

3.

CHILD & MATERNAL HEALTH POPULATION TRENDS

Jung Bahadur is said to have attempted to have a census taken during his tenure as prime minister. However it was only in 1911, during the time that Chandra Shumsher was prime minister that the very first census was taken.

BASIC HEALTH STATISTICS

The Nepal related figures taken from the UNICEF document State of the World's Children 2005 (1) are as follows: -

| | |
|--|--------------------------|
| Population | 25.16 millions |
| Under 18 years of age | 11.7 millions in 2003 |
| Under 5 years of age | 3.7 millions in 2003 |
| Infant Mortality Rate ('03) | 61/1000 live births |
| Under 5 Mortality Rate ('03) | 67/1000 live births+ |
| Life expectancy at birth | 60 years (2003) |
| Life expectancy of female as percentage of male | 98%* |
| Adult literacy rate | 59% Male.24% (F) in 2000 |
| Maternal Mortality Rate per Thousand | 5.4 in period 1985-02** |
| Total Fertility Rate | 4.2 (2003) |
| Crude Death Rate | 10 per thousand in 2003 |
| Crude Birth Rate | 33 per thousand in 2003 |
| Population Growth Rate | 2.3% per annum (1990-03) |
| Gross National Income | \$240 per capita (2003) |

+ Children who die before the age of 5 for every 1000 born alive.

* With respect to life expectancy at birth, Nepal is probably one of the only countries remaining in the world where female mortality is significantly higher than male mortality, at all ages. The recent figures tend to suggest that the gap is even widening.

** Nepal's MMR in 2004 varies in different areas and the adjusted figure is quoted as 7.40 per 1000.

Family Planning Activities in Nepal

Family planning in Nepal started with the involvement of the Nepal Medical Association (NMA) in such activities as far back as 1959. The Family Planning Association of Nepal was then formed with the active involvement of NMA and the support of the International Planned Parenthood Federation (IPPF). Technical assistance by the US was to get the government to have a Family Planning Policy by 1965 (2). Family planning was also integrated with maternal and child health (MCH) to form a FP/MCH Project, under the Department of Health.

Subsequent technical assistance for family planning activities started in 1966 with the support of the USAID to the MCH section of the Department of Health. This service was started in the three districts Kathmandu, Lalitpur and Bhaktapur. In terms of the children it meant the distribution of milk powder to those who were underweight and needed some support. In 1968, the Family Planning and Maternal Child Health Project with 4 regional offices was established for implementation of the plans (3).

The National Planning Commission (NPC) then constituted in 1974 a task force to develop a population policy for the Fifth Five Year Plan 1975-80. In 1975 a Population Policies Co-ordination Board was established for formulating and subsequently coordinating population policies and programmes. Three years later in 1978 a National Commission on Population (NCP) was established under the Chairmanship of the Prime Minister and to bring about better functioning, the secretariat of the National Commission on Population was made a division of the NPC. The desired results were not attained and so in March, 1982 the commission was reorganised and made independent of the NPC. The long term aim of the National Population Policy as stated then was to:

“attain the replacement level (Total Fertility level of 2.5 corresponding to annual population growth rate of 1.2%) of fertility by the year 2000 AD.” (4).

Whilst there was great concern regarding the control of population as a prerequisite to the development of the country, there was also awareness that there was no simple answer. The National Commission on Population highlighted the acuteness and recommended that multiple factors such as political, social, economic, cultural be taken into account. It stressed the need to narrow down the gap between government's concern and the individual's perception regarding the population problem (5). In 1990, the FP/MCH

project was converted into a Division under the Ministry of Health.

The population figures for 1991 and 2001 were 18,462,081 and 23,151,423 respectively. This meant a 2.3% increase per annum which, continuing at the same trend could lead to a doubling of the population in 33 years.

Table 3.1 Census totals and implied population growth rates: Nepal, 1911-1976 (6).

| Reference Date | Population | Implied annual growth rate(%) |
|----------------|------------|-------------------------------|
| 1911 | 5,638,749 | |
| 1920 | 5,573,788 | - 0.13 |
| 1930 | 5,532,574 | - 0.07 |
| 1941 | 6,283,649 | 1.16 |
| 1952 / 54 | 8,256,625 | 2.27 |
| 1961 | 9,412,996 | 1.64 |
| 1971 | 11,555,983 | 2.05 |
| 1981 | 15,022,839 | 2.62 |
| 1991 | 18,491,097 | 2.08 |
| 2001 | 23,151,423 | 2.25 |

Source: Nepal Country Report, 2002.

In the context of family planning a lot of importance was given in the initial stages on the permanent methods. The use of contraceptives was taken up as one of the strategies. Though improvements in availability and accessibility of contraceptives occurred between 1976 and 1986 there was not much impact on contraceptive use (7).

By 1988 sterilization was no longer emphasised. To prevent early pregnancies and better spacing, more stress was laid on the other temporary methods. The population growth rate stood at 2.7% with fertility rate at 5.66 and IMR at 112, denoting that family planning had not been very effective.

Further analysis showed that 42% of the population was under 14 years of age and that 21% were in the reproductive age group of 15-44 years. (8) The population growth of Nepal from the 11.6 millions in 1971 to 15.0 millions in 1981, to 18.5 millions in 1991 and to the current figures has meant an increase of 2.1%, 2.6%, 2.1% and 2.3% in the decades of the sixties,

seventies, eighties and nineties respectively (6). These growth rates are a far cry from the negative growth rate that was seen in the twenties and early thirties.

Figure 1. Population growth rate in Nepal, 1911-2001.
Source: Nepal Country Report, 2002

The 1991 census however showed that the population increase was not as had been projected. It was even suggested that the Total Fertility Rate (TFR) was also down. Without the current contraceptive usage rate of 20% increasing to 34% the TFR could not be brought down from the level of 5.8 to 4.. In term of numbers it meant that the existing number 68,000 users had to reach the figure of 1.4 million, an almost impossible undertaking. With such realities one could then only say “**ke garne**”?

Figure 2. Three projections of the population of Nepal 1976-2026.

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What was happening was that over the many years of family planning activities a lot has been stressed on the permanent methods. It is only recently that attention was drawn to "birth spacing" with more stress on temporary methods together with the "cafeteria approach."

Another feeling is that the high rates of population growths in developing countries are due to falling death rates plus changing birth rates, which have not decreased but may be even rising.

The rate at which the population of Nepal is growing is very worrying and we are likely to be in a very difficult situation. With the present day state of affairs and a very fragile ecosystem the population will soon be confronted with the resulting detrimental effects on the environment.

Later the old Population Division was dissolved and the National Planning Commission had a Population and Health Division whose function was to monitor and guide the population activities. The new arrangement came into force as from mid-July 1993 and its immediate task was to establish working relationship with the line ministries concerned.

The Nepal Fertility, Family Planning and Health Survey of 1991 came out in 1993. One positive development of all this was that the age at which women were getting married had gradually increased over the years.

Some changes occurred regarding fertility too in that there was some decline over the last decade. The Total Fertility Rate (TFR) then was 5.1 meaning thereby that each woman tended to have 5.1 births during her entire reproductive period. Closer scrutiny showed that the LTFR for women in urban areas was 5.3 births whilst it was 6.2 in the rural setting. Similarly whilst the uneducated woman had a TFR of 6.2 births, her compatriot with just secondary level education had a much lower level of 4.0 births during her reproductive span. However the ideal number of children desired was reported to be three. "Estimate indicates that between 1977 and 1995, the TFR declined from 5.80 to 4.95 in the country as a whole, from 5.82 to 5.17 in rural areas and from 4.98 to 3.22 in urban areas. By education, the TFR declined from 5.84 to 5.34 among women with no education, from 4.76 to 4.57 among women with at least some primary education, and from 3.63 to 2.67 among women with more than a primary education." (8) The target set was to reduce the TFR to 4.5 per woman in the Eighth Plan Period (1992-97) and to 4 by the year 2000 AD was unrealistic.

In the effort to popularise family planning, the Nepal Contraceptive Retail Sales (CRS) Company was established in 1978. The CRS organised the sale of pills, condoms on a subsidized basis through many outlets all over

the country.

About this time some of the IEC work that had been done started showing results. A district health survey done in Surkhet in early nineties came up with figures of 32.7% literacy in a population of 5 years and above. There were also a very small number of females under 15 who were married (9). A study of the nutritional status of adolescent girls of three sites in two districts was reported. One site was Satbariya of Dang district. The other two sites in Rolpa district were at Jinabang and Thabang (10). The study confirmed that girls were attending schools less than boys and their literacy rate was much below that of boys. One positive finding was delayed marriage in the sample. Of 179 adolescents, only nine (5%) were found to be married. This differed markedly from the national average of 78% of girls getting married by the age of 18 years at that time.

It must be noted that the population of Nepal increased by 2.1% per annum during 1981-91 and would have doubled in 33 years if the existing trend continued. Perhaps because of this, the Nepali Congress government, elected in May 1991 came out with a new population and health policy. This could be because the major policy thrust of the Eighth Plan was “to create an environment, through socio-economic development, which fosters a demand for small family of two children.” This policy envisaged integrating the poverty alleviation and population programmes so that the concept of a small family became the norm.

In Dec. 1995, the new coalition government created a separate ministry for “Population and Environment”. The initial hope was that the upgrading from the status of a commission to a ministry would enable effective implementation of activities to control the population explosion.

In March 2002, Nepal’s Parliament had approved legislation to permit abortion on request during the first 12 weeks of pregnancy for any reason, to 18 weeks of pregnancy for rape or incest and up to any gestation period in case of disability or risk to the woman’s life or foetus deformity. The hope then was that this access to legal abortion would in the long run reduce maternal mortality and morbidity by reducing unsafe abortion practices (11). In Sept 2002 this legalisation process was taken one step further by the 11th amendment to the Muluki Ain. The law states that abortion is legal under certain conditions, following the rules and regulation laid by the Procedural order, which had been formalised in Dec. 2003. This procedural order demands that a trained and listed provider should provide the abortion services as per the limits set by the law (12).

In Feb. 2005 we seem to have come full circle and the Ministry of Population has been merged with the MoH and Environment to the Ministry of Forests. With the high population growth the current population of 25 million is expected to increase by about 60% as a result of which women of reproductive age is expected to increase by 71% (13).

Immunisation

The old MCH clinic, which had been started in Bir Hospital in 1965 quickly, became popular as powdered milk was being distributed to those attending. This under five clinic was the first in the country to make some urban mothers aware of immunisation. Subsequently **Sajha Swasthya Seva** ordered the vaccines such as DPT and Polio (initially injections and later oral drops). The Central Chest Clinic was giving BCG. These facilities were therefore in fairly widespread use, before the government decided much later in 1977 to provide these facilities on a regular scale (14).

Table 3.2 Types of Immunization by Year of Introduction

| Vaccine | From - year |
|---------------------|-------------|
| BCG & DPT | 1977/78 |
| Tetanus Toxoid (TT) | 1979 |
| Oral Polio drops | 1980/91 |
| Measles vaccine | 1982/83 |

In Nepal EPI was introduced in 1977 with DPT & BCG in 3 Districts. By 1980 DPT & measles immunisation were introduced and by 1988, EPI was operating in all 75 districts. With the "token" coverage of the whole country it was stated that Universal Coverage of Immunisation (UCI), had been attained.

The Annual Report 2003-2004 of the Department of Health Services puts the immunisation coverage of infants in 2003/04, as follows (15):

Table 3.3 Vaccine Coverage

| Vaccine | Coverage (%) |
|---------|--------------|
|---------|--------------|

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| | |
|-------------------------|------|
| BCG Coverage | 96.3 |
| DPT Vaccine (x3) | 90.3 |
| Oral Polio Vaccine (x3) | 90.2 |
| Measles Vaccine | 85.4 |

In the attempt to eradicate polio as per the Polio Pulse campaign supported by Rotary International, the two National Immunisation Days (NID) have been held since 1997/98. The intention was to give all children below the age of five years oral polio drops for a number of years and thereby eradicate poliomyelitis. The overall polio coverage is claimed to be over 90%. It is heartening therefore to see that no Polio case has been reported since November 2000 though there was an imported case in December 2004.

It is heartening that the objective of the EPI Programme as stated yearly in the Annual Reports reiterates the intention to:

- eradicate poliomyelitis by 2005
- eradicate maternal / neonatal tetanus by 2005
- reduce measles mortality by half by 2005 compared to 2003 levels (5000)

With the introduction of Hepatitis B in 73 districts by end 2004 and the introduction of TT to children in a school based immunisation campaign, the list of antigens used for immunisation in 2005 is as follows:

BCG
DPT / Polio
Measles
TT
Hep B

Besides introduction of safe injection practices in the immunisation programme, there are plans to add new vaccines in the national immunisation programmes.

PHC FOR WOMEN AND CHILDREN

Many years ago, during the time of the Lichchhavi kings of Nepal, rules and directives were issued to be followed by the general population for safe

motherhood. In the case of death of pregnant mother, she had to be separated from the baby in utero in the fashion of what was done in ancient Rome at the time of Julius Caesar (16)

During recent years, the stress has been on Safe Motherhood and on the health of women. What then are the Primary Health Care facilities that must be provided to the women and children of Nepal ? Everyone in the country is aware of the fact that though women contribute substantially in terms of domestic work and for livelihood, this reality is glossed over and generally overlooked. Now various women's organisations are making people more aware of it.

Special Hospitals for Women and Children

Most women and children in the developing world are not getting the health care, which is a basic human, right. The lot of the Nepali woman and child is no better. With the acceptance of the PHC concept by Nepal at Alma Ata (now Almaty) in 1978, and the ratification of the Convention on the Rights of the Child at New York in 1990, it was hoped that the health status of women and children would improve. The implementation of the Child Survival Strategies and focus on dissemination of health messages should have helped towards this. The start of 1995 was the provision of the Rules and Regulation for Child Welfare.

From various reports, one is given to understand that many parents in Nepal give much attention to the health of the male child rather than that of the female. This preference, in certain segments of our society, is true for education, legal rights and even material benefits. In certain areas of Nepal, notably in the West, women do all the work. The ordinary woman of Nepal does not have a life of ease. Even the housework, which in this part of the world is taken to be woman's responsibility may in itself be monumental.

Following the 1990 Summit on the Rights of the Child there was hope that things would change. Nepal was the 23rd country in the world to confirm ratification of this Convention on the Rights of the Child. It is now obligatory for Nepal to report, every two years, the compliance of the provisions to the UN Rights of the Child Committee.

Later, 1990 was designated as the "SAARC Year of the Girl Child." During the course of that year there were a lot discussions, and recommendations were duly presented to the concerned authorities. The enthusiasm generated by the "SAARC Year of the Girl Child" led to the nineties being labelled as the "SAARC Decade of the Girl Child." The

achievements of this decade of the nineties has not been as expected.

It was in this context that following the *jana andolan* the Prime Minister of the Interim Government gave his assurance for the formation of a National Council / Commission for Children. Though initially there was a Council for Women & Children it was only in 1995 that such a council came into existence. Though there is now a separate council for women and another for children the fact is that these entities are not fully functional because of political considerations.

The Maternal Mortality Rate is still high and over 61% of the maternal mortality is due to "obstetric causes": sepsis (28%), haemorrhage (22%) and toxemia (11%) even in the mid nineties.

Curative Maternal Care Facilities

The starting of the Shree Panch Indra Rajya Laxmi Devi Prasuti Griha (Maternity Hospital) in 1959 played a major role in the development of services for women, the motivation for medical personnel to take up maternal care and a major role in the family planning and safe motherhood activities in this country. Starting with just 40 beds for obstetric care it has now a total of 302 beds, which cater also for gynaecology, sterilisation programme, and radium therapy and sub fertility clinic.

In the assessment of services for maternal care, the Nepal Family Planning Health Survey of 1991 also showed that 82% of births over the course of the preceding five years had received no prenatal care, whilst 15% received some care from a trained medical or health personnel. Out of every 10 births, as much as nine were delivered at home. Only 7% of births were attended by doctors, nurses and ANMs, whilst 25% were attended by TBAs and as much as 48% by relatives.

Safe Motherhood

In the effort to reduce the high Maternal Mortality Rate (MMR) the stress now is on Safe Motherhood (12). The government in 1997 started this and now a 15-year plan (2002-2017) is envisaged. The Family Health Division proposed the establishment of Basic Essential Obstetric Care (BEOC) in 50 hospitals by 2006. There will be extension of this service to 10 PHC centres also during this time. Besides this, it is also proposed in the plan to propose the establishment of Comprehensive Essential Obstetric Care (CEOC) in another 10 hospitals by 2006 (12). DFID and UNICEF support the National Safe Motherhood Programme of HMG in 12 districts. The service component is the mechanism by which the objective to improve

midwifery and essential obstetrics care in both hospitals and community are being met. Indicators for assessment have been laid down as also the minimum acceptable level of services. The reduction in the MMR will be reduced by the provision of skilled service at the time of birth either at home or at a health facility and also by timely access to emergency services when required.

There are still many barriers to medical care in Nepal and the inaccessibility to maternal services is still an important factor inspire of the many plans and programmes that have been made.

NB. Many women of developing countries such as Nepal die each year of complications connected with pregnancy. This is because they lack access to life saving care. For such woman, access to maternity care; to essential care for those at risk; to family planning; and - in the long run - social equity, including access to good nutrition, a basic education and economic opportunity would make the difference between life and death

The Nepal Family Health Survey (NFHS) of 1996 provides information on maternal mortality for the period 0-6 years before the survey i.e. 1990-96. The figure for Nepal has been found to be 539 deaths for 100,000 live births. An estimate by an indirect method (with some adjustment) by MoH in 1993 showed this to be 515 deaths per 100,000 live births. The plan is to reduce MMR to 300/100,000 live births by the year 2006, which is the end of the Tenth Plan period (15). HSS document of 2004 states the target to be 134.

Curative Child Care Services

This institution for children at Kathmandu was initially known as Kanti Hospital and started out as a unit of the Bir Hospital where paying patients were kept. The hospital was converted into one solely for children in July, 1970 and soon after its name was changed to Kanti Children's Hospital. Additions over the years have increased its official bed number to 300 and the hospital is utilised for the training of doctors, nurses and other categories of health personnel. In 2005, at completion of 42 years of existence, it was announced that it would be upgraded to Institute of Child Health (17).

The Nepal Paediatric Society initially based at Kanti Children's Hospital (KCH) started its activities from June, 1981. The subsequent manpower training arrangement with Dhaka Sishu Hospital and the starting by the IoM of the Diploma in Child Health in 1987 and MD(Paed) in 1997 has made paediatrics into a popular speciality in Nepal.

During the course of the Fifth Paediatric Congress in 1990, a realization was made and a commitment given that due consideration would be given to the opening of a children' hospital in each of the five regions of the country. In the implementation of this undertaking the thought was that some fifty beds would be provided for children at the regional hospitals. This was very necessary, for whilst the Kanti Children Hospital had 150 beds the total number of hospital beds for children amounted to no more than 400 at the very most. To rectify this, a possibility would be to have Mother & Children Hospitals in different urban centres of Nepal where fairly large maternity units exist.

The Japanese input into the KCH increased the number of beds for childcare to 250. Subsequently another 50 additional beds were added by HMG/N. Paediatric departmental beds have been increased at the BPKIHS in Dharan. The Western Regional Hospital at Pokhara and the Koshi Zonal Hospital at Biratnagar are also doing so. A special hospital for disabled children has been constructed near Banepa. AMDA set up a hospital for Women and Children in Butwal. The total number of beds, specifically for children stood at 897 out of a total of 6,348 in the country in 2001 (18).

Infant mortality rate has decreased from an estimated 233/1000 live births in 1960 and 150/1000 live births in 1970 to the figure of 107 in 1992. A later set of figures given in a Child Health Division document of 2003 is as given below:

| Mortality Rate | 1991 | 1996 | 2001 |
|----------------|------|------|------|
| Under 5 MR | 165 | 118 | 91 |
| Infant MR | 98 | 79 | 64 |
| Neonatal MR | 52 | 50 | 39 |

The present targets to be achieved by 2007 as stated by HMGN are:

IMR to 50 / 1000 live births
U5MR to 70 /1000 live births

The Health Sector Strategy document states Child Mortality Rate or the Under 5 MR reduced from 162 in 1990 to 91/1000 in 2001. The target is to reduce present figures by two-thirds to 30 per thousand by the year 2015 (19).

Hopefully, the different medical colleges being established in different parts

of the country will have active and effective Departments of Child Health

Hospital for Disabled Children

This hospital started with the help of Terres des homes of Switzerland and was initially situated at Jorpati. In 1998 it was shifted to Banepa.

Ishan Nursing Home

This is a private health care facility for children, which has been functioning for over a decade. It also provides facilities for delivery.

Children's Diseases

A number of studies have been done regarding the pattern of childhood diseases. The principle diseases in Nepalese children in 1982 showed:

Table 3.4 Diseases in Nepalese Children by Type

| Diseases | % |
|-----------------|----------|
| Respiratory | 42.0 |
| Alimentary | 30.2 |
| Neurological | 10.2 |
| Urinary tract | 7.3 |
| Infectious | 3.4 |

With the signing of the Rights of the Child by HMG in 1990, a commitment was made to cater to the welfare of children. The national health policy of 1991 had also stated the objectives to be attained by the years 1995 and 2000. The new targets, which are to be attained by 2007, are given below:

IMR To 50 per 1,000 live births
U5MR To 70 per 1,000 live births

It has been estimated by WHO that in 1995 a total of 11.6 million children died in the world as a result of the five under mentioned causes:

| | |
|----------------------|-------|
| Diarrhoea | 51% * |
| ARI - Pneumonia | 18% * |
| Perinatal conditions | 18% * |

+

| | |
|---------|------|
| Measles | 7% * |
| Malaria | 5% * |
| Others | 32% |

Malnutrition as a cause was present in 54% of the under-5 conditions. The five major causes, denoted by (*) contributed to 68% of the total number of those who died.

A further update of these figures as given in the World Health Report of 2005 pertaining to figures of 2000-2003 listed the major causes of death in percentages of children under five of the developing world as:

| | |
|---|--------|
| Neonatal Causes | 37.0% |
| Acute Respiratory Infections | 18.0% |
| Diarrhoeal Diseases (post neonatal) | 17.0% |
| Malaria | 8.0% |
| Measles | 4.0% |
| Injuries | 3.0% |
| HIV /AIDS | 3.0% |
| Others including noncommunicable causes | 10.0% |
| | ----- |
| | 100.0% |

The major killers of children are presently diarrhoeal diseases and pneumonia. It is estimated that 30-40 thousand children die each year in Nepal from each of these two major causes. Therefore in the prevention of the childhood communicable diseases stress has been laid together with specific policies for both diarrhoeal diseases and acute respiratory infection (ARI). The practiced is to refer to ARI cases as severe pneumonia. The government has been conducting with great earnestness, programmes for the control of both diarrhoea and ARI. PHC health workers and even mothers are being taught signs of impending severity in both of these conditions.

In 1998, a pilot project on “Integrated Management for Childhood Illnesses” (IMCI) was started in two countries of Asia - the Philippines and Nepal. The strategies of IMCI were:

- i. Improving case management skills of health workers

- ii. Improving the health system to deliver IMCI
- iii. Improving family and community practices

Initially IMCI was implemented mainly in Mahottari and in parts of the district of Gorkha. It is felt that IMCI belongs to the group of cost effective interventions with potential to make the greatest impact on the global burden of childhood diseases.

In the context of Nepalese children, health and sanitation are inseparable. Water-borne diseases are the most common of all childhood diseases, and are a major killer of children. Respiratory infections, which have not been much researched are only slightly less fatal to the young. Though attempts at eradication are being done the vaccine-preventable childhood diseases—diphtheria, pertussis, tetanus, poliomyelitis, tuberculosis and measles are sometimes seen in the country. There is great stress now on immunization for the prevention of measles in children. The concept of “Prevention is better than cure” is being followed.

The conventional health care system does not tackle the multiple causes of ill-health, which is the synergistic outcome of factors like malnutrition, infection, unsafe water, poor sanitation, little education, depressed status of women, early marriage, frequent child births and lack of health-related education.

The children of Nepal come face to face with a number of hurdles or obstructions as they grow up. A large number fall by the wayside and those fortunate enough to survive may be disabled or not in the best of health. They do not attain their full potential.

We have since the last five decades been thinking of Family Planning as being the panacea of all our problems. The fact of the matter however is that unless one can ensure child survival, one is not going to make much headway in this field. It is necessary to lay more stress on the maternal and child health aspects to bring about acceptance of population control. Furthermore, as the literacy rate, especially that of women rises and as economic conditions improve, both the birth rate and population growth will decrease.

Following the Convention on the Rights of the Child and the signing of the document it is obligatory for Nepal to submit periodic reports. The latest report covering the period since 1996. It is acknowledged that some progress has been made. More is expected to take place on completion of the State's 10-year National Plan of Action for Children (2005-2015).

The only way to make the public conscious about measures for child survival, without gender bias is by massive media campaign, which must be sustained. The whole nation must be aware of the fact that child survival is a fundamental right to which everyone is entitled. We must remember that Lord Buddha has said:- "*Children are the greatest asset of mankind.*"

Balmandir - Nepal Children's Organisation

This organisation, known as Balmandir is one of the oldest organisations set up for child welfare as long ago as 1964. Its objective is to provide food, shelter and education to the disadvantaged children in the country. It is looking after the conflict affected and orphan children in various parts of the country. It is currently running 11 Children Homes and has district committees in each of the 75 districts of the country. Nepal Children's Organisation also has sponsorship and adoption programmes.

CWIN

This NGO is working mainly with the children in the streets. It has a number of centres where children have access to come and stay occasionally.

Child Development Society

This NGO formed in the 1990s has been working in the area of Child Rights and also against child labour.

SOS Children's Villages

This is an international organisation that has its Central office at Imst in Austria. The first SOS village in Nepal was at Sanu Thimi, Kathmandu and opened in 1973 by Queen Aishwarya. Since then seven other villages have been opened in different parts of Nepal. The main focus of SOS Children Villages of Nepal is to provide long term family based care to orphaned, abandoned and destitute children. It gives education, training, health care and has other outreach programmes to help needy children and mothers from neighbouring communities by way of schools, youth facilities, vocational training and community centres. There is also a sponsorship programme.

Child NGO Federation

This federation has a total of 26 members and has been formed to bring about co-ordination amongst all NGOs and INGOs working in the field of child health.

CORE

Some of the External Development Partners (EDP) have formed what has come to be known as the CORE group. This is a consortium of 5 different

organisations involved in what is called Child Survival Collaboration and Resources Group. It comprises of the SCF(USA), CARE, PLAN, World Vision and ADRA. Besides childcare activities the group is also concerned with strengthening PHC services delivery system at the community level.

ADOLESCENT HEALTH

After the International Conference on Population Dynamics (ICPD) in 1994 some thought started being given to Adolescent Reproductive Health, mainly because adolescents were very vulnerable to reproductive health problems. To address this HMGN formulated the Adolescent Health and Development Strategy 2000 with the object of improving the health and socio-economic status of adolescents. Teenage behavioural, sexual, drug abuse are some of the problems at this age. A large number of children of both sexes may be on the streets and as a result get into trouble of various sorts. Because of the poor socio-economic status, broken homes and loneliness in a strange environment they are prone to many hazards. As adolescents are neither children or adults as such, it has been realised that special facilities must be started for them. This awareness, having now been created, has led to the setting up of adolescent friendly facilities in some health institutions of the country. Hopefully these type of facilities will be started elsewhere too (16).

FUTURE DIRECTIONS

As from International Women's Day (March 8th, 1995) when the formation of a Women and Child Committee was announced, it was expected that some concrete steps would be taken in this area. Thus besides the Safe Motherhood initiative, the Ministry of Health decided in June 1995, to accept in principle the WHO offer of implementing the Integrated Management of the Sick Child.

An event of importance was the Supreme Court of Nepal's directive of 5th August, 1995 (18th Shrawan, 2052 BS) on the two-year-old petition of Ms Mira Dhungana and Ms Mira Khanal, both advocates, pleading for non-discrimination against women as this was against the Nepalese constitution of 2047 BS. The Supreme Court had issued a directive to the Government (then UML) to bring forth and enact legislation protecting the rights of women, especially property rights. Subsequent Coalition Governments had not till mid 1998 been able to achieve much. Such a legislation if implemented can go a long way towards improving the lot of women. However the UML government of 1995 created task a forces for the setting

up of institutions like:

- i. Institute of Obstetrics & Gynaecology
- ii. Institute of Child Health

Later the coalition government of NC/RPP/NSP, installed on 22nd September 1995 showed its commitment to women, and presumably to their health also, by having a separate ministry for Women and Social Services. As stated already it was only in March 2002 that legislation was approved legalising abortion. However the implementation of it was a long drawn out affair and it was only in 2004 that it started being implemented.

Nutrition & Health Education

The first health survey of Nepal, which was done in 1965/66, tried to get information on the diet and nutritional status of the Nepalese people (20). A total of 6,321 people from 957 households from nineteen different sites within the country were covered. It was found that the diet as a whole is lacking in protein, calcium, Vit. A, riboflavin and ascorbic acid. In view of the high under five-mortality rate (U5MR), its conclusion was that marginal malnutrition was prevalent On the whole however; the clinical nutritional status of the population was pronounced as satisfactory by the investigation team from the University of Hawaii.

In 1974 Pourbaix conducted a survey to assess the Nutritional status of Nepalese children. The survey was limited to 1042 children between 6 to 72 months from 17 areas of the country. Clinical criteria including weight for age and weight for height were used to grade the status (21).

Nepal National Nutrition Status Survey, 1975

Subsequent to this a Nepal National Nutrition Status Survey was done in 1975 by HMGN with the aid of the Centre for Disease Control, Atlanta with the financial support of USAID. In this survey some 6,578 children under 6 years of age were surveyed in 221 sites. Of the total child population there were 52.5% boys and 47.5% girls. The feeling is that the boys were over represented in this study as this is not the usual male to female child ratio in the population.

In 1975 with the aid of WHO and UNICEF, recommendations for malnutrition and goitre control were made part and parcel of Country Health Programme exercise.

In 1976 HMGN established a National Nutrition Policy Co-ordination Committee (NNPCC) with a member of the Planning Commission in charge of health and social welfare as the Chairman.

In 1978/77 a survey of 749 children, between one to five years of age, was done using UNICEF provided Sakir tapes. The findings of this survey in Bara and Parsa districts divided into three grades in the percentages as given below (22):

Table 3.5 Status of Nutrition

| Degree of Malnutrition | % |
|-------------------------------|----------|
| Severe malnutrition | 11.8 |
| Mild malnutrition | 36.4 |
| Good nutrition | 51.6 |

In 1978 the NNPCC in collaboration with WHO and UNICEF organised a workshop on food and nutrition planning. The prevailing state of malnutrition was identified, strategies decided and measures which could be undertaken to combat malnutrition stated at the National Nutrition Strategy Workshop at Pokhara (23). As a prime example of good intentions, it drew up a multisectoral strategy for improving nutrition. All this culminated in the so-called Pokhara Declaration. This resulted too in the formation of nutrition focal points in 4 ministries viz. Health, Agriculture, Education and Panchayat. It led to the establishment of Nutrition section under Department of Health Services in the MoH. The Joint Nutrition Support Programme (JNSP) was then put into action to implement the major activities of the four ministries. That nothing much was achieved in the years that followed is borne by the fact that the JNSP was finally dismantled as a result of donor dissatisfaction.

Amongst the decision makers there was the awareness that malnutrition per se was not primarily a clinical disease but a social one with multiple causes. The health sector realised that for interventions for the eradication of malnutrition to be successful it was essential to have the necessary political commitment (24).

Rana et al working at Bhaktapur in the early eighties showed that children under 12 months old were maintaining their nutritional status, but after 1 year there was chronic under nutrition in more than 80% of the

children. Diarrhoea and respiratory infections played a major role in protein energy malnutrition (25).

Work by personnel of the United Mission to Nepal with a community-oriented approach has been reported in local journals. Such workers believed that whilst nutrition education is an essential component, others factors such as anthropological, psychological and social have to be taken into consideration for any change to occur (26).

SCF (UK) Work in the Rural Areas

SCF (UK) started working in Nepal with an agreement with the Bal Sangathan. The initial work was done at Dhankuta where it was noted that most of the cases seen in children between 12 to 23 months presented during the monsoon season when stocks of food was low. Most suffered from infectious diseases such as diarrhoea and respiratory infection (27). Valuable work on malnutrition in children of Nepal has been reported from time to time as a result of this group's study in this and three other rural districts of Nepal, viz. Surkhet, Baglung and Sindhupalchowk. Work in Chuliban village in east Nepal showed that growth faltering started at 3 months of age, and that prevalence of wasting and stunting also varied with ethnic group. This work also suggested that the combination of influences associated with seasonal reduction in children's growth rates is not the same as the combination, which precipitates wasting malnutrition (28). More recently SCF(UK), has been involved in the short-term disaster relief work with the Bhutanese refugees in various camps in Eastern Nepal.

In 1987 an unpublished study by Sullivan at the SCF clinic in Surkhet compared the nutritional status findings with those found ten years earlier at the time of the initial survey. There was an overall improvement with marked reduction in levels of acute and chronic malnutrition.

Investigations and Research

As much as 54% of the crude birth rate of the country was due to the U5MR, the major cause of which is malnutrition. Work in the community showed that mortality and morbidity rates could be reduced by educating mothers in the proper use of locally available foods, breast milk included (29). Action on these lines will in turn reduce the chronic protein-calorie malnutrition prevalent in Nepalese children.

A study of 4,600 singleton babies at Patan Hospital in mid eighties showed that the birth weight in Nepal in this series was 3010 grams for males

and 2900 for females. It must be noted that these are figures for relatively well off population. This study also showed a lack of haemoconcentration during the last eight weeks of pregnancy, indicating that the iron stores in the mother had been depleted (30).

A recent study regarding Vitamin A was one done by West and his co-workers (31). This randomised, double blind trial showed that overall children taking Vitamin A supplements had lower mortality rates in age specific groups in both most malnourished and well-nourished children.

Other Activities on Nutrition

It is surprising that the first nutritional assessment of the population was done in 1975. Even as late as 1990 the figures of 1975 were being quoted as "the latest ones". Some time later UNICEF asked Dr. Ramesh Adhikari to review the various smaller studies done since then and to compile a working document which would give a composite picture of the state of nutrition in Nepal (32).

Table. 3.6 Some Investigations in the Nutrition Field over various years

| Field of Investigation | No. of Studies done in period | | | Total |
|------------------------|-------------------------------|---------|---------|-------|
| | 1975-79 | 1980-84 | 1985-90 | |
| PEM | 9 | 26 | 22 | 57 |
| Vitamin A | 0 | 5 | 12 | 17 |
| Iodine | 2 | 3 | 6 | 11 |
| Iron | 3 | 1 | 3 | 7 |
| Health | 2 | 7 | 10 | 19 |

A total of 111 materials had been generated as a result of various investigations done in the nutrition field during the course of the period 1975-90. The various fields they were in are shown in the table 10.2.

On the basis of these reports the general impression was:

1. The nutritional status of children in Nepal was showing a worsening trend. Suggestion was made to assess the nutritional status regularly with the objective of seeing the impact of child health and nutritional programmes.

2. Vitamin A deficiency is a public health problem in Nepal and needs to be addressed.
3. Iodine deficiency disorders (IDD) have also public health importance. There is now a declining trend of these, because of salt iodations and iodised oil injections.
4. Not much work has been done in Nepal regarding micronutrient deficiencies. Anaemia is very common in women of reproductive age and is a major public health problem that needs to be tackled.

National Seminar on Nutrition, Kathmandu, 1991

It has been stated that the state of malnutrition in a country is reflected in the state of nutrition of the children. Thus the fact that 44% of the population is under the age of 14 years means that the nutrition of the Nepali child is of prime importance. It has now been realised that proper treatment of childhood diseases, overall child care and child feeding practices will bring about major reduction of malnutrition in our part of the world. It is perhaps with this in mind that the 1991 National Health Policy has drawn attention to breast-feeding, weight measurement of children, control of Vitamin A deficiency and nutritional education (33). This same document has stated that the four forms of malnutrition existing in the country are:

- Protein Energy Malnutrition
- Xerophthalmia due to Vit. A deficiency
- Iron deficiency anaemia
- Iodine deficiency disorders

The Family Health Survey of 1996 (34) showed that on the basis of height-for-age there is considerable chronic malnutrition among Nepali children - overall 48% of children under 3 years are stunted and 20% severely stunted. Female children were more likely to be stunted (50%) or severely stunted (22%) than male children (47% and 19% respectively). Stunting was seen more often among children of higher birth order or with a short birth interval.

Much stress has been laid in the last decade on the important role of Vitamin A in the development of children as well as on the preventive role in bringing down the high mortality and morbidity rates. Vitamin A, besides preventing night blindness is now credited with bringing down the morbidity of communicable diseases plus also diarrhoea. A survey, combined with the distribution of Vitamin A capsules twice a year to children between 6 months

and five years has been done in 27 districts of the Terai and Far Western region of Nepal.

Dr. V. Ramalingaswami had carried out a countrywide goitre prevalence survey in 1965-66. The survey in the three geographical regions showed that 55% of the population had goitre (35). Another survey in 1969 found rates of goitre prevalence to be between 74 and 100% in Jumla and Trishuli. Delange et al confirmed high rates of goitre and cretinism in the general population at Trishuli.

The Goitre Control Project set up in 1973 became subsequently the Goitre and Cretinism Eradication Project. Mass iodised oil injections were given in the remote mountainous and hilly areas where cretinism was widespread. During the course of the programme a substantial number of females in the child bearing age, in 40 such districts had been given injections some twice or even three times. HMGN also launched a salt iodation programme as early as 1972. Whilst record keeping and reporting is not in an ideal state, the apparent impression is that the number of cretins born has decreased. Contrary to these impressions, a report in 1985 stated that two surveys done in mountainous areas of Northern Nepal showed cretinism to have disappeared before the start of the Goitre Control Project of HMGN (36). The reason suggested for this is that the population increase caused a food deficit in the area and that to deal with the problem, food with higher iodine content was imported from the lowland areas. The author however stressed the necessity of continuing the Goitre Control Project and the iodation programme. The MoH was then giving iodine capsules in only eight districts of the country and laying stress on the provision of iodised salt (34).

An overall study supported by UNICEF (37) in 1984 had made the following suggestions regarding salt iodation in Nepal:

- The level of iodation should be 30 ppm of potassium iodate.
- Iodation plants should be established in Nepal.
- Salt should be packed in wire woven bags to minimise wastage.
- There should be quality control.
- The prevalence of goitre and cretinism should be monitored.
- The iodine oil injection programme should be repeated.
- Financial support should be extended.
- Salt Trading Corporation should continue to be responsible for the salt iodation programme.

Regarding the problem of the IDD the MoH's plan of action has five components:

- policy formulation
- universal salt iodisation
- targeted iodine supplementation
- monitoring and evaluation
- and the IEC component.

The situation as regards iodation is that there are currently three such plants established at Birgunj, Biratnagar and Bhairahawa. There is a mobile unit at Nepalgunj. Thus whilst we talk of tertiary care and high technology, the fact remains that for whatever may be the reason, we have not been able to provide iodised salt to all the Nepalese. Besides the Salt Trading Ltd. private parties are also being allowed to import iodised salt. Hopefully, iodised salt will then be available in manageable 1 kilo packing all over the country. Presently there is one urinary iodine monitoring laboratory and four salt iodine-monitoring laboratories in Nepal.

Legislation has been enacted making it mandatory to have only iodised salt made available for sale.

Nepal Micronutrient Status Survey, 1998

That people in parts of Nepal were aware of the necessity of micronutrients is shown by the fact that even in 2004 it is customary in many districts of the Northern belt of Nepal for people to drink fresh yak blood about twice a year. The yak herders bring the animals to the grazing grounds where the interested individuals are waiting. The vein of the animal is lanced and people collect the fresh blood in their mugs and drink the fluid immediately.

The belief is that as the yak grazes on Himalayan herbs, it has a lot of essential nutrients, which are beneficial also to humans. The belief is that drinking of rakshi or alcohol immediately helps to get benefit from this intake of fresh blood.

This micronutrient survey had been undertaken after a gap of twenty-four years. The overall objective was to assess the distribution and severity of micronutrient malnutrition and to measure the progress so far of the various interventions done. Data collected were to determine the prevalence of:

- Iodine deficiency disorders (IDD),
- Iron deficiency anaemia (IDA)and

Vitamin A deficiency (VAD).

A number of factors have been identified and future course of action in these areas will be dependent of the findings (38).

Iodine Deficiency Disorders

Though there is a virtual absence of disease of visible goitre among the population, there is still a high rate for palpable goitre. It has been recommended that sustained IDD control activities continue as a high priority.

Iron Deficiency Anaemia

Nutritional anaemia is very prevalent and a public health problem in Nepal. A large percentage of preschool children, pregnant and non-pregnant women were found to be anaemic. It had also been noted in 1997 by the Nepal Multiple Indicator Surveillance that only 10% of women received iron and folic acid during their previous pregnancy. The recommendation of this MNS survey is to give iron supplementation to adolescent girls, pregnant and non-pregnant women. It has been suggested that special efforts be made and alternative strategies taken to bring this about.

Iron deficiency anaemia is the most common nutritional problem in Nepal and as per the NMSS report 75% of pregnant and 67% of non-pregnant women suffer from anaemia. A survey was done in the 3 districts of Kathmandu, Bhaktapur and Lalitpur in the Central Development Region to elicit the level of anaemia in adolescent girl. The prevalence of anaemia among the community adolescents was 46%: the prevalence of mild anaemia was 38%, moderate 8% and severe 0.4% (39).

Vitamin A Deficiency

There was improvement in the Vitamin A status in that the prevalence of Bitot spots and night blindness has decreased appreciably from what it was 20 years ago. It is still seen in women (5%) and pre school children (1%). The National Vitamin A Programme (NVAP) covers currently 42 districts. The recommendation is that the bi-annual Vit. A capsule supplementation should be continued and expanded to cover all the 75 districts of the country.

POPULATION TRENDS

The current average Total Fertility Rate (TFR) of Nepal being 4.1 is inconsiderably high. This means that the rate in rural Nepal is higher still (6).

As more than 3.9% of the population is less than 15 years old, it means that one can, as a general rule, expect high fertility and declining mortality. Because of early marriage and short birth spacing in younger women it means that the MMR and IMR will not decline quickly to desired levels. The percentage of elderly persons i.e. those who are 60 or above, in the population has been gradually increasing over the years e.g.

| | |
|---------|------|
| 1952-54 | 5.0% |
| 1991 | 5.8% |
| 2001 | 6.5% |

Elderly persons in Nepal, because of the joint family system are generally found to be quite active in their advancing years. They may be involved in fairly un strenuous tasks such as childcare, cattle herding, handicrafts and light farming activities.

Transmission of Health Messages

In the effort to tackle the problem of malnutrition a preventive and curative approach to the health of a child is necessary. In this context, a study at Santang near Dhankuta showed that the causes of malnutrition and ill health, which could be tackled, were lack of knowledge related to health and nutrition and economic constraints (40).

It is a known fact that social-cultural factors influence many nutrition programmes in the rural areas. Many of the feeding practices may be of negative nature. To counter these, as well as to give nutrition education, much work needs to be done. A study of this in the PHC setting (39) showed that the low impact was due to:

- a. Too many unrealistic messages.
- b. Messages conflicting with cultural and traditional practices.
- c. Western oriented content of message.

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