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PRIMARY HEALTH CARE IN NEPAL

> *"In short, from a sanitary point of view, Kathmandu may be said to be built on a dung hill in the middle of latrines."*
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> **Daniel Wright**, 1877 in History of Nepal (1).

Nepal is a poor country, one which has been put in the group of those which are least developed. In this context, therefore, we have nothing to boast about. They tell us however that things are going to get better by the end of this century viz. by the year 2000. We have been hearing this for some time now.

More recently there has been talk of liberalisation and privatisation. The talk is of public and private mix in the delivery of health care services. Though the writing is not quite clear on the wall, the intention seems to be to hand over the curative services to the private sector and for the government to restrict itself to just promotive health care. Whilst this is an easier option this seems tantamount to washing ones hands from having to do the difficult task of providing reasonable health services to the people at large.

As one looks over the list of diseases occurring in Nepal, one realises that the people are subjected to a relatively large number of afflictions, present almost all the time. Besides these **endemic** illnesses, one sees as one looks over the medical records, that a number of other diseases take **epidemic** proportions from time to time. The cholera epidemic during the time of Chandra Shumsher was but one of such episodes in the history of diseases in Nepal. At such times it is necessary to shift large amount of resources viz. men, money and materials to tackle the problems as they occur. In such situations it is also realised that this is not the best way to do things, it being costly and unsatisfactory. It makes much more sense to try to work on the premise, **"Prevention is better than cure"**. This is the reason why health policies are made and it is obligatory to try to put into practice what has been delineated as policy. The post Rana period is an example of this as a number of specific projects were started to deal with the various problems of the populace.

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The major causes of morbidity and mortality vary tremendously according to which sources one has consulted or which data one has unearthed. By examining some of these figures, one can deduce that the summer months are the time of the year when most people are ill. A large part of this illness is due to gastrointestinal upset, brought about by way of faecal contamination of water or food by various offending organisms. A clean environment with a good water supply and proper sewage disposal will get rid of all the major illnesses associated with this.

At long last it seems that the message has sunk in and stress is being laid on the preventive aspects of health care. People are being made aware of the fact that they should be looking after their own health. It is in this aspect that the media has a great role in creating public awareness. Recently a special section dealing with the concept of Information, Education and Communication (IEC) has been set up. However, much more still needs to be done.

Thus the MoH, from the time of its inception in 1956 was aware of the necessity of controlling communicable diseases. It is in that light that one can view the starting of the various projects over the succeeding years (2).

Malaria Eradication Project -	1958
Leprosy Control Project -	1965
Tuberculosis Control Project -	1965
Smallpox Eradication Project -	1967
Family Planning and MCH Project -	1968

Following the official eradication of smallpox, this project was converted into the Expanded Programme of Immunisation (EPI) in 1977.

Malaria Control

The history of malaria, or **awal** as was known in the country has been recounted already. The locals here, as elsewhere in the world, believed it to emanate from swamps, marshes and similar environment. In fact the locals of Italy, having lived in such areas, believed that the condition was caused by bad air or **mala aria**. Thus originated the name for the symptoms which later turned out to be caused, not by bad air, but by a parasite aided by its vector, the mosquito.

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Since 1955 Nepal attempted for four years to try to eradicate malaria. After a period of 12 years it was noted that there was a marked reduction in the number of malaria cases (3).

After a further five years the picture had changed, perhaps because the mosquitoes had developed resistance to DDT. Seeing that eradication now seemed an impossible task, WHO in 1976 advised to change to a Malaria Control Programme instead.

Because of its geographical situation 67 out of the 75 districts are considered malarious. As of 1982, fifty districts were served with regular anti-malarious services whilst the 21 hill districts with irregular transmission provided drug supply through health posts. Maximum resurgence of malaria was seen in the central region where there were as many as 15,594 cases in 1991 (4).

Integration

By the late sixties both USAID and WHO had come around to the thinking that the Nepalese health services needed to be integrated (5). This led naturally on to the proposal of trying the process in two districts viz. Kaski and Bara, which were dissimilar in terms of location, living styles etc. The administrative aspects were first handled by Community Health and Integration Division (CHID). A Central Integration Board (CIB) was also formed. As time went on, 4 more districts were added. In 1980 however, both the CHID and CIB were disbanded and a new Integrated Community Health Services Development Project (ICHSDP) was formed as per the Development Boards Act of 1956 (6).

The various slogans of WHO starting from Basic Minimum Health Needs culminated ultimately in the Health For All 2000 (HFA 2000) strategy of 1978. This in course of time, following acceptance by the world at the Alma Ata Conference of 1978, became the “Health Call of the World”.

By 1987 the MoH decided to integrate all the vertically run programmes. The Department of Health Services was done away with and the Ministry took over the overall functioning. The District Public Health Offices were established. By this time the ICHSDP had a total of 23 integrated districts under it. All these now came under the newly established Public Health Division, which also became the central focal point for the DPHOs.

In June 1996, during the time that the three party coalition government of NC, RPP and NSP was in power, the Malaria Research and Training

Centre at Hetauda was converted into the Vector Borne Disease Centre with the aid of USAID. This centre has been designated the focal point for the fight against vector borne diseases such as malaria, kala-azar and Japanese encephalitis.

HFA 2000

Nepal had sent an official delegation to the Alma Ata conference in 1978. Since then, like most of the countries of the world Nepal has committed itself to providing Primary Health Care to its citizens. Goals have been set, and revised from time to time. Five of the targets then set, are as follows:-

1. IMR per 1000 live births: reduce from 107 to 45.
2. Population growth rate: reduce from 2.66 to less than 2 percent.
3. Life expectancy at birth: increase from 51 to 65 years both for men and women.
4. Drug supply locally: increase from 9 to 60 percent production.
5. Health Worker to Population ratio:
    a. One health worker (Trained Doctor, **Kaviraj**, Health Assistant, **Vaidya**, Auxiliary Health Worker) for every 3000 of the population.
    b. One trained nurse (Staff Nurse, Assistant Nurse Midwife) for every 600 population.
    c. One health volunteer for every 500 population.

Post Alma Ata

Following the Alma Ata conference the concept of PHC was taken up on a worldwide basis. It was also realised that this concept varied from setting to setting and from country to country. What was however accepted was that for the sake of practicality this package of PHC could be broken down into its eight components (7):

a. Education about existing health problems and how to prevent and control them.
b. Promotion of food supply and proper nutrition.
c. Adequate supply of safe water and basic sanitation.*

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d. MCH care including family planning.
e. Immunisation against major infectious diseases.
f. Prevention and control of locally endemic diseases.
g. Appropriate treatment of common diseases and injuries.*
h. Provision of essential drugs.*

Of these 8 components, water supply and sewage, disabilities and essential drugs (*) will be discussed here as others are dealt with in previous chapters.

The Situation in Nepal

At the time that the concept of Primary Health Care was getting acceptance world wide, the IoM at Kathmandu, was starting its community oriented medical course. As a prelude to this, a number of community oriented studies were done at three out of the seventy five districts of Nepal. The study in Tanahu showed that 70% of the need for care could possibly be prevented (8). There was also the unavailability of health personnel and that government health services were providing barely 10% of consultations and only 3% of the estimated needs of ill persons. Even in such a situation there was a preference for health services if available vis-a-vis the traditional methods.

Studies in Nuwakot showed that health institutions which were within one hour or at utmost two hours walking distance had a better chance of being utilised by the populace (9). It was also apparent here that rural communities, by and large were unaware of basic health knowledge about sanitation and nutrition etc. It was confirmed also that the government health services met only a fraction of the health requirement of the rural population.

Studies by members of the British Nepal Medical Trust in Taplejung District has also stressed the need for more communication between the rural health service providers and the client population. This is very important in the case of infections which require a relatively long period of treatment eg. leprosy and tuberculosis. The use of the services of traditional medical practitioners as referral agents has been found to work (10). This better communication about PHC facilities raised the confidence of the people in a setting where some of the health posts were at 3 to 4 hours walking distance.

Other similar studies by IoM personnel in later years at Dhankuta also confirmed that health infrastructure in the rural areas, being minimal were not

functioning properly. Important issues of over population and environment degradation plus the necessity of increased health education, and changing life styles were focused on. This study had major recommendations on status of women such as late marriage, increased literacy, income generation, increased breast feeding, birth spacing etc. (11).

Thus whilst thinking about the health services to be provided to the people one would have to take into account the various documents that Nepal is signatory to:-

A. The Convention on the Rights of the Child. 1990. Part 1 Article 24 starts by stating, "State Parties recognize the Right of the Child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health. State Parties shall strive to ensure that no child is deprived of his or her right of access to such health care services.

B. Declaration of Alma Ata. 1978. Nepal is a signatory to this document by which we have accepted the concept of PHC as a practical approach to making essential health care universally accessible to individuals and families in the community in an acceptable and affordable way, and with their full participation.

C. Basic Minimum Health Needs. The goal stated in 1985 was that the country would achieve a standard of living as per "basic needs according to Asian standard". What this meant was not clear and though the Planning Commission later produced a "Basic Needs" list, it now seems that what was being done was just lip service to the slogan.

The intention of the planning authorities of any country is to have policies and plans that are realistic enough to be implemented. The tendency to date has been to make unrealistic plans which have very little chance of being implemented.

It is no surprise therefore to read the words of an investigator who, after visiting Nepal reported in 1987 (12):

"Many primary health care programmes were ineffective, as research undertaken in Nepal has shown, because they reflected the perspective and needs of the health bureaucracies involved rather than those of the local villages receiving the services."

Water supply, sanitation and sewage status

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Water Supply

In the context of South East Asia the sanitary situation in most of the countries is at bursting point. Whilst it is true that industrial pollution is gradually becoming a problem, it is the magnitude of it that staggers planners. In the South East Asian countries, the provision of adequate sanitary facilities is going to cost more for the simple reason that most of the population live in the rural areas; 89% in the case of Nepal.

These problems exist in Nepal and are in fact highlighted by the prevailing situation in the urban centres. It is here that the supply of drinking water and sewage disposal seem to go hand in hand. This is borne out by the almost annual recurrence of cholera, typhoid and infective hepatitis in the population of urban areas especially Kathmandu.

The Beginning

Bir Shumsher by utilising the services of a **Kau**, a blacksmith ie. the forerunners of plumbers had started in 1891, Nepal's piped water supply or **Kaldharas** both at Bhotahity in Kathmandu and at Bhaktapur. This had reduced the incidence of cholera remarkably in the Kathmandu valley.

The piped water supply system of Kathmandu was expanded on a very limited scale at Kathmandu and Bhaktapur by Prime Minister Bhim Shumsher. As a result of this the number of water borne diseases eg. cholera etc decreased (13). It was not overloaded and so that is why it functioned. This service was free and though the proposal was made that people using the facility should pay for it, it was turned down by the PM on the grounds that if he was instrumental in such a decision, he would never get to heaven! Pressure for more connections did not mount during the succeeding years because the prevailing system did not allow it. Those not fortunate enough to use this facility had to get their water from natural sources eg. springs or **dhunge dharas**. However in the immediate post 1950 period, the sources of water at Sundarijal, Pharping and Panipokhari were not adequate and a larger supply reservoir was to be constructed at Mahankal in Chabahil. The designs of 1965/66 were said to have been prepared with a 22 years projection in mind but a reassessment even then suggested that the water supply would be adequate for a population that would inhabit Kathmandu in the year 1972 AD. In actual fact the days of water in plenty did not last long and limited supply came into vogue in three years time. In the Terai region it was the supply of tube wells that came to be accepted.

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The situation in 1990-96 is that safe water supply is said to be present for 63% of the population and the breakdown is said to be 88% and 60% availability in the urban and rural areas respectively (14). Target set for the year 2001 is given below (15).

Urban water supply coverage	90%
Rural water supply coverage	75%
Total population coverage	**77%**

Whilst different projects are going on at the local village levels, the reality is the development of a large number of firms supplying drinking water to the thirsty public. These vary from the tankers bringing so called drinking water from any nearby rivulet to various bottling plants producing mineral water in plastic bottles. There is a lot of controversy as to whether it is potable. The Royal Drugs Ltd. in the meantime is continuing with its production of the water purifying tablet.

Sewage Disposal

Surprising as it may seem, the Malla kings of Kathmandu valley had arranged to have built from bricks, arched underground drains for the use of the community of this area. Other covered drains built subsequently during the period of Rana rule helped towards the disposal of sewage for a period of almost four centuries. The increasing urbanisation of the capital led to difficulties regarding sewage disposal in the 1970's.

However though some drains for sewage disposal existed, these were not adequate for Wright in his description of Kathmandu of the 1870's gives a very vivid picture of the environment in those days.

"The streets of Kathmandu are very narrow, mere lanes in fact; and the whole town is very dirty. In every lane there is a stagnant ditch, full of putrid mud, and no attempt is ever made to clean these thoroughly. The streets, it is true, are swept in the centre, and part of the filth is carried off by the sellers of manure; but to clean the drains would now be impossible without knocking down the entire city, as the whole ground is saturated with filth. The houses are generally built in the form of hollow squares, opening off the streets by low doorways; and these central courtyards are too often only receptacles for rubbish of every sort. In short, from a sanitary point of view, Kathmandu may be said to be built on a dunghill in the middle of latrines !"

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Regarding sewage disposal in Nepal, one can perhaps start with Kathmandu and compare with what is happening elsewhere. In the pre 1950 period, a sewerage system had been made for Kathmandu. It went from the New Road area and the Bir Hospital area, through the Tundikhel and discharged its effluence in the Tukucha which in turn went into the Bagmati.

The rest of the inhabitants of Kathmandu, because the houses were fairly well dispersed then had to do with individual septic tanks and soak pits. The citizens of the capital city have not got a water sewerage system of sewage disposal. Other parts of the country have not really thought about it, so the future is anybody's guess. For the record however the existing situation is that on an overall basis the disposal of wastes and sewage is just 18%. The further breakdown of the figure shows that the disposal of the sewage and wastes is 58% and 12% in the urban and rural areas respectively. To improve matters, some targets that have been set for the year 2001 are as follows:-

Urban sanitation coverage	75%
Rural sanitation coverage	25%
Total population coverage	**31%**

More recently the problem of urban centres such as Kathmandu is the disposal of the garbage that is being generated daily in ever increasing amounts. Garbage disposal has become a political issue and reaches periodic impasses due to temporary short term agreements to dump it in specific rural areas. One cannot also really blame the rural dweller for refusing to accept the trash of the urban inhabitant.

Future Management

A sewerage treatment plant was supposed to be functioning at Kirtipur, opposite the University grounds. Roads had been dug up, hume pipes of appropriate or inappropriate sizes buried, the contractors partially paid but because the final connections were not done, the system never worked. Another important aspect is the disposal of solid wastes also. Besides this, other factors such as the planning and control of urbanisation, attention to proper housing, the control of pollution, food hygiene come into it. The instituting of a multi-sectoral approach comes into it for proper functioning.

Safe water supplies and sewage disposal will improve nutrition and decrease contamination of foods; thus bring about remarkable improvements in health. The Nepalese can only hope.

Disability and Rehabilitation

It was as late as 1981 that some sort of real awareness about disability was created in Nepal. It was the International Year of Disabled Persons (IYDP) that probably prompted the Nepal Paediatric Society (NEPAS) to hold its first conference at which this was the main theme (16).

In 1980 in fact the IYDP **ad hoc** committee had initiated the process for doing a survey regarding disability in Nepal. This pilot survey covered some 8001 families with a total of 45,358 persons in six districts of Nepal. The results and subsequent extrapolation suggested that the total number of disabled in the country could be estimated to be 376,479 or nearing 4 lakhs. No exact figures for the major causes were searched for but the disabilities were grouped into four categories:

a. Orthopaedic, (of limb, head, neck and spine).
b. Visual.
c. Hearing (deaf & deaf/mute).
d. Mental.

Subsequent analysis has shown that hearing disability is in fact the most common disability in the country and is probably due to the reason that suppurative otitis media leading on to chronic otitis is very common (17).

Introduction of a very comprehensive “Disabled Protection and Welfare Act, 1982” was a major attainment following the IYDP, 1981. This act

defines the disabled person as one physically and mentally unable to lead a normal life.

Following the IYDP, HMG/N has become conscious of fulfilling its obligations towards the disabled. These were reflected in the subsequent Seventh Five Year Plan (1985-90) by the inclusion of three programmes specifically for this:

1. Prevention of Blindness Project.
2. Disabled Rehabilitation Programme.
3. Survey and Treatment of Deafness.

The educational requirements of the disabled children were initially looked after and catered for at the Laboratory School at Kirtipur. A blind school at Dharan, and two deaf schools of which one was at the Balmandir in Kathmandu and the other at Bhairahawa were the initial efforts. At present the some of the blind and visually handicapped are integrated in the mainstream system. In conformity with the government policies of "Education for all & HFA 2000" it is hoped that primary and basic education will be provided to all by then.

The IYDP was followed by the UN Decade (1982-93) for Disabled Persons. Some improvement has taken place can be claimed by stating that whereas before there were only one segregated and three integrated schools for the blind and visually handicapped prior to this decade, the current count has been increased by a further 17 such integrated schools. These are run by the Nepal Association for the Welfare of the Blind (NAWB) and are situated in different parts of Nepal.

A number of Community Based Rehabilitation (CBR) programmes have been started in eight out of the 75 districts of Nepal.

Orthopaedic Disabilities

As almost 90% people live in the rural areas and have a life style that requires climbing trees for chopping wood for domestic fires or gathering leaves as cattle fodder it is not surprising that injuries as a result of falls are quite common. Walking along mountain trails in the dark can be the cause of falls leading to broken bones or even death. Even the manner of carrying goods by **doko** led to injuries as was observed and so reported by Taylor in 1951.

"At Lumpek, a village on a very steep ridge, there were several cases of traumatic arthritis of the knees which resembled Charcot's joints. They had

none of the neurological stigmata of **tabes dorsalis**. The aetiology seemed to have been traumatic, the symptoms being associated with carrying heavy loads down the steep hills (18)."

Besides this Taylor did twelve operations on children who had been disabled as a result of burn contracture brought about by picking up live coals from the open hearth fires in their homes. This same situation exists in Nepal today as stated by Banskota **et al** (19). Their study at the Jorpati Childrens' Hospital, reported in 1988 AD showed that extremity burns causing inability to use the hand or even walking were the most common disability encountered. Facial burns also seen, besides causing disfigurement often led to blindness following exposure keratitis. Rehabilitation was being done for problems related to congenital disorders, burns contracture, tuberculosis, osteomyelitis and neglected trauma (20).

Visual Disabilities

It was the pioneering zeal of Dr. Ram Prasad Pokhrel and his supporters over the years which started the Nepal Eye Hospital on 13th April, 1974 which not only developed further but also enthused other organisations and individuals in this field. This has resulted in a good network of eye care services in various parts of the country.

Following a 1979 feasibility study that indicated that 90% of blindness could be prevented or cured, the Nepalese government and WHO began a major programme of blindness prevention and control. The programme began in December, 1980 with a survey of the prevalence and causes of blindness (21).

Though cataract was the cause of 67% of the blindness, it was trachoma which was the widespread potentially blinding condition. This survey showed that as much as 6.5% of the population had active trachoma (22).

Among the nations of S-E Asia, xerophthalmia has been shown to be a major problem in Nepal (23). It was shown to be of higher incidence in boys than girls of the pre-school age. The risk of xerophthalmia was shown to be inversely related to the elevation of the terrain, with it being maximal in children living in the Terai region.

A survey was carried out from Dec. 80 to Apr. 81 MOH/HMG & WHO to estimate the prevalence and causes of blindness. It became also necessary to categorise the state of blindness - those in whom both eyes were involved was estimated to be 0.84 per 100 population whilst those in whom only in one

eye was involved was estimated to be 1.66/100 persons. The leading cause of unilateral blindness was cataract (40.7%) with trachoma as the second common cause at 13.6%. Of those blind in both eyes, cataract was responsible in 72%, retinal disease for 33% and glaucoma in 3.2%. Blindness was found to be much more prevalent in women than in men.

It has been reported by Brilliant et al that age and sex standardized cataract prevalence was 2.7 times higher in sites at an altitude of 185 metres or less than in sites over 1000 metres. Sites with an average of 12 hours of sunlight had 3.8 times as much cataract at sites with an average of only seven hours of exposure (24).

Of the several NGOs involved in the prevention and control of disability a large number are involved in eye camps organised in different parts of the country. Lions and Leo Clubs in various parts of the country are also doing extensive services for eye care. It is estimated that as many as 100 or so eye camps are organised every year and that about 1400 patients have operation for cataracts and restoration of vision.

During the course of these years HMG gave Nepal Netra Jyoti Sangh, a local NGO, the authority to coordinate all eye care services in Nepal. It is estimated that during the course of the last ten years almost 170,000 cases of cataract surgery have been done.

As has already been mentioned, there are as of the end of 1994, a total of 15 NGO's Eye Hospitals with a capacity of 973 beds. These are being utilised for the provision of eye care.

The National Assembly of the Nepal Blinds Association in 1995 estimated that there are 240,000 blind people in the country.

Hearing Disabilities

It has been estimated during the course of the International Year of Disabled Persons that hearing disabilities were the most common. A school for children with hearing difficulties was started at Naxal in the proximity of Bal Mandir. Such schools started on a regional basis are at Surkhet and Dharan. Another such facility, run with the support of Lion's Club, is the Aksheshwar Mahavihar Clinic at Lalitpur. The current practice is to integrate children with disabilities into normal schools.

The Tribhuvan University Teaching Hospital (TUTH) has been running a Speech and Hearing Clinic in the capital since 1994. Appliances for those with hearing defects are also been assembled there.

Mental Disabilities

Sometime since September, 1978 a organisation in which some Maryknoll Fathers were involved were working through day care centres for the mentally retarded. Then on July 10th, 1980 an organisation known as **HANDS** (Human And National Development Services) started working in Nepal with the same objective on a more permanent basis. Now however this organisation is no longer working in Nepal but other local NGOs have been started and the work continues on.

The Association for the Welfare of the Mentally Retarded (AWMR) came into being in 1981 and is now working in about 18 districts of the country.

Supply of Essential Drugs

Medical personnel prescribe drugs and people buy them. In a study done in 1977 at Dhankuta by the Institute of Medicine, the average number of visits and out-of-pocket expenditures for care of illness per two weeks by persons consulting different types of services and estimated annual per capita expenditure in each area surveyed was as given in the table below (25).

Table. 6.1. Expenditure per consultation/visit by facilities

Health Facility	Expenditure per consultation	Visits per consultation	Expenditure per visit
Dist. Hosp.& Health Post	Rs. 4.6	1.5	Rs. 3.0
Ayurvedic Dispensary	Rs. 0.9	1.0	Rs. 0.9
Trad.& Faith Healers	Rs. 9.8	2.3	Rs. 4.2
Private Practitioner	Rs. 31.2	1.0	Rs. 31.2
All Consultations	Rs. 8.3	1.4	Rs. 5.7

This costing was during the mid-seventies. Further analysis to show the percent of expenditures on each area of out of pocket expenditures is as given below.

Table. 6.2. Expenditure by Area

Area	Expenditure (in %)
Practitioner fee	3.60
Medicine	36.50
Travel	7.10
Others (Special diets, worship etc.)	9.70
Home treatment	43.00
Total	**100.00**

A similar study was done in Surkhet in the Western region and has also been reported (26). It was health care expenditure during a 14-day recall period by source of care, and is shown in the table below:

Table. 6.3. Average Health Care Expenditure per visit by source of care

Source of care.	Mean Expenditure per visit (in Rs)
District Hospital	17.06
FP-MCH/SCF clinic	2.52
Health Post	1.91
Traditional/Faith Healer	16.32
Private Health Personnel	36.13
Drug Seller	16.26
Other	1.58
MEAN	10.99
Expenditure on simple home treatment	2.99

Enforcement of the Essential Drug List

The demand for drugs to cure disease continues to rise because of the increase in population and the health awareness of the people. The estimate in 1996 was that the value of this was about Rs. 2650 million, of which 80% was imported from India and about 18% was produced by local industries. Bearing this ever increasing use of drugs, it is fortunate that the government has been advocating the use of essential drugs.

The provision of the essential drugs has been put as one of the eight elements of primary health care. This is very important in the context of HFA 2000. The selection and the advantages of an essential drug list are as follows:

a. Reduction in the number of pharmaceutical products to be purchased, stored, analyzed and distributed;

b. Improvement in the quality of drug utilization, management, information and monitoring;

c. Stimulation of local pharmaceutical industries;

d. Assistance to the least developed countries in urgent need of high priority drug programme to solve their primary health care problems.

Though a master plan had been initially brought out in 1955 advocating the use of medicinal plants, it was only in 1961 that this was implemented. The Royal Drug Research Laboratory (RDRL) established in 1964 as per this plan started the manufacturing of modern drugs in 1968. Subsequently the manufacturing unit of RDRL was converted into Royal Drugs Limited (RDL) in 1972 for the production of modern drug formulations on a commercial basis (27).

It was at the initiative of the Royal Drugs Ltd. that a list of basic drugs had been initially made. The idea behind this was that the production policy of Royal Drugs Ltd. would be based on the drugs on that list. Subsequently the IoM revised that list and then a combined meeting of the NMA and the Nepal Pharmaceutical Association gave it its final shape, plus also categorised it into two groups. One group consisted of those drugs which could only be used at the health posts. The second group contained these plus other preparations which could be prescribed at the hospital level (28).

Later the Department of Drug Administration (DDA) was established in 1979 in accordance with the Drug Act, 1978. It had meetings with the Nepal

Medical Council to have an approved schedule of drugs (29). In 1986, the following year, the DDA brought out the first Essential Drug List, 1986. Revised versions of this Essential Drug List were brought in 1992 and 1997. Further categorisation has been done as detailed below:

a. Complementary List - comprising of the core National Essential Drug List items plus additional items mostly of alternative medicine.

b. District Hospital List containing only about half out of the core items.

c. Health Post List having some of the core items.

d. Sub Health Post List having few of the core items.

e, Primary Care Treatment List having just 15 items out of the core list.

The DDA has been playing a major role in the maintenance of Good Manufacturing Practices (GMP) and discouraging the formulation of preparations with multiple compounds. A number of recommendations have been made following the workshop on GMP in December, 1995. The DDA has also brought out a list of Life Saving Drugs. The DDA brought out Nepalese National Formulary in 1997.

A National Drugs Policy - 2051 BS was announced in mid - March 1995. It specifies that the drug industry be considered a priority sector with a view to making the country self-reliant in the production of essential drugs. The objective is to make the country produce 80% of drug formulations by the year 2005 (27). A pharmaceutical unit is to be opened under the Ministry of Health so that all matters pertaining to medicine /drugs can be co-ordinated from there.

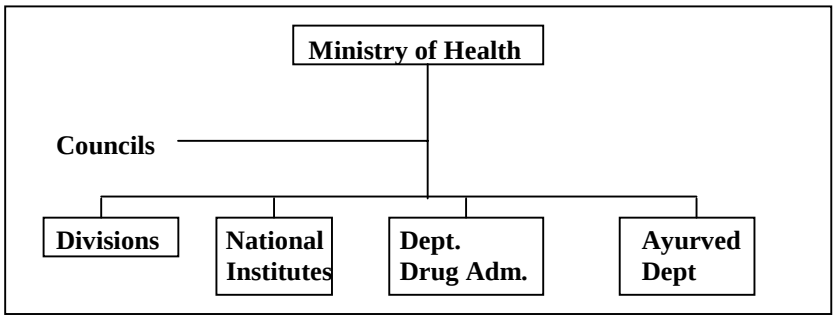
During the course of 12 years (2041 -2053 BS) a total of 180 pharmaceutical were registered with the DDA. Among the 180 companies 67.77% are allopathic, 17.22% ayurvedic, 5.56% consist of veterinary, 0.56% homeopathic, 8.33% consist of repacking and the remaining 0.56% consist of Unani manufacturers. Of the 122 allopathic companies registered with the DDA, only 29 had taken production license till mid 1996 (30).

At present about 15-20% of the annual drug requirements are estimated to be produced within the country. The total annual expenditure on drugs is estimated to be in the region of 150 **crores**. Drug manufacturers in Nepal supply about 15% of requirements of which Royal Drugs Limited's share is just over half of this. Other private companies producing medicines in Nepal are Hukum Pharmaceuticals, Nepal Pharmaceutical Laboratories, Sigma

Laboratories, Time Pharmaceuticals, G.D. Pharmaceuticals, Janata Deurali Pharmaceuticals and Lomus Pharmaceuticals. Singha Durbar Baidya Khana in the government sector and Dabur Nepal in the private sector produce **ayurvedic** medicines.

Present State

After dissolution of the Department of Health Services in mid 1986, the major reorganisation of the Ministry of Health led to the formation of five regional directorates and 75 District Public Health Offices. At the central level the MoH was composed of ten divisions and the two departments of ayurved and drug administration. Four years subsequently in July, 1990 the three projects viz. FP & MCH, EPI and the NMEO were also converted into divisions prior to being integrated.



The ultimate aim was that the preventive activities for health care would reach grassroots level in a well organised manner.

Though the Decentralisation Act had been passed in 1982 it had not been effectively implemented. The intention during the Eighth Plan period was to make the District Development Committees effective to undertake the responsibility of planning, implementation and supervision of the District Health Services. It was for this purpose that three new Acts as given below were passed.

1. Village Development Committee Act, 1991.
2. Municipality Act, 1991.
3. District Development Committee Act, 1991.

In the “Common framework: second evaluation” document of 1990 the government’s intention is expressed with the words:

"Full acceptance and understanding of primary health care has been achieved at all levels of the health system. It is in fact the approach to provide all the Nepalese people with the basic minimum health services in the form of preventive, promotive and curative services at **ilaka** and district levels. However it is felt that more orientation of the PHC concept should be provided to health workers associated with the referral system particularly at the hospital end." (31)

With the changes that took place after the **jana andolan**, it is but natural that peoples expectations increased. With the possibility of a more socially oriented society and with a more equitable distribution of resources, the expectation was but natural that budgetary provisions for the social sectors would increase markedly.

The Nepali Congress in its election manifesto of 1991 promised to make massive expansion of water in both urban and rural areas at the end of this period. Free primary health care at rural levels, standard district hospitals and the encouragement of the ayurvedic system were some of the other points. The infant mortality rate was to be reduced by 75%. However, stress was laid on population control and reducing fertility rate. Provision was made for all round development of children.

With the current state of affairs, it seems that neither the health workers nor the consuming public is satisfied with the health services that currently exist. The reason for this is that the budget that is spent on health is negligible. Of this amount the major share is for the salaries of the health workers and so the actual amount spent for services and supplies is very little. Whilst the theory is that the health services are free, the reality is that it is just the doctors and other health workers services that the public does not have to pay for. More recently token payments for various services have been introduced by many of the hospital boards as a form of income generation for partial sustainability. The making of private wards, cabin service and shops for rental to pharmaceutical firms or even individuals seems to be the order of the day. Various medicines including tonics, other supplies such as dressings and even emergency drugs usually have to be bought. In the advantageous position that such medicine shops have, some even charge more than the marked price of the drugs !

Whilst the government stated that Nepal is committed to HFA 2000, it also claimed that the National Health Policy of 1991 is radically different from anything in the past in that it is a commitment to providing health care at grassroots level. The concept of reaching all the villages by way of the sub

health post at the VDC level was then accepted and became official. The stress was on the district health services with the intention of upgrading the health status of the population, 93% of which is in the rural area (32). With this reiteration to provide basic health services, a recent document states that HMG/N seek to maintain a ratio of 40:60 in the allocation of resources.

Table: 6.4 The basic indicators of Health: Present and Future Goal

Indicators	**As of 1997**	**To be attained by year 2000**
IMR per 1000 live births	82	50
MMR per 100,000 births	515	400
USMR per 1,000	116	70
Life expectancy at birth (Years)	56	64
TFR per woman	5.1	4.0

* Source 1998 (13).

Thus the Eighth Plan (1992-1997) laid stress on the provision of primary health care in an integrated fashion through the medium of different level health institutions such as primary health centres, health posts and sub health posts. The focus of these was on family planning plus MCH services.

As regards the services in the rural areas, the point to note was that of the total number of 675 integrated and 141 static health posts, 198 in all were to be upgraded to Primary Health Centres over a 10 year period. With upgrading of various health posts to primary health care centres, the number of health posts were automatically reduced. But it was not just HPs only, for 3 sub health posts were also upgraded to PHC centres. Ultimately all the 205 electoral constituencies will have a PHC with three beds, of which one will be for obstetrics. The new figure given for VDC is 4015 (33).

As has already been stated, one of the difficulties of providing Primary Health Care has been the scattered location of the population, especially in the rural areas. As health institutions are relatively few, the problem has been to provide the service to even a limited percentage of 10-15% of the population. An attempt to get around this problem was by way of mobile health camps and this had been put into to use on a limited scale since the mid-sixties. The health camps tended to be in the winter in the different parts of the country. Some of these camps were also conducted in the development

regions of the country which HM The King visited on a rotation basis. It was the practice to have a health camp every year. After the UML Government had been in power for about five months, the MoH decided to reintroduce the concept of mobile camps in different parts of the country. Such camps, which started from about April, 1995 had 20 to 30 doctors, lasted from 10-15 days and the number of patients seen at each camp was considerable. Such camps were held at Pyuthan, Myagdi and Taplejung and the patients seen during its duration was fifteen thousand, twelve thousand and nineteen thousand plus respectively. There has however been some questions raised as to whether these were populist measures which had been put into action.

However the effort to provide health services at the grassroots level goes on. With the involvement of the community it is envisaged that there will be 3199 sub-health posts with each providing services to about 4,000 of the population.

All said and done, PHC facilities for the urban dweller must also be thought about. The urban population is increasing in Nepal at a rate of 7.4% annually. The influx of people has led to inability of the system to cope with the huge demand for essential services such as housing, health facilities and sanitation. The new health policy makes a provision of having an Urban Clinic for every 50,000 population in a town, specially in areas of slums where the urban poor live. The concept of Urban Based Services (UBS) existed in 1994 in 15 municipalities of Nepal with a coverage of about one million people (34). From the total number of 58 municipalities at the time of the 1991 census, the number has not officially increased as of October 1997.

The Urban Community Health Service Programme (UCHSP) of Kathmandu is a programme which started in 1994 with the support of UNFPA & UNICEF. The Kathmandu Metropolitan City (KMC) authorities, with a view to develop the capital into a healthy city, established a public health department. This department has recently issued a strategy notice giving the three main components of an envisaged programme:

- Urban Health Care
- Environmental Health
- Health Research and Training

The action plan for 1997/98 too has been given:

- Preparation of Municipal Health Plan.
- Manage existing 15 Urban Health Centres and open new ones as per need.
- Initiate EPI to cover whole city.
- Initiate safe motherhood programme.
- Start health care programme for Kathmandu's sweepers who number over 1300.
- Initiate programme to tackle Vitamin A, iodine and iron deficiencies.
- Start school health programme to educate about hygiene, sanitation and public health.
- Assess conditions of eating places for drinking water, food preparation areas and toilets.
- Ensure that good quality food is sold.
- Launch programmes for control of seasonal epidemics.
- Co-ordinate with Govt., NGOs and other city authorities.

Visit Nepal Year '98

With the setting up of many VDCs and municipalities the stage is set, one hopes for some action regarding facilities such as water supply and sanitation not only in urban but also in the rural areas. The process of decentralisation, the giving of funds to areas other than the centre has started and hopefully will result in action at the grassroots level. The starting of the Visit Nepal Year '98 (VNY '98) with the many cultural programmes and fests in different parts of the country will be making the environment clean and contribute towards the general well being of the people. The prospect of similar VNY exercises every 2 years in different parts of the country eg. in Pokhara, Chitwan and the concept of village tourism is expected to also help towards this. One hopes therefore that VNY efforts will be successful in this context.

20/20 Initiative

This was originally proposed by 5 UN organisations in response to the time-bound goals for social development and poverty reduction.

Following the initial meeting at Oslo in April 1996 to consider ways for universal access to basic social services a number of other steps have been taken (35).

The initiative called for the restructuring of government budgets and official development assistance (ODA) in favour of basic social services. The suggestion is that final allocation to such services be increased to 20% of the total government budget and that 20% of ODA be allocated to support these same services.

In connection with this a follow-up meeting was suggested in two years. In preparation of this a meeting for the process of restructuring and implementation of these suggestions was held in July, 1998.

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