, 16,178 villages of 80 endemic townships of 15 States and Regions of Myanmar were stratified into malarious areas, potential malarious areas and non-malarious areas. The malarious areas were stratified more into high risk areas, moderate risk areas and low risk areas. Package of malaria control activity has been given according to the result of risk area stratification. Its validation was done by malaria-metric survey in 2010.

Insecticide Treated Mosquito Nets

ITN Programme either distribution of Long Lasting Insecticidal Nets (LLIN) or impregnation of existing nets was carried out. In 2010, 78,960 LLINs were distributed and 515,200 existing nets were impregnated in 2,674 villages of 36 endemic townships particularly in hard to reach areas.

Epidemic Preparedness and Response

Ecological surveillance and community based surveillance were implemented together with early case detection and preventive measures like indoor residual spray (IRS) reduced number of epidemics since 2006.

3) Early diagnosis and appropriate treatment

In 2009, according to the new anti-malarial treatment policy, case management with ACT (Artemisinin based combination therapy) was practiced. For malaria diagnosis, microscopes were distributed up to RHC (rural health center) level and RDT (Rapid Diagnostic Test) were also distributed up to SHC (sub-rural health center) level. Rural areas and hard to reach border areas were covered by malaria mobile teams. Assessment and quality control of malaria microscopy was done by laboratory technicians from Central and State/Regional VBDC team in 2009, and monitoring efficacy of ACTs and quality assurance of RDT were also done.

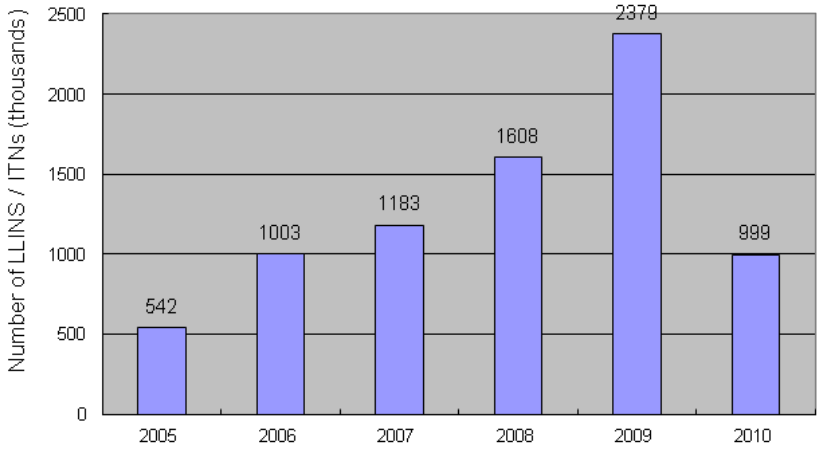
Since 2006 -2007, to improve access to quality diagnosis and effective treatment in remote areas, Community based Malaria Control Programme has been introduced and implemented in some selected townships, and it was expanded in townships of Sagaing Region, Southern Shan State, Magwe Region, Kayin State, Kachin State, Northern Shan, Mon State, Rakhine State and Bago Region in 2009.

4) Capacity building

Malaria microscopists, VBDC staff and Basic Health Staffs from malarious townships were trained on different technical areas like skill development of progamme activities, malaria prevention and control, recording and reporting

(2) Prevention

Figure 4-5 shows the distribution status trend of Insecticide-Treated Mosquito Nets (INTs) and Long Lasting Insecticide-Treated Nets (LLINs) in 2005-2010. Indoor Residual Spraying (IRS) was also used in addition to the mosquito nets. WHO reported that 11,000 received malaria prevention measures through IRS in 2008.

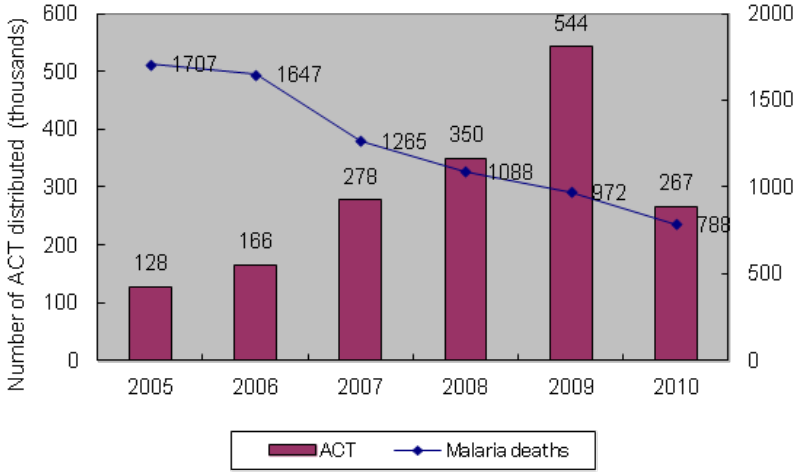


Source: Malaria situation in SEAR countries; Myanmar 2012 [25]

Figure 4-5 Availability of LLINS / ITNs in Myanmar, 2005-2010

(3) Diagnosis and treatment

The number of confirmed malaria diagnoses tripled from 2000 through 2008 (from 120,029 cases to 411,494 cases). With the widespread distribution of rapid diagnostic test kits (RDT), 187,289 cases were confirmed by RDT in 2008. As shown in Figure 4-6, there is a correlation between the wide availability of artemisinin-based combination therapy (ACT) and the decrease in deaths due to malaria.



Source: Source: MARC 2011-2015, MOH [23]

Figure 4-6 Trends of distribution of ACTs and Malaria Deaths in Myanmar, 2005-2010

4.3.2 HIV/AIDS Responses

(1) Policy

Table 4-5 summarises the aim, objectives, and cross-cutting issues of Myanmar National Strategic Plan on HIV/AIDS (NSP I 2006-2010, NSP II: 2011-2015)" while Annex 2-3[30] describe the strategic indicators and the status of achievement. As mentioned in Chapter 3, the National Plan focuses on high risk populations such as sex workers, men who have sex with men (MSM), and injecting drug users and strengthens the prevention programmes targeting them in order to prevent the spread of transmission.

Table 4-5 Summary of Myanmar National Strategic Plan on HIV/AIDS (NSP I 2006-2010, NSP II: 2011-2015)

AIM: The National Strategic Plan for Myanmar aims at reducing HIV transmission and HIV-related morbidity, mortality, disability and social and economic impact		
Objective 1 Reduction of HIV transmission and vulnerability, particularly among people at highest risk.	**Objective 2** Improvement of the quality and length of life of people living with HIV through treatment, care and support.	**Objective 3** Mitigation of the social, cultural and economic impacts of the epidemic.
- Sex workers - Men who have sex with men (MSM) - Drug users - Institutionalised populations - Mobile populations - Uniformed Services - Young people - Workplace	- VCCT、ART、Home-based care and care at the health facilities - PMTCT - Reproductive health	- Psycho-social, economical and nutritional supports - Supports to the Orphans and Vulnerable Children Infected and Affected by HIV
Cross-cutting issues		
① Health system strengthening (including the private sector), the improvement of health facilities and community strengthening		
② Favourable environment for reducing of stigma and discrimination		
③ Strategic information, monitoring and evaluation, research, advocacy and leaderships		

Source: Myanmar National Strategic Plan on HIV/AIDS: NSP I 2006-2010, MOH [26]

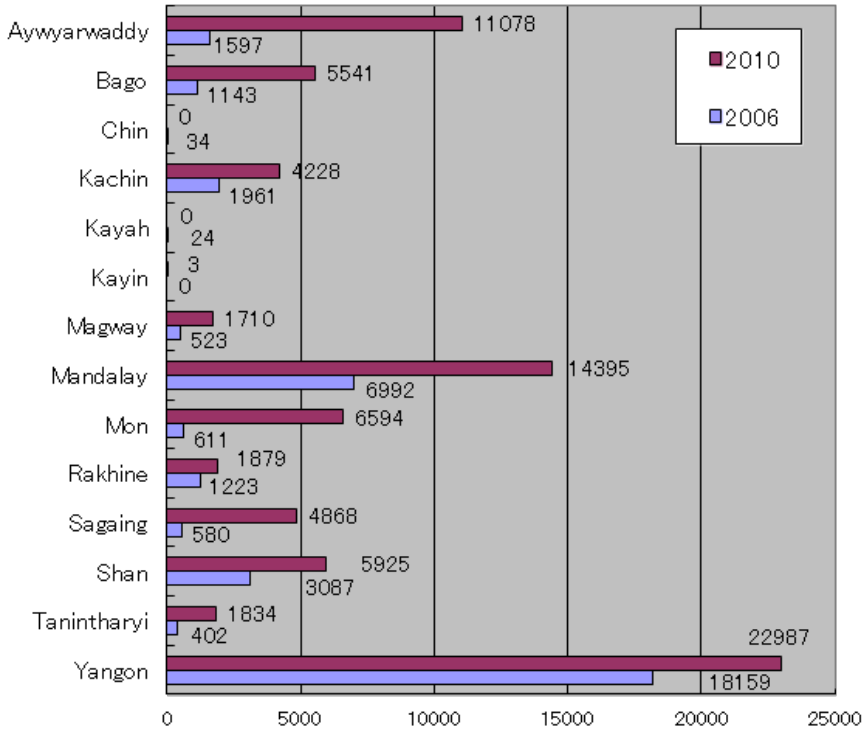
(2) Service Provision and Coverage

1) Prevention

HIV prevention for people at high risk of infection such as female sex workers, MSM, injecting drug users, etc. is carried out in recent years based on the policy described above. NGOs implement various services such as the drop-in centres[31], outreach programmes, the distribution of condoms for women and men[32], treatment of sexually transmitted infections and voluntary confidential counselling and testing (VCCT) for the purpose of changing their sexual behaviours. In addition, the drugs substitute treatment services such as methadone and distribution safe syringes are provided.

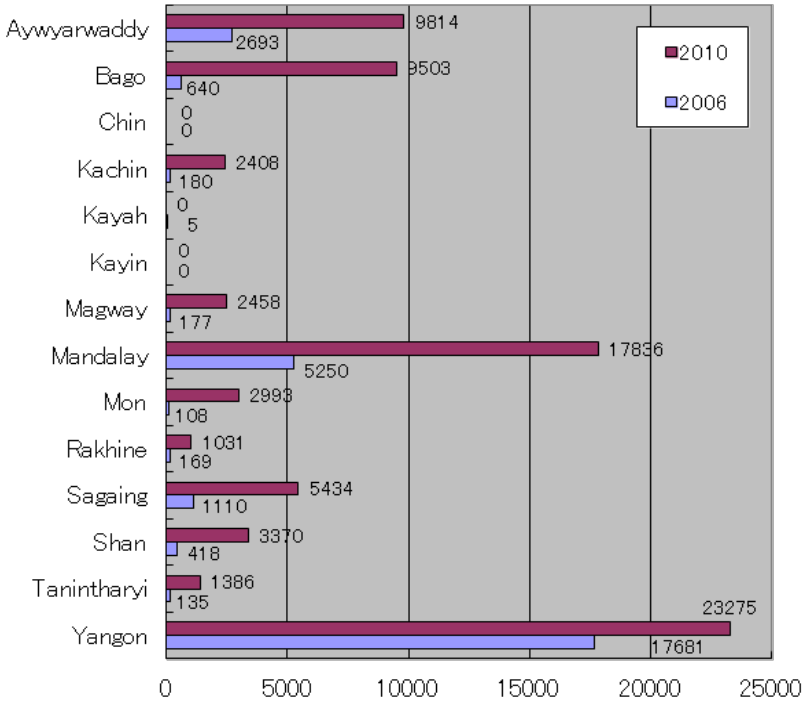
[30] Please see the Annex 2-3 Table 2-3-1and Table 2-3-2
[31] In this case, the drop-in centers are the facilities where MSM and IDU can receive counselling or group therapy and HIV prevention services. NGOs provide those services with the assistance by the government and UN agencies.
[32] See Annex 2-3, Figure 2-3-3 for the trend in the numbers of condom distribution

In 2009 and 2010, more than 400.000 condoms were distributed each year. As shown in Figure 4-7 and Figure 4-8, the number of high-risk people, such as female sex workers and MSM, who received HIV prevention programmes has been increasing.



Source: NAP Progress Report 2010 [27]

Figure 4-7 Female Sex Workers Reached by National and National HIV Programmes in 2006 and 2010(by regions/states)



Source: NAP Progress Report 2010 [27]

Figure 4-8 MSM Reached by HIV Programmes in 2006 and 2010(by regions/states)

2) Treatment and Care

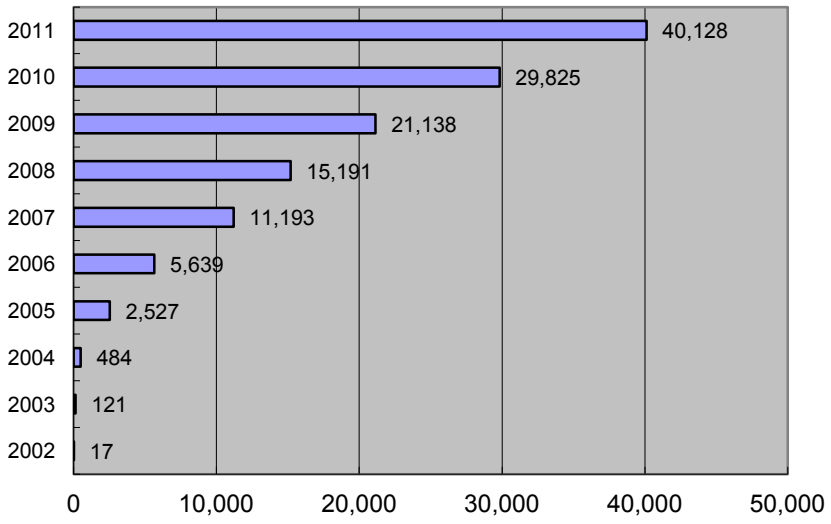
As shown in Table 4-6, the percentage of people who receive anti-retroviral therapy (ART) in Myanmar is the lowest out of all the neighbouring countries.

Table 4-6 HIV/AIDS indicators of Myanmar and the Neighbouring Countries

	Unit	Year	Myanmar	Thailand	Cambodia	Laos	Vietnam
Number of people who receive ART	Person	2008	15,191	185,086	31,999	1,009	25,597
		2009	21,138	216,118	37,315	1,345	37,995
ART coverage (among the people who need ART)	%	2009	20.0	60.0	90.0	70.0	30.0
Number of women who receive PMTCT service	Person	2009	2,398	5,457	798	24	1,372

Source: UNAIDS 2010 Global Report [13]

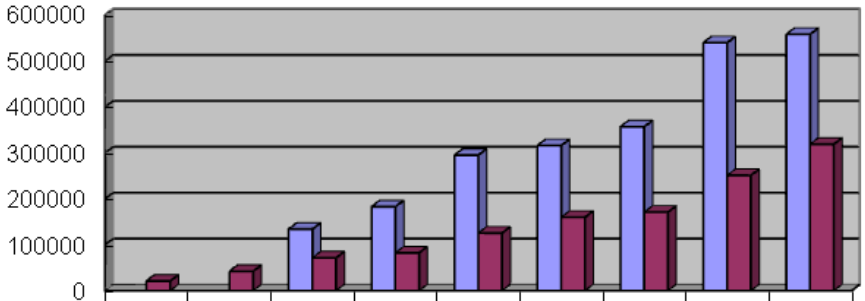
As shown in Figure 4-9, although around 40,000 people received ART in 2011, this is still a little less than 20% of the 216 000 people who needed ART that year. This shows that ART service has not caught up with the increasing number of infected people.



Source: NAP Progress Report 2012 [27]

Figure 4-9 Number of People Who Receive ART (Adults and Children) 2002-2011

NAP started its PMTCT sites in 2001 and it operated 183 sites in 2008. Out of them, 38 sites are located in the hospitals and 145 sites are operated in the communities. As shown in Figure 4-10, the number of users has been increasing. Although there are variations among regions/states, 58% of pregnant HIV positive women received the PMTCT programmes in 2008 and 1,697 sets of mother and child received ART for HIV prevention measures in 2009.



	2003	2004	2005	2006	2007	2008	2009	2010	2011
Pregnant women receiving VCCT services			133,859	182,692	294,992	315,920	356,641	539,728	558,039
Pregnant women receiving HIV test and posttest counseling	21,000	42,000	71,500	82,287	125,403	159,763	170,862	250,938	318,910

Source: NAP Progress Report 2012 [27]

Figure 4-10 Number of Pregnant Women Who Receive PMTCT Services 2003-2011

4.3.3 TB Responses

(1) Policy

National Tuberculosis Programme (NTP) was founded in Myanmar in 1966 and it adopted short-course chemotherapy as the standard treatment in 1994. WHO recommended Directly Observed Treatment, Short-course (DOTS), and this strategy was introduced in Myanmar in 1997. The government commitment, definitive diagnosis by sputum examination, Intensive Phase TB Treatment, reliable supply of Anti-tuberculosis drugs, monitoring of patients' records, and treatment results have been initiated since then. DOTS coverage was 60% in 1997 but by 2003 it had expanded across the country.

NTP is implementing the Stop TB Strategy with the following six components [16]:

1. **Pursue high-quality DOTS expansion and enhancement**
   - i. Secure political commitment, with adequate and sustained financing
   - ii. Ensure early case detection and diagnosis through quality assured bacteriology
   - iii. Provide standardised treatment with supervision and patient support
   - iv. Ensure effective drug supply and management
   - v. Monitor and evaluate performance and impact
2. **Address TB/HIV, MDR-TB and the needs of poor and vulnerable populations**
   - i. Implement collaborative TB/HIV activities
   - ii. Implement prevention and management of MDR-TB
   - iii. Address the needs of TB contacts, and poor and vulnerable populations
3. **Contribute to health system strengthening based on primary health care**
   - i. Improve health policies, human resource development, financing, supplies, service delivery and information
   - ii. Strengthen infection control in health service locations, other communal settings and households
4. **Engage all health care providers**
   - i. Involve all public, voluntary, corporate and private providers through PPM approaches
   - ii. Promote use of International Standards for Tuberculosis Care

5. Empower people with TB and communities through partnership

i. Pursue advocacy, communication and social mobilisation

ii. Foster community participation in TB care, prevention and health promotion

iii. Promote use of Patients' Charter for Tuberculosis Care

6. Enable and promote research

i. Conduct programme-based operational research

ii. Participate in research to develop new diagnostics, drugs and vaccines

As shown in Table 4-8, the TB detection rate is relatively high and notifications of new TB cases are also progressing. The treatment success rate has remained over 70 percent since 2000 while it was 77% in 2009[33].[15]. Responses to coinfection with HIV and Multi Drug Resistance Tuberculosis (MDR TB) are priority issues.

Table 4-7 TB Indicators of Myanmar and Neighbouring Countries

	Unit	Year	Myanmar	Thailand	Cambodia	Laos	Vietnam
TB case detection rate (all methods)	%	2010	71	70	65	72	54
New TB cases	Case	2010	127,134	64,512	39,994	4,836	88,033
TB budgets	US$	2011	31 million	45 million	39 million	3 million	59 million
Actual spending for TB services	%	2011	45	92	35	100	31

Source: Global TB Control Report [15]

Aiming to improve case findings, the Myanmar government has developed public-private DOTS strategy (public-private mix DOTS (PPM-DOTS) in cooperation with NGOs since 2004. Since 2004 , non-NTP laboratories have also been accredited under the PPM scheme, by PSI in 2004 and by MMA in 2005, In 2010, PPM activities were carried out in 168 townships with PSI and 70 townships with MMA. Altogether 1,500 private practitioners out of about 20,000 are involved in TB control nationally, although the level of coverage still needs to be improved. The NTP's notification rate of all TB cases was 257/100,000 in 2009 (WHO Global Report 2010). According to national TB notification data from 2009, 8,259 (17.3%) out of 47,877 smear-positive patients were notified by "other than NTP facilities" such as GPs (NTP report 2009).

The Ministry of Health reported that their TB prevention and treatment efforts from the past 15 years brought about a successful outcome through the expanded DOTS strategy and PPM-DPTS. As a result, the TB prevalence rate decreased to 35% between 1994 and 2009 with the help from collaborators. On the other hand, The WHO Global Report 2010 concluded that "the TB burden in Myanmar has stagnated with no significant change since the 1990s". At this moment, Myanmar has not yet reached the level to significantly reduce the number of TB patients, and new problems such as MDR TB and coinfection with TB and HIV are arising. The Ministry of Health realises that further efforts are required and aims to extend the NTP to many people at the village level.

[33] See Annex 2-3, Figure 2-3-4. Treatment success in 2008 was 1% higher than in 2009.

Chapter 5 Health System

5.1 Human Resources for Health (HRH)

Health staff ratio per population of 10,000 in Myanmar was 13 in 2010. This figure is far from 23 per 10,000, which is the ratio that WHO deems in order to meet adequate coverage for selective primary health care. As for types of health professions, ratios of doctors and nurses exceed 5 per 10,000 people, and of that 4 are midwives. Other than those professions, however, the health staff ratios are below Table 5-1.

Table 5-1 Health Manpower Development 1988-2011

Health manpower	1988-89	2006-07	2007-08	2008-09	2009-10	2010-11	Per 10,000(2010)
Total No. of Doctors	12,268	20,501	21,799	23,740	34,536	26,435	5.51
Public	4,377	7,250	7,976	9,583	9,728	10,927	2.28
Co-operative & Private	7,891	13,251	13,823	14,157	14,808	15,508	3.23
Dental Surgeon	857	1,732	1,867	2,092	2,308	2,562	0.53
Public	328	707	793	777	703	813	0.17
Co-operative & Private	529	1,025	1,074	1,315	1,605	1,749	0.36
Nurses	8,349	21,075	22,027	22,885	24,242	25,644	5.35
Dental Nurses	96	165	177	244	262	287	0.06
Health Assistants	1,238	1,778	1,788	1,822	1,845	1,899	0.40
Lady Health Visitors	1,557	3,137	3,197	3,238	3,278	3,344	0.70
Midwives	8,121	17,703	18,098	18,543	19,051	19,556	4.08
PHS*-1	487	529	529	529	529	541	0.11
PHS-2	674	1,394	1,444	1,484	1,645	2,080	0.43
Traditional Medicine Practitioners							
Public	290	889	945	950	890	890	0.18
Co-operative & Private	2,500	4,952	5,163	5,397	5,737	5,737	1.20

*PHS=Public Health Supervisors

Source: Health in Myanmar 2011 [4]

The following describes the situation of human resource development and deployment[34].

5.1.1 Pre-Service Training

Table 5-2 summarises the universities and training schools under Department of Medical Science. The University of Medicines at Magway particularly trains medical students who are going to work in rural areas, thus they accept students from regions/states outside the Mandalay and Yangon regions. In addition, there is one military medical university in Yangon under the Ministry of Defence that trains doctors who are going to work at two military hospitals in Yangon. Military hospitals are available only to military personnel.

In order to increase the manpower at Sub-rural Health Centres (SHC), Public health Supervisors-2(PHS-2)have been appointed at SHC. Regional Medical Universities provide six months PHS-2 courses for high school graduates. Currently there are only 2,000 PHS-2 while more than 6,000 are expected to be placed at SHC facilities. To reach the quota, the Ministry of Health aims to produce about 1,000 PHS-2 per year.

[34] See Annex 2-4.

Table 5-2 Universities and Training Schools under Department of Medical Science

University/Training School		Numbers and Locations	Type of Professions	In-Service Training Period
University	Medicine	4 schools (2 in Yangon, Mandalay, and Magway)	Medical Doctor	6 years
	Public Health	1 school (Yangon)		4 years
	Dental Medicine	2 schools (Yangon, Mandalay)	Dental Surgeon	4 years
	Pharmacy	2 schools (Yangon, Mandalay)	Pharmacist	4 years
	Medical Technology	2 schools (Yangon, Mandalay)		4 years
	Regional Medicine	1 school (Magway)	Health Assistant	4 years
	Nursing	2 schools((Yangon, Mandalay)		4 years
Technical School	Nursing	37 schools* (All regions/states. Some are annexed to other schools)	Nurse	3 years
	Midwifery		Midwife	18 months
	LHV[35]	1 school	Lady Health visitors	9 months
Others	PHS-1Trraining	At Regional Medicine University in Magway	PHS-1	1 year
	PHS-2Training	At Regional Medicine University in Magway	PHS-2	6 months

Source: Survey Report on Maternal and Child Health Issues of Myanmar. JICA [28]

In terms of other types of health professions, there are two medical technical universities in Yangon and Mandalay that accept about 150 students each year. They train medical laboratory technicians, physiotherapists, X-ray technicians and medical imaging technologists[36]. Both Yangon and Mandalay each have a University of Dental Medicine and University of Pharmacy as well.

Midwives all receive an education in midwifery, which is only 1.5 years of schooling[37], while nurses receive 4 years of education at the universities of nursing or 3 years at the nursing training schools. Although midwives are professionals in midwifery, they are regarded as lower standard health workers compared to nurses. Midwifery education is separate from nursing education. It is believed that the government needs to produce more health personnel in order to expand services at the rural health centres (RHC) and SHC for extended primary health care. However, due to strong stereotypes, nurses work exclusively at hospitals while midwives work exclusively at the RHC and/or SHC.

This is not an efficient structure for a place which faces so many health problems in primary health care services, infections disease control, reproductive health care, and child health care, and in which both financial and human resources face shortages. As of 2011 the Ministry has been revising the midwifery curriculum and extending the training period[38]. Although it is important to review midwifery education, a standard education system and professional capacity for health personnel need to be established in order to provide high quality health care services for the long term.

[35] Lady Health Visitor. They are government staffs, assisting the chief nurses of the Townships and supervising PHS-2 and health volunteers.
[36] As of December 2010: 732 students in Yangon and 564 students in Mandalay.
[37] The nurse midwifery law is revised in 2002 and midwives are trained at the Midwifery training schools after graduating from high schools.
[38] According to DMS, the training period has been extended from 18 months to 24 months and the new curriculum was completed. The training with the new curriculum needs the revision of a law and the enforcement order by the central government, and it is predicted that it still takes 2-3 years.

5.1.2 Provision of Human Resources

There are nursing and midwifery schools in all regions/states. The graduates are assigned to their hometowns' local health facilities. Although they are employed by regions/states, all civil servants assignments are decided by the central government based on requests from the regions/states through the Ministry of Health. Since the number of requests for graduate employment has remained the same every year, every graduate is able to attain a job.

5.1.3 In-Service Training

After having found a job, it is common for graduates to take training courses for upper qualifications while being paid during the training period. Since such leaves of absences are not regarded as vacancies, health facilities have positions which go unmanned. Especially at SHC, if a midwife leaves for training the services, the functioning of the centre will be affected. At this moment, the Ministry of Health has not been able to address this situation. As midwives often want to be promoted to nursing and/or health assistant positions, there is a deep concern that there will be a lack of experienced midwives in the near future.

Programme-based in-service training is carried out actively, but most of it is targeted towards staff at health facilities of township or lower levels. Trainings are usually conducted by lecturers who are trained Township Medical Officers (TMO). However, this kind of frequent training disturbs the regular business routine at the health facilities, and quality and effectiveness of the training depend on ability of TMOs [28].

5.2 Health Information Systems

The health management information system (HMIS) was established in 1995. In order to improve data quality, a minimum data set has been created and collecting tools, indicator definitions, collecting procedure, and the formats have been standardised. The Department of Planning summarises the health information and publishes data from all townships as the Health Profile 2008. The profile is send it to the regions/states and each department of the Ministry of Health. The Health Profile contains health information such as population, child and maternal mortalities, leading causes of mortality and morbidity, and numbers of the health workers. This data and information is utilised at the health facilities in order to improve their health services, as well as at the policy level for national health planning and health policies. The Ministry of Health aims to strengthen the capacity of the HMIS staff, and in order to disperse the information timely, the Ministry of Health has made HMIS available online. The National Health Plan 2006-2011 includes the needs to improve the data quality of the national health care system.

The Department of Planning of Ministry of Health is engaged in the operation and management of the HMIS since 1995. The department collects health data from each health facility every month and edits, organises[39], analyses, distributes, and disseminates the health information. The office publishes the Myanmar Health Statistics[40], Annual Hospital Statistics Report[41], and Annual Public Health Statistics Report[42] every year. According to the Annual Hospital Statistics Report 2008, the department received monthly data from

[39] Coding and data processing in accordance with the International Classification of Diseases (ICD-10) of WHO
[40] 2010 version is the latest one
[41] 2008 version is the latest one
[42] 2009 version is the latest one

846 public hospitals in 2008. According to the Ministry of Health [29], the data collection rate in 2009 was 97%, while Sagaing Region, Shan State (East) and Shan State (North) did not submit the data completely.

In addition to the HMIS, the Ministry of Health and UNICEF regularly conduct Multiple Indicator Cluster Surveys (MICS)[43] and the nation-wide Integrated Household Living Conditions Assessment (IHLCA)[44], while UNFPA and the Ministry of Immigration and Population conduct the Fertility and Reproductive Health Survey (FRHS)[45]. The Ministry of Health, in cooperation with the UN and other agencies, conducts the epidemiological and service delivery surveys on HIV/AIDS, TB, and malaria and publishes the reports.

WHO in its Strategic Report of Myanmar 2008-2011 pointed out that it is very difficult to establish the HMIS and publish accurate health information since many different departments and sections inside and outside of the Ministry of Health which are involved in collecting health data. Also, there are areas from which data cannot be accessed and collection is hampered by the fact that frequent migration takes places across the borders.

5.3 Health Delivery System

Conceptually, public health services are composed of basic health services and curative services. According to the Ministry of Health, basic health services mean community-based primary health care provided by basic health care staff and community health volunteers, as well as curative services that are provided by various categories of medical institutions from the community to the national levels.

5.3.1 Health Facilities

Table 5-3 shows the trend in the numbers and types of health facilities[46].

Table 5-3 Number and Types of Health Facilities, 1988-2011

	1988-89	2006-07	2007-08	2008-09	2009-10	2010-11
Government Hospital	631	832	839	846	871	924
Total No. Of Hospital Beds	25,309	35,544	36,949	38,249	39,060	43,789
No. Of Primary and Secondary Health Centres	64	86	86	86	86	86
No. Of Maternal and Child Health Centres	348	348	348	348	348	348
No. Rural Health Centres	1,337	1,463	1,473	1,481	1,504	1,558
No. Of School Health Teams	80	80	80	80	80	80
No. Of traditional Medicines Hospitals	2	14	14	14	14	14
No. Of Traditional Medicine Clinics	89	237	237	237	237	237

Source: Health in Myanmar 2011, MOH [4]

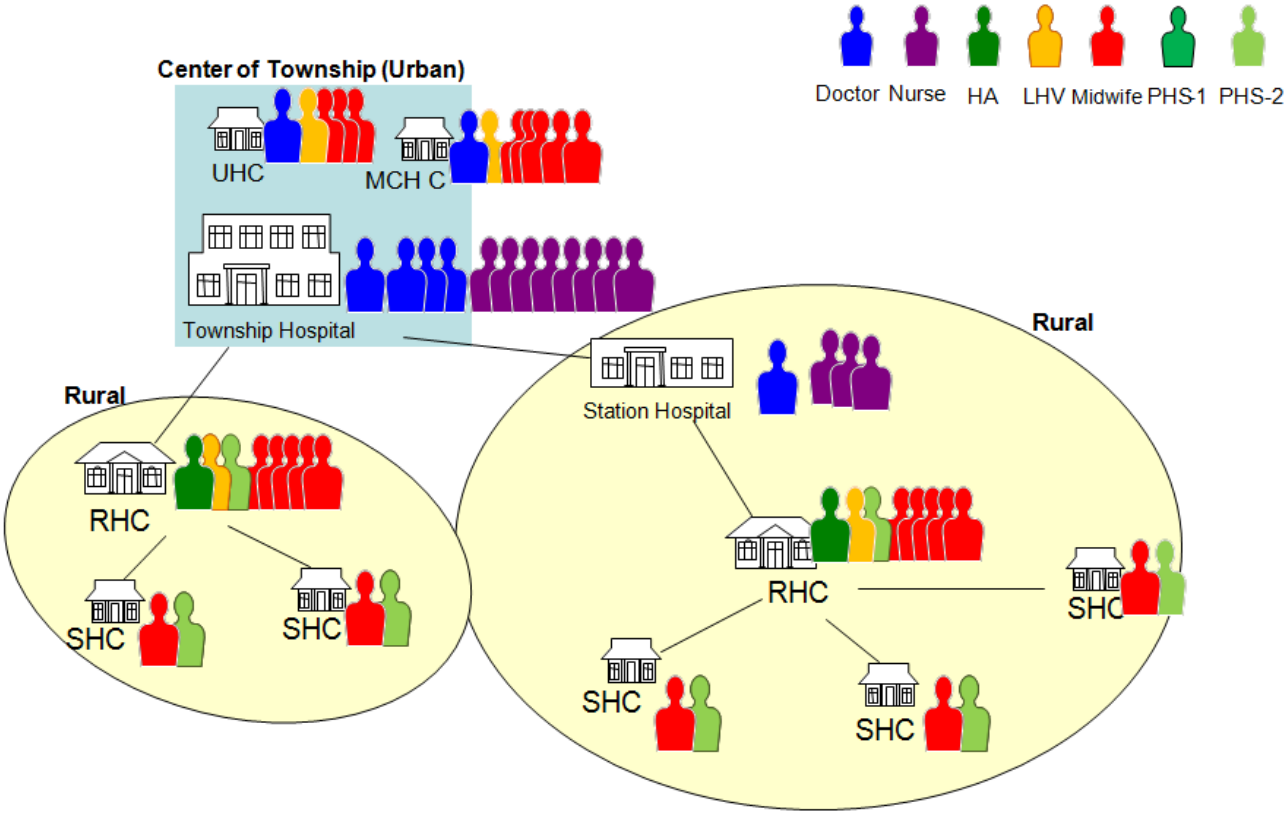
Among government hospitals, there are general hospitals at the national level, specialised hospitals, teaching hospitals, regional hospitals in the regions/states, district hospitals, township hospitals, station hospitals, and

[43] 1995, 2000, 2003, and 2009-2010
[44] 2004-2005, 2009-2010
[45] 1997,2001,2007 and 2011
[46] Regarding the health facilities in Yangon, see Annex 2-5, Table 2-5-1

other hospitals. Except for some national hospitals, most facilities have less than 300 beds, and 30% of all hospitals are small scale hospitals with less than 50 beds, including township hospitals. More than half of those are considered small scale station hospitals for rural health care services [28]. In addition to the jurisdiction of the Ministry of Health, there are hospitals under other ministries and government offices jurisdiction, including the military hospitals and private hospitals.

5.3.2 Rural Health Services

Below the level of the Township, there are Rural Health Centre (RHC), Sub-rural Health Centre (SHC), Urban Health Centre (UHC), maternal and child health centres in urban areas (MCHC), School Health Centres (Sch.HC) in urban areas, and other health care facilities. Figure 5-1 shows an overview of health care facilities and staffing below the level of Township. Although in theory UHC should have at least one medical doctor in charge and one Lady Health Visitor (LHV), almost all doctors and nurses are stationed in hospital and only midwives are dispatched at UHC.



Source: Survey Report on Maternal and Child Health Issues of Myanmar. JICA [28]

Figure 5-1 Overview of Health Care Facilities and Staffing below the Level of Township

(1) Township/Station Hospitals

Under the guidance of the regional Department of Health, the Township Medical Officer (TMO) is in charge of both the township hospital and administrative affairs for health care in the township. Township hospitals provide laboratory services, dental, major surgery, and curative care. In addition, the hospital has 50 or more beds and facilities for emergency care, critical care and intensive care. In addition to the TMO, the township hospital usually has 2-3 doctors and 5-10 nurses. There are more than 300 townships all of whom,

except the ones that have regional/state hospitals, are supposed to have a hospital. However, it is estimated that the number of township hospitals is actually 150-200.

Station hospitals are small scale hospitals that are typically located at a distance of 10-20 km from township hospitals, and they provide services for general medicine, surgical treatment, obstetrics care, and play an important role in rural health care services. Station hospitals usually have one doctor in charge plus 2-3 nurses and public health supervisors (PHS-1). For the reduction of child mortality, it is very important that children receive the necessary treatment for pneumonia, bronchitis and diarrhoea. Therefore, enhancing and strengthening referral services by the health centres to township hospitals and station hospitals is very important.

(2) Health centres in the rural areas

Providing primary health care by RHC/SHC unit[47] is the major characteristic of basic health services in Myanmar. 70% of the total population lives in the rural areas, and RHC and SHC are a priority in receiving public health services. RHC have one health assistant (HA) in charge and LHVs. They also have 3-5 midwives who cover 3-5 attached SHCs. Similarly, there is a plan to allocate PHS-2 to RHC in order to cover attached SHCs, but not much progress is observed. In SHCs, usually a single midwife manages the health services. Under the guidance of midwives at SHCs, village health volunteers (midwife's assistants[48] and community health workers) are assumed to bridge community members and health services. RHC is supposed to cater to a population of 20,000 people (a minimum of 10 villages). Although 36 million live in rural areas and 1,600 to 1,800 RHC are needed in order to cover all, the actual number of facilities has not yet reached that stage.

In some places SHC have a midwife but no building. For the establishment of RHC and SHC, the community's intentions are respected. Therefore the community can raise funds with the support from local businessmen and NGOs to build the facilities. The Ministry of Health has a standard drawing of RHC and SHC; however, the size and floor plan of the building and space for the staff quarters are likely to depend on the financial capacity of the communities and the intention of the donors.

For this reason, establishing RHC and SHC is much more difficult in rural areas with poor access in which many people are poor. In some areas, a room in the town hall or the home of midwives is used as an alternative medical room for SHC services. Although it is not confirmed yet how many places like these exist, there is an urgent need to improve the RHC and SHC buildings that are currently not suitable for the use as a health facility.

In particular, SHC becomes extinct when a midwife who uses her home to provide medical services gets transferred. If the SHC is a room in a private house or in a village office, it is difficult to create a safe and private environment for childbirth. The research and evaluation data on existing nationwide and regional

[47] Service activities include the treatment of general sickness and injuries, antenatal care, infant health checkups, immunization, nutrition, health education, etc.

[48] They receive a short-term training and the delivery assistance kit, but since they have not received formal education as health workers, they are not included as trained health workers (Skilled Birth Attendant, SBA).

health facilities is very poor. Continuing the efficient and reliable quantitative expansion of basic health services while assessing the state of RHC and SHC infrastructure are immediate tasks to be carried out.

(3) Health centres in the urban areas

Urban Health Centre (UHC), maternal and child health centre (MCH.C), school health centre (Sch. HC) are facilities that are located in the urban areas of townships. UHC provides primary health care services, MCH.C provides maternal and child health care services, and School Health Centre (Sch.HC) provides school health care services. However, in the centre of the township there are also township hospitals and private hospitals. Some townships have higher-ranking hospitals. In addition, although township hospitals and stations hospitals provide logistical supports to RHC and SHC in rural areas, there is no cooperation between SHC, RHC, UHC, MCH.C, and Sch HC. In this sense, the importance of basic health facilities in urban areas is relatively small.

On the other hand, although the number of UHC, MCH.C, and Sch. HC are few, they are located in urban areas where many of midwives are wishing to get assignments. Therefore there is the danger of interfering with the placements of health workers in rural areas. As for the PHC service in Myanmar, it is particularly important to put a special emphasis on RHC and SHC in rural areas.

5.3.3 Other Health Facilities

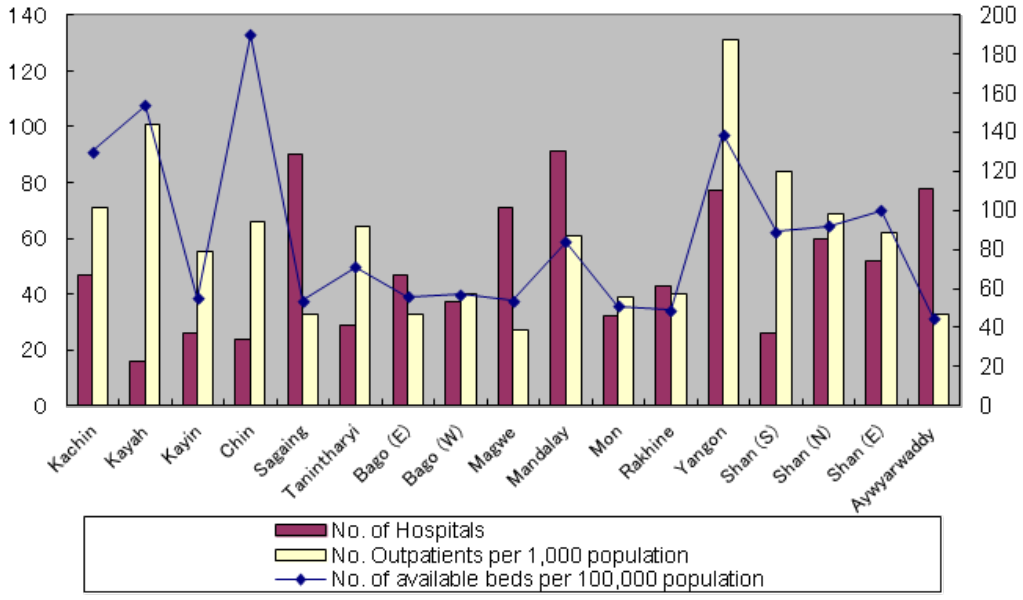
According to the Ministry of Health, there are about 5,500 private clinics across the country under the jurisdiction of the Ministry of Health and other ministries. Many of them are assumed to be very small ones. Private facilities are located in major cities throughout the country as well, such as Yangon and Mandalay. However, most private clinics can be found only in the centre of townships, limiting access to poor people living in remote places.

A law relating to Private Health Care Services was enacted in 2007. Private hospitals and health services were legitimately registered in 2010 on the basis of the law. 103 private hospitals[49], 192 specialised clinics and 2,891 general clinics were authorised by the end of December 2010 [4].

5.3.4 Utilisation of Health Facilities

Figure 5-2 shows the availability/utilisation of hospitals by regions/states. The figure shows that hospitals in urban areas such as Yangon are overused and overcrowded while many hospitals along the Indian border are underutilised.

[49] 87 general hospitals and 16 specialised hospitals



Source: Annual Hospital Statistic Report 2008, MOH [30]

Figure 5-2 Availability and Utilisation of Hospital Resources by Regions/States 2008

5.3.5 Health Financing

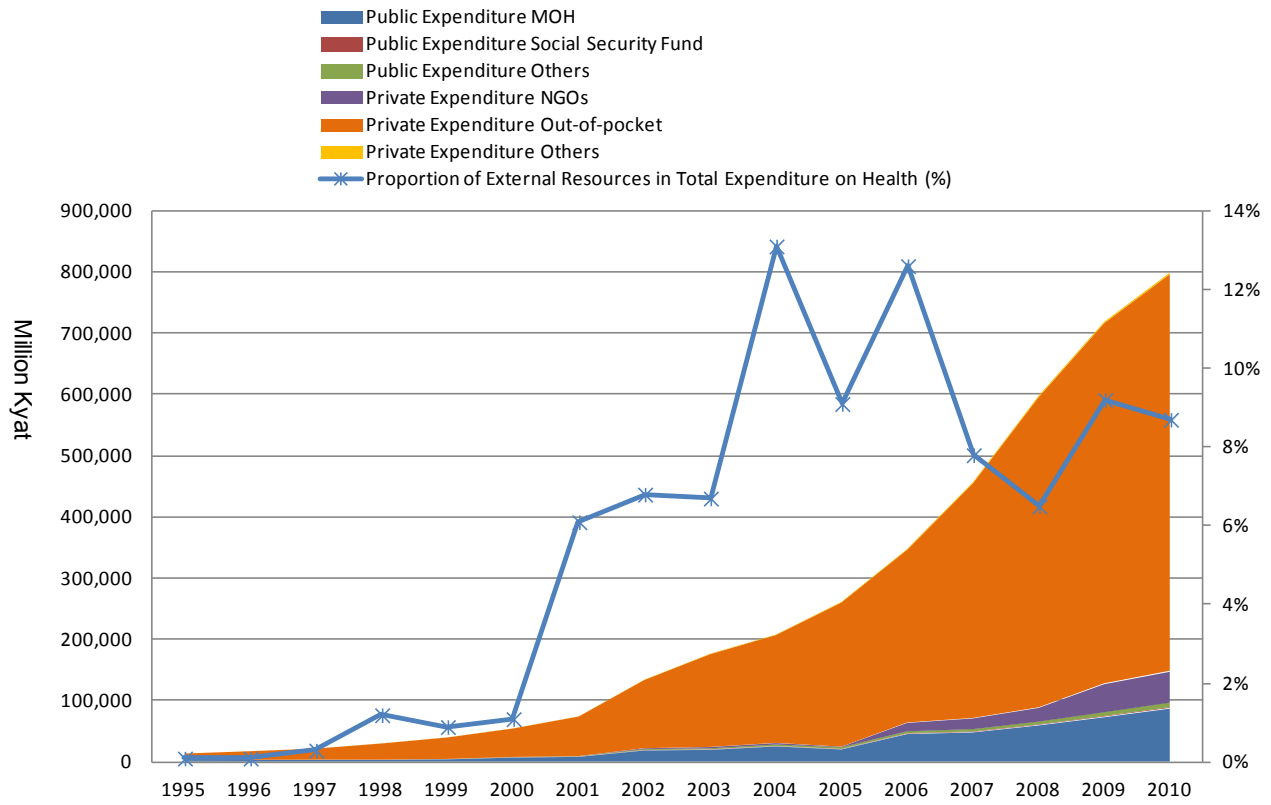
As shown in Table 5-4, the government of Myanmar, in comparison with governments in neighbouring countries, does not invest sufficiently in the health sector. As a result, Myanmar has a higher proportion of out of pocket payment.

Table 5-4 Situation of Health Financing of Myanmar and Neighbouring Countries (Japan as reference)

	Unit	Year	Myanmar	Thailand	Cambodia	Laos	Vietnam	Japan
Annual health expenditure per capital	US$	2010	17	179	45	46	83	4,065
Annual Out-of-pocket health expenditure per person	US$	2010	13.8	25.1	18.0	23.46	48.1	14%
Proportion of government expenditure for health	%	2010	1	13	10	6	8	18
Government expenditure per person for health	US$	2010	2.0	134.2	15.2	16.7	31.5	3,780
Proportion of government expenditure of GDP for health	%	2010	Below1%	3	2	1	3	8
Proportion of domestic funding for health (proportion of funding from abroad)	%	2010	92 (8)	100 (0)	76 (24)	85 (15)	97 (3)	-

Source: WHO Global Health Expenditure Atlas, Health Financing Country Profile, 2010 [31]

Figure 5-3 shows the trends of health expenditure and resources. The proportion of out-of-pocket expenditure has remained at around 80% since 1995. It is likely that out-of-pocket spending supports the rapid increase of health expenditure from 2001. From 2009 to 2010, along with a slight reduction in the total expenditure for health, the proportion of out-of-pocket spending reduced to about 74% in 2010. It is assumed that expenditure by non-profit organisations includes donations from the community and therefore do not reduce the personal burden.

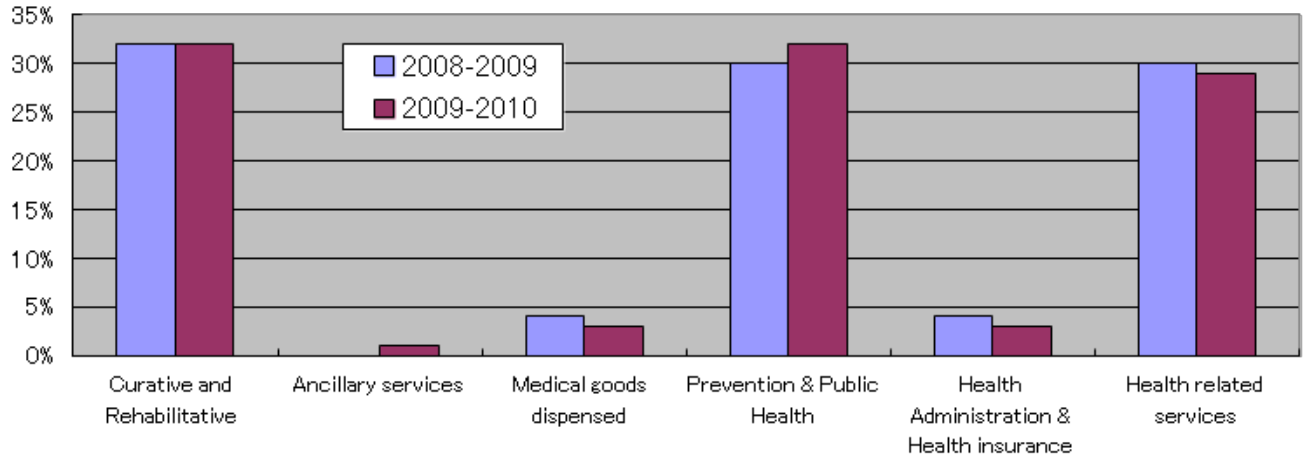


	1995		2000		2005		2010	
Public Expenditure	**2,453**	**(18.9%)**	**7,264**	**(13.4%)**	**23,392**	**(9.0%)**	**97,126**	**(12.2%)**
MOH	2,363		6,572		20,158		87,843	
Social Security Fund	40	(0.3%)	227	(0.4%)	480	(0.2%)	1,258	(0.2%)
Others	50		465		2,754		8,025	
Private expenditure	**10,536**	**(81.1%)**	**46,796**	**(86.6%)**	**237,124**	**(91.0%)**	**700,496**	**(87.8%)**
NGOs	9		164		894		50,986	
Out-of-pocket	10,478	(80.7%)	46,421	(85.9%)	235,206	(90.3%)	647,039	(81.1%)
Others	49		210		1,024		2,471	
Total expenditure on health	**12,989**		**54,059**		**260,516**		**797,622**	
External Resources	16	(0.1%)	578	(1.1%)	23,688	(9.1%)	69,312	(8.7%)

Note: Figures in Parenthesis ( ) show the proportions in total Health Expenditure
Source: Global Health Expenditure Database, WHO [32] produced by consultant team

Figure 5-3 Trends of Health Expenditures and Resources

The government has increased spending on health care in terms of both capital and recurrent expenditure every year. The total government expenditure for health has increased from 4,641 billion chat in 1988-1989 to 640,012 billion chat in 2009-2010. Figure 5-4 shows the breakdown of government expenditure for health in 2008-2009 and 2009-2010. About 32-38% is spend on curative and rehabilitative services, while 30-34% goes to health related services, about 22-33% to prevention and public health, and about 3-4% to health administration and health insurance.



Source: Health in Myanmar 2011 [4]

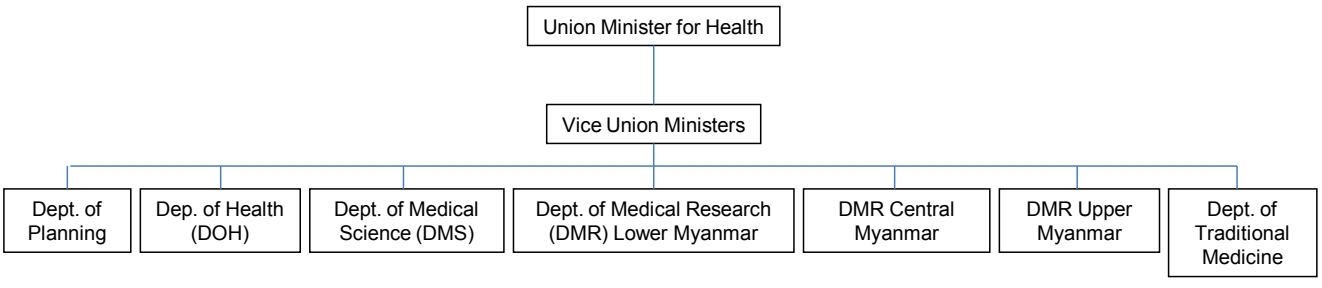
Figure 5-4 Breakdown of Government Expenditures for Health in 2008-2009 and 2009-2010

5.4 Governance and Management

5.4.1 Ministry of Health

The National Health Committee (NHC) is responsible for policy decisions about health care in Myanmar. NHC was established in 1989 as part of the health sector, and it holds a higher position than the Ministry of Health. As the highest level in the health sector, NHC make decisions about health care in Myanmar and gives guidance to the health care administration. Until recently, NHC has been composed of 14 cabinet members, led by First Secretary of State Peace and Development Council (SPDC), and was revised to compose of 18 members chaired by the Minister of Health in April 2011 (see Annex 2-5, Table 2-5-4).

The Ministry of Health performs health medical care administration according to the decisions and instructions of NHC. As shown in Figure 5-5, there are seven Departments in the Ministry of Health. Each Department has a Director General (DG), Deputy Director General, and Directors in each section.



Source: Health in Myanmar 2011 [4]

Figure 5-5 Organisation of Ministry of Health

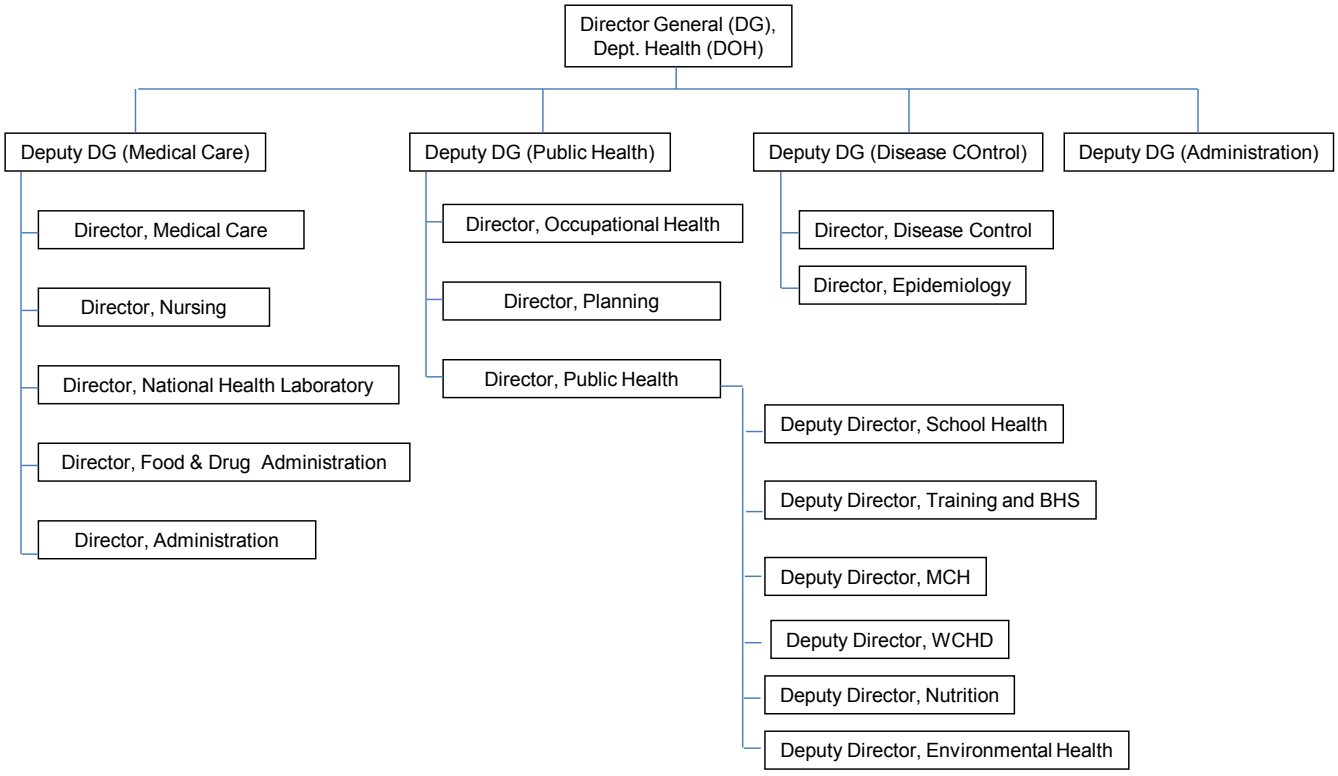
Table 5-5 summarises the roles of the seven departments of the Ministry of Health [4].

Table 5-5 Overview of Each Department at the Ministry of Health

Dept.	Division	Major Roles
Health Planning	Planning Division, Health Information Division, Research and Development Division, E-Health Division, Administration Division	Formulating the National Health Plan, supervision, monitoring and evaluating the National Health Plan implementation. Compiling health data and dissemination of health information
Health	Administration, Planning	All health service delivery
	Public Health	Primary health care and basic health services, nutrition (promotion and research), environmental sanitation, maternal and child health services and school health services
	Medical Care	Management of hospital services, procurement, storage and distribution of medicines, medical instruments and equipment for all health institutions
	Disease Control	Prevention and control of infectious diseases, disease surveillance, outbreak investigation, and response and capacity building
	Health Education	Health education division is responsible for wide spread dissemination of health information and education
	Food and Drug Administration	Registration and licensing of drugs and food, quality control of registered drugs, processed food, imported food and food for export
	Occupational Health	Health promotion in work places, environmental monitoring of work places and biological monitoring of exposed workers. Health education on occupational hazards
	National Health Laboratory	Routine laboratory investigation, special lab-taskforce and public health work, training, research and quality assurance
	Nursing	Supervision of Nursing services
Medical Science	Graduate/Nursing Training, Postgraduate Training & Planning, Foreign relation, Library, Administrative & Budget, Medical Resource Centre, Community field Training Centre for practicing the Community Medicine and Field Training	Human Resources for Health and capacity building
Medical Research	Lower Myanmar: 22 research divisions, 8 supporting divisions and 10 clinical research units	Organizing and conducting research on 6 major (TB, malaria, hypertension, diabetes mellitus, diarrhoea, dysentery), reputed medicinal plants and health system. Promoting research capability and supporting researchers from health institutes, universities and other departments under the Ministry of Health.
	Central Myanmar	Collecting machines and instruments for the establishment and development of technologies on basic histological, immunological, microbiological, hematological, parasitological, pharmacological, biochemical and malaria culture techniques and molecular biological techniques. Epidemiological and health system research on infectious diseases
	Upper Myanmar: 10 Research units and 8 supporting units	Research studies on identification of novel medicinal plants for Treatment of six major diseases. Research units included: reproductive health studies, monitoring of therapeutic efficacy of anti-malaria, operational research on performance of various categories of health staff, assessment of efficacy and side effects of medicinal plants for treatment of diabetes mellitus, hypertension and diarrhoea, seasonal prevalence of malaria vectors and health services utilization status by minor ethnic groups
Traditional Medicine		Development of the service of traditional medicine under the technical guidance of the State Traditional Medicine Council

Source: Health in Myanmar 2011 [4]

As an example, Figure 5-6 shows the Organisation chart of the Department of Health at MOH.



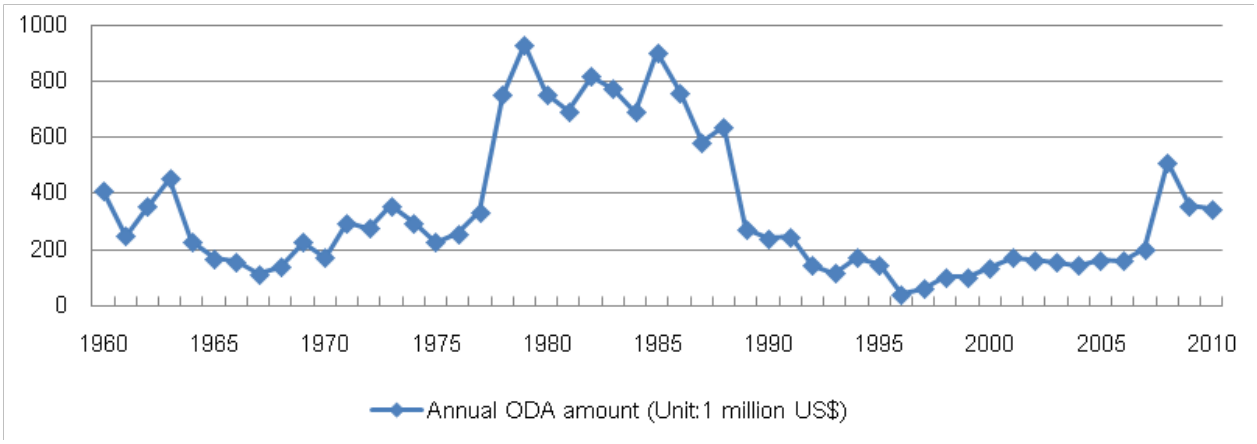
Source: Survey Report on Maternal and Child Health Issues of Myanmar. JICA [28]

Figure 5-6 Organisation of Department of Health at MOH

Chapter 6 Development Assistance and Partnership

6.1 Development of Partnerships in the Past, Present and Future

Development assistance to Myanmar mirrors the internal affairs of Myanmar. The status of development assistance has been changing along with the establishment of a military regime, oppression of democratisation, capital relocation, cyclone damage, adoption of a new constitution, and resumption of democracy promotion. As a result of recent democratisation, UN agencies, regional organisations such as Association of South‐East Asian Nations (ASEAN), bi-lateral organisations (especially Western countries that imposed economic sanctions thus far), and international NGOs have started to shift their direction to open up to future support. Figure 6-1 shows the trend of the amounts of official development assistance (ODA) from foreign countries in the past 50 years from 1960 to 2010.



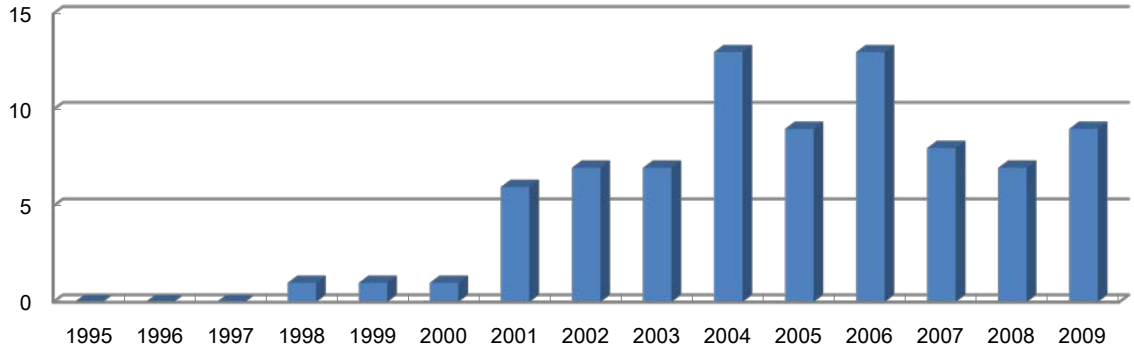
Source: DAC-OECD database [33]

Figure 6-1 Amounts of the Official Development Assistance (ODA) to Myanmar 1960 -2010

6.2 Health Sector Development Partnerships

In the past, Myanmar health sector has had much support through international initiatives, such as infectious disease control and maternal and child health. There are a few bi-lateral development partners, including Japan, which provide government assistance. Annex 2-6 shows a list of stakeholder organisations that support the health sector in Myanmar.

Figure 6-2 shows the proportion of donor cooperation for the health sector. It should be noted that about 80% of the health sector expenses are covered by out-of-pocket payments.



Source: DAC-OECD database [33]

Figure 6-2 Proportion of Donor Cooperation for Health Sector in Myanmar (%) 1995-2009

6.2.1 Recent Trend of Major Cooperation of the Health Sector

Although the Partnership Group on Aid-Effectiveness (PGAE) is an informal group, it acts as a forum for enhancing joint working between development partners. Representatives from ASEAN, the World Bank and other international or regional organizations are invited to the PGAE, the meetings were held in Yangon with attempt to align the timing with the regular thematic UN donor meetings [34].The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) has had a big influence on the trend of major donors in the Myanmar health sector. There is a Technical and Strategy Group (TSG)[50]on HIV, TB and malaria for the GFATM. The members are community organisations, professional associations, donors, NGOs and people living with HIV. They meet on a regular basis and draw upon the technical expertise of its members. The AIDS Technical and Strategy Group also convenes open forum meetings, (known as Extended TSG), which are open to all interested stakeholders and are often thematic in nature. Duties of TSG include the seven following fields:

- Coordinating implementing partners
- Advising on technical matters and acting as a forum for lesson learning and best practices
- Ensuring that national strategies for AIDS are up to date and relevant to the
- Assessing and amending the Operational Plan Epidemic
- Programme monitoring and evaluation
- Supporting the organisation of working groups
- Advising the CCM on policy issue

6.2.2 Outlook of Major Corporations of the Health Sector

The Global Fund began its support in January 2005 but discontinued it in August of the same year. Thereafter, they approved the requests from the Government of Myanmar in 2009 and resumed their support in 2011. In order to avoid projects for HIV/AIDS, TB, and malaria closing down due to GFATM's withdrawal in 2005, seven organisations - UK Department of International Development (DFID), the Swedish government, the Government of Norway, the European Union (EU), Dutch government, the Australian Agency for International Development (AusAID), the Danish International Development Agency (DANIDA), established the Three Disease Fund for AIDS, Tuberculosis, and Malaria in Myanmar (3DF), which virtually took over the support of GFATM[51].

During this time, the European governments in particular followed the policy to not provide direct support to the Myanmar government, and instead provided funding through UN agencies (WHO, UNICEF, UNFPA, etc.). Thus, instead of implementing bi-lateral government aid, they donated funds for the activities of their country offices in Myanmar through the headquarters of each UN agency. Although the size of the fund is unknown, there has been an instance where the WHO Myanmar office received earmarked funds from foreign governments which were much bigger than the budget allocated from WHO headquarters. In addition, when the Myanmar government imports medications for infectious diseases purchased by 3DF fund, WHO Myanmar office becomes a consignee for them. The Myanmar offices of U.N. agencies play an important role in the implementation of the Fund.

The following is the recent trend of major development partners.

[50] Secretariat support is provided by the UNAIDS Secretariat.

1) WHO

The Country Cooperation Strategy (CCS) for 2008-2011 was extended one year. The 2008-2011 CCS priorities for WHO are to improve health system performance, to reduce excess burden of disease and to improve health conditions for mothers, children and adolescents. WHO also support for strengthening national capacity for implementing the International Health Regulations (IHR) [35]

2) UNICEF

UNICEF supports some programmes such as an immunization programme, a malaria prevention programme in high risk areas and an integrated package of health, education, water supply and sanitation interventions in vulnerable 61 townships [36].

3) EU

The EU set the strategy of technical and financial cooperation for Myanmar covers the period 2007-2012, and its priority is to improve education and health services in the country. Measures of infectious diseases are the major areas to address in health sector. Responding the promotion of democracy, it has already announced €150 million in new assistance for 2012 and 2013. Areas of cooperation are economic development and environment as well as health and education [37].

4) USAID

USAID supports health programs along the Thailand-Burma border to improve access to basic medical care for displaced persons in border provinces of Thailand and refugee camps through training and expertise to the staff of community-based health organizations and clinics for providing quality primary health care. Also, it supports programs to combat avian influenza (AI), HIV/AIDS, tuberculosis (TB), and malaria through technical assistance, training, strengthen of capacity of surveillance, laboratory and research [38].

5) AusAID

Australia provides $47.6 million in development assistance to Myanmar in 2011-2012, and 32% of the fund will be distributed to health sector. AusAID will focus on fighting communicable diseases and addressing maternal and child mortality by providing equipments and materials, training and educations [34].

6.2.3 Outlook of Major Corporations of the Health Sector

The support of GFATM has presently been resumed and 3DF will complete in 2012. 3DF will be transformed into the Three Millennium Development Goal Fund (3MDG F) in the next phase. 3MDGF will continue its support for MDGs 4, 5 and 6, which means that they will support the field of maternal and child health, in addition to HIV/AIDS, tuberculosis, and malaria.

The fund is planning to support funds between US $ 250 million dollars to US $ 300 million dollars over the next five years. In addition, more international initiatives such as GFATM and GAVI Alliance (formally The Global Alliance for Vaccines and Immunisation) for vaccinations are being planned. These initiatives

support the establishment of a strong health system while fostering ownerships of the Myanmar government. [39].

In this way, the crisis brought about by the withdrawal of the GFATM is addressed by the establishment of 3MDGF and and GFATM. Because there are no full-scale programmes by foreign governments and international NGOs for the health sector support in Myanmar other than GFATM and 3DF, development partners may insist on their own agendas since there is no platform where the development partners can coordinate their supports.

It is predicted that there a gradual coordination function of health sector support will be introduced. However, since the Myanmar government offices are now located in Naypyidaw, all foreigners must move with travel permits, regardless of whether they are from UN agencies or foreign governments. To obtain travel permits and entry visas to Myanmar is a very laborious and time-consuming process. These disincentives hamper the creation of a platform to coordinate effective assistance among development partners.

6.3 Outline of Japanese Cooperation

Japan's Ministry of Foreign Affairs voiced the following policy of economic cooperation with Myanmar after the 2012 election:

> Previously, regarding the economic cooperation towards Myanmar, Japan conducted considering it on a case-by-case basis, mainly for the projects of basic human needs in which people receive direct benefits while keeping an eye on improvement of human rights and democratization. Since 2011 there have been political events such as the release of political prisoners, direct dialogues with Aung San Suu Kyi and President Thein Sein, and cease-fire with the militant's ethnic minorities that were initiated by the Government of Myanmar. The result of Parliamentary by-election on April 1, 2012 brought the broad political participation of stakeholders, including Aung San Suu Kyi. Therefore, we changed our economic cooperation policy on April 2012. Under the new economic cooperation policy, in order to boost rapidly progressing reform efforts in a wide range of areas of the country towards national reconciliation, democratisation, and sustainable development, we continue to keep our eyes on the progress of the reform efforts. In order for a wide range of people to feel the dividends of economic reform, national reconciliation, and democratisation, we are going to provide assistance mainly in the following areas:
>
> - Support for improving the lives of people, including minorities and the poor, agricultural development, and regional development
> - Support for the development and capacity building of human resources and systems in order to support economy and society, including support for the promotion of democratisation
> - Support for the development of infrastructure and institutions that are necessary for a sustained economy

Source: Ministry of Foreign Affairs HP [40] translation by the consultant team

Table 6-1 summarises Japanese government support for the health sector in Myanmar in recent years.

Table 6-1 Japanese Support in Recent Years in the Health Sector in Myanmar

Grant Aid（Since 2005）		
Project for Improvement of Maternal and Child Health Care Services: Phase VI（through UNICEF）		2005
Project for Improvement of Maternal and Child Health Care Services: PhaseVII (through UNICEF）		2006
Emergency Grant Aid to Myanmar (Assistance for Vaccination against Polio) (through UNICEF）		2006
Project for Improvement of Maternal and Child Health Care Services: PhaseVIII (through UNICEF）		2007
Emergency Grant Aid to Myanmar (Assistance for Vaccination against Polio) (through UNICEF）		2007
Project for Malaria Control in Myanmar		2008
Project for Equipment Provision for the National Tuberculosis Programme		2009
Technical Cooperation Project (both conducted and underway. Projects shown below would end after 2005)		
Maternal and Child Health	Project for Primary Health of Mothers and Children	02.07～05.06
	Child Health and Nutrition Project	06.4. ～09.3
	Community-Oriented Reproductive Health Project	05.02～10.01
Nutrition	Food and Nutrition Planning	10.01～12.1.11
Infectious Diseases	Leprosy Control and Basic Health Service Project	00.4. ～06.11
	Major Infectious Diseases Control Project	05.01～12.01
	Project for Equipment Provision for the National Tuberculosis Programme	10.06～12.05
	Major Infectious Diseases Control Project (Phase 2)	12.03～15.03
Human Resources	Project for Strengthening Capacity of Training Teams for Basic Health Staff	09.05～14.05
Others	Traditional Medicine Project	06.11～09.01
	Project on Strengthening of Rehabilitation	08.07～13.07

Preparatory Survey for Project in JFY 2012	
Preparatory Survey for Project for Upgrading the Health facilities in Central Myanmar	12. 1～12. 9
Preparatory Survey for Project for Improvement of Medical Equipment in Hospitals in Yangon and Mandalay	12. 7～13. 3
Grassroots Human Security Grant Aid	
The Project for Upgrading National Rehabilitation Hospital in Yangon Division	2009
The Project for Construction of Kaw Ta Yoke Ya Sub Rural Health Center in Kayin State	2009
The Project for Construction of Operation Room and Provisions of Medical Equipment for Pin Le Bu Township Hospital in Sagaing Division	2009
The Project for Construction of Par San Sub Rural Health Center in Shan Division	2009
The Project for Strengthening of National Health Laboratory (Low Myanmar) in Yangon Division	2009
The Project for Procurement of Medical Equipment for Phaung Daw Oo Monastic Free Clinic in Mandalay Division	2010
The Project for Scaling-up the Production of Anti-venom in Yangon Division	2010
The Project for Construction of Kaw Mu Tar Sub Rural Health Center in Kayin State	2010
The Project for Upgradingof Pauk Khaung Township Hospital in Bago Division	2010
The Project for Construction of Operation Theater for Mi Chaung In Station Hospital in Sagaing Division	2010
The Project for Construction of Maternal and Child Center in Khayan and Thongwa Township in Yangon Region	2010
The Project for Construction of Medical Storages for Infectious Disease Control in Myanmar	2010
The Project for Construction of Outpatient Department Facility for Thakayta Township Hostipal in Yangon Region	2010
The Project for Construction of Rehabilitation Center in East Yangon General Hospital	2011
The Project for Construction of Tharketa Township DOTS Center in Yangon Region	2011
The Project for Construction of Medical Storages for Anti-Infectious Disease Control Medicine in Shan State and Magwe Region	2011
The Project for Construction of Thingangyun Township DOTS Center in Yangon Region	2011
The Project for Upgrading of Katha District Hospital in Sagaing Region	2011

Source：Ministry of Foreign Affairs, Country Data book, Myanmar [41] and JICA Knowledge Site [42] Compiled by Consultant Team

Chapter 7 Priority Health Issues and Recommendations

7.1 Priority Health Issues

As shown in the previous six chapters, the immense lack of financial resources for the health sector in Myanmar have impacted human resources for health, health infrastructures, and health service provisions in the sector. These challenges have caused the delay in improving health conditions and health service disparities among the regions/states. These are considered as the priority issues. On the other hand, it is essential to strengthen the implementation capacity of the government in order to make effective use of the increasing support due to the promotion of democratisation.

7.1.1 Absolute Shortage of Health Sector Budget

Many challenges of the health sector in Myanmar have been attributed to the lack of health budgets. As mentioned in 5.3.3, the health financing situation is worse compared to other neighbouring countries. The weight of the financial burden on the people is extremely heavy.

This situation causes a deficiency in quantity and quality of health human resources, declined operational capacity of policy implementation, and inadequate medicines as well as basic facilities such as means of communication and transportation. It has also created a situation where health services are not extended to those in rural areas. Recently, due to political developments, international economic sanctions have been eased and the country is becoming an "open country". Thus the "health of the people" which is guaranteed by the new 2008 Constitution should be improved. The improvement and strengthening of basic health service delivery is an urgent challenge, which involves effectively using the newly increased supports from home and abroad and allocating them to the health sector. For this purpose, strengthening the management capacity of the Ministry of Health for budget development and programme implementation is essential. In addition, the Ministry, with the increase of support from various stakeholders, will also need to have donor coordination capacity

7.1.2 Expansion and Strengthening of Basic Health Services

In the Myanmar health sector, the insufficient supply system of basic health services in rural areas is an important issue. The burden of basic health workers and community health volunteers is large because of the conditions of infectious disease control, maternal and child health services, nutrition, health education and so on. Therefore, it is very challenging to accomplish early detection and provide health care service for important health problems, such as maternal and child health, and respond to the needs of vulnerable individuals accurately.

The contents of basic health services that the government focuses on are common for primary health care. However, in the present scenario in which both human resources and facilities are not adequate, implementation is very difficult. It is also challenging to carry out several health programmes effectively and efficiently in order to achieve the health sector MDGs. The development of referral systems and the maintenance of high-ranking medical facilities that accept patients with serious conditions are crucial too.

7.1.3 Strengthening of Technical and Management Capacity of Health

Strengthening the management capacity of the Ministry of Health for budget development and programme implementation is essential in providing health services to the people efficiently and effectively. In particular, obtaining precise epidemiological information and the data of availability and utilisation of health services will make it possible to improve policy planning and budget allocation. Management capacity building is also essential since the Ministry needs to effectively use the limited resources and also plan ahead to effectively use future support.

7.2 Recommendations

Japan has built a relationship of trust with the government and people of Myanmar, and accumulated knowledge and experience through their support over the years in many aspects aside from the health sector. It is predicted that more development partners will begin supporting Myanmar and it will becoming increasingly important to coordinate the aid efforts. Since 70 % of the total population lives in rural areas at the level of townships and lower levels, it is important to strengthen the basic health services in these areas. Japan has been implementing several health projects in Myanmar, such as the Project for Strengthening Basic Health Workers, which aims to strengthen the basic health services being implemented in Naypyidaw and Yangon. Japan should take a leadership role in the harmonisation of the health sector in the future. In addition, Japan has managed capacity building projects for strengthening the management and technical capacities in the health sector, and strengthening basic health services in many other countries. These learning experiences can be shared in Myanmar.

7.2.1 Assisting the Expansion and Strengthening the Basic Health Service

As shown in Table 6-1, Japanese cooperation in the Myanmar health sector has been carried out in the areas of maternal and child health, infectious disease control, community health, and health human resource development in the form of a response to the challenge of the health sector in Myanmar. So far, Japan has been deeply involved in capacity building of human resources for basic health services. It is advised to strengthen the health system by modelling and scaling up successful experiences in the past, while involving the existing and new stakeholders of the health sector.

7.2.2 Assisting the Strengthening of Technical and Management Capacity of Health Staff

For more effective implementation of basic health services at the service sites, Japan can contribute towards strengthening the management capacity of central and local staff at the Ministry of Health. While doing so, it is necessary to consider strengthening the capacity not only of existing MOH staff but also of new MOH staff. Japan can assist MOH in revising job descriptions as well as planning and conducting the capacity building training in accordance with the revised job descriptions using its assistant schemes of Third-Country Training, In-Country training and Training in Japan.

The needs to improve the quality of HMIS data and to strengthen the capacity of HMIS staff have been pointed out in the National Health Plan 2006-2011. To address these points, it is necessary to build the capacity in both systems and human resources in the areas of monitoring and evaluation. MOH needs to develop health policies and strategic planning, and complete the budget allocation using the evidence-based data through the

monitoring and evaluation activities. Japan can also assist MOH in this regard with the above mentioned training schemes.

ANNEX

Annex 1: Major Health Indicators

Annex 2: Supplementary Information / Data

Annex 3: State / Division Health Profile

Annex 4: References

Annex 1: Major Health Indicators (Republic of the Union of Myanmar)

Republic of the Union of Myanmar				MDGs	Sources	1990	2000	Latest	Latest year	Latest in Region	(Latest year)	Region
0 General Information	0.1 Demography	0.1.01	Population, total		WDI	39,268,304	44,957,660	47,963,000	2010	1,961,558,757	(2010)	East Asia & Pacific (developing only)
		0.1.02	Population growth (annual %)		WDI	1.6	1.0	0.8	2010	0.7	(2010)	East Asia & Pacific (developing only)
		0.1.03	Life expectancy at birth, total (years)		WDI	57.3	61.9	64.7	2010	72.2	(2010)	East Asia & Pacific (developing only)
		0.1.04	Birth rate, crude (per 1,000 people)		WDI	27.1	20.7	17.3	2010	14.2	(2010)	East Asia & Pacific (developing only)
		0.1.05	Death rate, crude (per 1,000 people)		WDI	11.1	9.1	8.6	2010	7.0	(2010)	East Asia & Pacific (developing only)
		0.1.06	Urban population (% of total)		WDI	24.9	28.0	33.9	2010	46.0	(2010)	East Asia & Pacific (developing only)
	0.2 Economic・Development Condition	0.2.01	GNI per capita, Atlas method (current US$)		WDI					3,695.8	(2010)	East Asia & Pacific (developing only)
		0.2.02	GNI growth (annual %)		WDI	3.3	13.7	10.4	2010	10.0	(2010)	East Asia & Pacific (developing only)
		0.2.03	Total enrollment, primary (% net)	2.1	WDI					94.4	(2007)	East Asia & Pacific (developing only)
		0.2.04	Ratio of female to male primary enrollment (%)	3.1	WDI	93.5	99.0	100.1	2010	101.1	(2009)	East Asia & Pacific (developing only)
		0.2.05	Literacy rate, adult total (% of people ages 15 and above)		WDI		89.9	92.0	2009	93.5	(2009)	East Asia & Pacific (developing only)
		0.2.06	Human Development Index		HDR	0.39	0.55	0.49	2011	0.67	(2011)	East Asia and the Pacific
		0.2.07	Human Development Index (rank)		HDR	111/160	127/173	149 / 187	2011			
		0.2.08	Poverty gap at $1.25 a day (PPP) (%)		WDI					3.4	(2008)	East Asia & Pacific (developing only)
	0.3 Water and Sanitation	0.3.01	Improved water source (% of population with access)	7.8	HNP Stats	56	67	83	2010	89.9	(2010)	East Asia & Pacific (developing only)
		0.3.02	Improved sanitation facilities (% of population with access)	7.9	HNP Stats		62	76	2010	65.6	(2010)	East Asia & Pacific (developing only)
1 Health Status of People	1.1 Mortality and Morbidity	1.1.01	Age-standardized mortality rate by cause (per 100,000 population) - Communicable		GHO			461	2008	334	(2008)	South-East Asia
		1.1.02	Age-standardized mortality rate by cause (per 100,000 population) - Noncommunicable		GHO			667	2008	676	(2008)	South-East Asia
		1.1.03	Age-standardized mortality rate by cause (per 100,000 population) - Injuries		GHO			347	2008	101	(2008)	South-East Asia
		1.1.04	Cause of death, by communicable diseases and maternal, prenatal and nutrition conditions (% of total)		HNP Stats			33.4	2008	13.4	(2008)	East Asia & Pacific (developing only)
		1.1.05	Cause of death, by non-communicable diseases (% of total)		HNP Stats			39.7	2008	76.3	(2008)	East Asia & Pacific (developing only)
		1.1.06	Cause of death, by injury (% of total)		HNP Stats			26.9	2008	10.3	(2008)	East Asia & Pacific (developing only)
		1.1.07	Distribution of years of life lost by broader causes (%) - Communicable		GHO			41	2008	49	(2008)	South-East Asia
		1.1.08	Distribution of years of life lost by broader causes (%) - Noncommunicable		GHO			21	2008	36	(2008)	South-East Asia
		1.1.09	Distribution of years of life lost by broader causes (%) - Injuries		GHO			39	2008	15	(2008)	South-East Asia
	1.2 Maternal and Child Health	1.2.01	Maternal mortality ratio (modeled estimate, per 100,000 live births)	5.1	MDGs	420	290	240	2008	88.7	(2008)	East Asia & Pacific (developing only)
		1.2.02	Adolescent fertility rate (births per 1,000 women ages 15-19)	5.4	MDGs		21.1	13.7	2010	18.8	(2010)	East Asia & Pacific (developing only)
		1.2.03	Mortality rate, under-5 (per 1,000)	4.1	MDGs	111.7	86.7	66.2	2010	24.3	(2010)	East Asia & Pacific (developing only)
		1.2.04	Mortality rate, infant (per 1,000 live births)	4.2	MDGs	79.4	63.5	50.4	2010	19.9	(2010)	East Asia & Pacific (developing only)
		1.2.05	Low-birthweight babies (% of births)		HNP Stats	14	15	8.6	2010	6.4	(2010)	East Asia & Pacific (developing only)
		1.2.06	Fertility rate, total (birth per woman)		HNP Stats	3.5	2.4	2.0	2010	1.8	(2010)	East Asia & Pacific (developing only)
	1.3 Infectious Diseases	1.3.01	a) Prevalence of HIV, male (% ages 15-24)	6.1	MDGs			0.3	2009			
			b) Prevalence of HIV, female (% ages 15-24)	6.1	MDGs			0.3	2009			
		1.3.02	Notified cases of malaria per 100,000 population	6.6	MDGs Database			7,943	2008			
		1.3.03	a) Malaria death rate per 100,000 population, all ages	6.6	MDGs Database			17	2008	6	(2009)	South-Eastern Asia
			b) Malaria death rate per 100,000 population, ages 0-4	6.6	MDGs Database			4	2008	18	(2009)	South-Eastern Asia
		1.3.04	Tuberculosis prevalence rate per 100,000 population (mid-point)	6.9	MDGs Database	894	831	525	2010	344	(2009)	South-Eastern Asia
		1.3.05	Incidence of tuberculosis (per 100,000 people)	6.9	MDGs	393	412	384	2010	123	(2010)	East Asia & Pacific (developing only)
		1.3.06	Tuberculosis death rate (per 100,000 people)	6.9	MDGs	110	96	41	2010	12	(2010)	East Asia & Pacific (developing only)
		1.3.07	Prevalence of HIV, total (% of population ages 15-49)		HNP Stats	0.2	0.8	0.6	2009	0.2	(2009)	East Asia & Pacific (developing only)
		1.3.08	AIDS estimated deaths (UNAIDS estimates)		HNP Stats	1,000	1,500	18,000	2009			
		1.3.09	HIV incidence rate, 15-49 years old, percentage (mid-point)		MDGs Database	0.09	0.08	0.05	2009			
		1.3.10	Paritial Prioritization Score by the Global Fund (HIV)		GF			8	2012			
			Paritial Prioritization Score by the Global Fund (Malaria)		GF			10	2012			
			Paritial Prioritization Score by the Global Fund (TB)		GF			10	2012			
	1.4 Nutrition	1.4.01	Prevalence of wasting (% of children under 5)		HNP Stats		10.7	10.7	2003			
2 Service Delivery	2.1 Maternal and Child Health	2.1.01	Births attended by skilled health personnel, percentage	5.2	MDGs Database					72.0	(2009)	South-Eastern Asia
		2.1.02	Birth by caesarian section		GHO			63.9	2007	8.9	(2011)	South Asia
		2.1.03	Contraceptive prevalence (% of women ages 15-49)	5.3	MDGs			41.0	2007	77.0	(2009)	East Asia & Pacific (developing only)
		2.1.04	Pregnant women receiving prenatal care (%)	5.5	HNP Stats			79.8	2007	92.2	(2010)	East Asia & Pacific (developing only)
		2.1.05	Pregnant women receiving prenatal care of at least four visits (% of pregnant women)	5.5	HNP Stats		65.9	73.4	2007			
		2.1.06	Unmet need for family planning, total, percentage	5.6	MDGs Database					10.9	(2008)	South-Eastern Asia
		2.1.07	1-year-old children immunized against: Measles	4.3	Childinfo	68	84	88	2010	95	(2010)	East Asia & Pacific
		2.1.08	1-year-old children immunized against: Tuberculosis		Childinfo	95	88	93	2010	97	(201)	East Asia & Pacific
		2.1.09	a) 1-year-old children immunized against: DPT (percentage of infants who received their first dose of diphtheria, pertussis and tetanus vaccine)		Childinfo	96	87	93	2010	96	(2010)	East Asia & Pacific
			b) 1-year-old children immunized against: DPT (percentage of infants who received three doses of diphtheria, pertussis and tetanus vaccine)		Childinfo	88	82	90	2010	94	(2010)	East Asia & Pacific
		2.1.10	1-year-old children immunized against: Polio		Childinfo	88	86	90	2010	96	(2010)	East Asia & Pacific
		2.1.11	Percentage of infants who received three doses of hepatitis B vaccine		Childinfo			90	2010	94	(2010)	East Asia & Pacific
	2.2 Infectious Diseases	2.2.01	Condom use with non regular partner, % adults (15-49), male	6.2	MDGs							
		2.2.02	Condom use with non regular partner, % adults (15-49), female	6.2	MDGs							

Annex 1: Major Health Indicators (Republic of the Union of Myanmar)

Republic of the Union of Myanmar				MDGs	Sources	1990	2000	Latest	Latest year	Latest in Region	(Latest year)	Region
		2.2.03	Men 15-24 years old with comprehensive correct knowledge of HIV/AIDS, percentage	6.3	MDGs Database							
		2.2.04	Women 15-24 years old with comprehensive correct knowledge of HIV/AIDS, percentage	6.3	MDGs Database					24	2005-2010	South-Eastern Asia
		2.2.05	Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years	6.4	MDGs Database							
		2.2.06	Use of insecticide-treated bed nets (% of under-5 population)	6.7	HNP Stats							
		2.2.07	Children under 5 with fever being treated with anti-malarial drugs, percentage	6.8	MDGs Database							
		2.2.08	Tuberculosis treatment success rate under DOTS, percentage	6.10	MDGs Database		82	85	2008	89	(2008)	South-Eastern Asia
		2.2.09	Antiretroviral therapy coverage (% of people with advanced HIV infection)	6.5	MDGs			18.0	2009			
		2.2.10	People aged 15 years and over who received HIV testing and counselling, estimated number per 1,000 adult population		GHOr			13.4	2010			
		2.2.11	Testing and counselling facilities, estimated number per 100,000 adult population		GHOr			1.7	2010			
		2.2.12	Pregnant women tested for HIV, estimated coverage (%)		GHOr			35	2010			
		2.2.13	Percentage of HIV-infected pregnant women who received antiretroviral drugs to reduce the risk for mother-to-child transmission (Mid point)	6.5	MDGs Database							
		2.2.14	Tuberculosis case detection rate (all forms)		HNP Stats	8.0	17.0	71.0	2010	76	(2010)	East Asia & Pacific (developing only)
		2.2.15	Tuberculosis treatment success rate (% of registered cases)	6.10	MDGs		82.0	85.0	2009	92	(2009)	East Asia & Pacific (developing only)
	2.3 Nutrition	2.3.01	Vitamin A supplementation coverage rate (% of children ages 6-59 months)		HNP Stats			94.5	2010			
		2.3.02	Consumption of iodized salt (% of households)		HNP Stats		48	92.9	2008	85.7	(2010)	East Asia & Pacific (developing only)
	2.4 Quality and Coverage	2.4.01	Estimate of health formal coverage		ILO							
		2.4.02	Population not covered (%) due to financial resources deficit		ILO							
		2.4.03	Population not covered (%) due to professional health staff dificit		ILO							
3 Health System	3.1 Human Resources	3.1.01	Physicians (per 1,000 people)		HNP Stats	0.10	0.3	0.5	2008	1.2	(2010)	East Asia & Pacific (developing only)
		3.1.02	Midwives (per 1,000 people)		HNP Stats					0.04	(2002)	East Asia & Pacific (developing only)
		3.1.03	Nurses (per 1,000 people)		HNP Stats			0.2	2004	1	(2001)	East Asia & Pacific (developing only)
		3.1.04	Dentistry personnel density (per 10,000 population)		GHO			0.49	2008	1	(2007)	South-East Asia
		3.1.05	Density of pharmaceutical personnel (per 10,000 population)		GHO			< 0.01	2004	4.0	(2007)	South-East Asia
	3.2 Health Financing	3.2.01	Health expenditure, total (% of GDP)		HNP Stats		2.1	2.0	2010	4.8	(2010)	East Asia & Pacific (developing only)
		3.2.02	Health expenditure, public (% of total health expenditure)		HNP Stats		13.4	12.2	2010	53.4	(2010)	East Asia & Pacific (developing only)
		3.2.03	Health expenditure, private (%) of total health expenditure)		HNP Stats		86.6	87.8	2010	46.6	(2010)	East Asia & Pacific (developing only)
		3.2.04	Out-of-pocket health expenditure (% of private expenditure on health)		HNP Stats		99.2	92.4	2010	67.0	(2010)	East Asia & Pacific (developing only)
		3.2.05	Health expenditure, public (% of government expenditure)		HNP Stats		1.2	1.0	2010	9.3	(2004)	East Asia & Pacific (developing only)
		3.2.06	External resources for health (% of total expenditure on health)		HNP Stats		1.1	8.7	2010	0.4	(2010)	East Asia & Pacific (developing only)
		3.2.07	Social security expenditure on health as a percentage of general government expenditure on health		GHO			1.6	2009	14.4	(2009)	South East Asia
		3.2.08	a) Health expenditure per capita (current US$)		HNP Stats		3.3	17.1	2010	182.8	(2010)	East Asia & Pacific (developing only)
			b) Per capita total expenditure on health (PPP int. $)		GHO			23	2009	120	(2009)	South Asia
		3.2.09	Per capita government expenditure on health at average exchange rate (US$)		GHO			1	2009	19	(2009)	South Asia
	3.3 Facilities, Equipments and Supplies	3.3.01	a) Median availability of selected generic medicines (%) - Public		GHO							
			b) Median availability of selected generic medicines (%) - Private		GHO							
		3.3.02	a) Median consumer price ratio of selected generic medicines - Public		GHO							
			b) Median consumer price ratio of selected generic medicines - Private		GHO							
		3.3.03	Hospital beds (per 1,000 population)		HNP Stats	0.6	0.7	0.6	2006	3.9	(2009)	East Asia & Pacific (developing only)

WDI: World Development Indicators & Global Development Finance (http://databank.worldbank.org/ddp/home.do) (Accessed 06/2012)
HDR: Human Development Reports (http://hdr.undp.org/) (Accessed 06/2012)
HNP Stats: Health Nutrition and Population Statistics (http://databank.worldbank.org/ddp/home.do) (Accessed 06/2012)
GF: Global Fund eligibility list for 2012 funding channels, the Global Fund to Fight AIDS, Tuberculosis and Malaria (http://www.theglobalfund.org/en/application/applying/ecfp/) (Accessed 06/2012)
GHO: Global Health Observatory Country Statistics (http://www.who.int/gho/countries/en/) (Accessed 06/2012)
GHOr: Global Health Observatory Repository (http://apps.who.int/ghodata/) (Accessed 06/2012)
MDGs: Millennium Development Goals (http://databank.worldbank.org/ddp/home.do) (Accessed 06/2012)
MDG database: Millennium Development Goals Indicators (http://mdgs.un.org/unsd/mdg/) (Accessed 06/2012). Regional data is available on The Millennium Development Goals Report Statistical Annex 2011 (United Nations).
Childinfo: Childinfo UNICEF (http://www.childinfo.org/) (Accessed 06/2012)
ILO: World Social Security Report 2010/11: Providing coverage in times of crisis and beyond. International Labour Office Geneva: ILO 2010.

1.3.10 Partial Prioritization Score is composed of the income level score for the country and the disease burden score for the particular disease in the country. The minimum score is 3 and the maximum score is 12.

2.4.01 Estimate of health formal coverage is indicated as percentage of population covered by state, social, private, company-based, trade union, mutual and other health insurance scheme.

2.4.02 Population not covered (%) due to financial resources deficit (based on median value in low-vulnerability group of countries) uses the relative difference between the national health expenditure in international $ PPP (excluding out-of-pocket) and the median density observed in the country group with low levels of vulnerability as a benchmark for developing countries. The rate can be calculated using the following formula:

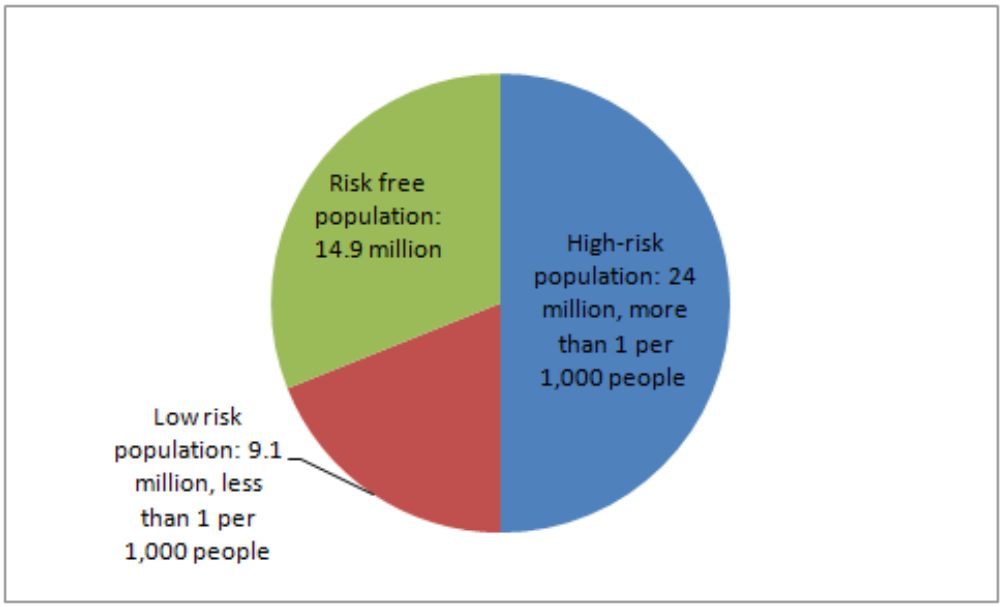
Per capita health expenditure not financed by private households' out-of-pocket payments (PPP in int. $) [A]
Population (in thousands) total [B]
Total health expenditure not financed by out of pocket in int. $ PPP (thousands) [C = A x B]
Population covered by total health expenditure not financed by out-of pocket if applying Benchmark* (thousands) [D = C ÷ Benchmark]**
Percentage of the population not covered due to financial resources deficit (%) [F = (B - D) ÷ B x 100]
*Benchmark: Total health expenditure not financed by out-of-pocket per capita = 350 international $ PPP.
**This formula was partially modified from the original in the source to suit an actual calculation.

2.4.03 Population not covered (%) due to professional health staff dificit uses as a proxy the relative difference between the density of health professionals in a given countries and its median value in countries with a low level of vulnerability. The rate can be calculated using the following formula:

Total of health professional staff [A = B + C]
Number of nursing and midwifery personnel [B]
Number of physicians [C]
Total population (in thousands) [D]
Number of health professional per 10,000 persons [F = A ÷ D x 10]
Total population covered if applying Benchmark* (thousands) [E = A ÷ Benchmark x 10]
Percentage of total population not covered due to health professional staff deficit [G = (D - E) ÷ D x100]
Benchmark: 40 professional health staff per 10,000 persons.

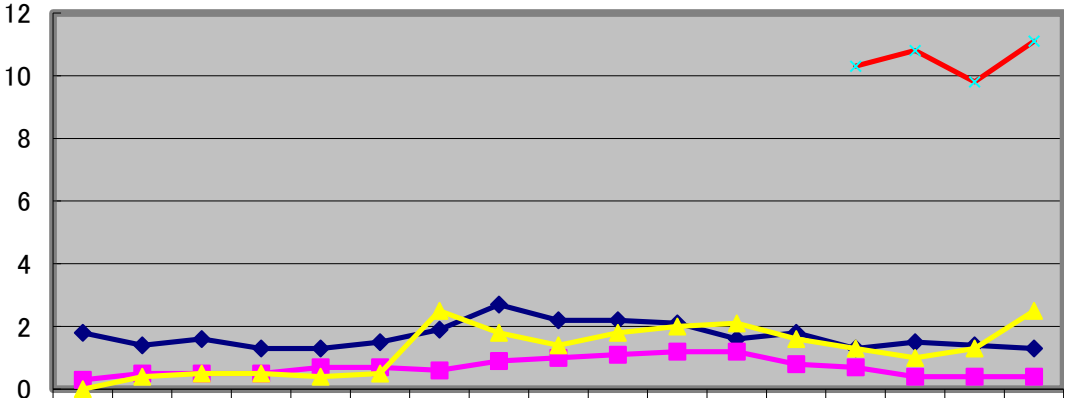
Annex 2：Supplementary Information/Data

Annex 2-1：Infectious Disease-Related Data



Total Population：48 million　　Source：MARC Advocacy Fact Sheet 2011　WHO

Figure 2-1-1　　Proportion of Malaria Risk in Myanmar



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Pregnant women	1.8	1.4	1.6	1.3	1.3	1.5	1.9	2.7	2.2	2.2	2.1	1.6	1.8	1.3	1.5	1.4	1.3
Blood donors	0.3	0.5	0.5	0.5	0.7	0.7	0.6	0.9	1	1.1	1.2	1.2	0.8	0.7	0.4	0.4	0.4
Military recruits	0	0.4	0.5	0.5	0.4	0.5	2.5	1.8	1.4	1.8	2	2.1	1.6	1.3	1	1.3	2.5
New TB patients														10.3	10.8	9.8	11.1

Source: UNGASS Report 2010, Ministry of Health

Figure 2-1-2　　Trends in HIV prevalence among low risk sentinel groups

Annex 2-2：Mother and Child Health Related Data

Table 2-2-1 Goal and Objectives of Reproductive Health Strategic Plan for 2009-2013

Goal : To attain a better quality of life of the people of the Union of Myanmar by contributing to improved reproductive health status of women, me and adolescents and youth.

Indicator	Baseline	Target
Maternal Mortality Rate	580（1990）	290（2013）, 145 (2015)
Proportions of births attended by skilled health professionals	64%(2007)	75%(2013), 80%(2015)
Contraceptive prevalence rate	38% (2007)	45% (2013), 50%(2015)
Adolescent birth rate	17% (2007)	15% (2013)
Antenatal care coverage	64% (2007)	75% (2013), 80%(2015)

Core objectives identified for scale up in order to achieve the overall goal

1. Improving antenatal, delivery, post-partum and newborn care

Indicator	Baseline	Target
Percentage of women attending antenatal care during pregnancy (at least one visit)	64.5% (2007)	75%(2013)
Percentages of deliveries attended by skilled health personnel	65%(2007)	80%(2015)
Neonatal mortality rate	Per 1,000 live births 49(2004)	50% reduction (2015)

2. Providing quality services for birth spacing and prevention and management of unsafe abortion

Indicator	Baseline	Target
Contraceptive prevalence rate	37%(2001)	45%(2013)
Unmet need for contraceptives	19.1%(1997)	15%(2013)

3. Preventing and reducing reproductive tract infections (RTIs); sexually-transmitted infections (STIs), including HIV; cervical cancer and other gynaecological morbidities

Indicator	Baseline	Target
Proportion of pregnant women attending ANC whose blood tested positive for syphilis	1.8%(2008) 1.75%(2009)	1.7%(2010)
Proportion of pregnant women attending ANC whose blood tested positive for HIV	2.71 %(1992)	1.14 %(2008)
Proportion of pregnant women who underwent VCT for HIV	2,150 (1008)	3,050 (2010)
Percentage of men and women of reproductive age who are HIV positive	0.63%(2008) 0.59%(2009)	0.55% (2010)
Men and women of reproductive age reached by prevention Programme	1,000,000 (2008) 1,200,000 (2009)	1,300,000 (2010)
Reproductive age accessing VCCT	200,000 (2008) 220,000(2009)	240,000 (2010)
Pregnant women having access to VCCT	400,000 (2008) 500,000(2009)	600,000 (2010)
Proportion of HIV-positive pregnant women receiving complete course of ART for PMTCT	1,403 (2007)	3,050 (2010)
Proportion of primary health care facilities syndromic management foe STIs		325 facilities

4. Promoting sexual health; including adolescent reproductive health and male

Adolescent birth rate	17% (2007)	15% (2013)

Source：Five-Year Strategic Plan for Reproductive Health (2009-2013), DOH

Table 2-2-2 Impact/Coverage Indicators and Targets of Five-Year Strategic Plan for Child Health Development in Myanmar (2010-2014)

Impact indicators and targets

	Indicator	Target
1	Reduce the Under-five Mortality Rate	43/1,000 live births
2	Reduce Infant Mortality Rate	35/1,000 live births
3	Reduce Neonatal Mortality Rate	16/1,000 live births

Coverage indicators and targets

	Indicator	Target
1	Proportion of newborn babies who received postnatal visit for essential newborn care at least two times within first week of life	80%
2	Proportion of LBW detected who received multiple home visits for extra care	80%
3	Proportion of infants born who received breastfeeding within first hour of birth	80%
4	Proportion of infants who were exclusively breastfed from birth up to 6 months of age	60%
5	Proportion of infants who received breastfeeding and appropriate complementary feeding between 6-9 months of age	80%
6	Proportion of children 6-59 months age who received vitamin A in the preceding 6 months	95%
7	Proportion of children with diarrhoea under five years who were treated correctly with ORS and zinc	90% for care seeking
		70% for ORS
		40% for ORS and zinc
8	The proportion of children with pneumonia who were treated correctly with antibiotics recommended by the national Programme	90% care seeking for pneumonia
		70% for correct treatment with antibiotics

Source：Five-Year Strategic Plan for Child Health Development in Myanmar (2010-2014), MOH

Table 2-2-3 Child Health Related Indicators of Myanmar and the neighbouring Countries (Tanzania as additional reference)

	Unit	Period	Myanmar	Thailand	Cambodia	Laos	Vietnam	Tanzania
Nutrition								
Early initiation of breastfeeding	%	2005-2009	-	50	35	30	58	67
Exclusively breastfed (< 6 Months)	%	2005-2009	15	5	66	26	17	41
Breastfed with complementary Food (6–9 months)	%	2005-2009	66	43	89	70	70	91
Still breastfeeding (20–23 Months)	%	2005-2009	67	19	47	48	23	55
Vitamin A supplementation Coverage rate (6–59 months) 2009 2 times per year	%	2009	95	-	98	88	99	94
EPI								
BCG	%	2009	93	99	98	67	97	93
DPT3 (3 times	%	2009	90	99	94	57	96	85
Polio3 (3 times)	%	2009	90	99	95	67	97	88
Measles	%	2009	87	98	92	59	97	91
HepB3(3 times)	%	2009	90	98	91	67	94	85
Hib3(3 times)	%	2009	-	-	-	-	-	85
Newborn protected Against tetanus	%	2009	93	91	91	47	87	90

Pneumonia								
% of under-fives with suspected Pneumonia taken to an Appropriate health-care Provider	%	2005-2009	66	84	48	32	83	59
% under-fives with Suspected pneumonia Receiving antibiotics	%	2005-2009	-	65	-	52	55	-
Diarrhoea								
% under-fives with diarrhoea Receiving oral rehydration and Continued feeding	%	2005-2009	65	46	50	49	65	53
Malaria								
% households owning at least One ITN	%	2005-2009	-	-	5	45	19	39
% under-fives sleeping Under ITNs	%	2005-2009	-	-	4	41	13	26
% under-fives with fever Receiving antimalarial drugs	%	2005-2009	-	-	0	8	3	57

Source：The State of World's Children 2011, UNICEF

Table 2−2−4　　Proportion of 1 Year Old Fully Immunised Against Measles（2005 and 2010）

Region/State	2010						
	Poor	Non Poor	Urban	Rural	Total	2005	変化 %
Kachin	66.4%	64.0%	70.4%	65.0%	65.0%	79.8%	-18.5%
Kayah	65.7%	100.0%	100.0%	93.1%	93.6%	89.6%	4.5%
Kayin	100.0%	82.0%	95.7%	86.2%	87.0%	76.6%	13.5%
Chin	57.3%	60.3%	19.7%	83.8%	58.5%	62.9%	-7.0%
Sagaing	89.5%	86.5%	83.6%	87.6%	87.1%	78.8%	10.5%
Tanintharyi	94.9%	89.7%	79.0%	95.0%	92.0%	75.2%	22.4%
Bago	56.7%	67.4%	96.2%	61.6%	64.6%	80.9%	-20.1%
-Bago (E)	64.0%	78.7%	100.0%	72.2%	74.5%	87.4%	-14.7%
-Bago (W)	39.1%	51.2%	91.3%	44.2%	48.8%	69.0%	-29.3%
Magwe	83.8%	79.6%	100.0%	79.4%	81.2%	87.5%	-7.2%
Mandalay	77.9%	91.4%	89.6%	84.9%	86.5%	89.6%	-3.4%
Mon	65.7%	97.8%	100.0%	91.7%	92.8%	79.5%	16.7%
Rakhine	61.1%	78.1%	76.3%	67.3%	68.2%	66.8%	2.1%
Yangon	74.0%	96.3%	97.6%	72.2%	91.8%	80.0%	14.8%
Shan	50.5%	78.9%	90.1%	65.5%	70.0%	82.0%	-14.6%
-Shan (S)	33.6%	75.3%	85.9%	53.8%	60.3%	96.1%	-37.2%
-Shan (N)	69.1%	82.0%	94.1%	75.7%	79.4%	59.9%	32.6%
-Shan (E)	69.0%	78.7%	100.0%	72.3%	73.6%	84.6%	-13.0%
Aywyarwaddy	87.7%	91.2%	94.1%	89.1%	89.9%	78.4%	14.7%
Union	75.5%	85.6%	91.5%	79.6%	82.3%	80.3%	2.4%

Source: IHLCA[1] Survey 2004-2005, IHLCA Survey 2009-2010

[1] The national-wide Integrated Household Living Conditions Assessment (*IHLCA*)

Annex 2-3：Infectious Disease Control Service Related Data

Table 2-3-1 Impact Strategic Indicators, Targets and Results of National Strategic Plan on AIDS – Myanmar 2006 - 2010 (NSP 1)

Target Population	Indicators	Size Estimate	Baseline	Targets 2009	Results 2009	Results 2010 (HSS2011)
Strategy 1 Sex Workers and Their Clients	% of sex workers that are HIV infected	60,000	18.38% (HSS2008)	23%	11.2% (HSS)	9.39%
	% of sex workers that have an STI (syphilis)	60,000	5.5% (HSS2008)	20%	2.3% (HSS)	N/A
	% of clients of sex workers that are HIV infected	980,000	5.3% (HSS2008)	2.8%	4.85% (HSS)	N/A
Strategy 2 Men Who have Sex With Men (MSM)	% of MSM that are HIV infected	240,000	28.8% (HSS2008)	30%	22.3% (HSS)	7.75%
	% of MSM that have a STI (syphilis)	240,000	14.1% (HSS2008)	28%	6.3% (HSS)	N/A
Strategy 3 Drug Users	% of IDU that are HIV infected	75,000	37.5% (HSS2008)	27.5%	34.6% (HSS)	21.91%
Strategy 8 Young People (15～24)	% of young people that are HIV infected	10,648,000 (2007 Estimate)	1.26% (HSS2008)	1.75%	0.91%	N/A
Strategy 10 Women and Men of Reproductive Age	% of women and men of reproductive age infected by HIV	29,713,406 (2009 Estimate)		0.59%	0.61% (2009 Estimate)	N/A

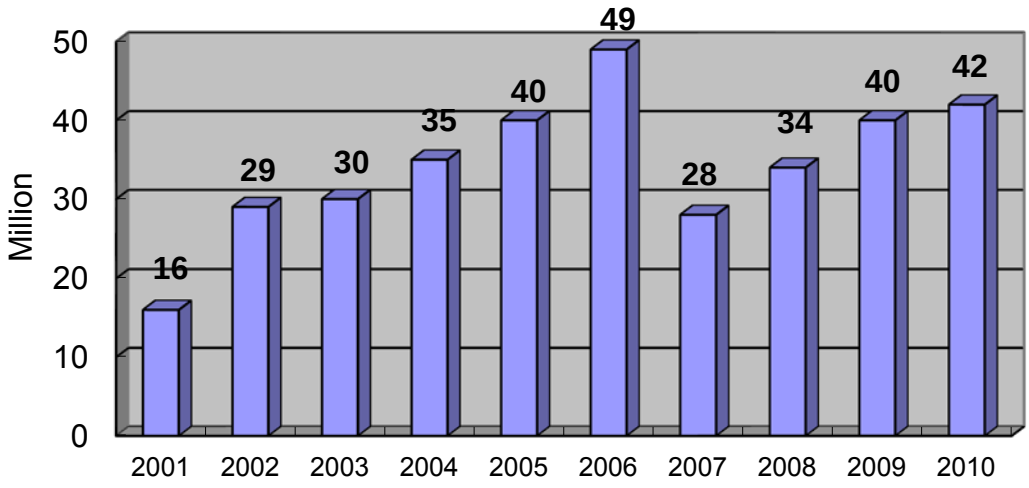
Table 2-3-2 Outcome/outputs Strategic Indicators, Targets and Results of National Strategic Plan on AIDS – Myanmar 2006 - 2010 (NSP 1)

Target Population	Indicators	Size Estimate	Baseline	Targets 2009	Results 2009 (NAP (2010)	Results 2011 (NAP 2012)
Strategy 1 Sex Workers and Their Clients	Sex workers reached by package of BCC prevention and STI prevention /treatment	60,000	High 48,860 Low 36,390 (NAP2008)	45,000	High 48,860 Low 36,390	45,702
	Sex workers receiving HIV test and post test counselling VCCT	60,000	7,768 (HSS2008)	25,000	10,896	42,672
	% of condom use by Sex Worker with last client	60,000	95% (BSS2008)	90%	N/A	95.85%
	Condoms distributed (in million)		34 million	42 million	40 million	N/A
Strategy 2 Men Who have Sex With Men (MSM)	MSM reached by package of BCC prevention and STI prevention /treatment	240,000	High 38,286 Low 32,890 NAP2008	50,000	High 79,493 Low 59,985	165,816
	MSM receiving HIV test and post test counselling VCCT	240,000	4,027	18,000	4,701	114,336
	% of condom use by MSM at last anal sex	240,000	67% NAP2005	77%	N/A	81.55%
Strategy 3 Drug Users	% of IDU that avoid sharing injecting equipment in last month	75,000	81% (IDU BSS 07-08)	73%	N/A	N/A

Target Population	Indicators	Size Estimate	Baseline	Targets 2009	Results 2009 (NAP (2010)	Results 2011 (NAP 2012)
	% of condom use by IDU at last sex (paid partner)	75,000	78%(IDU BSS 07-08)	45%	N/A	77.56%
	Drug Users reached by Harm Reduction Programme	150,000 (UNODC 2002)	8,427 NAP2008	52,000	11,755	N/A
	IDU reached by Harm Reduction Programme	75,000	8,274 NAP2008	35,000	9,459	N/A
	IDU receiving HIV test and post test counselling (VCCT)	75,000	1,731	8,750	3,854	77.56%
	Needles distributed to IDUs (in million)		3.5 millions	5 millions	5,335,156	N/A
	Number of ex‐IDU on MMT	75,000	580 NAP2008	2,000	771	N/A
Strategy 4 PLHIV	Number of PLHIV involved in self‐help groups	242,000	13,247 NAP2008	14,000	15,577	N/A
Strategy 5 Institutionalized populations	Prisoners reached by health education	62,300 (2001)	9,930 NAP2008	16,000	13,472	N/A
	Number of prisoners accessing VCCT	N/A	N/A	N/A	N/A	N/A
Strategy 6 Mobile populations	Mobile and migrant population reached by package of prevention Programme	N/A	71,140 NAP2008	380,000	105,941	N/A
	Number of mobile population accessing VCCT	N/A	N/A	3,200	N/A	N/A
Strategy 7 Uniformed Services	Uniformed personnel reached by package of prevention Programme	N/A	2,635 NAP2008	75,000	15,601	N/A
Strategy 8 Young People (15～24)	% of condom use by young people at last paid sex		90% (BSS2007)	90%	N/A	N/A
	% of youth who correctly identify the three common ways of preventing HIV transmission		48% (BSS2007)	60%	N/A	N/A
	% of youth who reject misconception		57% (BSS2007)	60%	N/A	N/A
	% of youth expressing accepting attitudes		34.7% (BSS2007)	50%	N/A	N/A
	Out of school youth (15‐24) reached by prevention Programme	N/A	139,416 NAP2008	350,000	184,191	N/A
	In‐school youth (10‐16) reached by life‐skills Programme	2.45million	900,000	2 million	N/A	N/A
	% of schools with teachers who have been trained in life‐skills‐based HIV education and who taught it during the last academic year	37,124	100% NAP2008	N/A	N/A	N/A
Strategy 9 Workplace	Number of people in workplace reached by package of prevention Programme	25 million	52,849 NAP2008	250,000	43,192	N/A
	Number of large enterprises practicing workplace policies	N/A	N/A	25	N/A	N/A
Strategy 10 Women and	Women and men of reproductive age reached by prevention Programme	29,713,406 (NAP2008)	633,114 NAP2008	1.2 million	497,545	N/A

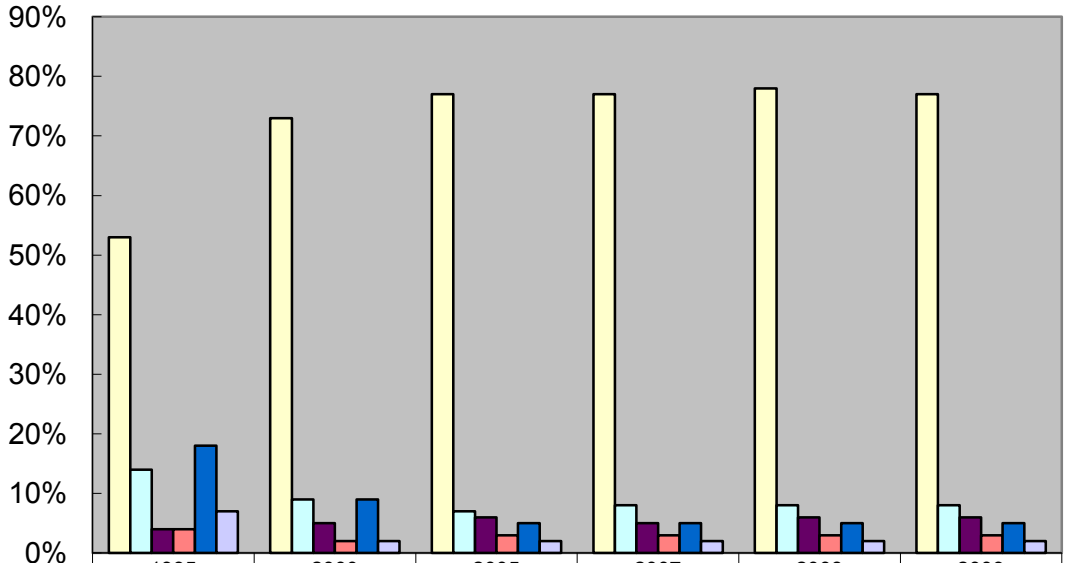
Target Population	Indicators	Size Estimate	Baseline	Targets 2009	Results 2009 (NAP (2010)	Results 2011 (NAP 2012)
Men of Reproductive Age	Women and men of reproductive age receiving HIV test and post‐test counselling (excluding targeted populations)	29,713,406 (NAP2008)	83,826	220,000	81,409	N/A
	Number of patients treated for STI	N/A	93,625 NAP2008	210,000	135,065	N/A
Strategy 11 Comprehensive care, support and treatment	**Care and support with ART**					
	% People still alive at 1 year after initiation of ART		N/A	90%	87.5% (MSF cohort)	87.27%
	Number of People Living with HIV in need receiving ART (including package of support)	74,000 NPT 2009	15,191 NAP2008	30,000	22,138	32,419 (43.81%)
	Number of people receiving Cotrimoxazole as prophylaxis		30,344 NAP2008	40,000	37,541	N/A
	Number of people receiving CHBC package of support (without ART)		23,451 NAP2008	18,000	31,361	N/A
	Prevention of Mother‐to‐Child Transmission (PMTCT)					
	% of infant born to HIV infected mother that are HIV infected	4,600 (2007)	21.5%	19%	N/A	13.0% (Adjusted)
	Pregnant women receiving HIV test and post test counselling VCCT	1,283,382	159,763	500,000	170,862	N/A
	% of mother‐baby pairs receiving a complete course of ARV prophylaxis for PMCT	4,600 (2007)	1,780 NAP2008	2,600	2,136	N/A
	Number of orphans receiving support	1,573,676 (2007)	9,527 NAP2008	35,000	11,832	N/A
	Number of children in need provided with ART	1,900 NPT2009	966 NAP2008	1,500	1,535	N/A
Strategy 12 Enhancing the capacity of the health system	% of townships implementing HIV testing with no stock‐out of HIV test kits	325	100%	100%	100%	N/A
	Number of HIV testing laboratories participating in NEQAS for HIV serology		190 facilities		228 facilities	N/A
	Proportion of transfused blood units screened for HIV in a quality assured manner	200,000	75% NAP2008	80%	75.5%	N/A
	Number of Service Delivery Points offering VCCT		199 points	500 points	350 points (2009)	N/A
	Government spending only for National AIDS Programme (NAP)		78 million Kyat (2004)	Undecided	Undecided	N/A

Source： NAP Progress Report 2010, 2012, Ministry of Health



Source：NAP Progress Report 2010, 2012, Ministry of Health

Figure 2-3-3 Condom Provision 2001-2010



	1995	2000	2005	2007	2008	2009
Complete recovery	53%	73%	77%	77%	78%	77%
Competition of treatment	14%	9%	7%	8%	8%	8%
Death	4%	5%	6%	5%	6%	6%
Treatment failure	4%	2%	3%	3%	3%	3%
Missing patient	18%	9%	5%	5%	5%	5%
Unknown Test result	7%	2%	2%	2%	2%	2%

Source：Report on National TB Prevalence Survey 2009-2010

Figure 2-3-4 Trends in TB Treatment

Annex 2-4：Health Information and Health Human Resource Related Data

Table 2-4-1 Degrees/qualifications in Health Sector

Types	Degrees/Qualifications	Educational Institutions
Medical Science	M.B.B.S.	University of Medicine
	M. Med. Sc.	University of Medicine
	M. P. H.	University of Public Health
	Dr. Med. Sc.	University of Medicine
	Ph. D.	University of Medicine, University of Public Health
	Dip. Med. Sc. *1	University of Medicine, University of Public Health
Dental Science	B. D. S.	University of Dental Medicine
	M. D. Sc.	University of Dental Medicine
	Dr. D.Sc.	University of Dental Medicine
	Dip. D. Tech.	University of Dental Medicine
	Dip. D. Sc.	University of Dental Medicine
Nursing	B. N. Sc.	University of Nursing
	M. N. Sc.	University of Nursing
	Dip. Sp. N. *2	University of Nursing
	Diploma	Nursing Training School
Medical Technology	B. Med. Tech.	University of Medical Technology
	M. Med. Tech.	University of Medical Technology
Community Medicine	B. Comm. H.	University of Community Health
Pharmacy	B. Pharm.	University of Pharmacy
	M. Pharm.	University of Pharmacy
Others	Certificate	Midwifery Training School
	Certificate	Lady Health Visitor Training School

*1 TB, Chest Disease, STI, Family Medicines and Hospital Administration

*2 Dentistry nursing, Ophthalmology, Otorhinolaryngology nursing, Psychiatric nursing, Paediatric nursing, Orthopaedic nursing, Intensive care nursing

Source : Health in Myanmar 2011, Responses from DMS/DOH/other training institutes surveyed

1. Pre-Service Training

A Medical Doctor has a qualification that is higher than *MBBS* (Bachelor of Medicine and Bachelor of Surgery). There are two medical universities in Yangon and one each in Mandalay and Magway. University of Medicines at Magway particularly trains medical students who are going to work in rural areas, thus they accept students from regions/states outside the Mandalay and Yangon regions. Both Yangon and Mandalay each have a University of Dental Medicine. In addition, there is one military medical university in Yangon, under the Ministry of Defence, that trains doctors who are going to work at two military hospitals in Yangon. Military hospitals are available to only military personnel.

Nurses have one of the following qualifications: Bachelor of Science in Nursing（B. N.Sc), four years training at a nursing university, or three years of training (Diploma) at a technical school. A nursing university graduate qualifies to advance earlier onto the higher-ranking qualification-training course. Other than that, there are few differences in terms of positions and salaries.

HA is the person in charge of RHC with the important job of expanding basic health services. Along with the HA, Lady Health Visitor (LHV), Public Health Supervisor (PHS) also engage in these basic health services and PHC

service. LHV receives 9 months of training, PHS-1 receives 1 year of training and PHS-2 receives 6 months of training. Upon the completion of the training courses, they will be awarded certificates. LHV is assigned to RHC or UHC while PHS-1 is assigned to RHC and PHS-2 is assigned to SHC[2].

As of 2011 the Ministry has been revising the midwifery curriculum and has extended the training period. The scope of the work of "midwife" in Myanmar is wider than the "midwife" in general. Midwives receive an education in midwifery, which is only 1.5 years of schooling[3], while nurses receive 4 years of education at the universities of nursing or 3 years at the nursing training schools. Although midwives are professionals in midwifery, they are regarded as lower standard general health workers while nurses have a higher status.

2. Assignment of Human Resources

One advantage of the health care system in Myanmar is that there are nursing and midwifery schools in all regions/states. The graduates are assigned to their hometowns' local health facilities. Although they are employed by regions/stations, all civil servants assignments are decided by the central government based on requests from the regions/states through the Ministry of Health. Since the number of requests for graduate employment has remained the same every year, every graduate is able to attain a job. The Regional Health Authority assigns all graduates from the regional/state midwifery training schools to the RHC and SHC in the area.

3. In-Service Training

After finding a job, it is common for graduates to take training courses for upper qualifications while being paid during the training period. For example, the midwives advance to a prescribed training course and are promoted to a nursing position, LHV, or HA. This does not happen only for midwives. Even when nurses graduate from four-year universities, they ultimately proceed to higher qualification courses sequentially to acquire the qualifications of specialist nurses (Dip. Sp. N) or Master's degrees, aiming to become professors at the nursing universities. In either case, in order to advance to the training courses for promotion, a minimum period of service, performance appraisal and a letter of recommendation from the management are necessary. After completing the course, the graduates return to their job and apply for higher position if given the opportunity. Apart from doctors and other senior positions, most graduates find higher position jobs inside their regions/states and remain there.

It is encouraging to see that these individuals have the will to continue their education. Under the current system, the long leaves of absences are not regarded as vacancies, health facilities have positions which go unmanned. Especially at SHC, if a midwife leaves for training, the services at her SHC no longer function well. At this moment, the Ministry of Health has not been able to address this issue. In recent years, the assignment requests from the regional Ministry of Health even include a supplement for temporary vacancies related to promotion activity.

Midwives often want to be promoted to nursing and/or health assistant positions. Therefore there is a major concern that there is a lack of experienced midwives. There is no documentation, however, of such as a ratio and the average length of service of midwives which are promoted to. The current promotion system, in all probability, prevents the improvement of status of occupations engaged in primary health care. Therefore, in the future it

[2] Sub-rural Health Centre
[3] The nurse midwifery law is revised in 2002 and midwives are trained at the midwifery training schools after graduating from high schools.

is necessary to consider raising the professional status of midwives and staff engaged in primary health care.

Annex 2-5: Health Care Facilities, Finance, and Management Mechanism-Related Data

Table 2-5-1 Types of Health Facilities in Yangon Region

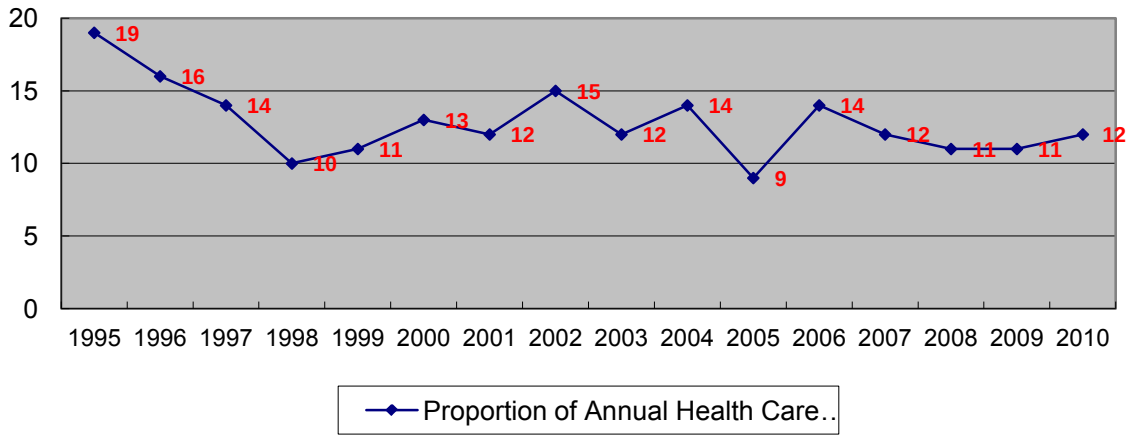
Health Facilities	Yangon Region (2009)
Specialist Hospital	*8*
Teaching Hospital	*1*
General Hospital (over 300 beds)	*3*
Hospital (under 300 beds)	*8*
Township Hospital	*28*
Station Hospital	*26*
Hospital under the control of other ministries	*5*
Health Centre	
Maternal & Child Health Centre	*20*
Urban Health Centre	*33*
Rural Health Centre	*77*
Secondary Health Centre	*18*
Sub Health Centre	*344*
School Health Centre	*21*
Private Clinic and Maternity Home	*3,250*

Source：State/Division Health Profile 2009 (Yangon Division), Health Profile 2009 MOH

Table 2-5-2 Trends in the Government Health Expenditure

Government Health Expenditure	1988-89	2006-07	2007-09	2008-09	2009-10
Current Expenditure （Unit：I million Kyat）	347.1	36497.3	38,368.1	41,362.7	48,312.2
Capital Expenditure （Unit：I million Kyat）	117.0	10,717.6	10,379.2	10,080.7	15,689.0
Total Expenditure (Government accounts)	464.1	47,214.9	48,747.3	51,443.4	64,001.2
Government Health Expenditure per person (Kyat)	11.8	835.4	847.8	881.2	1,082.4

Source：Health in Myanmar 2011, MOH



Source：WHO Global Health Expenditure Atlas, Health Financing Country Profile, 2010

Figure 2-5-3 Trends in the Proportion of Annual Government Health Care Costs

Table 2-5-4 Constitution of National Health Committee（as of April 2011）

1. Union Minister, Ministry of Health	Chairperson
2. Union Minister, Ministry of Labour	Vice Chairman
3. Deputy Minister, Ministry of Home Affairs	Committee
4. Deputy Minister, Ministry of Border Affairs	Committee
5. Deputy Minister, Ministry of Information	Committee
6. Deputy Minister, Ministry of National Planning and Economic Development	Committee
7. Deputy Minister, Ministry of Social Welfare, Relief and Resettlement	Committee
8. Deputy Minister, Ministry of Labour	Committee
9. Deputy Minister, Ministry of Education	Committee
10. Deputy Minister, Ministry of Health	Committee
11. Deputy Minister, Ministry of Science and Technology	Committee
12. Deputy Minister, Ministry of Immigration and Population	Committee
13. Deputy Minister, Ministry of Sports	Committee
14. Council Member, Nay Pyi Taw Council	Committee
15. President, Myanmar Red Cross Society	Committee
16. President, Myanmar Maternal and Child Welfare Association	Committee
17. Deputy Minister, Ministry of Health	Secretary
18. Director General, Department of Health Planning, Ministry of Health	Secretary

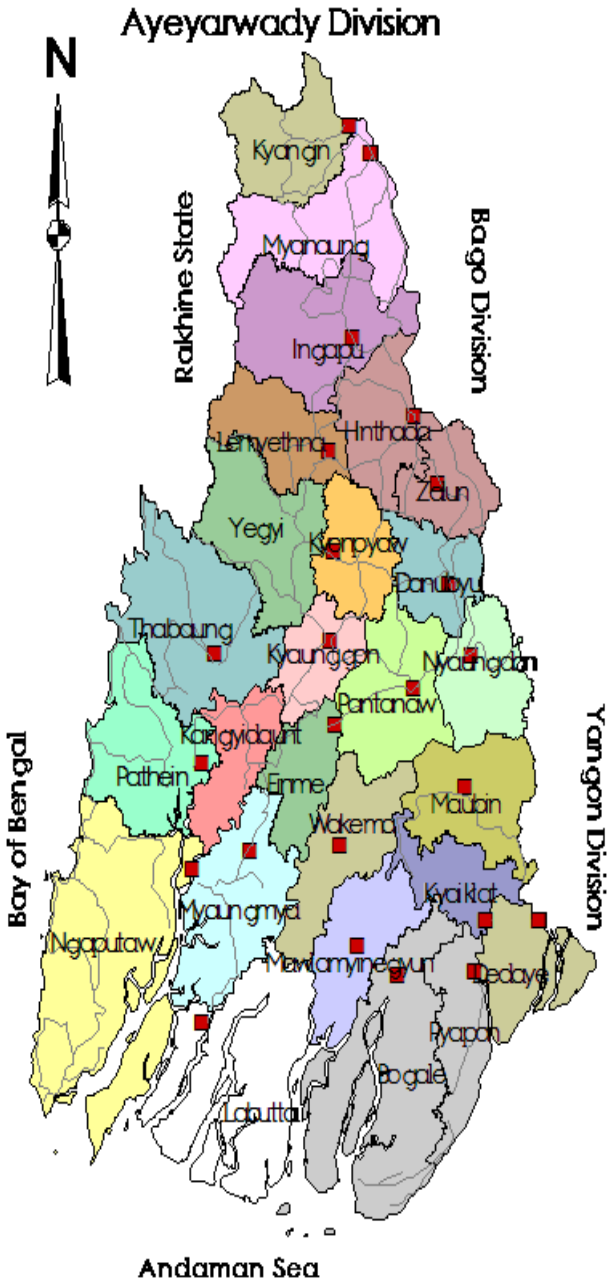
Source：Health in Myanmar 2011, Ministry of Health

Annex 2-6：Donor Trend-Related Data

Table 2-6-1 List of Development Partners and NGOs

1. UN Agencies 1) United Nation Development Programme (UNDP) 2) World Health Organisation (WHO) 3) United Nations Children's Fund (UNICEF) 4) United Nations Programme on HIV/AIDS (UNAIDS) 5) United Nations Population Fund (UNFPA) 6) World Food Programme (WFP) **2. International NGO** 1) Action International Contre La Faim (ACIF) 2) Adventist Development and Relife Agency (ADRA) 3) Association Francois-Xavier Bagnoud (AFXB) 4) Asian Harm Reduction Network (AHRN) 5) Alliance International HIV/AIDS 6) Association of Medical Doctors of Asia (AMDA) 7) Aide Medical International (AMI) 8) Artsen Zonder Grenzen (AZG) MSF-Holland 9) Burnet Institute Australia 10) CARE Myanmar 11) Cooperation and Svilu-ppo onlus (CESVI) 12) Daiyukai Medical Foundation 13) Humanitarian Services International (HSI) 14) International Organisation Migration (IOM) 15) International Union against TB and Lung Diseases (IUATLD) 16) Latter Day Saint Charities, USA 17) Malteser International (Germany) 18) Merlin 19) Medecines du Monde (MDM) 20) Medicines Sans Frontieres-Swizerland (MSF-CH) 21) Marie Stopes International (MSI) 22) Pact Myanmar 23) Partners International Solidarity Organisation 24) Progetto Continenti 25) Population Services International (PSI) 26) Save the Children (UK) 27) Save the Children (US) 28) Save the Children (Japan) 29) Terre des hommes (TDH) 30) World Concern (WC) 31) World Vision International	**3. National NGO** 1) Myanmar Women's Affairs federation (MWAF) 2) Myanmar Maternal and Child Welfare Association (MMCWA) 3) Myanmar Red Cross Society 4) Myanmar Academy of Medical Science 5) Myanmar Medical Association (MMA) 6) Myanmar Medical Council 7) Myanmar Traditional Medicine Council 8) Myanmar Traditional Medicine Practitioners Association 9) Myanmar Dental Association (MDA) 10) Myanmar Dental Council 11) Myanmar Nurses Association (MNA) 12) Myanmar Nurses Council 13) Myanmar Health Assistant Association 14) Myanmar Anti-narcotic Association

Annex 3: State / Division Health Profile



State/Division Health Profile

Ayeyarwaddy Division

1. MAP

2. AREA **35963.52 Sq-Km**

3. LOCATION **East(Yangon), West(Bay of bengal) North(Bago), South(Andaman Sea)**

4. POPULATION * (2009)

Total	6538069
Urban	833654
Rural	5704415
Male	3156584
Female	3381485
Sex Ratio	93
< 5 Yr.	709275
0 - 14 Yr.	1978371
15 - 49 Yr.	3437075

5. POPULATION DENSITY (2009) **181.7973 Sq-Km**

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	26
Wards	262
Villages	11772
Village Tracts	1938

7. HEALTH FACILITIES

1	General Hospital (250) Bedded	1
2	General Hospital (200) Bedded	2
3	Hospital (100) Bedded	2
4	Township Hospital (50=7 / 25=6 / 16=8) Bedded	21
5	Station Hospitals	51
6	Maternal and Child Health Centers	39
7	Urban Health Centers	3
8	Rural Health Centers	196
9	Sub Health Centers	943
10	School Health Centers	9
11	Private Clinics and Maternity Homes	680

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	475	774	228	209	75	180	1341
Appointed	389	714	212	194	69	144	1255
Vacant	86	60	16	15	6	36	86

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	8214	5280	1984
Functioning	4255	3405	1714

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	2409
RED CROSS (Branch Association)	190
M.M.A (Branch Association)	26
NURSE ASSOCIATION (Branch Association)	26
H.A. ASSOCIATION (Branch Association)	26

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	16.3	20.0	19.8
% of referral cases	0.5	0.5	0.5

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	95	88	95
Coverage of Students Examined	77	76	77
Coverage of Schools with Sanitary Latrine	77	69	81
Coverage of Schools with Safe Water Supply	78	71	82

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	5.8	5.7	3.8
Under Weight Children (Under 3 Years)	5.2	5.1	4.5
Severe Under Weight (Under 3 Years)	0.7	0.6	0.6
Targeted nutritional care coverage with the jurisdiction of MW	26.3	25.8	12.9

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	45.4	49.8	49.4
% of Home Deliveries (AMW)	13.1	12.5	12.9
% of deliveries at RHC delivery room	1.3	1.6	1.4
Low Birth Weight %	1.5	1.5	1.5
Rate of Referral %	5.3	5.3	6.0
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	5	5	5
AN Care Coverage %	63.4	70.0	72.1

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	86	92	82
D.P.T 3	83	89	81
O.P.V 3	79	89	81
Hepatitis B 3	82	92	81
Measles	76	86	76
T.T 2	80	86	76

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	301.13	0.81
ARI (per 100000 <5Children)	4502.77	7.19
Diarrhoea (per 100000 Pop)	545.15	0.17
Dysentry (per 100000 Pop)	300.95	-
TB (Sputum +) (per 100000 Pop)	60.28	0.28
Snake Bite (per 100000 Pop)	10.42	2.49

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	3.82	2.43	1.98
Case Fatality Rate	1.57	1.58	1.33

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	105.87	84.00	87.73

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	1.77	1.92	0.93

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.48	0.44	0.41
New Case Detection Rate per 100000 Population	5.19	4.44	4.44

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	4.37	2.96	2.50
% of <5 Children with cough and difficult breathing	3.59	4.04	4.41
% of <5 Children with severe Pneumonia	0.22	0.18	0.17

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	75	77	72
Coverage of Sanitary Latrines (Rural)	72	73	66
Coverage of Sanitary Latrines (Total)	72	74	79

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	0.40	0.96
Suicide	0.02	0.86
Assault	0.49	0.86

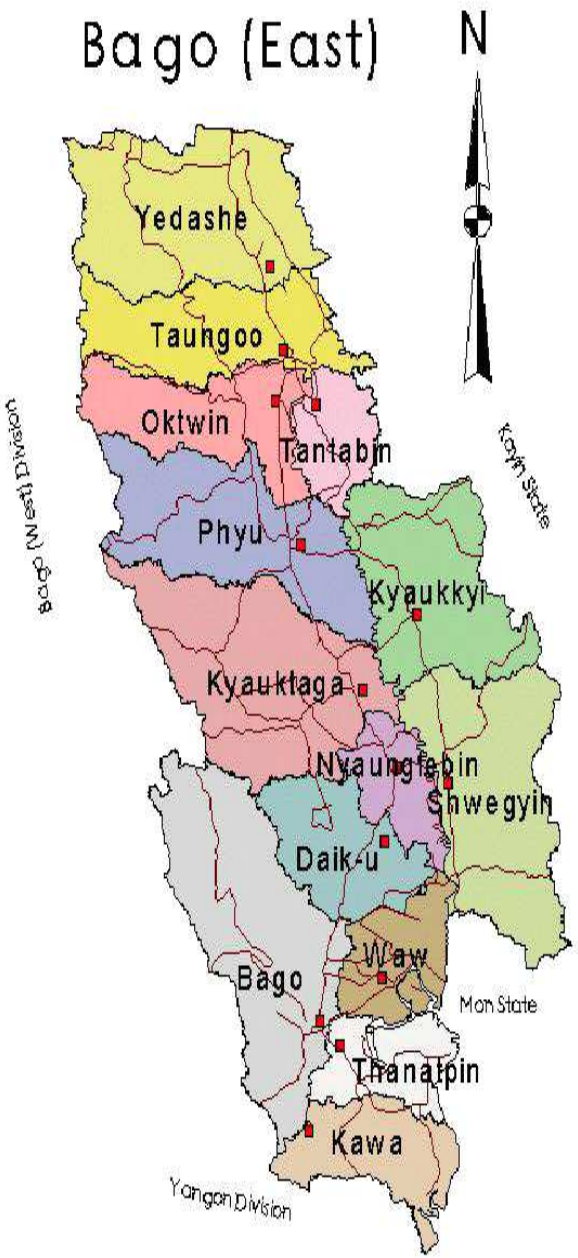
23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.1	-0.8	1.3
IMR / 1000 Live Births	15.8	36.9	17.2
U5MR / 1000 Live Births	23.9	126.7	22.7
MMR / 1000 Live Births	2.6	2.1	1.8

24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	167078	266467	196541
Total No. of In-patients	100944	109640	110246
General Anaesthesia	6137	5906	5647
Spinal Anaesthesia	6165	8363	8390
Local Anaesthesia	5378	6354	5528
Other Anaesthesia	1886	2559	1846
Total No. of Deliveries	13319	14324	15363
Total No. of Abortions	3400	3335	3224
Total No. of Deaths	2141	2187	1895
Avg. No. of In-patient Per Day	1470	1610	1574
Avg. Duration of Stay Days	5	5	5
Bed Occupancy Rate % Based on Sanction Bed	64	59	56

Ayeyarwaddy



State/Division Health Profile

Bago (East) Division

1. MAP

2. AREA **24200.00 Sq-Km**

3. LOCATION **East (Rakhine), West (Kayin), North(Mandalay), South (Yangon)**

4. POPULATION * (2009)

Total	2854395
Urban	490169
Rural	2364226
Male	1390817
Female	1463578
Sex Ratio	95
< 5 Yr.	327370
0 - 14 Yr.	935294
15 - 49 Yr.	1469249

5. POPULATION DENSITY (2009) **117.9502 Sq-Km**

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	14
Wards	147
Villages	2859
Village Tracts	740

7. HEALTH FACILITIES

1	General Hospital (200) Bedded	1
2	Hospital (150) Bedded	1
3	Hospital (100) Bedded	1
4	Township Hospital (50=2 / 25=8 / 16=1)	11
5	Station Hospitals	30
6	Hospital Under Other Ministries	2
7	Maternal and Child Health Centers	16
8	Urban Health Centers	2
9	Rural Health Centers	68
10	Sub Health Centers	390
11	School Health Centers	3
12	Private Clinics and Maternity Homes	170

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	320	559	90	93	34	93	504
Appointed	256	395	80	93	34	66	452
Vacant	64	164	10	-	-	27	52

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	2181	1605	1599
Functioning	1348	1137	757

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	4389
RED CROSS (Branch Association)	15
M.M.A (Branch Association)	15
NURSE ASSOCIATION (Branch Association)	15
H.A. ASSOCIATION (Branch Association)	15

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	20.2	21.3	23.4
% of referral cases	0.5	0.6	0.6

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	94	94	97
Coverage of Students Examined	74	81	73
Coverage of Schools with Sanitary Latrine	76	78	83
Coverage of Schools with Safe Water Supply	81	87	92

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	2.8	1.4	2.0
Under Weight Children (Under 3 Years)	2.5	1.3	1.7
Severe Under Weight (Under 3 Years)	0.2	0.1	0.2
Targeted nutritional care coverage with the jurisdiction of MW	22.8	19.8	21.5

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	50.2	47.1	49.7
% of Home Deliveries (AMW)	13.2	12.3	12.7
% of deliveries at RHC delivery room	1.5	1.6	1.2
Low Birth Weight %	1.3	1.3	1.1
Rate of Referral %	4.5	5.1	5.9
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	6	6	6
AN Care Coverage %	67.3	70.6	73.9

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	89	95	95
D.P.T 3	89	93	92
O.P.V 3	88	93	91
Hepatitis B 3	89	93	91
Measles	87	90	89
T.T 2	84	91	90

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	1195.49	1.96
ARI (per 100000 <5Children)	4094.45	5.50
Diarrhoea (per 100000 Pop)	753.26	0.70
Dysentry (per 100000 Pop)	306.12	-
TB (Sputum +) (per 100000 Pop)	43.69	0.56
Snake Bite (per 100000 Pop)	15.20	1.75

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	6.11	8.86	8.23
Case Fatality Rate	2.06	1.76	1.55

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	83.77	79.00	56.80

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	1.67	0.50	0.47

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.67	0.70	0.74
New Case Detection Rate per 100000 Population	8.89	9.55	7.43

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	2.96	1.24	2.22
% of <5 Children with cough and difficult breathing	3.35	3.64	3.93
% of <5 Children with severe Pneumonia	0.18	0.13	0.09

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	83	93	87
Coverage of Sanitary Latrines (Rural)	80	88	83
Coverage of Sanitary Latrines (Total)	80	89	84

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	1.30	4.94
Suicide	0.03	1.82
Assault	1.26	1.65

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.3	1.6	1.6
IMR / 1000 Live Births	23.2	19.6	16.6
U5MR / 1000 Live Births	32.1	25.6	22.1
MMR / 1000 Live Births	1.8	1.7	1.5

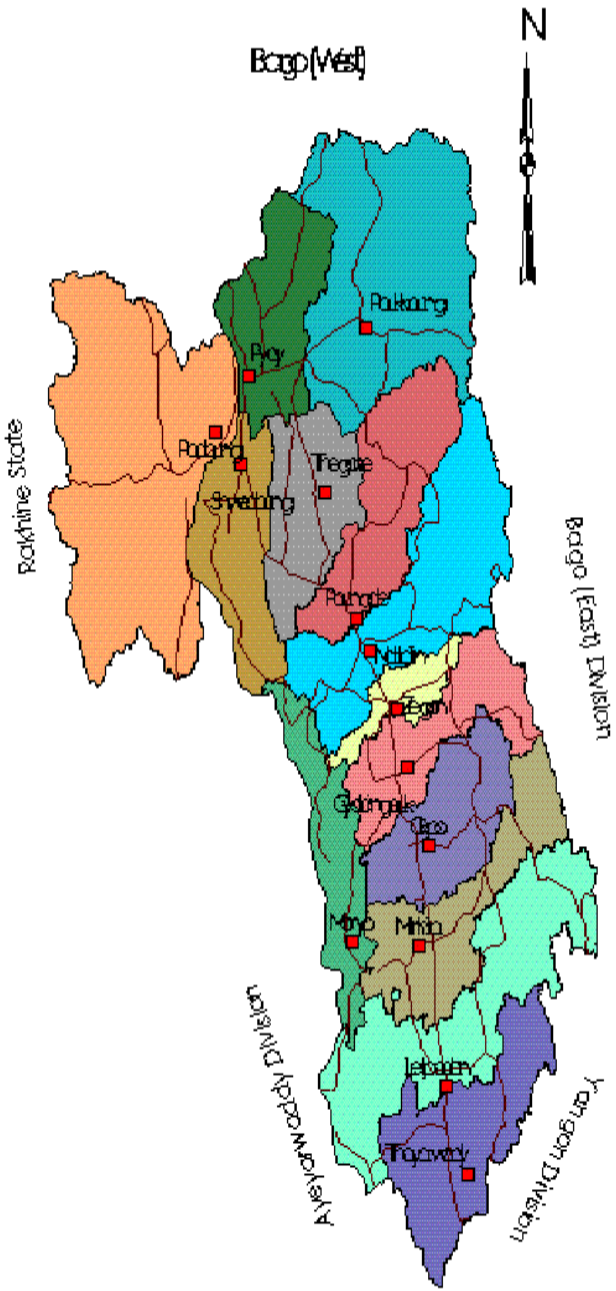
24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	109047	108551	134154
Total No. of In-patients	55118	55868	68786
General Anaesthesia	3577	3317	3129
Spinal Anaesthesia	2928	3165	3736
Local Anaesthesia	3244	4011	3605
Other Anaesthesia	1397	1195	1363
Total No. of Deliveries	6283	6335	7191
Total No. of Abortions	2021	1931	1946
Total No. of Deaths	1116	1091	1169
Avg. No. of In-patient Per Day	829	812	959
Avg. Duration of Stay Days	6	5	5
Bed Occupancy Rate % Based on Sanction Bed	65	60	70

Bago (East)

State/Division Health Profile

Bago (West) Division



1. MAP

2. AREA — 14905.28 Sq-Km

3. LOCATION — North(Mandalay), South (Yangon), East (Bago East), West (Rakhine)

4. POPULATION * (2009)

Total	2019050
Urban	357502
Rural	1661548
Male	979242
Female	1039808
Sex Ratio	94
< 5 Yr.	180141
0 - 14 Yr.	527872
15 - 49 Yr.	1069332

5. POPULATION DENSITY (2009) — 151.41 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	14
Wards	103
Villages	3633
Village Tracts	685

7. HEALTH FACILITIES

1	General Hospital (200) Bedded	1
2	Hospital (100) Bedded	1
3	Township Hospitals (50=2 / 25=10)	12
4	Station Hospitals	23
5	Hospital Under Other Ministries	1
6	Maternal and Child Health Centers	17
7	Urban Health Centers	1
8	Rural Health Centers	59
9	Sub Health Centers	300
10	School Health Centers	2
11	Private Clinics and Maternity Homes	129

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	191	271	89	85	31	89	477
Appointed	160	256	79	85	29	88	463
Vacant	31	15	10	-	2	1	14

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	2946	1792	1255
Functioning	1859	1178	621

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	14
RED CROSS (Branch Association)	17
M.M.A (Branch Association)	14
NURSE ASSOCIATION (Branch Association)	14
H.A. ASSOCIATION (Branch Association)	14

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	18.3	22.3	21.8
% of referral cases	0.5	0.5	0.5

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	96	96	97
Coverage of Students Examined	79	83	74
Coverage of Schools with Sanitary Latrine	86	88	90
Coverage of Schools with Safe Water Supply	78	84	88

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	3.2	2.5	2.1
Under Weight Children (Under 3 Years)	3.3	2.6	2.2
Severe Under Weight (Under 3 Years)	0.3	0.3	0.2
Targeted nutritional care coverage with the jurisdiction of MW	34.1	36.2	35.8

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	64.7	68.4	68.5
% of Home Deliveries (AMW)	11.3	10.2	9.3
% of deliveries at RHC delivery room	0.3	0.5	0.3
Low Birth Weight %	1.1	1.0	1.0
Rate of Referral %	8.4	9.9	11.6
Avg. no. of Attendance (AN)	3	4	4
Avg. no. of Attendance (PN)	5	6	6
AN Care Coverage %	58.4	68.4	67.2

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	85	95	95
D.P.T 3	83	93	92
O.P.V 3	83	93	92
Hepatitis B 3	83	93	92
Measles	80	88	91
T.T 2	82	94	92

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	1021.07	1.88
ARI (per 100000 <5Children)	4432.64	13.88
Diarrhoea (per 100000 Pop)	409.45	0.10
Dysentry (per 100000 Pop)	232.19	-
TB (Sputum +) (per 100000 Pop)	83.16	0.69
Snake Bite (per 100000 Pop)	47.15	2.58

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	4.55	7.36	6.66
Case Fatality Rate	2.01	1.92	2.16

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	100.91	101.00	85.98

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	0.15	0.14	0.28

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.90	0.98	0.96
New Case Detection Rate per 100000 Population	9.04	11.57	9.46

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	3.39	5.26	3.31
% of <5 Children with cough and difficult breathing	3.81	4.46	4.51
% of <5 Children with severe Pneumonia	0.25	0.22	0.17

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	83	88	91
Coverage of Sanitary Latrines (Rural)	84	87	87
Coverage of Sanitary Latrines (Total)	84	87	88

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	0.97	3.27
Suicide	0.06	2.82
Assault	1.12	2.77

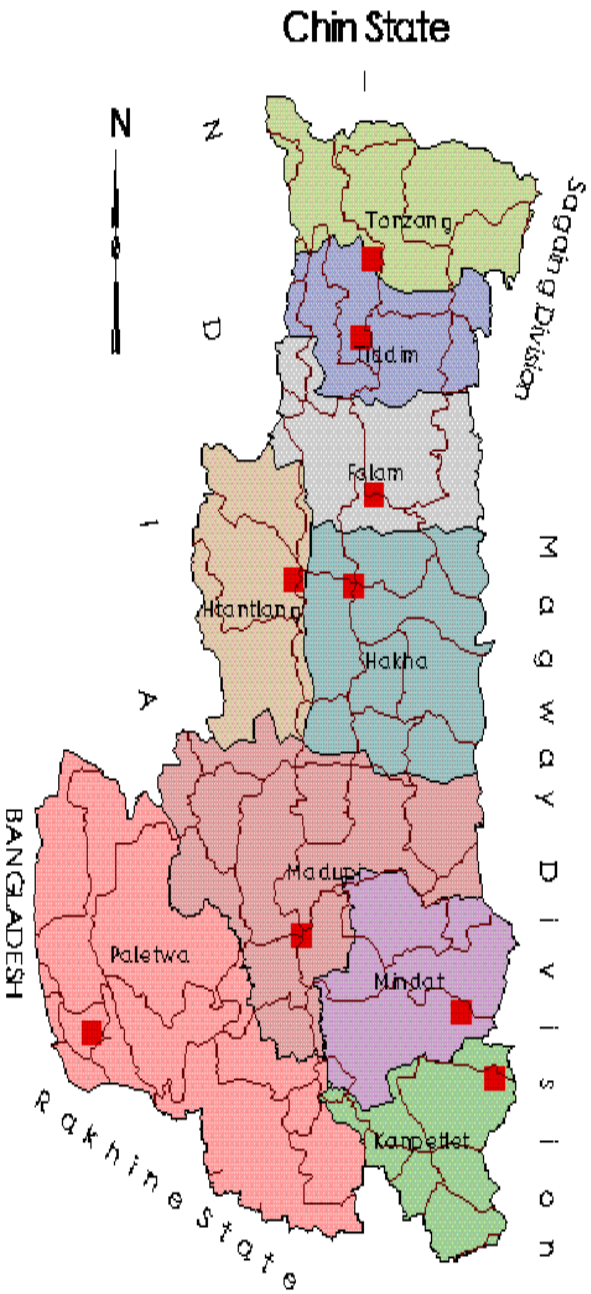
23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	0.9	1.0	1.0
IMR / 1000 Live Births	18.2	15.3	14.1
U5MR / 1000 Live Births	25.4	19.1	17.6
MMR / 1000 Live Births	1.2	1.1	1.1

24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	96959	106395	100858
Total No. of In-patients	44451	44163	49339
General Anaesthesia	3048	2687	3217
Spinal Anaesthesia	2185	2251	2150
Local Anaesthesia	2634	2777	3250
Other Anaesthesia	537	780	1005
Total No. of Deliveries	4451	4921	5435
Total No. of Abortions	1305	1233	1310
Total No. of Deaths	740	771	898
Avg. No. of In-patient Per Day	690	644	710
Avg. Duration of Stay Days	6	5	5
Bed Occupancy Rate % Based on Sanction Bed	68	63	69

Bago (West)



State/Division Health Profile

Chin State

1. MAP

2. AREA 36071.58 Sq-Km

3. LOCATION East(Sagaing),West(Bangladesh), North (India), South (Rakhine State)

4. POPULATION * (2009)

Total	489018
Urban	86479
Rural	402539
Male	240996
Female	248022
Sex Ratio	97
< 5 Yr.	60347
0 - 14 Yr.	164868
15 - 49 Yr.	250166

5. POPULATION DENSITY (2009) 13.55688 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	9
Wards	36
Villages	1388
Village Tracts	461

7. HEALTH FACILITIES

1	General Hospital (200) Bedded	1
2	(100) Bedded Hospitals	2
3	(50) Bedded Hospitals	1
4	(25) Bedded Hospitals	4
5	Station Hospitals	15
6	Maternal and Child Health Centers	9
7	Rural Health Centers	51
8	Sub Health Centers	226
9	School Health Centers	2
10	Private Clinics and Maternity Homes	7

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	343	879	60	53	19	20	331
Appointed	131	253	50	37	17	13	232
Vacant	212	626	10	16	2	7	99

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	1144	978	288
Functioning	506	550	139

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	10
RED CROSS (Branch Association)	12
M.M.A (Branch Association)	1
NURSE ASSOCIATION (Branch Association)	10
H.A. ASSOCIATION (Branch Association)	12

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	28.1	26.9	27.3
% of referral cases	0.3	0.3	0.2

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	62	85	79
Coverage of Students Examined	49	60	56
Coverage of Schools with Sanitary Latrine	51	76	71
Coverage of Schools with Safe Water Supply	39	59	62

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	6.4	4.5	4.6
Under Weight Children (Under 3 Years)	4.7	4.0	3.7
Severe Under Weight (Under 3 Years)	1.3	0.7	0.6
Targeted nutritional care coverage with the jurisdiction of MW	56.2	55.6	60.6

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	53.1	47.6	61.2
% of Home Deliveries (AMW)	12.9	13.4	19.8
% of deliveries at RHC delivery room	1.2	0.8	0.5
Low Birth Weight %	0.4	0.4	0.4
Rate of Referral %	3.5	3.1	2.2
Avg. no. of Attendance (AN)	4	4	4
Avg. no. of Attendance (PN)	4	4	4
AN Care Coverage %	58.4	55.7	56.1

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	68	66	79
D.P.T 3	67	60	77
O.P.V 3	66	60	77
Hepatitis B 3	66	60	77
Measles	56	67	66
T.T 2	78	51	68

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	5467.05	5.11
ARI (per 100000 <5Children)	9826.50	24.86
Diarrhoea (per 100000 Pop)	1828.35	7.36
Dysentry (per 100000 Pop)	644.96	0.20
TB (Sputum +) (per 100000 Pop)	20.45	0.20
Snake Bite (per 100000 Pop)	8.18	0.20

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	29.74	27.69	30.64
Case Fatality Rate	1.02	1.57	1.13

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	35.23	41.00	27.27

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	1.20	2.00	0.33

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.08	0.16	0.12
New Case Detection Rate per 100000 Population	0.61	0.81	0.82

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	2.29	2.54	1.95
% of <5 Children with cough and difficult breathing	8.95	8.50	9.47
% of <5 Children with severe Pneumonia	0.85	0.46	0.36

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	83	87	89
Coverage of Sanitary Latrines (Rural)	77	79	84
Coverage of Sanitary Latrines (Total)	77	80	85

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	0.43	0.41
Suicide	0.01	0.41
Assault	0.19	0.20

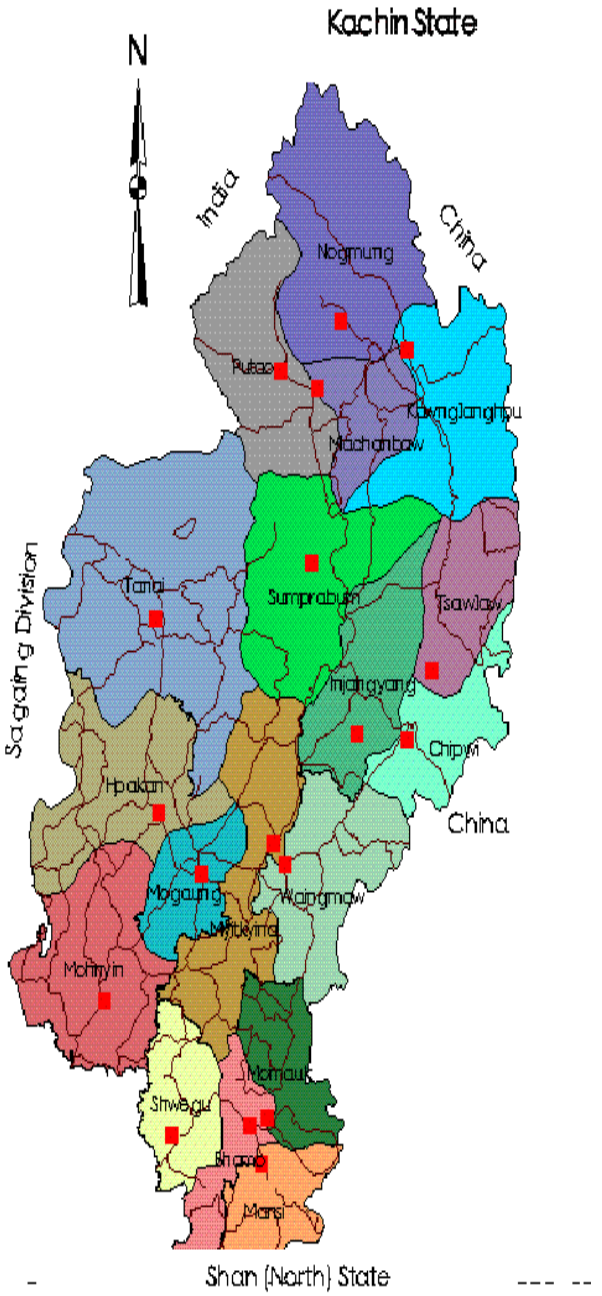
23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.7	1.8	1.6
IMR / 1000 Live Births	11.2	13.0	12.2
U5MR / 1000 Live Births	22.6	23.7	21.0
MMR / 1000 Live Births	1.6	2.2	1.0

24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	35950	35824	35354
Total No. of In-patients	8371	8952	8747
General Anaesthesia	593	583	474
Spinal Anaesthesia	554	729	848
Local Anaesthesia	443	646	423
Other Anaesthesia	120	168	127
Total No. of Deliveries	513	512	514
Total No. of Abortions	233	255	257
Total No. of Deaths	118	129	142
Avg. No. of In-patient Per Day	158	158	159
Avg. Duration of Stay Days	7	6	7
Bed Occupancy Rate % Based on Sanction Bed	21	16	16

Chin



State/Division Health Profile

Kachin State

1. MAP

2. AREA **89038.57 Sq-Km**

3. LOCATION **East(China),West(Sagaing)
North (China),South (Shan)**

4. POPULATION * (2009)

Total	1383325
Urban	402188
Rural	981137
Male	679371
Female	703954
Sex Ratio	97
< 5 Yr.	153569
0 - 14 Yr.	430340
15 - 49 Yr.	726896

5. POPULATION DENSITY (2009) **15.53624 Sq-Km**

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	18
Wards	122
Villages	2612
Village Tracts	615

7. HEALTH FACILITIES

1	Specialist Hospitals	2
2	General Hospital (300=1 /200=1) Bedded	2
3	Hospital (100=2 /50=4 /25=10 /16=1) Bedded	17
4	Station Hospitals	27
5	Urban Health Centers	1
6	Rural Health Centers	56
7	Sub Health Centers	209
8	School Health Centers	2
9	Maternal and Child Health Centers	17
10	Private Clinics and Maternity Homes	49

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	305	648	80	68	30	73	363
Appointed	229	527	58	64	27	14	331
Vacant	76	121	22	4	3	59	32

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	1208	802	606
Functioning	409	405	214

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	461
RED CROSS (Branch Association)	4
M.M.A (Branch Association)	4
NURSE ASSOCIATION (Branch Association)	15
H.A. ASSOCIATION (Branch Association)	16

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	17.5	16.8	23.5
% of referral cases	0.8	0.7	0.6

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	80	85	84
Coverage of Students Examined	50	54	58
Coverage of Schools with Sanitary Latrine	62	72	73
Coverage of Schools with Safe Water Supply	57	63	65

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	5.8	6.4	5.5
Under Weight Children (Under 3 Years)	6.0	5.0	5.1
Severe Under Weight (Under 3 Years)	0.7	0.4	0.5
Targeted nutritional care coverage with the jurisdiction of MW	29.0	30.1	27.2

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	48.2	42.7	51.2
% of Home Deliveries (AMW)	10.1	9.6	10.6
% of deliveries at RHC delivery room	1.8	1.8	1.3
Low Birth Weight %	1.8	1.7	1.3
Rate of Referral %	4.5	4.6	4.6
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	5	5	5
AN Care Coverage %	73.0	71.4	79.4

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	85	81	94
D.P.T 3	78	75	91
O.P.V 3	78	76	91
Hepatitis B 3	79	75	90
Measles	78	72	88
T.T 2	69	76	84

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	6258.98	15.98
ARI (per 100000 <5Children)	6895.02	23.80
Diarrhoea (per 100000 Pop)	1092.51	1.16
Dysentry (per 100000 Pop)	367.09	0.22
TB (Sputum +) (per 100000 Pop)	57.76	0.29
Snake Bite (per 100000 Pop)	1.52	-

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	25.82	29.60	34.53
Case Fatality Rate	2.23	2.25	2.67

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	117.49	109.00	77.01

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	3.03	1.68	0.88

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.12	0.12	0.12
New Case Detection Rate per 100000 Population	1.10	1.36	0.94

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	4.69	2.75	4.37
% of <5 Children with cough and difficult breathing	6.30	6.14	6.58
% of <5 Children with severe Pneumonia	0.41	0.33	0.31

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	78	79	84
Coverage of Sanitary Latrines (Rural)	81	83	87
Coverage of Sanitary Latrines (Total)	80	82	86

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	2.84	9.11
Suicide	0.04	1.23
Assault	0.71	1.52

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.5	1.6	1.6
IMR / 1000 Live Births	20.7	22.3	17.2
U5MR / 1000 Live Births	32.8	34.6	27.4
MMR / 1000 Live Births	1.5	1.7	1.8

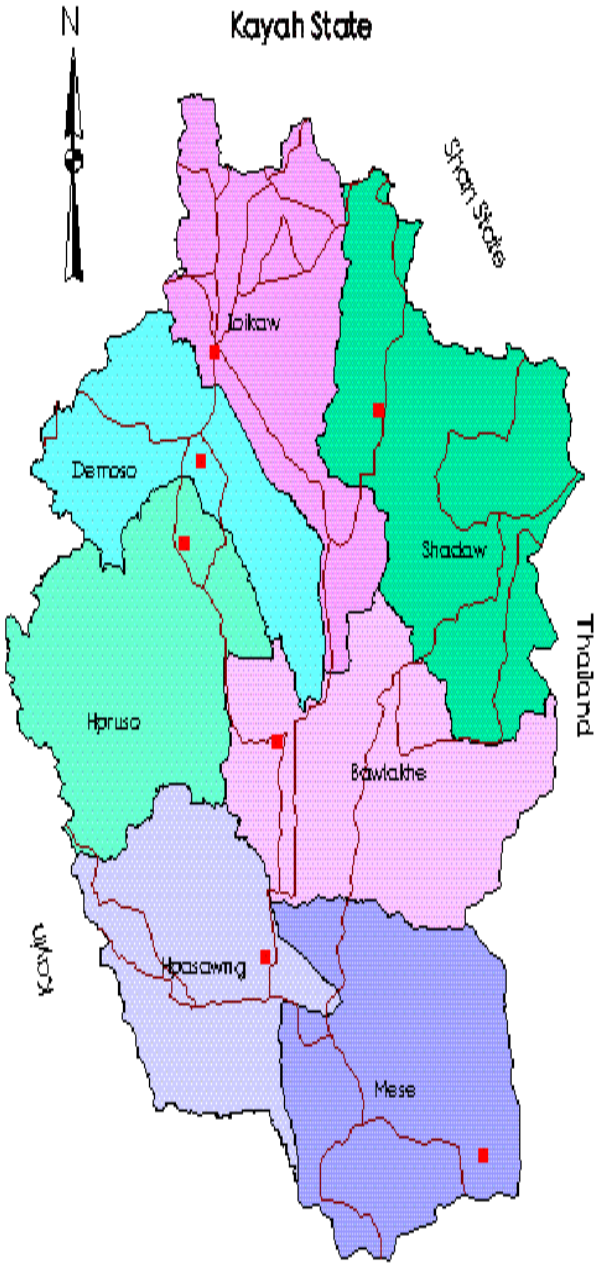
24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	88871	108931	116572
Total No. of In-patients	34703	35014	40703
General Anaesthesia	2417	2059	1949
Spinal Anaesthesia	1595	1914	2283
Local Anaesthesia	2683	3582	2938
Other Anaesthesia	1722	2170	2033
Total No. of Deliveries	3345	3504	3670
Total No. of Abortions	1128	1175	1123
Total No. of Deaths	638	812	904
Avg. No. of In-patient Per Day	572	566	622
Avg. Duration of Stay Days	6	6	6
Bed Occupancy Rate % Based on Sanction Bed	35	28	37

Kachin

State/Division Health Profile

Kayah State



1. MAP

2. AREA 11731.09 Sq-Km

3. LOCATION East(Thailand),West(KayinState) North(Shan State),South(KayinState)

4. POPULATION * (2009)

Total	270169
Urban	86164
Rural	184005
Male	132686
Female	137483
Sex Ratio	97
< 5 Yr.	32254
0 - 14 Yr.	90988
15 - 49 Yr.	144386

5. POPULATION DENSITY (2009) 23.03017 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	7
Wards	46
Villages	595
Village Tracts	77

7. HEALTH FACILITIES

1	General Hospital (200) Bedded	1
2	Hospital (25) Bedded	6
3	Hospital Under Other Ministries	1
4	Station Hospitals	8
5	Maternal and Child Health Centers	6
6	Rural Health Centers	31
7	Sub Health Centers	102
8	School Health Center	1
9	Private Clinics and Maternity Homes	23

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	87	93	21	28	13	29	156
Appointed	43	70	20	28	11	24	141
Vacant	44	23	1	-	2	5	15

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	379	610	98
Functioning	110	307	69

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	5
RED CROSS (Branch Association)	5
M.M.A (Branch Association)	2
NURSE ASSOCIATION (Branch Association)	5
H.A. ASSOCIATION (Branch Association)	3

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	25.8	24.0	32.9
% of referral cases	0.4	0.5	0.4

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	93	93	94
Coverage of Students Examined	86	62	79
Coverage of Schools with Sanitary Latrine	64	67	79
Coverage of Schools with Safe Water Supply	34	56	67

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	3.6	1.4	1.8
Under Weight Children (Under 3 Years)	4.0	1.3	1.7
Severe Under Weight (Under 3 Years)	0.4	0.1	0.2
Targeted nutritional care coverage with the jurisdiction of MW	62.4	76.4	79.5

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	54.6	56.6	61.8
% of Home Deliveries (AMW)	10.4	11.8	10.8
% of deliveries at RHC delivery room	2.0	1.2	1.6
Low Birth Weight %	1.1	0.6	1.2
Rate of Referral %	4.4	5.9	6.7
Avg. no. of Attendance (AN)	3	3	4
Avg. no. of Attendance (PN)	3	4	4
AN Care Coverage %	73.2	73.9	76.3

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	74	90	85
D.P.T 3	75	89	83
O.P.V 3	72	89	82
Hepatitis B 3	73	89	81
Measles	58	84	82
T.T 2	62	84	68

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	3272.77	5.92
ARI (per 100000 <5Children)	7735.47	24.80
Diarrhoea (per 100000 Pop)	1596.41	8.88
Dysentry (per 100000 Pop)	819.86	0.37
TB (Sputum +) (per 100000 Pop)	20.36	-
Snake Bite (per 100000 Pop)	5.18	0.37

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	19.76	19.65	16.24
Case Fatality Rate	0.88	1.47	1.58

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	68.68	70.00	23.69

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	-	-	-

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.11	0.22	0.19
New Case Detection Rate per 100000 Population	1.12	1.87	1.11

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	11.25	4.57	5.50
% of <5 Children with cough and difficult breathing	7.53	6.30	6.63
% of <5 Children with severe Pneumonia	0.97	0.58	0.65

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	91	87	80
Coverage of Sanitary Latrines (Rural)	77	67	79
Coverage of Sanitary Latrines (Total)	82	73	79

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	1.28	1.11
Suicide	0.01	-
Assault	0.06	-

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.7	1.8	1.7
IMR / 1000 Live Births	18.1	14.5	15.6
U5MR / 1000 Live Births	27.2	23.9	24.4
MMR / 1000 Live Births	3.0	2.2	1.6

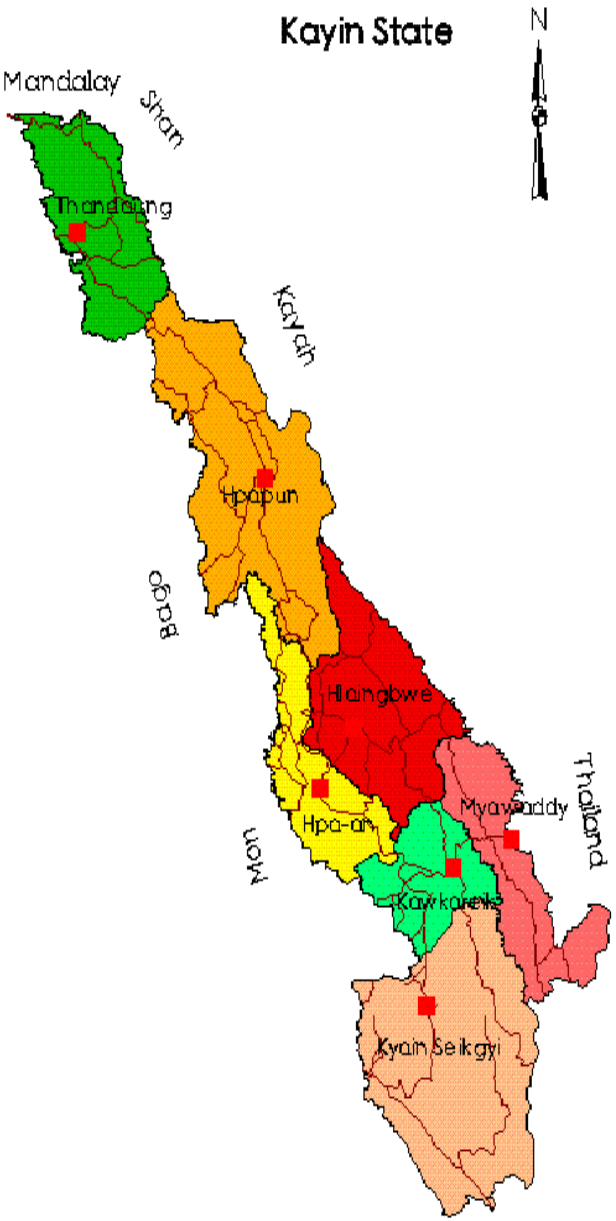
24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	35965	34379	38012
Total No. of In-patients	10901	10502	12128
General Anaesthesia	390	425	658
Spinal Anaesthesia	692	978	932
Local Anaesthesia	683	404	286
Other Anaesthesia	144	140	145
Total No. of Deliveries	950	953	1057
Total No. of Abortions	266	254	240
Total No. of Deaths	257	218	206
Avg. No. of In-patient Per Day	152	168	182
Avg. Duration of Stay Days	5	6	6
Bed Occupancy Rate % Based on Sanction Bed	30	33	35

Kayah

State/Division Health Profile

Kayin State



1. MAP

2. AREA — 30385.49 Sq-Km

3. LOCATION — East (Thailand) , West (Bago) , North(Kayah/Shan) ,South (Mon State)

4. POPULATION * (2009)

Total	1388146
Urban	220342
Rural	1167804
Male	668444
Female	719702
Sex Ratio	93
< 5 Yr.	167545
0 - 14 Yr.	454042
15 - 49 Yr.	679102

5. POPULATION DENSITY (2009) — 45.68 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	7
Wards	75
Villages	2095
Village Tracts	370

7. HEALTH FACILITIES

1	General Hospital (200) Bedded	1
2	District Hospital (100) Bedded	1
3	District Hospital (50) Bedded	2
4	Township Hospital (25) Bedded	4
5	Station Hospitals	18
6	Maternal and Child Health Centers	8
7	Urban Health Centers	2
8	Rural Health Centers	51
9	Sub Health Centers	223
10	School Health Centers	1
11	Private Clinics and Maternity Homes	70

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	86	209	50	50	21	82	296
Appointed	71	192	45	48	17	51	275
Vacant	15	17	5	2	4	31	21

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	1211	1249	776
Functioning	572	631	246

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	258
RED CROSS (Branch Association)	7
M.M.A (Branch Association)	-
NURSE ASSOCIATION (Branch Association)	7
H.A. ASSOCIATION (Branch Association)	7

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	20.6	23.7	24.7
% of referral cases	0.7	0.6	0.5

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	87	94	92
Coverage of Students Examined	65	73	74
Coverage of Schools with Sanitary Latrine	70	73	79
Coverage of Schools with Safe Water Supply	68	72	75

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	5.3	4.8	4.6
Under Weight Children (Under 3 Years)	6.1	6.3	5.5
Severe Under Weight (Under 3 Years)	0.8	0.8	0.4
Targeted nutritional care coverage with the jurisdiction of MW	24.3	26.2	25.3

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	59.2	65.6	64.6
% of Home Deliveries (AMW)	14.6	15.9	16.9
% of deliveries at RHC delivery room	4.6	4.9	7.0
Low Birth Weight %	1.1	1.3	1.1
Rate of Referral %	6.2	7.0	7.4
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	4	4	4
AN Care Coverage %	64.7	68.1	68.8

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	67	78	87
D.P.T 3	62	74	81
O.P.V 3	60	74	81
Hepatitis B 3	62	75	80
Measles	58	70	78
T.T 2	57	68	75

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	1562.44	2.16
ARI (per 100000 <5Children)	5023.73	8.36
Diarrhoea (per 100000 Pop)	900.55	0.43
Dysentry (per 100000 Pop)	276.41	0.14
TB (Sputum +) (per 100000 Pop)	71.25	1.08
Snake Bite (per 100000 Pop)	8.72	0.29

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	10.81	10.15	9.78
Case Fatality Rate	1.25	2.27	1.04

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	106.47	81.00	95.67

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	0.88	0.25	0.10

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.64	0.57	0.60
New Case Detection Rate per 100000 Population	6.94	5.96	6.05

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	2.63	3.57	2.14
% of <5 Children with cough and difficult breathing	4.92	4.80	4.68
% of <5 Children with severe Pneumonia	0.43	0.38	0.30

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	81	73	79
Coverage of Sanitary Latrines (Rural)	69	72	72
Coverage of Sanitary Latrines (Total)	71	72	73

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	2.33	3.03
Suicide	0.07	2.95
Assault	0.52	0.65

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.2	1.2	1.2
IMR / 1000 Live Births	14.6	11.7	10.3
U5MR / 1000 Live Births	23.9	18.9	15.8
MMR / 1000 Live Births	1.3	1.4	1.6

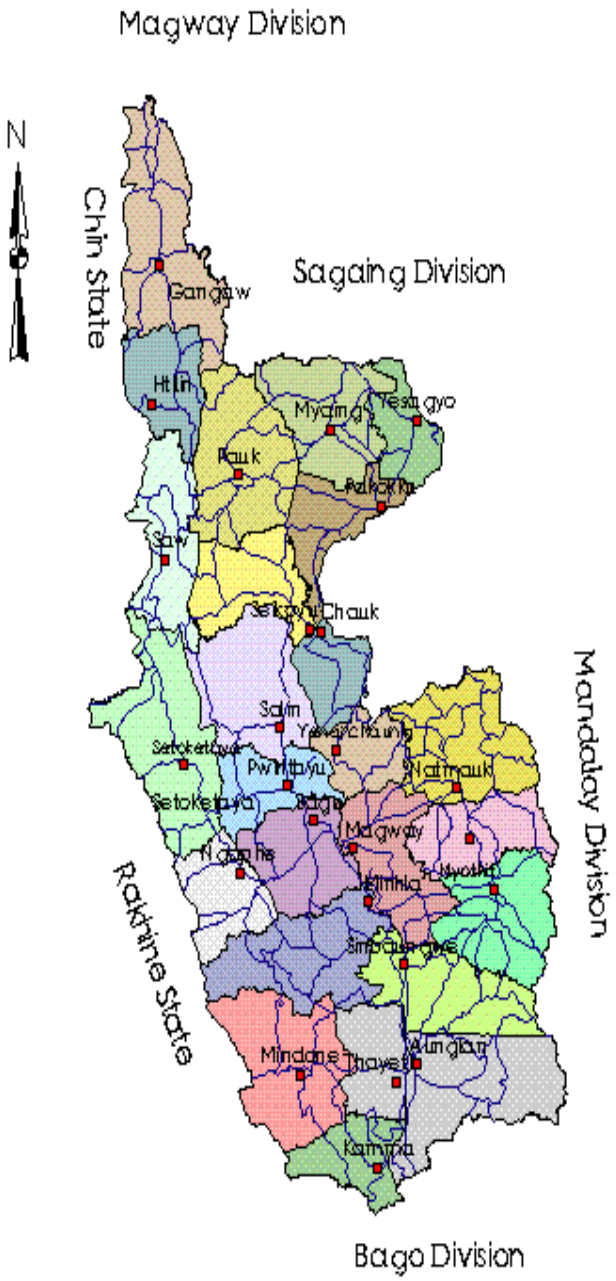
24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	92997	96811	91917
Total No. of In-patients	32060	30972	31181
General Anaesthesia	1235	937	1044
Spinal Anaesthesia	1736	1683	1681
Local Anaesthesia	1819	2463	2604
Other Anaesthesia	1111	1599	1285
Total No. of Deliveries	3448	3557	3313
Total No. of Abortions	1276	1357	1308
Total No. of Deaths	528	597	525
Avg. No. of In-patient Per Day	379	358	355
Avg. Duration of Stay Days	4	4	4
Bed Occupancy Rate % Based on Sanction Bed	48	45	45

Kayin

State/Division Health Profile

Magway Division



1. MAP

2. AREA — 44818.96 Sq-Km

3. LOCATION — East(Mandalay Division),West(Rakhine State),North (Sagaing Division), South (Bago Division)

4. POPULATION * (2009)

Total	4019957
Urban	591023
Rural	3428934
Male	1934690
Female	2085267
Sex Ratio	93
< 5 Yr.	377420
0 - 14 Yr.	1116892
15 - 49 Yr.	2143567

5. POPULATION DENSITY (2009) — 89.69322 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	25
Wards	163
Villages	4764
Village Tracts	1541

7. HEALTH FACILITIES

1	General Hospital (200) Bedded	2
2	Teaching Hospital (200) Bedded	2
3	District Hospital (100) Bedded	2
4	Township Hospital (50) Bedded	4
5	Township Hospital (25) Bedded	7
6	Township Hospital (16) Bedded	9
7	Station Hospitals	39
8	Hospital Under Other Ministries	6
9	Maternal and Child Health Centers	28
10	Urban Health Centers	3
11	Rural Health Centers	128
12	Sub Health Centers	690
13	School Health Centers	6
14	Private Clinics and Maternity Homes	90

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	589	1339	149	162	60	356	953
Appointed	379	992	147	151	55	306	899
Vacant	210	347	2	11	5	50	54

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	4176	3957	1319
Functioning	2889	3067	712

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	1559
RED CROSS (Branch Association)	25
M.M.A (Branch Association)	6
NURSE ASSOCIATION (Branch Association)	26
H.A. ASSOCIATION (Branch Association)	23

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	22.0	23.7	24.8
% of referral cases	0.5	0.5	0.5

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	95	96	98
Coverage of Students Examined	74	79	76
Coverage of Schools with Sanitary Latrine	78	82	87
Coverage of Schools with Safe Water Supply	75	80	84

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	5.2	4.8	3.7
Under Weight Children (Under 3 Years)	5.0	4.6	3.6
Severe Under Weight (Under 3 Years)	0.3	0.3	0.2
Targeted nutritional care coverage with the jurisdiction of MW	36.4	38.2	40.0

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	52.5	55.3	54.4
% of Home Deliveries (AMW)	25.3	25.2	24.1
% of deliveries at RHC delivery room	0.6	0.5	0.5
Low Birth Weight %	0.9	0.9	0.8
Rate of Referral %	5.9	6.7	7.9
Avg. no. of Attendance (AN)	4	4	4
Avg. no. of Attendance (PN)	5	5	6
AN Care Coverage %	66.0	67.9	69.6

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	87	93	93
D.P.T 3	85	91	91
O.P.V 3	85	91	91
Hepatitis B 3	84	91	91
Measles	83	91	90
T.T 2	83	89	90

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	873.07	1.02
ARI (per 100000 <5Children)	7428.59	28.09
Diarrhoea (per 100000 Pop)	810.78	0.35
Dysentry (per 100000 Pop)	384.28	0.02
TB (Sputum +) (per 100000 Pop)	47.76	0.47
Snake Bite (per 100000 Pop)	32.51	3.21

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	5.24	5.31	5.34
Case Fatality Rate	2.58	2.65	1.40

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	70.76	68.00	62.85

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	0.30	0.42	0.35

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.84	0.86	0.70
New Case Detection Rate per 100000 Population	7.72	8.73	7.36

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	2.68	1.92	1.92
% of <5 Children with cough and difficult breathing	5.06	5.75	7.31
% of <5 Children with severe Pneumonia	0.15	0.13	0.17

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	85	90	95
Coverage of Sanitary Latrines (Rural)	85	92	88
Coverage of Sanitary Latrines (Total)	85	92	89

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	0.53	1.87
Suicide	0.02	1.27
Assault	0.38	1.07

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.3	1.2	1.3
IMR / 1000 Live Births	22.3	22.6	20.8
U5MR / 1000 Live Births	30.0	29.1	27.2
MMR / 1000 Live Births	1.2	1.1	1.3

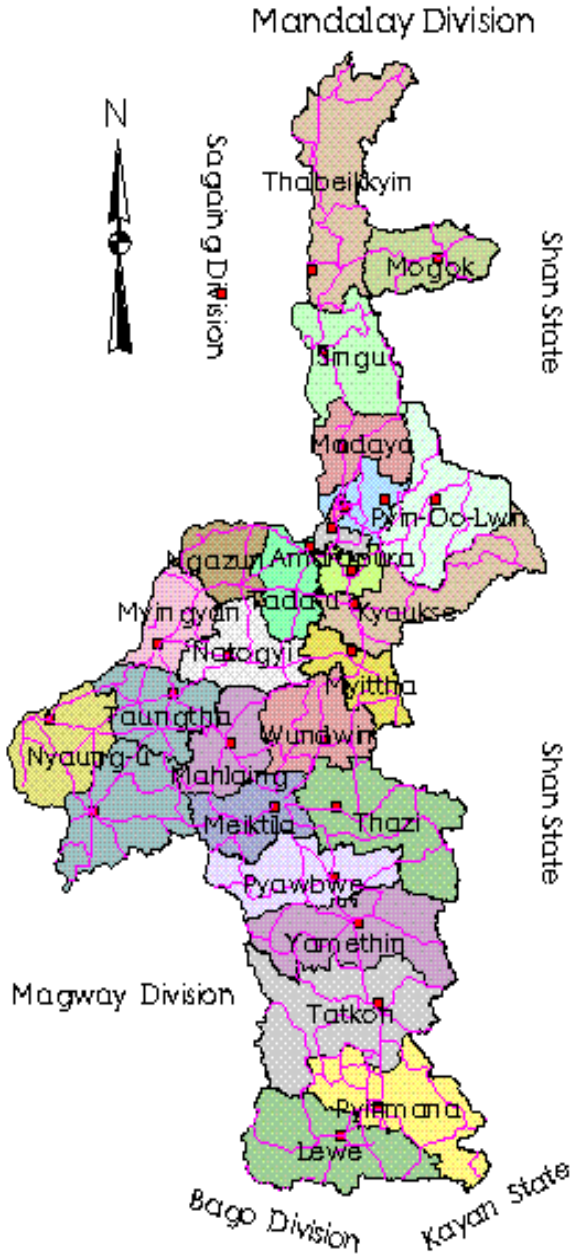
24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	153199	147873	148688
Total No. of In-patients	75708	72169	79126
General Anaesthesia	5599	4888	4721
Spinal Anaesthesia	5304	5829	6866
Local Anaesthesia	4317	4350	4639
Other Anaesthesia	1631	1462	1544
Total No. of Deliveries	7992	7866	8765
Total No. of Abortions	2314	2198	2170
Total No. of Deaths	1892	1395	1291
Avg. No. of In-patient Per Day	1280	1145	1196
Avg. Duration of Stay Days	6	6	6
Bed Occupancy Rate % Based on Sanction Bed	55	46	49

Magway

State/Division Health Profile

Mandalay Division



1. MAP

2. AREA — 14294.72 Sq-Km

3. LOCATION — East(Shan),West(Sagaing) North(Kachin),South(Bago)

4. POPULATION * (2009)

Total	6355826
Urban	1717177
Rural	4638649
Male	3051609
Female	3304217
Sex Ratio	92
< 5 Yr.	616361
0 - 14 Yr.	1807468
15 - 49 Yr.	3425554

5. POPULATION DENSITY (2009) — 444.6275 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	31
Wards	1089
Villages	6459
Village Tracts	1654

7. HEALTH FACILITIES

1	Specialist Hospitals	8
2	Teaching Hospitals	2
3	Hospital (1000) Bedded	1
4	Hospital (300) Bedded	1
5	Hospital (200) Bedded	3
6	Hospital (150=4 / 100=4) Bedded	8
7	Hospital (50=5 / 25=9 / 16=8) Bedded	22
8	Station Hospitals	45
9	Hospital Under Other Ministries	5
10	Maternal and Child Health Centers	29
11	Urban (6) & Secondary (4) Health Centers	10
12	Rural Health Centers	145
13	Sub Health Centers	676
14	School Health Centers	12
15	Private Clinics and Maternity Homes	758

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	922	2752	156	210	67	186	1009
Appointed	736	2154	144	209	67	148	949
Vacant	186	598	12	1	-	38	60

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	4382	3301	1523
Functioning	3092	2509	906

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	3107
RED CROSS (Branch Association)	35
M.M.A (Branch Association)	15
NURSE ASSOCIATION (Branch Association)	24
H.A. ASSOCIATION (Branch Association)	30

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	12.9	15.8	18.8
% of referral cases	0.5	0.5	0.6

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	95	98	97
Coverage of Students Examined	76	83	80
Coverage of Schools with Sanitary Latrine	82	86	88
Coverage of Schools with Safe Water Supply	80	85	87

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	4.7	4.2	3.4
Under Weight Children (Under 3 Years)	4.8	3.9	3.4
Severe Under Weight (Under 3 Years)	0.4	0.2	0.2
Targeted nutritional care coverage with the jurisdiction of MW	23.2	23.3	21.5

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	45.8	49.1	48.5
% of Home Deliveries (AMW)	14.5	15.1	14.8
% of deliveries at RHC delivery room	1.0	1.8	2.1
Low Birth Weight %	0.9	0.9	1.0
Rate of Referral %	5.3	5.9	6.9
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	5	6	7
AN Care Coverage %	65.2	69.2	73.6

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	86	90	92
D.P.T 3	86	89	90
O.P.V 3	85	89	90
Hepatitis B 3	86	89	89
Measles	80	86	88
T.T 2	82	86	86

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	353.16	1.12
ARI (per 100000 <5Children)	3341.88	-
Diarrhoea (per 100000 Pop)	582.49	0.52
Dysentry (per 100000 Pop)	221.78	-
TB (Sputum +) (per 100000 Pop)	50.06	1.04
Snake Bite (per 100000 Pop)	30.43	2.23

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	3.08	2.62	2.60
Case Fatality Rate	1.41	1.63	1.50

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	69.87	70.00	70.49

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	0.58	0.44	0.36

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.48	0.58	0.58
New Case Detection Rate per 100000 Population	5.31	6.68	6.39

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	4.44	3.13	3.74
% of <5 Children with cough and difficult breathing	2.50	2.59	3.12
% of <5 Children with severe Pneumonia	0.23	0.22	0.22

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	91	91	92
Coverage of Sanitary Latrines (Rural)	84	85	85
Coverage of Sanitary Latrines (Total)	85	86	87

22. PREVENTION OF ACCIDENT AND INJURY

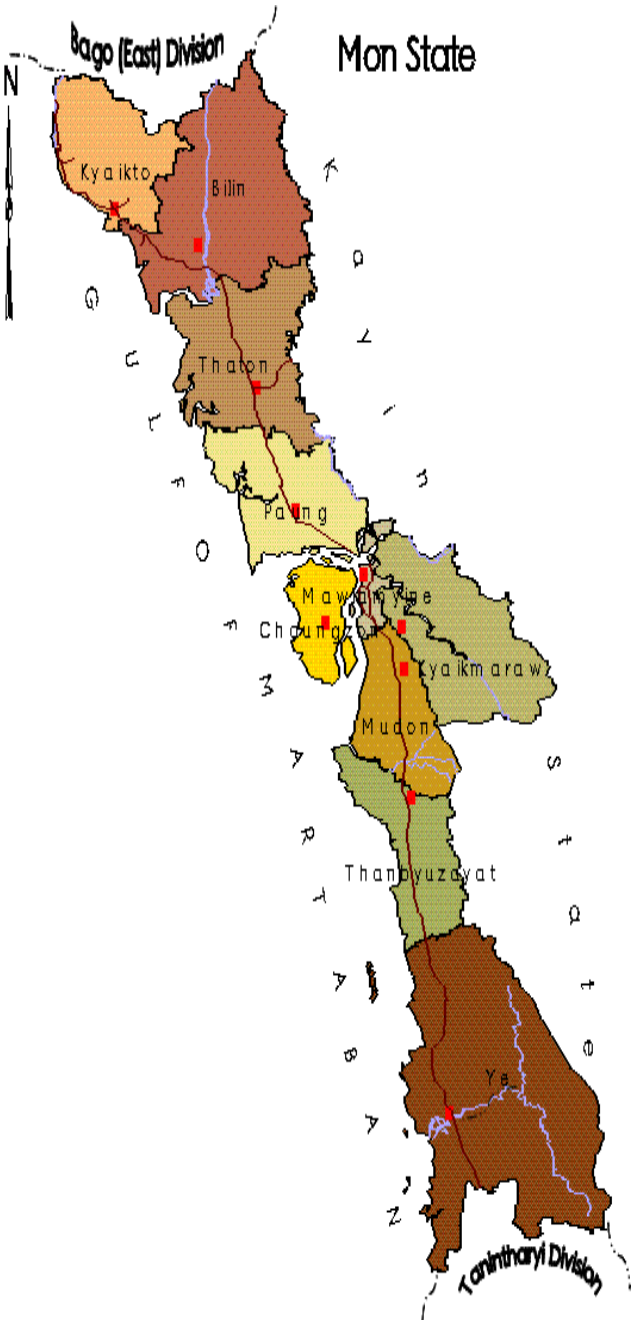
ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	1.20	4.04
Suicide	0.04	1.45
Assault	0.74	1.21

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.2	1.1	1.3
IMR / 1000 Live Births	15.7	14.3	13.5
U5MR / 1000 Live Births	21.8	20.4	18.2
MMR / 1000 Live Births	1.5	1.5	1.5

24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	444764	500672	570795
Total No. of In-patients	171889	181864	201800
General Anaesthesia	12577	12260	13517
Spinal Anaesthesia	13789	14862	16348
Local Anaesthesia	12621	13608	16077
Other Anaesthesia	7426	7101	7335
Total No. of Deliveries	17969	19157	21522
Total No. of Abortions	4311	4317	4555
Total No. of Deaths	3376	3282	3634
Avg. No. of In-patient Per Day	3223	3206	3629
Avg. Duration of Stay Days	7	6	7
Bed Occupancy Rate % Based on Sanction Bed	54	47	50



State/Division Health Profile

Mon State

1. MAP

2. AREA 12296.19 Sq-Km

3. LOCATION East(Kayin),West(GulfofMartaban) North(Bago),South(Taninthayi)

4. POPULATION * (2009)

Total	2079864
Urban	484613
Rural	1595251
Male	1016815
Female	1063049
Sex Ratio	96
< 5 Yr.	217178
0 - 14 Yr.	616202
15 - 49 Yr.	1117341

5. POPULATION DENSITY (2009) 169.147 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	10
Wards	85
Villages	1196
Village Tracts	392

7. HEALTH FACILITIES

1	General Hospital with Specialist Services	1
2	Hospital (100) Bedded	1
3	Hospital (50) Bedded	1
4	Hospital (25) Bedded	7
5	University Hospital (16) Bedded	1
6	Station Hospitals	20
7	Hospital Under Other Ministries	1
8	Maternal and Child Health Centers	10
9	Urban Health Centers	2
10	Secondary Health Centers	2
11	Rural Health Centers	56
12	Sub Health Centers	224
13	School Health Centers	4
14	Private Clinics and Maternity Homes	176

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	187	299	67	69	22	78	411
Appointed	161	279	62	66	22	64	395
Vacant	26	20	5	3	-	14	16

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	1572	869	796
Functioning	810	562	336

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	4
RED CROSS (Branch Association)	4
M.M.A (Branch Association)	4
NURSE ASSOCIATION (Branch Association)	4
H.A. ASSOCIATION (Branch Association)	4

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	32.3	37.2	38.4
% of referral cases	0.7	0.6	0.6

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	96	95	97
Coverage of Students Examined	80	79	82
Coverage of Schools with Sanitary Latrine	80	85	87
Coverage of Schools with Safe Water Supply	83	89	91

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	2.7	2.2	2.1
Under Weight Children (Under 3 Years)	3.3	2.5	2.7
Severe Under Weight (Under 3 Years)	0.4	0.2	0.2
Targeted nutritional care coverage with the jurisdiction of MW	23.7	23.5	24.5

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	54.7	57.6	55.7
% of Home Deliveries (AMW)	7.5	6.9	7.4
% of deliveries at RHC delivery room	2.6	4.3	5.8
Low Birth Weight %	2.1	1.9	2.0
Rate of Referral %	7.8	8.5	10.6
Avg. no. of Attendance (AN)	3	4	4
Avg. no. of Attendance (PN)	7	8	8
AN Care Coverage %	81.8	81.8	81.4

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	70	95	96
D.P.T 3	67	93	94
O.P.V 3	66	93	94
Hepatitis B 3	69	92	94
Measles	63	95	94
T.T 2	66	93	93

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	1161.61	1.97
ARI (per 100000 <5Children)	3926.27	-
Diarrhoea (per 100000 Pop)	978.57	0.38
Dysentry (per 100000 Pop)	321.03	-
TB (Sputum +) (per 100000 Pop)	84.72	0.87
Snake Bite (per 100000 Pop)	11.25	1.01

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	5.37	4.54	4.51
Case Fatality Rate	1.83	1.88	1.92

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	114.10	94.00	112.96

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	0.91	1.54	0.99

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.24	0.16	0.23
New Case Detection Rate per 100000 Population	2.80	2.39	2.26

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	3.98	2.94	4.82
% of <5 Children with cough and difficult breathing	4.72	4.73	3.76
% of <5 Children with severe Pneumonia	0.18	0.15	0.16

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	90	86	87
Coverage of Sanitary Latrines (Rural)	85	85	81
Coverage of Sanitary Latrines (Total)	86	86	82

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	1.88	7.02
Suicide	0.04	1.83
Assault	0.52	1.30

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.1	1.1	1.2
IMR / 1000 Live Births	17.5	16.5	19.3
U5MR / 1000 Live Births	44.7	24.6	25.0
MMR / 1000 Live Births	1.1	1.6	1.3

24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	110987	117896	111220
Total No. of In-patients	55255	53006	54931
General Anaesthesia	1814	1862	1861
Spinal Anaesthesia	3637	3632	4170
Local Anaesthesia	2419	3198	3022
Other Anaesthesia	2929	3080	1835
Total No. of Deliveries	6492	6491	6727
Total No. of Abortions	1215	1116	1126
Total No. of Deaths	996	967	906
Avg. No. of In-patient Per Day	679	670	695
Avg. Duration of Stay Days	4	5	5
Bed Occupancy Rate % Based on Sanction Bed	68	65	67

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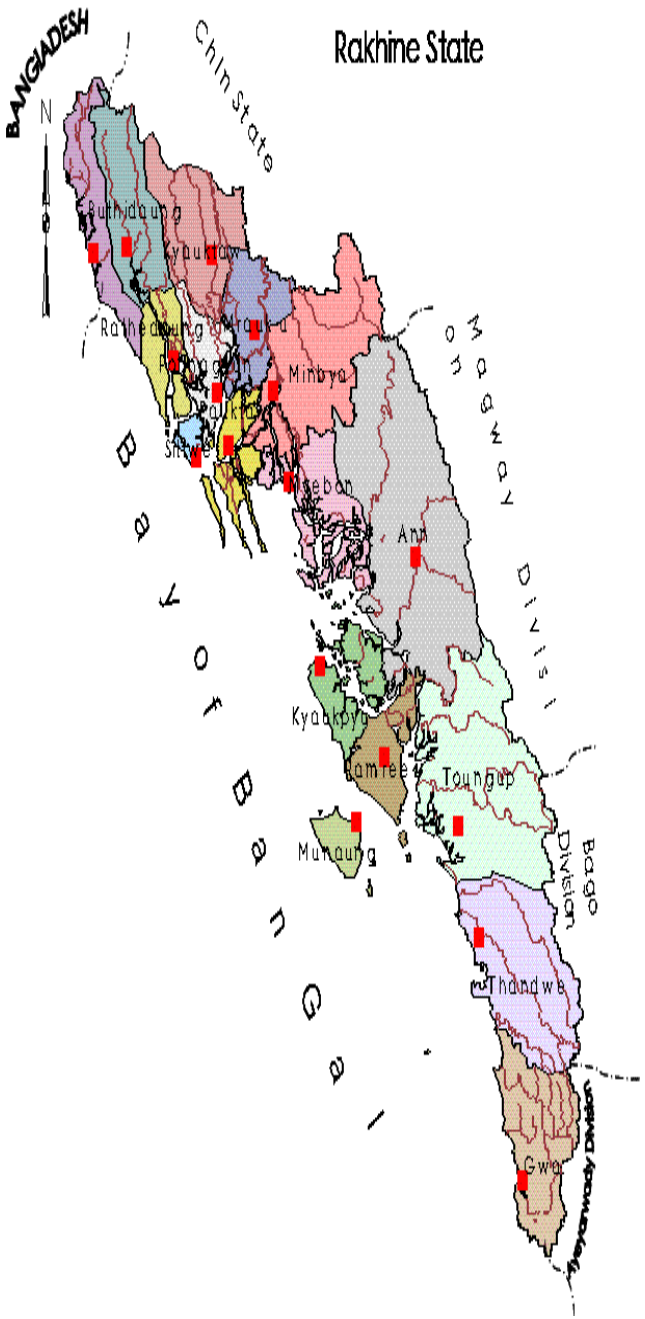


State/Division Health Profile

Rakhine State

1. MAP

2. AREA
36778.21 Sq-Km

3. LOCATION
East(Magway Division),West(Bay of Bangal), North (Chin State),South (Bay of Bangal)

4. POPULATION * (2009)

Total	3355987
Urban	506614
Rural	2849373
Male	1645649
Female	1710338
Sex Ratio	96
< 5 Yr.	424842
0 - 14 Yr.	1086502
15 - 49 Yr.	1685253

5. POPULATION DENSITY (2009) **91.24933 Sq-Km**

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	17
Wards	121
Villages	3862
Village Tracts	1046

7. HEALTH FACILITIES

1	General Hospital (200) Bedded	1
2	Hospital (100) Bedded	3
3	Hospital (50) Bedded	2
4	Hospital (25) Bedded	11
5	Station Hospitals	28
6	Maternal and Child Health Centers	18
7	Urban Health Centers	1
8	Rural Health Centers	100
9	Sub Health Centers	400
10	School Health Centers	4
11	Private Clinics and Maternity Homes	109

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	225	392	110	98	39	63	575
Appointed	140	355	90	92	39	55	541
Vacant	85	37	20	6	-	8	34

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	3158	1693	1699
Functioning	1617	847	1222

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	900
RED CROSS (Branch Association)	17
M.M.A (Branch Association)	15
NURSE ASSOCIATION (Branch Association)	17
H.A. ASSOCIATION (Branch Association)	17

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	21.5	21.7	23.0
% of referral cases	0.6	0.5	0.6

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	82	80	88
Coverage of Students Examined	57	56	71
Coverage of Schools with Sanitary Latrine	36	33	46
Coverage of Schools with Safe Water Supply	26	27	38

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	4.6	5.6	7.4
Under Weight Children (Under 3 Years)	4.1	4.4	5.7
Severe Under Weight (Under 3 Years)	0.8	1.0	1.3
Targeted nutritional care coverage with the jurisdiction of MW	24.7	24.8	23.4

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	41.2	42.9	42.5
% of Home Deliveries (AMW)	8.0	8.1	7.8
% of deliveries at RHC delivery room	0.4	0.2	0.3
Low Birth Weight %	1.3	1.5	1.5
Rate of Referral %	4.3	3.9	4.4
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	4	4	4
AN Care Coverage %	66.9	69.2	66.6

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	84	87	93
D.P.T 3	80	82	90
O.P.V 3	78	83	89
Hepatitis B 3	68	76	88
Measles	74	81	86
T.T 2	76	78	87

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	3736.01	2.29
ARI (per 100000 <5Children)	5861.94	8.71
Diarrhoea (per 100000 Pop)	1111.15	0.57
Dysentry (per 100000 Pop)	495.38	-
TB (Sputum +) (per 100000 Pop)	54.02	0.42
Snake Bite (per 100000 Pop)	0.72	0.09

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	32.54	25.59	21.73
Case Fatality Rate	4.98	4.55	4.25

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	71.29	90.00	72.03

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	2.28	1.12	3.16

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.09	0.06	0.12
New Case Detection Rate per 100000 Population	0.38	0.80	0.51

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	2.97	2.52	2.14
% of <5 Children with cough and difficult breathing	4.39	4.63	5.71
% of <5 Children with severe Pneumonia	0.21	0.14	0.15

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	70	71	71
Coverage of Sanitary Latrines (Rural)	58	59	57
Coverage of Sanitary Latrines (Total)	60	61	58

22. PREVENTION OF ACCIDENT AND INJURY

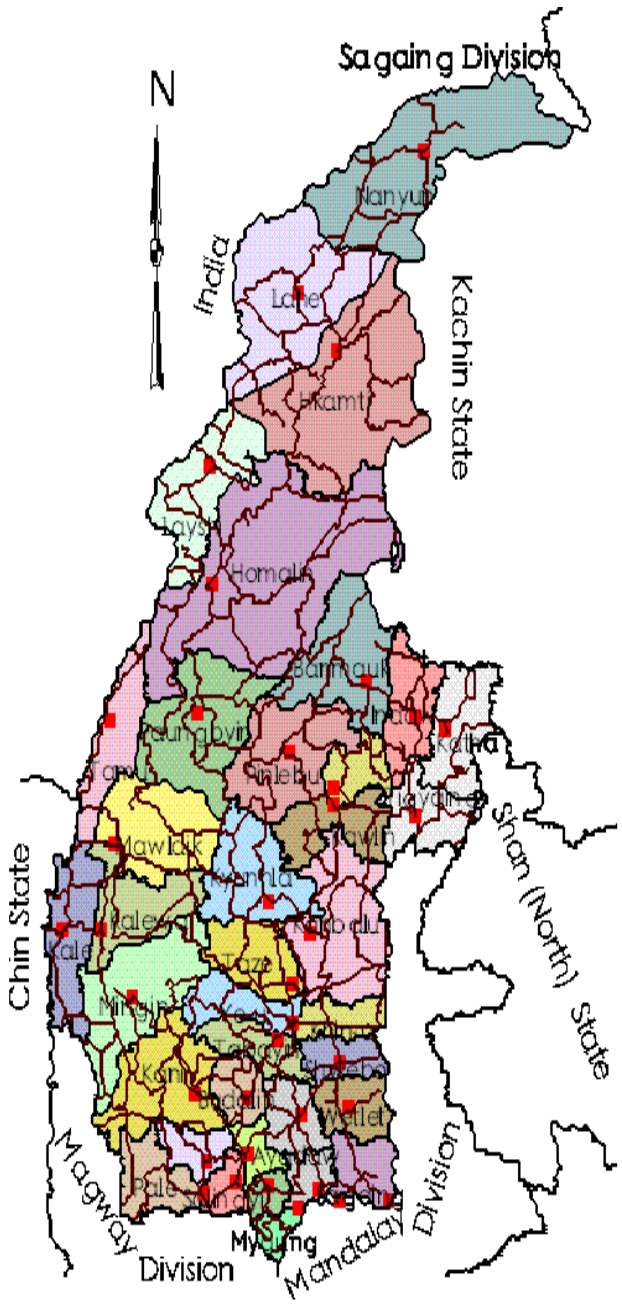
ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	0.30	1.19
Suicide	0.04	1.16
Assault	0.50	1.13

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.7	1.6	1.8
IMR / 1000 Live Births	10.9	12.7	11.0
U5MR / 1000 Live Births	21.3	23.5	26.9
MMR / 1000 Live Births	2.5	1.7	1.7

24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	131325	129140	127454
Total No. of In-patients	33932	35395	37440
General Anaesthesia	1632	2047	2095
Spinal Anaesthesia	1298	1587	2478
Local Anaesthesia	1570	1703	1614
Other Anaesthesia	656	738	684
Total No. of Deliveries	3711	3848	4042
Total No. of Abortions	1599	1696	1841
Total No. of Deaths	1296	1296	1334
Avg. No. of In-patient Per Day	472	482	500
Avg. Duration of Stay Days	5	5	5
Bed Occupancy Rate % Based on Sanction Bed	38	37	38



State/Division Health Profile

Sagaing Division

1. MAP

2. AREA **94621.07 Sq-Km**

3. LOCATION **East(Shan State),West(Chin State) North(India),South(Mandalay Division)**

4. POPULATION * (2009)

Total	5012855
Urban	742389
Rural	4270466
Male	2415526
Female	2597329
Sex Ratio	93
< 5 Yr.	453927
0 - 14 Yr.	1378410
15 - 49 Yr.	2733773

5. POPULATION DENSITY (2009) **52.97821 Sq-Km**

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	37
Wards	202
Villages	6036
Village Tracts	1644

7. HEALTH FACILITIES

1	General Hospital (200) Bedded	3
2	Hospital (100) Bedded	6
3	Hospital (50) Bedded	2
4	Hospital (25) Bedded	26
5	Station Hospitals	52
6	Hospital Under Other Ministries	4
7	Maternal and Child Health Centers	40
8	Urban Health Centers	1
9	Rural Health Centers	180
10	Sub Health Centers	716
11	School Health Centers	5
12	Private Clinics and Maternity Homes	105

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	493	866	193	174	72	177	1080
Appointed	325	569	170	164	71	142	1034
Vacant	168	297	23	10	1	35	46

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	4994	3533	1818
Functioning	3152	2619	808

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	1531
RED CROSS (Branch Association)	37
M.M.A (Branch Association)	6
NURSE ASSOCIATION (Branch Association)	29
H.A. ASSOCIATION (Branch Association)	28

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	18.9	22.6	26.4
% of referral cases	0.7	0.7	0.7

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	95	93	97
Coverage of Students Examined	79	73	76
Coverage of Schools with Sanitary Latrine	73	73	79
Coverage of Schools with Safe Water Supply	69	70	77

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	5.6	5.0	5.6
Under Weight Children (Under 3 Years)	7.0	6.2	7.5
Severe Under Weight (Under 3 Years)	0.3	0.3	0.3
Targeted nutritional care coverage with the jurisdiction of MW	33.9	24.3	28.4

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	55.5	57.3	56.7
% of Home Deliveries (AMW)	19.2	18.2	16.6
% of deliveries at RHC delivery room	1.2	1.4	2.5
Low Birth Weight %	1.0	0.8	1.1
Rate of Referral %	7.0	8.8	11.4
Avg. no. of Attendance (AN)	3	4	4
Avg. no. of Attendance (PN)	5	6	7
AN Care Coverage %	63.7	63.9	68.9

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	88	94	93
D.P.T 3	86	92	92
O.P.V 3	84	92	91
Hepatitis B 3	86	92	92
Measles	78	89	89
T.T 2	82	90	90

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	1962.37	3.71
ARI (per 100000 <5Children)	7539.10	20.49
Diarrhoea (per 100000 Pop)	917.94	0.58
Dysentry (per 100000 Pop)	317.90	-
TB (Sputum +) (per 100000 Pop)	41.95	0.26
Snake Bite (per 100000 Pop)	31.32	2.75

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	9.49	9.68	10.99
Case Fatality Rate	2.09	2.44	2.09

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	76.75	59.00	58.28

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	0.22	0.30	0.34

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.92	0.70	0.64
New Case Detection Rate per 100000 Population	11.41	8.22	7.14

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	3.58	2.65	4.33
% of <5 Children with cough and difficult breathing	5.49	5.57	7.12
% of <5 Children with severe Pneumonia	0.35	0.31	0.41

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	92	87	90
Coverage of Sanitary Latrines (Rural)	85	87	90
Coverage of Sanitary Latrines (Total)	86	87	90

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	1.40	0.03
Suicide	0.03	0.01
Assault	0.67	0.01

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.1	1.1	1.2
IMR / 1000 Live Births	25.1	18.7	16.9
U5MR / 1000 Live Births	36.0	27.2	24.3
MMR / 1000 Live Births	1.5	1.4	1.0

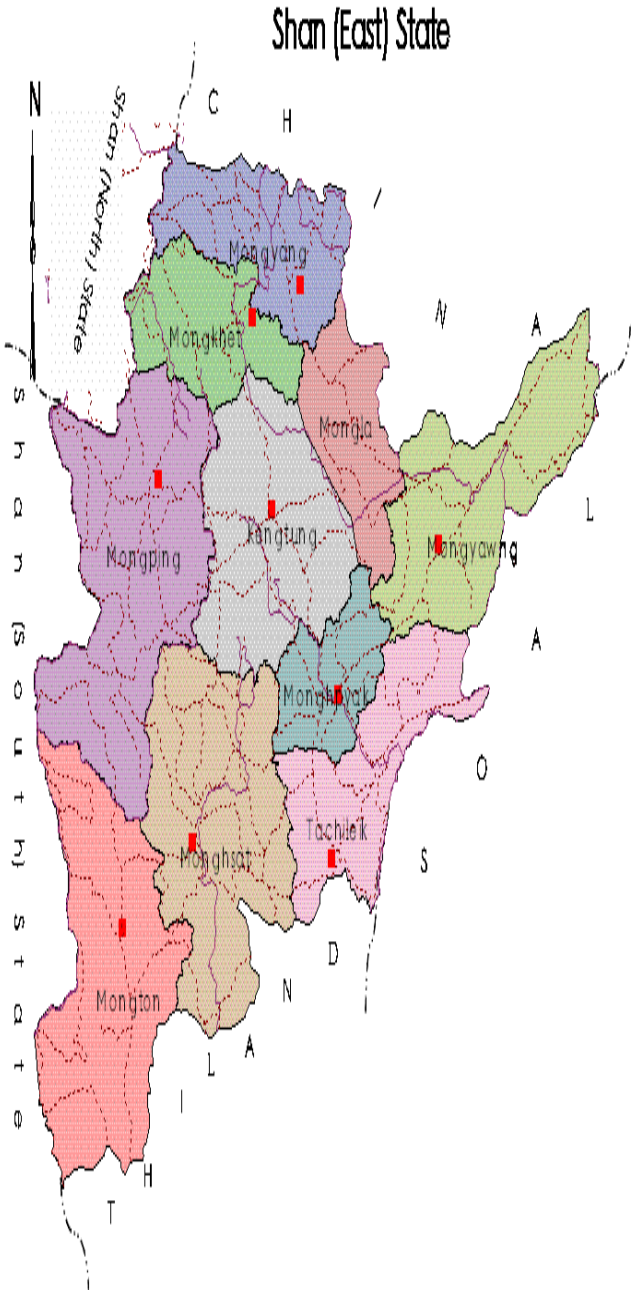
24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	206014	211228	246098
Total No. of In-patients	83571	94519	112971
General Anaesthesia	6661	6732	7020
Spinal Anaesthesia	4705	5796	7121
Local Anaesthesia	5246	6065	6422
Other Anaesthesia	1912	2454	2637
Total No. of Deliveries	9244	10505	12698
Total No. of Abortions	2445	2688	2790
Total No. of Deaths	1663	1746	1975
Avg. No. of In-patient Per Day	1342	1448	1676
Avg. Duration of Stay Days	6	6	5
Bed Occupancy Rate % Based on Sanction Bed	55	53	59

Sagaing

State/Division Health Profile

Shan (East) State



1. MAP

2. AREA — 37092.78 Sq-Km

3. LOCATION — East(Laos),West(Mandalay), North(China),South(Thailand)

4. POPULATION * (2009)

Total	643661
Urban	121831
Rural	521830
Male	318270
Female	325391
Sex Ratio	98
< 5 Yr.	77624
0 - 14 Yr.	206782
15 - 49 Yr.	321888

5. POPULATION DENSITY (2009) — 17.35273 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	11
Wards	54
Villages	3092
Village Tracts	215

7. HEALTH FACILITIES

1 General Hospital (200) Bedded	1
2 Hospital (50=3 / 25=8) Bedded	11
3 Station Hospitals	16
4 Maternal and Child Health Centers	9
5 School Health Centers	1
6 Rural Health Centers	23
7 Sub Health Centers	62
8 Private Clinics and Maternity Homes	16

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	162	299	30	23	11	28	170
Appointed	107	222	23	19	6	5	139
Vacant	55	77	7	4	5	23	31

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	277	519	37
Functioning	91	187	2

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	262
RED CROSS (Branch Association)	11
M.M.A (Branch Association)	2
NURSE ASSOCIATION (Branch Association)	6
H.A. ASSOCIATION (Branch Association)	1

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	19.1	24.1	23.1
% of referral cases	0.8	0.7	0.7

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	69	76	74
Coverage of Students Examined	70	72	59
Coverage of Schools with Sanitary Latrine	53	57	64
Coverage of Schools with Safe Water Supply	46	51	59

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	6.9	3.5	3.3
Under Weight Children (Under 3 Years)	4.9	3.5	3.1
Severe Under Weight (Under 3 Years)	0.3	0.1	0.2
Targeted nutritional care coverage with the jurisdiction of MW	22.6	38.7	23.7

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	57.7	71.2	70.8
% of Home Deliveries (AMW)	1.5	1.4	1.1
% of deliveries at RHC delivery room	4.3	6.5	5.4
Low Birth Weight %	1.3	1.0	1.1
Rate of Referral %	9.4	10.0	8.3
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	3	4	4
AN Care Coverage %	39.6	46.7	53.1

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	60	55	91
D.P.T 3	59	53	87
O.P.V 3	56	53	87
Hepatitis B 3	59	54	87
Measles	49	48	87
T.T 2	54	44	75

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	738.12	0.16
ARI (per 100000 <5Children)	1977.28	0.47
Diarrhoea (per 100000 Pop)	1119.53	-
Dysentry (per 100000 Pop)	429.88	-
TB (Sputum +) (per 100000 Pop)	69.60	0.16
Snake Bite (per 100000 Pop)	2.64	-

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	8.71	6.78	4.31
Case Fatality Rate	0.83	2.70	0.41

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	110.71	106.00	92.80

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	0.65	0.24	0.06

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.30	0.35	0.31
New Case Detection Rate per 100000 Population	1.58	3.21	2.80

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	3.49	4.67	3.12
% of <5 Children with cough and difficult breathing	5.73	7.00	7.94
% of <5 Children with severe Pneumonia	0.25	0.32	0.32

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	90	92	102
Coverage of Sanitary Latrines (Rural)	69	66	82
Coverage of Sanitary Latrines (Total)	73	71	85

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	2.17	0.04
Suicide	0.02	-
Assault	0.34	0.01

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	0.9	0.9	0.9
IMR / 1000 Live Births	25.3	14.8	13.9
U5MR / 1000 Live Births	37.7	21.5	21.7
MMR / 1000 Live Births	1.8	1.2	1.7

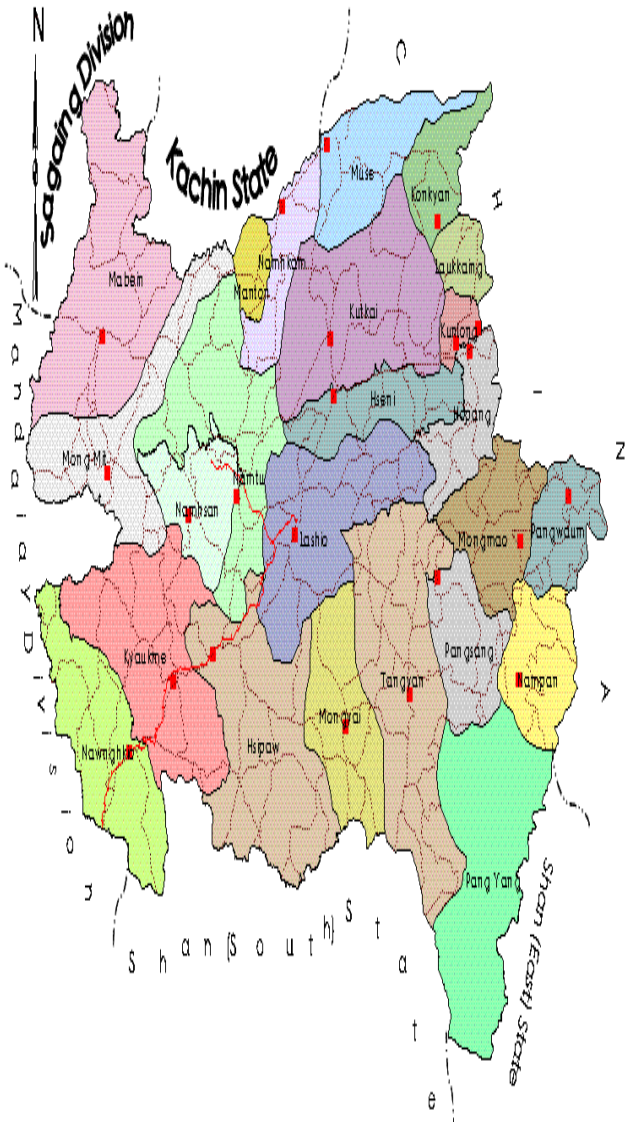
24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	75247	75585	60916
Total No. of In-patients	16019	16658	15582
General Anaesthesia	600	681	648
Spinal Anaesthesia	792	681	975
Local Anaesthesia	1790	2663	2121
Other Anaesthesia	498	359	388
Total No. of Deliveries	2556	2625	2500
Total No. of Abortions	510	448	412
Total No. of Deaths	330	293	293
Avg. No. of In-patient Per Day	204	203	183
Avg. Duration of Stay Days	5	4	4
Bed Occupancy Rate % Based on Sanction Bed	27	27	26

State/Division Health Profile

Shan (North) State

Shan (North) State



1. MAP

2. AREA — 60558.59 Sq-Km

3. LOCATION — East(Laos),West(Mandalay), North(China),South(Thailand)

4. POPULATION * (2009)

Total	1740796
Urban	440342
Rural	1300454
Male	846989
Female	893807
Sex Ratio	95
< 5 Yr.	200483
0 - 14 Yr.	564661
15 - 49 Yr.	858016

5. POPULATION DENSITY (2009) — 28.74565 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	23
Wards	130
Villages	4312
Village Tracts	757

7. HEALTH FACILITIES

1	General Hospital (200) Bedded	1
2	Hospital (150) Bedded	2
3	Hospital (100) Bedded	3
4	Township Hospital (50) Bedded	4
5	Township Hospital (25) Bedded	10
6	Township Hospital (16) Bedded	5
7	Station Hospitals	35
8	Maternal and Child Health Centers	17
9	Rural Health Centers	44
10	Sub Health Centers	158
11	School Health Centers	2
12	Private Clinics and Maternity Homes	89

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	268	566	89	69	26	148	377
Appointed	242	478	70	69	25	57	336
Vacant	26	88	19	-	1	91	41

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	999	1527	221
Functioning	376	707	77

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	661
RED CROSS (Branch Association)	19
M.M.A (Branch Association)	1
NURSE ASSOCIATION (Branch Association)	17
H.A. ASSOCIATION (Branch Association)	5

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	13.4	13.5	14.9
% of referral cases	0.6	0.7	1.2

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	78	79	84
Coverage of Students Examined	68	67	70
Coverage of Schools with Sanitary Latrine	52	59	69
Coverage of Schools with Safe Water Supply	44	54	68

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	5.2	4.3	6.2
Under Weight Children (Under 3 Years)	4.5	4.6	5.0
Severe Under Weight (Under 3 Years)	0.6	0.7	0.9
Targeted nutritional care coverage with the jurisdiction of MW	17.3	25.1	18.4

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	51.3	51.0	49.9
% of Home Deliveries (AMW)	8.6	7.8	7.4
% of deliveries at RHC delivery room	4.4	3.3	3.8
Low Birth Weight %	1.9	2.8	2.4
Rate of Referral %	6.2	8.3	9.1
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	5	5	5
AN Care Coverage %	51.1	56.4	59.6

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	69	78	80
D.P.T 3	63	73	75
O.P.V 3	58	72	74
Hepatitis B 3	63	72	74
Measles	58	72	71
T.T 2	59	65	70

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	2261.21	4.19
ARI (per 100000 <5Children)	3884.12	8.48
Diarrhoea (per 100000 Pop)	678.14	0.52
Dysentry (per 100000 Pop)	199.16	0.06
TB (Sputum +) (per 100000 Pop)	57.62	0.11
Snake Bite (per 100000 Pop)	1.38	-

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	16.93	20.15	18.20
Case Fatality Rate	3.31	2.22	1.76

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	48.15	55.00	76.82

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	0.84	1.08	0.26

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.27	0.36	0.36
New Case Detection Rate per 100000 Population	2.76	3.93	3.22

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	4.60	4.71	5.34
% of <5 Children with cough and difficult breathing	3.55	3.42	3.65
% of <5 Children with severe Pneumonia	0.19	0.20	0.24

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	80	83	88
Coverage of Sanitary Latrines (Rural)	77	78	83
Coverage of Sanitary Latrines (Total)	78	79	85

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	1.67	2.70
Suicide	0.02	0.69
Assault	0.25	0.69

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	0.8	0.9	1.1
IMR / 1000 Live Births	16.2	15.3	15.4
U5MR / 1000 Live Births	26.8	25.6	26.8
MMR / 1000 Live Births	2.4	2.1	1.5

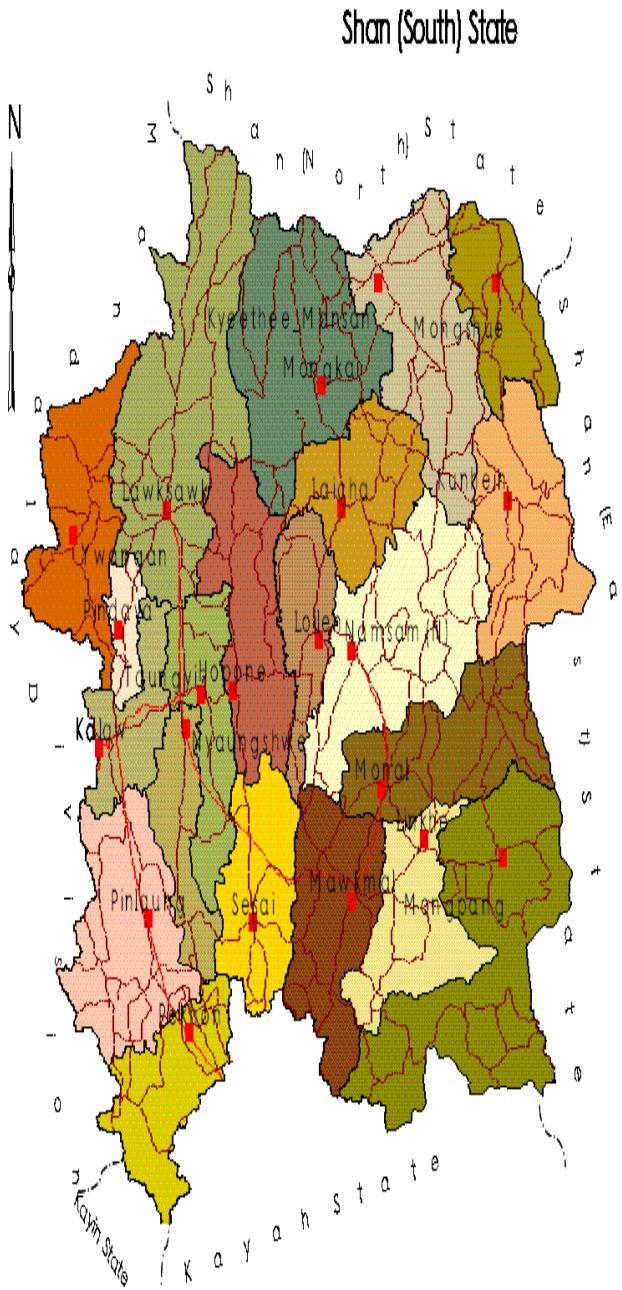
24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	163683	171538	150800
Total No. of In-patients	42318	44824	45475
General Anaesthesia	2426	2667	2256
Spinal Anaesthesia	2090	2493	2508
Local Anaesthesia	2448	3469	2474
Other Anaesthesia	1809	1492	1402
Total No. of Deliveries	7391	7771	7115
Total No. of Abortions	1121	1248	1192
Total No. of Deaths	1188	1042	1046
Avg. No. of In-patient Per Day	643	690	721
Avg. Duration of Stay Days	6	6	6
Bed Occupancy Rate % Based on Sanction Bed	34	36	42

Shan (North)

State/Division Health Profile

Shan (South) State



1. MAP

2. AREA — 57806.08 Sq-Km

3. LOCATION — East(Laos),West(Mandalay), North(China),South(Thailand)

4. POPULATION * (2009)

Total	2074024
Urban	498009
Rural	1576015
Male	1012241
Female	1061783
Sex Ratio	95
< 5 Yr.	237512
0 - 14 Yr.	682314
15 - 49 Yr.	1035202

5. POPULATION DENSITY (2009) — 35.87899 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	21
Wards	161
Villages	4987
Village Tracts	443

7. HEALTH FACILITIES

1	Specialist Hospital	1
2	General Hospital (200) Bedded	2
3	Hospital (100) Bedded	1
4	Hospital (50) Bedded	1
5	Hospital (25) Bedded	15
6	Township Hospital (16) Bedded	5
7	Border Hospital	1
8	University Hospital (16) Bedded	1
9	Station Hospitals	26
10	Maternal and Child Health Centers	24
11	Urban Health Centers	2
12	Rural Health Centers	67
13	Sub Health Centers	277
14	School Health Centers	3
15	Private Clinics and Maternity Homes	73

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	250	481	82	95	48	137	426
Appointed	168	361	75	75	26	62	360
Vacant	82	120	7	20	22	75	66

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	1168	1524	272
Functioning	1098	1101	188

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	509
RED CROSS (Branch Association)	25
M.M.A (Branch Association)	1
NURSE ASSOCIATION (Branch Association)	17
H.A. ASSOCIATION (Branch Association)	23

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	14.2	15.0	16.4
% of referral cases	0.5	0.4	0.5

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	91	89	90
Coverage of Students Examined	72	74	67
Coverage of Schools with Sanitary Latrine	77	78	83
Coverage of Schools with Safe Water Supply	71	75	79

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	5.6	5.2	5.0
Under Weight Children (Under 3 Years)	5.2	4.8	4.6
Severe Under Weight (Under 3 Years)	0.6	0.5	0.5
Targeted nutritional care coverage with the jurisdiction of MW	23.2	24.2	24.7

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	42.4	43.1	43.5
% of Home Deliveries (AMW)	18.5	18.1	16.5
% of deliveries at RHC delivery room	1.0	0.7	0.8
Low Birth Weight %	1.6	1.8	1.7
Rate of Referral %	5.1	5.6	6.7
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	5	5	5
AN Care Coverage %	61.9	70.4	70.5

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	83	87	72
D.P.T 3	79	82	69
O.P.V 3	76	82	67
Hepatitis B 3	78	81	68
Measles	70	81	66
T.T 2	66	74	65

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	994.78	2.89
ARI (per 100000 <5Children)	4099.58	-
Diarrhoea (per 100000 Pop)	707.37	1.69
Dysentry (per 100000 Pop)	284.09	0.05
TB (Sputum +) (per 100000 Pop)	32.98	0.05
Snake Bite (per 100000 Pop)	6.94	0.19

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	10.72	9.99	8.61
Case Fatality Rate	1.82	2.65	1.49

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	43.96	46.00	32.08

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	0.43	0.32	0.17

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.80	0.93	1.76
New Case Detection Rate per 100000 Population	8.88	10.13	15.04

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	3.35	5.07	4.68
% of <5 Children with cough and difficult breathing	3.75	3.40	3.94
% of <5 Children with severe Pneumonia	0.18	0.11	0.16

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	84	87	93
Coverage of Sanitary Latrines (Rural)	74	75	76
Coverage of Sanitary Latrines (Total)	76	78	80

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	1.35	2.80
Suicide	0.04	1.49
Assault	0.39	0.34

23. HEALTH IMPACT INDICATORS

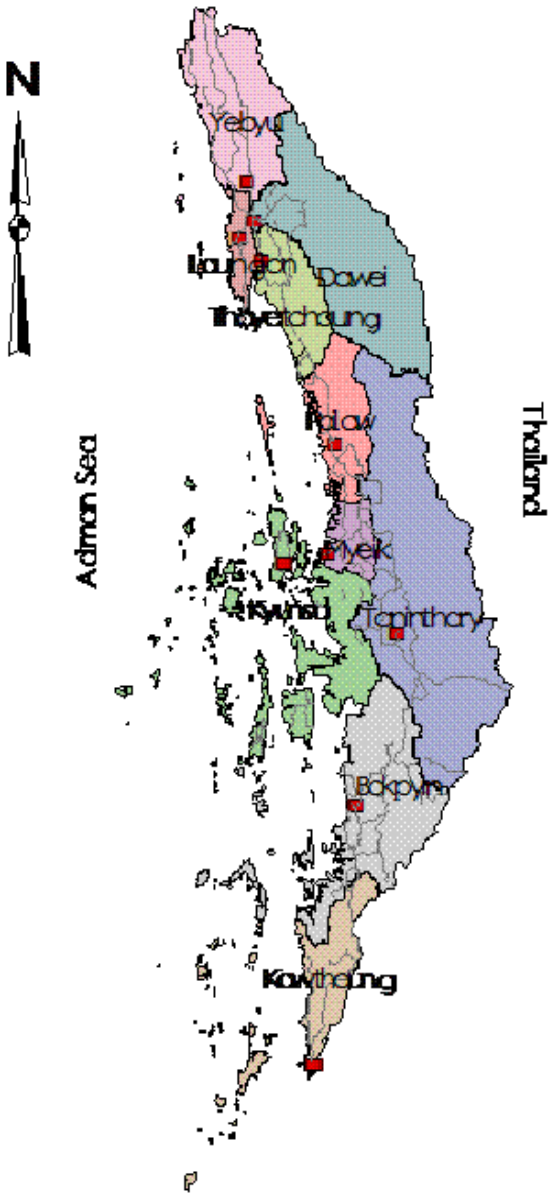
IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.2	1.3	1.4
IMR / 1000 Live Births	24.4	20.4	17.4
U5MR / 1000 Live Births	36.1	30.0	25.0
MMR / 1000 Live Births	1.7	2.1	1.8

24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	130203	134043	141040
Total No. of In-patients	36349	39437	44845
General Anaesthesia	3452	3519	3698
Spinal Anaesthesia	1876	1964	2027
Local Anaesthesia	2664	3290	2954
Other Anaesthesia	1753	1322	1526
Total No. of Deliveries	4613	4661	5087
Total No. of Abortions	1224	1235	1484
Total No. of Deaths	926	958	981
Avg. No. of In-patient Per Day	627	618	687
Avg. Duration of Stay Days	6	6	6
Bed Occupancy Rate % Based on Sanction Bed	38	37	40

Shan (South)

Tanintharyi Division



State/Division Health Profile

Tanintharyi Division

1. MAP

2. AREA **43343.34 Sq-Km**

3. LOCATION **East(Thailand),West(AndamanSea) North(Mon State) , South(Thailand),**

4. POPULATION * (2009)

Total	1585650
Urban	384661
Rural	1200989
Male	780528
Female	805122
Sex Ratio	97
< 5 Yr.	197036
0 - 14 Yr.	513064
15 - 49 Yr.	798550

5. POPULATION DENSITY (2009) **36.58347 Sq-Km**

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	10
Wards	83
Villages	1230
Village Tracts	346

7. HEALTH FACILITIES

1	General Hospital (200) Bedded	2
2	District Hospital (100) Bedded	1
3	District Hospital (50) Bedded	3
4	Township Hospital (25) Bedded	1
5	Township Hospital (16) Bedded	3
6	Station Hospitals	18
7	Hospital Under Other Ministries	1
8	Maternal and Child Health Centers	9
9	School Health Centers	2
10	Rural Health Centers	42
11	Sub Health Centers	168
12	Private Clinics and Maternity Homes	135

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	209	364	51	49	23	75	285
Appointed	146	324	37	44	23	24	246
Vacant	63	40	14	5	-	51	39

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	942	1113	500
Functioning	480	762	353

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	361
RED CROSS (Branch Association)	10
M.M.A (Branch Association)	3
NURSE ASSOCIATION (Branch Association)	3
H.A. ASSOCIATION (Branch Association)	10

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	15.1	18.5	20.6
% of referral cases	0.8	0.6	0.6

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	91	95	88
Coverage of Students Examined	73	86	80
Coverage of Schools with Sanitary Latrine	62	70	62
Coverage of Schools with Safe Water Supply	63	72	56

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	3.1	2.2	2.7
Under Weight Children (Under 3 Years)	3.2	2.4	2.0
Severe Under Weight (Under 3 Years)	0.5	0.3	0.1
Targeted nutritional care coverage with the jurisdiction of MW	29.7	32.6	32.6

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	46.9	40.7	55.3
% of Home Deliveries (AMW)	17.9	13.2	14.6
% of deliveries at RHC delivery room	0.6	0.9	2.3
Low Birth Weight %	1.4	0.9	0.7
Rate of Referral %	4.5	4.9	3.7
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	3	7	6
AN Care Coverage %	76.5	79.6	87.2

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	96	97	92
D.P.T 3	94	94	89
O.P.V 3	93	94	89
Hepatitis B 3	93	94	89
Measles	89	96	88
T.T 2	90	93	87

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	2504.02	3.28
ARI (per 100000 <5Children)	4941.74	20.81
Diarrhoea (per 100000 Pop)	691.07	0.57
Dysentry (per 100000 Pop)	257.43	-
TB (Sputum +) (per 100000 Pop)	49.95	-
Snake Bite (per 100000 Pop)	2.65	-

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	20.13	18.50	17.98
Case Fatality Rate	2.47	1.91	1.26

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	59.39	69.00	67.10

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	0.38	0.34	0.48

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.38	0.24	0.23
New Case Detection Rate per 100000 Population	1.88	2.02	2.21

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	5.99	3.73	3.39
% of <5 Children with cough and difficult breathing	4.02	4.76	4.92
% of <5 Children with severe Pneumonia	0.25	0.17	0.14

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	72	78	77
Coverage of Sanitary Latrines (Rural)	69	72	63
Coverage of Sanitary Latrines (Total)	70	73	73

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	1.39	2.27
Suicide	0.03	2.59
Assault	0.42	1.45

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.5	2.1	1.6
IMR / 1000 Live Births	12.6	10.7	9.7
U5MR / 1000 Live Births	24.7	20.1	17.3
MMR / 1000 Live Births	1.2	1.2	1.0

24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	98171	105705	114280
Total No. of In-patients	31663	35252	35801
General Anaesthesia	1486	1501	1358
Spinal Anaesthesia	1782	2335	2542
Local Anaesthesia	1713	1820	2136
Other Anaesthesia	326	487	562
Total No. of Deliveries	3620	4286	4614
Total No. of Abortions	889	905	998
Total No. of Deaths	644	592	579
Avg. No. of In-patient Per Day	441	493	508
Avg. Duration of Stay Days	5	5	5
Bed Occupancy Rate % Based on Sanction Bed	44	47	48

Tanintharyi

Health Profile

Union of Myanmar

1. MAP

2. AREA 676578.00 Sq-Km

3. LOCATION East(Lao) ,West(Bay of Bangal), North(India), South(Thailand)

4. POPULATION * (2009)

Total	47735280
Urban	11870414
Rural	35864866
Male	23128226
Female	24607054
Sex Ratio	94
< 5 Yr.	5043747
0 - 14 Yr.	14221546
15 - 49 Yr.	24964220
Estimated for the year 2009/10	**59.12 Million**

5. POPULATION DENSITY (2009) 70.55399 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	325
Wards	3537
Villages	63017
Village Tracts	13555

7. HEALTH FACILITIES

1	Total Number of Hospital	871
2	Specialist Hospital	22
3	General Hospital	43
4	Hospital (150) Bedded	3
5	Hospital (100) Bedded	32
6	Hospital (50) Bedded	55
7	Hospital (25=188 / 16=13) Bedded	201
8	Station Hospitals	488
9	Hospital Under Other Ministries	27
10	Maternal and Child Health Centers	316
11	Urban Health Centers	57
12	Rural Health Centers	1374
13	Sub Health Centers	6108
14	Secondary Health Centers	24
15	School Health Centers	80
16	Private Clinics and Maternity Homes	5929

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	6895	13900	1664	1733	643	2000	9442
Appointed	5156	10229	1473	1627	589	1414	8663
Vacant	1739	3671	191	106	54	586	779

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	42353	31975	16459
Functioning	23820	21123	9152

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	17161
RED CROSS (Branch Association)	513
M.M.A (Branch Association)	152
NURSE ASSOCIATION(Branch Association)	267
H.A. ASSOCIATION(Branch Association)	269

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	18.2	20.6	22.2
% of referral cases	0.6	0.5	0.6

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	91	94	93
Coverage of Students Examined	73	78	74
Coverage of Schools with Sanitary Latrine	72	76	79
Coverage of Schools with Safe Water Supply	70	75	78

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Malnutrition Under 1 Year	4.6	4.1	4.0
Malnutrition Under 3 Years	4.7	4.1	4.1
Severe Malnutrition Under 3 Years	0.5	0.4	0.4
Targeted nutritional care coverage with the jurisdiction of MW	27.2	27.1	25.6

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	47.7	49.2	50.2
% of Home Deliveries (AMW)	13.7	13.2	13.0
% of deliveries at RHC delivery room	1.3	1.7	2.0
Low Birth Rate %	1.3	1.2	1.2
Rate of Referral %	5.7	6.3	7.1
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	5	6	6
AN Care Coverage %	64.6	68.2	70.6

14. EXPANDED PROGRAMME OF IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	85	90	89
D.P.T 3	82	87	86
O.P.V 3	80	87	86
Hepatitis B 3	81	87	86
Measles	77	86	84
T.T 2	78	85	83

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	1327.28	2.24
ARI (per 100000 <5Children)	4827.91	9.92
Diarrhoea (per 100000 Pop)	707.83	0.58
Dysentry (per 100000 Pop)	290.58	0.02
TB (Sputum +) (per 100000 Pop)	63.21	0.47
Snake Bite (per 100000 Pop)	16.75	1.59

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	9.62	8.81	8.88
Case Fatality Rate	2.14	2.17	1.90

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	89.72	78.00	78.07

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	0.99	0.78	0.61

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.51	0.51	0.52
New Case Detection Rate per 100000 Population	5.48	5.50	5.08

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	3.71	2.94	3.20
% of <5 Children with cough and difficult breathing	4.00	4.12	4.65
% of <5 Children with severe Pneumonia	0.23	0.19	0.19

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	87	87	88
Coverage of Sanitary Latrines (Rural)	78	80	79
Coverage of Sanitary Latrines (Total)	80	82	83

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	1.05	2.95
Suicide	0.03	1.33
Assault	0.66	1.07

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	1.2	0.9	1.3
IMR / 1000 Live Births	19.9	20.2	16.4
U5MR / 1000 Live Births	29.3	38.9	23.6
MMR / 1000 Live Births	1.7	1.5	1.4

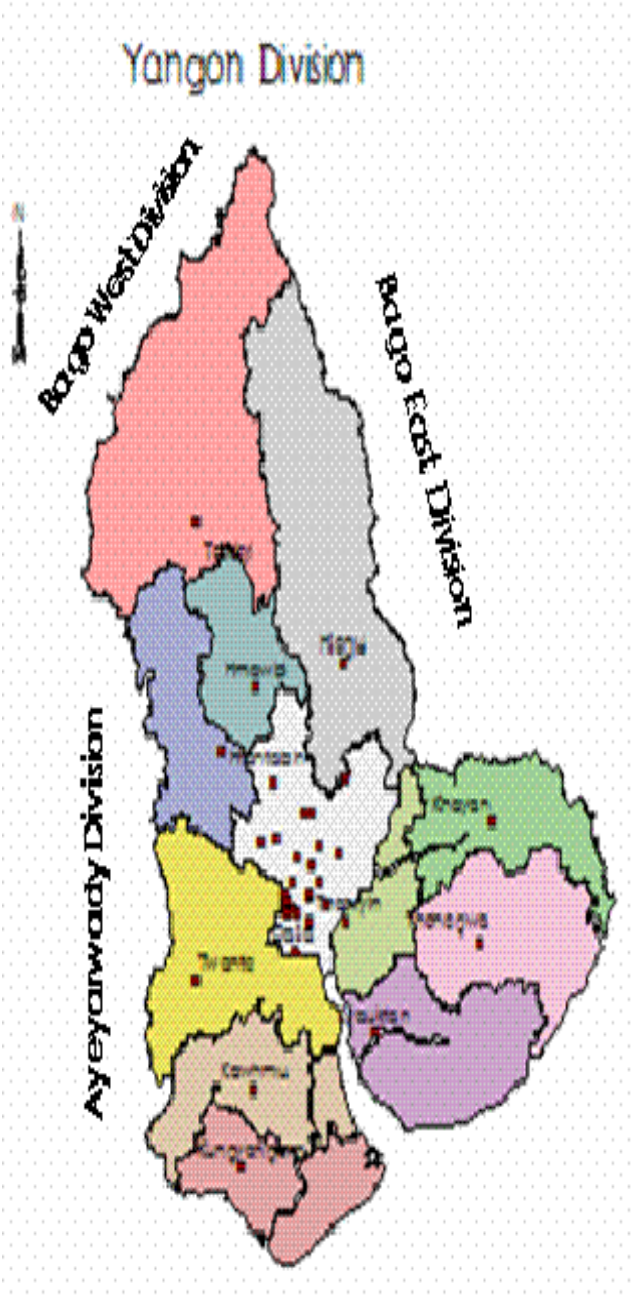
24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	2949364	3242381	3331133
Total No. of In-patients	1082488	1107022	1202308
General Anaesthesia	70513	69926	70758
Spinal Anaesthesia	72211	80678	89806
Local Anaesthesia	73797	83646	84351
Other Anaesthesia	31723	32587	31827
Total No. of Deliveries	131120	135265	146646
Total No. of Abortions	32322	32950	33714
Total No. of Deaths	28387	27388	27738
Avg. No. of In-patient Per Day	19199	19014	20451
Avg. Duration of Stay Days	6	6	6
Bed Occupancy Rate % Based on Sanction Bed	53	50	53

Union

State/Division Health Profile

Yangon Division



1. MAP

2. AREA 10171.30 Sq-Km

3. LOCATION East(BagoDivision),West(Ayeyarwaddy), North(BagoDivision),South(Gulf of Martaban)

4. POPULATION * (2009)

Total	5924488
Urban	3907257
Rural	2017231
Male	2857769
Female	3066719
Sex Ratio	93
< 5 Yr.	610863
0 - 14 Yr.	1667476
15 - 49 Yr.	3068870

5. POPULATION DENSITY (2009) 582.4711 Sq-Km

6. TOWNSHIPS, WARDS AND VILLAGES (2009)

Townships	45
Wards	658
Villages	2125
Village Tracts	631

7. HEALTH FACILITIES

1	Hospitals (Specialist=8 / Teaching=1)	9
2	General Hospital (1500=1 / 300=2) Bedded	3
3	Hospital (220=1 / 200=2 / 150=4 / 100=1) Bedded	8
4	Township Hospital (50=9 / 25=14 / 16=5) Bedded	28
5	Station Hospitals	26
6	Hospital Under Other Ministries	5
7	Maternal and Child Health Centers	20
8	Urban Health Centers	33
9	Rural Health Centers	77
10	Secondary Health Centers	18
11	Sub Health Centers	344
12	School Health Centers	21
13	Private Clinics and Maternity Homes	3250

*** Population based on head count collected annually by BHS**

8. HEALTH MANPOWER (2009)

CATEGORY	DR	N	HA	LHV	PHSI	PHSII	MW
Sanction	1783	3109	119	198	52	186	688
Appointed	1473	2088	111	189	51	151	615
Vacant	310	1021	8	9	1	35	73

V.H.W	C.H.W	A.M.W	T.T.B.A
Trained	3402	1623	1668
Functioning	1156	1149	788

9. N.G.Os (2009)

M.M.C.W.A (Branch Association)	721
RED CROSS (Branch Association)	80
M.M.A (Branch Association)	37
NURSE ASSOCIATION (Branch Association)	32
H.A. ASSOCIATION (Branch Association)	35

10. COMMUNITY HEALTH CARE

PERCENT OF	2007	2008	2009
Rate of General Clinic Attendances %	17.9	19.6	19.7
% of referral cases	0.5	0.5	0.4

11. SCHOOL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Schools Examined	96	97	95
Coverage of Students Examined	77	79	73
Coverage of Schools with Sanitary Latrine	87	87	91
Coverage of Schools with Safe Water Supply	93	92	91

12. NUTRITION (Sentinel Surveillance)

PERCENT OF	2007	2008	2009
Under Weight Children (Under 1 Year)	2.9	2.5	2.2
Under Weight Children (Under 3 Years)	3.3	3.3	2.5
Severe Under Weight (Under 3 Years)	0.4	0.4	0.2
Targeted nutritional care coverage with the jurisdiction of MW	25.7	20.1	17.6

13. REPRODUCTIVE HEALTH

ITEM	2007	2008	2009
% of Home Deliveries (Health Staff)	32.8	33.5	35.3
% of Home Deliveries (AMW)	5.9	5.6	5.7
% of deliveries at RHC delivery room	1.2	2.6	2.7
Low Birth Weight %	1.4	1.3	1.2
Rate of Referral %	4.8	5.4	7.1
Avg. no. of Attendance (AN)	3	3	3
Avg. no. of Attendance (PN)	8	8	9
AN Care Coverage %	62.0	64.6	65.8

14. EXPANDED PROGRAMME ON IMMUNIZATION

PERCENT OF	2007	2008	2009
B.C.G	92	94	94
D.P.T 3	88	89	91
O.P.V 3	85	89	89
Hepatitis B 3	87	89	91
Measles	82	90	89
T.T 2	85	87	91

15. COMMON DISEASES IN DUNS

DISEASE	2009	
	Morbidity	Mortality
Malaria (per 100000 Pop)	91.11	0.46
ARI (per 100000 <5Children)	2053.32	5.57
Diarrhoea (per 100000 Pop)	231.14	0.10
Dysentry (per 100000 Pop)	106.91	-
TB (Sputum +) (per 100000 Pop)	129.23	0.34
Snake Bite (per 100000 Pop)	7.39	0.89

16. MALARIA

PERCENT OF	2007	2008	2009
% of Malaria Cases (OPD)	0.81	0.82	0.74
Case Fatality Rate	3.30	1.52	4.00

17. TUBERCULOSIS

PERCENT OF	2007	2008	2009
New Case Detection Rate	96.13	90.00	76.02

18. AIDS/ STD PREVENTION AND CONTROL

PERCENT OF	2007	2008	2009
VDRL (Syph +ve rate)in Primigravida	1.11	1.02	0.92

19. LEPROSY

ITEM	2007	2008	2009
Prevalence per 10000 Population	0.24	0.30	0.25
New Case Detection Rate per 100000 Population	1.88	1.80	1.40

20.PREVENTION AND CONTROL OF COMMON CHILDHOOD DISEASES (Under 5 Years Children)

PERCENT OF	2007	2008	2009
% of <5 diarrhoea cases with severe Dehydration	1.66	1.30	0.94
% of <5 Children with cough and difficult breathing	2.66	2.18	2.00
% of <5 Children with severe Pneumonia	0.10	0.06	0.06

21. ENVIRONMENTAL HEALTH

PERCENT OF	2007	2008	2009
Coverage of Sanitary Latrines (Urban)	96	92	93
Coverage of Sanitary Latrines (Rural)	85	81	87
Coverage of Sanitary Latrines (Total)	92	88	91

22. PREVENTION OF ACCIDENT AND INJURY

ITEM	2009	
	Morbidity (per 1000 Pop)	Mortality (per 100000 Pop)
Transport Accident	0.50	1.76
Suicide	0.01	0.71
Assault	1.02	0.64

23. HEALTH IMPACT INDICATORS

IN HEALTH SERVICE COVERED AREA	2007	2008	2009
Population Growth Rate %	0.8	0.7	0.8
IMR / 1000 Live Births	32.1	25.0	23.2
U5MR / 1000 Live Births	44.6	34.7	29.9
MMR / 1000 Live Births	1.6	0.9	1.0

24. HOSPITAL SERVICE AND ADMINISTRATIVE INDICATORS

ITEM	2007	2008	2009
Total No. of Out-patients	806100	891343	912726
Total No. of In-patients	248482	238787	246895
General Anaesthesia	16814	17855	17166
Spinal Anaesthesia	21062	22102	24571
Local Anaesthesia	22069	23243	23670
Other Anaesthesia	5824	5481	5882
Total No. of Deliveries	34081	33949	36396
Total No. of Abortions	7051	7559	7534
Total No. of Deaths	10418	10012	9936
Avg. No. of In-patient Per Day	6028	5743	6015
Avg. Duration of Stay Days	9	9	9
Bed Occupancy Rate % Based on Sanction Bed	64	61	64

Yangon

Annex 4：References (Republic of the Union of Myanmar)

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5	Nationwide Cause-Specific Maternal Mortality Survey 2004-2005 （NCSMMS）	Women and Child Development Project, Department of Health, Ministry of Health and UNICEF Myanmar		2005
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8	Annual Statistics Report 2007	Department of Health Planning, Ministry of Health		
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22	Consolidated Results Report 2010	UNICEF	http://www.unicef.org/about/execboard/files/2010-CRR-Myanmar.pdf	
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41	Country Data book, Myanmar	Ministry of Foreign Affairs of Japan	http://www.mofa.go.jp/mofaj/index.html.	
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