Health in Myanmar

2007

Ministry of Health

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Guidelines related to Health Sector by H.E. Lt. General Thein Sein, Secretary (1) of the State Peace and Development Council Chairman of the National Health Committee

- Health sector plays vital role in national development and ability to raise the health status of the country reflects the stage of national development.
- In striving for all round development of a nation human resources that are healthy, physically fit and of high education standards are crucial.
- To raise the health status of the entire nation it is essential to give priority to the rural area, resident to the 70% of the population.

Foreword by H.E. Professor Dr. Kyaw Myint, Minister for Health

Advances in science and technology have brought along major advances in health care with millions more lives protected than ever before and significant improvement in longevity globally. A number of communicable diseases have been brought under control, some eliminated and some eradicated in a global scale. Despite these advances and benefits accrued thereupon, many health challenges still remain. There are widening health inequities between and within countries and between different societal, gender and ethnic groups in many parts of the world. The problem of inequitable health outcomes for rich and poor is an issue in all countries. This is often exacerbated by the tendency of private sector to provide more care for the better off.

New diseases, such as avian influenza and SARS, are appearing. Conflicts, natural disasters, disease outbreaks and zoonoses are increasing in number with impact on global health security, which has become a prominent item in the international health agenda. In a globalized world health issues present new challenges that transcend national borders and have impact on the collective security of people around the world. Along with benefits of efficient transport and trade to many people across the world globalization has also favoured the rapid spread of disease that otherwise may have been contained by geographic boundaries or may in the past have traveled slowly enough to be brought rapidly under control.

Advances in medical science have contributed much in global efforts to improve health, but social, economic, environmental and political factors also determine health opportunities and outcomes. The actions required to tackle most of these determinants go beyond the capacity of ministries of health. The current crisis in managing human resources for health, which includes shortage and mal-distribution of health workers, is an additional problem faced by many countries.

Against this backdrop of global health scenario, Myanmar is also sharing these health challenges as a member of the global family while endeavouring to raise the health status of its people. Looking back, considerable achievements have been made in the health sector thanks to guidance and support of the State, selfless efforts of health professional and work force and collaboration of national and international partners. Social and volunteer organizations in the country have invested much of their time and efforts to collaborate with the Ministry of Health. Taking in to consideration their size, private health care providers are also playing an important role in health development of the country. Recent enactment of the Law Relating to Private

Health Care Services will provide a legal support and frame work for mobilizing, encouraging and regulating these important health partners in expanding the coverage of the health care services. Another development in Myanmar health sector is the establishment of the University of Public Health in the country. This will further strengthen the public health work force and also contribute to strengthening of the health system in country. I am confident that these two recent developments in the health sector will provide additional strength and advantages for facing the health challenges mentioned.

This publication, 9th in the annual series, provides a brief account of Myanmar health system along with its efforts and achievements made in raising the health status of the country.

Looking beyond, new health challenges are looming. Some old ones are receding while some are persisting. Myanmar will keep on honoring its commitments by continuing its involvement in the collective efforts of the global community to ensure highest level of health for the people all over the world.

Professor Dr. Kyaw Myint

Minister for Health

COUNTRY PROFILE

Location

Myanmar, the largest country in mainland South-East Asia with a total land area of 676,578 square kilometers, stretches 2200 kilometers from north to south and 925 kilometers from east-west at its widest point. It is approximately the size of France and England combined. It is bounded on the north and north-east by the People's Republic of China, on the east and south-east by the Lao People's Democratic Republic and the Kingdom of Thailand, on the west and south by the Bay of Bengal and Andaman Sea, on the west by the People's Republic of Bangladesh and the Republic of India. It lies between 09°32' N and 28°31'N latitudes and 92°10' E and 101°11' E longitudes.

Geography

The country is divided administratively, into 14 States and Divisions. It consists of 66 districts, 325 townships, 60 subtownships, 2781 wards, 13714 village tracts and 64910 villages. Myanmar falls into three well marked natural divisions, the western hills, the central belt and the Shan plateau on the east, with a continuation of this high land in the Tanintharyi.

Three parallel chains of mountain ranges from north to south divide the country into three river systems, the Ayeyarwaddy, Sittaung and Thanlwin. Myanmar has abundant natural resources including land, water, forest, coal, mineral and marine resources, and natural gas and petroleum. Great diversity exists between the regions due to the rugged terrain in the hilly north which makes communication extremely difficult. In the southern plains and swampy marshlands there are numerous rivers and tributaries of these rivers criss-cross the land in many places.

Climate

Myanmar enjoys a tropical climate with three distinct seasons, the rainy, the cold and the hot season. The rainy season comes with the southwest monsoon, which lasts from mid-May to mid-October. Then the cold season follows from mid-October to mid-February. The hot season preceeds rainy season and lasts from mid-February to mid-May.

During the 10 years period covering 1994-2003, the average rainfall in the Coastal regions of the Rakhine and Tanintharyi was over 5000 mm annually. The Ayeyarwady delta had a rainfall of about 3000 mm, the mountains in the extreme north had about 2000 mm and the hills of the east about 1300 mm. The dry zone had between 600 and 1400 mm due to the Rakhine Yomas (hills) cutting off the monsoon. The average temperature experienced in the delta ranged between 22°C to 32°C, while in the dry zone, it was between 20°C and 34°C. The temperature was between 15°C and 29°C in hilly regions and even lower in Chin state ranging between 10°C and 23°C.

Demography

The population of Myanmar in 2005-2006 is estimated at 55.40 million with the growth rate of 2.02 percent. About 70 percent of the population reside in the rural areas, whereas the remaining are urban dwellers.

The population density for the whole country is 77 per square kilometers and ranges from 595 per square kilometers in Yangon Division, where in lies the city of Yangon, to 14 per square kilometers in Chin State, the western part of the country.

Estimates of population and it's structure (1980-2006)

Population / Structure (in million)	1980-81		1990-91		2000-01		2004-05		2005-06	
	Estimate	%	Estimate	%	Estimate	%	Estimate	%	Estimate	%
0-14 years	13.03	38.77	14.70	32.68	16.43	32.77	17.72	32.63	18.04	32.57
15-59 years	18.44	54.86	23.47	59.27	29.72	59.29	32.12	59.15	32.74	59.10
60 years and above	2.14	6.37	2.61	8.05	3.98	7.94	4.46	8.22	4.62	8.33
Total	33.61	100	40.78	100	50.13	100	54.30	100	55.40	100
Female	16.93	50.37	20.57	50.28	25.22	50.31	27.30	50.28	27.86	50.29
Male	16.68	49.63	20.21	49.72	24.91	49.69	27.00	49.72	27.54	49.71
Sex Ratio (M /100 F)	98.52		98.25		98.77		98.90		98.86	

Source: Planning Department, Ministry of National Planning and Economic Development

People and Religion

The Union of Myanmar is made up of 135 national groups speaking over 100 languages and dialects. The major ethnic groups are Kachin, Kayah, Kayin, Chin, Mon, Bamar, Rakhine and Shan. About 89.4% of the population mainly Bamar, Shan, Mon, Rakhine and some Kayin are Buddhists. The rest are Christians, Muslims, Hindus and Animists.

Economy

Myanmar is a country with a large land area rich in natural and human resources. Cognizant of the fact that the agricultural sector can contribute to overall economic growth of the country the government has accorded top priority to agricultural development as the base for all round development of the economy as well.

Following the adoption of market oriented economy from centralized economy the government has carried out liberal economic reforms to ensure participation of private sector in every sphere of economic activities.

Encouragement for the development of the industrial sector has been provided since 1995. In order to support and to render assistance to small and medium size industries scattered all over the countries in an organized manner, the government has established 19 industrial zones in states and divisions.

Social Development

Development of social sector has kept pace with economic development. Expansion of schools and institutes of higher education has been considerable especially in the States and Divisions. Adult literacy rate for the year 2005 was 94.1% while school enrolment rate was 97.58%, increasing respectively from 79.7% and 67.13% in 1988. Expenditure for health and education have risen considerably, equity and access to education and health and social services have been ensured all over the country.

With prevalence of tranquility, law and order in the border regions, social sector development can be expanded throughout the country. Twenty four special development regions have been designated in the whole country where health and education facilities are developed or upgraded along with other development activities. Some towns or villages in these regions have also been upgraded to sub-township level with development of infrastructure to ensure proper execution of administrative, economic and social functions.

Gross Domestic Product (kyats in million)

GDP	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04▲
Current	1119509.2	1609775.6	2190319.7	2552732.5	3548472.2	5625254.7	7716616.2
At 1985-86 Constant Producers' Prices	75123.1	79460.2	88157.0	100274.8	2842314.4	3184117.3▲	3624815.7▲
Growth (%)	5.7	5.8	10.9	13.7		12.0	13.8

Source: Statistical Year Book 2004, CSO ▲ Provisional actual ▲ 2000-01 Constant Producers' Prices

MYANMAR HEALTH CARE SYSTEM

Myanmar health care system evolves with changing political and administrative system and relative roles played by the key providers are also changing although the Ministry of Health remains the major provider of comprehensive health care. It has a pluralistic mix of public and private system both in the financing and provision. Health care is organized and provided by public and private providers.

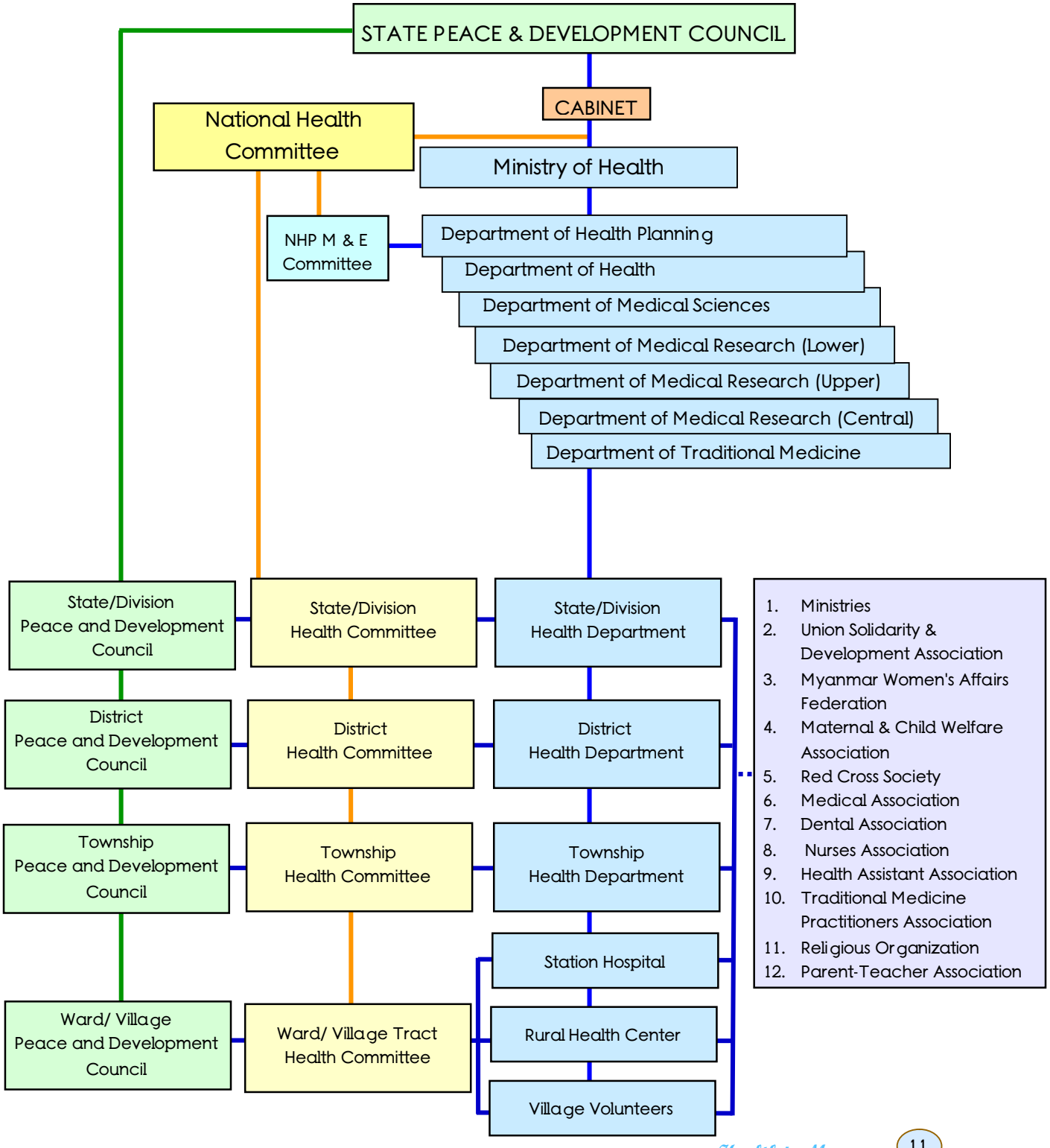
Ministry of Health is the main organization of health care provision. Department of Health one of 7 departments under the Ministry of Health plays a major role in providing comprehensive health care through out the country including remote and hard to reach border areas. Some ministries are also providing health care, mainly curative, for their employees and their families. They include Ministries of Defense, Railways, Mines, Industry I, Industry II, Energy, Home and Transport. Ministry of Labour has set up two general hospitals, one in Yangon and the other in Mandalay, and one TB hospital in Hlaingtharyar (Yangon) to render services to those entitled under the social security scheme. Ministry of Industry (1) is running a Myanmar Pharmaceutical Factory and producing medicines and therapeutic agents to meet the domestic needs.

The private, for profit, sector is mainly providing ambulatory care though some providing institutional care has developed in Yangon, Mandalay and some large cities in recent years. Funding and provision of care is fragmented. They are regulated in conformity with the provisions of the law relating to Private Health Care Services. General Practitioners' Section of the Myanmar Medical Association with its branches in townships provide these practitioners the opportunities to update and exchange their knowledge and experiences by holding seminars, talks and symposia on currently emerging issues and updated diagnostic and therapeutic measures. The Medical Association and its branches also provide a link between them and their counterparts in public sector so that private practitioners can also participate in public health care activities.

One unique and important feature of Myanmar health system is the existence of traditional medicine along with allopathic medicine. Traditional medicine has been in existence since time immemorial and except for its waning period during colonial administration when allopathic medical practices had been introduced and flourishing it is well accepted and utilized by the people through out the history. With encouragement of the State scientific ways of assessing the efficacy of therapeutic agents, nurturing of famous and rare medicinal plants, exploring, sustaining and propagation of treatises and practices can be accomplished. There are a total of 14 traditional hospitals run by the State in the country. Traditional medical practitioners have been trained at an Institute of Traditional Medicine and with the establishment of a new University of Traditional Medicine conferring a bachelor degree more competent practitioners can now be trained and utilized. As in the allopathic medicine there are quite a number of private traditional practitioners and they are licensed and regulated in accordance with the provisions of related laws.

In line with the National Health Policy NGOs such as Myanmar Maternal and Child Welfare Association, Myanmar Red Cross Society are also taking some share of service provision and their roles are also becoming important as the needs for collaboration in health become more prominent. Sectoral collaboration and community participation is strong in Myanmar health system thanks to the establishment of the National Health Committee in 1989. Recognizing the growing importance of the needs to involve all relevant sectors at all administrative levels and to mobilize the community more effectively in health activities health committees have been established in various administrative levels down to the wards and village tracts. These committees at each level are headed by the chairman or responsible person of the organs of power concern and include heads of related government departments and representatives from the social organizations as members. Heads of the health departments are designated as secretaries of the committees.

Health Service Delivery System



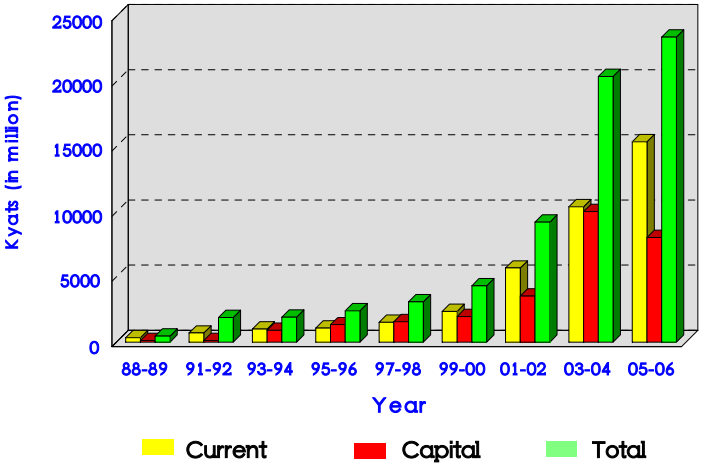
Financing Health

The major sources of finance for health care services are the government, private households, social security system, community contributions and external aid.

Government has increased health spending on both current and capital yearly. Total government health expenditure increased from kyat 464.1million in 1988-89 to kyat 23411.8 million in 2005-2006.

The estimation of National Health Expenditure (NHE) for the year 2001-2002 is attempted by expenditure method and total NHE is estimated to be kyat 87853.9 million equivalent to 2.5% of GDP. The Breakdown of NHE for the year 2001-2002 by sources is estimated to be as follows:

Health Expenditure (1988-89 to 2005-06)



Estimation of National Health Expenditure (2001-2002)

Sr. No.	Source	Amount (Million Kyats)	Percent
1.	Government	11957.5	13.6
2.	Social Security	313.5	0.36
3.	Community Contribution	475.0	0.54
4.	Private Households	64483.4	73.4
5.	International Assistance	10624.5	12.1

Social security scheme was implemented in accordance with 1954 Social Security Act by the Ministry of Labour. According to the law factories, workshops and enterprises that have over 5 employees whether State owned, private, foreign or joint ventures, must provide the employees with social security coverage. The contribution is tri-partite with 2.5% by the employer 1.5% by the employee of the designated rate while the government contribution is in the form of capital investment. Insured workers under the scheme are provided free medical treatment, cash benefits and occupational injury benefit. To effectively implement the scheme 77 branch offices have been established nation wide. One 250-bedded Workers' Hospital in Yangon, one 150-bedded Workers' Hospital in Mandalay and one 100-bedded TB Hospital in Hlaingtharyar has been established along with 89 dispensaries and 2 mobile medical units.

HEALTH POLICY, PLANS AND LEGISLATION

Chairman of the State Peace and Development Council,
Senior General Than Shwe inspecting the
Department of Medical Research (Upper Myanmar) and giving guidance

National Health Committee (NHC)

The National Health Committee (NHC) was formed on 28 December 1989 as part of the policy reforms. It is a high level inter-ministerial and policy making body concerning health matters. The National Health Committee takes the leadership role and gives guidance in implementing the health programmes systematically and efficiently. The high level policy making body is instrumental in providing the mechanism for intersectoral collaboration and co-ordination. It also provides guidance and direction for all health activities. Under the guidance of the National Health Committee various health committees had been formed at each administrative level.

For the monitoring and evaluation purpose, National Health Plan Monitoring and Evaluation Committee was formed at the central level. Built-in monitoring and evaluation process is undertaken at State/Division and Township level on regular basis. Implementation of National Health Plan at various levels is carried out in collaboration and co-operation with health related sectors and NGOs.

Composition of National Health Committee

1.	Secretary (1), State Peace and Development Council	Chairman
2.	Minister, Ministry of Health	Member
3.	Minister, Ministry of National Planning and Economic Development	Member
4.	Minister, Ministry of Home Affairs	Member
5.	Minister, Ministry for Progress of Border Areas and National Races and Development Affairs	Member
6.	Minister, Ministry of Social Welfare, Relief and Resettlement	Member
7.	Minister, Ministry of Science and Technology	Member
8.	Minister, Ministry of Education	Member
9.	Minister, Ministry of Sports	Member
10.	Minister, Ministry of Immigration and Population	Member
11.	Mayor, Nay Pyi Taw	Member
12.	Director, Directorate of Medical Services, Ministry of Defence	Member
13.	Deputy Minister, Ministry of Health	Secretary
14.	Director General, Department of Health Planning, Ministry of Health	Joint Secretary

National Health Policy

The National Health Policy was developed with the initiation and guidance of the National Health Committee in 1993. The National Health Policy has placed the Health For All goal as a prime objective using Primary Health Care approach. The National Health Policy is designated as follows:

1. To raise the level of health of the country and promote the physical and mental well-being of the people with the objective of achieving "Health for all" goal, using primary health care approach.
2. To follow the guidelines of the population policy formulated in the country.
3. To produce sufficient as well as efficient human resource for health locally in the context of broad frame work of long term health development plan.
4. To strictly abide by the rules and regulations mentioned in the drug laws and by-laws which are promulgated in the country.
5. To augment the role of co-operative, joint ventures, private sectors and non-governmental organizations in delivering of health care in view of the changing economic system.
6. To explore and develop 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 accord 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 the expansion of sports and physical education activities by encouraging community participation, supporting outstanding athletes and reviving traditional sports.
11. To encourage conduct of medical research activities not only on prevailing health problems but also giving due attention in conducting health system research.
12. To expand the health service activities not only to rural but also to border areas so as to meet the overall health needs of the country.
13. To foresee any emerging health problem that poses a threat to the health and well-being of the people of Myanmar, so that preventive and curative measures can be initiated.
14. To reinforce the service and research activities of indigenous medicine to international level and to involve in community health care activities.
15. To strengthen collaboration with other countries for national health development.

Health Development Plans

With the objective of uplifting the health status of the entire nation, the Ministry of Health is systematically developing Health Plans, aiming towards Health for All Goal. From 1978 onwards four yearly People's Health Plans have been drawn up and implemented. Since 1991, short term National Health Plans have been developed and implemented.

Myanmar Health Vision 2030

Considering the rapid changes in demographic, epidemiological and economic trends both nationally and globally, a long-term (30 years) health development plan has been drawn up to meet any future health challenges. The plan encompasses the national objectives i.e. political, economic and social objectives of the country. This long term visionary plan with its objectives will be a guide on which further short-term national health plans are to be developed.

Objectives

- To uplift the Health Status of the people.
- 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.
- To foresee emerging diseases and potential health problems and make necessary arrangements for the control.
- To ensure universal coverage of health services for the entire nation.
- To train and produce all categories of human resources for health within the country.
- To modernize Myanmar Traditional Medicine and to encourage more extensive utilization.
- To develop Medical Research and Health Research up to the international standard.
- To ensure availability in sufficient quantity of quality essential medicine and traditional medicine within the country.
- To develop a health system in keeping with changing political, economic, social and environmental situation and changing technology.

Main components of the Plan

- Health Policy and Law
- Health Promotion
- Health Service Provision
- Development of Human Resources for Health
- Promotion of Traditional Medicine
- Development of Health Research
- Role of Co-operative, Joint Ventures, Private Sectors and NGOs
- Partnership for Health System Development
- International Co-operation

Expected Benefits

Improvement in the following indicators:

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

National Health Plan (2006-2011)

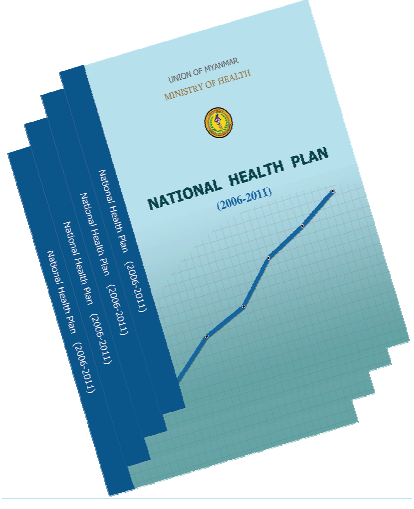
The National Health Plan forms an integral part of the National Development Plan and is in tandem with the national economic plan. The plan will ensure effective implementation of the National Health Policy. It covers the second 5 year period of Myanmar Health Vision 2030.

Objectives

- To facilitate the successful implementation of the social objective, "uplift of health, fitness and educational standards of the entire nation"
- To implement National Health Policy
- 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
- To enhance the quality of health care and coverage
- To accelerate rural health development activities

Main Components of the Plan

- 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



Expected Benefits

National Health Plan 2006-2011 have been formulated within the objective frame of the second five year period of Myanmar Health Vision 2030 and as such as a short term plan to accelerate endeavours to realize future vision of raising the health status of the nation. The plan will carry on the tasks in the previous National Health Plan that still need to be completed and will also be implemented setting sights on reaching health related goals in the Millennium Declaration. In this way the plan will give effect to all round development of the country through raising the health status and will also enable the country as member of the global community to fulfill its roles and responsibilities in the international and regional agenda for health development.

Health Legislation

Legal provision for the interest of health of the people is accomplished through enacting the following health related laws.

1. Public Health Law (1972)	It is concerned with protection of people's health by controlling the quality and cleanliness of food, drugs, environmental sanitation, epidemic diseases and regulation of private clinics.
2. Dental and Oral Medicine Council Law (1989)	Provides basis for licensing and regulation in relation to practices of dental and oral medicine. Describes structure, duties and powers of oral medical council in dealing with regulatory measure.
3. Law relating to the Nurse and Midwife (1990)	Provides basis for registration, licensing and regulation of nursing and midwifery practices and describes organization, duties and powers of the nurse and midwife council.
4. Myanmar Maternal and Child Welfare Association Law (1990)	Describes structure, objectives, membership and formation, duties and powers of Central Council and its Executive Committee.
5. National Drug Law (1992)	Enacted to ensure access by the people safe and efficacious drugs. Describes requirement for licensing in relation to manufacturing, storage, distribution and sale of drugs. It also includes provisions on formation and authorization of Myanmar Food and Drug Board of Authority.
6. Narcotic Drugs and Psychotropic Substances Law (1993)	Related to control of drug abuse and describes measures to be taken against those breaking the law. Enacted to prevent danger of narcotic and psychotropic substances and to implement the provisions of United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. Other objectives are to cooperate with state parties to the United Nations Convention, international and regional organizations in respect to the prevention of the danger of narcotic drugs and psychotropic substances. According to that law Central Committee for Drug Abuse Control (CCADC), Working Committees, Sectors and Regional Committees were formed to carry out the designated tasks in accordance with provisions of the law. The law also describes procedures relating to registration, medication and deregistration of drug users.

7. Prevention and Control of Communicable Diseases Law (1995)	Describes functions and responsibilities of health personnel and citizens in relation to prevention and control of communicable diseases. It also describes measures to be taken in relation to environmental sanitation, reporting and control of outbreaks of epidemics and penalties for those failing to comply. The law also authorizes the Ministry of Health to issue rules and procedures when necessary with approval of the government.
8. Eye Donation Law (1996)	Enacted to give extensive treatment to persons suffering from eye diseases who may regain sight by corneal transplantation. Describes establishment of National Eye Bank Committee and its functions and duties, and measures to be taken in the process of donation and transplantation.
9. Traditional Drug Law (1996)	Concerned with labeling, licensing and advertisement of traditional drugs to promote traditional medicine and drugs. It also aims to enable public to consume genuine quality, safe and efficacious drugs. The law also deals with registration and control of traditional drugs and formation of Board of Authority and its functions.
10. National Food Law (1997)	Enacted to enable public to consume food of genuine quality, free from danger, to prevent public from consuming food that may cause danger or are injurious to health, to supervise production of controlled food systematically and to control and regulate the production, import, export, storage, distribution and sale of food systematically. The law also describes formation of Board of Authority and its functions and duties.
11. Myanmar Medical Council Law (2000)	Enacted to enable public to enjoy qualified and effective health care assistance, to maintain and upgrade the qualification and standard of the health care assistance of medical practitioner, to enable studying and learning of the medical science of a high standard abreast of the times, to enable a continuous study of the development of the medical practitioners, to maintain and promote the dignity of the practitioners, to supervise the abiding and observing in conformity with the moral conduct and ethics of the medical practitioners. The law describes the formation, duties and powers of the Myanmar Medical Council and the rights of the members and that of executive committee, registration certificate of medical practitioners, medical practitioner license, duties and rights of registered medical practitioners and the medical practitioner license holders.

12. Traditional Medicine Council Law (2000)	Enacted to protect public health by applying any type of traditional medicine by the traditional medical practitioners collectively, to supervise traditional medical practitioners for causing abidance by their rules of conduct and discipline, to carry out modernization of traditional medicine in conformity with scientific method, to cooperate with the relevant government departments, organizations and international organization of traditional medicine. The law describes formation, duties and powers of the traditional medical council, registration as the traditional medical practitioners and duties and registration of the traditional medical practitioners.
13. Blood and Blood Products Law (2003)	Enacted to ensure availability of safe blood and blood products by the public. Describes measures to be taken in the process of collection and administration of blood and blood products and designation and authorization of personnel to oversee and undertake these procedures.
14. Body Organ Donation Law (2004)	Enacted to enable saving the life of the person who is required to undergo body organ transplant by application of body organ transplant extensively, to cause rehabilitation of disabled persons due to dysfunction of body organ through body organ donors, to enable to carry out research and educational measures relating to body organ transplant and to enable to increase the numbers of body organ donors and to cooperate and obtain assistance from government departments and organizations, international organizations, local and international NGOs and individuals in body organ transplant.
15. The Control of Smoking and Consumption of Tobacco Product Law (2006)	Enacted to convince the public that smoking and consumption of tobacco product can adversely affect health, to make them refrain from the use, to protect the public by creating tobacco smoke free environment, to make the public, including children and youth, lead a healthy life style by preventing them from smoking and consuming tobacco product, to raise the health status of the people through control of smoking and consumption of tobacco product and to implement measures in conformity with the international convention ratified to control smoking and consumption of tobacco product.

16. The Law Relating to Private Health Care Services (2007)	Enacted to develop private health care services in accordance with the national health policy, to enable private health care services to be carried out systematically as and integrated part in the national health care system, to enable utilizing the resources of private sector in providing health care to the public effectively, to provide choice of health care provider for the public by establishing public health care services and to ensure quality services are provided at fair cost with assurance of responsibility.

HEALTH INFRASTRUCTURE

Objectives and Strategies

To realise one of the social objectives of "Uplifting health, fitness and education standards of the entire nation", the Ministry of Health has laid down the following objectives.

1. To enable every citizen to attain full life expectancy and enjoy longevity of life.

2. To ensure that every citizen is free from diseases.

To realise these objectives, all health activities are implemented in conformity with the following strategies.

1. Widespread disseminations of health information and education to reach the rural areas.

2. Enhancing disease prevention activities.

3. Providing effective treatment of prevailing diseases.

Ministry of Health

The Ministry of Health is the major organization responsible for raising the health status of the people and accomplishes this through provision of comprehensive health services, viz promotive, preventive, curative and rehabilitative measures.

The Ministry of Health is headed by the Minister who is assisted by two Deputy Ministers. The Ministry has seven functioning departments, each under a Director General. They are Department of Health Planning, Department of Health, Department of Medical Science, Department of Medical Research (Lower Myanmar), Department of Medical Research (Upper Myanmar), Department of Medical Research (Central Myanmar) and Department of Traditional Medicine. All these departments are further divided according to their functions and responsibilities.

Maximum community participation in health activities is encouraged. Collaboration with related departments and social organizations has been promoted by the ministry.

Department of Health Planning

The Department of Health Planning comprises of the following divisions:

- Planning Division
- Health Information Division
- Research and Development Division
- Co-ordination Division

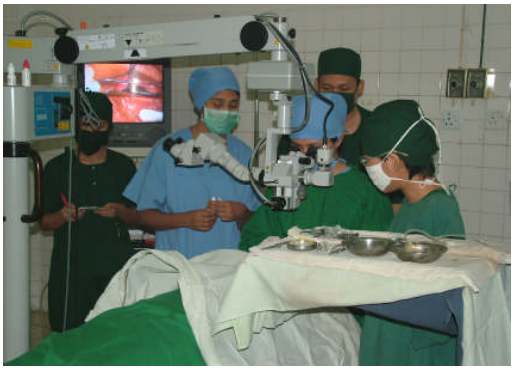
For optimum utilization of human, monetary and material resources, in the context of the National Health Policy and with the need to provide comprehensive health services, it is necessary to systematically develop health plans. The availability of reliable statistics and information is a vital prerequisite in such an effort. The Department of Health Planning is responsible for formulating the National Health Plan and for supervision, monitoring and evaluation of the National Health Plan implementation. The Department also compiles health data and disseminates health information.

Department of Health

The Department of Health, one of the seven departments under the Ministry of Health is responsible for providing health care services to the entire population in the country.

Under the supervision of the Director General and four Deputy Directors General, there are 10 Directors who are leading and managing the following divisions.

- Administration
- Planning
- Public Health
- Medical Care
- Disease Control
- Health Education
- Food and Drug Administration
- Laboratory
- Occupational Health
- Nursing



Among these divisions, the public health division is responsible for primary health care and basic health services, nutrition promotion and research, environmental sanitation, maternal and child health services and school health services. The medical care division is responsible for setting hospital specific goals and management of hospital services. The division also undertakes procurement, storage and distribution of medicines, medical instruments and equipment for all health institutions. Functions of the disease control division cover prevention and control of infectious diseases, disease surveillance, outbreak investigation and response, and capacity building. Health education division is responsible for wide spread dissemination of health information and education.

Food and drug administration division is responsible for registration and licensing of drugs and food, quality control of registered drugs, processed food, imported food and food for export. The National Health Laboratory is responsible for routine laboratory investigation, special lab-taskforce and public health work, training, research and quality assurance. Occupational health division takes the responsibility for health promotion in work places, environmental monitoring of work places and biological monitoring of exposed workers. The division is also providing health education on occupational hazards.

Department of Traditional Medicine

Traditional Medicine promotion office was established under the Department of Health in 1953. It was organized as a division in 1972 managed by an Assistant Director who was responsible for the development of the services under the technical guidance of the State Traditional Medicine Council. It became the focal point for all the activities related to traditional medicine.

The Government upgraded the division to a separate Department in August 1989. It was reorganized and expanded in 1998, to provide comprehensive traditional medicine services through existing health care system in line with the National Health Plan. The other objectives of the department are to review and explore means to develop safe and efficacious new therapeutic agents and medicine and to produce competent traditional medicine practitioners.

Developing a National Herbal Park in Nay Pyi Taw

University of Traditional Medicine

Department of Medical Science

The Department of Medical Science is responsible for training and production of all categories of health personnel with the objective to produce appropriate mix of competent Human Resources for Health for successful implementation of the National Health vision and mission.

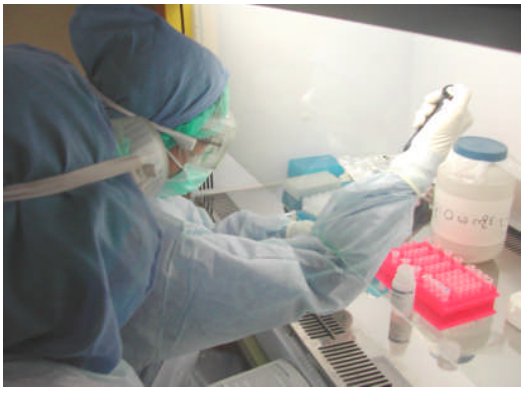
The department has five divisions which are Graduate/Nursing Training Division, Postgraduate Training & Planning Division, Foreign Relation & Library Division, Administrative & Budget Division and Medical Resource Center.

The Department of Medical Science supervises the educational programmes and training processes for quality improvement.

Training of Human Resources for Health

Department of Medical Research
(Lower Myanmar)

The Department of Medical Research, established since 1963 was expanded in phases during the past 40 years. It was renamed as the Department of Medical Research (Lower Myanmar) with the establishment of two Research Departments in Upper and Middle parts of Myanmar. The Department consists of six main research centres namely Biomedical, Clinical, Socio-medical, Blood and Poison Control. The main function of the Department is research in support of The National Health Plan of the Ministry of Health in the areas of Biomedical, Clinical, Social Science and Health System Research. For its activities, it was designated as WHO Collaborating Centre for Malaria research and training since September 2003. Recently it has been involved in control of emerging disease such as SARS, Avian Flu by providing confirmatory laboratories and facilities.



Experiments performing on highly infectious diseases in Biosafety Level (3) Laboratory

Analyzing the biological samples for detection o f methanol poisoning

Conducting malariometric surveys in border areas

Department of Medical Research (Upper Myanmar)

In 2001, Department of Medical Research (Upper Myanmar) was established in Sitha, Pyin Oo Lwin Township. Traditional medicine research is one of the main missions of the department. Herbal medicinal plants all over the country are collected and nurtured in the herbal garden of the department. Up to now, 470 medicinal plant species are being grown in the herbal garden.

Research activities concerned with Traditional Medicines include study on efficacy of medicinal plants, traditional medicine formulations and popular drugs which are currently being sold in the market of Myanmar especially in the treatment of diabetes mellitus, hypertension, malaria, diarrhea and dysentery are mainly conducted in the department.

Meetings on indigenous medicine research are held regularly in cooperation with other partner departments under Ministry of Health. To strengthen the research capacity of the department, workshops on reproductive health and malaria research were conducted with consultants from World Health Organization (WHO). Moreover basic research, applied research and health system research are being carried out in collaboration with 200 bedded Hospital (Pyin Oo Lwin), Children Hospital (Mandalay), Central Women's Hospital (Mandalay), University of Medicine (Mandalay), University of Pharmacy (Mandalay), Vector Borne Disease Control Program (Upper Myanmar), National Tuberculosis Program (Upper Myanmar) and Public Health Laboratory (Upper Myanmar)

Department of Medical Research (Central Myanmar)

Department of Medical Research (Central Myanmar) is a newly established department and is situated in central Myanmar at Nay Pyi Taw and has become operational since 2003. Health research activities are in progress and further collaborative research activities are planned with other health departments and medical universities. Small herbal garden was established in 2006 and a total of 268 medicinal plants have been collected.

The mission of the department is to conduct the traditional medicinal research, bio-medical research and social research, to collaborate with other health departments and medical universities for promotion of the health status of Myanmar people.

HEALTH SERVICES IN MYANMAR

The Ministry of Health is providing comprehensive health services covering promotive, preventive, curative and rehabilitative aspects to raise the health status and prolong the lives of the citizens. With the objective of achieving Health for All goals, successive National Health Plans have been developed and implemented in accordance with the guidelines of the National Health Policy.

The basic health staff down to the grass root level are providing promotive, preventive, curative and rehabilitative services through Primary Health Care approach. Infrastructure for service delivery is based upon sub-rural health centre and rural health centre where Midwives, Lady Health Visitor and Health Assistant are assigned to provide primary health care to the rural community.

Those who need special care are referred to Station Hospital, Township Hospital, District Hospital and to Specialist Hospital successively. At the State/Divisional level, the State/Divisional Health Department is responsible for State/ Divisional planning, coordination, training and technical support, close supervision, monitoring and evaluation of health services. At the peripheral level, i.e. the township level actual provision of health services to the community are undertaken. The Township Health Department forms the back bone for primary and secondary health care, covering 100,000 to 200,000 people.

In each township, there is a township hospital which may be 16/25 or 50 bedded depending on the population of the township. Each township has at least one or two station hospitals and 4-7 RHCs under its jurisdiction to provide health services to the rural population. Urban Health Center, School Health Team and Maternal and Child Health Center are taking care for urban population, in addition to the specifically assigned functions. Each RHC has four sub-centres covered by a midwife and public health supervisor grade 2 at the village level. In addition there are voluntary health workers (community health worker and auxiliary midwives) in outreach villages providing Primary Health Care to the community.

The main areas of service delivery and support activities can be categorized broadly as:

1. Promotive and Basic Health Services
2. Disease Control Programme
3. Curative Services
4. Traditional Medicine
5. Human Resources for Health
6. Health Research
7. Health information

Promotive and Basic Health Services

Basic health services unit of public health division of department of health is responsible for provision of health care services especially for rural areas through primary health care approach. Recruitment of (1200) new community health workers and refresher trainings for (1200) existing community health workers have been carried out in regular and annual basis.

To ensure that basic health staffs (BHS) can provide quality services effectively initiatives to strengthen their capacity have been undertaken. Health assistant have been playing roles along with medical officers in provision of rural and public health services in the townships and trainings are instituted to improve their managerial capacity. As voluntary health workers (VHW) are also playing important roles in expanding coverage of health services training and deployment of the voluntary health work force is one endeavor to ensure universal coverage.

Basic health staffs are responsible for providing comprehensive health services at grass root levels, covering reproductive health, maternal and child health, nutrition promotion, school health, environmental health, expanded program of immunization and disease control activities, such as TB, Malaria, HIV/AIDS, Leprosy, and other communicable diseases, including emergency response in case of disaster.

In recognition of their efforts in providing health services and as an incentive to make them perform better basic health staffs and voluntary health workers from different regions of the country who are outstanding in carrying out their duties are selected yearly. Study tour are arranged for them so that they can share their experiences with fellow workers and witness the progress taking place in different regions of the country.

A ceremony to honour them was held in Nyaung U township on (19-2-2007). His Excellency Minister for Health graced the ceremony and presented them with rewards and certificate of honour.

H.E. Minister for Health Presented Rewards and Certificate of Honour to Outstanding Basic Health Staffs

In 2006-2007, 240 outstanding BHS and VHW from both upper and lower Myanmar visited historic places, ancient temples in Bagan-Nyaung U townships and Mount Popa in Kyaukpadaung township.

Outstanding BHS and VHW viewing historic places, ancient temples in Bagan-Nyaung U and Kyaukpadaung Township

One important aspect of improving the performance of basic health staff is to improve the managerial capacity. With the view to enable basic health staffs and community to identify their health problems and find out the solutions, Management Effectiveness Programme (MEP) has been introduced in 2004. The programme, piloted on 6 townships, is now covering 12 townships in 12 states and divisions with further plan for dissemination to remaining townships.

Management Effectiveness Programme approaches:

- Continuous improvement
- learning by doing
- Self assessment
- Total participation
- Sharing knowledge, using common languages and tools
- Apply system approach
- Focus on clients and stakeholder

Director General of Department of Health, giving opening address at workshop on progress review and future plan of MEP

Environmental and Occupational Health

The implementing agency for sanitation in rural as well as sub-urban is Environmental Sanitation Division (ESD), under Department of Health (DOH).

In Myanmar, sanitation program was initiated in 1982, starting as pilot basis, implemented in 13 townships with 4 different geological area (i.e Dry , Hilly, Delta and Coastal).

The program has been being implemented nation-wide through self-reliance approach. In order to enhance the momentum of implementation aiming at universal coverage, National Sanitation Week (NSW) has been launched every year from 1998 and onward. The advocacy meeting of national steering committee (NSW) was conducted recently for the year 2007. Sanitation coverage by population was increased from 45% in 1997 to 84% in 1996.

Latrine inspection by Village Sanitation Committee

ESD also initiated the low- cost surface water treatment process, for example, Roughing Filtration and Sand Filtration. Treatment Tanks with Roughing Filtration for the community were constructed by ESD in Thanlyin Township and that for the station hospital in Ka-Wa Township. Sand Filtration Tanks to treat pond water were constructed in Waw Townships. Besides, ESD is a leading agency for Water Quality Surveillance & Monitoring System as well as Water Safety Plan in Myanmar.

The coverage of Urban and Rural Water Supply and Sanitation

	Total	Rural	Urban	Source
Population access to safe water	78.8%	74.4%	92.1%	MICS
Population access to sanitary latrine	84.0%	81.0%	92.0%	NSW

MICS - Multiple Indicator Cluster Survey, 2003, Department of Health Planning
NSW - National Sanitation Week Report, 2006, ESD/ Department of Health

The role and functions of **Occupational Health Division (OHD)** are essentially promotion of health of workers in various sectors (including rural agricultural community) and prevention of work-related diseases, injuries, health problems. Depending on the needs and circumstances of the economy, the OHD has been providing the services viz surveillance of the workers and working environment, information, education and training on occupational health principles and practices to employers, workers and basic health staff, including Occupational First Aid Treatment. The OHD is also taking the lead in addressing the prevention of adverse health effects due to such environmental problems as air and water pollution, toxic and hazardous waste and chemical safety. OHD is working in collaboration with the Public Health Division in mitigating arsenic problems particularly in assessing arsenic concentration in drinking water sources and in other related measures. The concern for the health of the workers, now clearly extends to the home, the community and the whole country. Achieving a healthful environment, inside and outside the workplace, is one of the objectives of OHD.

The ongoing projects in OHD are:

- Environmental Health Hazards
- Occupational Health and
- Healthy Cities (Mandalay)

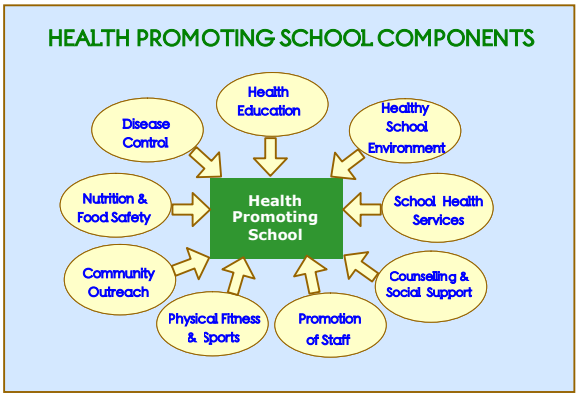
The OHD is implementing the activities such as advocating preventive measures to protect the public's health including workers' health, fostering community capacity to manage healthy environment, health impact and risk assessment and epidemiological surveillance of environment-related diseases according to the plans of action in the projects.

School and Youth Health

The Ministry of Health is committed to promoting and maintaining the health status of school children and adolescents through school health project in collaboration with Ministry of Education and some other related sectors. The most operational unit for rendering comprehensive health care is given by Township Health Unit. At present 80 townships out of 325 in Myanmar have school health teams. In those townships without the school health team, maternal and child health officers or township medical officers take charge of the school health services. In rural area Basic Health Staff are assigned to carry out school health activities in the respective jurisdictions.

In order to support the school health functions and give directions relating to policy matters, school health committees are organized with responsible personnel from various departments and organizations at Central, State/Division, Township and School levels.

Health promoting school programme was implemented phase wise since 1998. The programme has been undertaken with the objective of promoting the health standard of the entire student youth through health promoting school programme. All schools are covered with health promoting school programmes by the year 2006.



With the collaboration of WHO and Ministry of Health, a School Health Training workshop for Maldevian fellows was held during August 14-21, 2006. The concerned experts gave lectures on health promoting school activities of Myanmar. The fellows also visited schools in Yangon and Bago Divisions and observed the health promoting activities of the schools.

With the objective to enhance health promoting school activities, the Ministry of Health, in collaboration with the Ministry of Education launched the School Health Week of 2006 in the 3rd week of August. The activities were held in all basic education schools of the country from August 14 to 19, 2006.

Minister for Education, Dr Chan Nyein and party visited Primary, Middle and High Schools in Nay Pyi Taw

As part of school deworming programme 6 million school age children and preschool age children from all States and Divisions were dewormed during 2006 as an integrated approach with the support of WHO and UNICEF.

Ministry of Health has also attempted to improve coordination between a number of primary health care projects, and incorporate an adolescent health component into the health promoting schools strategy and transforming it into "School and Adolescent Health" in the 2001-2006 National Health Plan. Several ongoing collaborative programmes, through MOH, departments and other

ministries (e.g. Education, Sports, Immigration and Population, Information, and Religious Affairs) have components that address the needs of young people. The national five-year adolescent health and development strategic plan (2008-2012) was developed to address the priority issues affecting the health of young people in the Union of Myanmar.

For student Adolescents and Youths, the School-based Healthy Living and HIV/AIDS Prevention Education Programme **(SHAPE)** has been implemented in collaboration with the National AIDS Programme and School and Adolescent Health Project under the Department of Health, Department of Education Planning and Training and UNICEF since 1998 to 1999. Beginning with 30 townships, it has now expanded to 137 townships. Based on SHAPE, National Life skills Curriculum was also introduced in 1998 and has now expanded nationwide. Programmes on HIV education in schools have been conducted by the School and Adolescent Health Project in collaboration with National AIDS Programme.

For out of school adolescents and youths, Community-based HIV/AIDS and drug abuse prevention and education activities as well as peer education programmes are being implemented in coordination with national NGOs such as the Myanmar Red Cross Society, Myanmar Maternal and Child Welfare Association, Pyinnya Tazaung and international NGOs such Medecins du Monde, World Vision International and Save the Children. With the support of WHO, Adolescent Health project of Department of Health has established a youth Friendly Health Service in Maha Aung Mye Township in Mandalay Division since 2006.

Nutrition Promotion

The ultimate aim of the nutrition promotion activities in Myanmar is "Attainment of nutritional well-being of all citizens" as part of the overall social-economic development by means of health and nutrition activities together with the cooperative efforts by the food production sector.

With the general objective to ensure that all citizens enjoy the nutritional state conducive to longevity and health, the nutrition promotion activities in Myanmar are implemented to realize the following specific objectives; to control/ eliminate all forms of nutritional deficiency; to promote healthy dietary habits and lifestyles among people and to prevent over-nutrition and diet-related chronic diseases.

Myanmar has identified major nutrition problems as;

1. Protein energy malnutrition (PEM)	Prevalence of under-weight among children below five years of age declined from 35.3% in 2000 to 31.8% in 2003. (MICS Surveys, Department of Health Planning); MDG goal for under-weight prevalence is 19.3% by 2015.
2. Iodine Deficiency Disorders(IDD)	Iodine Deficiency Disorders are on the verge of virtual elimination. Visible Goiter Rate among 6-11 year old school children dropped from 5.5% in 2004 to <5% in 2006. Proportion of household consuming iodated salt was 86% in 2003 and 87% in 2006, but effectively iodized salt was consumed by only 43.7% of population (target>90%). Median urinary iodine excretion for the whole country was 136µg/l in 2000 and it increased to 205 µgm/l in 2004 and 136 µg/l in 2006.
3. Iron Deficiency Anemia (IDA)	Iron Deficiency Anemia was 45% in women of reproductive age (2001), 26.4% in adolescent schoolgirls (2002), 71% in pregnant women (2004) and 75% in under five year old children.
4. Vitamin A deficiency (VAD)	Prevalence of Bitot's spot (ocular sign of vitamin A deficiency) among children under five years decreased from 0.23% in 1997 to 0.03% in 2000.
5. Beri Beri	Infantile beri beri is the fifth leading cause of deaths among children between 1-12months (7.12%) and (8.5%) of deaths under 6 months (Cause specific under five mortality survey, 2003). Vitamin B1 deficiency Surveillance System was conducted in 2005, June. Data were collected from (14) hospitals and (21) townships. The case fatality rate was 5.9 % among 2-3 months infants. To reduce the prevalence of infantile beri beri Vitamin B1 containing multivitamin tablets will be distributed to the risk groups especially to lactating mothers.

Major interventions against various nutritional problems include:

- Control of PEM
- Universal salt iodization
- Supplementation Iron folate tablets for pregnant women and iron syrup drops to all under five children during their growth monitoring program
- Biannual supplementation with high-potency vitamin A capsule amongst 6 months to five year old children and distribution of high potency vitamin A capsule to lactating mothers within 42 days after delivery
- National Nutrition Centre has launched mass deworming campaign since 2006 in collaboration with Filaria Project and School Health Project by distributing deworming tablets to children age between 2-5years, all primary school students, 5-10 years out of school children and pregnant women with gestational period more than 3 months. In selected townships children aged between 1-2 years are included.
- For prevention of Beri Beri, Vitamin B1 containing multi-vitamin tablets are being distributed to risk group like pregnant and lactating women.

Role play on Growth monitoring activity conducted by MMCWA members at village level

Vitamin A supplementation activity at Nutrition Promotion Week-2006

Health Staff and Volunteers participating in cooking competition

For prevention of above mentioned nutrition problem, the nutrition promotion week campaign has been launched since 2003. It takes place in the first week of September every year. In 2006, the launching ceremony was held at Department of Health, Nay Pyi Taw. During the campaign, various nutrition promotion activities were carried out. Vitamin A capsules were distributed to children between 6 months and 5 years of age; iodine content of salt is tested in the markets; and iron tablets were distributed to the pregnant women. Various nutrition education programmes were broadcast and telecast. Testing of iodine in salt was demonstrated for the school children and essay competitions for schoolchildren and cooking competitions for mothers were held. Myanmar Salt Enterprise of the Ministry of Mines, Department of Basic Education, Ministry of Information, and Department of General Administration are major partners of the Ministry of Health in running the campaign.

In accord with the commitment made at the International Conference on Nutrition 1992, Myanmar formulated **the National Plan of Action for Food and Nutrition** in 1994 and the MOH had collaborated with relevant ministries involved in food production, food distribution, education, information and developmental affairs to update existing NPAFN. NPAFN updated next five years (2006-2010) includes emerging issues such as over- nutrition, obesity and diet related chronic non-communicable diseases, adoption of new strategies including IYCF, Diet, Physical Activity and Health, and Optimizing fetal growth and development.

Myanmar Tobacco-free Initiatives

In Myanmar culture, tobacco use has been socially and culturally accepted since ancient times. It is being used as a well-wishing gift to house guests and at weddings and donation ceremonies. This social and cultural acceptance of tobacco use as a social norm greatly challenges tobacco control programmes and calls for widespread education and information activities to promote community awareness on dangers of tobacco use.

Prevalence of tobacco use in population above 15 years of age

Sentinel prevalence studies of Tobacco use in Myanmar were conducted in 2001 and 2004, with the objective to build a database on prevalence of tobacco use in the total population and among specific population groups for the purpose of advocacy for tobacco control and planning tobacco control interventions and evaluation. Although it may not reflect the true national prevalence, it was aimed to serve as the best tool for monitoring and evaluation of tobacco control programmes, as the surveys are conducted periodically in the same manner. The programme aims to carry out the sentinel prevalence studies regularly every three years.

Tobacco use in Myanmar

Item	2001		2004	
	Urban	Rural	Urban	Rural
Current tobacco user (%)	34.5 ± 3.8	41.9 ± 2.4	35.0 ± 0.0	41.7 ± 0.0
Current smoker (%)	27.6 ± 3.4	32.4 ± 2.6	23.4 ± 0.0	25.3 ± 0.0
Current smokeless tobacco user (%)	13.8 ± 2.8	15.3 ± 2.2	11.6 ± 0.0	16.4 ± 0.0

Tobacco Free Initiatives

Ministry of Health of Myanmar has always prioritized tobacco control in its public health agenda and Tobacco Control Programme is one of the components of the National Health Plan. The National Health Committee which is the highest inter-ministerial advisory group of all concerned ministries at the national level issued guidelines for prevention and control of smoking related diseases at its 26th meeting held in September 1998.

The National Programme on Tobacco Control was officially launched in January 2000 with the drafting and approval of the National Policy on Tobacco Control and Plan of Action. The National Tobacco Control Committee was formed in March 2002, headed by the Minister for Health and included heads of related departments and chairpersons of several national NGOs as members.

The Committee set guidelines for the tobacco control measures to be implemented in the country.

The Ministry of Information prohibited advertisement of tobacco on television and radio and from all electronic media in the year 2000. Tobacco advertising billboards were banned from the vicinity of schools, hospitals, health facilities, sports stadiums and maternity homes in May 2002 and from other places in April 2003. Tobacco advertisement was also banned from the newspapers, journals and magazines in early 2003. Smoking was prohibited at all hospitals and health departments, at all basic education schools, all sports stadiums and sports fields and at some workplaces.

An anti-tobacco billboard

A tobacco free hospital

A tobacco free school

Myanmar signed the WHO Framework Convention on Tobacco Control, the first public health treaty in October 2003 and ratified it in April, 2004. The National Tobacco Control Policy and Plan of Action was adopted in 2000 by the Ministry of Health and revised in 2004. Myanmar enacted the "Control of smoking and tobacco product consumption law" on the 4th of May, 2006. This law incorporates fundamental principles of the WHO FCTC including protection from involuntary exposure to tobacco smoke by prohibiting smoking at public places, public transport, hospitals and health facilities and educational institutions, total ban of tobacco advertisements, restriction of access to tobacco products by legal minors, packaging and labeling etc. The law is to come into effect a year later.

Promotion of Healthy Ageing

Health care of the elderly project was initiated since 1992-93 in six townships with the aim to promote the health of elderly and expanded yearly and up till now there are 70 project townships. Doctors and Nurses from the hospital as well as Basic Health Staffs were trained for basic elderly health care and were also trained for case management of elderly patients. Local NGOs and volunteers (Community Health Workers and Auxiliary Midwives) were also trained understand the issue of elderly care and the importance of their participation in this activity.

Basic Health staffs at the Rural Health Center, Health Assistants, Lady Health Visitors and Midwives are trained to be able to detect minor as well as some major illnesses of the elderly. They are encouraged to take care of minor illness and refer the seriously ill to the nearest Township Hospital where the doctor can take care.

Capacity building of these BHS is also included in order to understand the underlying causes of the illness and influencing factors of the social, mental and health problems that the aged are facing and thus be able to understand and sympathize the elderly patients.

Health education and counseling, one of the mechanisms to treat elderly patients, is also included in the training with special emphasis on skill for educating elderly people as well as their surroundings. BHS are also trained on physical activities to be able to demonstrate to the elderly patients for daily physical exercise.

Local NGOs at these areas are also sensitized that elderly health problems are becoming and emerging health problems and they should also take part in helping out the health staff in caring these aged people. Similarly the health volunteers are also sensitized on this issue of elderly health care, as they are the first gatekeepers of seeing the elderly patients at the community.

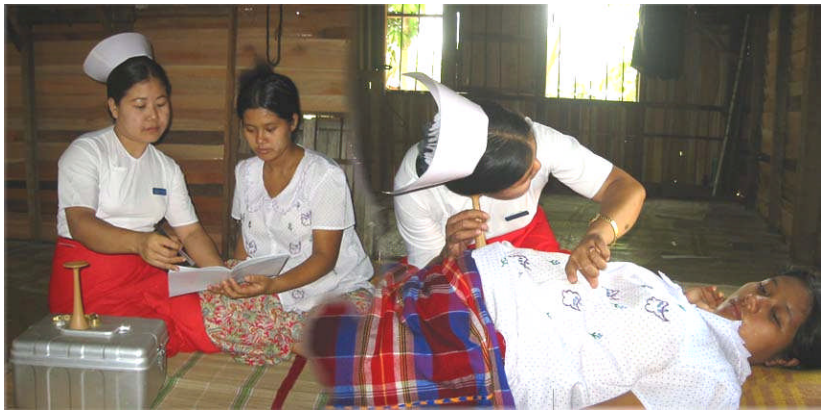
Elderly Day is usually held all over the country on the 1st of October and elderly are given gifts and medical care, eye care and oral care by health personnel and assisted by the local NGOs.

In 2007-2009, volunteer-based home care for older people, the model replicated by Help Age Korea, will be implemented by MCWA, MWAF, World Vision (Myanmar) and National YMCA in 28 townships. Social Welfare Department is focal point and health department (Elderly Health Care Project) is for technical assistance to this activity.

Maternal and Child Health

Maternal and child health including newborn care has been accorded priority in the National Health Plan, aiming at reducing morbidity and mortality of mothers, newborn, infant and children. In order to reduce the country's burden of maternal and perinatal morbidity and mortality, safe motherhood initiatives have been expanded into a national movement with main focus to the rural population. In response to this challenge, the essential package of reproductive health interventions emphasizes emergency obstetric care and neonatal care.

Current situation



Approximately 1.3 million women give birth each year in Myanmar, thus, intensive efforts have been put to improve maternal and newborn health (MNH) services through various activities especially focusing on safe motherhood. While attempting to recruit more midwives in the health system, manpower expansion of the skilled birth attendants is carried out by building capacity of Auxiliary Midwife (AMWs) in their midwifery skill, with the aim to have at least one skilled birth attendant in each and every village. As of 2005 December, 8,527 midwives and 28,872 AMWs are providing maternal care throughout the nation. Now the ratio of provider with skilled midwifery (including AMWs) to village is 1:2 while the national target is at least one person with skilled midwifery to every village. In addition, Clean Delivery Kits are supplied to pregnant mothers especially during their antenatal visit to health centres or during home visits of midwives. For the provision of skilled care at every childbirth, the Ministry has been striving for the provision of a continuum of care starting from the antenatal period which involves the provision of good- quality midwifery care followed by the first level of health care at health post for the family.

According to the cause specific maternal mortality survey conducted by DOH, UNICEF, 2005, the chance that a woman will die from pregnancy-related causes is 1 in 33 in Myanmar and skilled attendants are present at only 40% of deliveries nationwide and only just over 20% of deliveries take place in a hospital or health centre.

Infant deaths accounted for 73% of under-5 mortality, and neonatal deaths contributed to about 1/3 of infant deaths. Major causes of neonatal deaths are pre-maturity (30%), sepsis (25.5%) and birth asphyxia (24.5%). In addition, higher numbers of neonatal deaths were found to be in the rural area, where 70% of total population are residing. In improving family health care, male

responsibility and male involvement has also been regarded as playing a pivotal issue. Promotion of community awareness and knowledge on pregnancy and childbirth, danger signs, role of family and community in birth preparation and transportation in case of emergency was the major endeavour to ensure safe motherhood at community level.

Current activities

Maternal, newborn and child health care services are provided both in urban and rural settings and it is also a crucial component of National Health Plan. While services throughout the country were basic, now issues of quality of care and provision of services provided initially are being incorporated into staff training. Also in the last five years, the government has adopted a policy to incorporate the emerging issues of newborn health as a special entity of routine maternal and child care, and programs have commenced with the assistance of various donors.

In accordance with the worldwide commitment for reducing maternal deaths during childbirth by 75 percent by 2015 as one of the targets set in the Millennium Development Goals, the Safe Motherhood Initiative in Myanmar takes a proactive stance in improving access to skilled birth attendance, including managing obstetric and newborn cases at all levels. In order to be able to provide quality service for the aforesaid tasks, the followings have been carried out, namely; regular and refresher technical as well as management training, on-the-job training, curriculum and training materials development, strengthening of health facilities, provision of essential drugs and instruments, regular and refresher AMW training, supervision and monitoring and coordination with related sectors. To date, considerable emphasis has been placed on antenatal care and the establishment of an infrastructure for basic obstetrical care for the management of pregnancy. As an urgent need the curriculum for training midwives, auxiliary midwives, and traditional birth attendants were updated to develop competency in the provision of routine maternity care, as well as the recognition of complications and need for referral. The development of a competency-based curriculum served as a national standard for high quality maternal health care. In developing this standard important decisions were made regarding the optimal management of obstetrical complications based on a review of current international best practice (for example, use of partograph, routine administration of oxytocin versus ergotamine for prevention of post-partum hemorrhage and the use of magnesium sulfate versus diazepam for the management of eclampsia). Given that most deliveries take place at home, the feasibility of providing a disposable, clean delivery kit has also been considered.

A checklist of essential equipment and supplies was developed for the first referral level, including surgical instruments for Caesarean section. This checklist has been used to strengthen logistic and supply systems to ensure that all referral facilities were equipped to provide essential and comprehensive obstetrical care.

Key interventions for improving neonatal care and effective reduction in neonatal deaths based upon the evidences are tetanus immunization during pregnancy, early initiation and exclusive breast feeding, clean and safe delivery care and provision of necessary treatment for newborn. Most importantly commitment at all levels is required (mothers, fathers, other family members and neighbours, community, health care providers and political). In the provision of skilled care, strengthening of manpower cannot be overlooked and thus the outreach services are critical to the success of the strategy. With a special consideration for the mothers and babies residing in the remote rural areas, accreditation of AMW as skilled attendant after receiving technical training has been arranged in collaboration with WHO during 2006-2007, which will be complemented by on-going UNFPA-funded RH activities.

The activities for provision of skilled care at every childbirth including postpartum and neonatal care, include: development of national guidelines for training of midwifery skilled personnel, refresher training of AMWs on pregnancy, childbirth, postnatal and newborn care (PCPNC) for improving their midwifery skill, procurement and distribution of training equipment and materials for Essential Obstetrics and Newborn Care by AMWs, recruitment of new AMWs to expand manpower force for providing skilled care at birth, and expansion and monitoring of the utilization of home-based maternal records as well as the referral system for EOC and newborn care.

Since 1998, the Ministry of Health has gradually started integrating various maternal and child related components from existing vertical projects into an Integrated Management of Maternal and Child hood Illness (IMMCI) project. By 2001, further integration of women and child health development activities into the existing IMMCI project lead to Women and Child Health Development Project. The project has adopted improving the skill of the basic health staff, improving the health system, strengthening the organization and management and improving the community participation and family practices as its strategies to achieve the objective of reducing maternal and child mortality.

Strategic Plans for Reproductive Health and Child Health Development

In order to facilitate achieving the MDGs in the area of maternal, newborn and child health it is necessary to plan and implement the strategies and interventions to reduce the U5MR to 38.5/1000 LB in 2015. Therefore **"Five-year Strategic Plan for Reproductive Health" (2004-2008)** and **"Five-year Strategic Plan for Child Health Development" (2005-2009)** were developed with inputs from key stakeholders in response to the felt need to have a comprehensive plan that embodies the national aspirations on reproductive health and child health development in the country, and the way to achieve it. It is a road map for improving maternal, newborn and child health as well as for other essential components of reproductive health and adolescent health strategic plan (under development).

The strategic plans have the common programme approaches namely:

1.	Improving skills of health care providers
2.	Strengthening the health system to deliver child health services
3.	Improving family and community practices
4.	Improving the enabling environment
5.	Improving the evidence base for decision making

Although improvements on the health status of mothers and children were noted, much more need to be done to sustain the gains and to contribute to the achievement of Millennium Development Goals by 2015. These plans have been developed within the policy and objective frame of the National Health Policy, National Health Plan, and Myanmar Health Vision 2030. Disease burdens of mothers, newborn and children in the country and the available evidence-based interventions are also taken into consideration.

Oral Health

A dentist conducting clinical examinations for dental fluorosis survey in a school

Since, early 2006 the Department of Health's Oral Health Unit has been moved and is functioning its routine and projected activities in the new capital, Nay Pyi Taw. The highlights of the tasks of the Oral Health Unit for the year 2006-07 consists of a country-wide dental fluorosis survey to investigate the prevalence and severity of dental fluorosis in Myanmar. This investigation is the first-ever conducted oral health survey of the Oral Health Unit where all dentists of the public sector participated in carrying out clinical examinations in 402 schools of 211 townships. The survey was carried out from October to December 2006, and examined 19795 high school students. The results of the study will be used to modify fluoride preventive programs to be appropriate for all age groups throughout the country.

In parallel, as a collaborative activity in the Oral Health Unit, The Myanmar Academy of Medical Science and WHO Collaborating Centre for Oral Health Care of the Netherlands held an "Advocacy Consultative Meeting for the Promotion of Affordable and Effective Toothpaste in Myanmar" in Yangon. In the meeting, medical and dental professionals, toothpaste manufacturers and importers, and WHO fluoride toothpaste experts attended, discussed, and had consensus on the quality, user-instructions and labeling requirements for fluoride toothpastes to be marketed in Myanmar.

During the biennium 2006-07, township retraining programs on primary oral health care for basic health staff will be carried out in 15 newly projected townships supplemented by community oral health education sessions in 45 townships. The Health Ministry encourages the oral health care services by appointing new dentists equipped with dental chairs and units in the remote and border areas.

Grass root level
oral health education session

Township retraining on
Primary Oral Health Care for Basic Health Staff

Food and Drug Administration

Food and Drug Administration (FDA), Department of Health takes responsibility for the safety of overall food, drugs and household products in the country. The Minister for Health is the chair person of the Myanmar Food and Drug Board of Authority (MFDBA) and members are from other relevant ministries and agencies, concerning with food and drugs. The National Drug Law has been promulgated in 1992 and National Food Law in 1997. Food and Drug Administration was formed under the Department of Health in 1995. It has two divisions, food and drug and each division has enforcement and laboratory sections. Mandalay FDA Branch was established in 2000.Food and Drug Supervisory Committee, Drug Advisory Committee, Food Advisory Committee, Food Technical Affairs Sub-committee and Food Orders and Directives Sub-committee have been formed to implement food and drug control activities.

With advancing scientific technology and increasing use of chemical and atomic energy, mankind and environment have been increasingly exposed to toxic hazards. As the country is on its way to overall development through industrialization toxic hazards to the community and the environment are increasing. In pursuant to the directives of the Head of State and in response to the needs to protect people and environment from these hazards a National Poison Control Centre has been established in the Ministry.

FDA controls locally produced as well as imported food and drugs. Export food are also controlled by the department. Food and drug control activities are conducted in line with the National Food Law, National Drug Law and Public Health Law. FDA is Codex Contact Point for Myanmar and adopts codex standards, guidelines and recommendations as a working reference for food and pharmacopoeias are used as references for drugs.

For pharmaceutical products, the quality, safety and efficacy is important as they are indispensable for the health of the people. Locally produced drugs as well as imported drugs are registered and up to now, there are about 9000 drug products registered. Foods containing unpermitted food colours and not in conformity with microbiological specifications; drugs which are unregistered, substandard and counterfeits are announced periodically in the newspapers and media for public awareness.

The 5th Meeting of ASEAN Expert Group on Food Safety (AEGFS), Recall Workshops on Microbiological and Chemical Risk Assessments and 3rd Project Coordination Group Meeting were held at Traders Hotel, Yangon in 2006.

FDA Laboratories

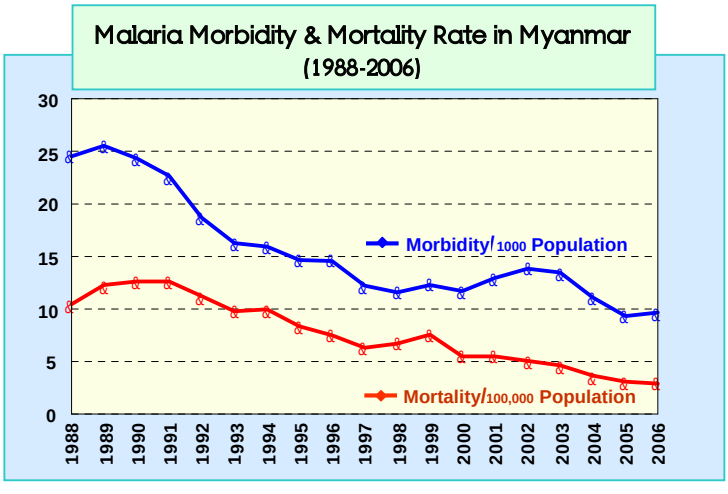
Disease Control Programme

Myanmar, after gaining independence, established campaigns to fight against major infectious diseases. Since 1978, integration of health services was carried out where the campaign or vertical programmes were all integrated into Basic Health Services using Primary Health Care approach.

Since then the basic health staff have been reoriented and trained to provide services for Malaria Control, implement Multi Drug Therapy Programme in controlling leprosy, case finding and treatment of TB cases, immunization of children against 6 major childhood diseases, control of diarrhoeal diseases and surveillance activities etc. Under the Disease Control Division and with the support of Central Epidemiological Unit, supervision, monitoring and technical support are provided by disease control teams at central level and state and division levels.

Malaria

Malaria is one of the priority diseases in Myanmar. It is a re-emerging public health problem due to climatic change, uncontrolled population migration, ecological changes, existence of multi-drug resistant P.falciparum parasite, appearance of insecticide resistant vector and change in behavior of vector. Long-term trend shows decreasing malaria morbidity and mortality in Myanmar.



The main responsible vectors are An. minimus and An.dirus. In Rakhine State, apart from these vectors, An. annularis is responsible for local transmission and is resistant to DDT. An. sundaicus is responsible vector in coastal regions. Drug resistant malaria is seen along the border areas and some pocket areas especially gem mining areas.

Objective of the programme is to reduce malaria morbidity and mortality mainly through increasing accessibility to quality diagnosis and appropriate treatment according to national treatment guideline and scaling up the use of insecticide treated mosquito nets and increasing coverage of indoor residual spray.

The main strategies of National Malaria Control Program are:

- 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 by introducing environmental measures as a principle method and 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
- Promoting capacity building of malaria control programme (human, financial and technical)
- Strengthening the partnership by means of intrasectoral and intersectoral cooperation and collaboration and with public sectors, private sectors, local and international non-governmental organizations, UN agencies and with neighboring countries for resource generation
- Intensifying community participation, involvement and empowerment
- Promoting basic and applied field research

Activities of National Malaria Control Programme

1. Information, Education and Communication

Dissemination of messages on malaria is carried out through various media channels with emphasis on regular use of bed nets and early seeking of appropriate treatment (if possible within 24 hours after onset of fever) and production and distribution of IEC materials is also carried out in different local languages for various ethnic groups and different target groups such as forest related travelers, pregnant women and general population. Advocacy activities are conducted for health related and non-health public and private sectors, NGOs, religious organizations and local authorities at different levels.

Health education on malaria by village volunteers with flip chart

2. Preventive activities

Insecticide Treated Mosquito Nets

Selective and sustainable preventive measures are carried out emphasizing on personal protection and environmental management. With limited resources, areas were prioritized for ITN Program either distribution of Long Lasting Insecticidal Nets (LLIN) or impregnation of existing nets. In 2006, 84,546 number of LLINs were distributed and 453,890 existing nets were impregnated in some 3088 villages of 65 townships

Impregnation of existing bed nets with community participation

mainly in border areas and high transmission intensity areas. Total number of households covered was 377,042 and total population covered was 1.35 million in those program areas.

Epidemic preparedness

Number of epidemics became reduced during the last five years. Ecological surveillance and community based surveillance were emphasized together with case detection, management and preventive measures, mainly indoor residual spray in development projects, and impregnation of existing bed nets.

3. Early diagnosis and appropriate treatment

For malaria diagnosis, 700 microscopes were distributed down to rural health center level and Rapid Diagnostic Test kits (RDT) were also distributed down to sub-center level. Different categories of health staff were trained on malaria diagnosis and case management. In 2006, according to the new anti-malarial treatment policy, case management with Artemisinine based Combination Therapy (ACT) was practiced in all 324 townships. Malaria mobile teams reached up to rural areas and hard-to reach border areas for improving access to quality diagnosis and effective treatment. In year 2006, community based malaria control activities have been initiated in 3 township of Eastern Shan State as pilot project and it is planned to be expanded.

A medical officer explaining about antimalarial drugs at mobile clinic of development project

Patients taking antimalarial drugs at mobile clinic of development project

4. Capacity building

Different categories of health staffs were trained on different technical areas such as training of health staff on malaria microscopy and training of BHS on malaria emphasizing on case management and ITN Program (Insecticide Treated Net Program). Quality assurance of antimalarial drugs is an important issue in reducing malaria mortality and morbidity. Samples of different categories of antimalarial drugs from each and every state/ division were bought by respective VBDC teams and were sent to the Mini-lab of VBDC office for detection of fake drug. HPLC machine for confirmation of fake antimalarial drugs has been installed at Food and Drug Association (FDA). Training for repair and maintenance of microscopes was also conducted in collaboration with National Health Laboratory (NHL). Quality assurance of Rapid Diagnostic Test was done in collaboration with Department of Medical Research (Lower Myanmar).

Tuberculosis

Tuberculosis (TB) is one of the major public health problems in Myanmar and considered as the third priority disease in the National Health Plan (2006-2011). Recent estimates suggest that 1.5% of the population become infected with tuberculosis every year, out of which about 100,000 people progress to develop tuberculosis. Half of these cases are infectious with positive sputum smears, spreading the disease in the community.

TB mainly affects the most productive age group of (15-54) years and 4.5% of TB cases were HIV positive and 60-80% of AIDS patients had TB. Multi Drug Resistant (MDR) TB among new smear positive TB cases is 1.25% (1995 Institutional based study), however, country wide drug resistance survey reported 4% of new smear positive TB cases and 15.5% of previously treated TB cases were MDR-TB in 2002-2003.

The overall goal of the National Tuberculosis Programme (NTP) is to reduce morbidity, mortality and transmission of TB until it is no longer a public health problem.

The specific objectives of the National Tuberculosis Programme are to reach and sustain the 2005 global TB control targets as:

- To cure at least 85% of detected new cases of sputum smear positive pulmonary TB
- To detect at least 70% of new cases of sputum smear positive pulmonary TB cases (MDG indicator 24) and
- To sustain implementation of quality DOTS at all townships.

Then it aims to reach the interim targets of halving TB deaths and prevalence by 2010 (MDG indicator 23) towards achieving the Millennium Development Goals (MDG) set for 2015.

The National Tuberculosis Control Programme has adopted the following strategies:

- Intensification of health education activities by using multi-media to increase community awareness about TB
- BCG immunization to all under one year children
- Implementing Directly Observed Treatment (DOT) down to the grass root level.
- Early case detection through direct sputum microscopy of chest symptomatic patients attending health services and contact tracing
- Regular supervision and monitoring of NTP activities at all levels
- Strengthening partnership
- Capacity building
- Promotion of operation research

Myanmar is one of the 22 high burden countries in the world and was ranked 21st position in 2004. To control tuberculosis, Directly Observed Treatment Short Course (DOTS) strategy was introduced in 1997 and gradually expended during (1997-2003). In 2003, it covered all 325 townships. Fully intermittent regimen was used in all NTP centers since 1999. NTP introduced Fixed Dose Combination (FDC) tablets for daily regimen in 2004.

Myanmar has been able to provide DOTS to cover all townships (100%) with technical and financial support from the Government, WHO, Global Drug Facility (GDF), Japan Anti-TB Association (JATA), Japan International Co-operation Agency (JICA) and International Union against Tuberculosis and Lung Disease (Union) and Global Fund for AIDS, TB and Malaria (GFATM). GDF extended the second 3-year grant in April 2005 till 2008.

World TB day and World TB week commemoration ceremonies are conducted every year at central and state and divisional levels. It was expended to township level in March, 2005 with the support of GFATM.

The basic health staff in the rural areas, voluntary health workers and national NGOs, Myanmar Women Affairs Federation (MWAF), Myanmar Maternal and Child Welfare Association (MMCWA) and Myanmar Red Cross Society (MRCS) whose membership extends down to the grass roots level, have been mobilized to deliver DOT to tuberculosis patients. TB, HIV/AIDS prevention and control activities have been coordinated especially in the areas of mutual concern. In Mandalay, the Integrated HIV Care project (IHC project) started in collaboration with National AIDS Programme (NAP) and Union in 2005. IHC project could provide voluntary confidential HIV counseling and testing service at TB clinic and TB hospital (Mandalay) and put 340 TB/HIV co-infected patients on anti-retro viral therapy (ART) by the end of 2006. TB/HIV sentinel surveillance started in 2006 and will be incorporated into routine sentinel surveillance system of NAP.

Health Education

Initial Home Visit and Contact Tracing

DOTS by Health Staff

TB control activities are funded by GFATM in January, 2005. Supervision, monitoring and evaluation activities could be strengthened with the support of GFATM and improved the quality of services. GFATM funding terminated in August 2005 and termination plan was implemented and completed in December, 2006. The innovative activity like cohort review meetings together with quarterly evaluation meetings at township level improve the case holding system of the 'low performance' townships.

Decentralization of sputum microscopy and establishment of sputum collection points in some hard to reach area were done to improve case finding. It is also supportive to improve the TB case finding. Although 70% of population are residing in rural area, NTP could treat 60% of registered TB patients as rural residential. NTP is now planning to conduct nation wide TB prevalence survey which can evaluate the effectiveness of TB control activities after implementation of DOTS strategy since 1997.

Decentralization of sputum microscopy

Public-private Mix DOTS strategy was initiated in 2002 and is now expanding to cover the main cities of Myanmar. Population Services International (PSI) is closely working with NTP since 2004. PSI had trained 322 general practitioners on TB control strategies and trained general practitioners to diagnose and treat TB patients at their clinics in 70 townships. Myanmar Medical Association (MMA) is also coordinating with NTP for improvement of TB suspect referral, case finding and case management. Three hundred and twenty two general practitioners were trained accordingly under MMA and Japan International Cooperation Agency (JICA) in 2006.

NTP developed the Five-year National Strategic Plan (2006-2010) in June 2005. Operational Plan for application to 3 Diseases Fund (3DF) was developed in 2006 and applied to 3DF in 2007. The bridge fund, for the transitional period between GFATM termination and initiation of 3DF funding activities, started in February, 2007. Management of multi-drug resistant TB will start as a DOTS-Plus pilot project after application and assessment of Green Light Committee.

Signing Ceremony of Memorandum of Understanding between Ministry of Health and UNOPS for 3 Diseases Fund

Progress of National Tuberculosis Control Programme (Myanmar)

Indicators	1994	1999	2000	2001	2002	2003	2004	2005	2006
DOTS Covered Population (%)	8	65	85	90	95	95	95	95	95
DOTS Covered Township (%)	6	52	71	80	95	100	100	100	100
Case Detection Rate (%)	32	43	56	61	70	73	81	95	99
Cure Rate (%)	61	74	70	73	74	72	75	75.2	77
Treatment Success Rate (%)	78	82	81	82	82	81	84	84	84

HIV/AIDS

AIDS is a disease of national concern and one of the priority diseases included in the National Health Plan of Myanmar. However, the short term plan has started in 1989 for the technical and systematic efforts.

The National Health Committee has laid down clear guidelines to respond HIV and AIDS. Established in 1989 the National AIDS Committee, serves as an active multisectoral body for formulation of National Strategic Plan to prevent and control HIV and AIDS in Myanmar. The working committee, state/division/district and township level committees were also formed in the same year. Currently, the forty five AIDS/STD Prevention and Control teams strategically situated in all states and divisions of Myanmar form the core of the National AIDS Control Programme. The action plan for AIDS and STD prevention and control activities is subsumed under the National Health Plan.

Lt. General Thein Sein, Secretary (1) of the State Peace and Development Council and Chairman of the National Health Committee delivered inaugural speech in World AIDS Day commemoration

The active surveillance of HIV and AIDS began in Myanmar since 1985. The first comprehensive surveillance system was developed in 1992 including surveillance amongst blood donors and AIDS reporting by health facilities. The first person with HIV infection was diagnosed in 1988, and the first person with AIDS was reported in 1991, an injecting drug user. Biennial HIV sentinel surveillance began in 1992, however, since 2000 it has been conducted once a year and has now covered 34 townships across all States and Divisions. The populations sampled for HIV sentinel surveillance are injecting drug users, male STD patients, commercial sex workers, pregnant women attending antenatal clinics, TB patients and military recruits. In collaboration with National Tuberculosis Programme the TB patients from TB clinics were included in HIV sentinel surveillance since 2004. Sentinel Surveillance System is integrated by Behavioural Sentinel Surveillance System, STD (syphilis) Sentinel Surveillance.

Based on AIDS case reporting in 2002, it has been estimated that 68 percent of cases were attributable to sexual transmission, and 30 percent to injecting drug use. Two percent of cases

may be attributed to vertical transmission and transmission through the blood supply and through unsafe injection practices.

Official surveillance data from 2004 show a slight decrease in rates of HIV infection among high-risk groups, but with seemingly ascending trends between 2004 and 2005. By 2005, HIV prevalence in male clients of STI clinics was 4.07%, sex workers 31.98% and injecting drug users 43.24%. A decreasing trend was reported between 2003 and 2005 in donated blood (0.73%) and new military recruits (1.33%) testing positive, while there was a decrease within pregnant women attending antenatal clinics between 2004 and 2005 (1.32%).

The magnitude of the epidemic had been recognized and the efforts to respond to it had indicated strong commitments of many partners to focus prevention, care and support efforts on the most vulnerable populations. Government, international and national non-government and private entities had contributed to the national response. The National AIDS Programme had well coordinated the inputs of national and international partners and tools and technical guidelines had been produced for a broad range of programme components. Coordination and cooperation has been made with 19 International NGOs, 17 Local NGOs and the other in line ministries with accountable relationship based on the enlightened and progressive principles of openness, respects and unity.

Strategic areas of the National AIDS Programme for Prevention and Control of HIV/AIDS are:

1. Advocacy to authorities and decision makers, implementing partners, private sectors and community leaders
2. HIV and STD prevention education
3. Targeted intervention
    - Prevention of sexual transmission
    - Prevention of HIV infection among injecting drug users
    - Prevention of mother to child transmission
    - Provision of safe blood and blood products
    - HIV prevention among health care settings
4. Care and treatment of sexually transmitted patients and people living with HIV and AIDS
5. Programme Management and Support including monitoring and supervision
6. Capacity building

With the tremendous increase in prevention efforts, especially those focusing on condom promotion for sex workers and their clients, 100% Targeted Condom Promotion Programme have expanded from four sites in 2001 to 170 sites in 2006; and on drug users, various elements of a harm reduction strategy were implemented in pilot areas such as Yangon, Mandalay, Myitkyina and Lashio since February 2006. Some effective interventions were in place for mobile populations, the blood safety programme had made progress covering most of the public hospitals, and HIV education was provided for youth in schools. Care, support and treatment were gradually made available, including provision of antiretroviral therapies in 14 State/Divisional General hospitals and Waibagi specialist hospitals and a prevention of mother to child transmission programme has been expanded to 89 townships and 37 State/Divisional and district level hospitals. Community and

Home based care has been expanded to 40 townships over the country in 2005. The syndromic management of sexually transmitted infections was readily implemented in 314 townships.

Workplace education activities in garment factory

Workplace education activities among seafearers

Peer education among out of school youths

In 2006, National Strategic Plan, the first of its kind in Myanmar, was developed using participatory processes, with direct involvement of all sectors aims at reducing HIV transmission and HIV-related morbidity, mortality, disability and social and economic impact.

The Three Ones principles are now recognized as guiding principles for an effective, harmonized and scaled-up response to HIV and AIDS. A national monitoring and evaluation strategic information framework was established for all partners in Myanmar since 2004.

Ambassadors and diplomats paid a visit to Lashio, Pyin-Oo-Lwin and Mandalay in January 2007 and studied the progressive response to HIV and AIDS. The visit provided them the opportunity to witness coordinated efforts of government and NGOs in the communities and works of the national response with strategic direction towards the same goals of reduction of HIV and AIDS morbidity and mortality.

Ambassadors and diplomatic touring to Lashio, Pyin-Oo-Lwin and Mandalay to study national response to HIV and AIDS

The press conference on undertakings carried out in the education, health and social affairs sectors of the State was held at the Ministry of Health in 29th November 2007. The Minister of Health made clarification on prevention and control activities for HIV and AIDS, Tuberculosis and Malaria and other epidemic diseases.

The HIV/AIDS and STD Prevention and Control Activities of the National AIDS Programme are:

1. Advocacy
2. Health Education (awareness raising)
3. Prevention of sexual transmission of HIV and STD
4. Prevention of HIV transmission through injecting drug use
5. Prevention of mother to child transmission of HIV
6. Provision of safe blood supply
7. Provision of care and support
8. Enhancing the multisectoral collaboration and cooperation
9. Special intervention programmes
   - Cross border programmes
   - TB/HIV joint programmes
10. Supervision, monitoring and evaluation

Milestones in controlling HIV and AIDS

- Systematic studies on diagnosis, prevention and control activities on HIV and AIDS were initiated since 1985
- National ADIS Committee established in 1989
- National AIDS Control Programme formed in 1989. Working committee, state/division/district township level committees were also formed in the same year
- Short term Plan has started in 1989 for the technical and systematic efforts
- HIV sentinel surveillance started n 1992
- Prevention of mother-to-child transmission programme started in 2000
- 100% condom use programme started in 2001
- Nation wide coverage for blood safety achieved in 2004
- National level exhibitions on HIV and AIDS conducted in 2003 and 2004
- Public sector antiretroviral therapy for people living with AIDS started in 2005
- External review on health sector response to HIV and AIDS conducted in 2006
- The National Strategic Plan for 2006-2010 approved in 2006

Trachoma Control and Prevention of Blindness

Trachoma Control and Prevention of Blindness project was launched in 1964. At that time trachoma was main cause of blindness in Myanmar and active trachoma rate was 43% in trachoma endemic areas (central Myanmar). With the concerted effort of the project and support of Government, WHO, UNICEF and NGOs, active trachoma rate was reduced to under 1.2% in 2005. As trachoma blindness is greatly reduced, cataract becomes main cause of blindness in the country.

Prevention of Blindness (PBL) project is promoting the activities to increase the cataract surgical output both in quality and quantity. PBL also commenced activities to eliminate trachoma in Sagaing, Shwebo and Monywa districts (in Sagaing Division) in 2003.

Ocular Morbidity Survey (1998)

Blindness rate 0.6%

Main Cause	Percent (%)
Cataract	63
Glaucoma	16
Posterior segment diseases	7
Trachoma	4
Corneal opacity	3
Trauma	1
Others	6

WHO has laid down the strategy "Vision 2020, the Right to Sight: Elimination of avoidable blindness" and Myanmar Prevention of Blindness project is trying the best to fight against avoidable blindness.

Prevention of Blindness project has 16 secondary eye centers in Mandalay, Magway, Sagaing (lower part) and Bago (east) divisions headed by ophthalmologists with field staff. The project is covering 18.1 million people in 79 townships of those 4 divisions with the national objective to reduce blindness rate to less than 0.5%.

Strategies

- Improving cataract surgical rate and quality of surgery
- Making Primary Eye Care available to all BHS and eliminating the avoidable blindness.
- Promotion of community participation.
- Provision of cataract surgical services at affordable price and free services to poor patients.
- Providing outreach services

Services Provided by the Project

Type	Activities
Promotive (Government)	▪ Greening of Central Myanmar ▪ Improving water supply
Preventive (for Trachoma)	▪ Village and school eye health services ▪ Tetracycline eye ointments for trachoma patients ▪ Trichiasis surgery (field) ▪ Referral of other eye diseases
Curative	▪ Medical and surgical services for trachoma and other eye diseases (field and base)
Training	▪ Primary Eye Care Training (basic and voluntary health workers and NGOs)
International Eye banks (Yangon and Mandalay)	▪ Procurement, ▪ Quality control & ▪ Distribution of corneal tissue
Operational Research	▪ Rapid assessments of cataract surgical service in 9 townships • Prevalence of blindness • Coverage of cataract surgical service • Outcome of cataract surgery ▪ Rapid assessments of trachoma in Mandalay and Magway in 2006 to identify pocket area for elimination of trachoma
Low cost Eye drop Production	▪ Done at Prevention of Blindness programme (Meiktila) with the help of Christoffel- Blindenmission

Community Participation of Outreach Cataract Surgical Service

Accomplishments in 2006

Cataract surgery	20447
Glaucoma surgery	2596
Other major surgery	873
Other minor surgery	14094
Trichiasis surgery	4897
No. of eye drop bottles produced	37000
Free of Charge Cataract Surgery	948
No. of villages examined	1794
No. of population examined	324857
No. of schools examined	974
No. of students examined	152549

School Eye Health Examination

Village Model Eye Health Examination

Eye Health Examination at Home for the Aged

Leprosy

Myanmar has achieved Leprosy Elimination Goal at the end of January 2003. It was declared in the 3rd Meeting of the Global Alliance for Elimination of Leprosy (GAEL) in Yangon held on 6th to 8th February 2003. Leprosy Elimination goal was achieved at all States and Divisions at the end of 2003.

Further reducing the Leprosy burden

In line with the Global Strategy for Further Reducing the Leprosy Burden and Sustaining Leprosy Control Activities (2006-2010), National Leprosy Control Programme has drawn National Guideline to implement the global strategy in the context of the national programme. Hence, to further reduce the burden of leprosy in Myanmar and to provide access to quality Leprosy Control Services for all affected communities, focusing on prevention of disabilities (POD) and rehabilitation in the context of community based approach become the general objective of the National Programme .

Activities implemented in 2006

- Routine case finding and MDT services.
- Special case finding activities in area with high leprosy prevalence (pocket areas), uncovered areas, areas with migratory population, urban and peri-urban areas.
- Leprosy Elimination Monitoring exercise (LEM) was successfully conducted in August and September to assess the progress towards leprosy elimination.
- Capacity building of newly appointed state/divisional leprosy officers in line with Global Strategy and Operational Guide line.
- Refresher training for leprosy inspectors in accordance with National Guideline.
- 8th Leprosy Elimination Coordination Committee Meeting.
- Short course on dermatology training for medical officers of leprosy control programme.

Prevention of Disabilities and Rehabilitation Activities

Prevention and management of disabilities and rehabilitation in person affected by Leprosy have been items of top most priority in the national leprosy control programme. Coordination meeting of the steering group for prevention of disability was held and national guideline for prevention of disability was drawn. End evaluation meeting on follow up programme in 9 selected townships of leprosy control and basic health services was conducted. POD activities were initiated in (11) townships of Mandalay, Magway, Sagaing, and Bago Division and are now expanded to remaining townships of Bago Division in a phase manner.

Achievement and Current Situation

Indicators	2005	2006
Registered Cases	2679	2763
Prevalence Rate/ 10,000 Population	0.48	0.47
New Cases	3571	3573
Cases of release from treatment (during the year)	3694	3621
Cases of release from treatment (Cumulative)	263,657	267.278

Exhibition on
4th Leprosy Elimination Commemorative Day

Case Finding Activity

Measures taken against Emerging Diseases

Central Epidemiology Unit (CEU) is responsible for the surveillance and control of communicable diseases classified in two broad categories viz principal epidemic diseases such as severe diarrhoea (Cholera), dengue haemorrhagic fever, plague, HIV/AIDS. Meningococcal disease is designated as epidemic prone disease that needs to be reported immediately. Seventeen Diseases and conditions are put under national surveillance. Diarrhoeal diseases such as diarrhoea, dysentery, food poisoning, typhoid and paratyphoid and vaccine preventable diseases such as measles, neonatal tetanus, other tetanus, diphtheria, and whooping cough are included in the list. CEU is also responsible for surveillance of new emerging diseases like avian influenza, acute flaccid paralysis (AFP) and Adverse Events Following Immunization (AEFI) as well as for outbreak investigation, rapid response and control activities for all epidemic prone communicable diseases. To be on the stage of preparedness for preventing and controlling Avian Influenza, plans have been developed and steering committee, work committee and sub-committees comprising responsible persons from the Ministry of Health, Ministry of Livestock and Fisheries and other related ministries, have been formed and tasks delegated since January, 2004. From early March to mid April, 2006, outbreaks of bird influenza occurred in 13 townships in Sagaing and Mandalay Divisions. The outbreak situation was immediately notified by the government to the OIE, FAO, WHO and the international community.

During a press conference following his visit to Myanmar to assess country specific efforts on prevention and control of avian influenza (AI) and pandemic preparedness and response, the United Nation's senior coordinator on avian influenza said that Myanmar's effort against bird flu was impressive and level of vigilance at that time was high and Myanmar had been very active in its effort to contain bird flu. He also expressed his satisfaction with the way Myanmar authorities responded to the outbreak and said there had been total openness in communicating with the officials of the UN system on issues to do with avian influenza.

Field investigation and Laboratory testing for suspected AI

As a member country of the WHO and to implement the International Health Regulations 2005 (IHR-2005) strategies have been adopted for development of tools to assess core capacities and for collaboration with WHO and donor agencies to build capacity for disease surveillance and response.

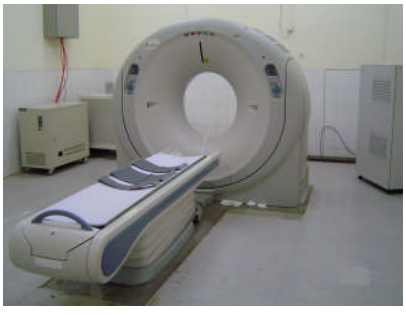
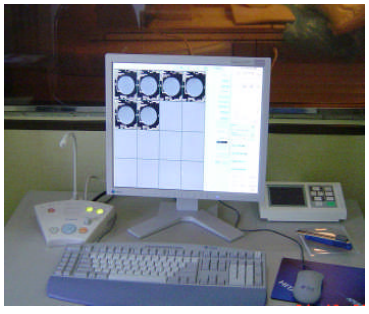
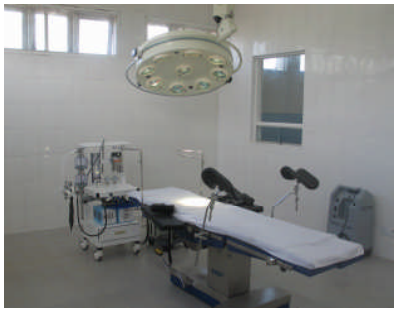
Curative Services

Different categories of public hospitals under the Ministry of Health are providing curative services. They are General Hospitals, Specialist Hospitals, Teaching Hospitals, State/Division Hospitals, District Hospitals and Township Hospitals in urban area. In rural area, Station Hospitals, Rural Health Centres (RHCs) and Sub-Rural Health Centres are basic units for rural health care services with referral to each level of higher institutions as necessary.

Sixteen bedded Station Hospitals are grass-root level hospital care units with basic medical, surgical and obstetric facilities. They are easily accessible to the population residing in rural area and are on the average 10 to 20 kilometers away from Township Hospitals, their respective primary referral institutions. The township hospitals are providing health care services including type C laboratory and dental care services. Four Basic specialist services (Medicine, Surgery, Obstetrics & Gynaecology and Paediatric) are available at District Hospitals and in some 50 bedded Township Hospitals where intensive care unit with life saving facilities are in place. More advanced secondary and tertiary health care services are provided at the State/Division Level hospitals, General and Teaching hospitals where services in 9 to 12 principles of specialities are being provided namely; anesthesia, orthopedic, radiology, eye, ENT, psychiatry, pathology and medical jurisprudent. To ensure adequate coverage of hospital services in every township, hospital upgrading project has been implemented and new hospitals have also been established in remote and border areas as part of the national development plan. Quality of institution based health care in terms of technology and specialties has also improved. Most of the central, teaching and state/division hospitals have been equipped with modern diagnostic and therapeutic facilities.

200 bedded Hospital, Pyin-Oo-Lwin

Consequence to strengthening of the capacity of hospitals with deployment of competent human and provision of material resources, various sophisticated interventions like renal transplant, open heart surgery, cardiac catheterization, angiogram and plastic surgery of traumatically amputated hand have been performed successfully.

The health development plan inclusive of curative care for people living in the border area has been implemented since 1989. As of December 2006, 79 hospitals, 105 dispensaries, 58 rural health centres and 140 sub-rural health centres have been established providing effective health care services to the people in border and remote areas.



Station Hospitals under the Ministry of Health

Partnership approach on provision and donation of hospital equipment and supplies by the public and private donors have been achieved in almost all hospitals. Local community has contributed for curative health services in terms of cash according to hospital needs. Hospital trust funds and community cost sharing system are also beneficial to unaffordable patients.

Along with curative service, nursing care services have also been upgraded both in the managerial, clinical and field aspects. The Nursing Division under the Department of Health has been providing training on nursing leadership and management development to strengthen nursing services.

Traditional Medicine

Myanmar traditional medicine has flourished over thousands of years and has become a distinct entity. The scope of traditional medicine is very wide. Myanmar traditional medicine covers basic traditional subjects, numerous treatises on traditional medicine, plethora of methods on prescribing enormous varieties of traditional drugs that are potent and effective.

One of the statements in the National Health Policy stated "to reinforce the service and research activities of indigenous medicine to international level and to involve in community health care activities". Traditional medicine has been integrated into the national health care system, inclusive of education, training, registering, licensing and research.

Health care by traditional medicine is provided through 14 Traditional Medicine Hospitals in all states and divisions except Chin State, 43 district traditional medicine dispensaries and 194 township medicine dispensaries extending to the border areas. There are two 50 bedded hospitals and twelve 16 bedded hospitals in various states and divisions.

50 bedded Traditional Medicine Hospital, Mandalay

With the main aim to upgrade the role of traditional medicine and to strengthen the unity of traditional medicine practitioners, the Traditional Medicine Practitioners Conference had been held yearly since 2000.

The Myanmar Indigenous Medicine Act was enacted in 1953. According to this act the State Traditional Medicine Council was formed. It is a leading body and responsible for all the matters relating to Traditional Medicine. In keeping with changing circumstances, Myanmar Indigenous Medicine Act was replaced by Myanmar Traditional Medicine Council Law, promulgated in 2000. At present, there are altogether 5794 traditional medicine practitioners registered under the law. According to the law, licenses for practicing are issued to holders of diploma in Traditional Medicine or Bachelor of Myanmar Traditional Medicine.

There is one Institute conferring Diploma in Traditional Medicine, situated in Mandalay. This Institute was opened in 1976 with the aim to produce competent and qualified traditional medicine practitioners. It is a three year diploma course, followed by one year internship. Till 2001-2002 academic year, the number of students awarded diploma totaled 1924. Yearly intake is 100.

In 2001, University of Traditional Medicine conferring Bachelor of Myanmar Traditional Medicine degrees was established. The degree requires a five year course including one year internship and yearly intake is 175. The University has its own medicinal plant garden for teaching demonstrations.

University of Traditional Medicine, Mandalay

Teaching/learning sessions on traditional medicine lasting 36 hours have been incorporated into the third M.B.,B.S. undergraduate curriculum since 2003 with presentation of completion certification after assessment.

In 1996, the Government promulgated the Traditional Drug Law to control the production and sale of traditional drug systematically. According to the Traditional Drug Law, all the traditional medicine produced locally has to be registered and manufacturers require license to produce their products. There are altogether 3188 items of drugs registered and 697 manufacturers granted license at the end of December 2006. The traditional medicine used in township traditional medicine dispensaries and hospitals are distributed free of charge by the drug factories owned by the department.

In order to produce sufficient raw material for drug manufacturing factories under the Department of Traditional Medicine, 9 herbal gardens with the total land area of 365 acres has been established. All these herbal gardens are located in different parts of the country with different weather and soil preferences. At present, one of these herbal gardens, already established in Nay Pyi Taw, is now being upgraded to the international level National Herbal Park on the extended 196.4 acres of land.

National Herbal Park, Nay Pyi Taw

Scientific research has continuously been carried out at the Department of Traditional Medicine and also in collaboration with the Departments of Medical Research under Ministry of Health.

Traditional Medicine Museum

Human Resources for Health

The Department of Medical Science aims at strengthening the development of human resources for health and equips them with advanced technologies. Under the Department of Medical Science, there are 4 medical universities, 2 dental universities, 2 nursing universities, 2 universities of medical technology, 2 universities of pharmacy, 1 university of community health, and 43 nursing & midwifery training schools.

The types of health personnel produced are doctors, dental surgeons, nurses (including speciality nurses), paramedics, pharmacists, dental technicians, and basic health workers such as health assistants, lady health visitors and midwives & public health supervisors grade I and II. These basic health workers are the corner stone for the successful implementation of rural health development programme.

In addition, postgraduate training courses are being conducted and there are 30 Doctorate Courses, 7 Ph.D Courses, 29 Master Courses, and 6 Diploma Courses under the Department of Medical Science. Moreover, qualified candidates have been sent abroad for training in fields covering both clinical basic science and community aspect of health.

The MRCP Part 1, MRCPCH Part 1, MRCS Part I/II & III examinations are held locally in collaboration with the respective Royal College of the United Kingdom.

The Department of Traditional Medicine is also training Traditional Medical Practitioners by establishing one university of Traditional

Universities under the Ministry of Health

Medicine in Mandalay. Completion certificate for Basic Traditional Medicine Course Conducted in third year M.B.B.S Course will be awarded to students during the M.B.B.S graduation ceremony.

The Medical Resource Centre is a facility that provides a learning environment both for graduate & post graduate students. The Medical Resource Centre has four components, which are Medical Education Centre, Medical Museum, Electronic Library and Skill Laboratory. The objectives of the Medical Education Center are:

1. Promotion of teaching capabilities of faculty members.
2. Development and distribution of audio-visual teaching learning materials.
3. Implementation of educational research activities.

The main function of the Medical Education Centre, developed in 2002, is production of teaching and learning material for medical and allied universities in the country. The four medical universities enjoy the services of the e-library management system. In the area of ICT development local area network and wide area network have been established and put into use.

University of Public Health

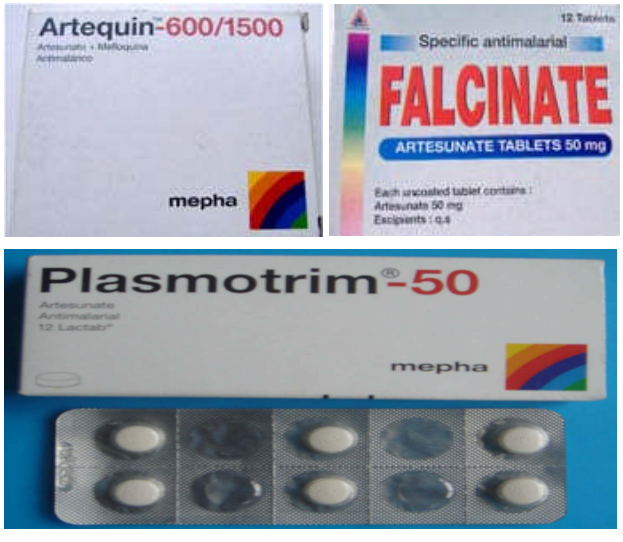
ASEAN and neighbouring countries had established public health schools of various grades, so that each country had an edge in public health education and henceforth development in health care system of the country. Myanmar had set forth for establishing a Public Health University where medical as well as non-medical personnel can do post baccalaureate level public health studies. The University will have (9) departments and will conduct Doctorate, Master, Diploma, and Speciality Courses, Certificate Courses and Training Courses.

Workshop on Medical Education

Health Research

Department of Medical Research (Lower Myanmar) carried out extensive research in malaria, diarrhoea, anaemia, iodine deficiency disorders, snake bite, viral hepatitis and intestinal helthminthiasis. The findings have contributed to the diagnosis, management, prevention and control of these health problems.

Research on TLC profile of phenolic compounds from tea leaves



Research on therapeutic efficacy of anti-malarial drugs in market

To further expand research activities and traditional medicine research, two new medical research departments have been established, one in upper Myanmar (Pyin Oo Lwin) and the other in central Myanmar (Pyinmana).

With the establishment of new departments of medical research in upper and middle parts of the country, more researches, particularly focusing on Traditional Medicine could be done. A herbal garden established in the Department of Medical Research (Upper Myanmar) could nurture over 300 species of herbal and medicinal plants from all over the country. Up to 9000 herbal and medicinal plants are now being grown by the department. The department could also study effects of these plants on treating malaria, diabetes mellitus, hypertension and diarrhoea diseases in collaboration with Department of Traditional Medicine, Department of Phamacology of the Mandalay Medical University and Mandalay University of Pharmacy. Moreover, basic, applied and health systems research are being carried out in collaboration with 200 bedded Hospital (Pyin Oo Lwin), Children Hospital, Central Women's Hospital, University of Medicine, University of Pharmacy, Vector Borne Disease Control Programme, National Tuberculosis Programme, Public Health Laboratory in Mandalay.

Current research activities undertaken in Department of Medical Research (Central Myanmar) cover both basic, applied and health systems research. They include therapeutic efficacy of anti-malarial drugs combination, and traditional anti-malarial drug. Behavioural studies relating to common communicable diseases like DHF and TB are also in the list. Study on therapeutic efficacy of traditional medicine formulation and plants on non-communicable diseases particularly diabetes mellitus and communicable diseases are also in progress.

Moreover, the Department of Health Planning, the Department of Health, the Department of Medical Science and the Department of Traditional Medicine are also implementing research activities in addition to their principal functions. Two main types of applied research, monitoring and evaluation (M&E) research and health systems research are conducted by the Department of Health Planning.

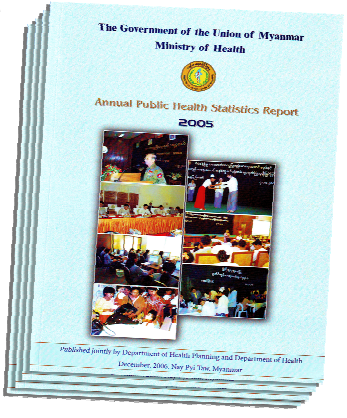
Health Systems Research Methodology trainings are conducted for post-graduate students in the medical universities in Yangon and Mandalay and for in-service health staff from states and divisions. Goals, functions and concepts of health systems are also disseminated among township health committees. User friendly health systems research tools are also to be developed to conduct health systems research studies.

Consequent to the urgent need for evidence in the health programme management many researchers had commenced to conduct Health Systems Research (HSR) during the last decade. In Myanmar development of HSR has been attempted through capacity building of health workers, increasing their knowledge and experiences through training, workshops and seminars, and encouraging utilization of HSR in health programme management. Collaboration with both international agencies and other related ministries in the country to conduct health research has also been undertaken.

Research unit under the Department of Traditional Medicine is also conducting studies to assess safety, efficacy and quality of Traditional Medicine. In collaboration with Medical Research Departments, research activities to explore new traditional medicine to treat six common diseases namely diarrhoea, dysentery, malaria, tuberculosis, hypertension and diabetes mellitus are also being conducted.

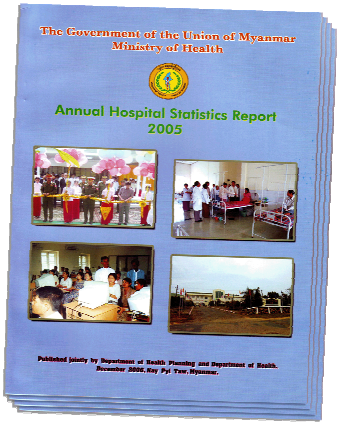
Health Information Services

To fulfill the need of integrated national health information system ensuring timely, reliable and accurate information based on minimal essential data set the Health Management Information System (HMIS) was established in 1995. The new HMIS could replace the existing practice of data collection based on the information needs of the fragmented vertical health programmes. The main objectives are to ensure minimum essential information of prioritized health projects are integrated in the national health information system, to generate and report health information in the course of implementation of the National Health Plans for timely and effective monitoring and evaluation and to reduce the data collection burden for basic health staff. HMIS includes community based as well as institutional based information as a means to support making evidence based decisions in policy design, planning and management so as to improve overall health system performance.



HMIS is now in the process of further development by establishing computer networking (e-Health System) in all states and divisions with support of the WHO.

Hospital reporting is another facet of health information service well established through monthly collection of hospital morbidity and administrative information from public hospitals. Morbidity information which is individual case summaries with analysis of all discharges and deaths is processed at the central office (Department of Health Planning). The medical record services have been established in most hospitals and training program exists for medical record officers. By using (ICD 10) for disease coding, data entry, processing and analysis international comparison is facilitated. Computerized medical record system has been established in some major hospitals since 2000 and to be further expanded.



To further strengthen the health information system, ICT Centre has been established in the Ministry of Health. This will enable extension of information network and rapid and smooth flow of information. A web site has also been established in the Ministry of Health providing updated information on health activities and achievements and also the opportunity to search health literatures.

Following the launching of Health Matrix Network (HMN) at the World Health Assembly in 2005, Myanmar joined the international effort for strengthening health information system in the country.

As part of HMN activities, assessment of current health information system has been conducted in the Ministry involving stake holders. Findings of the assessment will be used as inputs for developing comprehensive plan for strengthening National Health Information System.

PARTNERSHIP
FOR HEALTH DEVELOPMENT

The multi-sectoral dimension is inherent in practically every health intervention and health can no longer be understood as a technical issue. Economics, political science, human development and even issues of global and national security now require us to consider health in a broader context. Health is an important sector of most economics and a core area of social policy. The health status of individuals and population is a significant barometer of social progress broadly affecting the sustainability of our efforts in shaping our lives in both local and global context.

The Ministry of Health has closely cooperated with several organizations within the UN system, particularly those organizations playing an important role in public health. The WHO, UNICEF, UNDP, UNFPA are mainly responsible for the provision of technical assistance and also have been involved in assisting various health care activities. UNDP, UNHCR, JICA, OXFAM, SCF, etc. are also actively involved in health development activities.

Myanmar has been elected as member of the Executive Board of the WHO for the years (2001-2003) and His Excellency Professor Dr. Kyaw Myint, the Minister for Health has also been elected to chair the Board.

Myanmar is actively involved in activities pertaining to international health development. Myanmar as one of the countries of the WHO South East Asia region has signed the "Declaration on the Health Development in the 21st Century in the SEA region". Myanmar becomes a signatory to the Framework Convention on the Tobacco Control in 2003 and party to the Convention in 2004.

WHO has provided technical support to the Ministry of Health and has also gradually expanded the scope of cooperation. As Myanmar has shown its potential for implementing projects in collaboration with WHO, there have been several successful WHO supported activities. As a member country in the WHO, SEA Region, Myanmar holds the tradition of participating actively in the Regional health activities. The Seventeenth Meeting of Health Ministers of the Countries of the WHO South East Asia Region, hosted for the first time in Myanmar, was held successfully in Yangon in October 1999. Similarly 6th Meeting of the Health Secretaries of the South East Asia Region was held successfully in February 2001. This was followed by a number of regional and international health meetings.

UNICEF has been supporting development projects under the World Summit for Children and Expanded Programme for Immunization. In 1991, the Government ratified the World Declaration on the Survival, Protection and Development of the Children. Some of the goals of the declaration such as reduction of infant mortality rate and increase adult literacy rate have been spelled out in the country's agenda for health development.

On the other hand, UNFPA has been a major supporter of reproductive health activities since 1996. UNDP also has been supporting several development projects in health field and gradually expand the scope of cooperation.

As a member country of ASEAN Myanmar is collaborating with other member countries in health matters. Myanmar has hosted the 8th ASEAN Health Ministers' Meeting and 2nd ASEAN + 3 Health Ministers' Meeting successfully in 2006.

Myanmar is among the countries actively participating in Mekong Basin Disease Surveillance activities with the objective of strengthening national capabilities as an initial phase in three programmme areas identified, namely improving disease outbreak investigation and response, strengthening health manpower development in Epidemiology, and establishment of Regional Surveillance Network.

In addition international and local NGOs are also joining hands with Myanmar in health development activities.

International Non-Governmental Organizations working in Myanmar

- Action International Contre La Faim (AICF)
- Adventist Development and Relief Agency (ADRA)
- Aide Medicale International (AMI)
- Artsen Zonder Greenzen (AZG)
- Asian Maternal and Child Welfare Association (AMCWA)
- Association of Medical Doctors of Asia (AMDA)
- Burnet Institute (Australia)
- Care (Myanmar)
- CESVI (Coorporation and Sviuppo onlus)
- Humanitarian Services International (HSI)
- International Organization Migration (IOM)
- International Federation of Anti-Leprosy Association (ILEP)
- Malteser (Germany)
- Marie Stopes International (MSI)
- Medicins du Monde (MDM)
- Medicins Sans Frontieres - Switzerland (MSF-CH)
- Merlin
- PACT Myanmar
- Partners International Solidarity Organization (Partners)
- Population Services International (PSI)
- Progetto Continent (Progetto)
- Save the Children (Japan) - SC (Japan)
- Save the Children (UK) - SC (UK)
- Save the Children (US) - SC (US)
- Support Fund Myanmar
- The Association Francois-Xavier Bagnoud (AFXB)
- The International HIV/AIDS Alliance
- Women's Federation for World Peace (WFWP)
- World Concern
- World Vision International (WVI)

National Non-Governmental Organizations

- Union Solidarity and Development Association (USDA)
- Myanmar Women's Affairs Federation (MWAF)
- Myanmar Maternal and Child Welfare Association (MMCWA)
- Myanmar Red Cross Society
- Myanmar Medical Association (MMA)
- Myanmar Dental Association (MDA)
- Myanmar Nurses Association (MNA)
- Myanmar Health Assistant Association
- Myanmar Council of Churches
- Myanmar Anti-narcotic Association

Other ministries related to health are also working in collaboration with the Ministry of Health for health development. This collaboration is co-ordinated and strengthened by the National Health Committee.

The Ministry of Information is an indispensable partner in disseminating health information and education. Similarly, Ministry of Education, Ministry of Agriculture and Irrigation, Ministry for Progress of Border Areas and National Races and Development Affairs and Ministry of Mines are key partners of the Ministry of Health in providing promotive and preventive health services to the people.

Ministry of Agriculture and Irrigation, Ministry for Progress of Border Areas and National Races and Development Affairs together with the Ministry for Health are working together in provision of Safe Water to the Community. Active co-operation of Ministry of Mines had made universal iodization of salt possible.

Cognizant of the indispensable roles of the professionals in health development the Government has formed the Myanmar Academy of Medical Sciences with the membership of experienced health professionals both in-service and retired. The objectives are to strengthen health services and health research activities and to ensure that production of human resources for health and continuous education of them are up to the international standard.

Acknowledging the importance of pharmaceutical firms and medical equipment company in provision of medical care and following the guidance of the state leader in this matter, Myanmar Pharmaceutical and Medical Equipment Entrepreneurs Association was formed by the state in 1999. Formation of this association would contribute to the successful implementation of health care activities, and will ensure that manufacturing, importing and distribution of drugs and medical equipments are accordance with the National Drug Law.

With the philosophical changes in the economic policy, alternative health care financing schemes are being given serious consideration and the private sector is also being encouraged.

HEALTH STATISTICS

Vital Statistics

Health Index	1988	1999	2000	2001	2002	2003	2004▲
Crude Birth Rate (per 1,000 population)							
- Urban	28.6	24.5	24.2	23.9	21.2	19.9	19.1
- Rural	30.5	27.1	26.4	26.3	24.6	22.4	22.0
Crude Death Rate (per 1,000 population)							
- Urban	8.9	6.0	6.3	6.2	6.1	5.6	5.5
- Rural	9.9	7.8	7.3	7.1	7.0	6.5	6.4
Infant Mortality Rate (per 1,000 live births)							
- Urban	47.0	55.1▲	48.5	48.3	48.4	45.3	45.2
- Rural	49.8	62.5▲	50.2	50.1	50.7	47.1	47.0
U5 Mortality Rate (per 1,000 live births)							
- Union	-	77.77▲	-	-	-	-	-
- Urban	72.9	65.12▲	73.5	73.1	72.6	72.2	70.1
- Rural	-	85.16▲	-	-	73.5	73.2	71.4
Maternal Mortality Ratio (per 1,000 live births)							
- Urban	1.0	1.8▲	1.1	1.0	1.1	1.0	1.0
- Rural	1.9	2.8▲	1.9	1.8	1.9	1.5	1.5
Population Growth Rate	1.96	2.02	2.02	2.02	2.02	2.02	2.02
Average Life Expectancy							
- Urban (Male)	59.0	61.0	61.1	61.5	61.8	62.1	62.4
(Female)	63.2	65.1	65.1	65.6	66.0	66.2	66.5
- Rural (Male)	56.2	60.3	60.4	60.8	61.3	61.5	61.8
(Female)	60.4	62.7	62.8	63.3	63.8	64.0	64.5

Source: Statistical Year Book, CSO, 2004

▲ Planning Department, Ministry of National Planning and Economic Development

▲ National Mortality Survey, 1999

Health Manpower Development

Health Manpower	1988-89	2002-03	2003-04	2004-05	2005-06	2006-07▲
Total No. of Doctors	12268	16570	17081	17564	18584	20501
- Public	4377	6180	6331	6473	6941	7250
- Co-operative & Private	7891	10390	10750	11091	11643	13251
Dental Surgeon	857	1227	1285	1365	1594	1732
- Public	328	517	543	580	625	707
- Co-operative & Private	529	710	742	785	969	1025
Nurses	8349	15502	16382	18123	19776	21075
Dental Nurses	96	109	123	159	162	165
Health Assistants	1238	1728	1739	1771	1771	1778
Lady Health Visitors	1557	2559	2679	2796	3025	3137
Midwives	8121	14097	15130	16201	16745	17703
Health Supervisor (1)	487	529	529	529	529	529
Health Supervisor (2)	674	1144	1199	1339	1359	1394
Traditional Medicine Practitioners	279	563	649	819	819	812

▲ Provisional actual

Health Facilities Development

Health Facilities	1988-89	2002-03	2003-04	2004-05	2005-06	2006-07▲
Government Hospitals	631	780	790	824	826	832
Total No. of Hospital Beds	25309	32770	33683	34654	34920	35544
No. of Primary and Secondary Health Centers	64	84	84	86	86	86
No. of Maternal and Child Health Centers	348	348	348	348	348	348
No. of Rural Health Centers	1337	1413	1424	1456	1456	1463
No. of School Health Teams	80	80	80	80	80	80
No. of Traditional Medicine Hospitals	2	12	14	14	14	14
No. of Traditional Medicine Clinics	99	213	237	237	237	237

Government Health Expenditure

	1988-1989	2005-2006	2006-2007▲
Health Expenditure (Million Kyats)			
- Current	347.1	15376.3	14361.8
- Capital	117.0	8035.5	9816.8
Total	**464.1**	**23411.8**	**24178.6**
Per Capita Health Expenditure (Kyats)	11.8	422.6	427.8

▲ Provisional actual

Leading Causes of Morbidity (2005)

Sr. No.	Causes	Percent
1.	Other injuries of specified, unspecified and multiple body regions	10.6
2.	Single spontaneous delivery	9.8
3.	Diarrhoea and gastroenteritis of presumed infectious origin	7.8
4.	Malaria	7.1
5.	Other complications of pregnancy and delivery	6.3
6.	Other pregnancies with abortive outcome	4.4
7.	Other arthropod-borne viral fevers and viral haemorrhagic fevers	4.2
8.	Other diseases of the respiratory system	3.7
9.	Other viral diseases	3.0
10.	Respiratory tuberculosis	2.6
11.	Toxic effects of substances chiefly non-medicinal as to source	2.3
12.	Cataract and other disorders of lens	2.2
13.	Gastritis and duodenitis	2.1
14.	Other conditions originating in the perinatal period	2.1
15.	Pneumonia	1.9
	All other causes	29.8
	Total	100.0

Source: Annual Hospital Statistics Report, 2005

Leading Causes of Mortality (2005)

Sr. No.	Causes	Percent
1.	Malaria	10.1
2.	Respiratory tuberculosis	5.4
3.	Other injuries of specified, unspecified and multiple body regions	4.4
4.	Other diseases of the respiratory system	4.4
5.	Septicaemia	4.0
6.	Heart failure	3.6
7.	Other diseases of liver	3.5
8.	Stroke, not specified as haemorrhage or infarction	3.4
9.	Other viral diseases	3.2
10.	Toxic effects of substances chiefly non-medicinal as to source	2.8
11.	Pneumonia	2.7
12.	Slow fetal growth, fetal malnutrition and disorders related to short gestation and low birth weight	2.2
13.	Diarrhoea and gastroenteritis of presumed infectious origin	2.1
14.	Other heart diseases	2.1
15.	Intrauterine hypoxia and birth asphyxia	2.0
	All other causes	44.2
	Total	100.0

Source: Annual Hospital Statistics Report, 2005

Post Graduate Training
under Department of Medical Science

Sr. No.	Training	Training Period
1.	Doctorate Courses	
(A)	Dr. Med. Sc	3 years
	(1) General Medicine	
	(2) General Surgery	
	(3) Obstetrics & Gynaecology	
	(4) Paediatrics	
	(5) Orthopaedics	
	(6) Cardiology	
	(7) Cardic Surgery	
	(8) Respiratory Medicine	
	(9) Thoracic Surgery	
	(10) Neuromedicine	
	(11) Neurosurgery	
	(12) Nephrology	
	(13) Urology	
	(14) Gastroenterology	
	(15) Hepatology	
	(16) Clinical Haematology	
	(17) Paediatric Surgery	
	(18) Neonatology	
	(19) Hand Surgery	
	(20) Gynaecological Oncology	
	(21) Reproductive Health	
	(22) Anaesthesiology	
	(23) Radiology	
	(24) Ophthalmology	
	(25) Otorhinolaryngology	
	(26) Oral and Maxilo-facial Surgery	
	(27) Medical Jurisprudence	
	(28) Rehabilitation Medicine	
(B)	Dr. D. Sc	3 years
	(29) Oral Medicine	
	(30) Prosthodontics	
(C)	Ph. D	3 years
	(1) Anatomy	
	(2) Physiology	
	(3) Biochemistry	
	(4) Microbiology	
	(5) Pathology	
	(6) Pharmacology	
	(7) Public Health	

Sr. No.	Training	Training Period
2.	**Master Courses**	
	(A) Master of Medical Science (M.Med.Sc)	
	(1) Anatomy	2 Years
	(2) Physiology	2 Years
	(3) Biochemistry	2 Years
	(4) Pharmacology	2 Years
	(5) Public Health	1 Year
	(6) Internal Medicine	3 years
	(7) Surgery	3 years
	(8) Obstetrics & Gynaecology	3 years
	(9) Paediatrics	3 years
	(10) Orthopaedics	2 years
	(11) Ophthalmology	2 years
	(12) Otorhinolaryngology	2 years
	(13) Pathology	2 years
	(14) Microbiology	2 years
	(15) Anaesthesiology	2 years
	(16) Diagnostic Radiology	2 years
	(17) Rehabilitation Medicine	2 years
	(18) Medical Jurisprudence	2 years
	(19) Mental Health	2 years
	(20) Dermatology	2 years
	(21) Radiation Oncology	2 years
	(22) Medical Oncology	2 years
	(23) Nuclear Medicine	1 year
	(B) Master of Dental Science (M.D.Sc)	
	(24) Dental Science	2 years
	(C) Master of Nursing Science (M.N.Sc)	
	(25) Nursing Science	2 years
	(D) Master of Pharmacy (M. Pharm)	
	(26) Pharmacy	2 years
	(E) Master of Medical Technology (M. Med.Tech)	
	(27) Medical Laboratory Technology	2 years
	(28) Physiotherapy	2 years
	(29) Medical Imaging Technology	2 years
3.	**Diploma Courses (Dip. Med. Sc)**	
	(1) Tuberculosis and Chest Diseases	1 year
	(2) Sexually Transmitted Diseases	1 year
	(3) Hospital Administration	6 months
	(4) Medical Education	9 months
	(5) Family Medicine	1 year
	(6) General Dental Practice	1 year

Universities and Training Schools under Department of Medical Science

Sr. No.	University/ Training Schools	Degree/ Diploma/ Certificate Conferred
1.	University of Medicine (1), Yangon	M.B., B.S., Dip. Med.Sc., M.Med.Sc., Ph.D, Dr. Med. Sc.
2.	University of Medicine, Mandalay	M.B., B.S., Dip. Med.Sc., M.Med.Sc., Ph.D, Dr. Med.Sc.
3.	University of Medicine (2), Yangon	M.B., B.S., Dip. Med.Sc., M.Med.Sc., Ph.D, Dr. Med.Sc.
4.	University of Medicine, Magway	M.B.,B.S.
5.	University of Dental Medicine, Yangon	B.D.S., Dip.D.Sc., M.D.Sc., Dr. D.Sc., D.DT.(Diploma in Dental Technology)
6.	University of Dental Medicine, Mandalay	B.D.S.
7.	University of Nursing, Yangon	B.N.Sc., M.N.Sc., Diploma Speciality Nursing (Dental, EENT, Mental Health, Paediatrics, Critical Care, Orthopaedics)
8.	University of Nursing, Mandalay	B.N.Sc., M.N.Sc.
9.	University of Medical Technology, Yangon	B.Med.Tech., M.Med.Tech.
10.	University of Medical Technology, Mandalay	B.Med.Tech.
11.	University of Community Health, Magway	B.Comm.H.
12.	University of Pharmacy, Yangon	B.Pharm., M.Pharm.
13.	University of Pharmacy, Mandalay	B.Pharm.
14.	Nursing Training Schools	Diploma
15.	Midwifery Training Schools	Certificate
16.	Lady Health Visitor Training School	Certificate
17.	Nursing Field Training School	-
18.	Domiciliary Midwifery Training School	-