

CHAPTER 4

Health

...social development is central to the needs and aspirations of people throughout the world ... In both economic and social terms, the most productive policies and investments are those that empower people to maximise their capacities, resources and opportunities.

Declaration of World Summit for Social Development, 1995

To examine social policy in the field of health care today is to be immediately overwhelmed by a series of fundamental disagreements. Nothing seems settled any more—not the ethics that should underlie the patient- doctor relationship, not the limits that should define medical intervention, and not the principles that should determine health insurance. In some cases, it seems we have too much doctoring, so the physician intrudes with his advice, in others too little, so the poor lack necessary services.

Sheila Rothman 1981

The quality of medical care is an index of a civilisation.

Dr. Ray Lyman Wilbur 1932

4.1 HEALTH AND HUMAN DEVELOPMENT

Good health is fundamentally and *intrinsically* important to living a worthwhile human life. Good health, of itself, is an end of all human endeavour. In addition, access to all other human developmental opportunities and use and enhancement of all other human capabilities are fundamentally contingent on continued survival and maintenance of good health. Ill health inhibits access to opportunities in education, work, income earning, political and cultural participation and other salient and valued dimensions of human life. Ill health enhances dependence and diminishes self-respect and self-worth. It inhibits individuals and collectivities from enriching their lives and from realising their potential contributions to the larger society.

The promotion of human development, therefore, is crucially dependent on economic, political and cultural policies and practices on the health front. Such policies and practices, in keeping with the central tenets of the concept and strategy of human development (see 2.3.3), must be universalistic, sustainable and provide full space to individual and collective initiatives to

maintain and promote good health. Such policies and practices must also, necessarily, be based on the existing status of health of the people.

4.2 STATUS OF HEALTH

Good health has broadly and appropriately been defined as a condition of overall human well-being. The emphasis here, however is considerably narrower. The status of health is described and assessed here in relation to life expectancy, infant, child and maternal mortality, morbidity and disability. In addition, nutritional status, which is a key component of health status, is described and assessed as well (section 4.5).

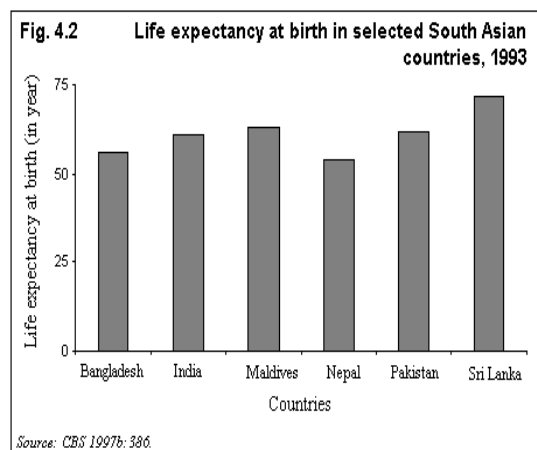
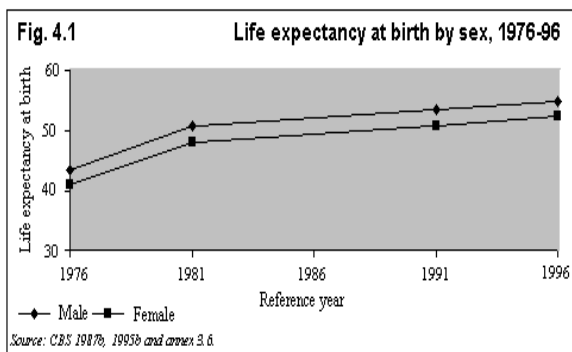
4.2.1 Life expectancy

In 1994, the average life expectancy at birth in the country, estimated at 55 years (see chapter 3), was very low. This fundamental deprivation from the capability to survive is attributable, at the proximate level, to a low (life expectancy) base, very limited access to health facilities and services

(section 4.4), very low level and quality of nutrition (section 4.5) and acute problems of sanitation (section 4.6). It is also attributable to the low effectiveness and inefficient health-related institutional structures which, among others, are much too technocratised, narrowly sectoral and therefore insular vis-à-vis not only local needs and local health-related institutions but also in relation to other governmental organs with intimate connection to public health, e.g., the MOA, the MOE. Such a stance has also been unsuccessful at enhancing local stakeholding in the promotion of health. At a more systemic level, high deprivation in relation to survival is linked to low rates of literacy and education (chapter 5), high underemployment, low income and widespread poverty (chapters 6 and 7) and exclusion from political and social participation, particularly of women, members of the low caste groups and residents of the mountain region (chapters 8, 9 and 10; also chapter 3).

Women in Nepal, on the average, have a life span which is *shorter* by about two years compared to men (figure 4.1). This pattern, in addition, has remained stable at least for the last 45 years. In contrast to such a pattern, globally, women live considerably longer than men. Lower life expectancy among women in Nepal is a stark indicator of the human developmental deprivations women encounter here during their lives. Such a deprivation is intimately related to higher childhood mortality rate (compared to male children), very high maternal mortality rate and educational, economic, political and cultural exclusion (chapters 5-10).

Life expectancy also differs significantly by place of residence. Residents of the mountain region, on the average, die 7 years earlier than the residents of the Tarai. Similarly, life expectancy among the rural residents is lower by nearly 10



years compared to that in the urban areas.

Nonetheless, average life expectancy increased by 13.5 years during 1976-1996. That is, on the average, it increased by *eight months* every year during that period. (The crude death rate declined from 21.4 in 1971 to 13.3 in 1991.) Increases in life expectancy have been possible due, among others, to increasing control over epidemics of cholera, smallpox, malaria, measles, etc., increased control over some childhood diseases, higher rates of immunisation (see section 4.4.3, however), considerable expansion of the public health system (sections 4.3.3 and 4.3.4), slowly expanding access to curative measures – particularly for those at the upper end of the income scale, and slow but growing urbanisation. Life expectancy, however, remains much lower than in other South Asian countries (figure 4.2).

4.2.2 Survival among infants

The infant mortality rate is widely and legitimately regarded as a key indicator of the level of public health achievements as well as general socio-economic development. More importantly, however, it is a fundamental indicator of human deprivation in as much as it signifies, to a large extent, an avoidable end of human life itself. Estimates of the infant mortality rate in the country, however, diverge widely both at the aggregate level and by sex depending on whether censal or survey data are utilised, the attributes of particular estimates and on assumptions governing the sex ratio at birth. In particular, censal data generally show a significantly higher rate of mortality among the female infants than among the male. The survey data, on the other hand, generally show a higher rate of mortality among

Table 4.1		Infant mortality rate by sex 1978-1994								
		Reference year								
		1971	1973-74	1976	1978	1981	1986	1987	1989	1994
IMR/1000										
	Male	176	175	156	148	120	110	108	104	100
	Female	168	167	148		114	104	102	100	96
	Both sex	172	171	152	144	117	107	105	102	98
Percent reduction per annum			0.2	5.6	2.6	6.3	1.7	1.9	1.4	0.8

Source: CBS 1987b, 1995b; CEDA 1996; MOH 1992, 1997c.

the male infants. The presentation here utilises the estimated IMR in both the censal and survey data with the added assumption of a sex ratio of 105 male births per 100 female births.

Infant mortality rate in the country, at 98 (per 1,000 live births), is very high¹. Nearly one child in every ten dies before reaching the age of one (table 4.1). Contrary to expectations, however, male infant mortality rate is slightly higher than the female rate. The NPC-UNICEF (1996) findings, which report that there is no gender difference among children 6-36 months of age in relation to nutrition, also lend credence to these infant mortality figures.

Infant mortality, however, varies substantially by region. Infants in the rural areas are exposed 1.6 times more to risk of death compared to infants in the urban areas (table 4.2). Similarly, infants in the mountain region are two times as likely to die as infants in other ecosystemic regions. Furthermore, infants in the mid-western and far western regions have a very high mortality rate compared to others. On the other hand, many more infants now enjoy an opportunity to survive than in the past.

4.2.3 Morbidity

Available information indicates that the morbidity

Table 4.2 Infant mortality rate by place of residence, 1978-1994		1978	1986	1989	1994
Rural-urban place of residence					
	Rural	105	110	105	102
	Urban	67	82	69	62
Ecological region					
	Mountain	187	163	155	180
	Hill	164	104	83	86
	Tarai	124	100	112	89
Development region					
	Eastern	130		99	82
	Central	1,387		94	92
	Western	148		86	79
	Mid-Western	177		124	119
	Far Western	169		136	121

Source: CBS 1987b, 1995b; CEDA 1996; MOH 1997c.

is high. However, information on morbidity and its causes is very poor. Gautam and Shrestha (1994) argue that most health problems can be attributed to insufficient food intake, early marriage and early-age child bearing, poor housing, lack of access to safe drinking water, insufficient sanitary facilities, outdoor and indoor air pollution, abuse of alcohol, tobacco and drugs, natural disasters, insufficient coverage of health services and socio-economic deprivation. These conditions give rise to distinct patterns of morbidity which, in turn, have definite consequences in terms of mortality (table 4.3).

Data on morbidity compiled from cases reported in public health institutions (sub-health posts, health posts, primary health centres and district, regional and central hospitals) are far from complete. Nonetheless, they provide a simpler, even if tentative and less than definitive, indication of the scale and the leading causes of morbidity (table 4.4).

4.2.4 Disability

Data on disabled persons are sparse. The disability rates reported are contentious as well. A disability rate of 10 percent (of the total population) is often regarded as the global "norm". But it should be taken as a sharp indicator of governmental apathy towards the disabled that the censuses fail to report even the total number of disabled persons in the country and, instead, provide information on disability only when reporting the "economic activity" rate. That is, disability, in the censuses, acquires salience only on account of the economic inactivity it presumably signifies. The censuses, as such, report disability rates only for those 10 years age and older. In addition, disability is apparently highly under-enumerated. The censuses of 1971, 1981 and 1991, put the proportion of the physically and mentally disabled population aged 10 years and over at 1.1 percent, 1.5 percent and 1.3 percent, respectively. On the other hand, various organisations struggling for the rights of the disabled have put forward much higher

Table 4.3 Major morbidity and mortality patterns		
Exposed group	Disease	Morbidity patterns/mortality consequences
Children	Diarrhoea	16-25 percent of childhood death.
	ARI	30-40 percent of childhood death.
	Vitamin A deficiency	Bitot's spot in over 2 percent of children. 57.6 percent in 1979-82; prevalence rate of cretinism 2.8 percent in 1979-82 (based on spot survey between 1979 and 1982).
	Iodine deficiency consequences	39.7 percent in 1985-86; prevalence rate of cretinism 2.8 percent in 1979-82 (based on spot survey done in 1985-86; prevalence rate of cretinism 2.8 percent in 1979-82).
	Anaemia	19.6 percent of children aged 6-23 months and 25 percent of those aged 24-72 months; 78 percent of women in reproductive ages suffering from anaemia.
Mothers	Haemorrhage, sepsis, labour, abortion, anaemia, urinary tract infection	Abortion accounted for 5 percent of total obstetric admissions 25 percent of maternal death were abortion-related.
	All ages/categories	
	Tuberculosis	35/10,000 in 1993.
	Leprosy	11/10,000 in 1992 (commonly found in 13 districts.).
	Malaria	Reported cases: 23,234 in 1991 (a major problem in the Tarai; however, steadily declined since the late 1950s and came to a standstill by 1980).
	<i>Kala-azar</i>	21/100,000 in 1992 (major problem in the eastern Tarai).
	Meningitis	14.8 percent of 759 cases died in 1992 (cases reported at Teku Hospital, Kathmandu).
	Japanese Encephalitis	Incidence rate 21/100,000 in 1992; discovered in the Tarai 1978; fatality rate 18 percent compared to 46 percent in 1982).
	HIV/AIDS	Over 5,000 persons <i>estimated</i> to be infected with HIV in 1993; of the 191 <i>reported</i> HIV cases in 1993, 24 found to have full-blown AIDS; governmental figures, however, report only 434 HIV infected persons and 52 persons with full-blown aids for 1995/96.
	Rabies	1,800-20,000 persons/annum attending anti-rabies treatment.
	Cataract	0.84 percent of population blind of which 66.5 percent cataract.
	Mental disorder	Estimates range from 0.13 to 15 percent.
	Injuries/poisoning	0.49 percent of the total population.

Source: Gautam and Shrestha 1994, NPC 1991, MOH 1996b.

estimates of disability, sometimes well above the global "norm".

A survey on disability among children up to six years of age, which utilised parental reports on the disability of their children (NPC-UNICEF 1997b: 21), found that 2 percent of the children had hearing difficulty. The survey also found that 0.7 percent had difficulty seeing at night. 2 percent up to 3 years of age suffered from physical

disability and another 0.2 percent suffered from mental disabilities.

While there are sufficient grounds to believe that the censuses significantly under-enumerate the disabled, it is probably unfair to define disability solely on medical grounds. Disability (and, more generally, health and illness as such) and, more importantly, disability-led deprivation are culturally – and economically and politically – constructed as well. In particular, the fact that the scale of self-employment in the country is high (and the scale of wage employment low; chapter 6), leads to a considerable muting of the extent of deprivation due to partial disability.

4.2.5 Maternal mortality

Maternal mortality is one of the key indicators of the status of reproductive health care service delivery and utilisation, as also of women's overall status in the society. The maternal mortality *rate* in the country, at 875 per 100,000 women aged 15-49 years, however, is one of the

Table 4.4 Distribution of morbidity by type of ailment, 1995		
Type of Ailment	Number	Percent
Skin	867,643	29.82
Worms	432,304	14.86
Diarrhoea	366,654	12.60
Upper respiratory tract infection	298,954	10.27
Dysentery	221,884	7.63
Gastritis	203,229	6.98
Headache	187,951	6.46
Fever (unqualified)	171,486	5.89
Cough/chest pain	159,670	5.49
Total	2,909,775	100.00

Source: MOH 1995.

highest in the world (1990-1996 figures). This rate is based on the age of surviving sisters, the age at death of sisters who died, and the number of years since the death of sisters (MOH 1996a). This estimate suggests that 27 percent of all deaths of women aged 15-49 years is attributable to child-birth complications. The maternal mortality *ratio* which, on the other hand, indicates the extent of obstetric risks associated with live births, is estimated to be 539 per 100,000 live births (for the same period). The level of maternal mortality in the country, thus, is one of the highest in the world, proximately linked, among others, to the low level of access to antenatal, delivery and postnatal care. Over 90 percent of births in the country takes place at home and without professional assistance.

4.3 ORGANISATION OF HEALTH AND MEDICAL SYSTEMS

Multiple health and medical systems coexist simultaneously – and sometimes uneasily – in the country. Such systems, for the present purpose, can be divided into four broad categories: the home-based system, the traditional faith healing-based system, the *ayurvedic*, *homeopathic* and *unani* systems, and the modern allopathic system. The allopathic system has been ascendant for the last several decades, not the least because much of the state as well as market support is concentrated in its favour. The other three receive miniscule state support. The home-based and traditional faith healing systems receive little direct support from the state, but efforts at linking them with the public health system have been made in the last 15 years. Such efforts, nonetheless, have been peripheral and lukewarm.

4.3.1 Home-based system

The primacy of the household (see 1.2.2 and 10.2.1) extends to the domain of health and medication. *Almost all households*, at least at the initial stage of sickness, utilise the fairly wide stock of intergenerationally transmitted as well as newly acquired knowledge and practices of healing to nurse the sick back to good health. The localised nature of the society, limited access to, and relatively low quality of, public health institutions and the prohibitive costs of allopathic medicine and modern health services also force most households to rely on home remedies which span from divination to faith healing and the use of local herbs. Increasingly, they also involve the

use of off-the-counter allopathic drugs, which remain almost completely unregulated.

4.3.2 Faith healing

In general, the failure of home remedy to cure the sick invites intervention from community-level healers. Such healers base their treatment on an intimate knowledge of the sick person and the latter's physical and social niche assurance, divination/ancestor invocation and herbal remedies. Healers often specialise in particular techniques and which specialist is consulted is a function of illness itself (Stone 1976: 75). The number of such healers is very large, which can itself be taken as an indication of the legitimacy of the system. One study estimated the number of various categories of local faith healers at 400,000 to 800,000 (Shrestha and Lediard 1990, cited in UNICEF 1992b: 123), which roughly translates to one faith healer for every six households. The significant role of local healers has been widely noted (Pandey 1980: 113; Blustain 1976: 84; Okada 1976: 107; Wake 1976: 118-119). The majority of the sick persons in the rural areas who eventually visit the allopathy-dominant health posts had first consulted a traditional healer (UNICEF 1992a: 123). The majority of the women in the central region utilise the services of local traditional birth attendants (Reissland and Burghart 1989: 44), partly because women there prefer to deliver a baby at home.

4.3.3 Ayurvedic, homeopathic and unani systems

The *ayurvedic* system of healing has been practised in South Asia since ancient times. It bases itself on a well developed system of the physiological characteristics of the sick person, symptoms of sickness and detailed pharmacological knowledge of herbs and their processing techniques. The herbal treatments that households and local healers perform are often borrowed from the *ayurvedic* system. This system, therefore, has a wide reach. Most ayurvedic healers work within the private domain. In addition, the system is also supported publicly. *Ayurvedic* healing in the public sector is performed through one central ayurvedic hospital with 50 beds, one 15-bed zonal hospital, 172 dispensaries in 55 districts, and a central drug manufacturing unit (MOH 1997b).

Homeopathy was introduced in Nepal as early as 1920 as a natural healing system. Homeopathic healing is largely a private sector initiative which encompasses approximately 500 practitioners and 100 clinics (MOH 1997b). Within the public sector, there is only one homeopathic facility with hospitalisation facilities for six patients. The unani healing system, which provides preventive, promotive and curative services, has an extremely limited reach. In addition, the Tibetan healing system and naturopathy are also practised in selected areas of the country.

4.3.4 Allopathic system

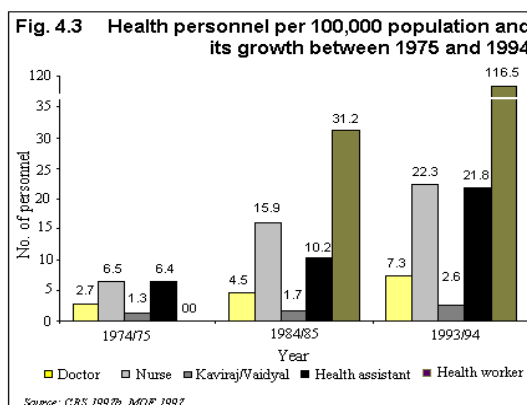
Nepal embarked upon implementing a modern, allopathic public health system at the end of the 19th century when the Bir Hospital was established in Kathmandu. Vaccination against smallpox was available after the First World War (Kansakar 1981, cited in Shah 1987: 32). By 1955, there were 34 small-scale allopathic hospitals with a total of 623 beds and 24 dispensaries. In addition, 63 *ayurvedic* dispensaries had been established (Pandey 1980: 108). Nearly one-half of all services delivered through these institutions were concentrated in the Kathmandu Valley (Shah 1987: 32).

Organised, national-level, public efforts at the development of modern health services started in the mid-1950s (Pant and Acharya 1988: 144; Shah 1987: 32; Pandey 1980: 108). A large-scale malaria control programme was launched in 1955; the leprosy and tuberculosis control projects were initiated in 1966; the smallpox eradication programme was launched in 1968; and a family planning and maternal and child health board was established in 1968 (CBS 1989: 211-313). In 1971, the division of basic health services was formed within the Department of Health to provide basic health services to the maximum number of people (Justice 1986: 53). Small-scale public hospitals were established at various regional and district centres. In 1977, the successful smallpox project was converted to the expanded programme for immunisation. Other vertical programmes such as the nutrition support and diarrhoeal disease control programmes were integrated with EPI in 1980 (World Bank 1989: 54). Private and INGO initiatives also led to the establishment of rural health posts, clinics, hospitals and drug retail outlets. One teaching hospital was also established within the public

sector. Public health offices were established in all of the districts.

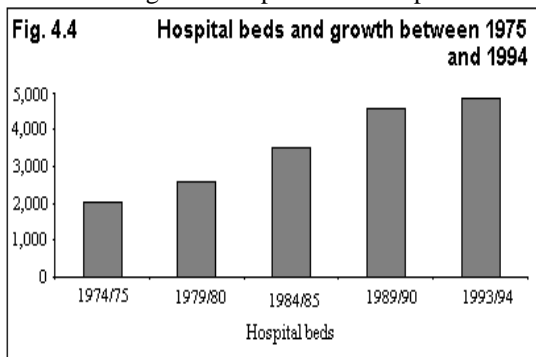
Significant steps were taken by successive governments to expand the public health network at various levels. Of particular salience were two policy decisions taken in the mid- '80s and the early '90s. The first policy led to the formation of a cadre of community-based women volunteer health workers. At present they number more than 42,000. The level of their paramedical training is very low. But their achievements in terms of local sensitisation and referral are significant. The other policy decision, currently in the final year of implementation, is related to extending the reach of public health institutions right to the VDC level and the creation of an integrated institutional structure of public health. Implementation of this policy is leading to the establishment of community level sub-health posts in all VDCs in the country. Better equipped health posts, covering 6-8 VDCs, would cater to cases referred by the sub-health posts. Finally, a primary health centre, with a qualified doctor, would serve each of the 205 electoral constituencies each of which comprises, on the average, 18-20 VDCs.

These and the preceding steps, together with expanding private initiative, have led to a gradual, although very slow, growth of trained health personnel and health facilities at various levels. As of 1997, sub-health posts have been established in 3,187 of the 3,912 VDCs. Similarly, 754 health posts and 117 primary health centres are functioning. A total of 75 public hospitals are functioning today in the different regional and district centres. Eleven of the districts, however, do not still have a public hospital (UNICEF 1996b: 67). Approximately 40 hospitals and nursing homes were also established under private initiative. In addition, a large number of health clinics and laboratories have been set up under the private sector as well. In addition, there has also been a significant increase



in the number of health personnel and hospital beds (figures 4.3 and 4.4) per unit of population.

The large-scale expansion of the public health



infrastructure, however, has not paid off in terms of the commensurably improved coverage and quality of health services. Most public health institutions are still ill equipped. The annual drug rations allocated to health posts are adequate for only 3-6 months. A rational drug dispensing policy at the patient level is not in sight either. Medical personnel often remain absent from the rural-based sub-health posts and health posts, and even from regional and district hospitals. Thus, in a 1995 survey of 10 districts, out of the 94 positions of doctors sanctioned, those on duty were only 28. Similarly, out of the 117 positions of nurses sanctioned, only 42 were on duty. Also, of the 18 positions for laboratory technicians sanctioned, only 12 were on duty (MOH 1996b: 10). Moreover, it was recently reported by Nepal Television (December 27, 1997) that there were no doctors on duty in at least 35 out of the 75 districts. The scale of training and re-training programmes for the medical and paramedical personnel is inadequate at the same time that the training programmes are much too costly. Equally significantly, there is little interaction and linkage between the public health institutions and local representative and other community-level bodies. Such linkages are generally not mandated in public health policies.

4.4 ACCESS TO PUBLIC HEALTH FACILITIES AND SERVICES

The emphasis given to health sector development in the past years, nonetheless, has resulted in significant progress in the extension and expansion of basic health services and medical care. In 1996, approximately 45 percent of the households could access a health post within a travel time of 30 minutes and three out of five

households consulted modern health practitioners during illness (CBS 1997a). This section focuses on the utilisation of selected health care services, particularly by mothers and children under five years of age.

4.4.1 Family planning, fertility and contraception

The Family Planning Association of Nepal, a non-governmental organisation, introduced the family planning programme for the first time in 1959 when family planning services and information on contraception became available in Kathmandu. Public sector intervention in family planning were introduced in 1968 (Pant and Acharya 1988: 213) with the formation of a Family Planning and Maternal Child Health Board. Its implementing body, the Family Planning and Maternal Child Health Project, was instituted under this board (CBS 1987b: 317-318). The Family Health Division, which is the eventual successor of the project, carries out various family health services in all districts of the country. Private and NGO sector initiatives have also played a key role in assuring access to family planning.

Despite these efforts, and despite the professed desire of most mothers to limit the number of children, TFR remained constant at around six during 1961-1986 (CBS 1987a: 284; MOH 1987). That figure declined marginally to 5.8 in 1991 (MOH 1992, 1996a) and more rapidly, to 4.5, in 1996² (MOH 1997c).

Access to knowledge on contraceptive methods, modes of procurement and use have increased sharply within the last two decades, however. While only 21 percent of the currently married women were knowledgeable about such methods in 1976, the proportion increased to 56 percent in 1986 and 98 in 1996. The percentage of currently married women aware of at least one method of family planning as well as its accessibility increased from 6 percent in 1976 to 33 in 1986. Use of contraception among the currently married and non-pregnant women of reproductive age increased from 3 percent in 1976 to 15 percent in 1986 (MOH 1977: 63; 1987: 137) and to 29 in 1996 (MOH 1997c).

4.4.2 Reproductive health and motherhood

The ICPD programme of action defines reproductive health as "a state of complete physical, mental and social well-being and not

Indicators	1991	1996	Source
Percent of all women married by age 19	47.3	44.0	CBS 1995b; MOH 1996a, 1996b
Percent of married women who give birth by age 19	38.3	42.4	MOH 1991, 1996a
Percent of pregnant women with anaemia	33.0	64.0	World Bank 1993
Percent of women with TT2	26.8	32.6	MOH 1991, 1996a
Percent of births attended by trained health personnel, including TBAs	17.7	32.6	MOH 1991, 1996a
Mean duration of breast-feeding (months)	28.0	28.0	MOH 1991, 1996a

merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and process” (ICPD 1994). The reproductive process, however, remains a serious health hazard for women in Nepal. As already noted, the maternal mortality ratio is extremely high. Such a ratio can be linked to a number of social and health-related features. Approximately 44 percent of all women are married by age 19 and 42 percent of all married women give birth to a child by that late teen age (table 4.5). Approximately two-thirds of all pregnant women are anaemic. An overwhelming proportion of women do not have access to professional health facilities and services during child birth. The duration of breast-feeding is very high – probably the highest in the world. While this is undoubtedly beneficial for the child, many mothers remain deprived from adequate nutritional and other support during this period. Data for 1991 and 1996 show that the extent of deprivation among mothers has increased with respect to the incidence of early child birth and anaemia. More mothers, however, been able to access immunisation against tetanus and to receive semi-professional support during childbirth.

Access to professional or semi-professional ante-natal care has improved a great deal between 1991 and 1996. For every woman receiving such care in 1991, 2.5 women received such care by 1996 (table 4.6). Increase in such access has been pronounced for women in the Tarai. While far more women in the urban areas enjoy such access than women in the rural areas, the trend shows that such care is increasingly available in the rural areas as well. Yet, nine out of 10 deliveries occur

at home. Even in the urban areas, the majority of women give birth at home. Most births continue to be assisted by friends and relatives. Indeed, 11 percent of all births are totally unassisted and present great risk for both the mother and the child.

Only 13 percent of all mothers have access to professional post-natal care. Another 24 percent access post-natal care from traditional birth attendants with varying levels of skills (MOH 1997c: 122).

Recently, a more organised safe-motherhood programme has been initiated in the public sector. In its first phase, it is being implemented in 10 districts. The programme, among others, seeks to strengthen community-based maternal health services and the referral system, to standardise maternity care practices and to upgrade the quality of maternity care in institutions.

4.4.3 Immunisation

Neonatal tetanus, pertussis, measles, acute respiratory tract infection, polio, tuberculosis and diarrhoea are the major killers of children in most of the developing world. They are also the major causes of morbidity and disability. In Nepal, the expanded programme for immunisation, which has been internationally organised as a major initiative against these diseases, was started in 1977. At its initial stage, it covered only three districts with one antigen. In addition, the coverage of immunisation until 1985 was limited to a small proportion of eligible children, often only those who lived in district headquarters or close to health institutions (UNICEF 1992a: 62).

Region	No access to professional/ semi - professional ante-natal care		Child delivered at home		TT injection (two doses)		Delivery assisted by friends/ relatives		Delivery assisted by no one	
	1991	1996	1991	1996	1991	1996	1991	1996	1991	1996
Nepal	82.3	55.7	92.5	91.7	26.8	32.6	58.2	56.0	9.6	10.9
Mountains	90.8	74.3	95.6	96.3	12.1	13.8	79.7	74.4	12.4	8.6
Hills	84.4	60.0	93.2	90.0	21.6	26.7	71.5	62.4	13.2	17.0
Tarai	79.1	49.0	91.3	92.4	33.9	40.6	42.6	47.7	5.8	5.9
Urban	44.7	32.6	61.1	56.2	44.9	48.3	35.6	36.7	3.4	4.1
Rural	84.5	57.2	94.2	94.1	25.8	31.5	59.5	57.3	10	11.3

Source: MOH 1992 and MOH 1997c.

By 1989, however, it was implemented, with six antigens, in all districts. By 1990, according to the data generated by the government, more than 90 percent of the children below one year of age were immunised against tuberculosis. The coverage rate for DPT3 and OPV3 was 78 percent while, for measles, it was 67 percent. Evidence from MOH (1997c), however, indicates that the high immunisation rates reported may have been inflated.

Relatively independent data sources, accordingly, report a much lower immunisation rate for the more recent years. The 1995 NMIS (NPC-UNICEF 1996a) study indicates that BCG coverage for children under 12 months was only 72 percent. Access to DPT and OPV was limited to 50 percent of the children. Only 47 percent of all eligible children had access to immunisation against measles. Furthermore, another set of 1996 data (CBS 1997a) shows that only 36 percent of all children under five years were fully immunised. Children in the rural areas and the mountain region are particularly deprived from immunisation (MOH 1997c). For 1995, the WHO ranked Nepal as one of the 12 countries which accounted for 80 percent of the global estimated neonatal deaths from tetanus. In addition, the WHO has classified 21 of the 75 districts as high-risk areas.

The rates reported on immunisation inflated their impact in another extremely worrisome way as well. The efficacy rates of vaccines under field conditions are generally found to be very low. Illustratively, the protection that measles vaccine provides has been estimated at only 22 percent (NPC-UNICEF 1996a: 18). That is, only one out of five children vaccinated against measles is likely to be fully protected against it. Failure to maintain the cold chain, which is extremely important in keeping the vaccine potent, is the main reason underlying such a low efficacy rate.

Access to immunisation against TT, among women aged 15-49 years, also remains very poor. In 1996, only 19 percent of the women in this reproductive age category had access to more than one dose of the TT vaccine (MOH 1997c).

4.4.4 Perception on access to health facilities and services

Overall, nearly 3 out of 5 households in the country report that they do not have adequate access to health care services. Many more households in the western and far western regions express such a view in compared to other regions.

Similarly, residents in the mountains report a lower level of access than those in the Hills and Tarai. This distribution of household perception on access to health care services is in keeping with the information from more “objective” sources.

4.5 NUTRITION

Nutritional status is determined by various factors operating at various levels. At the individual and household level, availability of food items, their processing, timing of intake and intra-household food distribution regimes can impact on nutritional status. Access to productive resources (principally agricultural land), work and employment and income can also crucially impact on household nutritional status. Mechanisms of redistribution and general prosperity among the kin and in the community can also affect nutritional status significantly. At the macro level, nutritional status remains crucially linked to overall food production, marketing (including import and export) and non-market support to food security provided by the state. Low man/agricultural land ratio, skewed land and income distribution, widespread poverty (see chapter 7), rapid population growth, poor performance of the agricultural sector and the overall employment market (see chapter 6) and irresponsible political structures have all contributed to making Nepal a food-insecure region – notwithstanding the fact that agriculture is the mainstay of its economy. Thus, food security, which is defined as a state of affairs

Table 4.7 Household perception on adequacy of access to health care services by place of residence, 1996
(percent)

Place of residence	Less than adequate	Just adequate	More than adequate
Nepal	58.70	40.57	0.62
Ecological region			
Mountains	63.13	36.64	0.22
Hills	59.70	40.00	0.11
Tarai	56.90	41.84	1.19
Development region			
Eastern	51.19	46.64	2.16
Central	56.73	42.93	0.20
Western	65.24	34.56	0.20
Mid-Western	55.91	43.78	0.00
Far Western	75.14	24.53	0.00

Source: CBS 1997a.

where “all people at all times have access to safe and nutritious food to maintain a healthy and active life” (FAO, cited in Koirala and Thapa

1997), remains a distant dream for the majority of the people.

Regardless of its determinants, however, access to food security and adequate nutrition is a fundamental human requirement for using and enhancing human capability. Food insecurity and inadequate nutrition lead to multiple ill consequences for health, including high morbidity, heightened susceptibility to diseases and upscaled mortality. Food insecurity and inadequate nutrition are also immensely depriving and demeaning.

4.5.1 Consumption patterns

Cereals form the predominant item of daily consumption. Rice is the main staple food in Nepal. Wheat and maize are the supplementary staples in the Tarai and the Hills respectively. In addition, millet, buckwheat and barley are consumed in the Hills and Mountains. Various kinds of grams and oilseeds provide protein and fats. In addition, potato and onions are consumed regularly by a large proportion of the population. Consumption of green vegetables is growing but a significant proportion does not have regular access to it. The consumption of animal protein is low.

Food items and quantities consumed vary substantially by season and economic status. In particular, the planting seasons are also seasons of great food scarcity and undernutrition for the majority of the households. During such seasons, the poor often have to subsist on one meal a day. Borrowing for consumption, to be repaid after the harvests, also reaches a peak during these seasons.

A large portion of the household income is spent on food items. In 1984/1985, the poor spent as much as 70 percent of their household income on food. In 1984/85, the proportion of household income spent on food items in the rural and urban areas were 62 percent and 51 percent, respectively (NRB 1988: 115-118).

Available statistics for 1995 indicate that 55 of the 75 districts are food deficit (map 4.1). As a

exchange earnings for the country until 1979, dwindled by the mid-'80s. The country now imports a significant quantity of foodgrain. The scale of food imports, in addition, has been increasing. The food and live animals import/export ratio, which was 1.46 for 1986/87, increased to 2.75 in 1995/96 (CBS 1997b).

4.5.2 Access to food and nutrition

The recommended minimum caloric requirement for an adult in the country is 2,250 kilocalories per person per day. Adult caloric requirements, however, vary by a number of conditions. Among such conditions, only a rough regional classification has been made in the country. According to this classification, 2,140 kilocalories person/day is recommended for adults in the Tarai while the corresponding recommendation for the Hills and the Mountains is 2,340 kilocalories. In addition, for both men and women, 2,250 kilocalories are recommended.

Refined and fully reliable data on actual food intake and their calorific values, however, are not available. Information on the distribution of food and nutrition across regional, socio-economic, gender and age groups is not available either. A very rough approximation prepared by the MOA (1992, 1996), however, shows that substantial caloric shortfall exists in relation to the recommended minimum norm (table 4.8). For 1994/1995, the latest year for which the data are available, the shortfall amounted to 112 calories (or 5 percent) person/day. The level of consumption of protein and fats is also low. The 8-year data do not allow any assessment on the trend of access to nutrition. Given the close link between agriculture and nutrition, on the one hand, and the close link between adequate and timely rainfall and a successful agricultural year, on the other, it can be surmised that the years in which the minimum caloric recommendations were met were precisely those when the rainfall was adequate and timely.

Particulars	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95
Energy (kilocal/capita/day)	2000	2077	2125	2288	2258	2077	2429	2138
Protein (grams)	53.29	55.77	56.86	61.52	59.83	52.49	61.70	64.47
Fat (grams)	27.15	29.04	31.91	30.39	29.62	26.68	30.76	32.84

Source: MOA 1992, 1996.

result, the export of foodgrains (particularly rice and maize), which was the major source of foreign

Significant proportions of the people also

Map 4.1 Food-deficit areas, 1995



Table 4.9 Household perception on adequacy of food consumption by place of residence, 1996

Place of residence	(percent)		
	Less than adequate	Just adequate	More than adequate
Nepal	50.86	47.31	1.83
Mountains	63.16	33.55	3.29
Hills	54.67	43.11	2.22
Tarai	44.86	53.96	1.18

Source: CBS 1997a.

face mild-to-severe micronutrient and vitamin deficiencies. Iron deficiency is common, especially among pregnant women. As noted earlier, two-thirds of all pregnant women suffer from iron deficiency. Residents of the mountain and, to a lower extent, the hill region, face severe iodine deficiencies. In 1990, at the national level, iodine deficiency was prevalent among 40 percent of the population. The prevalence rate of goitre, accordingly, was 40 percent as well. Furthermore, 0.4 percent of the population was afflicted by cretinism (UNICEF 1996). Iodine deficiency also results in mental retardation among a significant proportion of the population. A significant part (1.6 percent) of the population in the Tarai faces Vitamin A deficiency, which leads to various degrees of blindness (NPC-UNICEF 1996a). That rate is lower in the Mountains and Hills (0.4 percent and 0.5 percent, respectively). Night-blindness among children 2-3 years of age has been estimated at 0.5 percent (NPC-UNICEF 1996a). Nationally, the Vitamin A deficiency rate has been estimated at 0.9 percent of the population.

Household-level self-perception provides one additional way to assess access to food and nutrition. For 1996 (CBS 1997a), over one-half of all households reported that their food

consumption was less than adequate (table 4.9). Almost all of the remaining households reported that the level of their food consumption was just adequate. Perceived inadequacy of food consumption was considerably higher in the Mountains and Hills compared to the Tarai – a perception which tallies with information generally regarded as “more objective”.

4.5.3 Nutritional deprivation: anthropometric evidence among children

Growth statistics of children are often, and legitimately, regarded as a good proxy for assessing the nutritional status and welfare of an entire population. In addition, and for the present context, such measurements are of key value in as much as they measure deprivation among children – a key group for the conceptual and strategic frame of human development. Anthropometric evidences are preferred measures of nutritional status in comparison to clinical measures because of the scarcity of clinical signs suggestive of nutritional deficiency, their lack of specificity, and the notoriously limited extent to which results can be reproduced by different examiners.

Anthropometric measures usually rely on the distribution of a set of three indicators to assess

Table 4.10 Nutritional deprivation among children by place of residence, 1996

Place of residence	Height-for-age (stunted)		Weight-for-height (wasted)			Weight-for-age (stunted/wasted)		Sample size
	Percent below 3SD	Percent below 2SD	Percent below 3SD	Percent below 2SD	Percent below 3SD	Percent below 2SD		
	Nepal	20.2	48.4	1.7	11.2	16.1	46.9	
Urban/rural								
Urban	10.5	35.4	0.6	5.8	6.4	29.8	237	
Rural	20.9	49.3	1.7	11.6	16.8	48.1	3,468	
Ecological region								
Mountains	27.5	56.6	2.5	13.6	22.7	53.2	270	
Hills	19.9	48.7	1.5	9.3	13.5	44.4	1,611	
Tarai	19.4	46.9	1.7	12.6	17.4	48.2	1,824	
Development region								
Eastern	14.5	38.3	1.3	10.2	11.4	38.0	765	
Central	22.0	50.9	1.9	10.1	17.5	48.2	1,247	
Western	20.4	50.0	1.5	11.2	15.2	47.7	762	
Mid-Western	22.2	51.0	1.3	11.9	16.3	48.8	555	
Far Western	22.7	53.2	2.6	16.5	22.7	56.3	376	

Source: MOH 1997c.

nutritional adequacy: *height-for-age*, *weight-for-height* and *weight-for-age*. Each of these indicators bears a certain specific significance as well. *Height-for-age* measures skeletal growth (and the degree of stunting) which does not vary quickly in response to short-term health and economic changes. Short-term changes in the growth pattern, therefore, cannot be detected from this measure. It, instead, measures consequences of long-standing problems in food intake and health. This measure is also used as an indicator of long-term human-scale deprivation due to serious and long-term social and economic problems. *Weight-for-height* measures the body size according to the height attained (i.e., the degree of wasting). The volume of tissue mass can change quickly depending on the quantity and quality of food intake in the recent past and the general health condition. Deficits in weight for a given height can develop and disappear very quickly; as such it is a useful indicator to assess short-term changes in nutritional status. *Weight-for-age* shows the extent and distribution of under-weight persons of that age in the population. A low weight-for-age signifies a general deprivation of food and nutrition. It is also often used as a summary indicator which subsumes the effects of the previous two indicators. As a summary indicator, however, it is less refined than the two other indicators.

All of the three indicators are expressed as standardised (z-score) deviation units from the median value of a reference population as recommended by the WHO. Persons whose indicator-values lie in the -2 SD to -3 SD range from the median value of the reference population are considered below normal and those whose indicator-values lie beyond the -3SD range are considered severely undernourished.

The distribution of children under 3 years of age on the three anthropometric indicators shows a very high level of undernutrition and/or malnutrition (table 4.10). Nearly half of all the children are stunted³. The degree of stunting is severe for one-fifth of the children while it is moderate for approximately one-half of all children. Thus, the extent of nutritional deprivation among children is both pervasive and deep and is rooted in long-term inadequacies in food intakes. Wasting (i.e., low weight for height), while significant, is both much less common and much less severe.

While stunting is very high nationally, it is even higher in the mountain region. As many as five out of six children suffer from stunting in the

region. Similarly, children in all of the development regions, except the eastern one, suffer from a level of stunting which is higher than the national average. The degree of stunting is also higher in these regions. Data disaggregated at the 15 eco-development regions (not shown) indicate that the rate of stunting is highest in the western mountains.

4.6 ACCESS TO SAFE WATER AND SANITATION

The status of public health, in addition to the level of access to nutrition and health/medical facilities and services, crucially depends upon the level of access to safe drinking water and sanitary facilities. Despite continuing improvements, however, the level of such access in the country is very low (see also chapter 7, section 7.6.1).

Water, particularly safe drinking water, is a scarce good in many parts of the country. Most settlements and households do not have access to piped water. In such instances, fetching water from a distant source daily consumes considerable time and energy – particularly of girls and women, who generally perform this task. The onerous nature of this task implies that households make do with as little water as possible. This is particularly true of the hill and mountain regions. The level of per capita consumption of water, therefore, is very low. The highly limited use of water, on the other hand, is one of the principal causes of a low level of sanitation.

Furthermore, in areas in which water is more accessible and/or is piped to the settlement or to the house, the safety of the water for human consumption is increasingly questioned. This is particularly true in the urban areas where the health workers and the mass media regularly counsel residents to drink only boiled water. In urban areas, *e. coli* counts in drinking water are reported to be high and increasing. In addition, it has also been reported that contamination of drinking water, including in the rural areas, occurs because of unsanitary storage and utilisation mechanisms.

Drinking water, on the positive side, has become much more accessible than in the past. Piped and hand-pumped drinking water facilities, which are also comparatively safer, have expanded considerably due to governmental, NGO/INGO, CBO and private initiatives in the rural and urban areas. Thus, within a span of five years (between 1991 and 1996) access to piped water in the rural areas has nearly doubled (table

Table 4.11 Distribution of households by selected sanitation indicators and rural/urban location, 1991 and 1996
(in percent)

Indicators	1991		1996	
	Rural	Urban	Rural	Urban
Sources of drinking water				
Piped water	16.3	51.3	29.1	57.4
Well water	12.1	6.4	7.0	8.7
Hand pump	26.5	38.6	33.3	27.3
Spring water (<i>kuwa</i>)	32.9	2.9	20.8	0.0
River/stream	9.09	0.2	7.6	3.3
Stone tap	2.7	0.6	1.6	1.8
Others	0.6	0.1	1.4	0.6
Not stated			0.3	0.9
Toilet in the house				
Yes	16.5	69.8	17.7	73.7
No	83.5	30.2	82.3	26.3
Persons per sleeping room				
1-2	32.5	55.2	37.8	52.0
3-4	37.1	29.2	37.5	31.9
5-6	19.9	11.4	17.4	12.7
7 plus	10.5	4.2	7.1	2.8
Mean person/room	NA	NA	3.5	3.0
Sample size of households	23,124	1,621	7,366	716

Source: MOH 1992, 1997c.

4.11). Access to hand-pumped groundwater has also increased substantially and use of the uncovered spring water and river/spring water has decreased.

Access to latrines, however, is extremely low in the rural areas. It is also the single most potent source of environmental pollution. The very high prevalence rate of diarrhoea and dysentery and other water-borne diseases owes principally to the low level of access to latrines. Access to latrines, furthermore, and unlike access to drinking water, increased only marginally during 1991-1996. The MOH data on latrines are fully corroborated by the 1996 NPC-UNICEF (1997a) data as well.

Limited housing space, which is proximately rooted in the relatively large family size and broad-based poverty, also leads to a variety of pollutions. Indoor smoke pollution and diseases associated with such pollution are endemic, particularly in the northern areas with a cold climate where the fuelwood-based hearth is also utilised as a living room and the kitchen heat is utilised to heat the home. Communicable diseases find a receptive condition in such settings. The very high incidence of skin diseases there, noted earlier, can be linked to such housing conditions. The high incidence of tuberculosis, measles, etc. can be similarly linked as well.

4.7 FINANCING OF HEALTH

Several internal and external funding agencies provide financing for health (ADB 1994). The

internal funding agencies consist of the government, private companies and private households. The external agencies consist of external development partners and donors inclusive of multilateral and bilateral agencies, as well as international non-governmental organisations and religious/philanthropic missions. In 1994/95, the total expenditure made by these agencies in the health sector amounted to Rs. 10.94 billion (table 4.12), equivalent to 5.3 percent of GDP. This level of health expenditure/GDP ratio is substantially higher than in Bangladesh and Pakistan. Among the South Asian countries, only India, which spends approximately 6 percent of its GDP on health, exceeds the ratio for Nepal.

Households provide, by far, the largest share of the health expenditure funds, while the government, development partners and donors, and the profit-making private sector accounted for much smaller levels. Of the total health expenditure of Rs 10.94 billion for 1994, households accounted for over 76 percent (Rs. 8,278.6 million). Development partners and international donors accounted for 14 percent (Rs. 1,505.04 million), and the government for 10 percent (Rs. 1,160.93 million).

Within the government, the MOH accounted for over 90 percent of the public sector health expenditure. The remaining portion was allocated by the Ministry of Defence via the Army Hospital, by the Ministry of Home via the Police Hospital, and by the Ministry of Education via the Tribhuvan University's Institute of Medicine.

In 1994, *per capita* health expenditure was Rs. 538.35 (US\$ 11.0). Of this, households spent nearly 400 rupees. The share of the government was approximately 57 rupees and the share of

Table 4.12 Level of total health expenditure by source, 1994/95

Expenditure by source	In million Rs.	Percent	Per capita expenditure
Private Sources	8,278.60	75.65	407.20
Households	8,102.10	74.04	398.53
Private enterprises	176.50	1.61	8.68
External Sources¹	1,505.04	13.74	74.03
Donors/development partners	1,360.72	12.43	66.93
INGOs	101.29	0.92	4.98
NGOs	43.03	0.39	2.12
Government Sources	1,160.93	10.61	57.11
Ministry of Health	1,079.40	9.86	53.10
Ministry of Education	1.00	0.01	0.04
Ministry of Defence	52.13	0.48	2.56
Ministry of Home	28.40	0.26	1.40
Total	10,944.57	100.00	538.34

Source: ADB 1994.

development partners and donors 67 rupees. The contribution of INGOs and NGOs was approximately 7 rupees, and the share of the private sector was close to 9 rupees.

4.7.1 Public expenditure

As noted, the MOH administers over 90 percent of the health expenditure in the public sector. Between 1991/92 and 1996/97, it increased approximately four-fold at current prices and two-fold at real prices. MOH expenditure as a percent of the total national budget grew from 3.47 percent in 1991/92 to approximately 6 in 1996/97. However, as a percent of GDP, this amount still accounts for slightly more than one percent only.

4.7.2 External sources

A large part of the country's development expenditure is met through international assistance. The health sector is no exception. International assistance to the health sector, as a proportion of total governmental expenditure on health, ranged from 36 percent in 1991/92 to 49 in 1994/95. However, of the total flow of international assistance in 1994/95, only 4 percent was allocated to the health sector.

4.7.3 Private enterprises

The financial investment made by the private sector organisations, in recent years, has been substantial. The share of health services delivered by the private sector through nursing homes and hospitals, particularly in the urban areas, has been growing. Illustratively, the private sector, which started with 2 nursing homes in 1985, comprised 45 functioning nursing homes in 1996. The number of beds in the nursing homes also grew from 10 to 1126 during this period. Many nursing homes are well equipped. It is estimated that 4-5 thousand sick persons receive medical services a day in the outpatient departments of private nursing homes (MOH 1996b). Expenditures made by nursing homes in 1994/95 amounted to Rs 37.67 million. The combined expenditure figure for the private sector (nursing homes, private diagnostic centres, private pathological laboratories) in the health sector is estimated to be Rs 130.69 million in 1994/95. Drug retail outlets are very largely privately owned as well.

No attempt has yet been made to estimate the expenditures made by the private manufacturing establishments in the health sector. A preliminary

survey carried out by the ADB in three districts, however, shows that these establishments make significant investments in drug and equipment manufacture.

Except for the manufacturing sub-sector, health benefits arising out of the private sector investments are very largely limited to the middle and upper income group residents in the urban areas. Further, they are exclusively concentrated in the provision of curative and specialised services. Some such enterprises, some nursing homes in particular, are motivated by short-term financial benefits accruing out of governmental incentives – which provide for preferential import customs duties – to such enterprises. The rate of closure of nursing homes, therefore, has been high. Between 1984 and 1996, 16 nursing homes stopped functioning after a short duration.

4.7.4 Private household expenditure

Household expenditures for health include payments made by households for drugs and health services available at hospitals, health clinics, mobile clinics, private nursing homes, and private visit by doctors, pharmacies, INGO/NGO facilities and traditional medical outlets. As noted, household expenditure in health amounted to Rs. 8,102 million in 1994/95. Health expenditures accounted for 6 percent of the total household expenditures (CBS 1996). This represents an increase in health expenditure by households compared to 1984, when households spent approximately 4 percent (of their total expenditure) on health.

A large proportion (59 percent) of the household expenditure on health is spent on accessing governmental health care outlets and for the procurement of drugs prescribed by such outlets (table 4.13). Slightly more than one-third of all household health expenditure is spent on private outlets. Only 5 percent is spent on "traditional" (see 4.3.2) outlets. Despite the fact that MOH administers only 10 percent of all *governmental* health sector expenditures, popular reliance on governmental health care services is very high. (The MOH, of course, also mobilises much of the resources contributed by developmental partners and donors and, to a much lower extent, the contributions of the INGOs and NGOs.) As noted earlier (table 4.4), in 1995, governmental outlets served 2.9 million persons. The cost structure by outlets, in addition, also highlights the low-cost nature and preference for, and legitimacy of, "traditional" outlets.

4.7.5 Non-governmental organisations

The financial contribution made by the INGOs and NGOs in the health sector is often under-reported (as is apparently the condition with the information reported in table 4.12). A recent survey shows that 18 INGOs spent a total of Rs. 386.02 million in 1994/95 on health-related activities. Among the INGOs, the United Mission to Nepal alone spent Rs. 177.72 million on community health care, hospital assistance and TB control activities. Of the 18 INGOs, 10 are working in primary health care activities in different parts of the country. Such activities range from primary health care to child survival, family planning, reproductive health services, AIDS and STD control and eye care. In addition, according to a case study, 32 NGOs spent a total of Rs. 284.67 million on health-related activities in 1994/95. Among the NGOs, the Nepal Red Cross Society contributed the largest amount, followed by the Family Planning Association of Nepal.

4.7.6 Quality of health sector expenditure

Per capita governmental expenditure (inclusive of both regular and development expenditure) allocated to the health sector was Rs. 284 in 1996/97. The overall allocation was less than half of the allocation for the police and defence put together. Measured as a ratio of the total government expenditure, allocation for health was approximately 6 percent. While this represents a doubling of the allocation ratio compared to 1985/86, the distribution of funds over the priority and non-priority areas have remained constant. More than 40 percent of the governmental health sector expenditure continues to be allocated to the maintenance of hospitals and curative health care (see annex 14.1 for definition of priority and non-priority areas and section 14.2 for trends of budget allocation to the priority and non-priority areas).

4.8 KEY POLICY ISSUES AND ACTIONS REQUIRED

Promotion of health has remained a salient dimension of public policies for two decades. Health was already identified as a basic need in the mid-'70s (e.g., in the fifth- 1975/76-1979/80 development plan). A 15-year long-term Health Plan (1975-90) was prepared for the promotion of health. The 1978 Alma Ata conference provided a new impetus to prioritise primary health care, and

Table 4.13 Annual household expenditure on health by outlets, 1994/95

Health/medical outlets	Million Rs	Percent
Governmental outlets		
Hospitals	2,225.01	27.46
Clinics	2,448.44	30.22
Mobile camp	104.71	1.29
Sub-total	4,778.21	58.97
Private outlets		
Pharmacies	540.44	6.67
Home visits	119.78	1.48
Other private facilities	2,176.46	26.86
Sub-total	2,836.69	35.01
INGO/NGO outlets	68.61	0.85
"Traditional" outlets	418.60	5.17
Total	8,102.11	100.00

Source: ADB 1994.

subsequent health sector plans in the country have had some imprints of the declarations made there. The Basic Needs Programme enunciated in 1985 was committed to provide universal primary health care for all by the year 2000. In conformity with the 1990 declarations of the World Summit for Children, the country also developed a ten-year (1991-2001) national plan of action for children which prioritised health, education and water supply and sanitation.

Similarly, a new health policy, which prioritised access to public primary health services, was announced in 1991. The policy, in addition, prioritised access to multi-level and potentially well-integrated preventive and promotive health care, as also to community participation and local resource mobilisation in the health sector. It also entailed the promotion of *ayurvedic*, "traditional" and other medical systems and a revamping of the public health organisation and management system. The 1991/92-1996/97 eighth development plan sought to implement these priorities as well.

While the level of overall expenditure remains inadequate, and needs to be increased, the existing level is by no means extremely low. As noted, the level is one of the highest in South Asia. Indeed, the existing level of per capita expenditure on health falls only marginally below the average for the "least developed" countries. Households, in particular, allocate a substantial portion of their income on health.

Such policies, investments and programme implementation designs have led to significant achievements. Access to health facilities, including in the rural areas, is increasing. Some categories of epidemics have been brought under control. Life expectancy is increasing. Mortality

rates – whether among the infants and children, mothers or the population as a whole – have declined considerably.

Yet, the level of deprivation is still extremely high. The rate of progress, too, has been extremely slow. Improvements in health in the last two decades, in addition, have been highly unequally distributed across the regions, rural and urban people and income groups. In addition, a review of the trends of the last decade indicates that, in the absence of a re-prioritised set of public health interventions, inequities in the status of health and health-related capabilities will continue to widen even more sharply. The very low emphasis on reducing the extremely high maternal mortality ratio, in particular, also shows that health interventions continue to incorporate a distinct gender bias. Reduction of such deprivations will call for a number of interventions.

4.8.1 Universalising primary health care

Universalising primary health must become the *fundamental* goal of health policy. All other goals and objectives must be given a secondary (or tertiary, as the case may be) significance. While primary health care, as noted, has been emphasised in the existing policies as well, the emphasis has been much too diluted because the secondary and tertiary objectives – and entrenched lobbies which pursued such objectives – competed for priority attention. Thus, despite the professed emphasis on primary health, there has been little *de facto* prioritisation. Under the existing *de facto* prioritisation scheme, hospitals and infrastructural programmes continue to be allocated a large share of the MOH and development partner/donor funds. Illustratively, for the last several years, approximately 20 percent of the MOH budget has been allocated to a single hospital. If primary health care is to become the fundamental objective of health policy, such muddled “prioritisation” must cease.

The MOH, however, *cannot* universalise primary health care by itself. This is an objective that demands *national* priority. That is, such a priority cannot flow out of sectoral, or even central-governmental, enunciation of policies. As such, and at the first level, it demands *national political* commitment. That is, such a commitment cannot authentically flow out of the transient and soft *developmental* policies alone, nor from the periodic plans or annual budget statements and outlays. Such prioritisation and commitment, instead, must flow out of, and be concretised,

constitutionally. In other words, a political agenda for universalising primary health care must recognise that primary health care is a fundamental right of all citizens. Such recognition, in turn, must manifest in the form of a *constitutional amendment*. All political organs, e.g., the executive and the legislative branches of the government, political parties, local representative bodies, trade unions and other professional associations, etc. must actively promote such an amendment to the constitution.

The *implementation of universalisation*, in turn, presents a huge challenge. All secondary and tertiary objectives, long-term, periodic and annual macro as well as sectoral plans and outlays, and institutional structures and inter-sectoral linkages must be rendered consonant to this overriding goal. Many of the established regimes of health promotion, too, must change.

4.8.2 Recognising and intensifying inter-sectoral linkages

Health is far more than medicine. This truism, however, is often lost within the governmental *system as a whole*. This is particularly the case within the MOH. Run predominantly by physicians over a long period of time, health has lost much ground to medicine within the MOH. At the personal level, few physician-administrators within the MOH would disagree that intensification of intersectoral emphases would benefit the promotion of health. Such issues, however, are marginalised at the medical-professional level. Finally, at the institutional level, such emphases are almost as good as lost.

Thus, within the MOH structure, and illustratively, the institution-level concern with the extremely salient and broad issue of nutrition has been segmented and reduced to a concern for deficiencies in iodine and Vitamin A. While such concerns may be entirely legitimate, the solutions sought and being implemented are very narrow. More importantly, protein energy malnutrition (PEM), despite the staggering deprivation reported in section 4.2.3, is not regarded as an institutional concern of the MOH. Indeed, the draft-stage Second Long-Term (1997-2017) Health Plan (MOH 1997b) remains *totally silent* on inter-sectoral coordination. In fact, health-nutrition linkage does not find even a bare mention (cf. Mishra 1997). Such a narrowly sectoral and technocratic regime cannot foster the promotion of health.

Promotion of health requires new modes of

organising institutions. Intersectoral coordination is the essence of such institutions. They may also demand the development of new institutions. Promotion of health, at the least, requires a coordination of policies and actions among the ministries of health, agriculture, education and agencies looking after drinking water and sanitation. In addition, they require coordination with representative bodies and other institutions at the local levels.

4.8.3 Engaging local bodies and community

Implementation of the idea of universalisation of primary health care requires policies and actions which can promote active engagement of the local representative bodies, political parties, and many other community institutions (see chapter 11). But bureaucracies of the day are inherently ill-equipped, by themselves, to promote primary health care at the local level. Such engagement cannot flow out of bureaucratic good will either. Only local institutions, under enabling conditions, can promote organised demands for primary health care, and only such institutions can effectively and continuously monitor effective access to primary health care. Community engagement, not health *delivery*, can potentially ensure universal primary health care

The promotion of local institutions, representative bodies in particular, for the promotion of primary health care (as also for local action on other human developmental fronts) requires, in the first instance, empowerment of such bodies. Such empowerment, once again, has to flow out from the constitution itself. Devolution, however, and at best, is only hinted upon in the constitution. Existing laws on devolution (e.g., the 1991 VDC, municipality and DDC acts), on the other hand, have serious shortcomings (see chapter 11).

Empowerment of local bodies alone, however, is not sufficient. They need to be fully supported as well. In addition, recent policy emphases (such as those in the draft-stage Second Long-Term Health Plan) which seek to force the *ultimate* responsibility for primary health care on the communities are highly inappropriate (Mishra 1997). Such emphases constitute blatant attempts at absolving the state from its responsibility of making primary health care available to all and seek to obfuscate the fact that what they are after is a much enhanced presence of the private, profit-making, sector in the primary health care front.

Within the domain of health, in addition, there must be a much more intense engagement between the “modern” and the “traditional”(or local) systems. MOH initiatives on the FCHVs and the training of local birth attendants have had productive results. Such initiatives need to be intensified and expanded. However, the modern sector should not focus exclusively on incorporating the traditional sector within itself. Instead, the opportunity and process should be utilised for mutual learning and exchange. In particular, the modern sector can learn much from the traditional sector about the value of the use of locally available medicinal herbs and low-cost intervention strategies.

4.8.4 Ensuring food security

The extremely high incidence of PEM not only highlights an extremely high level of human deprivation but also provides the evidence that the existing interventions for health promotion are puny and misdirected. Efforts, therefore, must be made to enhance agricultural production and productivity at the household level. These entail both organisational and technological reforms (chapter 6). In addition, transportation and marketing systems need to be expanded and made more efficient. A sincere implementation of the APP can, in this respect, be highly fruitful. Expansion of employment opportunities is also germane to enhancing food security (chapters 7, 11).

Sharply targeted public food distribution systems can go a long way in reducing PEM. For the extremely deprived, public distribution needs to be subsidised as well. While the market has to play the predominant role, access to the minimal level of food security must become a public responsibility. Local bodies and institutions, in addition to the (central) government, can play a significant role on this front (chapter 11). Provision of mid-day meals in schools can also be a useful supplementary intervention.

4.8.5 Investing additional resources and enhancing efficiency

As noted, household contributions make up three-fourths of the total health expenditure. The scale of governmental investments in the health sector in general and primary health care in particular, on the other hand, remains low. Low governmental expenditure in the health sector is primarily rooted in a traditional regime which make health an

almost exclusive concern of the household. Education, illustratively, is a far more *public* issue than health. Public health, on the other hand, needs to be brought into the public domain. The low but consistent expansion of the health sector budget within the last half-decade does, however, indicate that the process of bringing health into the public domain might have begun.

The ratio of governmental allocation to the priority sectors in health needs to be increased. A firm implementation of the tax regime in relation to the private health sector can generate additional revenues. In addition, the existing preferential rate of tax assessment for physicians, under which their personal income is taxed at the rate of 5 percent only, must be revoked.

Local bodies, in addition, need to provide more funds to primary health care. Local bodies also need to be more active in collecting, disseminating and discussing health-related information at the household and community levels (see chapter 11). In addition, they need to generate organised political pressure for a higher level governmental allocation to the local sub-health posts.

Intersectoral and inter-level coordination will enhance both effectiveness and efficiency substantially. In addition, financial as well as cost efficiency can be increased by developing and implementing an essential drugs policy and mandating user-payment for non-primary health care in governmental outlets. Efficiency can also be enhanced by expediting the implementation of health projects according to schedule. The administration of health projects, it should be emphasised, has remained extremely tardy.

4.8.6 Producing more and appropriate health workers

The very high rate of absenteeism among the medical and paramedical staff in almost all areas of the country, excepting the Kathmandu Valley, has remained a matter of perennial concern for successive governments. Most measures taken to counteract absenteeism have failed, and there is, at present, a continuing impasse as well. Health promotion has become a victim of market and greed.

While administrative firmness – which has been seriously lacking – and “incentives” can alleviate absenteeism to some extent, enhanced production of appropriately qualified health workers appears to be the only long-term solution. The overwhelming emphasis of medical education and training, therefore, must be focused on the production of low and medium grade health workers. In this respect, the elitist, class-based and medical-professional bias, which led to the abandonment of the earlier system of medical training at the teaching hospital of the Tribhuvan University, must be struggled against and the old system restored. The fact that the system abandoned here has been recently introduced in teaching hospitals in a number of other countries which are seeking to expand their primary health care system must not be lost sight of. In addition, a much higher level of investment must be made on the training and retraining of Female Community Health Volunteers (FCHVs) and village and district level health workers.