

ASIAN DEVELOPMENT BANK

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Impact Evaluation Study Series (Number 33)

IMPACT EVALUATION STUDY

OF BANK ASSISTANCE

**IN THE HEALTH AND POPULATION SECTOR
(RETA 5629)**

IN

SRI LANKA

December 1995

CURRENCY EQUIVALENTS

(October 1995)

Currency Unit	-	Sri Lanka Rupee (SLRs)
SLRs1 .00	=	\$0.01 95
\$1 .00	=	SLRs51 .29

ABBREVIATIONS

BME	-	Benefit Monitoring and Evaluation
CBR	-	Crude Birth Rate
CDR	-	Crude Death Rate
DHC	-	Divisional Health Center
DMC	-	Developing Member Country
DMPA	-	Depo medroxy progesterone acetate
FP	-	Family Planning
GHC	-	Gramodaya Health Center
GDP	-	Gross Domestic Product
HFA 2000	-	Health for All by the Year 2000
IMR	-	Infant Mortality Rate
IUD	-	Intrauterine device
MCH	-	Maternal and Child Health
MMR	-	Maternal Mortality Rate
PCR	-	Project Completion Report
PHC	-	Primary Health Care
PHI	-	Public Health Inspector
PHM	-	Public Health Midwife
PPAR	-	Project Performance Audit Report
RETA	-	Regional Technical Assistance
SDHC	-	Subdivisional Health Center
TA	-	Technical Assistance

NOTES

- (i) The fiscal year (FY) of the Government ends on 31 December.
- (ii) In this Report, "\$" refers to US dollars.

I. SUMMARY

A. Objective and Scope

1. As of September 1995, two loan projects and two technical assistance (TA) grants in the health and population sector had been provided by the Bank since it began its operations in Sri Lanka in 1968. One of the two projects has been completed; the other, together with an accompanying advisory TA, is still ongoing. The Impact Evaluation Study (the Study) focuses on the first loan project, which was approved in 1982 (first Project), and refers to the ongoing project approved in 1992 (second Project), where appropriate. The projects are aimed at improving the primary health care (PHC) delivery system to the rural population. The first Project focused more on the delivery of preventive health care, especially at the lowest or most peripheral level, while the second concentrates on the training of medical personnel and strengthening of the referral system centered on the rural district hospitals.

B. Major Findings

2. The Study assesses the impact of the Bank's assistance on health, policy adjustment, Government budget, institutional development, social dimensions, and the environment. The impact on health has been positive as most indicators show improvement in the area covered by first Project. Demographic and health indicators showed that the rate of population growth, the morbidity rate, and the various mortality rates have decreased. The improvement in health was buttressed by the service provision indicators and the beneficiaries' perception of the services provided. In the area of policy formulation, the Bank's intervention through the first Project also showed a significant contribution. The success of one of the components of the project, the Gramodaya Health Centers (GHCs, the lowest or most peripheral level of health centers), has led the Government to reorient its policy to focus its resources and energy, in so far as PHC is concerned, on the construction of more GHCs either with its own funds or with assistance from other external funding agencies.

3. On the other hand, the failure of the first Project to integrate the preventive and curative health services through the various levels of health centers as designed led the Government to seek another solution, namely, through the devolution process, which established the post of the Divisional Director of Health Services who is essentially oriented to preventive health care but who has administrative jurisdiction over hospitals in his division. The Bank's assistance invariably contributed to greater recurrent Government expenditure on health with the recruitment of more medical personnel (such as the public health midwives) and the need for health center maintenance, however limited. Expenditure on health as a proportion of total Government expenditure has increased over the years.

4. The impact on institutional development is positive, not only with regard to the establishment of effective health centers including hospitals and the availability of improved health services, but also the enhanced capacity of the health providers as a result of the training program incorporated in the projects. The most obvious social impact of the first Project is the improvement in the health status of women who form the overwhelming majority of beneficiaries. Such improvement will lead to increased women's participation in other activities including economic activities. The impact on poverty is significant though indirect as the health centers provide ready access for the rural poor. Closer access to health services reduces travel time and cost, while improvement of health enhances employment opportunities and reduces work absenteeism, thus having a direct impact on income generation and poverty reduction. The impact on the environment will also be indirect as improved

sanitation and avoidance of environmental pollution resulting from increased health consciousness could be expected. This is because the health centers also serve as community centers for discussion of health problems and imparting of health information.

5. Notwithstanding the general positive impact of the two projects, there are some key issues for consideration. GHCs are not fully utilized and there are suggestions that some level of curative health care could be provided. The policy of allowing Government doctors to engage in private practice after office hours generates inherent conflict of interests and, in some cases, instances of abuse. Cost recovery is a major issue as public health services are provided free of charge traditionally, while maintenance of health centers is generally poor. A benefit monitoring and evaluation system was not set up under the first Project, with the resultant lack of benchmark information for proper evaluation of the Bank's assistance.

C. Lessons Learned and Recommendations

6. The failure of the first Project to have adequate preparation and do a feasibility study reduced the effectiveness and efficiency of the project. Adequate preparation would have ensured that there would be no duplication of efforts with other funding agencies, such as in training. Proper assessment of institutional capacity would have ensured the setting up of a project implementation unit early to avoid implementation delay. This experience influenced the second project, which was preceded by a feasibility study.

7. Some GHCs were not well located so that their use was limited. The lesson from this is that project formulation, design, and implementation should always be done with the full participation of not only the key personnel at the central level but also regional health administrators and care providers.

8. Adequate provisions for impact evaluation should be considered at the beginning of project preparation to ensure that the necessary benchmark data will be available.

9. The two projects focused on different areas of health care. To maximize the benefits arising from completed projects, subsequent projects should build on the successful components of completed project. As major problems exist in the area of preventive health care, Bank assistance provided to projects in the preventive health area would yield better results in the long run.

10. Project implementation needs to be monitored more extensively and closely for early detection of problems and for corrective action. This monitoring exercise should be done not only by key officials at the central level but also by those at the regional administrative levels.

11. The involvement of beneficiaries, not only in terms of consultation but also, if feasible, in the actual implementation and construction of components of the project, is recommended to engender a sense of ownership and responsibility among them and to boost the sustainability of the project.

12. The Government should consider fuller use of GHCs with the provision of curative health services. It should also provide adequate funds for the maintenance of GHCs and training for the personnel involved.

II. INTRODUCTION

13. Since 1978, the Bank has provided \$798.64 million for 27 projects in the health and population sector. In addition, grants worth \$19.5 million were provided for 60 technical assistance (TA) projects. In the early years, assistance was focused mainly on improving health conditions in developing member countries (DMCs), but the Bank has increasingly recognized the need to become involved in population activities and integrate these with its health activities in the sector in the future.¹

14. Despite an involvement of nearly two decades, the Bank has not yet undertaken a comprehensive assessment of the impact of its operations in the sector. In line with the recommendations of the Task Force on Project Quality, the Bank's Postevaluation Office processed a regional TA under which an impact study of the Bank's assistance in four selected DMCs is to be carried out.² This Report assesses the impact of the Bank's operations in Sri Lanka. The operations to date comprise a completed loan project and an ongoing loan project with an accompanying advisory technical assistance.

III. BACKGROUND

A. Study Objectives, Approach and Methodology

15. The primary objective of the Impact Evaluation Study (the Study) is to review and assess the impact of the Bank's operations in the health and population sector based mainly on a project which has been completed and postevaluated. Necessary references will be made to the ongoing project where applicable. The Study provides an overview of the impact of the Bank's operations and key issues requiring attention, examines the appropriateness of the design and implementation arrangements of the completed project, distills lessons learned and recommends measures to better achieve future project objectives and improve Bank operations in the sector.

16. For the purpose of the Study, a Beneficiary Survey was conducted by domestic consultants (Appendix 1). The Survey was a purposive study based on a sample of beneficiaries selected from areas in the districts covered by the first Project. In addition, international consultants carried out interviews of relevant Government officials in both projects with regard to the implementation performance and other aspects. The Study is also based on the findings of an Impact Evaluation Mission which visited Sri Lanka in October 1995 and a review of relevant reports including the Project Performance Audit Report (PPAR) and the Project Completion Report (PCR) of the completed project, Back-to-office Reports of review missions of the ongoing project, the Economic Review and Bank Operations Paper, and the Country Operations Strategic Study on Sri Lanka.

¹ "Population Policy - Framework for Assistance in the Population sector," Asian Development Bank, 1994.

² RETA No. 5629: *Study of the Impact of Bank Assistance in the Health and Population Sector*, for \$300,000, approved on 27 April 1995. Sri Lanka is one of the four countries included in the Study. The other countries are Bangladesh, Pakistan and Papua New Guinea.

B. Initial Conditions Against Which Impacts Were Appraised

1. Macroeconomic Background

17. Sri Lanka's economic performance in the 1980s, the period of the Bank's first assistance in the health and population sector, had been sluggish. The average annual growth rate of the economy was around 3 percent, with budget deficits in practically all years throughout the period. The economy has improved substantially since 1990 following the implementation of an economic liberalization program in 1989. The average annual growth was 5.5 percent from 1990 to 1993 and 5.6 percent in 1994.

18. Fiscal management, however, remained a problem. Government expenditures rose to 29 percent of the gross domestic product (GDP) in 1994 while revenues fell to 19 percent, widening the budget deficit to 10 percent of GDP, up from 8.4 percent in 1993. The upsurge in Government spending in 1994 reflected the impact of populist relief measures by the previous Government and the fulfillment of election promises by the new Government. The Government has planned to reduce the budget deficit to a target of 5.0 percent of GDP by 1998. As a percentage of total Government expenditure, expenditure on health and population has been increasing over the years, from 3.8 percent in 1985 to nearly 5 percent in 1993.

2. Social Development

19. Sri Lanka has some of the best social indicators in South Asia, with primary education universally available (literacy rate at around 88 percent compared with the South Asian average of 46 percent), a life expectancy (about 75-years) longer than in most developing countries, and a low infant mortality rate (IMR, 17 per thousand live births). Sri Lanka has also favorable indicators for the status of women with literacy (84 percent in 1990) and life expectancy (74 years in 1992) levels comparable to those of men and low maternal mortality rate (MMR, 3 per 10,000 in 1991).

20. Progress has been made in reducing poverty, with poverty levels declining by 18 percent between 1985 and 1990. However, poverty incidence remains high at about 22 percent for the whole country and 24 percent in the rural areas.

3. Overview of the Health and Population Sector

21. The population of Sri Lanka grew from 14.8 million in 1981 to 17.6 million in 1993. The annual population growth rate declined from 1.7 percent in 1981 to 1.2 percent in 1993. That reflects the drop in the crude birth rate (CBR) from 28.2 per thousand population in 1981 to 19.9 per thousand population in 1993 and the key role played by migration out of the country since 1981 in reducing the growth rate of the population.

22. Mortality measured in terms of CBR remained at around 6.2 per thousand population during the 1980s. In 1993, the mortality rate fell to 5.3 per thousand population. The IMR at 17.2 per thousand live births in 1992 was much lower than that of 29.5 per thousand live births in 1981. The MMR showed a similar trend, dropping from 0.6 per thousand live births in 1981 to 0.3 per thousand live births in 1992. Further details are given in Appendix 2.

23. Mortality and morbidity patterns are changing in Sri Lanka. In the early 1980s, malnutrition and communicable diseases such as malaria, respiratory tract infections (including tuberculosis), diarrheal diseases, venereal diseases, and "children's diseases" (whooping cough, measles, diphtheria, etc.) were prevalent and specific problems such as complications during pregnancy and birth delivery were not satisfactorily addressed by the existing health services. Presently, while the incidence of infectious diseases, anemia, and infant deaths in urban areas has fallen, the incidence of cardiovascular diseases is on the rise. In rural areas, malaria has remained a major problem, and the most common health problems are infectious diseases like diarrhea and dysentery.

4. Policy Environment

24. Although Sri Lanka has relatively low fertility, the population density is considered high. The density was 273 persons/square kilometer (km²) in 1993 compared with 230 persons/km² in 1981. Successive governments recognized the importance of further reducing fertility to enhance socioeconomic development and sought to strengthen and expand the delivery of family planning services, provide incentives for controlling population growth, and increase population education.

25. In 1980, the Government endorsed the goal of "Health for All by the year 2000" (HFA 2000)³ with primary health care as the focus. As part of the strategy to achieve HFA 2000, greater emphasis was placed on decentralization of health administration and priority given to the identification of primary health care components and development of an implementation model for application on a national scale. A National Health Development Network was established to be guided by the National Health Council under the Chairmanship of the Prime Minister to ensure intrasectoral and intersectoral coordination (Appendix 3). To implement the decisions of the Council, a National Health Development Committee, chaired by the Secretary, Ministry of Health (now known as the Ministry of Health, Highways and Social Services), and its six Standing Committees were also established.

26. A plan of action for the implementation of HFA 2000 was formulated in 1981. Under the plan, existing large hospitals including teaching hospitals will provide general and specialized curative services. Below the secondary care hospitals, divisional health centers (DHCs) and subdivisinal health centers (SDHCs) will be established by upgrading the existing medical institutions while simple additional facilities called Gramodaya Health Centers (GHCs) will be constructed at the village level. GHCs, each under the care of a public health midwife and providing services for a population of about 3,000, will be the most peripheral unit with DHCs and SDHCs as referral institutions for GHCs. DHCs, SDHCs, and GHCs will constitute the primary health care complex where both curative and preventive services including family planning will be delivered. The integration of curative and preventive services primarily at DHCs and SDHCs was not as successful as planned. But the performance of GHCs was very successful, to the extent that they were replicated after they were introduced with the Bank's assistance.

27. Notwithstanding the adoption of HFA 2000, the country never really had a fully documented, comprehensive national health policy that would cover all aspects of health care development. The various undocumented operational policies had resulted in health services development being less well-planned and more influenced by political exigencies. In 1992, a Presidential Task Force was appointed to formulate a National Health Policy. The major thrust of the Policy was health promotion, prevention and control of disease, fostering of healthy lifestyles, human resource development, strengthening the quality and range of existing health services, and decentralization of health administration.

³ A World Health Organization goal for all member countries to achieve a state of health which will enable a person to lead a socially and economically productive life by year 2000.

28. A Presidential Policy Statement in 1995 reemphasized the Government's commitment to achieving higher health status for the people, with more emphasis on preventive disease control and availability of primary-level facilities; targeting of poor income groups and rural regions, and eradication of child malnutrition. The erosion of capital investments in the health sector would be reversed. The private sector would be encouraged to participate in the provision of health services, particularly curative health care, to complement the Government's efforts in the provision of an effective health delivery system. Some form of cost recovery (which formerly was untenable, given the welfare orientation of the country) is now being considered.

C. Bank Operations in Sri Lanka

29. The Bank's medium-term operational strategy for Sri Lanka is aimed at contributing to the reduction of poverty and unemployment, the two major development concerns of the Government. The operational strategy for the health and population sector is not specifically defined but is subsumed under two of the three thrusts of the overall country strategy: (i) improvement of access of the poor and underprivileged to productive assets, and (ii) protection and improvement of the environment. A corollary of (i) is the provision of access of the poor to social and other infrastructure, which includes water, sanitation, and rural health facilities. As regards (ii), the protection or improvement of the environment is best realized by lessening the pressure of the encroaching population on the environment through family planning. The other thrust of the country strategy is acceleration of the rate of economic growth, which provides indirect impetus to Bank operations in the health and population sector.

30. The Bank's intervention in the sector will be carried out in consultation and in coordination with other funding agencies as part of its operational strategy. Cofinancing opportunities will be explored. Presently, the large funding agencies include the Finnish International Development Agency, the United Nations Children's Fund, the World Bank, and the United States Agency for International Development. Japan is the single largest source of bilateral assistance to the health and population sector in Sri Lanka (Appendix 4).

31. As of 30 September 1995, the Bank had made a total of 74 loans to Sri Lanka (including one loan to the private sector without government guarantee) for 69 projects/programs amounting to \$1,638.3 million (Appendix 5). About 39 percent of total lending was made to the agriculture and agro-industry sector. The finance sector had the second largest allocation of 21 percent while the social infrastructure sector had the third largest with 18 percent, which were channeled mainly to education, and water supply and sanitation. The rest of the loans were given to transport and communications (12 percent), energy (10 percent), multisector (0.9 percent), and industry and nonfuel minerals (0.3 percent).

32. Only two loans were given to the health and population sector, totaling \$35.4 million and representing about 2.2 percent of the overall Bank lending to the country. These were 'the First Health

and Population Project (the first Project)⁴ and the Second Health and Population Project (the second Project).⁵

⁴

Loan No.576-SRI(SF): *Health and Population Project*, for \$9.3 million, approved in July 1982.

33. The Bank has approved grants of \$37.4 million for 132 TAs including 60 for project preparation, 71 for advisory and operational activities, and 1 for both purposes. Only two TAs have been approved in the health and population sector. These were a project preparatory TA for the second Project⁶ and an advisory TA attached to the same Project.⁷

⁵ Loan No.1189-SRI(SF):*Second Health and Population Project*, for \$26.1 million, approved in November 1992.

⁶ TA No. 1291 -SRI: *Second Health and Population Project*, for \$100,000, approved on 18 April 1990.

⁷ TA No. 1189-SRI: *Management Information System and Health Insurance Study*, for \$425,000, approved on 17 November 1992.

IV. OBJECTIVES, SCOPE AND IMPLEMENTATIONAL EXPERIENCE OF THE PROJECTS

34. The first and second Projects were designed to support the Government's efforts in improving the delivery system for health care and family planning services at the primary level. Details of the projects are given in Tables 1 and 2, Appendix 6.

35. The first Project came at the time when the Government had formulated the restructured three-tiered model to improve the delivery system of primary health care. The bulk of the investment of the first Project was devoted to strengthening health infrastructure at the primary care level by establishing 400 village-level GHCs, 75 SDHCs, and 30 DHCs and providing them with medical equipment, basic furniture, and transport vehicles in the underserved districts of Mullaitivu, Batticaloa, Kandy, Kegalle, Nuwara Eliya, Ratnapura, Matara, and Hambantota. However, owing to armed conflict in the north and the east of the country, the Project was not implemented in Mullaitivu and Batticaloa. Other components provided (i) financial support and teaching aids and materials for in-service training in general public health and family planning for concerned health personnel, and (ii) consultant services to assist the Ministry of Health in project implementation as well as benefit monitoring and evaluation (BME). The first Project was completed in March 1990 and was rated as generally successful at the time of postevaluation in 1995.

36. The second Project came at the time when the Government had formulated a National Health Policy to further strengthen the health delivery system. The Project focuses on (i) manpower development and training of those involved in the health care delivery system; (ii) strengthening the referral system by upgrading 35 selected hospitals and supplying critical inputs to 50 dental units in the districts of Anuradhapura, Kurunegala, Kalutara, and Nuwara Eliya; and (iii) providing assistance in institutional and policy development, including perspective planning for the health sector, an institutional development plan for the National Institute of Health Sciences, and support for project implementation and benefit monitoring. Concurrent with this Project was an advisory TA for the development of a primary health care management information system in selected rural hospitals and for a study on health insurance. Overall, the second Project has achieved 25 percent physical completion to date. Training of certain categories of staff (e.g., senior public health inspectors) is completed. Consultants for the advisory TA have been engaged.

37. The findings of the PCR and PPAR of the first Project point to the need for an in-depth analysis of the sectoral and institutional issues prior to project formulation; in particular, a realistic assessment of the institutional constraints is imperative. Poor coordination with other funding agencies was another major deficiency of the first Project as it was subsequently found that many of the planned in-service training had been done or was ongoing through other funding agency assistance. This led to the utilization of only 20 percent of the training funds for the in-service training of public health midwives and public health inspectors. Other inadequacies include the absence of impact indicators and the relevant baseline data at project preparation, poor monitoring at implementation, faulty project design as a result of inadequate project preparatory work, and the minimum involvement of health care providers and beneficiaries throughout the project cycle. The last is particularly important as there were some GHCs which were not used as a result of being badly located. To the extent that these deficiencies have contributed to the partial realization only or delay of full benefits of the Project, they have affected the impact of the Bank's operations.

V. IMPACT OF BANK OPERATIONS

38. Because of the nature of the Bank's assistance in the health and population sector, the discussion on impacts will be based mainly on the findings in the first Project. Since no specific performance indicators were incorporated in the design of the first Project, the Study will assess impacts in the following six categories: health status, policy adjustment; Government budget, institutional development, social dimensions, and environment.

A. Impact on Health Status

39. The impact of the Bank's assistance on health status is considered under demographic and health indicators, morbidity indicators, service provision indicators and beneficiary perceptions of the facilities provided.

1. Demographic and Health Indicators

40. Vital health and population indicators such as crude birth rate (CBR), crude death rate (CDR), infant mortality rate (IMR), and maternal mortality rate (MMR) in project districts between 1988 and 1994 show a gradual improvement in line with national trends (Appendix 7, Table 1). The average percentage reduction in CBR for the six project districts from 1989 to 1992 was 13.7, whereas the percentage reduction for Sri Lanka over the same period was 7.8. Similarly, the CDR for the country showed a percentage reduction of 8.1 from 1989 to 1992; the average percentage reduction for the six districts over the same period was 14.2. In the case of IMR, the figures vary from district to district, Matara, Ratnapura, and Kegalle showing a slight increase from 1988 to 1991 and the other districts showed a decline. The average percentage reduction in IMR for the six districts was 7.7, while the reduction for the country as a whole was 14.9 from 1988 to 1991. MMR either remained the same or decreased slightly in project districts compared with the whole country in 1989, except in the case of Nuwara Eliya and Matara districts, where MMR was somewhat higher. In general, these figures indicate a positive contribution of the project interventions toward the improvement of the health status of the people in the project districts.

41. The reduction in population growth in the project districts based on the annual population growth rate is not so evident because of lack of data for a longer period. While the annual rate of growth in Hambantota, for instance, decreased from 1.6 percent in 1989 to 1.3 percent in 1992, the reduction is less obvious in some of the other districts. The declining population trend in all the districts, however, is more consistent on the basis of CBR.

2. Morbidity Indicators

42. The morbidity data based on government hospital records will not give a complete picture of the extent of morbidity in the community. Data regarding patients seeking treatment from facilities other than government hospitals - ayurvedic and native medical practitioners and private practitioners - are either not recorded or are not available to the medical statistics unit. The pattern of major diseases in Sri Lanka is shown in Appendix 7, Table 2. Upper respiratory tract infections, infectious and parasitic diseases, and complications associated with pregnancy, childbirth, and puerperium are the most common ailments. Some of the specific diseases are included in larger groups in adherence to the prevailing international classification of diseases when maintaining country-wide morbidity data. For example, malaria, measles, tetanus, and pulmonary tuberculosis are categorized under infectious and parasitic diseases.

43. The pattern of certain specific diseases in two project districts and in Sri Lanka for the period 1988 to 1994 is shown in Appendix 7, Table 3. In terms of annual incidence, upper respiratory tract infections, gastrointestinal diseases, and malaria were the most common both in project the districts and in Sri Lanka between 1988 and 1994. Measles, tetanus neonatorum and pulmonary tuberculosis are immunizable diseases which can be prevented by active immunization of children.

44. For the purpose of understanding the level of morbidity in the districts, as a whole, the annual incidence rates of all diseases are totaled for the year and comparisons are made for the period and by districts. Morbidity levels varied by the year and by district. In Ratnapura district, the total disease incidence rate was 15.1 per thousand population in 1988 and came down to 8.7 in 1994. In Kegalle, total disease incidence showed an increase from 10.9 per thousand population in 1988 to 12.7 per thousand population in 1994. The decreasing trend in morbidity was evident during the period 1988 - 1994 for the whole country. Specifically, the incidence of the three immunizable diseases mentioned in the para. 31, went down in project districts as well as in Sri Lanka as a result of due the very successful Expanded Program of Immunization. The project made positive impacts in reducing morbidity in the project districts, especially because of the extensive immunization activities carried out at GHCs established by the project.

45. The downward trend of disease patterns has been confirmed by the perceptions of 84.1 percent of the beneficiaries surveyed (Appendix 7, Table 4). Reasons given for such a decline were increased coverage of immunization, better health practices, increased awareness of health and diseases, and seeking early treatment for illness. These reasons are directly attributable to the services provided mainly by GHCs, and also by SDHCs and DHCs established through Bank assistance.

3. Service Provision Indicators

46. Most of the services provided by the established GHCs are in the area of maternal and child health care and family planning. They include antenatal, natal, and postnatal care, family planning, immunization, growth monitoring, nutrition supplementation and health education.

a. Home visits

47. An important function of the public health midwives is to visit homes for the purpose of registering and providing care to children and pregnant women. Though the average number of home visits made by a public health midwife has not changed much over the years, the fact that the public health midwife now resides in her area of work at GHC would result in more efficient visits and time savings for other activities associated with GHC, such as immunization (Appendix 7, Table 5). Moreover, given the increase in the number of GHCs, the number of home visits will have increased in absolute terms.

b. Maternal Care

48. The registration of pregnant women by public health midwife before the end of the fourth month of pregnancy and the immunization of pregnant women with tetanus toxoid show a progressive increase over the years (Appendix 7, Table 5). This is attributable to the existence of GHCs.

c. Attendance of Deliveries

49. Over 85.0 percent of deliveries in Sri Lanka take place in the maternity units of hospitals. However, the public health midwife is called upon to assist home deliveries in an emergency. Indeed, the public health midwife has provided assistance to more home deliveries for the reason that the public health midwife resides at GHC and is available 24 hours in a day (Appendix 7, Table 5).

d. Family Planning

50. The public health midwives working at GHCs have full responsibility for motivating eligible couples to accept a family planning method of their choice. Distribution of oral pills and condoms improved from 1988 to 1994, pills increasing from an average 0.2 to 0.4 packets per eligible couple and condoms moving up from an average of 0.3 to 1.2 per eligible couple. Insertion of an intrauterine device and administration of the injectable drug, depo medroxy progesterone acetate (DMPA) are also carried out at GHCs, SDHCs, and DHCs. While insertions have increased, injections show a decline (Appendix 7, Table 6). Permanent sterilizations (female tubectomy and male vasectomy) are usually performed only in hospitals with facilities for such operations.

e. Maternal Death and Stillbirths

51. Detection and reporting of maternal deaths and stillbirths occurring in her area are the responsibility of the public health midwife. The increasing numbers of maternal deaths and stillbirths recorded by GHCs are due to improved detection and reporting resulting from the presence of GHCs rather than to an actual increase (Appendix 7, Table 6). By providing residential facilities at GHCs, the public health midwife is able to perform these tasks efficiently.

4. Beneficiary Perceptions of Services

52. To facilitate comparison of beneficiary perceptions, two types of beneficiaries were surveyed. Type I beneficiaries were those who moved into the project area after the setting up of GHCs, SDHCs, and DHCs and thus utilized project facilities from the start. Type II beneficiaries were those who were already in the project area long before the establishment of project facilities, utilizing first the health facilities existing earlier and then the project facilities after they were established. There was no difference between the types of service received by Type I and Type II beneficiaries (Appendix 7, Tables 7 and 8). However, Type I beneficiaries received more antenatal care (58.6 percent), immunization (66.7 percent), food supplement ("Thri Posh") given to children and pregnant and lactating mothers (72.7 percent), and child growth monitoring (regular weighing, 47.5 percent) from GHCs compared with the services that Type II beneficiaries received from the health facilities existing before the establishment of the project health centers.

53. About 63 percent of Type I and 67 percent of Type II beneficiaries were of the view that there was a marked improvement in the services provided by the Bank-assisted health centers (Appendix 7, Table 9). Regularity of provision of services, improved quality of maternal and child health and family planning services, availability of a public health midwife 24 hours a day and easy access were given as reasons for the service improvements (Appendix 7, Table 10). About the same reasons were given by Type II beneficiaries for the improvement of services in Project health centers (Appendix 7, Table 11).

54. Most beneficiaries of both types were satisfied (Appendix 7, Table 9) with the services provided by Project health centers, a few being dissatisfied for reasons of lack of expansion of services, ill-maintained buildings, irregularity in the provision of services, and long waiting time (Appendix 7, Tables 12 and 13).

55. Since the major component of Bank assistance to this sector was the establishment of a large number of GHCs, which are primarily centers providing maternal and child health and family planning services, a sample of women was separately interviewed to obtain their perceptions regarding the services provided to them. Almost all the beneficiaries of these GHCs are women and children. About 91.5 percent of the women interviewed obtained services from the GHCs, SDHCs, and DHCs. Of the services provided to women, the most popular were the family planning services and ante-natal care (Appendix 7, Table 14). Women beneficiaries had a very positive view of family planning services provided at these centers, over 61.4 percent stating that the services were adequate. Some of the reasons for their satisfaction were the personal attention given by the public health midwife, her knowledge of family planning methods and her commitment to work.

56. The services provided to women through these health centers have contributed to the general improvement of their health status by way of reducing morbidity and mortality, reducing family size, improving their nutritional status, increasing their life expectancy, and indirectly having a positive impact on the family income.

B. Impact on Policy Adjustment

57. The restructured three-tiered primary health care model (GHCs, SDHCs, and DHCs) was originally conceived to integrate the provision of preventive and curative health care (Appendix 8, Figure 1). The integration was expected to be accomplished at the level of DHCs and SDHCs which were to be the referral institutions for GHCs which would be primarily concerned with preventive health care services.

58. It was found, after a few years of operation, that SDHCs and DHCs for various reasons (e.g. inclination of the doctors to concentrate more on curative services, staffing problems, etc.) did not function the way they were expected to. On the other hand, the GHCs were found to be functioning effectively and efficiently in achieving the desired objectives. This led the Ministry of Health to modify the primary health care model by focusing more on the provision of preventive health care through GHCs. The change in operational policy led to the construction of more GHCs in other parts of the country from the Government's own funds and external assistance from other funding agencies. Integration of the provision of curative and preventive health care is to be accomplished not through DHCs and SDHCs, but through a health administration devolution process to the provinces by a new position - the Divisional Director of Health Services - in the provincial health care delivery system (Appendix 8, Figure 2).

C. Impact on Government Expenditure

59. The construction of more GHCs, including those established subsequent to the first Project, the consequent recruitment of public health midwives, and subsequent operations and maintenance requirements, caused increases in the recurrent expenditure of the Government. The strain placed on the Government budget was great as the provision for maintenance of GHCs in general was generally considered inadequate by the officials interviewed. Public expenditure on health has increased fivefold in nominal terms from 1.34 billion rupees in 1980 to 6.54 billion rupees in 1992. As a proportion of total Government spending, it increased from 4.7 percent in 1980 to nearly 5.5 percent in 1992. The impact on Government expenditure is pertinent in the context of the persistent

Government deficit and the need to keep this within the target set by the Enhanced Structural Adjustment Facility being implemented by the Government with the support of the International Monetary Fund.

D. Impact on Institutional Development

60. Construction of new complexes, upgrading of existing infrastructure, supply of equipment, and provision of transport facilities to the project centers have enhanced the capacity of these institutions to serve the community better. Similarly, the capacity of the public health midwife who functions at GHC to provide better maternal and child health and family planning services to children and women has been improved by providing residential facilities, in-service training, and a bicycle under the Project. The public health midwife's image and credibility among the people whom she serves have improved considerably. Likewise the capacity of the SDHCs and DHCs to provide curative services to the people has been increased to a great extent by Project interventions.

61. The training component of the first Project, though restricted to public health midwives and public health inspectors assisted in improving the technical and managerial skills of the midwives and the health inspectors. The in-service training has enabled the public health midwife to improve the quality of her services and as perceived by the beneficiaries, her knowledge on family planning has also increased considerably. The enhanced training programs in the second Project cover a wider group of medical personnel and would further strengthen institutional capacity in the sector.

E. Social Impact

62. The social impact of the first Project is reflected in its impact on women and poverty reduction.

1. Impact on Women

63. Women hold a special status in the socioeconomic milieu of the country. Their contribution to socioeconomic development is considerable. The mother is an important member of the family, plays a prominent role in the affairs of the family, and often is the decision maker in health matters. Almost all the services provided at GHCs by the public health midwife and the other health staff are for women and children. Therefore, the impact on the improvement of health status of women has been considerable. Women in the project area have benefited from the maternal and family planning services provided by GHCs, SDHCs, and DHCs and also by the treatment facilities SDHCs and DHCs. Most of the respondents who participated in the women beneficiary survey have confirmed the improved quality of services provided by these centers, their easy accessibility, and a general improvement in the beneficiaries' health status over the years.

64. The maternal and child health and family planning clinics conducted at these centers are also occasions for social gathering of women. They bring together the mothers in the area. The discussions among women and mothers commonly center on health issues. One significant activity carried out at these clinics is the health education talk on current health topics given by the public health midwife to mothers and children. The result is an increased awareness of mothers about health and disease. The improved health status of women and the reduction in family size at least, indirectly account for the improved literacy among females, increased women's employment, and their contribution to the socioeconomic development of the country.

65. The impact of the first Project on women should also be considered in terms of its contributions to public health midwives who are all females, working at GHCs. Their number has increased because more public health midwives have been employed in the newly constructed GHCs, and their technical and managerial skills have been improved by training. These, in turn, have had a positive impact on the primary health care program, especially on women and children.

2. Impact on Poverty

66. The incidence of poverty in the rural areas is higher than that in urban areas. The selection of socioeconomically deprived areas for Bank assistance was pertinent in the context of the contribution that the improved health status of the people makes in enhancing the income level of individuals and families. It is impracticable to determine in quantifiable terms the economic benefits to the family brought about by improved health of the members. Easy accessibility and availability of health facilities thereby reducing travel time and cost, reduction in family size due to increased family planning acceptance, and the overall improvement in health status thus increasing employment opportunities and reducing work absenteeism have a direct impact on income generation and poverty reduction in the family.

F. Environmental Impact

67. No direct impact on the environment can be expected, given the nature of the Bank's assistance. However, Project interventions have brought positive impacts on the environment by way of improved sanitation caused by the increased awareness of people, especially mothers, of the sources of environmental pollution and methods of preventing their effects. Knowledge about proper disposal of household and garden refuse and the need to use sanitary toilets is generally imparted in the health education talks given to mothers at the clinic centers. Further, the adverse effects of excessive population growth on the environment can be reduced by effective family planning methods. Environmental sanitation is the primary responsibility of the public health inspectors who are part of the primary health care complex. Their knowledge and skills regarding this aspect were improved by the in-service training provided to them through the first Project.

VII. KEY ISSUES

A. Use of GHCs

68. The major impacts of the Bank assistance to the health and population sector have been generated through GHCs. As intended under the first Project, only preventive health services are available at GHCs. Many beneficiaries have suggested that some curative health services be provided at GHCs, indicating a demand for such services. To the extent that curative health services, which are part of general health care, could be provided at the most peripheral level, the impact of the first Project could be more extensive. GHCs would not only be more efficiently used, but a more comprehensive health delivery system would also be promoted. An issue is whether the provision of curative services will be consistent in the context of the Government's encouragement of private sector participation in providing health services. However, this concern may not be particularly relevant in the immediate future given the remote possibility of private doctors setting up practice in the rural areas served by GHCs. This issue can be studied in greater depth, perhaps with assistance from the Bank.

B. Private Practice of Government Medical Personnel

69. As part of the Government's policy to encourage private sector participation in providing health services, Government doctors are permitted to engage in private practice outside of office hours and of the health centers or hospitals in which they- are working. The majority of the 3,948 Government doctors are engaged in part-time private practice. Apart from the various instances of abuse, there is the inherent conflict of interest as the same patients visit the doctors both during and outside office hours. Given that the provision of curative services is more lucrative, doctors invariably gravitate toward focusing on curative work.

70. One of the reasons for the failure of the first Project in promoting fuller integration of the services mentioned earlier was apparently the inclination of doctors in charge of DHCs to devote more attention to hospital work (curative service) at the expense of preventive work, which also involves field visits. Hospital work services to keep the doctors in touch with the types of services required in private practice. Alternatives to ensure that adequate medical personnel would be available for preventive health care will have to be studied to remedy the situation.

C. Cost Recovery

71. The Government needs to consider alternative financing strategies as the increasing demand for services has not always been matched with increasing budget allocations. The policy of the Government has been not to impose fees on users of public health services, particularly the target groups. Some exceptions are, however, evident such as nominal charges collected at GHCs for condoms and contraceptive pills. The current thinking of the Government appears to be that, while preventive and promotive health care should continue free of charge, there are a number of service areas, particularly in secondary and tertiary curative care, where cost recovery is possible without affecting those unable to pay. The Government has initiated studies to look into the mechanism for some form of cost recovery measures such as health insurance and prepayment schemes. However, given the welfare orientation of the Government in regard to social services and the traditional political climate on such a sensitive sector as health, any cost recovery attempts may require considerable efforts.

D. Maintenance of Health Centers

72. Maintenance of GHCs in general is poor, with instances of leaking roofs, and inadequate water and electricity supply reported by those interviewed. The budget allocation for the maintenance of these centers is not specifically provided. Given the position of the public health midwives, it is difficult to ensure adequate funding from the general maintenance pool of medical facilities at the district level. But for their effective operation, GHCs must be maintained in a reasonable state of repair. Some public health midwives resorted to requesting voluntary supply of labor and materials from their clientele to make ad hoc repairs. While this is a reflection of the value placed by the beneficiaries on the GHCs, this is not a long-term solution. The maintenance of the DHCs and the SDHCs is somewhat better. Nevertheless, the majority of these centers do require renovation. Specific budgetary provisions for the maintenance of the health centers are the obvious solution.

E. Benefit Monitoring and Evaluation

73. The importance of setting up a BME system was recognized by the Bank as both the first and second Projects specifically provided for assistance to the Government in BME. The issue is whether the setting up of the system was vigorously pursued. It might not have been, so the component was suspended when difficulties in the recruitment of the consultants were encountered during the implementation of the first Project. The deteriorating law and order system at the time might have been a constraint, but would not have prevented the setting up of the system at the Ministry of Health, Highways and Woman Affairs. Furthermore, the absence of performance indicators by which to assess the effectiveness of the design of the first Project seems to indicate that the establishment of the system was not seriously thought through.

74. The installation of an appropriate BME system would have improved the efficiency of health care delivery system. In particular, it would have helped to monitor not only benefits during and after Project implementation but would have also ensured that relevant benchmark data by which to quantify the impact of Project intervention are compiled. Certainly, it would have alleviated the data collection problems often encountered in any postproject assessment caused by transfers and nonavailability of relevant government officers who were intimately connected with the Project and who could have provided reliable information.

75. The second Project specifically provided for assistance to the Government to set up a BME system. To date, the system has apparently not been fully set up and in the manner required. Progress reports on the physical and financial implementation of the second Project may have been made to the Bank by the Government. But this would not constitute the full BME system. It cannot be stressed too strongly that the system must be set up early, beginning with the compilation of benchmark data on beneficiaries.

VI. CONCLUSIONS AND RECOMMENDATIONS

76. To attain the goal of HFA 2000, the Sri Lankan Government in the early 1980s decided to restructure the existing health care delivery system by establishing the three-tiered primary health care complex in the country. The Health and Population Project, being the first Bank assistance in the health and population sector, was very timely to operationalize this Government strategy.

77. In relation to the health of the population, Bank assistance had some positive impacts based on the various health indicators and the perception of the beneficiaries. Similarly, in relation to reduction in the population growth rate, Bank assistance has contributed positively to increased family planning acceptance and dissemination of family planning advice and information, which have been major activities at the health centers and the rural district hospitals.

78. In terms of the impact of the Bank's assistance on policy adjustment, the first Project has helped the Government to make necessary policy changes to focus more on the delivery of health services through the most peripheral health centers (GHCs). These health centers were replicated by the Government either through its own funds or with the assistance of other funding agencies. The experience gained by the Government has influenced the subsequent policy changes with regard to the extension of the primary health care model (though modified) and the establishment of the Divisional Directorate of Health Services thus achieving the integration of preventive and curative services to some degree. Economic benefits, though not easily measurable, have been felt not only by the Government and the health administration but also by the people who were served by these facilities.

79. Based on the findings of the Study, the following recommendations are offered for consideration:

1. Recommendations for the Bank

- (i) Adequate project preparation with in-depth sector analysis, especially in a social sector like Health and Population, is crucial when designing and formulating a project. Such an exercise will help the Bank to identify the essential needs and the problems that may have to be anticipated later.
- (ii) Appropriate provisions for future impact evaluation should be considered from the start of project preparation. Clear definitions of anticipated health and other related impacts should be formulated and the relevant impact indicators and benchmark data should be identified for use in the future.
- (iii) The Bank should consider providing further assistance, if needed, to projects with successful components that it can build on rather than going into new projects. It will help to maximize the benefits arising from completed projects; often, full benefits are not realized because financial and other problems continue to affect project sustainability.
- (iv) The major problems in DMCs are in preventive health care. Hence, in the long term, more Bank assistance for projects in preventive health care can be more effective in improving health status compared with projects in the curative field.
- (v) The Bank should ensure full commitment of the Executing Agency in providing the necessary support, such as provision of required manpower, training, maintenance of facilities, etc., so that project benefits are maximized and sustained over the long term.
- (vi) It is necessary to determine the ongoing and anticipated involvement of other funding agencies in sectors assisted, or to be assisted by the Bank. Such knowledge will prevent the Bank from unnecessary and counter productive rescheduling of Bank assistance later.

2. Recommendations for the Government

- (i) The Government should ensure that specific budgetary allocations are made for the repair and maintenance of buildings, equipment, and vehicles provided by projects so that all potential benefits are enjoyed by the beneficiaries. Regular in-service training of the health personnel in the project health centers should be conducted to develop their technical and managerial skills.
- (ii) Most beneficiaries surveyed were concerned about the lack of basic curative facilities at GHCs. Since GHCs are well patronized, the Government should explore the possibility of providing at least outpatient services at GHCs.

3. Recommendations for the Bank and the Government

- (i) Project formulation and design should always be done with the full participation of not only the key government officials at the central level but also regional health administrators and care providers. Wherever possible, targeted beneficiaries should also be involved. This will create a sense of ownership among all concerned.

- (ii) Project implementation should be monitored more extensively and more regularly, so that problems can be identified early and corrective measures taken immediately. This monitoring exercise should be done not only in conjunction with the key officials at the central level but also with regional health administrators, health care providers, and, wherever possible, the beneficiaries. A project implementation unit staffed by health and other officials should be established right at the beginning of project implementation.
- (iii) All avenues of community involvement and participation should be explored during project implementation. Construction of buildings at low cost through community organizations, and donation of land and maintenance of facilities by the beneficiaries are examples of possible community participation. Active beneficiary involvement would give the community a sense of self-reliance and responsibility toward the sustainability of the project.