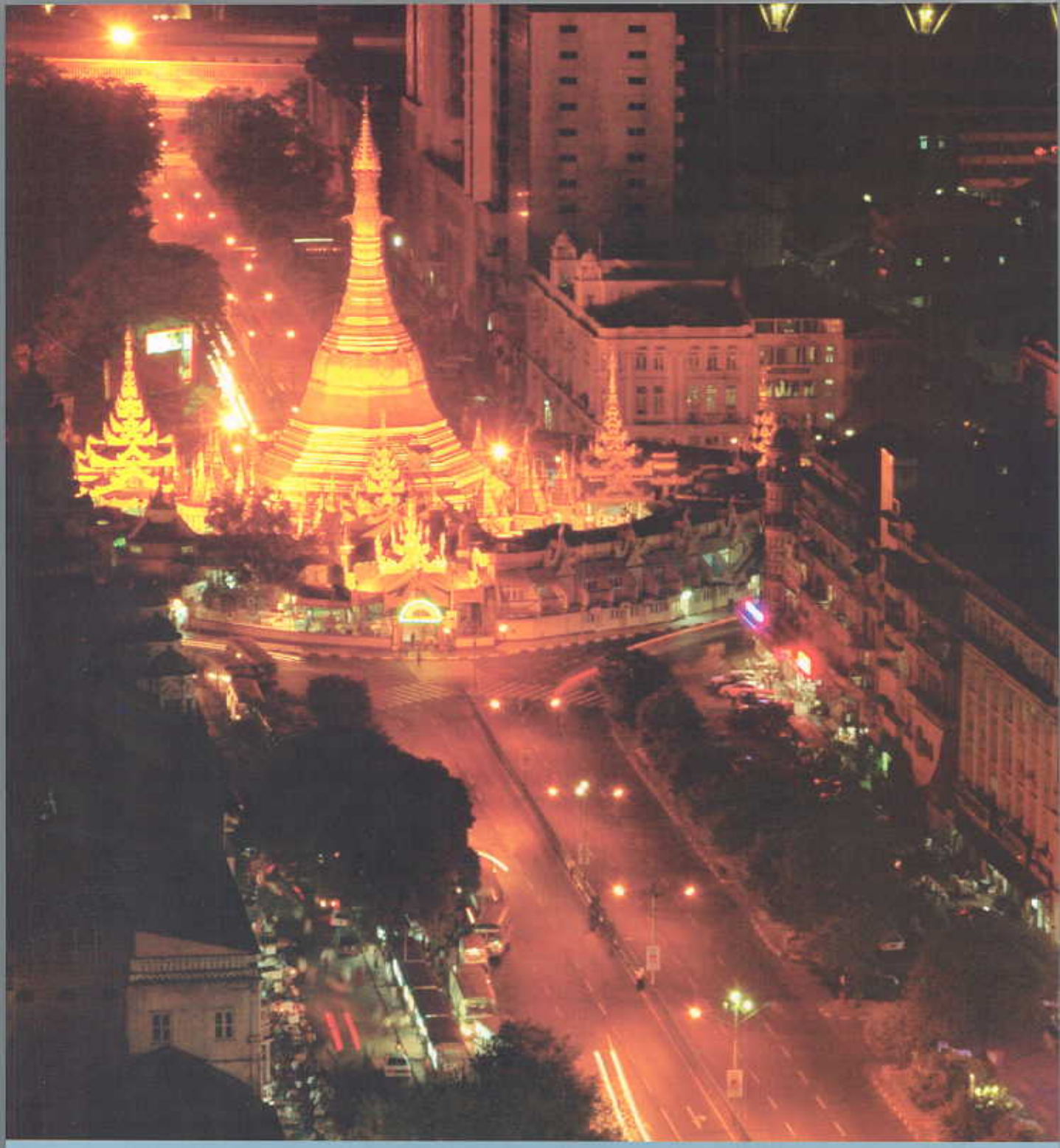
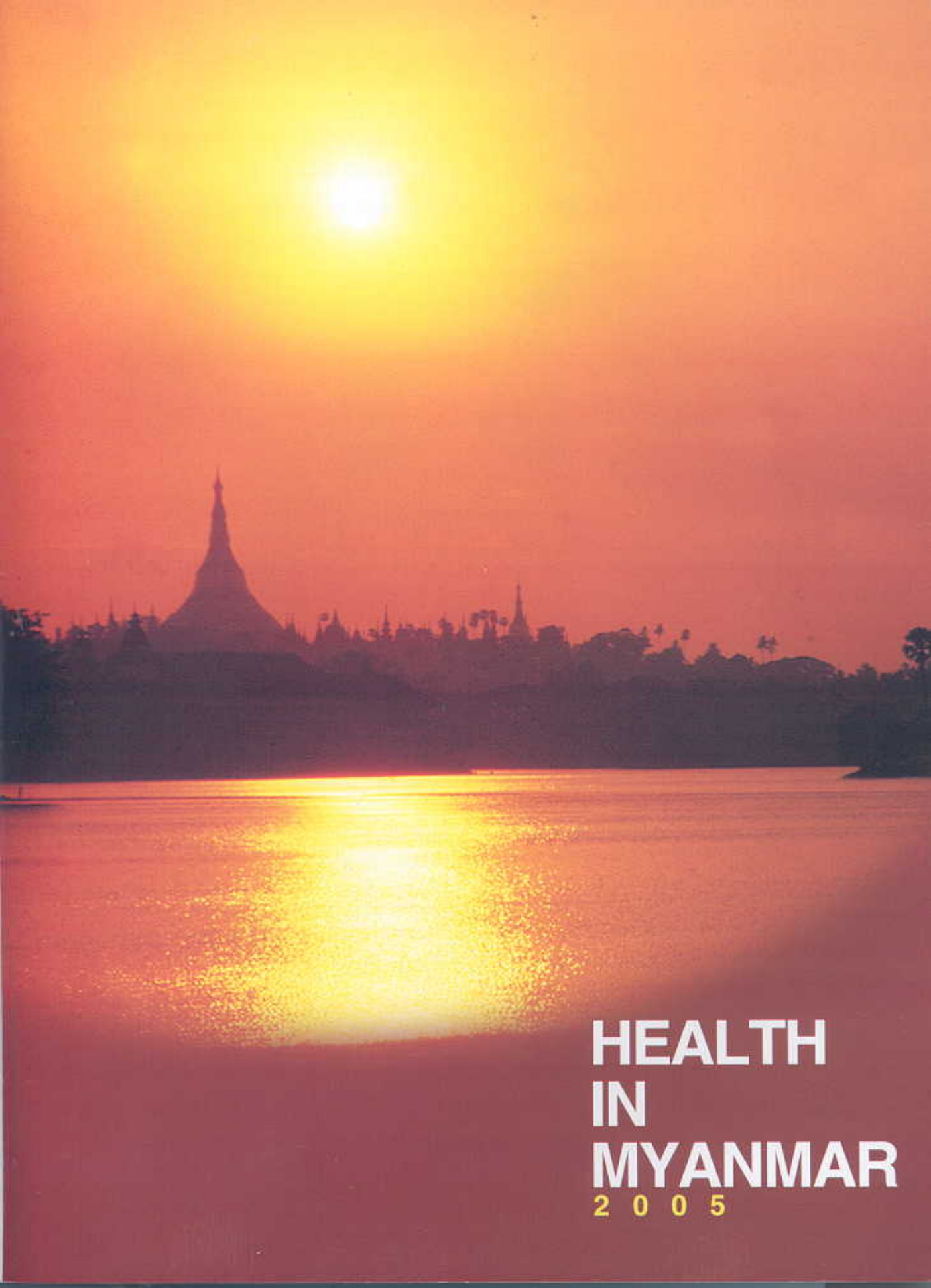


HEALTH IN MYANMAR 2005

MINISTRY OF HEALTH



HEALTH IN MYANMAR

2005

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

- 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.
- It is necessary to expand health education services by providing health talks and discussions as outreach services in the field, in addition to using mass media like newspaper, radio and television, to make health education for the rural population more effective.

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

The State has laid down political, economic and social objectives to build a modern and developed nation and the Ministry of Health is playing an important role in realizing one of the social objectives, namely "uplifting of health, fitness and educational standards of the entire nation". Under the leadership and guidance of the State Peace and Development Council and the National Health Committee the Ministry, in collaboration with all partners, could make major achievements in reducing morbidity and prolonging the lives of the citizens through strengthening and expanding health services through out the country, expanding and upgrading infrastructures for service delivery and enhancing the capacity of the human resources for health.

In a changing and developing world, science and technology is developing at a rapid speed and the need for the health sector to cope with these advances is enormous. Expectations of the people as clients of public services on the other hand are also growing. Disease patterns are changing with new diseases emerging while the old ones are still threatening the well being and lives of the people. Under these circumstances, challenges faced by health systems, which are striving to be effective, equitable, responsive and efficient are growing more than before.

Notwithstanding these challenges there still are factors supporting the health systems in reaching their goals and objectives. Good health is an integral part of a healthy and contributing society, which is paramount for advancing development. Health is recognized as an important component of many policies and as a key factor in development and in achieving a more secure world. Increased understanding of the role of broader determinants of health has led their incorporation in national development policies.

Given the fact that health is a component of development and is influenced by complex and interdependent factors a strong partnership is mandatory among all stakeholders, both nationally and internationally. An overview of the Myanmar health system along with efforts and achievements made in meeting its commitments and objectives is provided in this book. The achievements made were the outcomes of collective efforts by all partners. The Ministry is committed to working with all partners and will continue to sustain the partnership developed, nationally, regionally and globally.

Professor Dr. Kyaw Myint
Minister for Health

Four Political Objectives

- Stability of the State, community peace and tranquillity, prevalence of law and order
- National reconsolidation
- Emergence of a new enduring State Constitution
- Building of a new modern developed nation in accord with the new State Constitution

Four Economic Objectives

- Development of agriculture as the base and all-round development of other sectors of the economy as well
- Proper evolution of the market-oriented economic system
- Development of the economy inviting participation in terms of technical know-how and investments from sources inside the country and abroad
- The initiative to shape the national economy must be kept in the hands of the State and the national peoples

Four Social Objectives

- Uplift of the morale and morality of the entire nation
- Uplift of national prestige and integrity and preservation and safeguarding of cultural heritage and national character
- Uplift of dynamism of patriotic spirit
- Uplift of health, fitness and education standards of the entire nation

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COUNTRY PROFILE

Location

Myanmar, the largest country in mainland South-East Asia with a total land area of 676,578 square kilometers, is approximately the size of France and England combined. It stretches 2200 kilometers from north to south and 925 kilometers from east-west at its widest point. 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 65 districts, 325 townships, 59 subtownships, 2759 wards, 13729 village tracts and 64986 villages. Myanmar falls into three wellmarked 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 resources, water resources, forest resources, natural gas and coal resources, petroleum, mineral and marine resources. Great diversity exists between the region 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 1992-2001, 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 2500 mm and the hills of the east about 1400 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 23°C to 32°C, while in the dry zone, it was between 20°C and 34°C. The temperature was between 14°C and 29°C in hilly regions and even lower in Chin state ranging between 10°C and 23°C.

Yangon, the capital city, had the average annual rainfall of 2903 mm with temperature ranging between 22°C & 33°C during that ten year period.

Demography

The population of Myanmar in 2003-2004 is estimated at 53.22 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 ranges from 390 per square kilometers in Yangon Division, where in lies the city of Yangon, the capital, to 10 per square kilometers in Chin State, the western part of the country.

Estimates of population and it's structure (1980-2003)

Population / Structure (in million)	1980-81		1990-91		2000-01		2001-02		2002-03	
	Estimate	%	Estimate	%	Estimate	%	Estimate	%	Estimate	%
0-14 years	13.03	38.77	14.70	36.05	16.43	32.77	16.73	32.71	17.05	32.68
15-59 years	18.44	54.86	23.47	57.55	29.72	59.29	30.33	59.31	30.92	59.27
60 years and above	2.14	6.37	2.61	6.40	3.98	7.94	4.08	7.98	4.20	8.05
Total	33.61	100	40.78	100	50.13	100	51.14	100	52.17	100
Female	16.93	50.37	20.57	50.44	25.22	50.31	25.72	50.29	26.23	50.28
Male	16.68	49.63	20.21	49.56	24.91	49.69	25.42	49.71	25.94	49.72
Sex Ratio (M /100 F)	98.52		98.25		98.77		98.83		98.89	

Source: Statistical Year Book 2002, CSO

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. Accepting the view 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.

Since adopting 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.

Myanmar is now in the process of implementing the five year economic plan from 2001-2002 to 2005-2006 and enjoyed trade surplus for two consecutive years during the first three years of the plan.

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 2003 was 91.9% with 94.8% for male and 89.4% for female. 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 tranquality, law and order in the border regions, social sector development can be expanded throughout the country. Twenty four speical 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 subtownship level with development of infrastructure to ensure proper execution of administrative, economic and social functions.

Gross Domestic Product (kyats in million)

GDP	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002*
Current	604729.1	791980.0	1119509.2	1609775.6	2190319.7	2552732.5	3523514.8
At 1985-86 Constant Producers' Prices	66741.6	71042.4	75123.1	79460.2	88157.0	100274.8	992399.6**
Growth (%)	6.9	6.4	5.7	5.8	10.9	13.7	10.5

Source: Statistical Year Book 2002, CSO
* Provisional actual
** 1995-96 Constant Producer's 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.

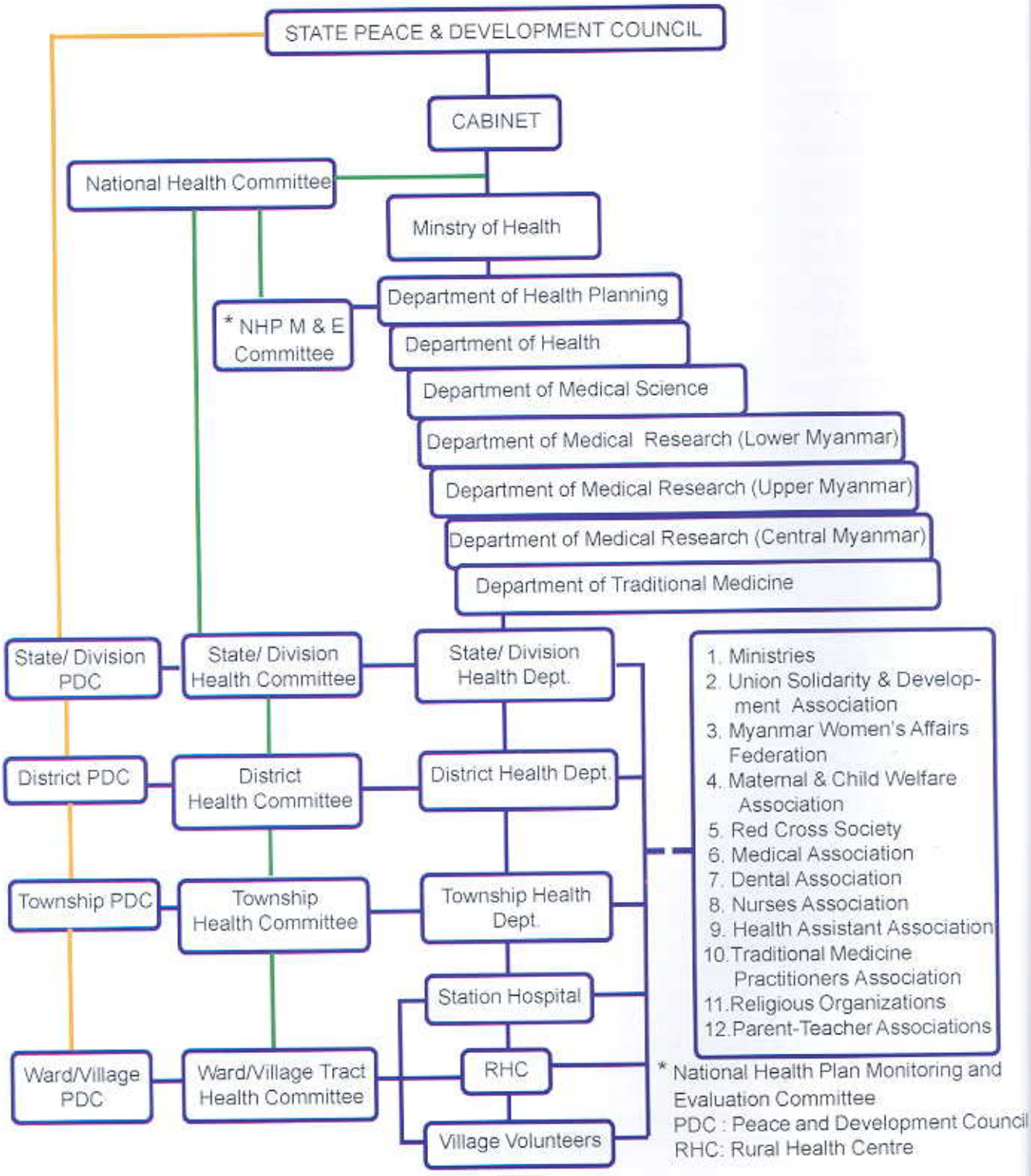
Ministry of Health is the main organization of health care provision. Department of Health one of 7 departments under the Ministry of Health plays a major role in providing comprehensive health care through out the country including remote and hard to reach border areas. Some ministries are also providing 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 I is running a Myanmar Pharmaceutical Factory and producing medicines and therapeutic agents to supplement the domestic needs. Private pharmacies and drug stores are other sources of pharmaceuticals in the country.

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 Myanmar Medical Council Law. 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 of collaborative actions for 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



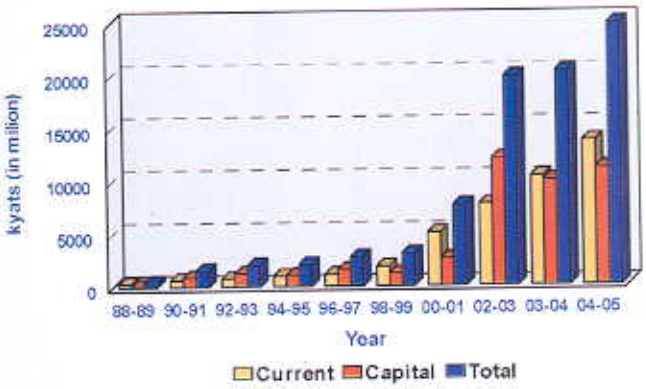
Financing Health

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 24851.5 million in 2004-2005.

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 2004-05)



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 Traditional Medicine Hospital
in Mandalay

Chairman of the State Peace and Development Council,
Senior General Than Shwe inspecting the Traditional Medical University and
providing 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.

42nd Meeting of the National Health Committee

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 Yangon City Development Committee	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 bylaws 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.

Existing health development plans are:

1. Myanmar Health Vision 2030: 30 Year Long -Term Health Plan (2001-02 to 2030-31)
2. National Health Plan (2001-02 to 2005-06)
3. Rural Health Development Plan (2001-02 to 2005-06)
4. Project for Upgrading of Hospitals (2001-02 to 2005-06)

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 (2001-2006)

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 first 5 year period of Myanmar Health Vision 2030.

Objectives

- To implement the national objective of uplifting of health, fitness and educational standards of the entire nation
- To implement National Health Policy
- To develop a new health system in keeping with political, economic and social conditions
- To strengthen rural health services

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

- Improved health care coverage
- Reduction in morbidity
- Improved health status of the people
- Improved medical education
- Development of health research
- Development of traditional medicine
- Improved health knowledge of the people through effective information, education and communication activities

Rural Health Development Plan

As 70% of the population resides in the rural areas priority has been accorded to rural health development. The health needs are more pronounced in the rural areas and as health has assumed a pivotal role for all round development, rural health development has become essential.

Objective

- Reduction in morbidity and mortality with improvement in health status of the rural population.

Main components of the Plan

- Improving health care coverage
- Strengthening the capabilities of basic health workers and voluntary health workers
- Intensification of health education activities
- Intensification of environmental health activities
- Self-care
- Health development for women and children
- Intensification of nutrition promotion activities
- Ensuring availability of basic essential drugs in adequate quantity
- Controlling and preventing locally common diseases
- Strengthening leadership roles of the health committees and collaboration of volunteers and community.

Expected Benefits

- At the end of the plan by the year 2006 health care coverage in rural will be improved and rural community also will have better health knowledge.
- Consequently their life style will become more conducive to health
- Consequent to full coverage of safe water and sanitary latrines, elimination of nutritional problems and reduction in communicable disease there will be reduction in morbidity and mortality and rural community will be able to enjoy a healthy life.
- With improvement in health status of the rural community, health status of the entire nation will be improved leading to health and physical fitness of the entire human resources, a vital resource for the building of modern and developed nation.

Project for Upgrading of Hospitals

With the objective of ensuring the accessibility of quality health care by the community and to meet the needs of the people, there by improving their quality of life, a project to upgrade the hospitals have been developed.

Objectives

- To upgrade the hospitals in townships having population over 110,000 to 50 bed strength.
- To upgrade all remaining township hospitals to 25 bed strength.
- To upgrade all district hospitals in border towns.
- To upgrade station hospitals in areas having population over 80,000 to 25 bed strength.

Main components of the Project

- Constructing of new hospitals and renovating existing ones
- Establishing standard staff strength in hospitals
- Installing facilities and equipment for treatment, diagnosis and teaching in hospitals

Expected Benefits

- Accessibility by the community to health care facilities both in term of quantity and quality there by improvement in the status of health
- Improved population bed ratio
- More human resources for health (doctors and nurses) will be produced and employed
- Providing support for training and production of doctors and nurses as well as health research activities
- Social and economic development of the entire nation as the result of improvement in the health status of the people brought about by improved health services.

Health Legislation

Legal provision for the interest of public health 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 qualtiy 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.

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 a Deputy Minister. 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
- Health Education 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 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 is also taking the secretariat functions of the National Health Committee and is thus playing a crucial role in developing the National Health Policy.

The Department also compiles health data and disseminates health information. Health education messages are disseminated through various media channels and health education programmes developed were directed towards adoption of healthy life styles.

Strengthening Capacity of Township Health Committee

Mobilizing Youth for Health Development

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 two Deputy Directors General, there are 9 Directors who are leading and managing the following divisions.

- Administration
- Planning
- Public Health
- Medical Care
- Disease Control
- 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.

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 and 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 and 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.

Traditional Medical Service

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 according to the health and training needs of the country with the objective to produce appropriate mix of competent Human Resources for Health for successful implementation of the National Health Plan of the Country.

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

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

Telemedical Education

e-Library Management System

Department of Medical Research (Lower Myanmar)

With the recognition that health research plays a pivotal role in the effort to provide effective health care for the people of Myanmar, the Burma Medical Research Institute was established in 1963. It was later upgraded in 1972 as the Department of Medical Research and was further reorganized and expanded in 1990. The missions of the Department are: to conduct biomedical research; to promote, support, organize and coordinate all biomedical research in the country; to provide the infrastructure necessary for effective biomedical research; and to provide training in health research.

It consists of six Research Centers; Socio-Medical, Bio-Medical, Clinical, Diagnostic and Vaccine, National Blood Research Centers, and National Poison Control Center. During 2004, the Department has carried out extensive research in malaria, tuberculosis, diabetes mellitus, arboviral diseases, diarrhoea, nutrition, haemoglobinopathies, leprosy, snake bite, viral hepatitis and haematological malignancies. The findings have contributed in the diagnosis, management, prevention, control, and in the understanding of aetiology and pathogenesis of these health problems.

During 2004, with the significant upgrading of the National Poison Control Center with modern equipment and the establishment the Toxicology Research Unit at the New Yangon General Hospital, research on early diagnosis and treatment of poisoning was accelerated. Similar establishment of Clinical Research Unit on Haematology at the Yangon Children Hospital has also allowed collaborative research works on childhood leukemias. Promotion of blood safety was enhanced by the use of bloodmobile to expand the blood donation services and blood collections were carried out from voluntary blood donors from Yangon area and districts.

Activity in Malaria Research

Pharmaceutical Toxicology Research

Department of Medical Research (Upper Myanmar)

Aiming to expend health research by conducting more studies on Traditional Medicine and herbal plants, a new Department of Medical Research was established in Pyin Oo Lwin in upper part of the country in 2001.

Research activities undertaken by the Department cover both basic and applied research and include repellent effect of Artemesia vulgaris extract on Anopheles and Aedes, efficacy of some herbal plants on treatment of tuberculosis, factors influencing performance of midwives and health status of rural population residing in near by villages.

A Herbal garden is also established in the Department to gather and nurture rare species of herbal and medicinal plants from all over the country. Research on treating diabetes mellitus, hypertension, diarrhoeal diseases, tuberculosis and AIDS, with traditional medicine are also carried out in collaboration with other departments concerned. More research will also be done in collaboration with Medical Universities, Universities of Dental Medicine, Nursing Universities and Department of Traditional Medicine.

Department of Medical Research (Central Myanmar)

A newly established department is situated in central Myanmar at Pyinmanar and has become operational since 2003. Research activities can be expanded further and more collaborative research activities can be undertaken with health and medical universities situated in central and upper Myanmar. As science graduates, could be recruited locally the department is also creating new jobs and opportunities for advancement for the local youths. Prelimenary studies and surveys on malaria and rubella infections in Pyinmanar townhsip have been done.

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 in accordance with the guidelines of the National Health Policy and implemented.

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

Successful Liver Transplant in Myanmar

Promotive and Basic Health Services

Public health services, comprising promotive and basic health services encompass a wide range of activities and are in line with elements of the Primary Health Care.

Public Health Division under the Department of Health is responsible for these activities and carrying out the tasks of planning, co-ordinating, training, supervision, monitoring and evaluation at the central level. The activities encompass environmental and occupational health, school health, nutrition promotion and healthy life style, and reproductive health and basic health services.

All the basic health workers and voluntary health workers provide integrated health services which includes medical care, maternal and child health care and birth spacing, growth monitoring and nutrition development, immunization, environmental sanitation, prevention and control of locally endemic diseases, provision of essential drugs and health education.

Environmental and Occupational Health

The Environmental Sanitation Division (ESD) of the Department of Health (DOH), under Ministry of Health, is one of the leading agencies, implementing Environmental Sanitation, Water Quality Monitoring and disseminating the appropriate technologies through model construction as well as IEC.

ESD has successfully implemented the construction of sanitary fly-proof latrines with the active participation of Basic Health Staffs and that of community. National Sanitation Weeks (NSW), launched every year beginning from 1998, are one of the examples of community involvement and 8th NSW had been successfully launched in February, 2005.

Water logged or flooded areas were having difficulty in constructing latrines and appropriate designs were introduced in these areas and the relevant pamphlets were distributed to the community.

Under Construction of Fly-proof Sanitary Latrine

To improve water quality, pot filters for removing arsenic from water were successfully developed by ESD. Moreover, Small Scale Water Treatment of Pond Water for arsenic affected areas as well as for hospital water supply were installed.

The coverage of Urban and Rural Water Supply and Sanitation

	Total	Rural	Urban
Population access to safe water	78.8	74.4	92.1
Population access to sanitary latrine	76.1	70.8	92.6

Source: MICS 2003, Department of Health Planning

Pot filters for removing arsenic from water

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 Health

School Health Programme has been implemented with the objective of promoting the health standard of entire student youth through health promoting school programme. Since 1998, Myanmar has implemented the health promoting school programme in conformity with the National Health Policy. All 324 townships in Myanmar will be covered with health promoting school programme by the year 2006. Furthermore, Tobacco Free School Programme, Aedes Free School Programme, Model School Programme and School Deworming Programme are being implemented under the health promoting school programme.

During January 2004, 1.1 million of primary school age children from 6000 schools in (26) townships of Ayeyarwaddy Division have been dewormed with 400 mg single dose Albendazole, supported by WHO. Moreover, 300,000 primary school children of Yangon Division have been dewormed in September 2004.

With the objective to enhance the collaboration and coordination between health and education sectors on HIV/AIDS education activities in schools, coordination workshops were conducted in (8) States and Divisions during 2004. These workshops were done through intrasectoral coordinated efforts of National AIDS Programme and School and Youth Health Project of Department of Health with support from FHAM (Funds for HIV/AIDS in Myanmar). Townships medical officers and township education officers from 142 townships attended these workshops and HIV/AIDS education activities were disseminated to nearly 4 million school children in 21059 schools.

New Health Care Project for Adolescent Youths is being implemented as a WHO funded programme under National Health Plan (2001-2006). School and Youth Health Project, in collaboration with WHO, has recently initiated a process for the development of an adolescent health strategic plan (2005-2009).

HEALTH PROMOTING SCHOOL COMPONENTS

Training of Trainers on School Based Malaria and STI Control Programme

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.

Myanmar has identified four major nutrition problems; namely, protein energy malnutrition (PEM), iodine deficiency disorders (IDD), iron deficiency anaemia (IDA) and Vitamin A deficiency (VAD). Achievements made in controlling the problems are as follows:

- Prevalence of under-weight among children below five years of age declined from 35.3% in 2000 to 31.5% in 2003.(MICS Surveys, Dept. of Health Planning).
- Iodine Deficiency Disorders are on the verge of virtual elimination.
  - Visible Goiter Rate among 6-11 year old school children dropped from 12% in 2000 to 5.5 % in 2003-04 and approaching the target of less than 5%.
  - Proportion of household consuming iodated salt was 86% in 2003 and coming closer to the target of more than 90%.
  - Median urinary iodine excretion for the whole country was 236 μg/l in 2003-04 and more than twice the target of 100 μg/l.
- Iron Deficiency Anemia was 45% in reproductive aged non pregnant women (2001); 26.4% in adolescent schoolgirls (2002) and 51% in pregnant women residing in the hilly region (2003).
- 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.

Major interventions undertaken against various nutritional problems are:

- Growth Monitoring and Promotion for children under 3 years of age; Community-based nutrition rehabilitation centres (CNC) for moderately malnourished children in urban areas; Hospital-based nutrition rehabilitation units (HNU) for severely malnourished children and Community-based feeding centres (Village food banks) for malnourished children in rural villages for control of PEM.
- Universal salt iodization (USI) is the major long-term intervention for elimination of iodine deficiency disorders.
- Biannual supplementation with high-potency vitamin A capsule is the main intervention against vitamin A deficiency among under-5 children. Lactating women receive one dose of vitamin A (200,000 iu) within one month after childbirth to ensure that the suckling baby gets sufficient vitamin A from the breast milk.
- Main intervention against anaemia is iron supplementation for pregnant women throughout the country, for adolescent school girls in selected townships and children between 6 months and 3 years in selected growth monitoring sessions.

The nutrition promotion week campaign has been launched since 2003 and takes place in the first week of September every year. During the campaign, various nutrition promotion activities are carried out. Vitamin A capsules are distributed to children between 6 months and 5 years of age; iodine content of salt is tested in the markets; and iron tablets are distributed to the pregnant women. Various nutrition education programmes are broadcast and telecast. Testing of iodine in salt is demonstrated for the schoolchildren and essay competitions for schoolchildren and cooking competitions for mothers are held. In the campaign 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 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 Ministry of Health collaborated with relevant ministries involved in food production, food distribution, education, information and developmental affairs. Mid-level officials from the ministries met 2-3 times a year to discuss matters relating to food and nutrition and shared information on activities carried out by various ministries. They also had opportunities to meet on special occasions such as the National Seminar on Multi-sectoral Approach to Nutrition 1992, the National Seminar 2003, and National Workshop on Infant and young child feeding (IYCF) 2003. To continue the inter-sectoral approach for improvement of food and nutrition situation in Myanmar, the Workshop for Updating the National Plan of Action on Food and Nutrition (NPAFN) was held on 8-9th March 2005. In the Workshop mid-level officials from various ministries, representatives from I/NGOs and UN agencies critically reviewed the implementation status of the NPAFN 2005, and set a framework for the NPAFN beyond 2005. Salient recommendations of the workshop included introduction of 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 Promotion of Optimal Fetal Growth.

Cooking Competitions as part of Nutrition Promotion Activities

Myanmar Tobacco Free Initiatives

Myanmar officially launched the National Tobacco Control Programme in the year 2000. Anti-tobacco activities are gaining momentum with active involvement of related departments, enterprises, national NGOs and the community as well as media personnel. All health facilities, basic education schools, sports fields and sports grounds have become tobacco free and measures are underway to prohibit smoking at public places and public transport. Tobacco advertisement was banned from electronic media in 1997, from print media in 2003 and tobacco advertising billboards had been prohibited since 2002.

Myanmar had actively participated in the four year long negotiating process of Framework Convention on Tobacco Control (FCTC). With strong political commitment and dedication towards tobacco control, Myanmar became a signatory to the FCTC on the 23rd of October, 2003 and became a party to the Convention on 11th April 2004. As a result of the significant achievements in tobacco control activities of Myanmar led by the Ministry of Health, the Minister for Health, Professor Dr. Kyaw Myint received the World No-Tobacco Day Award 2004 of the World Health Organization.

Minister for Health, Professor Dr. Kyaw Myint received World No-Tobacco Day Award 2004

A draft law on control of tobacco products consumption had been drawn and is in the final stage of being enacted. It is a comprehensive law and includes total ban of advertisements, prohibition of sale to and by minors, prohibition of smoking at public places, health warnings and packaging, and prohibition of sale of cigarettes in individual forms.

Trends in smoking and other forms of tobacco use, tobacco related diseases, and assessment of effectiveness of national smoking control activities are monitored by conducting appropriate surveys and audit.

The Global Youth Tobacco Survey which was a school-based survey, conducted in collaboration with WHO and CDC, Atlanta, in 2001 and 2004, showed a declining trend in tobacco use among students belonging to grades 8 to 10. Sentinel prevalence surveys conducted in sentinel townships also show a declining trend in prevalence of smoking; but there was a growing concern on the increasing trend of smokeless tobacco use: chewing of betel quid with tobacco.

Health Care for the Elderly

Health Care of the Elderly Project was initiated since 1992-93 starting with six townships and expanded yearly; currently it covers 56 townships and will expand to another 10 townships during 2005. The project townships were provided with special instruments for eye, ear, nose, throat care for the elderly as well as for dental care. Free distribution of reading glasses and free insertion of intra-ocular lens to the elderly patients was part of the project activity in (15) townships during 2001-2002.

Elderly clinics usually open at Rural Health Centers once a week; minor illnesses are taken care at the Rural Health Center from which referrals are made to the nearest township hospital as necessary. Basic Health Staff from the project township as well as local NGOS and volunteers are trained for basic elderly care and medical personnel from the hospitals are also included in the training on case management of elderly patients.

Capacity building of the basic health staff covers; understanding the underlying causes of the illnesses and influencing factors of the social, mental and health problems that the aged are facing, health education and counseling, training on physical activities to demonstrate and encourage the elderly patients and to conduct base-line survey of the elderly in the community. Elderly Day is usually held all over the country on the 1st of October and on that auspicious day, elderly are provided with medical care, health talks, food as well as gifts by health personnel assisted by NGOs.

Physical Activities Training for Aged

Maternal and Child Health

In pursuant to the Myanmar Reproductive Health Policy, policy interventions have been carried out with the heightened interest on safe motherhood activities. These interventions mainly composed of proper antenatal care, clean and safe delivery, postnatal care and newborn care. Maternal health care services in Myanmar have helped improving the health of women and children and ultimately that of the families, especially in rural areas. Essential reproductive health care including maternal and child health care, essential obstetric care, prevention and management of post-abortion complication, management of RTIs/STIs and adolescent reproductive health has been implemented as one of the activities of the National Health Plan. Promotion of community awareness on the knowledge about pregnancy and childbirth, danger signs, role of family and community in birth preparation and transportation in case of emergency was the major gainful achievement to the safe motherhood activity at community level. Despite these advances, the progress has been uneven in some areas and there are much more rooms for improvement in reduction of maternal and neonatal morbidity and mortality.

The Ministry of Health has put emphasis on achieving the MDGs by 2015 in its own capacity with available resources. At country level, national plan of actions and strategic plans were set out, together with national as well as the global partners.

As of 2003 December, 8527 midwives and 28,872 AMWs are providing maternal care throughout the nation. Now the ratio of midwifery skilled providers (including AMWs) to village is 1:2 while the national target is at least one midwifery skilled person for every village. Manpower production and allocation has been focused for increasing coverage in rural and remote areas.

In line with the Nation's commitment to attaining MDGs, special emphasis has put to implement the Making Pregnancy Safer initiative, as a high priority component of reproductive health strategy, which also included the introduction of Voluntary Counseling and Testing for PMCT in routine AN Care. The collaboration between reproductive health programmes and other related key public health programmes such as immunization (utilization of safe delivery kits, improving TT2), nutrition (management of anaemia in pregnancy, iron folate tablets, deworming in pregnancy), malaria (prevention and management of malaria in pregnancy) has been strengthened.

The five-year reproductive health strategic plan (2004-2008) was developed and implemented with multisectoral support and contribution. Myanmar Reproductive Health Policy was formulated in 2002 and implemented at country level. Because of the reasons of urgency, impact and accessibility, reproductive health is a national concern. At micro (sectoral) level, the causes of maternal and child morbidities and mortalities were analysed and the appropriate action plans were developed and implemented. In improving maternal health, the action plan was designed to prevent maternal illness and address deficiencies in the system for providing essential and comprehensive obstetrical care. Emphasis has been placed on antenatal care and the establishment of an infrastructure for basic obstetrical care for the management of pregnancy. As spelled out in the reproductive health policy, it has been arranged to screen for antenatal syphilis detection and detection of anaemia for every pregnant mother. Active management of third stage of labour and the use of $MgSO_4$ in management of severe PET and Eclampsia has been introduced at appropriate operational levels.

During past few years, maternal health care has been strengthened through promoting community awareness on their reproductive rights, building capacity of health staff on updated knowledge and providing quality services using effective tools such as partograph and standard guidelines for midwifery practices. Reproductive health policy interventions also cover postmenopausal issues and screening of gynaecological cancers. Since abortion and its complication has taken a large share of maternal morbidity and mortality, management of post abortion care has been operationalized with heightened interest on preventive aspect nationwide. Adolescent reproductive health is an emerging priority issue in improving reproductive health status of the community. Peers education, life skills education and counseling skills have been provided among adolescents with main focus on out-of-school youths.

Health indicators developed for Myanmar Health Vision 2030 in line with Millennium Development Goals will be used in measuring the performance and impact of reproductive health activities. The reproductive health programme has obtained growing interest by donor agencies, decision-makers, and implementers. Better cooperation and coordination by national NGOs have been developed in line with the strong political commitment to ICPD goals and MDGs. Since the nation's health system has been set up with a very strong infrastructure, implementation of new client-centered approach would be successful through better orientation of health workers. However, to certain extent cultural and traditional system may restraint some aspects of reproductive and sexual health services. These need to be executed tactfully. Financial and human resource constraints are also important issues requiring serious attention. Given the diversity of opinions among stake holder, there is also a need for better cooperation and coordination among partners.

Primary Oral Health

Dental caries and periodontal diseases are the two major oral diseases in Myanmar. The prevalence of dental caries is found to be increasing with advancing ages. Although oral health care for the people had been provided mainly by private practitioners in the years after independence before the establishment of the College of Dental Medicine in 1964 and upgrading later in 1974, more dental surgeons can be produced and oral health care has been provided more in the public sector. There are now 2 universities of dental medicine. The dental technician school and dental nurses training school came into being in 1969.

Primary oral health care provided at grass root level comprises oral health screening, basic and emergency care, primary and secondary referral and oral health education.

With the objective of evaluating effectiveness of school oral health programme in Myanmar, a first major longitudinal epidemiological study is now being implemented by the oral health unit in collaboration with WHO collaborating center at Nijmeger University, the Netherlands.

Ensuring Food and Drug Safety and Preventing and Mitigating Toxic Hazards

In accordance with the provisions of the National Drug Law (1992) and National Food Law (1997), Food and Drug Administration (FDA) has tested the quality and safety of drugs and food produced locally as well as those imported or exported.

To promote and safeguard the health of consumers down to the grassroot level, field laboratory services are extended to states and divisions as well as remote areas using Mobile Laboratory Vehicle. Equipped with necessary laboratory materials, the mobile laboratory can perform market surveys and sample collection, organoleptic examination, microbiological and chemical examination of food and water, identification and potency assay test of drugs and microbial contamination tests for syrup preparations.

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.

With the objectives of preventing and mitigating toxic hazards through surveillance, research, community education, timely intervention and control measures some organizational changes have taken place in the Department of Medical Research (Lower Myanmar) and the Department of Health where new divisions have been set up or older ones reorganized and upgraded.

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 in the People's Health Plan (PHP) and also in the National Health Plans (NHPs).

Since then the basic health staff have been reoriented and trained to provide services for Malaria Control, implement Multi Drug Therapy Programme in 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 is 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 climate changes, uncontrolled population migration, ecological changes, existence of multi-drug resistant *P.falciparum* parasites, and appearance of insecticide resistant vector and change in the behaviour of vector. Long-term trend shows decreasing malaria prevalence and mortality rate in Myanmar.

The main responsible vectors are *An.minimus* and *An.dirus*. In Rakhine State, *An.annualaris* is responsible for local transmission and is resistant to DDT. *An. sundaicus* is responsible vector in coastal region.

Drug resistant malaria is seen along the border areas and some pocket areas especially gem mining areas.

Existing situation in Myanmar compared to baseline (1990)

	Malaria Morbidity Rate	Malaria Mortality Rate
1990	989,042 cases (24.3/1000 population)	5127 deaths (12.6/100,000 population)
2004	602,883 cases (11.1/1000 population)	1,982 deaths (3.7/100,000 population)
% of reduction	39% of cases (54% of rate)	61% of cases (71% of rate)

The main strategies for National Malaria Control Programme are:

- Information, education and communication regarding malaria causation, prevention and control for increasing awareness of the community up to the grass-root level.
- Selective and sustainable preventive measures including vector control.
- Prevention, early detection and containment of epidemics.
- Early diagnosis and appropriate treatment.
- Inter-sectoral collaboration with health related sectors.
- Community involvement in malaria prevention and control activities.
- Capacity building of different categories of health staff.
- Field operation research.

Activities carried out by the programme

1. Information, Education and Communication.

Mekong Malaria Project on Information, Education and Communication was implemented including situation analysis among Shan, Lahu and Akha national races, and development of IEC prototype based on situation results. Fifth round National Malaria Week was conducted with the involvement of partners for awareness of the community. During that period, IEC materials were produced and distributed, health talks were given to different health related sectors and community, potential malaria out break areas were identified with other sectors, case finding and management activities in priority areas were carried out and community based environmental management was done. It was conducted through out the country.

2. Preventive activities

Insecticide Treated Mosquito Nets

Selective and sustainable preventive measures were carried out mainly emphasizing on personal protection and environmental management insecticide treated mosquito nets (ITNs) were distributed. Existing nets were also impregnated. With the limited resources, areas were prioritized for distribution of ITNs. In year 2004, 30 townships were covered under ITNs programme. There are about 87 thousand households in programme areas. About 55.2% of the households in that particular programme areas were covered by ITNs programme.

Distribution of Long Lasting Insecticide Treated Nets

Epidemic preparedness

Number of epidemics became reduced about 60% during last 5 years. Ecological surveillance was emphasized together with case detection, management and preventive measures mainly indoor residual spray in development projects.

3. Early diagnosis and appropriate treatment

In Myanmar, about 70% of the populations are residing at rural areas. Altogether 600 microscopes were distributed up to rural health center level for malaria microscopy to serve the rural community as well. Dipsticks were distributed up to sub-center level in some priority areas. Different categories of health staff were trained for case diagnosis and management.

After changing new anti-malarial treatment policy, introduction of artemisinin-based combination therapy was started in most of the areas.

Giving anti-malaria treatment in rural area

4. Capacity building

Different categories of health staff were trained on adherence to new anti-malarial treatment policy, malaria microscopy and prevention and control of malaria including insecticide treated mosquito nets programme. Apart from that, training on different technical areas including monitoring of fake antimalarial drugs, repair and maintenance of microscopes, therapeutic efficacy tests, health mapper were also conducted.

Monitoring on drug quality control

Training on malaria microscopy

Tuberculosis

Tuberculosis is one of the major public health problem in Myanmar and considered as the second priority among the communicable diseases in the National Health Plan (2001-2006). Recent estimates suggest that 1.5% of the population become infected with tuberculosis every year, out of which about 90,000 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). Countrywide 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 general objective of the National Tuberculosis Programme is to reduce the mortality, morbidity and transmission of TB, until it is no longer a public health problem.

The specific objectives of the National Tuberculosis Programme are

- To cure 85% of detected new cases of sputum smear positive pulmonary TB
- To detect 70% of new cases of sputum smear positive pulmonary TB cases
- To sustain implementation of quality DOTS at all townships

The strategy of the National Tuberculosis Control Programme are

- 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
- Regular supervision and monitoring of NTP activities at all level
- Strengthening partnership
- Capacity building
- Promotion of operation research

Progress of National Tuberculosis Control Programme (Myanmar)

Indicators	1994	1999	2000	2001	2002	2003	2004
Covered population (%)	8	65	85	90	95	95	95
Covered township (%)	6	52	71	80	95	100	100
Case Detection Rate (%)	32	43	56	61	70	73	81
Cure Rate (%)	61	74	70	73	74	72	81
Treatment Success Rate (%)	78	82	81	82	82	81	81

Myanmar with the population 53.2 million is one of the 22 high burden countries in the world and was ranked 20th position in 2003.

To control tuberculosis, Directly Observed Treatment Short Course (DOTS) strategy was introduced in 1997 and gradually expanded during (1997-2003). In 2003, it covered all 324 townships. Previously fully intermittent regimen was used in all NTP centers since 1999. NTP introduced Fixed Dose Combination (FDC) tablets for daily regimen in 2004. World TB day and World TB week commemoration ceremonies are conducted every year at central and S/D levels. It was expanded to township level in March, 2005. 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 (IUATLD).

The basic health staff in the rural areas, voluntary health workers and national NGOs, 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. TB control activites is funded by Global Fund to fight AIDS, TB and Malaria (GFATM) in 2004. The budget for first two years is 6.99 million $.

Signing Ceremony of Programme Grant Agreement GFATM

Implementing DOTS

HIV/AIDS

AIDS is one of the priority diseases of the National Health Plan of Myanmar. The National Health Committee has laid down clear guidelines to fight AIDS as a national concern. The National AIDS Committee, founded since 1989 is an active multisectoral body for formation of National Strategic Plan to prevent and control HIV/AIDS in Myanmar. The forty three 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.

Active surveillance for HIV and AIDS began in Myanmar since 1985. The first AIDS patient was reported in 1991, an Injecting Drug User. Biannual HIV Sentinel Surveillance started in 1992. Monthly HIV positive reporting of blood donors and hospital patients clinically suspected of AIDS cases were also taken into consideration in the analysis of HIV prevalence trends in the country. HIV Sentinel Surveillance has now expanded to all States and Divisions totaling 30 sentinel sites. The HIV sentinel subpopulation are Injecting Drug Users, Male STD Patients, Female STD Patients, Commercial Sex Workers, Pregnant Women Donors, and New Military Recruits. About 20,000 individuals were tested for HIV antibody, each year for sentinel surveillance. A sample size of 8,000 at each round was surveyed for HIV/AIDS/STD related risk behaviours. Sentinel Surveillance System is strengthened by Behavioural Sentinel Surveillance System, STD (Syphilis) Sentinel surveillance and AIDS death reporting.

Ministry of Health, WHO Head Quarters, Geneva and UNAIDS jointly held a workshop on 15th to 17th September, 2004 for estimation of people living with HIV/AIDS in the country. According to the estimates arising out of the workshop there are a total of 338,911 people living with HIV/AIDS in 2004.

General objective of the National AIDS Program is to increase the awareness and perception of HIV/AIDS in the community by promoting access to information and education leading to behavioural change and adoption of healthy life style.

Strategic Areas of the National AIDS Programme for Control and Prevention 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 interventions
   - 3.1 Prevention of sexual transmission
   - 3.2 Prevention of HIV infection among injecting drug users
   - 3.3 Prevention of mother to child transmission
   - 3.4 Provision of safe blood and blood products
   - 3.5 HIV prevention among health care setting
4. Care and Treatment of STD patients and PLWHA
5. Programme Management and Support including monitoring and supervision
6. Capacity building

HIV/AIDS/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/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 multi sectoral collaboration and cooperation
9. Special intervention programmes
   - Cross border programmes
   - TB-HIV joint programmes
10. Supervision, monitoring and evaluation

One of the remarkable events of awareness raising activities is the success of the "First Exhibition on HIV/AIDS Prevention and Control Activities" at the national level in Yangon during 3rd to 12th November 2003 and "The second Exhibition on HIV/AIDS Prevention and Control Activities" at national level in Mandalay during 16-20 October 2004. Eighty thousand individuals in Yangon and sixty thousand individuals in Mandalay, from various walks of life, has visited these exhibitions. These successes not only reflect the existence of very high level of political commitments in the prevention and control of HIV/AIDS but also illustrate the achievement of high level of understanding and cooperation among the related Ministries, local and international NGOs, UN agencies that are collectively fighting HIV/AIDS in Myanmar since they all participated in the exhibition.

The Second Exhibition on HIV/AIDS Prevention and Control Activities at Mandalay

There are other activities carried out to combat HIV/AIDS in the country. With the policy guidance laid down by the National Health Committee, National AIDS Committee has been closely monitoring the supervising the activities conducted by National AIDS Control Programme, under the Department of Health, Ministry of Health. The activities include prevention of transmission through sexual mode within which 100% targeted condom promotion was an integral part (currently in 110 townships), prevention of HIV transmission among IDUs, prevention of mother to child transmission of HIV (PMCT) (currently in 36 townships), provision of care and support, screening of blood for HIV for the safe blood supply (currently in all hospitals up to township level), promotion of multisectoral collaboration and cooperation, special program activities, surveillance, supervision, monitoring and evaluation. Provision of care and support includes counselling, voluntary confidential counselling and testing, provision of antiretroviral therapy and treatment of opportunistic infections, and home care. These activities are being carried out not only by Ministry of Health but also in collaboration with other related Ministries such as, Ministry of Education, Ministry of Labour and so on and UN Agencies, NGOs and INGOs.

Professor Dr. Mya Oo, Deputy Minister for Health delivering the speech on World AIDS Day 2004

Health Education on PMCT

Milestones of HIV/AIDS Prevention and Control in Myanmar

- Ad hoc studies for HIV started in 1985
- First HIV infected case was recorded in 1988
- AIDS control programme started in 1989 with a short-term plan
- National AIDS Committee established in 1989
- First AIDS case reported in 1991
- HIV Sentinel surveillance started in 1992
- Prevention of mother-to-child transmission programme started in 2000
- 100% condom use programme started in 2001
- "ART for People Living with AIDS" started in the public sector in 2003

Trachoma Control and Prvention of Blindness

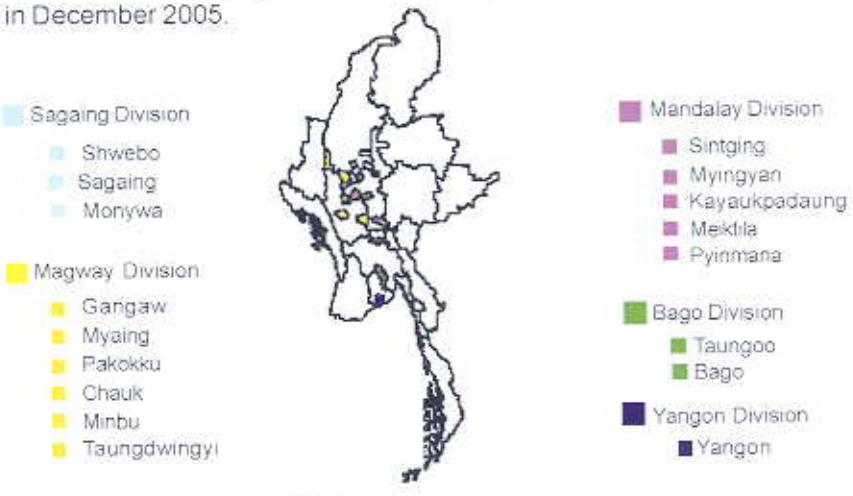
Trachoma Control and Prevention of Blindness project was launched in 1964. At that time trachoma was main cause of blindness in Myanmar and active trachoma rate was 43 % in trachoma endemic areas (central Myanmar). With the concerted effort of the project and support of Government, WHO, UNICEF and NGOs, active trachoma rate was reduced to under 1 % in 2000. As trachoma blindness is greatly reduced, cataract becomes main cause of blindness in the country. The national objective is to reduce blindness rate to less than 0.5%.

According to 1998 ocular morbidity survey, blindness rate is 0.6 % and main causes of blindness are

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 covers 18.1 million people in 79 townships of 4 divisions. The strategies adopted by the project are; to improve cataract surgical rate and quality of surgery, to make Primary Eye Care available to all and eliminate avoidable blindness, to promote community participation, to provide cataract surgical services at affordable price and free services to poor patients and to conduct outreach services.

Elimination of trachoma activities in Saging, Shwebo and Monywa districts were started in September 2003 and will be completed in December 2005.



Leprosy

Leprosy has stood as a public health problem in Myanmar, for many years, and also as one of the social diseases in the community. The Government of Myanmar started to launch anti–leprosy campaign since 1950– 51 and these services were integrated into Basic Health Services in 1991 and completed in 1995.

With the strong political commitment of National Health Committee and enthusiastic efforts by Basic Health Services and Leprosy Control Programme staff, leprosy was eliminated at National level on January 2003, as declared officially at Third Global Alliance for Elimination of Leprosy meeting held in Yangon from 6-8 February 2003.

In line with guidance by the National Health Committee, different levels of Advocacy were held in all States and Divisions for sustaining the status of elimination and strengthening the partnership.

Main activities conducted in 2004, according to the plan of action were;

- Transferring ownership to Basic Health Services
- Strengthening monitoring and supervision
- Advocacy meeting at all levels
- Improving community participation and involvement
- Conducting Workshop for Leprosy Control beyond 2005

Leprosy situation by the end of 2004

Registered cases	2708
Prevalence rate	0.49/10,000
Total new cases detected	3756
Total number of cases cured	3807
Cumulative total cases cured since introducing MDT	259963

H.E. Minister for Health delivering the Opening Speech on Workshop on Development of Strategies for Leprosy Control Beyond 2005

Workshop on Development of Strategies for Leprosy Control Beyond 2005 was held in Yangon with the collaboration of WHO and other International partners. Four main categories of strategy identified as the outcome of the workshop were;

- Strategies for on-going programme
- Strategies for sustainability of leprosy services
- Strategies for reducing disability in people affected by leprosy
- Strategies for funding and referral

Curative Services

Curative Services are provided by various categories of health institutions, under the Ministry of Health ranging from Teaching Hospitals, Specialist Hospitals, State/ Division Hospitals, District Hospitals and Township Hospitals situated in urban areas down to Station Hospitals, Rural Health Centres, and Sub-centres in the rural areas. There are a total of 824 Government Hospitals and 1452 RHCs. In addition, 86 Primary and Secondary Health Centres, 348 Maternal and Child Health Centres, 80 School Health Teams and 442 dispensaries are augmenting the medical care service delivered to the population at risk.

At the peripheral level township hospitals, which may be 16, 25 or 50 bedded depending on the population of the township, are providing curative services. Specialist services are available at the district hospitals and more advanced secondary and tertiary care are provided at the State and Divisional Hospitals, Central and Teaching Hospitals.

The number of government hospitals has increased more than 25% from 1988. Number of specialities available in the State and Divisional Hospital had been increased and more specialist were appointed. Total hospital beds available in 2005 March are 34654.

With the aim of enhancing the quality of care in hospitals bed strength of all township hospitals are in the process of being upgraded. Modern diagnostic and therapeutic facilities have also been installed in most central and teaching hospitals and in state and divisional hospitals. Likewise, specialist services have also been made more available.

As a result of strengthening the hospitals with both competent human resources and material resources, various sophisticated interventions like renal transplant, open heart surgery, cardiac catheterization, angiogram and reconstruction of traumatically amputated hand can be performed.

For the first time in Myanmar, liver transplant operation was successfully done in New Yangon General Hospital in Myanmar on 25 August, 2004.

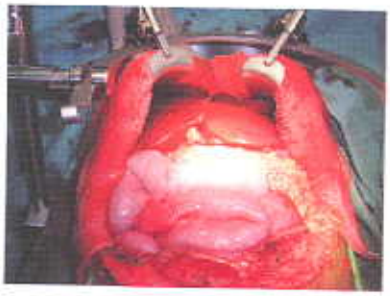
The health development and health care of the border areas have been implemented since 1989 and up to the period of March 2005, 79 hospitals, 105 dispensaries, 58 rural health centres and 140 sub-rural health centres have been opened.

Along with curative services, nursing services have also been upgraded both in the managerial, clinical and field aspects. The Nursing Division under the Department of Health could provide training on nursing leadership and management development to strengthen nursing services in collaboration with WHO and International Council of Nurses.

Also in joint collaboration with WHO, a project for expansion of the implementation of patient-centered nursing care model was implemented.

Supplies and equipment were provided and training conducted for health personnel including medical officers, nursing officers and midwives under the project of "standards of midwifery practices for safe motherhood".

In addition to the Ministry of Health, other ministries like Ministry of Railways, Mines, Industry (1), Energy and Home are also providing curative services for their employees and families. Ministry of Labour has set up two hospitals, one inYangon and other in Mandalay, to render hospital services to those entiled under the Social Security Scheme. Dispensaries providing ambulatory care are also run by these ministries and Ministry of Industry (2) and Ministry of Transport.



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 very potent and effective.

Health care by traditional system is by 14 Traditional Hospitals, 43 district Traditional Medicine Clinics and 194 Township Medicine Clinics extending to the border areas. There are two 50 bedded hospitals and twelve 16 bedded hospitals in various States and Divisions.

To further promote Myanmar traditional medicine and propagate the Myanmar traditional medicine practices, Traditional Medicine Practitioners' Conferences had been held yearly since 2000.

The Myanmar Indigenous Medicine Act was enacted in 1953. According to this law the State Traditional Medical Council was formed. It is a leading body and responsible for all the matters relating to Traditional Medicine. To keep abreast with changing circumstances, Myanmar Indigenous Medicine Act was replaced by Myanmar Traditional Medicine Council Law, enacted in 2000.

At present, there are over six thousand 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. According to that law, those practitioners who had not been trained under these institute or university had to undergo special one year training course conducted by the department to become legitimate practitioners. 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 promulgated, all the traditional medicines produced locally have to be registered and manufacturers require license to produce their products. There are altogether 6756 items of drugs registered and 1198 manufacturers granted license. The traditional medicines used in township traditional medical clinics and hospitals are provided by two factories owned by the department, one in upper and another in lower Myanmar.

In order to produce sufficient raw material for drug manufacturing factories under the Department of Traditional Medicine, a total of 9 herbal gardens with the total of 120 acre has been established. As these herbal gardens are located in different parts of the country with different weather and soil, a variety of species according to the weather and soil preferences, can be cultivated.

Attempts have been made to integrate traditional and allopathic medicines in the management of some challenging diseases, such as pulmonary tuberculosis, diabetes mellitus, hypertension, stroke, bronchial asthma and malaria.

Human Resources for Health

The Department of Medical Science is concerned with the production of all categories of health personnel with the aim to strengthen the development of human resources for health and equip them with advanced technologies. Under the Depertment 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, 43 nursing and midwifery training schools all over the country.

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, public health supervisors grade I and II, lady health visitors and midwives who are the cornorstone for the implementation of rural health development programme.

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

The MRCP Part 1, MRCPCH Part 1, MRCS Part A and MRCS final assessment 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 institute and one university each of Traditional Medicine in Mandalay.

In accordance with the National Health Plan and the Special Four Year Plan for Promotion of National Education (Health Sector), the Department of Medical Science had upgraded and strengthened medical and health related institutions under it. The main aim of the Special Four Year Plan is to upgrade standards of Medical and Health Professional Institutions to keep abreast with the developed countries in the ASEAN Region.

This upgrading and strengthening process will lead to enhancement of the quality of training and production of highly proficient human resources for health.

The Medical Resource Centre was developed with 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 Center, 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 are now in full fledged function.

Medical Resource Center

Video production of practical teaching

Health Research

Department of Medical Research 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.

To further expand research activities and traditional medicine research, two new medical research departments have been established, one in upper Myanmar (Pyinoolwin) 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 those 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. Outstanding among these studies was the study on antimalarial activity and related chemical constituents of three species of Swertia locally known as Pan Kha, available in Kayah State. The Department could also conduct health system research focusing on empowerment of general practitioners in control of tuberculosis, and other researches on thepeutic efficacy of Artemisini Based Combination Therapy on treatment of falciprum malaria, and control of dengue fever.

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 (HSR) are conducted by the Department of Health Planning.

In addition, Health Systems Research is carried out to improve the performance of health system and Reproductive Health Baseline Community Survey was conducted to obtain detailed information on the various aspects of reproductive health in the country.

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.

Multiple Indicator Cluster Surveys have been undertaken by the Department of Health Planning successfully nation wide for 4 times. Through these surveys, National Health Plan and National Programme of Action could be monitored and evaluated. The Ministry had also conducted World Health Survey in collaboration with WHO.

Conducting Health Research

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.

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.

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). Data from hospitals are based on 10% samples and attempts are under way to collect all and to include Traditional Medicine. 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.

PARTNERSHIP FOR HEALTH DEVELOPMENT

The multi-sectoral dimension is inherent in practically every health intervention. Our understanding of health purely as a technical issue is no longer enough. Economics, political science, human development and even issues of global and national security now require us to consider health in a broader context. Health has a mutually reinforcing relationship with development. Major progress on achieving developmental goals including the MDGs, is inconceivable if there is no improvement in the health situation.

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.

International Collaboration on HIV/AIDS Prevention and Care

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" and will do its best for health development of the country as well as the region.Myanmar become 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.

Myanmar has been elected as member of the Executive Board of the WHO for the years (2001-2004) and His Excellency Professor Dr. Kyaw Myint, the Minister for Health has also been elected to chair the Board.

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.

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.

Intercountry joint activities were conducted between Myanmar and China and Myanmar and Thailand. In September 2001 a joint progremme on health exhibition and health activities at border area between Myanmar and Thailand was held at Tachileik-Maesai region. This was followed by other joint activities at Kawthong-Ranong region in February 2002 and in Kyaingtong-Chaingrai in September 2003. On all occasions Health Ministers of both countries attended and delivered inaugural addresses. In addition to holding health exhibitions health care services were provided to the local population by the visiting as well as local specialists.

A team comprising orthopedic surgeons, doctors and nurses performed corrective surgery for those with orthopedic problems. Similarly, a team of plastic surgeons headed by professor/head of the maxillo-facial department of the Yangon General Hospital performed corrective surgery for the patients with congenital cleft lip and palate during that period. Other specialists like ophthalmologist, ENT specialist, general surgeon, obstetrician and gynaecologist are also providing specialist services.

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

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

International Non-Governmental Organizations

- World Vision International (WVI)
- Adventist Development and Relief Agency (ADRA)
- Artsen Zonder Grenzen (AZG)
- International Committee of the Red Cross (ICRC)
- ORBIS International
- Surgical Eye Expedition (SEE)
- Christoffel Blindenmission
- J.B. Memorial (USA)
- International Federation of Eye Bank (IFEB)
- Interplast
- Medicins Du Monde
- Association Medical Franco-Asratique
- Association Francois Xaavier Bagnoud (AFXB)
- Japanese AIDS Foundation
- World AIDS Foundation
- Save the Children Fund (UK)
- World Concern
- AMDA (Association of Medical Doctors of Asia)
- Care Australia
- Marie Stopes International
- Action International Contre La Faim (AICF)
- Sasakawa Foundation
- The Leprosy Mission International
- American Leprosy Mission
- Nederlence Faistitching Voon Lepro-vestriging
- China Medical Board
- Population Services International (PSI)

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.

To elaborate a few, 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.

Being aware 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 inservice 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.

NGOs Collaboration in Health Care Activities

HEALTH STATISTICS

Vital Statistics

Health Index	1988	1998	1999	2000	2001
Crude Birth Rate (per 1,000 population)					
- Urban	28.6	27.5	24.5	24.2	23.9
- Rural	30.5	29.1	27.1	26.4	26.3
Crude Death Rate (per 1,000 population)					
- Urban	8.9	8.2	6.0	6.3	6.2
- Rural	9.9	8.7	7.8	7.3	7.1
Infant Mortality Rate (per 1,000 live births)					
- Urban	47.0	47.2	55.1*	48.5	48.3
- Rural	49.8	48.7	62.5*	50.2	50.1
U5 Mortality Rate (per 1,000 live births)					
- Union	-	-	77.77*	-	-
- Urban	72.9**	72.2	65.12*	-	-
- Rural	-	-	85.16*	-	-
Maternal Mortality Ratio (per 1,000 live births)					
- Urban	1.0	1.0	1.8*	1.1	1.0
- Rural	1.9	1.8	2.8*	1.9	1.8
Population Growth Rate	1.96	1.84	2.02	2.02	2.02
Average Life Expectancy					
- Urban (Male)	59.0	60.8	61.0	61.1	61.5
(Female)	63.2	64.9	65.1	65.1	65.6
- Rural (Male)	56.2	60.2	60.3	60.4	60.8
(Female)	60.4	62.5	62.7	62.8	63.3

Source: Statistical Year Book, CSO,

* National Mortality Survey, 1999

** Review of the Financial, Economic and Social Conditions for 1997/1998, Ministry of National Planning and Economic Development

Health Manpower Development

Health Manpower	1988-89	2001-02	2002-03	2003-04	2004-05*
Total No. of Doctors	12268	16000	16570	17081	17564
- Public	4377	5880	6180	6331	6473
- Co-operative & Private	7891	10120	10390	10750	11091
Dental Surgeon	857	1117	1227	1285	1365
- Public	328	473	517	543	580
- Co-operative & Private	529	644	710	742	785
Nurses	8349	14925	15502	16382	17864
Dental Nurses	96	103	109	123	158
Health Assistants	1238	1719	1728	1739	1767
Lady Health Visitors	1557	2431	2559	2679	1702
Midwives	8121	13037	14097	15130	16245
Health Supervisor (1)	487	525	529	529	529
Health Supervisor (2)	674	1094	1144	1199	1339
Traditional Medicine Practitioners	266	558	563	769	769

* Provisional actual

Health Facilities Development

Health Facilities	1988-89	2001-02	2002-03	2003-04	2004-05
Government Hospitals	631	753	780	790	824
Total No. of Hospital Beds	25309	31579	32770	33683	34654
No. of Dispensaries	247	400	417	417	442
No. of Primary and Secondary Health Centers	64	84	84	84	86
No. of Maternal and Child Health Centers	348	348	348	348	348
No. Rural Health Centers	1337	1404	1413	1424	1452
No. of School Health Teams	80	80	80	80	80
No. of Traditional Medicine Hospitals	2	10	12	14	14
No. of Traditional Medicine Clinics	99	213	213	237	237

Government Health Expenditure (2004-05)

Health Expenditure (Million Kyats)	
- Current	13716
- Capital	11136
Total	24852
Per Capita Health Expenditure (Kyats)	458

Leading Causes of Morbidity (2003)

Sr. No.	Causes	Percent
1.	Malaria	10.6
2	Other injuries of specified, unspecified and multiple body regions	9.9
3	Single spontaneous delivery	8.8
4.	Diarrhoea and gastroenteritis of presumed infectious origin	4.9
5.	Other complications of pregnancy and delivery	4.8
6.	Other pregnancies with abortive outcome	4.1
7.	Other diseases of the respiratory system	3.5
8.	Respiratory tuberculosis	2.4
9.	Toxic effects of substance chiefly non-medicinal as to source	2.3
10.	Pneumonia	2.2
11.	Gastritis and duodenitis	1.9
12.	Other conditions originating in the perinatal period	1.5
13.	Infections of the skin and subcutaneous tissue	1.5
14.	Other anaemias	1.4
	All other causes	40.2
	Total	100.0

Leading Causes of Mortality (2003)

Sr. No.	Causes	Percent
1.	Malaria	13.3
2.	Respiratory tuberculosis	6.8
3.	Stroke, not specified as haemorrhage or infarction	6.4
4.	Other injuries of specified, unspecified and multiple body regions	5.3
5.	Other diseases of the respiratory system	4.8
6.	Heart failure	3.9
7.	Other diseases of liver	3.3
8.	Septicaemia	3.1
9.	Toxic effects of substance chiefly non-medicinal as to source	3.1
10.	Other viral diseases	3.0
11.	Pneumonia	2.4
12.	Slow fetal growth, fetal malnutrition and disorders related to short gestation and low birth weight	1.8
13.	Diarrhoea and gastroenteritis of presumed infectious origin	1.6
14.	Renal failure	1.2
	All other causes	40.1
	Total	100.0

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	

Sr. No.	Training	Training Period
	(B) Dr. D. Sc (29) Oral Medicine (30) Prosthodontics	3 years
	(C) Ph. D (1) Anatomy (2) Physiology (3) Biochemistry (4) Microbiology (5) Pathology (6) Pharmacology (7) Public Health	3 years
2.	**Master Courses**	
	(1) Anatomy	2 Years
	(2) Physiology	2 Years
	(3) Biochemistry	2 Years
	(4) Pharmacology	2 Years
	(5) Public Health	1 Year
	(6) Hospital Administration and Health Management	1 Year
	(7) Internal Medicine	3 years
	(8) Surgery	3 years
	(9) Obstetrics & Gynaecology	3 years
	(10) Paediatrics	3 years
	(11) Orthopaedics	2 years
	(12) Ophthalmology	2 years
	(13) Otorhinolaryngology	2 years
	(14) Pathology	2 years
	(15) Microbiology	2 years
	(16) Anaesthesiology	2 years

Sr. No.	Training	Training Period
2.	**Master Courses (contd.)**	
	(17) Diagnostic Radiology	2 years
	(18) Rehabilitation Medicine	2 years
	(19) Medical Jurisprudence	2 years
	(20) Mental Health	2 years
	(21) Dermatology	2 years
	(22) Radiation Oncology	2 years
	(23) Medical Oncology	2 years
	(24) Dental Science	2 years
	(25) Nursing Science	2 years
	(26) Pharmacy	2 years
	(27) Medical Laboratory Technology	2 years
	(28) Physiotherapy	2 years
	(29) Medical Imaging Technology	2 years
3.	**Diploma Courses**	
	(1) Tuberculosis and Chest Diseases	1 year
	(2) Nuclear Medicine	1 year
	(3) Sexually Transmitted Diseases	1 year
	(4) Medical Education	9 months
	(5) Family Medicine	1 year
	(6) General Dental Practice	1 year

Training Institutions 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.

Sr No.	University/ Training Schools	Degree/ Diploma/ Certificate Conferred
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	-