

Health Care in Nepal
An Assessment of A.I.D.'s Program

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Executive Summary

This report reviews a variety of indicators of health status for Nepal, examines the major policy and institutional themes which have helped determine the evolution of the Nepal health care system, assesses broadly the contribution of A.I.D. programs over a 20 year period and concludes with an analysis of health system impact. The major conclusions of the team are:

1. Health status has improved as reflected by increasing life expectancy, declining infant mortality, and by the almost complete control of malaria as a major health threat.
2. A.I.D. supported programs have made a major contribution to these improvements. The most important examples are the malaria control program, the Expanded Program of Immunization focused on children, and the diarrheal disease control program.
3. The family planning program which has received significant support from A.I.D. in the past has not been a success. Only fifteen percent of eligible Nepalese practice any form of contemporary contraceptive regulation. The program remains overly focused on sterilization, rather than offering a broad menu of family planning choices for individuals.
4. Persistence of high levels of female morbidity, fertility, neonatal disorders, and high incidence of diarrhea, respiratory infections, worms, and skin diseases suggest a cluster of problems which do not respond well to specific interventions. The causes of these debilitating health conditions stem from persistent poverty and low levels of female education.
5. The Nepalese health system has been dominated by the government's effort to live up to its promise of providing a reasonable level of health care to all citizens. The gains from this approach are undeniable, particularly in the form of the spread of health posts and small hospitals.
6. Institutional weaknesses in the health system persist, including lack of a clear organizational philosophy, bureaucratic rigidity, excessive attention on quantitative targets and reporting, staffing problems, and maintaining adequate and consistent medical supplies. Most important is the finding that demand for health care has outstripped government's ability to supply needed services, an ability severely limited by inadequate financial resources.

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7. The role of private sector health care is poorly defined, in spite of the willingness of many Nepalese to use private, fee for service sources. Experience with health insurance or pre-paid drug schemes is very limited and poorly understood by policy makers in the Ministry of Health.
8. Until now, government efforts to improve health delivery have focused on regionalization and decentralization of bureaucratic decision making in the health ministry. Little evidence exists that these efforts are more than formal changes in the organizational chart. USAID efforts to strengthen decentralization is a positive step.
9. The very recent establishment of a corps of women community health volunteers offers some hope that some expression of local demands for improved medical care will be felt by the system. There is a danger that this corps will be incorporated into the system as a new "bottom rung" of the health bureaucracy. USAID support of women's involvement should focus on improving their effectiveness and autonomy.

The advent of a new, potentially democratic government affords an opportunity for Nepal to undertake a reexamination of its health care policies, programs and organization. Sufficient progress has been made in laying down a basic infrastructure that now may be an excellent time to focus on the quality, efficiency and financial sustainability of both public and private health care. As a still respected development institution in Nepal, the USAID has a unique opportunity to help the new government chart a fresh approach to health care. The opportunity should not be lost.

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Preface

The purpose is twofold; first, to assess the progress Nepal has made in improving health conditions, examine the causal factors which seem to contribute to that progress, and come to some conclusions about the contribution A.I.D. has made to Nepal's efforts in this sector; second, to look into the future and ask whether progress can be sustained by Nepal given its resource constraints and administrative organization, whether A.I.D. can make a significant contribution in the future, and if so, what is the best strategy to follow.

To collect the information needed to prepare this report, we visited Nepal during the month of March 1990. After a few days conducting interviews in Kathmandu with a variety of health care officials in the Government of Nepal, the USAID, and other donor agencies, we split into two groups for field reconnaissance and fact finding. Ann Van Dusen and Judith Johnson went to the Terai, visiting several districts and interviewing local people and officials. Richard Blue and Judith Justice went to Dhading district in the middle hills. There they walked into the countryside to visit a health post Judith had known ten years before when doing research for her book, Policies, Plans and People.

Upon return we interviewed more officials, checked out our facts and emerging interpretations and began to write. A draft report was presented to the USAID Mission before our departure. The final version reflects their corrections and comments. We are, of course, responsible for the facts, interpretations and conclusions presented in the report.

Reports of this kind depend upon the experience, knowledge and generosity of others. At the USAID Mission in Kathmandu we want to thank especially Mission Director Kelly Kammerer and the Director of the Health Office, Dr. Dave Coulter along with his U.S. and Nepali staff. We benefitted from their support, guidance and criticisms. Next we want to thank the many Nepali health professionals who took the time to explain once again how they were trying to cope with the difficult conditions of Nepal. Last, we thank the citizens of the Terai and the Hills who so willingly and eloquently told us of their difficulties in securing adequate health care for themselves and their families. We regret that a report like this must make abstract the rich variety and texture of their lives and aspirations.

Nepal is entering a new phase in its development process. Its people are demanding the right to compete for power and responsibility of self governance. If this effort succeeds, we believe it will eventually open up new opportunities for improving health standards and care in Nepal.

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I. Introduction to Nepal

The basic topographical, demographic and economic features of Nepal are well known to most members of the development community. Land locked between India and China, Nepal is a mountainous country in which travel north and south has traditionally been easier than east and west. Nepal's 19 million people are spread throughout its 140,400 square miles, about the size of Arkansas, but are concentrated in the Kathmandu Valley, the relatively flat Terai bordering on India, and in the middle hills which make up much of the Nepalese land mass. It is a predominantly rural population, with nearly 90 percent of the people engaging in some form of agriculture, although only 27 percent of the land can be farmed.

The people of Nepal include a large number of communities which, because of the isolation of valleys and hills, have evolved their own unique cultural expression and identity. As a trading people constantly moving north and south between Tibet, China and India, Nepal's uniqueness has been modified by the influence of both Buddhism and Hindu religion and corresponding social structures. The ability of the Nepalese to accommodate and to some degree integrate these influences into their own way of life is one of the special features of this society.

Nepal is a monarchy and Hinduism is the state religion. His Majesty's Government (HMG) is centered in Kathmandu, from which the 5 regions, 14 zones, 75 districts, 675 ilakas, 4100 panchayats and 36,900 wards are governed. A parallel political system exists, starting with non-partisan elections at the Panchayat level up through districts to the Rastra Panchayat, the highest elected body in Nepal.

The poverty of Nepal is well-known, and to those engaged in modern development programs, poverty is Nepal's most important characteristic. With an annual per capita income of \$160, Nepal's ranks among the least developed countries. For the citizens of Nepal this figure translates into a constant struggle for economic survival, long periods of seasonal separation while men, and frequently women, go off to find jobs in India and elsewhere. Poverty expresses itself most dramatically in health statistics, particularly among women and children. The following excerpts from the USAID/Nepal Country Development Strategy Statement poignantly illustrates the general situation: "...diet is often lacking in needed nutrients...nutrition is chronically deficient...rates of neonatal tetanus are high...the average young child has more than six significant episodes of diarrhea per year..." (1989 CDSS, USAID/Nepal, p41).

Cursory as this introduction to Nepal is, it would be incomplete without some discussion of what has been achieved. Road and air transport links have been established to better link the country east and west, which is necessary for the development of an integrated economy. The substantial control of malaria in the Terai in the fifties allowed agriculture to flourish and new families to move into the region. This region is now the principal source of agricultural surplus and of industrial development. It is also the region most powerfully influenced by the relatively advanced Indian economy.

The development achievements of the Nepal people and government, with the assistance of the donor community, have been impressive. But for each positive statistic, there is a caveat. Agricultural production has increased, but productivity remains low and inputs, marketing and research are not sufficiently responsive to farmers' requirements. The pressure to bring more land into production in the Terai and middle hills has had a powerful impact on the environment. Dwindling wood supplies, land slides, loss of top soil and loss of habitat are the cost, and these will become increasingly important as population grows. Gross domestic product (GDP) has increased at a rate of 3 percent in recent years, but per capita GDP has increased very little. The development budget continues to be largely financed by donors, with serious implications for long-term financial sustainability of service delivery. In the health sector, very dramatic achievements in malaria control, immunization, smallpox eradication are undermined by persistently high rates of fertility, very limited sanitation and poor hygiene. Gains in food availability do not seem to have translated into improved nutritional status for the most at risk section of the population: infants, children and mothers.

In spite of these accomplishments many observers, Nepalese and foreign, now question whether the top down, centrally-led and supply driven approach to development can or should continue. Has a centrally-led approach accomplished all it can, with future investments yielding only marginal results in impact or improved quality of life for the people of Nepal? In the health sector, is it now time to raise some fundamental questions about how much more the central government can do, and what should be the responsibilities of local government, the private sector, and the people themselves?

"Speak the Truth, Follow Your
Dharma, Do Not Fall Off From Self-
Study"

Sign board in Kathmandu

II. Changing Health Trends in Nepal

Health conditions in Nepal are among the worst in Asia. Large numbers of babies and young children die, and many who survive are burdened by illness and malnutrition. Deprivation during the vulnerable years of childhood has life-long consequences, and children grow to adulthood with their health already compromised. For the predominantly rural population, adult life is physically grueling and life expectancy is one of the lowest in the region. (2)

Basic sanitation and hygiene for all is such a distant prospect that USAID/Nepal predicts no decrease in the incidence of diarrhoea in the next 15 years. If a family owns animals - cows, goats, buffalos, or pigs - there is rarely a separate building for them, and the proximity encourages the spread of disease through faeces and insect vectors. Improvements in health are difficult to sustain without improvements in hygiene.

Nutritional status is poor: the National Nutrition Survey of 1975 (4) found that two-thirds of children under five suffered from moderate to severe malnutrition. More recent studies suggest that local conditions may now be worse in areas of the Terai, although that area enjoys better food availability and higher incomes(5). While 85% of mothers breastfeed their babies, exclusive breastfeeding may be as low as 10%. Appropriate weaning foods may be unavailable, or their importance not known: among some people living in the Terai region, a baby is given supplemental foods only after it has tried to feed itself. Nutritional health is further weakened by the lack of various micronutrients in the diet. Iodine is deficient in land-locked Nepal, and goiter and cretinism are consequently common. Vitamin A deficiency and related visual disabilities or systemic problems may, in contrast, have their origin in the traditional diets of various ethnic groups.

All these barriers to better health seem higher for females. Girls and women suffer disproportionately, even where they should have a natural advantage. After the first year of life, mortality for females is higher than for males, and life expectancy is shorter by three years (6). According to one estimate, over the period 1980-87, for every 100,000 live births 850 women died as a result of pregnancy or childbirth (7).

A striking feature of Nepal's social poverty is the low level of literacy among women. The low level of female literacy and the widening gap between male and female literacy are major cross-cutting constraints to the effectiveness of both economic and social development programs.

LITERACY RATES IN NEPAL (18)

	<u>1951</u>	<u>1961</u>	<u>1971</u>	<u>1981</u>	<u>1986</u>
Male	9.5%	16.3%	24.7%	34.9%	52%
Female	.7	1.8	3.7	11.5	18

Against this backdrop, is it possible to measure the health of the Nepalese people, document any changes which have been made in recent years, and find reasons for those changes? The first two points can be attempted with caution, and the third is more difficult.

Censuses and surveys of the people of Nepal began early this century, and there is certainly an abundance of data, projections, and publications available on fertility and mortality. However, doubts have been expressed about the quality of the census data for 1952, 1961, and 1971; the 1981 census was feared to be "no better" (8). It seems that some of the same factors which make improvements in health difficult - inaccessibility, lack of education, the weak infrastructure - may make the documentation of health change difficult as well. Many illiterate women cannot report their date of birth, or that of their children. There is underreporting of births and deaths of children, and this tends to be more serious the further back in time a respondent is asked to recall (discussed in (9)).

Ironically, all these factors cast doubt on the most commonly quoted statistic used to gauge the overall condition of a country's health, the Infant Mortality Rate (IMR). The IMR takes on enormous significance as a magnet for foreign assistance and a baseline against which health programs are evaluated, so it is important to look at the data that exists and are being used. Figure 1 (page 6) shows Infant Mortality Rates from many sources, and it seems clear that rates have fallen, although the magnitude of the change is not clear. Likewise, it can be said (with the same cautions) that life expectancy at birth has risen, and is now around 52 years.

Adult Life Expectancy from Birth

<u>Date</u>	<u>Male</u>	<u>Female</u>	<u>Both</u>	<u>Source</u>
1952-54	25.6	25.7		(13)
1953-61	35.2	37.4		(14)
1961-71	42.9	38.9		(15)
1970	41.2	38.5	39.9	(16)
1974-75	46.0	42.5		(14)
1976	43.4	41.1		(17)
1981	50.9	48.1	49.5	(6)
1988	54.7	51.9	53.3	(6)
1988	49.6	48.7	49.2	(12)
1988			52	(2)

There are no national records of cause of death which might allow us to trace the exact causes of these changes in mortality. However, health workers with whom this team spoke identified important changes which coincide with the period in question. The first was the control of malaria in the Terai. Second was the eradication of smallpox in the 1970s and the subsequent development of the Expanded Programme of Immunization. World Health Organization reports the following immunization coverage for 1989:

BCG	88%
Polio III	71%
DPT III	71%
Measles	58%

There is some concern that these figures may be optimistic, or not nationally applicable, but this team was certainly noticed widespread awareness and reported utilization of immunization services in villages we visited in the Central Region.

Fertility rates are high: a Nepalese woman, on average, bears six children in her lifetime (9, 10, 3) and this figure has been virtually unchanged for two decades. An ambitious family planning program which emphasizes sterilization has had very little impact. Nepal today experiences population growth rates of 2.6% per year.

The population age structure is the broad-based pyramid typical of many developing nations experiencing rapid growth. Children under the age of 15 make up around 42% of the population.

Age structure of the population

<u>Age group</u>	<u>1971(11)</u>	<u>1981(1)</u>	<u>1988(12)</u>
0-14	39.5%	41.3%	43.6%
15-64	56.5%	55.7%	53.6%
65+	3.0%	3.1%	2.8%
Dependency ratio	75.2	79.7	86.6

The population will continue to grow, because of the large cohort now under age 15 which will enter the child bearing years in the next two decades. In planning to meet the goals of the government's Basic Minimum Needs Initiative, most government ministries are assuming a total fertility rate (TFR) of 4.3, which would raise the population of Nepal to 23.6 million by the year 2001. However, the Ministry of Health's projections are all based on a TFR of 2.5 (a Ministry goal),

and a population of 21 million by the year 2001. No other country has achieved a fertility reduction of such magnitude, and Nepal is not likely to either. It appears inevitable that this already densely populated country will become more so in the years ahead.

III. EVOLUTION OF A.I.D.'S HEALTH PROGRAM

The U.S. Agency for International Development (USAID) has been engaged in collaborative efforts with the Government of Nepal to improve individual access to health and family planning services for the past three decades. In the 1950s and 1960s, USAID provided support for single-focus vertical programs, mainly in the areas of malaria control and family planning as well as infrastructure and manpower development. During these early decades, the United States was the single largest donor in health and is largely credited with supporting the Nepalese to control malaria in the Terai, which opened up this previously largely uninhabitable region to agriculture. Today, almost 50 percent of Nepal's population, much of its food production, and most of its industrial activities are concentrated in the Terai.

In the 1970s, the focus of USAID's assistance began to shift toward integrating the various vertical programs under a single service delivery model. In the mid-1980s, as the GON began to discuss the need to decentralize programs, USAID encouraged and supported efforts in this area as well. All three elements of the GON evolving approach to health promotion -- vertical programming, integrated service delivery, and decentralized management -- are evidenced in USAID's current health strategy.

In the decade of the 1980s, the total U.S. contribution to improvements in health service delivery in Nepal (including family planning) was approximately \$50 million, most of which (approximately \$40 million) was obligated under the ten-year Integrated Rural Health and Family Planning Services Project (IRH/FPS). From 1980-85, the bulk of A.I.D.'s health assistance supported (1) malaria insecticides, (2) the GON's sterilization program, and (3) general operating expenses of the MOH. With the adoption of a Basic Needs initiative by the GON in 1985, and the adoption in 1986 of a child survival strategy by A.I.D., the Mission seized the opportunity to redirect its project support. A.I.D. experimented with new, targeted, and small-scale approaches to:

- improving immunization coverage,
- expanding efforts to control diarrhea diseases through use of oral rehydration therapy,
- identifying and treating childhood pneumonias,
- testing vitamin A as a child survival intervention and alternative methods for improving Vitamin A nutritional status,
- shifting from a family planning program focused almost exclusively on sterilization to one in which a variety of temporary methods were also encouraged and available; and
- continuing support for malaria control.

A 1988 evaluation of the then 8-year A.I.D. project endorsed the soundness of MOH policies which focused on balanced family planning services, health interventions targetted to improve child survival, and decentralization of health services management. The evaluation recommended USAID's continued support, with emphasis on improving service delivery and management in one region and on continuing support to selected interventions (malaria, family planning, EPI, CDD and ARI). This has become the focus of the new five-year, \$20 million Child Survival/Family Planning Services project (1990-95).

In addition to this major bilateral project, USAID has provided support to several international and national NGOs working in Nepal. Support for family planning activities has been given mainly to FPAN; the Nepal Red Cross Society, Mother's Clubs and Ex-Servicemen's Organization to promote temporary methods of contraception; and to New Era and Integrated Development Systems for research on population, family planning and other health-related activities. Support also is given to several NGOs for health and community outreach programs, including Freedom From Hunger Foundation and Save the Children. The total budget for these two three-year child survival oriented programs is approximately \$1 million.

Finally, support from centrally-funded health and population projects has provided an additional \$1 million annually to U.S. health assistance to Nepal through such programs as S&T/H's Technology for Primary Health Care (REACH) and Vector Biology and Control (VBC) project, and through S&T/P's projects with AVSC, the Population Council, RAPID/IMPACT, Enterprise, SOMARC, and Public Communication Service.

The new 1990-1995 project embodies five themes, which have been accepted by the MOH as the basis for USAID support. They are:

Services For and By Women: Given the importance of mothers for the success of child survival and family planning programs, women will be the principal clients of MCH services. The best way to get services to women in a society where interaction between the sexes is culturally limited is to provide them through women.

Beyond the Health Post. To counter a persistent preoccupation with staffing fixed facilities which rural people (over 90% of the population) find it difficult to visit, the project will emphasize village-level health services, especially control of diarrheal diseases, control of ARI-associated mortality, immunization, and family planning.

Full-Service Family Planning/MCH Services. To overcome what has been a nearly exclusive emphasis on sterilization and make Nepal's family planning program more effective in terms of both contraceptive services and improved maternal and child health, the project will emphasize balanced motivation for and provision of temporary (IUD, Norplant, injectable and oral contraceptives, and condoms) and permanent contraception at static, year-round facilities rather than seasonal sterilization camps.

Decentralization and Regionalization. This has been a policy focus of the MOH, but it has yet to be operationalized. Major efforts will be directed at operationalizing the decentralization and regionalization policies in the Central Region. Indeed, as a condition for beginning assistance to the Central Region, the MOH must agree to allow USAID funding for local costs to go directly to the Region by year two of project implementation, and not through central MOH offices.

Malaria. Given the long-term nature of the malaria problem, USAID has encouraged MOH procurement of insecticide (MOH has depended on donor-granted supplies for 35 years), and has indicated that it will not procure insecticides for the government after FY 1989. U.S. support will be directed at improved training capability for malaria control, decentralization of case detection and treatment, review of the changing entomology of malaria transmission, and service expansion to include other vector-borne diseases.

These five themes not only reflect the mission's experience with a wide range of programs and program mechanisms to support health improvements in Nepal, but also its judgement about what is most needed and most likely to succeed. Based on the team's interviews and field observations, we concur that a focus on women, decentralization, and full-service family planning are three important themes on which the U.S. has the opportunity to show real leadership in Nepal.

IV. Assessment and Analysis of Impact

This discussion will be in three parts.

First, what general conclusions may we derive about improvements in health over the past thirty years, based on our assessment of health statistics as well as from our review of the evolution of the Nepal health system?

Second, what conclusions can be stated about the development of a health care system in Nepal?

And third, what has been A.I.D.'s role in these developments and where do future opportunities lie?

A. Health Impact

Most data sets, interviews with Nepali and foreign officials, and the field observations of the team lead us to conclude the following:

1. While overall life expectancy has increased from 42 to 52 over the past 15 years, there is great regional and economic variation in longevity. Some have benefitted a great deal, more have benefitted somewhat, while many have benefitted little if at all from the extension of the public health system.
2. Reduction in infant mortality rates from 152 in the 1970s to somewhere between 125 and 106 per thousand in 1985 is significant. Recognizing the uncertainty about the exact ratio, if one accepts the 112/1000 figure for IMR, Nepal ranks ahead of Pakistan but behind India in this measure of health status. Given Nepal's low per capita GDP at \$160, well below India's \$270 and Pakistan's \$350, it is reasonable to assume that Nepal's health interventionist programs have had independent impact on reductions in infant mortality. That they are still far too high will be contested by no one.

3. The malaria control program has been a major accomplishment. It has permitted the settlement of the Terai to productive agriculture, without which Nepal would be unable to keep pace with its food requirements, given the lack of any significant manufactured or service exports. The recent resurgence of malaria in several districts does not seem to have spread and the most recent data show that the situation is stabilized. Malaria must remain a long term worry for two reasons; diminishing efficacy of chemical applications against resistant strains, and threats to institutional capacity to develop and sustain effective control.
4. Sterilization alone has not been a success, either in reducing fertility or in improving health status of mothers and infants. The program has used financial incentives across the board for motivators, health and medical personnel and clients to meet specific targets. Critics contend that the emphasis on sterilization is an ineffective means for achieving reductions in fertility, and the emphasis on seasonal sterilization camps misdirected energy, personnel and educational efforts away from the expansion of temporary methods, MCH services, and year-round access to services. In Nepal a contraceptive prevalence rate of 15 percent places it above Pakistan but well below India and Sri Lanka. As a result, the rate of increase in the Nepali population remains high at 2.6 percent per year, even with high mortality levels.
5. The Expanded Program of Immunization has been a success in most of its features. EPI coverage, while probably not quite as high as the GON reports, is remarkably high for a country with the social, economic, and topographical conditions of Nepal. Mothers' awareness of the need to immunize their children is very high, based on the team's field observations in the Terai and the Middle Hills. However, in at least one interview, the team found evidence that the life of the portable cold chain containers was routinely extended beyond the two day limit. This would suggest substantially reduced efficacy for some vaccines, a concern expressed by other donor health officials.
6. Although much newer and less well entrenched in vertical structures, the diarrheal disease control program is launched as well. With support primarily from UNICEF and A.I.D., ORT is known and being taught in village health centers throughout the country, and ORS is available commercially and in health clinics.

7. Persistence of high female morbidity, neonatal disorders, and high incidence of diarrhea, respiratory infections, worms, and skin diseases suggest a cluster of problems which do not respond well to either vertical campaigns or passive curative treatment. The causes of this cluster of MCH problems appear to be difficult to address, rooted as they may be in conditions associated with low levels of female education and poverty.

B. Development of a Health Care System

1. Nepal's health care system has been guided by a public commitment to providing an adequate level of health care free of charge to all citizens. To its credit, the Government of Nepal has in little over one generation extended some measure of health care to all seventy-five districts in Nepal, trained thousands of doctors, health assistants, assistant nurse midwives, and village health workers. It continues to build, staff and equip hospitals at the district level, and it has produced a large number (upward 30,000) of employees with some specialized skills in malaria, tuberculosis, leprosy, immunization, acute respiratory infection, and other major health problems.
2. Some consensus on policy, organizational structure and implementation approaches seems to be emerging, after long debate over issues of vertical versus horizontal programs. However, in Nepal major changes are introduced by highest authority followed by long periods of stasis in which earlier policies and programs absorb, or successfully resist, the new policy directives. Shifts from vertical to integrated programming, centralized to decentralized management, professional health cadres to a variety of semi-professional and volunteer workers have resulted in a confusing array of bureaucratic vestiges, competing power centers, and overlapping responsibilities. This situation has left USAID and other donors with the dilemma of which of the many, competing policy initiatives to support and reinforce.
3. The system strives to accommodate all of its members once they are on the payroll. The best examples are the integration of the vertical staffs into the formally integrated districts, and the shifting of redundant VHWS to other districts some distance from their home base. Almost no one loses a job.

4. Although not a major part of official health policy, fee-for-service has been allowed to flourish. The team found ample evidence of rising effective demand for health services, from the "medical shop" near some health posts to private fee-for-services practices by government doctors. Maintenance of free medical supplies through the health post system, however, continues to demonstrate major weaknesses. Health posts routinely receive supplies late, run out fast, and then have to refer patients to nearby private shops. Allegations of collusion between public health system officers and private shop owners abound. Whether true or not, the existence of unregulated however reliable private medical supply shops alongside a free but unreliable public supply system appears to perpetuate the worst of both.
5. Although physical facilities have been established in Districts, Ilakas (sub-districts) and in some Panchayats (Villages, or clusters), adequate staffing of these posts with competent personnel remains a serious problem. Highly trained clinicians are almost exclusively located in Kathmandu; health post workers with less training are frequently absent from post for training or other reasons.
6. The system shows a remarkable ability to add new forms and structures nationwide in a very short period of time. The rapid expansion of the CHV cadre is an example of this. The ability to operationalize these new structures is much more limited. In this regard, government policy agreement on the integrative approach to health delivery seems firm. However no agreement has yet been reached on the "organogram" for determining how the integrated approach will be structured, which MoH departments will have what kind of budget and personnel control at the district level, and who will report to whom. The introduction of the decentralized programming and budgeting approaches creates further conceptual confusion.
7. Decentralization and regionalization are new (or resurrected) GON policies based on the recognition that as Nepal develops it becomes increasingly difficult to manage programs from the center. This is conceptually a sound conclusion. Nevertheless, evidence abounds that decentralization is more formal than real. Very little authority over budget or personnel has been given to the

district technical or political level. To the extent that the new health care philosophy depends on such decentralization, it is unlikely to succeed. As for regionalization, it is uncertain that regionalization is a necessary component of decentralization, and unlikely that the authorities necessary to make the Regional Directorate concept operational (e.g., budget, staffing, supervision) will be forthcoming. The team encourages the mission to continue to insist that USAID support in the new project go directly to the region, and not through the central MOH offices, if regionalization is to have any hope of success.

8. The system is highly centralized and control-oriented. That the centralized system is not efficient or responsive to local conditions is recognized in the Decentralization Law of 1985 and in various policy announcements. Nevertheless, continued centralized control is justified by officials in Kathmandu in the name of program quality and accountability. In the absence of meaningful countervailing pressure from the districts, central authorities are reluctant to reduce the scope of their authority over budgets and personnel.
9. The system is excessively concerned with unrealistic targets and quotas. This is not a blanket condemnation of the targets; targets and quotas can be useful when a problem is serious and widespread, the purposes of the intervention are clearly understood, and technologies used are proven to be effective. However when all bureaucratic rewards and punishments become tied to achievement of targets rather than actual results, the possibilities for abuse are massive and endemic. In such systems, targets and quotas become instruments of centralized control and can severely undermine the responsiveness and veracity of the system. In Nepal, the best examples of successful, targetted programs of this type have been the malaria control program and the expanded program of immunization. The sterilization program is an example of a program where targets and quotas are used extensively but where technology has not been appropriate to the goal (i.e., reduced fertility). Although sterilization alone is widely regarded as an unsuccessful method for reducing the crude birth rate or improving maternal and child health, it persists as the predominant family planning program in Nepal.

10. The system is also excessively concerned with enumerating and reporting. While accurate information about program conditions and progress is a necessary component of all public bureaucracies, in Nepal the system of reporting appears designed to control and motivate performance rather than to obtain information on conditions and program results. A District Public Health official complained that the bulk of his time is spent in amassing, collating, and forwarding data to the center for purposes which seemed at best only remotely related to his job. In Kathmandu an impressive array of statistical reports are issued based on this reporting system. Yet many observers have fundamental reservations about the quality and reliability of these data.

11. Finally, the establishment of a corps of women community health volunteers in the Central Region in the last year is testimony to the government and the National Women's Organization's ability to respond quickly to a new idea. All field visits indicated widespread knowledge of the CHV, although on closer examination the team discovered a number of weaknesses. The training, enthusiasm and commitment of the CHVs seemed higher in certain Terai districts (associated perhaps with higher female literacy) than in the middle hills. The weaknesses and potential pitfalls of the CHV concept include:
 - illiterate women cannot be reasonably expected to maintain extensive records,
 - many women did not make wide ranging household visits, instead usually limiting their visits to close neighbors and social peers,
 - women felt uncomfortable working with the male VHW who, while not necessarily their formal supervisor, was necessary to the record keeping function,
 - provision of drugs which the CHVs are expected to sell was sporadic and frequently undermined by free drug supply at the health post (while supplies lasted) or from NGOs working in the area, and

- organization of mothers' groups to discuss health care, nutrition and hygiene (an element of the CHV's work scope) appeared sporadic. In one ward the red covered training books (designed to train illiterate mothers about ORT, EPI, sanitation and family planning) sat on a shelf at the health post; in others, mothers' group meetings were held for ten or fifteen minutes, thumb prints applied for an attendance roster, but little transpired.

Although the CHV program has been designed to reach women and children, it appears to build upon the same assumptions that have contributed to the failure of earlier community health volunteer programs, particularly the absence of a system to provide support and supervision, restocking of drugs and supplies, and the unrealistic expectation that most women will be able or willing to walk several hours distance from their own home to make house to house visits. At present the CHV are being "supervised" by male Village Health Workers (VHW) who themselves are dependent upon minimum support and supervision from health post workers.

12. In addition to the CHV program, maternal and child health workers (MCHW) are being created to provide services from the health posts to women. Two female MCHWs are to be selected from each Ilaka to serve at the Health Post. UNFPA and WHO are providing the major external assistance for this program. The MCHWs will in turn be dependent upon the same weak system of supervision from ANMs, who are often not at the health post, and District Public

Health Nurses of which only ten have yet to be assigned to the 75 districts. Although each new scheme developed to meet the needs of women and children is well-intentioned, and are actually working in some areas, they appear to have little chance to improve MCH services nationally until the structural, cultural and supervisory problems are first addressed.

C. A.I.D.'s Impact on Health Programs and Service Delivery in Nepal

From our interviews with Mission staff, GON officials, other donors, PVO representatives and others, the team reached a number of conclusions about the evolution of USAID's health assistance in Nepal, and USAID's unique role in the emergence of a child survival focus in the latter part of the 1980s.

USAID appears to have played a leadership role in four critical areas: donor coordination, support for program experimentation, recognition of a client perspective, and policy dialogue with the government. Highlights of mission leadership in these four areas are identified below, as are the team's assessment of where additional efforts should be made.

Donor Coordination: In the 1950s and 1960s, the U.S. was the largest health donor in Nepal. In the 1970s and 80s, other donors began to play a larger role in Nepal's health programs.

The GON is extremely adept at courting donors. It is well prepared with statistics, flow charts, organograms and budgets, all of which fit well with donor mind sets and vocabulary. Today, as much as 70-80 percent of Nepal's development budget in health is donor-funded, with largest contributions coming from multilateral organizations such as UNICEF, WHO, and UNFPA. The World Bank and JICA are both eager to invest in Nepal's health and family planning programs, and the considerable resources these two "newcomers" could bring to the effort could both overwhelm the system's absorptive capacity and undermine the policy reforms currently being pursued by the historical donors.

Today, the U.S. health program in Nepal is relatively small compared with those of other donors, but because of its historical position as chief donor the U.S. continues to play a more prominent role than funding alone might warrant. It appears that strong technical leadership, a forceful personality and exceptional diplomatic skills can do more to ensure donor coordination on critical policy issues than sheer size of budget. Here A.I.D. has had an important advantage, with its resident technical field staff, its ancillary contract technical resources, and its flexibility in working within and outside the formal government structure in health. And, in fact, there have been a number of policy issues on which A.I.D. has taken the lead among the donor community.

-The push to institutionalize family planning services in year-round facilities as opposed to total reliance on seasonal camps, and the insistence on the full range of temporary and permanent contraceptive methods and linkages with MCH services.

-Recognition that the delay in operationalizing the GON policy of health service integration was undermining health service delivery, and strong encouragement (via the new five-year project) for devolution of real authorities to the regional and local levels.

-Encouragement for the government to begin to budget for the recurrent costs of its programs and to decrease its dependence on donors for these costs. For example, A.I.D. has indicated that it will not purchase malaria insecticides after FY 1989. A.I.D. no longer tops off salaries, although other donors (e.g., UNFPA and WHO) are still willing to pick up significant recurrent costs through salaries and salary supplements.

-For the future, if the GON moves away from project grants to sector support, as one official in the Ministry of Finance indicated was likely, USAID should and undoubtedly will play a major role in negotiating very tight conditionality and reliable systems of oversight on behalf of the entire donor community.

Experimentation. The GON does not and perhaps cannot experiment on a small scale. Each new policy initiative results in a paroxysm of revised staffing patterns, flow charts and acronyms. Bilateral and multilateral donors can play an important role in supporting risk-taking and experimentation on a small scale, and this USAID has done. The initiative the mission has taken within Nepal, and indeed within A.I.D.'s worldwide child survival program, to explore the linkages between vitamin A and child survival and to test simple diagnosis and treatment of childhood pneumonias (ALRI) is truly commendable.

Similarly, the mission has been involved in detailed negotiations with the MOH regarding privatization of the Contraceptive Retail Sales Company (social marketing for sale of contraceptives and ORS). The Company's potential has been limited by a parastatal management style inappropriate for a company that succeed only by aggressive marketing and innovation. The Mission has aggressively pursued privatization of this effort, and success or failure in this area will give strong indication of the potential for further private sector initiatives in the 1990s. The mission has also tapped

centrally-funded project support to initiate Nepal's first private sector workplace-based family planning service; to establish private family planning clinics run by women's organizations; and to contract out repair and maintenance of VSC equipment to a private concern.

However, the team was struck by how infrequently apparently successful experiments (e.g., in drug supply, in integration of child survival services, in use of women volunteers) have been replicated on a larger scale, and the lessons of unsuccessful experiments analyzed and "learned." For example, there is ample evidence that people can and do pay a great deal for health services and drugs, and that partial cost recovery is a real option in Nepal's health system.(20) There is considerable evidence that private supply of medicines does exist in Nepal. Experiments by the Britain Nepal Medical Trust in the Eastern Region provide a wealth of experience on what can work and what difficulties need to be faced in developing fee-based systems for supply of medicines.

USAID has been associated with some of the efforts to recover costs through drug schemes and fee-for-service experiments. While much needs to be done to improve the cost-effectiveness and efficiency of the curative programs which constitute 40 percent of the GON health budget, USAID has a real opportunity to show leadership in experimentation with alternative financing of MCH and family planning services. A goal of the new five-year project should be not only to pursue health financing aggressively, but also to ensure that the financing schemes adopted are consistent throughout the Central Region.

Demand Creation. A hallmark of A.I.D.'s child survival strategy is the attention that is given to demand creation and the "client's perspective," and this has been true of the USAID/Nepal health efforts as well. Indeed, the real promise of the CHV program, which USAID has aggressively promoted and supported, may well be not as yet another, lower level in the service delivery chain, but rather as an attempt "from the ground up" to educate, motivate and create demand that will force the system (be it public or private) to respond. In that regard, the team believes that there are important additional opportunities (e.g. literacy training, giving the CHVs an explicit role and recognition within the panchayat committee structure, recruiting women as supervisors and mentors for the CHVs) to make these local women (CHVs) a meaningful part of future health improvements. The team urges the mission to give greater attention and support to operationalizing the theme of "services for and by women."

Policy Dialogue. There is no question that USAID has taken a strong lead in engaging the GON in discussions about its policy options, and has had some impact on the choices that have been made. Indeed, although the mission has supported many small-scale private voluntary organization activities and some limited work with commercial groups, the focus of the USAID program has been on the GON. To date, the policy agenda has largely been that proposed by the GON -- verticalization, integration, decentralization, regionalization, and the mission has played a major role in encouraging the current policy directions.

V. Future Directions For the future, the mission has the opportunity to pursue another extremely important if difficult area of policy dialogue with the government, namely a reassessment of the appropriate role of government, donors and the private sector in health care delivery in Nepal. Because Nepal relies so heavily on the public health system to bring health care to its citizens, it is important to ask whether the system as presently structured can become more effective, or whether it should be reoriented and restructured. To be more specific, do the incentives in place to reward performance actually encourage program results, efficiency or cost effectiveness?

Does extensive enumeration and data collection produce the type and quality of data actually needed by decision makers? Do decision makers make use of available data to make major policy changes and monitor results? Are there more effective and efficient methods for measuring actual health status and program results? Are there more effective ways to make local health officials directly responsible to local authorities and to consumers without unduly sacrificing technical quality? Who uses information and who benefits from its collection? These are but a few of the structural questions which must be asked by all concerned with improving the health care available to the citizens of Nepal.

For example, the team was told of numerous instances of government controlled activities (e.g., drug schemes, contraceptive and ORS social marketing) which could better be done outside the government structure. And it identified a number of activities which are uniquely appropriate for the government, but which the GON was not doing or doing very sporadically -- e.g., setting standards for treatment, certification of health personnel, regulation of pharmaceuticals, epidemiological surveillance. These are areas

which mission personnel have pursued with the government in recent years. To make the most of the upcoming five-year program of U.S. health assistance in Nepal, it will be essential for the Mission to have the staff with the skills, interest, and persuasive powers to continue to engage the GON in a dialogue on a basic reexamination of the roles of central and regional public agencies, voluntary and commercial private organizations, consumer groups and donors in health improvements in Nepal over the next decade.

Evolution of Nepal's Health Services System

In four decades His Majesty's Government of Nepal (HMG) has created an extensive health service system. Before 1951, Nepal had been closed to external influences including foreign health systems. In the early 1950s, health care depended on traditional practitioners and family care, except for very limited services and drugs provided by government and a few mission groups. HMG established the Ministry of Health with technical advice and assistance from external donors, with the United States among the first to give health-related assistance in 1954. The government's planned development of health services began with the First Five-year Development Plan in 1956 and has been expanded through the current proposed Eighth Five-year Development Plan in 1990 to include a series of hospitals, health posts, and community outreach services staffed by cadres of trained medical professionals and paramedical health workers and volunteers.

Vertical Health Services

In addition to a system of hospital-based curative care, public health services have been offered through a system of disease-specific programs and vertical projects. The major vertical projects included the Nepal Malaria Eradication Organization (NMEO) established in 1954, the Leprosy and Tuberculosis Control Project in 1964-1965, the Smallpox Eradication Project (1967-68), which following the eradication of smallpox in 1970 evolved into the current Expanded Immunization Program (EIP), and Family Planning and Maternal Child Health Project (FP-MCH) established in 1968.

The vertical programs were designed to be semi-autonomous within the Ministry of Health, administered and supervised by special personnel, and staffed by trained paramedical workers. These vertical projects initially were defined as short-term programs, designed to train and employ temporary staff. The vertical programs are still functioning, however, including the Malaria Eradication Organization which is the longest running and most successful of the earlier health programs. All of the vertical programs have received significant donor support which helps to explain the persistence of these programs.

Integrated Health Services

The concept of integrating curative and preventive health services was introduced in the early 1970s, in recognition of the long-term nature and high cost of attacking health problems from a disease specific approach, and because vertical programs

did not well address underlying causes of poor health, such as poor nutrition, polluted water, poor hygiene, and inadequate preventive care. Integration also was seen as a way to more efficiently utilize limited health manpower to increase services to Nepal's underserved rural population. Proposals to integrate Nepal's health services coincided with the

international donors' shift to providing support for rural development and basic health services, and the Nepal government's stated policy of spreading social benefits to all parts of the country as outlined in the Fourth Five-Year Development Plan for 1971-1975.

Following the government's creation of the Division of Integrated Basic Health Services within the Department of Health Services in 1971, a variety of pilot projects and innovative approaches were tried in an attempt to integrate the vertical projects and curative services. Supported with external donor funds and technical assistance, rural health services expanded to include district health offices, construction of health posts to be staffed by various categories of health assistants, and community outreach workers. Integration focused on the newly created paramedical or multi-purpose worker who would incorporate the specialized tasks of the former vertical health workers, and a system of community volunteers (called community health leaders) was subsequently introduced.

Although these efforts succeeded in increasing the number of health posts and paramedical staff, and also establishing several health training facilities and programs, the health services were not successfully integrated. The resistance from the well-established vertical programs, the inability to absorb many of the specialized vertical workers, a weak infrastructure, administrative and logistics supply system, inadequate support and supervision for paramedical and voluntary workers -- all contributed to the failure to integrate services. Through much of the 1980s, the health services were fully integrated in only six districts, partially integrated in 16 of 75 districts, and the vertical programs continued to function alone in 53 districts.

Decentralization and Regionalization of Health Services

In 1987, the government announced its plan to reorganize the health services once again. All public health activities (as distinct from curative services), including the five vertical projects and the integrated health project (ICHSDP), were to be

integrated under the newly created Public Health Division. The time frame for disbanding the vertical projects has been revised to sometime in the 1990s. The reorganization plan also proposed restructuring and decentralizing the planning, budgeting and management of health services to five regional directorates and to 75 districts:

As part of the reorganization plan, health posts in the districts have been systematized on an Ilaka basis with 9 standard health posts per district. The Ilaka health posts are to be staffed with a Health Assistant (Health Post In-Charge), two Assistant Health Workers, peons, and some with Assistant Nurse Midwives (ANMs). A new category of health workers, Maternal and Child Health Workers (MCHW), is being created to supplement the ANMs. In an attempt to increase the provision of services to women by women the Ministry has created the Community Health Volunteer Program (CHV). The primary role of the CHV is to provide important information about health maintenance and to direct individuals in need of more specific, specialized services to other levels in the health structure. CHVs are to coordinate activities with those of the Village Health Worker (VHW). They are given a small supply of simple drugs and materials for treating wounds, and she is to receive a stipend of 100 Rupees a month.

Family Planning and Maternal Child Health Services

Nepal's Family Planning and Maternal Child Health Project (FP/MCH) was established in 1968. In spite of the government's stated policy giving high priority to family planning and the control of population growth, and a higher allocation of the health budget to family planning (15.5 percent)(UNICEF) than to any other project, the population growth rate remains at 2.6 percent per year (1986). Women in Nepal traditionally marry early and continue having children throughout their fertile years. Because sons are strongly preferred, couples have many children, an average of 5.8 per married woman, in the hope that at least one or two sons will survive until adulthood.

The FP/MCH Project functions as a semi-autonomous organization under the Ministry of Health. Early Project services were limited to clinics in the urban areas (mainly in Kathmandu), but as more staff were trained and gained experience, services were extended to other areas of the country. Family planning services are currently provided by four main agencies

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The FP/MCH Project provides the majority of the family planning services through its clinics and panchayat-based health workers.

-The Integrated Community Health Services Development Project provides services through village health workers and community health leaders, and through health workers located in district health posts.

-The Family Planning Association of Nepal (FPAN), a private non-governmental organization founded in 1958, has 18 branches throughout the country.

-The Nepal Contraceptive Retail Sales Company also distributes pills and condoms through more than 9,000 pharmacies and shops in most of the 75 districts.

Although there have been many governmental and non-governmental programs promoting family planning, studies indicate that knowledge and use of contraceptive methods other than sterilization is not widespread among couples in Nepal. The emphasis of Nepal's family planning program has been on sterilization provided mainly through seasonal camps. The policy of assigning sterilization targets, in addition to providing monetary rewards to providers, recruiters and acceptors of sterilization, appears to have influenced field workers and clinic staff to promote sterilization as the only family planning method. (19)

Patterns of Health Behavior

Nepalese use both traditional and modern medicine. For most illnesses they first use home care including herbal remedies and dietary regimes. If illnesses persist, the next resort is usually traditional healers--jhankris, dhamis, fuknes. Health posts and hospitals are often the last resort and sought for more serious or persistent illnesses. Ayurvedic practitioners also are consulted where available. Frequently, if a health facility is unable to treat a patient successfully, traditional healers are consulted again or herbal remedies continued. Except for diseases believed to be caused by spirits, patients appear to be comfortable mixing their treatments and using whatever they perceive to be effective.

Patients do use government and private health facilities if accessible and if staff and medicines are available. Health facilities are chosen because of location and the quality of care. The attitude of health workers toward patients, in addition to caste and ethnic background, language group and

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social status all influence the relationship between patients and health workers. When available, patients are willing to use modern curative medicine, especially drugs, injections, and treatment for wounds.

The Role of Non-Governmental Organizations in Nepal

International and national non-governmental organizations (NGO) also support health-related activities in Nepal. International religious missions were among the first to provide curative health care and more recently have experimented with approaches to community health care. The recent growth in the number of both national and international NGOs working in health in Nepal parallels the increasing interest of the larger international donor organizations in NGOs and their approaches to small scale, grassroots development. The Social Services National Coordination Council (SSNCC), under patronage of Her Majesty the Queen, was established to coordinate the NGOs in Nepal.

Annex B

Health Finance in Nepal

Public Health Finance. In 1989 the World Bank completed a comprehensive analysis of public spending for health in Nepal. Most of the data for that analysis are drawn from the planned budgets of the GON for FY1986/87. Public expenditures on health have been constant at about 6 percent of the government budget over the last ten years. Per capita government health expenditures are roughly \$2.00 annually, making Nepal's public health expenditures the lowest in South Asia. Seventy-five percent of the FY86/87 budget was allocated to primary health care, but of that only 35 percent supports district-level health systems. Using more rigorous WHO standards for judging primary health care, Nepal spends only 15-20 percent of its budget or \$.40 per capita for "beyond the health post" primary care.

The emphasis on vertical programs in the FY86/87 budget was also evident. Fifty percent of the MOH budget went to six programs, including malaria, EPI, TB and the twenty-two then integrated districts. Most of the vertical programs obtain more than fifty percent of their financing from external donors, including such items as training, transport to training and related items which normally would be considered part of the recurrent expenditures of any organization. A serious concern for all donors, apart from the efficiency and effectiveness of the programs they support is the ability of the GON to financially sustain the health system which has evolved with donor support.

Private Spending on Health. Private health care of a wide variety is available to Nepalese. Practitioners include traditional healers, traditional birth attendants, as well as more formal Ayurvedic and homeopathic clinics. Village "pharmacies" have emerged in the Central Region and generally have a steady supply of medicines commonly prescribed at nearby health posts as well as popular tonics. In Kathmandu and one or two other cities, private nursing homes and clinics have grown in number with government blessing. Most public health service doctors appear to maintain some fee-for-service practice as well.

The annual expenditure by citizens on private care of all types is difficult to calculate. Estimates vary from \$1.00 to almost \$2.00 per capita including medicines, doctor fees and in kind payments to traditional healers. They do not include the opportunity cost of travel time or the actual expense of bus

fare, food and lodging for family members who bring their relatives to hospitals and clinics for treatment. There is clearly effective demand for private health care in Nepal, and while the depth of that demand is difficult to determine, it is fair to suggest that a large percentage of the Nepalese population will and do pay for health care in the "private sector". Indeed, by the crude calculations presented in this section, private citizens appear to spend as much or more on health care as does the government on their behalf.

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