ASIAN DEVELOPMENT BANK
Operations Evaluation Department

PROJECT PERFORMANCE EVALUATION REPORT

IN THE

PHILIPPINES

In this electronic file, the report is followed by Management's response.

Performance Evaluation Report

Project Number: PPE: PHI 27010
Loan Number: 1331-PHI(SF)
July 2007

Philippines: Women's Health and Safe Motherhood Project

Operations Evaluation Department

Asian Development Bank

CURRENCY EQUIVALENTS

Currency Unit – Peso (P)

		At Appraisal (12 Oct 1994)	At Program Completion (1 Sep 2003)	At Operations Evaluation (30 Jun 2007)
P1.00	=	$0.04	$0.0182	$0.0216
$1.00	=	P25.57	P55.045	P46.195

ABBREVIATIONS

ADB	–	Asian Development Bank
AusAID	–	Australian Agency for International Development
DOH	–	Department of Health
GNP	–	gross national product
IEC	–	information, education, and communication
KfW	–	Kreditanstalt für Wiederaufbau
LGU	–	local government unit
MCP	–	maternity care package
MDG	–	millennium development goal
ODA	–	official development assistance
OED	–	Operations Evaluation Department
OEM	–	operations evaluation mission
PCR	–	project completion report
PhilHealth	–	Philippines Health Insurance Corporation
PMO	–	project management office
RRP	–	report and recommendation of the President
WHSMP	–	Women's Health and Safe Motherhood Project
UNICEF	–	United Nations Children's Fund
WHO	–	World Health Organization

GLOSSARY

barangay	smallest local-government unit in the Philippines
hilot	traditional birth attendant
kuliglig	tractor converted to passenger vehicle

NOTE

In this report, "$" refers to US dollars

Overall Assessment Methodology

Criterion	Weight (%)	Definition	Rating Description	Rating Value
1. Relevance	20	Relevance is the consistency of a project's impact and outcome with the government's development strategy, the Asian Development Bank's lending strategy for the country, and the Asian Development Bank's strategic objectives at the time of approval and evaluation and the adequacy of the design.	Highly relevant Relevant Partly relevant Irrelevant	3 2 1 0
2. Effectiveness	30	Effectiveness describes the extent to which the outcome, as specified in the design and monitoring framework, either as agreed at approval or as subsequently modified, has been achieved.	Highly effective Effective Less effective Ineffective	3 2 1 0
3. Efficiency	30	Efficiency describes, ex post, how economically resources have been converted to results, using the economic internal rate of return, or cost-effectiveness, of the investment or other indicators as a measure and resilience to risk of the net benefit flows over time.	Highly efficient Efficient Less efficient Inefficient	3 2 1 0
4. Sustainability	20	Sustainability considers the likelihood that human, institutional, financial, and other resources are sufficient to maintain the outcome over its economic life.	Most likely Likely Less likely Unlikely	3 2 1 0
Overall Assessment (weighted average of above criteria)	Highly successful: Overall weighted average is greater than 2.7. Successful: Overall weighted average is greater than 1.6 and less than 2.7. Partly successful: Overall weighted average is greater than 0.8 and less than 1.6. Unsuccessful: Overall weighted average is greater than 0.8.			

Source: ADB. 2006. *Guidelines for Preparing Performance Evaluation Reports for Public Sector Operations.* Manila. Available: http://www.adb.org/Documents/Guidelines/Evaluation/PPER-PSO/chapter3.pdf

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Operations Evaluation Department, PE-704

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The guidelines formally adopted by the Operations Evaluation Department (OED) on avoiding conflict of interest in its independent evaluation were observed in the preparation of this report. Marilyn Noval-Gorra was a public health specialist consultant. To the knowledge of the management of OED, there were no conflicts of interest of the persons preparing, reviewing, or approving this report.

Appendixes

Attachment: Management Response

BASIC DATA

Loan 1331-PHI(SF): Women's Health and Safe Motherhood Project

Project Preparation

TA No.	TA Name	Type	Person-Months	Amount ($)	Approval Date
1926	Women's Health and Safe Motherhood	PPTA	10	100,000	16 August 1993

Key Project Data ($ million)	As per ADB Loan Documents	Actual
Total Project Cost	67.5	33.4
ADB Loan Amount/Utilization	54.0	29.0
ADB Loan Amount/Cancellation		19.7

Key Dates	Expected	Actual
Fact-Finding		7–23 February 1994
Appraisal		6-24 June 1994
Loan Negotiations		10–11 October 1994
Board Approval		10 November 1994
Loan Signing		20 January 1995
Loan Effectiveness	20 April 1995	19 May 1995
Project Completion	December 2000	June 2002
Loan Closing	30 June 2001	16 October 2002
Months (effectiveness to completion)	68	79

Borrower Republic of the Philippines

Executing Agency Department of Health

Mission Data

Type of Mission	No. of Missions	No. of Person-Days
Fact-Finding	1	85
Appraisal	1	19
Project Administration		
Inception	1	12
Review	10	148
Midterm Review	1	41
Special Loan Administration	3	45
Disbursement	1	2
Project Completion	1	82
Operations Evaluation	1	55

EXECUTIVE SUMMARY

This project performance evaluation report presents the findings of the evaluation of the Women's Health and Safe Motherhood Project funded by the Asian Development Bank (ADB). This was ADB's first health-sector project in the Philippines. It was also the first ADB-supported project designed exclusively for improving women's reproductive health and well-being. The Project commenced in May 1995 and was completed in June 2002.

The rationale for the Project was that the Philippines had one of the highest maternal mortality ratios in Southeast Asia. Women's health in the Philippines had not been improving at the same rate as in other countries in the region. Nationally the maternal mortality ratio in 1990 was 209 per 100,000 live births, compared to the rate in neighboring countries such as Thailand at 140 per 100,000, Viet Nam at 140 per 100,000, and Malaysia at 59 per 100,000. The fertility rate of 3.1 births per woman was also one of the highest in the region. The Government gave high priority to improving women's health and developed a national program to achieve this. The Project provided support for implementing this government initiative. ADB had also accorded high priority to improving women's health in the Philippines.

ADB was one of five international partners involved in designing and financing the initiative. The ADB-supported component had three objectives: (i) to improve maternal care support; (ii) to develop and utilize integrated information, education, and communication (IEC) strategies; and (iii) to support the Project Management Office (PMO). The maternal care support focused on strengthening the referral systems and promoting the national Safe Motherhood Program. The IEC component sought to develop and utilize an integrated communication strategy to make women more aware of their health needs and encourage them to seek health information and services during and after pregnancy. The PMO was responsible for coordinating, planning, and implementing the Project activities, and for providing technical assistance, training, information, logistical, and financial support.

The evaluation gave special attention to the construction of benchmarks against which project performance was measured. These benchmarks included both "without" and "before" Project scenarios. Another feature of the evaluation was the assessment of project performance from the perspectives of both beneficiaries and health care service providers. The evaluation drew on national and regional health statistics, beneficiary household surveys, focus-group discussions, key informant interviews, site visits, and documentation reviews.

The Project is assessed "relevant" (score 2 on a 0 to 3 scale), "effective" (score 1.7), "less efficient" (score 1), and "likely" sustainable (score 1.6). Overall, the Project is assessed "partly successful" on a four-category scale of highly successful, successful, partly successful, or unsuccessful.

The Project was consistent with the government policy of addressing gender and maternal health issues as indicated in the Millennium Development Goals (MDGs), and it correctly identified the critical need to improve the quality and coverage of maternal health services. The project design also included the key interventions needed to make an impact on maternal health.

The Project upgraded 550 hospitals and rural health facilities, which were provided with general reproductive and emergency obstetric medical supplies. In addition, midwives were provided with 1.4 million safe home-delivery kits. The supplies were highly valued by health

professionals. The midwives' manual developed by the Project was the most frequently used reference at the primary care facilities. Over 5 million copies of home-based mother records in local languages were distributed. The record was used by all health centers for prenatal care and monitoring. Vitamin A capsules were given to lactating women and iodine capsules were given to women of reproductive age nationwide.

Both the frequency and quality of prenatal care increased over time in areas where the Project was implemented. Over 98% of the respondents from municipalities with the Project interventions reported to be satisfied with the prenatal services. The proportion of deliveries supervised by trained birth attendants also increased. As a result, maternal mortality decreased over time. More women with risky pregnancies consulted health professionals and were satisfied with the services.

There was some evidence of incidental effects outside the project target areas. The same basic design used by the Project for upgrading hospitals was also found in use in other locations. The quality assurance component is now an established framework for health center ratings and for providing training to health professionals. Similarly, home-based mother records were used outside the project area and these helped effectively monitor pregnancy conditions.

The Project strengthened the capacity of the Department of Health in the planning and management of women's health projects and in linking the various components of health services. The Project also contributed to strengthening the institutional capacity within the department for more effective management of donor-funded projects.

The Project was, however, ambitious in terms of outcome targets and spatial coverage. Several outcome targets, including increases in prenatal care coverage and 100% of deliveries to be supervised by trained attendants, were unrealistic. The Project covered 41 provinces and as a result the package of interventions was too thinly spread, with the actual coverage being less than 10% of the total health facilities per province. The Project did not achieve the threshold needed to make an impact at regional or provincial levels. The level of effort was too small to make such an impact even though the Project did yield some positive results at the local level.

The Project relied heavily on the PMO, which had limited experience, skills, and authority in managing a national project. Smooth implementation of the Project, which involved multiple aid agencies and also supported activities through a mix of grant and loan funds, would have required a relatively mature institutional setup, which was lacking at that time. In addition, the Project was implemented at a time when the responsibility for managing local development, including the health sector, was being devolved to local government units. The responsibilities and authorities of various public agencies were being redefined and established in the context of devolution. Insufficient consultation with local government units during project formulation created ownership problems. As a result, the Project suffered from substantial delays in implementation. The project completion report noted that the Project was largely dysfunctional up until the midterm review in 1998, more than 3 years after approval.

ADB's performance is assessed "satisfactory". ADB provided the leadership and facilitated the mobilization of resources from multiple aid agencies. The Project also broke new ground in aid agency cooperation in the Philippines' health sector. The common platform established by the Project for coordination of activities was an important institutional achievement.

A lesson derived from this evaluation is that a strong and well-functioning PMO within the executing agency is critical to the success of a project of this kind. Without such an office project outcomes are unlikely to be achieved and sustained, and this was the primary reason for the poor performance of the Project.

Two major follow-up actions are identified. The first is to develop a transitional strategy for the phasing out of home-based delivery, which the Government plans to replace with facility-based delivery. This is important because home-based delivery is still widely practiced. ADB should give consideration to assessing the long-term feasibility of facility-based delivery and developing an action plan that includes both the financial and human-resource implications. The second action is to develop a strategy for better integration of the IEC component of both ongoing and new women's health projects.

Bruce Murray
Director General
Operations Evaluation Department


PHILIPPINES
WOMEN'S HEALTH AND SAFE MOTHERHOOD PROJECT
(as completed)
Areas Assisted by the Project
National Capital
City/Town
National Road
Provincial Road
Provincial Boundary
Regional Boundary
Boundaries are not necessarily authoritative.
0 50 100 150
Kilometers
NCR - National Capital Region
ARMM - Autonomous Region in Muslim Mindanao
CALABARZON - Cavite, Laguna, Batangas, Rizal, Quezon
CAR - Cordillera Administrative Region
CARAGA - Agusan del Norte, Agusan del Sur, Surigao del Norte, Surigao del Sur
MIMAROPA - Mindoro, Marinduque, Romblon, Palawan
SOCCSKSARGEN - South Cotabato, North Cotabato, Sultan Kudarat, Sarangani, General Santos
South China Sea
Philippine Sea
PACIFIC OCEAN
Sulu Sea
Celebes Sea
Sibuyan Sea
Visayan Sea
Panay Gulf
Leyte Gulf
Bohol Sea
Moro Gulf
Babuyan Channel
REGION I Ilocos
REGION II Cagayan Valley
REGION III Central Luzon
REGION IV-A CALABARZON
REGION IV-B MIMAROPA
REGION V Bicol
REGION VI Western Visayas
REGION VII Central Visayas
REGION VIII Eastern Visayas
REGION IX Zamboanga Peninsula
REGION X Northern Mindanao
REGION XI Davao Region
REGION XII SOCCSKSARGEN
REGION XIII CARAGA
ARMM
NCR
CAR
119°00'E
125°00'E
16°00'N
8°00'N

07-0532 RM

I. INTRODUCTION

A. Evaluation Purpose and Process

1. The Women's Health and Safe Motherhood Project[1] (the Project) was purposefully selected by the Operations Evaluation Department (OED) for evaluation as this was the first health sector project of the Asian Development Bank (ADB) in the Philippines. The evaluation was judged important to draw lessons which could then inform future engagement decisions in the sector and to provide inputs for a planned update of the country assistance program evaluation for the Philippines. The evaluation was conducted 4.5 years after project completion on June 2002. An operations evaluation mission (OEM) was conducted intermittently for 4 weeks during December 2006 and January 2007. The OEM team visited three provinces supported by the Project, one in each of the island groups—Agusan del Sur province in Mindanao, Capiz province in the Visayas, and Quezon province in Luzon.[2]

2. The evaluation utilized the framework as specified in ADB's *Guidelines for Preparing Performance Evaluation Reports for Public Sector Operations*.[3] Specific attention was given to the construction of reference points against which project performance could be measured. These included both "without" and "before" Project scenarios. Another important aspect of this evaluation report is the assessment of project performance from the perspectives of beneficiaries and health care service providers.

3. The evaluation drew upon analysis of national and regional health statistics, beneficiary household surveys, focus-group discussions, key informant interviews, site visits to the Project-supported health facilities, and document reviews.[4] The key informant interviews were conducted with senior government officials of the Department of Health, local government units (LGUs) from provincial and municipal offices, and the National Economic and Development Authority. Interviews were also conducted with the consulting firms and independent consultants involved in the Project. Interviews with officials and service providers at provincial and municipal hospitals, rural health units and barangay[5] health stations were conducted. The OEM team conducted over 120 key informant interviews, and visited 9 hospitals (provincial and district), 18 rural health units, and 9 barangay health stations. Ten focus-group discussions were conducted with maternal care providers (midwives and *hilots*[6]) from rural health units that had been supported by the Project and others that did not receive support. A beneficiary household survey was conducted in Capiz province. Four municipalities and 17 barangays were included in the survey. A sample of 102 households was selected using a multi-stage sampling process (Appendix 1).

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[1] ADB. 1994. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Republic of the Philippines for the Women's Health and Safe Motherhood Project*. Manila.

[2] The OEM comprised Samjhana Shrestha, Mission Leader; Christine Infantado, Portfolio Evaluation Officer; Oscar Amiel Badiola, Senior Operations Evaluation Assistant; and Marilyn Noval-Gorra, Public Health Specialist Consultant.

[3] ADB. 2006. *Guidelines for Preparing Performance Evaluation Reports for Public Sector Operations.* Manila. Available: http://www.adb.org/Documents/Guidelines/Evaluation/PPER-PSO/default.asp.

[4] The OEM team selected the provinces and the health facilities for the study. The facilities were informed of the purpose of the OEM visit in advance. Site visits included all upgraded hospitals in the three selected provinces, more than half of the upgraded rural health units and *barangay* (footnote 5) health stations, and almost equal number of rural health units and barangay health stations that were not upgraded. The methodological approach for household surveys and focus-group discussions is described in Appendix 1.

[5] A *barangay* is the smallest local-government unit in the Philippines.

[6] *Hilots* are traditional birth attendants.

4. A project completion report (PCR) was prepared in 2004.[7] In broad terms, the PCR considered that the Project was implemented as conceived and had achieved most of its output targets. The Project was reported to be fully consistent with ADB's policies for health sector development and for meeting essential reproductive health needs of the Philippines. The PCR assessed the Project "successful" based mainly on the achievement of quantitative and qualitative output targets. The PCR assessed the Project "highly relevant" despite acknowledging that the Project's geographical coverage and some outcome targets were overly ambitious, given the state of the health services at the start of the Project and the short time frame of the Project. The Project was assessed "effective", "less efficient", and "likely" sustainable. No economic analyses or design and monitoring framework were included in either the PCR or the report and recommendation of the President (RRP). The PCR also did not include assessment on the basis of outcome indicators although targets based on those indicators were specified in the RRP.

5. The PCR noted that the Project was designed at a time when major changes were taking place in the institutional setup in the health sector and in the operation of local governments. A major institutional change was the devolution of administrative power to the LGUs.[8] The PCR argued that ADB and the Department of Health (DOH) did not fully anticipate adverse effects of the devolution on project performance and noted that there were delays in various aspects of project implementation as a result. Some civil works were not completed until the final stage of implementation and the capacity-building objectives were not fulfilled. The Project was "…largely dysfunctional pre-midterm review phase…" (footnote 7), and achieved most of its target outputs only after the midterm review in December 1998 when major changes in project implementation were introduced.

B. Project Objectives and Expected Results

6. ADB was one of five international partners involved in designing and financing the national Women's Health and Safe Motherhood Project (the national WHSMP).[9] The main goals of the national WHSMP were to improve the health status of women, particularly those of reproductive age, and to support the country's long-term goals of reducing fertility, female morbidity, and maternal mortality.

7. The ADB-supported components[10] had three subcomponents.

(i) **To improve maternal care support.** This subcomponent was focused on improving the provision of maternal care services and referral systems, and on strengthening the national Safe Motherhood Programs.

(ii) **To develop and utilize integrated information, education, and communication (IEC) strategies.** The purpose of this subcomponent was to make women more conscious of their health needs, and encourage them to seek health information and health services during and after pregnancy.

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[7] ADB. 2004. *Project Completion Report to the Board of Directors on Women's Health and Safe Motherhood Project (Loan 1331-PHI).* Manila.

[8] Health sector devolution became effective in 1991 and started implementation in 1993.

[9] The title, Women's Health and Safe Motherhood Project, is used by both the ADB project and the national project. The term "the Project" is used in this report to refer to the ADB project, while "the national WHSMP" is used to refer the national project.

[10] The national WHSMP had four components consisting of (i) women's health services; (ii) institutional development; (iii) community partnership for women's health; and (iv) policy, operations research, and evaluation (footnote 1). ADB provided support to parts of components (i) and (ii). This report pertains only to the ADB component.

(iii) **To support the Project Management Office (PMO).** The PMO had responsibility for coordinating and planning the national WHSMP activities, in addition to implementing the ADB component. It was also expected to provide technical assistance, training, information, and logistical support.

8. The Project covered all three island groups—Luzon, Visayas, and Mindanao—and included 41 provinces.[11] The provinces selected were based on high incidences of poverty and maternal mortality. Eight quantifiable targets specified in the RRP were (i) a 25% reduction of the maternal mortality ratio, (ii) a 10% reduction in the incidence of low birth weight, (iii) an increase in prenatal care coverage to 100%, (iv) an increase in the rate of deliveries supervised by trained attendants to 100%, (v) provision of referral services for all high-risk pregnancies and obstetric emergencies, (vi) a 50% reduction in the incidence of iron deficiency anemia and iodine deficiency disorders among women of reproductive age, (vii) a 50% reduction in the incidence of vitamin A deficiency among children under 1 year of age, and (viii) provision of tetanus toxoid vaccine to all pregnant women. This list consists of a mix of outcome and impact targets. The first, second, sixth, and seventh are impact targets; the rest are outcome targets.

II. DESIGN AND IMPLEMENTATION

A. Formulation

9. ADB, the Australian Agency for International Development (AusAID), the European Union, Kreditanstalt für Wiederaufbau (KfW) of Germany, and the World Bank cofinanced the national WHSMP. ADB also provided technical assistance for this project preparation.[12]

10. The support provided by other cofinanciers on maternal health, such as that by KfW for additional medical equipment and AusAID for training of health professionals, was directly linked with the ADB Project. This focused approach and strong links with the activities of other financiers enabled the Project to provide good quality medical support for improving maternal health. The Project adopted the dual strategy of promoting safer delivery both at home and in facilities. Using this appropriate dual strategy, the Project quickly strengthened the capacity of hilots and health professionals.

11. The Project would have benefited from more consultation with different DOH units during its formulation. A more consultative approach involving different stakeholders—including units within DOH, officials in regional DOH offices, LGU officials, and health professionals—might have ensured greater ownership of the Project and better understanding of the needs and challenges of public health care facilities. Such a consultative approach may have led to a more realistic assessment of constraints to achieving the specified targets, and the formulation of more realistic targets. There was no baseline data on the targeted population and public health centers. Information on key reproductive health factors—including catchment population, number of health workers, accessibility to health facilities, general availability of equipment, and medical and other supplies—was lacking.

12. The Project was ambitious in its scope and spatial coverage. It included 41 provinces, despite being the first ADB-supported health project in the Philippines. The health infrastructure and local capacities in these provinces were fragmented at the start of the Project. While these

[11] Originally, 40 provinces were targeted. At the onset of the Project, Kalinga Apayao split to become two separate provinces under the Republic Act 7878. In total, there are 79 provinces in the Philippines.
[12] ADB. 1993. *Technical Assistance to the Philippines for Women's Health and Safe Motherhood*. Manila.

conditions indicated the need for the Project, they also highlighted the potential constraints in achieving project objectives, especially when activities were thinly spread. These realities were not adequately considered during project design.

B. Rationale

13. At the appraisal phase, the Government had given high priority to improving women's health and had developed a national program on women's health. The Project provided support for implementing this Government initiative. ADB had also accorded high priority to improving women's health in the Philippines, and so this Project was in line with the priorities of both the Government and ADB.

14. At the time of project appraisal, the Philippines had one of the highest maternal mortality ratios in Southeast Asia. Women's health in the Philippines had not been improving at the same rate as in other countries in the region. The national maternal mortality ratio was 209 per 100,000 live births compared to the rate in neighboring countries such as Thailand (140 per 100,000), Viet Nam (140 per 100,000), and Malaysia (59 per 100,000). The maternal mortality ratio was even higher in rural areas where medical services were limited (footnote 1).

15. The Project remains relevant to ADB's country strategy and program (2005–2007), which considers the health sector as an important area for ADB investment.[13] It also remains a priority sector for the Government as the maternal mortality ratio is quite high. According to Government estimates, maternal mortality accounts for about 14% of all deaths of women of reproductive age.[14]

16. In the millennium development goal (MDG) progress report, the probability of achieving MDG targets regarding maternal health in the Philippines was considered to be low to medium unless substantial investments are made in this sector.[15] The leading causes of maternal mortality were identified to be postpartum hemorrhage and hypertension complications of pregnancy, obstructed labor, and complications resulting from abortion (Appendix 2). Most of these preventable problems result from inadequate information on family planning, inadequate prenatal care, poor obstetric care, inadequate management of obstetric emergencies, and weak referral systems. Maternal mortality has profound effects on the welfare of the household. The death rate of children under 5 years of age increases by over 50% in the absence of a surviving mother (footnote 1). Poor maternal health affects women's productivity and the family welfare. Safe motherhood is a critical part of any broader strategy for improving women's health, nutrition, gender equality, and status. These considerations make the Project relevant in both the current and past contexts of the need to improve women's health.

C. Cost, Financing, and Executing Arrangements

17. The Asian Development Fund provided the loan for the Project. The appraisal cost of the Project was estimated at $67.5 million, of which ADB was to finance 80% ($54 million); the Government was expected to finance the remaining 20% ($13.5 million). The loan amount was reduced twice (in May 1999 and July 2001) to the final figure of $33.4 million. Expenditure on different components was: maternal care (79%), IEC (15%), and the PMO (4%); the remainder

[13] ADB. 2005. *Country Strategy and Program (2005–2007). Philippines*. Manila.
[14] DOH. 2005. *National Objective for Health (2005–2010). Philippines*. Manila.
[15] The Philippines Progress Report on the Millennium Development Goals, cited in ADB. 2005. *Country Strategy and Program (2005–2007). Philippines.* Manila.

was for service charges. The budget allocated for training was not utilized at all and only 36% of the budget allocated for equipment and supplies was utilized. Depreciation of the peso in 1997 by more than 100%[16] also contributed to utilization of only about 50% of the total approved budget. There were some increases in costs, especially on civil works and on purchase of delivery tables. An increase in civil works costs resulted from variations in orders and additional construction required as a result of faulty designs used by the original civil works team.[17] The additional expenditure for civil works amounted to $1.77 million. The breakdown of costs for the project components at appraisal, and the actual expenditures, are provided in Appendix 3.

18. DOH was the executing agency. The PMO was set up at DOH to plan, manage, and implement the Project, as well as to monitor and evaluate its performance. DOH and LGUs entered into project implementation agreements following devolution.[18] The DOH regional offices coordinated and provided assistance for the implementation of region-wide activities. Following the midterm review in 1998, the PMO was placed under the newly created Women's Health and Development Program unit within DOH for better institutional support.

D. Procurement, Construction, and Scheduling

19. The Project encountered considerable and repeated delays in civil works and in procurement of medical equipment and supplies. The construction delays were the result of poor coordination among the engineers and inappropriate design of health care facilities. The construction design did not give adequate consideration to the national codes, standards, and regulations as they related to health care facilities. As a result, substantial modifications of the civil works were required, particularly for those related to electrical work. Although the consulting firm was asked to rectify these deficiencies, the design errors persisted. Consequently DOH terminated the services of the consulting firm and bidding for new contractors continued up until 7 months prior to the final closing date of the Project.

20. Procurement of medical equipment and supplies was substantially delayed due to (i) difficulties in the preparation and finalization of technical specifications; (ii) difficulties in the identification and validation of appropriate recipients; (iii) lengthy procurement processes, particularly in the evaluation of bids, resolution of award, and review of contracts by the Office of Legal Affairs; and (iv) the Government's moratorium on procurement in August 1998. In view of the delays, ADB approved the request of DOH to engage the United Nations Children's Fund (UNICEF) as a procurement agent for some micronutrients and medical supplies. However, even the procurement of these took longer than expected. The last batch of procurement for medical supplies was contracted in mid-2002. The Project was completed in June 2002, 18 months later than scheduled, after being extended twice. Loan accounts were kept open until October 2002 to accommodate submission and processing of eligible withdrawal applications.

E. Design Changes

21. The Project was implemented largely as conceived. However, the following changes were made to avoid duplication and to better synchronize the project activities with the support provided by other cofinanciers: (i) the provision of the IEC component, micronutrients, and home-based mother record was expanded to include the whole country rather than being limited

[16] The Philippines peso was about P25.57 = $1 at appraisal, and depreciated to about P55 = $1 at the close of the Project.
[17] DOH. 2003. *Women's Health and Safe Motherhood Project, Project Completion Report.* Manila.
[18] Under devolution, LGUs play the major role in health care delivery and DOH can act only in conjunction with LGUs.

to 41 provinces; (ii) some refrigerators for blood banks and for general clinical use were distributed to hospitals other than those that had been initially identified; (iii) 270 gynecological examination couches were purchased for the upgraded barangay health stations; (iv) DOH changed its policy and started to implement the Project directly from 1999 rather than through a consultancy firm (para. 43); and (v) all funds allocated to tetanus toxoid vaccination and part of the funds allocated to the micronutrient component were diverted for the purchase of emergency surgical supplies, with DOH using other funds to provide tetanus toxoid and micronutrients (footnote 17).

F. Outputs

22. Most of the targets related to physical outputs and capacity-building activities were achieved, despite the delay of 3 to 4 years. These delays, however, limited the achievement of other targets such as the provision of support services, scaling up of successful interventions, and institutionalization of maternal care services. The delay also contributed to poor synchronization of the project activities with the training provided by AusAID.

1. Maternal Care: Strengthening Referral System

23. The upgrade and renovation of public health facilities was undertaken to strengthen the maternal care referral systems. Facilities were upgraded and renovated in the provincial and district hospitals, rural health units and barangay health stations. Lying-in clinics and maternity waiting homes were constructed and pilot tested to provide added facilities for primary maternal care.[19] In total, 550 health facilities were upgraded, which is close to the number initially planned (Table 1). Fewer provincial hospitals were upgraded than planned as some had access to assured national funds for maintenance and operation.[20] At the request of LGUs, two district hospitals and three rural health units that were not initially targeted were renovated under the Project.

Table 1: Summary of Civil Works Completed

Health Facilities	Planned Number	Actual Number	Difference Number
Provincial Hospitals	40	36	(4)
District Hospitals	54	56	2
Rural Health Units	160	163	3
Barangay Health Stations	280	270	(10)
Maternity Waiting Homes	15	15	0
Lying-In Clinics	10	10	0
Total	**559**	**550**	**(9)**

Source: DOH. 2003. *Women's Health and Safe Motherhood Project, Project Completion Report*. Manila.

24. Renovations and upgrades were carried out in parts of the facilities related to the provision of maternal care services. At the provincial and district hospitals, the upgrades

[19] Lying-in clinics provide postpartum care and stabilization of women suffering from obstetric complications, a safe delivery location, and a bed in which to rest for a few hours before returning home. Generally, post-delivery counseling on mother and child care, family planning, and other aspects of women's health are provided. Maternal waiting homes provide high-risk-pregnancy women with a temporary residence (where they can be monitored for obstetric complications) and thereby enable early management by health professionals.

[20] These hospitals had been converted to regional hospitals and had received funding from the national budget for upgrading or renovations.

generally included (i) labor, delivery, and recovery rooms; (ii) examination, operating, septic, isolation, and sterilizing rooms; (iii) a nursery for intensive neonatal care; (iv) reception and resting rooms for service providers; and (v) water, sanitation, and electrical facilities. The upgrades in the rural health units and barangay health stations included (i) the repair of roofs, ceilings, and gutters; (ii) improvements in electricity, water supply, and sanitation facilities; (iii) the provision of a private room for examinations and counseling; and (iv) the provision of observation and reception areas for clients. Some of the upgrades were done in facilities that were housed in very old buildings. Some rural health units were not upgraded as their structural foundations were judged to be too weak to support the upgrades. Most facilities visited by the OEM were operational and in use for maternal care purposes as had been planned. However, some of the upgraded rural health units and barangay health stations did not have the basic facilities (i.e., running water; sanitation facilities; and sound roofs, ceilings, and gutters) that were specified in the design. On the other hand, upgrades at some rural health units included facilities additional to those planned, mainly due to better negotiating skills of the manager of these health facilities. Almost half of the rural health units were outside the catchment area of upgraded first-level referral hospitals despite the original plan of locating them within such catchment areas.[21] These discrepancies resulted mainly from insufficient information on health services and poor planning.

25. The upgraded hospitals were supplied with medical equipment such as anesthesia machines, blood bank refrigerators, and laboratory refrigerators. Eighty-eight anesthesia machines were provided as planned, and 92 blood bank refrigerators and 48 laboratory refrigerators were supplied. During the OEM site visits, anesthesia machines were found to be in working condition except in one district hospital. However, the OEM was unable to locate either type of refrigerator in most of the hospitals visited.[22]

26. The upgraded rural health units and barangay health stations were provided with basic furniture and transport. The furniture and fixtures included hospital beds, bedside tables, medicine cabinets, clerical tables, and bulletin boards. Each of the 270 upgraded barangay health stations was provided with gynecological examination couches. This item had not been included in the original plan of the Project but was provided later as the cofinanciers had exhausted the funds allocated for medical equipment. Most of these items were appropriate, operational, and generally well maintained and utilized.

27. The transportation facilities were provided for the rapid transfer of high-risk women from their place of residence or from primary health care facilities to the nearest first-level referral hospital. The Project-funded transportation devices included motorboats, hand-carrier stretchers, modified tricycles, *kuliglig*,[23] and motorcycles. Each of the upgraded rural health units was provided with one of these items. Most of the devices in the provinces visited by OEM were found to be inappropriate for emergency transportation of pregnant women. Even when they were suited to the purpose, they were too few in number to service the needs of the whole community. Motorcycles were mostly used for the general operation of rural health units.

[21] For example, in Agusan del Sur province in Mindanao, only two of the four upgraded rural health units (in Trento and Veruela municipalities) were within catchments of the upgraded Bunawan District Hospital.

[22] Some of the upgraded hospitals were equipped with refrigerators supplied by the national voluntary blood services program. The Project-supported refrigerators were diverted to other hospitals as reported in the DOH project completion report (footnote 17).

[23] Tractors converted to passenger transport vehicles.

28. As part of improving service delivery capacity, a Life Cycle Approach[24] was pilot tested in Leyte and Palawan provinces. The main objective of pilot testing was to provide DOH with an initial assessment of the benefits of this approach and potential implications of its adoption on a broader scale. The results of pilot testing indicated that the approach was appropriate for providing maternal health care and safe motherhood health services as well as other community health services. On the basis of this finding, DOH recommended adoption of this approach into all health programs. The OEM did not find evidence of implementation of this recommendation as health officials interviewed during focus-group discussions were mostly unaware of the approach.

2. Maternal Care: Support of the National Safe Motherhood Program

29. This component of the Project covered the provision of micronutrients, a home-based mother record and medical supplies, and the establishment of maternal information systems.

30. The micronutrients distributed were vitamin A and iodine capsules, and ferrous sulfate (iron) tablets. This intervention was aimed at reducing deficiency disorders among the vulnerable groups, especially pregnant and lactating women. A total of 270 iron tablets were allocated per pregnancy for use from the 3rd month of pregnancy to the 3rd month after delivery. Vitamin A capsules were given to lactating women and iodine capsules were given to women of reproductive age. Micronutrients were supplied nationwide and were in generally high demand, but supply was often inadequate.

31. The home-based mother record was used to monitor progress of pregnancies and to identify danger signs and high-risk pregnancies. Pregnant women received the record when they first visited health centers for prenatal care. It was used to record the progress and treatments for the entire duration of the pregnancy. The information recorded was used to identify and refer high-risk cases to the first-level referral hospitals and to make the required preparation for delivery. The home-based mother records were supplied nationwide, with more than 5 million copies in English, Filipino, and various predominant local dialects distributed. This tool was highly appropriate, was used by all centers for prenatal care, and was effective in providing a quick overview of the history of the pregnancy.

32. The upgraded health facilities were provided with general reproductive and emergency obstetric medical supplies. In addition, the main maternal health workers (midwives and hilots) were provided with safe home-delivery kits. Approximately 1.4 million home-delivery kits were distributed. The provision of general reproductive and emergency obstetric medical supplies had not been planned at the design phase but were included as part of a support package during implementation. The supplies were highly valued by health professionals.

33. The quality assurance initiative focused on improving the public health facilities and the capacity of service providers. A quality assurance model was developed and successfully pilot tested in several provinces. Also, a quality assurance manual was developed to facilitate learning and to serve as an operations manual. The main purpose of the quality assurance subcomponent was to provide safer and more hygienic health care and privacy during consultations. The current program to confer a national seal of quality for all public health

[24] The Life Cycle Approach focused on organizing the health sector to deliver care to clients most at risk, provide continuous care, develop relationships between clients and service providers, and integrate the health delivery interventions.

facilities, through Sentrong Sigla[25] certification, was based on the initiatives of the quality assurance subcomponent.

34. The maternal death review and maternal geographic information system were two subcomponents initiated during project implementation. Two main outputs of the maternal geographic information systems were the National Health Atlas, and maternal health modeling. The former provided location-specific information on health care facilities; the latter was a model developed to gauge the effect of public health facilities on maternal health. The maternal geographic information system laboratory was established at the Information Management Services of DOH. Reference materials, manuals, and guidelines for maternal death reviews were developed. The maternal death reviews were conducted in most of the upgraded public health facilities.

3. Information, Education, and Communication (IEC)

35. The IEC component was launched to enable women to take proactive roles in seeking information on health issues, particularly on reproductive health. The IEC plan incorporated gender perspectives and emphasized women's right to quality health services. It focused on empowering women in order for them to achieve better health. Strategies and interventions were developed to make IEC more responsive to women's health concerns and to realize its potential as a cost-effective approach to improving women's health.

36. Four activities included in this component were (i) research to determine the level of awareness, knowledge, attitude, and practice of women's health; (ii) national advocacy focused on raising the awareness of LGU executives, civic groups, and communities on women's concerns; (iii) the development of gender-friendly and cost-effective materials for improved communication and wider information distribution; and (iv) the translation and distribution of prototype messages into English and predominant local dialects.

37. Additional IEC activities undertaken were the development of (i) a website on safe motherhood; (ii) a midwives' manual on maternal care;[26] (iii) an obstetric-emergency calendar; (iv) monthly advocacy activities, puppet shows, and radio and television programs; (v) DOH official publications (e.g., Healthbeat); and (vi) the Social Marketing Initiatives for maternity waiting homes and lying-in clinics, safe home-delivery kits, and micronutrient supplements.

38. Most of the planned IEC activities were completed. The IEC research conducted was appropriate for addressing women's health issues, was of good quality, and was based on well-established methodologies. The midwives' manual was the most frequently used reference at the primary care facilities. However, there were some inconsistencies in the generation and dissemination of information, some of the IEC components were delivered in a fragmented manner, and links across different subcomponents were limited. Most IEC outputs were completed towards the end of the Project and so broader implementation was limited. The allocated budgets for training and support activities were not fully utilized. The institutionalization of outputs was limited as the training and fine tuning were not adequately accomplished.

[25] *Sentrong Sigla* is a joint effort of DOH and the LGUs, aiming to promote availability of quality health services in health centers and hospitals and to make these services accessible to every Filipino. Its main component is the certification and recognition program that develops and promotes standards for health facilities. The program is being implemented nationally.

[26] DOH. 2000. *Midwives Manual on Maternal Care.* Manila.

4. Project Management Office

39. The PMO had the responsibility of coordinating and planning the national WHSMP activities in addition to implementing the ADB component. It was also expected to provide technical assistance, training, information, and logistical support. The office carried out its work through a network of DOH staff including DOH work units, consultants, and contractual staff.

40. The PMO faced considerable difficulties during project implementation. Initially, the office did not have the support from DOH leadership and lacked the required authority to carry out its functions (paras. 46–47). In addition, the lack of clarity on the roles and responsibilities resulted in poor coordination with technical programs and services sections in DOH. The Project was largely centrally managed by DOH, and consequently the regional DOH offices did not have the required decision-making authority. Some of the other difficulties were (i) financial management problems such as slow disbursements and lack of familiarity with aid agency procedures and reporting requirements, (ii) insufficient capacity and experience to manage the complex project environment, and (iii) lack of experience in dealing with consultancy firms and individuals. These problems were aggravated by the loss of coordination, communication, and control when the health sector was devolved.

41. Following the midterm review, DOH instituted a number of changes. The establishment of a Women's Health and Development Unit within DOH, with the full mandate to plan and coordinate women's health activities, significantly improved project implementation. The establishment of the unit provided a stronger institutional base from which to carry out regular monitoring of progress and performance. Other changes and reforms included direct involvement of the unit in (i) coordinating technical interventions, (ii) the appointment of separate directors for administration and program activities, (iii) the hiring of additional finance staff in regional offices, and (iv) the appointment of an experienced project management consultant. In addition, a project executive committee, which included regional and provincial health officials, was established.

G. Consultants

42. Fourteen person-months of international and 387 person-months of domestic consulting services were included in the project design. The international consultancies were mainly for providing technical support. The domestic consultancies were intended to support project management and design, and were for the construction and supervision of the civil works.

43. After a 1-year delay, a consultancy firm, the Philippine Center for Population Development, was internationally recruited to provide technical support and develop design plans for civil works and the IEC component. The consultancy firm did not have the required experience working with government agencies and had never been involved in construction work. The firm was selected mainly because it was known for IEC work and its bid included an impressive list of well-recognized consultants. The construction component was subcontracted to a well-known firm. However, the subcontractor lacked experience in hospital construction. After more than 2 years, the subcontract was terminated in February 1999 due to poor performance in civil works. The change in DOH policy to implement the Project directly rather than through consultancy firms led to the termination of the contract with the Philippine Center for Population Development.[27]

[27] DOH had also cancelled the contract of a consultancy firm of another ADB project, Integrated Community Health Services Project (Loan No. 1396-PHI[SF]).

44. DOH later hired several nongovernment organizations and individual consultants who completed most of the planned activities, although this was accomplished on a more limited basis than was originally envisaged. With the exception of the quality assurance consultant, none of the previous consultants were rehired.

H. Loan Covenants

45. The PCR reported that the loan covenants were generally complied with. The OEM found that inadequate attention was given to quality control although formal administrative procedures were generally followed. For example, the hiring of consultants, procurement, and operational maintenance records were followed as per the guidelines but inadequate coordination and supervision resulted in long delays and inefficiencies. Insufficient consultations were held with regional DOH offices, LGUs at provincial and municipality level, and health service providers. Final contract payment was generally made upon the inspection by the regional DOH office and not by the PMO as stipulated. Monitoring and supervision of the renovated hospitals by the PMO was also limited. The baseline benefit monitoring and evaluation was not conducted until halfway through the Project.

I. Policy Framework

46. The Project was implemented when the health sector was undergoing major changes soon after its devolution. The roles and responsibilities of DOH and LGUs for the health sector were being defined and established. In the devolved system, financing and implementation arrangements became the responsibility of the LGUs (provinces, municipalities, and barangays) while the responsibility for overseeing the health sector development for the country remained with DOH. The lack of experience at the LGUs for designated tasks caused considerable problems during the initial stages of implementation.

47. The political situation was fluid during project implementation and the country had three presidents (and six health secretaries) during the 8-year period. The changes in political leadership saw DOH and the LGUs go through major changes at senior-management level. These changes in personnel and policies created substantial challenges for project implementation.

48. The 1997 Asian financial crisis resulted in substantial depreciation of the peso. This reduced the local costs of the Project in dollar terms.

III. PERFORMANCE ASSESSMENT

A. Overall Assessment

49. Overall, the Project is assessed “partly successful” (Table 2). The rating is one level lower than assessed in the PCR. The reasons for the variance are (i) the downgrading of rating for relevance by one level, and (ii) the changes in assigned weights as a result of reduced numbers of evaluation criteria as specified in ADB’s evaluation guidelines (footnote 3). Separate assessments of components and subcomponents are provided in Appendix 4.

Table 2: Assessment of Overall Project Performance

Criterion	Weight (%)	Assessment	Weighted Rating	Weighted Rating
Relevance	20	Relevant	2.0	0.4
Effectiveness	30	Effective	1.7	0.5
Efficiency	30	Less efficient	1.0	0.3
Sustainability	20	Likely	1.6	0.3
Overall Rating		**Partly successful**		**1.5**

[a] Weighted rating was derived from the individual ratings given to each component on the basis of the budget share. Although the PMO actual expenses were approximately 4%, OEM assigned the weight of 15% to account for its critical role in project implementation (Appendix 4).

Source: Operations evaluation mission assessment.

50. The Project was consistent with the government policy to address gender and health issues in compliance with the MDG target, and correctly identified the critical need to improve the quality of health services for women. Considering that this was the first ADB-assisted project in the Philippine health sector, and given that PMO was not fully responsible for project operations (paras. 40, 47), the project design was overly ambitious (paras. 57–58). The project design also failed to provide adequate budget support to implement the benefit monitoring and evaluation component, and neglected to make adequate provisions for strengthening the administrative systems, particularly procurement and financial management of the executing agency (para. 40). Despite the delay, the Project delivered most of the expected outputs, although the quality of outputs was uneven across components (paras. 71–72).

51. During implementation, the performance of consultants was mixed and the contracted management consulting firm performed below expectations (para. 43, 68). Given its complexity and the large number of aid agencies and implementing partners involved, the Project did not give enough attention to linking its various components and unifying the key participants as a team. Too much responsibility was placed on the PMO, which had limited capacity, experience, and stature to assert authority and coordinate the elements of the Project.

B. Relevance

52. The Project is assessed “relevant”. The Project was consistent with government priorities and ADB’s country strategy and program (paras. 13–16). The Project was an important step in (i) establishing a platform that facilitated multi-agency collaboration for coordination and review of all components of the national WHSMP, (ii) identifying needed actions, and (iii) establishing joint agreements on actions to be taken by all partners involved.

53. The main focus of the Project on improving maternal health was appropriate. The Project’s dual strategy of making home and facility-based delivery safer was relevant (para. 10). The Project’s technical design accurately reflected the strategy to reduce the cause-specific maternal mortality and morbidity by promoting (i) a system for identifying risk, (ii) awareness regarding the signs of obstetric emergency, and (iii) a system of community-based referral capable of providing appropriate clinical management and emergency treatments.

54. Technical components of the Project (paras. 28, 30–31, 33–34) were essential and critical to the success of the national Safe Motherhood Program. The IEC component identified key information gaps in women’s health issues and identified appropriate strategies to address

them. These components supported by the Project were linked with, and built on, maternal health programs established prior to the Project. Several planned components of the maternal health programs were pilot tested and implemented as part of the Project (para. 28).

55. The Project was, however, overly ambitious on several fronts (para. 12). It relied on the PMO staff who had limited experience of national or aid agency-assisted projects. Smooth implementation of the Project involving multiple aid agencies which supported the activities through a mix of loan and grant funds would have required a relatively mature institutional setup that was lacking at that time. The somewhat ad hoc creation of the office at DOH, without clear definition of the roles and responsibilities of different departments and units, created coordination and implementation problems (para. 40). The devolution to LGUs that was taking place added further complications (para. 46). The project design failed to anticipate the administrative complexities resulting from the devolution and did not incorporate the required response strategies needed to address the potential implementation problems.

56. Inadequate consultation during project design created ownership problems among DOH program units and LGUs which played key roles in project implementation and operation (paras. 11, 51). At the time of evaluation, there were still a few staff members within DOH central and regional offices who did not seem to have ownership of the Project. The project design made little provision to remedy this difficulty at start up, other than stating in the covenants or conditions that project implementation agreements should be executed between DOH and participating LGUs. However, engendering ownership may not have been entirely within the control of PMO as external factors also affected this aspect (paras. 46–47).

57. The Project was ambitious in its spatial coverage (para. 12). The institutional capacity was not adequate to take on the complex issues that needed to be addressed in many provinces. The project design did not adequately reflect these realities.

58. The package of interventions, while appropriate, was too thinly spread (four municipalities per province and two barangay health stations per municipality) to have a measurable impact. The actual coverage within the target provinces was limited, as less than 10% of the total health facilities per province were included (Appendix 2). The project design could have benefited from strategic choices in investment given the contextual factors and equity issues encountered while selecting the number of municipalities and barangays to be included. It seems that during the project design a decision was made to increase the number of provinces and reduce the coverage within each province. The project outcome targets (including 100% supervised delivery and 100% antenatal care) were unrealistic given this level of coverage. A focused approach of increasing the coverage within the province but keeping the number of provinces smaller would have improved the performance of the Project, especially in the context of institutional constraints that were apparent at the time of project design. The specified outcome targets were unrealistic as project interventions were spread too thinly.

59. The Project remains relevant to ADB's country strategy and program (paras. 15–16). The MDG progress report has made a prognosis that the country has to substantially increase its efforts to improve maternal health to achieve the MDG target. Accordingly, the Government has given maternal health a high priority and is intensifying its efforts to ensure 100% access to reproductive health services by 2015 (Appendix 2). For ADB, improvements in maternal health are also important in the context of its broader strategy for attaining the nonincome-related MDGs.[28]

[28] ADB. 2006. *Medium-Term Strategy II (2006–2008)*. Manila.

C. Effectiveness

60. The Project is assessed "effective." The PCR analyzed the effectiveness in terms of output targets only. The OEM assessed effectiveness by comparing the achievements with the specified outcome targets (para 8).[29] The OEM considers that the Project made substantial progress towards meeting the outcome targets although the level of achievement varied across targets. Overall, higher levels of achievement were indicated at local levels than at the provincial or regional levels. Analyses at different levels of aggregation (regional, provincial, municipal, and household levels) were conducted for this assessment (Appendixes 1 and 5).[30]

61. A summary of achievements based on the four outcome targets is provided below.

(i) **Target 1: An Increase in Prenatal Care Coverage to 100%.** Household survey data indicated a high level of achievement at 98% (Appendix 1). In addition, over 98% of the respondents from municipalities with project interventions reported that they were satisfied with the prenatal services (Appendix 1). An improvement in prenatal care was indicated by the higher frequency of prenatal consultations and the higher proportion of women obtaining services from professionally trained health care providers in intervention municipalities (para. 75). The aggregate data also indicated positive achievements as prenatal care attendance by medical professionals increased over time nationally and in high-intervention and medium-intervention regions (Appendix 5). The targeted 100% coverage was ambitious given the limited geographic scope and the increasing difficulty of expanding the extent of the service as the coverage approaches 100%.

(ii) **Target 2: An Increase in the Rate of Deliveries Supervised by Trained Attendants to 100%.** The household survey data indicated that the proportion of supervised deliveries in intervention municipalities was 22% higher than in nonintervention municipalities (Appendix 1). The analysis of aggregate data also indicated that the proportion of deliveries supervised by trained birth attendants increased in high-intervention regions, in all but two medium-intervention regions, in one of the two low-intervention regions, and in all but one of the five nonintervention regions (Appendix 5). In addition, the proportion of deliveries at a health facility also increased over time, although home delivery is still the dominant practice in most regions (Appendix 5).

(iii) **Target 3: The Provision of Referral Services for All High-Risk Pregnancies and Obstetric Emergencies**.[31] Household surveys and focus-group discussions indicated that in intervention municipalities a higher proportion of women with risky pregnancies consulted health professionals and were satisfied with the service (Appendix 1). The effectiveness of referral and medical care systems in intervention municipalities was also indicated by higher frequencies of normal

[29] Four of the eight quantifiable targets specified in the appraisal report (para. 8) were impact targets. The assessment based on these impact targets is covered in Section IV Other Assessments.

[30] The impact pathway that shows how the project activities contribute to the achievement of eight targets was not described in the project document. This makes it difficult to judge the appropriateness of the quantitative targets specified.

[31] This indicator is vague on quantitative and qualitative targets. No estimate of the total number of high-risk pregnancies and obstetric emergencies were made at project design and no baseline estimates were done during project implementation.

births and lower frequencies of miscarriages than in nonintervention municipalities. The home-based mother records distributed by the Project were used widely to identify high-risk pregnancies and to make referrals to appropriate medical facilities (Appendix 1). Although the national data for 2003 indicated that only 44% of women were advised to attend a specific facility when pregnancy complications existed, the top referral facilities cited were those upgraded by the Project (Appendix 5).

(iv) **Target 4: The Provision of Tetanus Toxoid to All Pregnant Women.** Both the regional and household survey data indicated that the target was only partially achieved. (Appendixes 1 and 5). Although this was one of the outcome targets at the project appraisal stage, the project design was subsequently changed and the funds allocated were used to provide other medical supplies, with DOH agreeing to provide tetanus toxoid using its own funds (para. 21).

62. The PCR reported that the medical equipment and supplies were procured according to ADB's *Guidelines on Procurement.* The Project contributed to (i) the upgrading of obstetric and emergency facilities and services, (ii) the establishment of referral systems for basic and emergency needs, and (iii) the provision of information and support for maternal care services. Project facilities visited by the OEM were operational and in use. Furthermore, the evaluation found that some of the Project's outputs have spread to nonintervention municipalities and provinces, even at the national level. For example, the upgrade of hospitals in nonintervention districts in Quezon province was based on the same basic design that was used in the Project. The quality assurance component is now an established framework for health center ratings and for providing training to health professionals. Similarly, home-based mother records were also used outside the project area and these aided effective monitoring of pregnancies. Thus, there was some evidence of incidental effects outside the Project target areas.

63. The Project was effective in strengthening the capacity of DOH in planning and managing women's health projects and in linking various components of health services. The Project also contributed to strengthening the institutional capacity within DOH for more effective management of aid agency-funded projects (paras. 97–99).

64. Micronutrient supplements were distributed free to pregnant women. However, delay in distribution, inadequate, unbalanced and infrequent supplies, and insufficient monitoring of use limited the effectiveness. Obstetric emergency supplies were made widely available to provincial and district hospitals (para. 77). However, the supply was provided only once in most cases. Similarly, disposable home-delivery kits were distributed to the trained hilots in the project target areas, but in most cases only once (para. 78).

65. The provision of IEC was a part of the strategy for institutional development. Initial analyses were done to identify the medical, nutritional, and social factors contributing to poor maternal health and mortality. However, this knowledge was not used adequately and consistently for advocacy, targeting, and information dissemination. The information brochures, leaflets, and posters were only distributed towards the end of the Project and the contents were not adequately explained to the recipients. It was difficult to find evidence of continued use of the materials (which were developed and produced under the IEC subcomponent) at the primary and referral health care facilities or at DOH headquarters when these places were visited during the OEM. Successful practices were not documented or institutionalized, nor was information about them widely disseminated. Reported successes in LGU advocacy on gender and governance, empowerment of women, and women-friendly health care delivery in the pilot

sites had not been disseminated and promoted, either as best practices or as models for other LGUs to emulate.

66. The training provided by AusAID was also not fully utilized as the implementation of the IEC component commenced almost 3 years after this complementary training was completed. This illustrates both the importance and difficulty of coordinating the delivery of assistance provided by different aid agencies. Performance improved substantially following the midterm review. The initial delays, however, curtailed the implementation of planned activities and reduced their effectiveness.

D. Efficiency

67. The Project is assessed "less efficient." The delay in project commencement, poor coordination and management, design changes, inappropriate design specifications of medical equipment, poor supervision and performance of consultants, and cumbersome procurement and financial management procedures increased the overall cost of the Project.

68. The project activities were poorly coordinated and managed. Several revisions of the construction design plan and remodeling increased the overall cost. The Project encountered considerable and repeated delays in the construction of civil works, procurement of medical equipment and supplies, and the implementation of IEC activities. Design guidelines used initially for the construction of health facilities were inadequate and did not conform to the regulations and standards specified by the Government. Costs increased as some construction work already completed had to be redone to meet the required standards. The additional expenditure for civil works due to design changes and modifications amounted to $1.77 million (para. 17). Consultants were generally poorly supervised. When consultants were changed, the work already completed by the previous consultants was not properly passed on to the new consultants. This led to some degree of duplication and higher costs.

69. The provision of services over most of the project area was substantially delayed (paras. 19–20). There were project start-up delays, and subsequent delays occurred during the implementation phase. Some district hospitals and rural health units had to suspend their usual mother-care services during the prolonged and staggered process of upgrading of physical facilities. The PMO was not effective in supervising, guiding, and coordinating the project activities. This was rectified to a certain extent after the midterm review but valuable time was lost prior to this.

70. The predominant reasons for hesitation to transfer pregnant women to referred centers were the perceived high cost of delivery and the transportation cost (Appendix 1). The transportation provided by the Project was not cited to have been used for this purpose in any of the rural health units visited by the OEM. Inappropriateness of emergency vehicles for transporting pregnant women to referral facilities for emergency treatment led to underutilization and wasted resources. For example, the *kuliglig* (tractor converted to passenger vehicle) in Quezon province was unacceptable to both medical service providers and patients. The motorcycles in Agusan del Sur province were used for transporting supplies and taking the service providers to clients for home-based services, although they were not intended for this purpose (Appendix 1).

71. The responsibility for resupply and replenishment of micronutrients and home-based mother records was not clearly articulated. Operational and logistical problems in the distribution of home-based mother records and micronutrients resulted in surpluses in some places while

other locations experienced shortages. This resulted in inefficiency and higher overall costs. Much of the financial burden for sustaining the use of these inputs was passed on to clients via a system of user fees (for home-based mother records) or prescriptions (for micronutrients and essential drugs) given during consultation at the health center or hospitals. Local health care providers claimed that they prioritized the neediest clients for rationing of the limited free supplies, but this is an inefficient way of delivering public health services as rationing generally results in misuse, poor targeting, and creates opportunities for corruption.

72. Increased cost and inefficiency also resulted from the decision to upgrade only the women's section of some old health facilities that were structurally in poor condition. This was a mistake that shortened the life of the upgraded section of the facility. For example, in one province the facility upgraded by the Project was totally destroyed when the local government decided to demolish the entire building to make way for a new structure. Similarly, in another place, attaching the upgraded section to the old structure exposed it to termites which then infested the upgraded building.

73. Much of the IEC component was completed only towards the end of the Project (para. 38). This resulted in the failure to link the various IEC elements with each other and with other components of the Project (para. 65). It also resulted in a failure to deliver the IEC component as a package suitably supported by training. Much of the IEC program relied on traditional information dissemination processes that were used prior to project intervention. These factors contributed to the "less efficient" rating.

74. The key informant interviews indicated that the cost of service delivery in remote provinces was higher than in more accessible provinces. Inclusion of remote provinces is likely to have reduced the overall cost efficiency, although the provision of medical services in such areas may be desirable on other grounds (para. 110).

75. On a positive note, the household survey and focus-group discussions indicated a reasonably high degree of utilization of services provided by rural health units and a higher proportion of satisfied users in intervention areas (Appendix 1). The improved maternal care services and facilities increased the range of services provided as well as the number of clients served. The benefit monitoring and evaluation also indicated an increase in the utilization of key services (including prenatal visits, postpartum care, and iron, vitamin A and iodine supplementation) between 1996 and 1999.[32] The Project improved the capacity of rural health units and barangay health stations for service delivery. Household surveys indicated a higher level of awareness (Figure 1) regarding maternal health.[33] Trained hilots and barangay health workers encouraged clients to seek medical interventions for early detection and treatment of complications. This resulted in the avoidance of expensive and complicated treatments later on. These indicators point towards cost efficiency of service delivery. Empirical studies have found that interventions such as the provision of referral services and gynecological and obstetric treatment, which are important components of the Project, are generally cost effective in other developing countries.[34]

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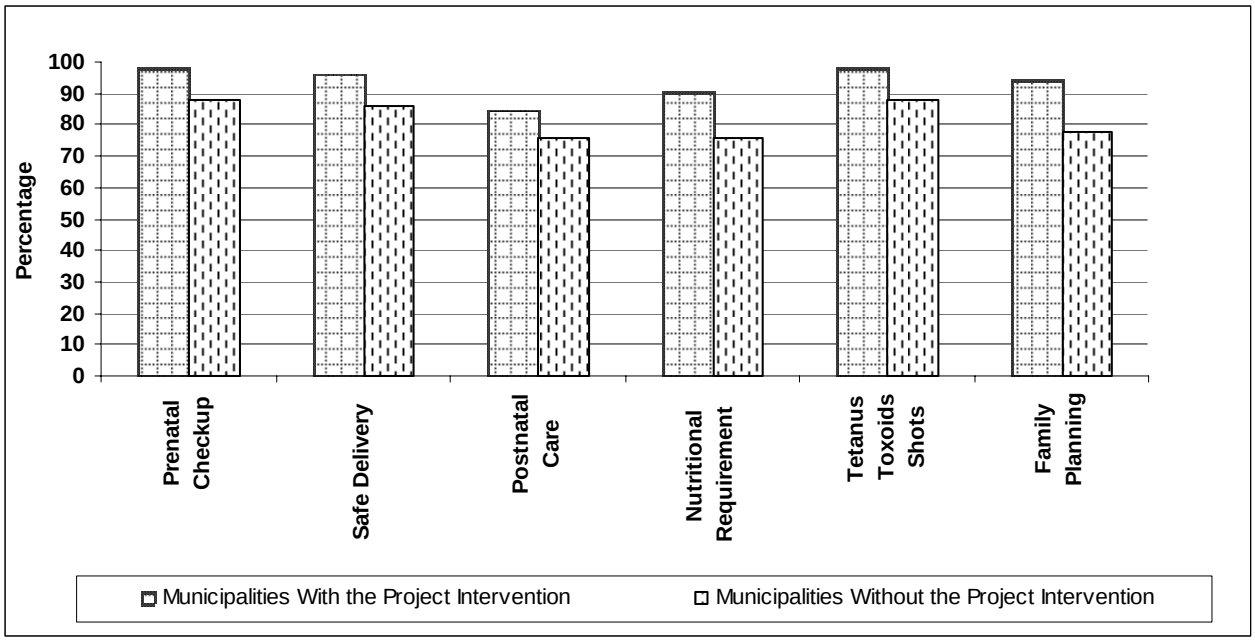
[32] DOH. 2000. *Benefit Monitoring and Evaluation Study*. Manila.

[33] The benefit monitoring and evaluation study similarly indicated a general improvement in awareness about delivery care services. The result was, however, mixed with respect to awareness and satisfaction regarding other components.

[34] Adam Taghreed, Stephen S Lim, Sumi Mehta, Zulfiqar A Bhutta, Helga Fogstad, Matthews Mathai, Jelka Zupan, and Gary L Darmstadt. 2005. Cost Effectiveness Analysis of Strategies for Maternal and Neonatal Health in Developing Countries. *British Medical Journal*. Available: http://www.bmj.com/cgi/search?fulltext=maternal+health

Figure 1: Percentage of Respondents Indicating Awareness of the Need for Maternal Health Care Services in Capiz Province



Source: Operation evaluation mission household survey.

76. No economic or financial analyses were done during the project preparation or on completion. The OEM did not estimate the economic (or financial) internal rate of return, due to the lack of the required benchmark data. Information needed to estimate the economic benefits includes the economic value of labor productivity losses avoided as a result of improved maternal health and the overall reduction in transport costs when medical services of high quality are available locally through barangay health stations and rural health units. Estimates of these key parameters applicable to the project areas were not available. During the household survey and focus-group discussions respondents identified reductions in maternal mortality and morbidity and greater accessibility of maternal care services as distinct economic and health benefits of the Project.

E. Sustainability

77. The Project is assessed "likely" sustainable. The support provided for maternal care and safe motherhood components has been mostly sustained. During the OEM site visits, the upgraded buildings and equipment were found to be in relatively good condition and well utilized. In Infanta municipality in Quezon province, most of the supported facilities were operational despite damage due to recent floods and landslides as the required repairs were done quickly.[35] Various other components of the program have been institutionalized and were being supported by national and local organizations. Home-based mother records have been well accepted and rural health units have reproduced them for wider distribution. Micronutrients continue to be supplied by DOH and the supply of emergency obstetric medications was

[35] Three typhoons between 13 November and 3 December 2004 affected the coastal towns of Real, Infanta, and General Nakar in Quezon and Dinggalan in Aurora. Extraordinarily heavy rains resulted in flash floods, landslides, slope failure, and debris flow which devastated the communities, leaving many people dead and causing extensive property damage.

sustained in health facilities currently receiving support from various donors. Awareness of LGUs regarding maternal care has improved and some LGUs have augmented funding to rural health units. Similarly, lying-in clinics are being replicated outside the project target areas. Basic emergency obstetric care and emergency obstetric care referral systems have been accepted as being suitable and are being further strengthened (Appendix 2). Some of the improvements in the health sector initiated by the Project have now been institutionalized and are being implemented nationwide (para. 62). A notable one is the Sentrong Sigla (footnote 25) certification of rural health units and barangay health stations.

78. DOH is in the process of adopting a policy on facility-based delivery attended by formally trained health professionals as the way to substantially reduce maternal mortality (Appendix 2). The timetable for implementing the policy nationwide has not yet been clearly specified. The policy shift means that positive project outcomes that supported the home-based approach are unlikely to be further augmented. Foremost among these outcomes are the training of hilots and the continued use of the highly effective home-based mother record for monitoring high-risk pregnancies. Under the new policy, all pregnancies are considered risky and therefore require in-facility delivery. An administrative order has been issued by DOH to stop the training of hilots based on the notion that the training had not led to necessary behavioral changes among hilots and the use of their services was one of the main causes of maternal death.[36]

79. Almost all provincial and municipal health officials and service providers interviewed during the OEM affirmed that training of hilots was both useful and necessary to reduce the risk of maternal mortality. While facility-based delivery may be the right long-term solution for improved maternal care, its cost and feasibility needs to be further studied and assessed, particularly in those areas where home deliveries currently account for over 80% of total births.

80. During the focus-group discussions, almost all provincial and municipal health officials and service providers interviewed considered the full implementation of facility-based delivery to be simply unfeasible given the current limited capacity and coverage of public health facilities. The responsibility of implementing the new policy rests with LGUs, as they bear ultimate responsibility for financing and sustaining the required infrastructure, supplies, and personnel. This is simply beyond the capacity of most LGUs. Hence, a suitable strategy for phasing in the implementation of the new policy is needed.

81. Financial sustainability of the Project is less certain as DOH and LGU budgets are likely to remain very tight. However, one promising source of funding is the Philippine Health Insurance Corporation (PhilHealth) (Appendix 2). PhilHealth has recently introduced two new benefit packages, the Capitation Fund for Indigent Program and the Maternal Care Package. Both directly support LGUs in the provision of better public health services. While the Capitation Fund for Indigent Program extends the number of potential beneficiaries, the Maternal Care Package covers prenatal and postnatal treatments, normal delivery, and other reproductive health care at rural health units, lying-in clinics, and other public health facilities.[37] Even at this early stage of introduction of the package, it has increased the local interest in the provision and improvement of maternal care at rural health units in Capiz and Agusan del Sur provinces. The LGUs are now willing to invest more in maternal care to provide potentially high financial benefits to their constituents. The scheme was the main impetus for the recent upgrading of existing birthing facilities, the opening of new facilities, and the expansion of reproductive health

[36] Research is needed to validate this claim as contrary evidence exists that maternal death among women attended by hilots is lower than for in-facility delivery (footnote 13).
[37] PhilHealth Board Resolution No. 486, S. 2002. The National Health Insurance Program is run by PhilHealth.

care services at rural health units in Agusan del Sur province. The private sector is also encouraged by the scheme, leading to a trend towards the provision of private clinics for maternal care in rural areas. The private clinics can be expected to ease the load on the public health facilities and provide some level of competition for improving service quality. There is a general perception in the health sector that for the package to be more effective, LGUs would need to accelerate the enrollment of all constituents in PhilHealth and the accreditation of facilities for the Maternal Care Package. Currently, the accreditation process requires two steps: Sentrong Sigla certification and PhilHealth accreditation, each with its own separate documentation and application requirements. Unifying these two steps will save costs and time, and avoid potential confusion and conflict with the separate assessment criteria. DOH has established a task force to explore merging of the Sentrong Sigla certification and PhilHealth accreditation processes.

82. The continued interest among the aid agencies in reproductive health and the urgency to make progress towards achieving the MDG goal on maternal health are likely to sustain some of the outputs and outcomes generated by the Project. All major international agencies working in the health sector in the Philippines have projects on reproductive health. Of the 15 international agencies supporting health projects, nine are supporting maternal health issues (footnote 13). Of the five cofinanciers of the Project, four have implemented follow-on projects.[38] The World Bank has partly financed the second phase of the national WHSMP. The follow-on projects are built on many of the outputs of the referral and safe motherhood components of the Project. There are clear opportunities for supporting the IEC activities in the second phase of the national WHSMP.

83. The Project provided some continuity to previously established programs, in particular, those related to maternal geographic information systems and maternal care packages. DOH has made an effort to ensure continuity of the project outputs by incorporating these elements into other aid agency-supported activities on maternal health. For example, the information contained in the Midwives Manual on Maternal Care has been incorporated into the UNICEF Child and Mother Care Program. The manual is being reproduced and distributed widely. The OEM team found the manual in use in various municipalities, including in some that were not supported by the Project.

84. Institutionalization of most of the project outputs, a high degree of ownership of some of the outputs, a promising financing framework under PhilHealth, and continued aid agency support are likely to enhance the sustainability of the Project. Despite the policy shift towards facility-based delivery, this approach is likely to take considerable time to fully implement. In the meantime, support for home-based delivery provided by the Project will continue to generate benefits.

IV. OTHER ASSESSMENTS

A. Impact on Achievement of the Millennium Development Goals

85. The fifth MDG is to improve maternal health. The first and second targets for achieving this MDG are to reduce the maternal mortality ratio by 75% from the 1990 base and to increase

[38] ADB's follow-on project is the Health Sector Development Program (Loan No. 2136-PHI). Initially, this program was prepared for a loan amount of $33 million but was later reduced to $13 million to support investment in three provinces only. ADB has therefore learnt from its experiences of WHSMP and moved to targeted interventions, and to giving comprehensive support to the project site.

access to reproductive health services to 100% by 2015.[39] The Project contributed directly to achieving this MDG although it was developed before the MDGs were adopted.

86. The most recent authoritative maternal mortality statistics of the National Demographic Health Survey estimated that in 1998 there were 172 maternal deaths per 100,000 live births (Appendix 5). This represented a decline from 209 per 100,000 live births in 1990. As Project implementation did not take effect until after 1998, this decrease cannot be attributed to the Project. The maternal mortality ratio estimates for 2003 were not included in the database so no comparable data is available to determine the post-project status of this target. Using infant mortality rates as a proxy,[40] the maternal mortality ratio decreased by 17% between 1998 and 2003 (Appendix 5). Applying this percentage reduction figure to the National Demographic Health Survey data for 1998, the estimate of the maternal mortality ratio for 2003 is 143 maternal deaths per 100,000 live births (Table 3). This estimate represents a 32% decrease in the maternal mortality ratio in 2003 relative to the corresponding value for 1990.[41]

87. The Field Health Service Information Systems data on maternal mortality is available for more recent years.[42] Based on this database, the national maternal mortality ratio decreased from 100 deaths per 100,000 live births in 2000 to 70 deaths per 100,000 live births in 2005. The same database, when disaggregated to the provincial level, indicated a 59% reduction in the maternal mortality ratio between 2000 and 2005 in over 60% of the provinces that received Project support. The civil registry database also indicated a reduction in the maternal mortality ratio, which is estimated to be 138 deaths per 100,000 live births in 2003 (footnote 14).

88. Overall, progress seems to be on track, as the target for 2010 is a 57% reduction. The information obtained from focus-group discussions with midwives indicated that the maternal mortality in their service areas had decreased from two to three annually over the past 5 years to one or none currently (Appendix 1). The midwives indicated that this decrease was related directly to Project activities such as the provision of information to improve awareness, support for safe home delivery, and provision of prenatal and postnatal care services. These various data sources generally indicate progress in line with the MDG target.

[39] Available: http://millenniumindicators.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm. The second indicator was stated as increasing attendance at birth by skilled health personnel. The ADB *Country Strategy and Program* (2005-2007) uses a much broader indicator of access to reproductive health. This approach has been used in this analysis.

[40] Infant mortality rate is a sensitive indicator of the general health status of the population and is linked to maternal mortality in the sense that maternal death could raise the risk of infant death. Infant mortality rates could therefore be an indirect measure of maternal well-being. The reductions in infant mortality could partly be attributed to maternal survival (Appendix 5).

[41] The regional data showed that the decrease in the infant mortality rate ranged between 25.5% and 67.4% in the high-intervention regions (Appendix 5). The term “high-intervention region” refers to regions where all provinces in the region were supported by the Project (Appendix 5).

[42] The Field Health Service Information Systems database is considered to be less reliable as there are problems with consistency of the data series over time. However, this database indicated a similar trend to the analysis using National Demographic Health Survey data.

Table 3. Millennium Development Goal Targets and Achievement

Year	MMR	Reduction Relative to 1990 (%)	Data Source
1990	209		NDHS estimate (Appendix 5)
1993	191	9	NDHS estimate (Appendix 5)
1998	172	18	NDHS estimate (Appendix 5)
2003	143	32	Estimate based on IMR proxy (Appendix 5)
2010	90	57	Target[a]
2015	53	75	Target[a]

IMR = infant mortality ratio, MMR = maternal mortality ratio, NDHS = National Demographic Health Survey.

[a] ADB. 2005. *Country Strategy and Program (2005–2007). Philippines* . Manila; and NDHS.

Source: Operations evaluation mission.

89. The MDG target for the number of pregnant women accessing reproductive health services in 2005 was set at 60%. The target has been achieved at the national level when judged by three indicators (Table 4). The national estimates indicated that (i) 70% of pregnant women visited the health services at least four times during their pregnancy; (ii) 60% of births were attended to by doctors, nurses, or midwives; and (iii) 66% of women had visited the health facilities for postnatal care in 2003. The household survey data also indicated that the municipalities supported by the Project had achieved the target. Municipalities that did not receive support from the Project did not show similar progress.

Table 4: Access to Reproductive Health Services

Reproductive Health Indicators	National %	Beneficiary Household Survey: Intervention Municipalities %	Beneficiary Household Survey: Nonintervention Municipalities %
Pregnant women with four or more prenatal visits	70	85	81
Birth attended by professional health service providers	60	67	42
Women with at least one postnatal visit	66	67	51

Source: National Demographic Health Survey. 2003. *Philippines National Demographic Health Survey 2003.* National Statistics Office, Manila; and operations evaluation mission beneficiary household survey.

90. The available evidence thus indicates that the progress made in achieving the goal of improving maternal health is consistent with the targets. While the Project has contributed to this progress as indicated by the disaggregated regional-level data, household surveys, and focus-group discussions, this progress is the combined result of many programs and projects, not just the one being evaluated. The contribution of the Project towards the achievement of the MDG, although positive, cannot be estimated separately due to attribution difficulties.

B. Impact on Other Maternal Health Targets

91. The appraisal document indicated four impact targets (para 8). The first impact target (the reduction in maternal mortality ratio) has been discussed above. The second impact target was a reduction in low birth weight by 10%. Household survey data indicated a positive achievement in terms of reduction in incidence of low birth weight although the achievement

was below the target (Appendix 2). The project design did not have any direct intervention targeted at birth weight, although there must have been some positive incidental benefits of maternal health interventions (Appendix 5). In terms of aggregate data, improvements were indicated in two regions (Appendix 5).

92. The third impact target was a reduction by 50% in the incidence of iron deficiency anemia and iodine deficiency disorders among women of reproductive age. A lack of benchmark data and data at project completion made it impossible to measure the achievement of this target. Nevertheless, household survey data indicated that proportionately more women received iron supplements in intervention municipalities than in nonintervention municipalities (Appendix 1). Similarly, aggregate data showed some increase in the proportion of pregnant women who received iron supplements between 1998 and 2003 (Appendix 5).

93. The fourth impact target was a 50% reduction in the incidence of vitamin A deficiency among children under 1 year of age. As with the previous target, measurement was not possible due to the lack of benchmark data and ex post data on the incidence of deficiency. Household survey data indicated that the proportion of women who received vitamin A supplements was substantially higher in intervention municipalities than in nonintervention municipalities (Appendix 1). Using the proportion of children under 5 years who received vitamin A supplements as a proxy, the data indicated some progress nationally, especially in the regions with high intervention levels (Appendix 5).

C. Impact on Gender and Ethnicity

94. The Project made a substantial impact in creating awareness about women's reproductive health issues and in incorporating gender and ethnicity perspectives for improved delivery of community health services. The Project linked diverse gender issues such as domestic violence, women's rights, and reproductive health. Family planning needs are now articulated in terms of women's right to choose. Equity across different income groups and regions is being emphasized in the provision of health services in national programs.

95. During the focus-group discussions, midwives and hilots considered the delay in referral treatments as one of the main reasons for maternal death. The service providers faced more difficulties convincing women from ethnic minority groups to seek treatment. This hesitation stems from cultural barriers and language unfamiliarity. Increased awareness of these issues among health service providers and involvement of midwives from varying cultural backgrounds have helped address this issue.[43] The provision of IEC and other maternal care information packages in English, Tagalog and several major regional dialects, including Ilonggo, Ilocano, and Visayan, also helped to overcome these cultural and linguistic barriers.

96. The Project helped integrate traditional and community-based maternal care services and tap women's traditional knowledge on maternal health service delivery. The services of hilots and barangay health workers, who form the backbone of the primary health care system, were recognized in the Project and these workers were provided with opportunities for enhancing their capacity.[44] Their integration into the local health service-delivery system extended the reach and accessibility of project benefits, contributed to improved community relations, and helped elevate the status of the local health system as a provider of quality care.

[43] For example, training on ethnic and cultural aspects provided to health service providers in rural health units at Sibagate municipality, Agusan del Sur province, is producing positive results.
[44] In 2002, there were 54,667 trained hilots and 16,534 midwives in public health services (footnote 14).

Trained hilots extended the services to more remote areas beyond the effective reach of health centers.

D. Institutional Impact

97. The Project had a substantial institutional impact. It provided a platform for various donor agencies and stakeholders to come together to implement the national WHSMP. It served as a base from which to link subcomponents supported by various international agencies. The lessons from the Project are being utilized to develop and refine national policies, standards, and guidelines for improving maternal health. Among the notable ones are (i) the linking of safe motherhood and family planning policy; (ii) the development of guidelines on essential care during pregnancy, childbirth, and postnatal; and (iii) the formulation of protocols to manage complications during pregnancy, childbirth, and abortions. The Sentrong Sigla system for certification of public health facilities has been nationally implemented, with over 53% of rural health units and 3% of barangay health stations being currently certified under this system. A policy requiring health centers to conduct maternal death reviews has been developed. The required links with the international health agencies (UNICEF, United Nations Population Fund, and World Health Organization) for the implementation of these new initiatives have been established (footnote 14).

98. Drawing from the experience and recommendations of the Project, DOH has made a number of policy reforms. As the executing agency of the first project with multiple aid agency assistance, DOH gained a wealth of experience on aid agency relations and coordination. The establishment of the Bureau of International Health Corporations and unified PMO as permanent entities in DOH to coordinate donor agency assistance for all health projects is a notable aspect of institutional development. Other elements that have been institutionalized by DOH are (i) the system of joint reviews and the preparation of a single integrated report for projects supported by multiple aid agencies, (ii) the organization of workshops with stakeholders prior to project closing to identify follow-on actions, and (iii) the provision of funds for the recurrent and operating costs of broadening appropriate interventions.

99. Most rural health units supported by the Project have now established comprehensive prenatal and postnatal maternal health packages. Medical check-ups at these facilities are more comprehensive and include advice on maternal care and nutritional requirements, family planning, and counseling on financial planning. During prenatal check-ups, pregnant women are more frequently briefed on community-based basic emergency obstetric care and comprehensive emergency obstetric care referral systems. The transportation arrangements to the referral hospital are also discussed for high-risk pregnancies. In project-supported rural health units, there is a wider recognition for the need to develop strategies to encourage women to seek better health for themselves and their family. The level of awareness regarding women's health issues has also increased among LGUs and health care providers.

E. Environmental Impact

100. There were negligible direct environmental impacts from the project activities. Most of the civil works undertaken were mainly the upgrade, renovation, and extension of existing structures. Hence, the involuntary settlement impact is not relevant to the Project as there was no purchase of land requiring relocation of people.

101. The biomedical wastes generated by the Project were disposed of as per government regulations.[45] The disposal was overseen by solid-waste management committees in provincial hospitals. The health centers adopted the practice of segregating waste products into the following categories: (i) noninfectious dry (nonbiodegradable or noncompostable), (ii) noninfectious wet (biodegradable or compostable), (iii) dry infectious waste, and (iv) wet infectious waste. The infectious waste was reported to be pretreated with chemical disinfectants prior to disposal. The provincial waste management unit regularly collected and disposed of waste from provincial and district hospitals, and from rural health units and barangay health stations. In health centers where there were no regular collections, the waste products were buried on site after sorting and suitable treatment. All rural health units and most barangay health stations supported by the Project were Sentrong Sigla certified and followed proper disposal procedures.[46] The noncertified barangay health stations in the Quezon province were in the process of establishing such procedures.

F. Asian Development Bank Performance

102. ADB performance is assessed **"**satisfactory". ADB provided leadership and facilitated the mobilization of resources from multiple aid agencies. It was a credit to all aid agencies, and to ADB in particular, that early on there was the establishment of a common platform for coordination and review of all components of the national WHSMP. This common platform facilitated the process of conducting regular joint reviews, identifying the required corrective actions, jointly implementing those actions, and preparing a common format for monitoring and reporting to aid agencies. DOH greatly appreciated ADB's proactive roles in making amendments to basic designs, resolving implementation issues, providing advice and guidance, and speedily following up on recommendations (paras. 20–21)

103. There were some areas where better project design could have contributed to better performance. The lack of adequate annual planning, budgeting, and reporting made it difficult to monitor progress. A performance evaluation process, had it been established early on, would have been helpful in identifying emerging problems and in developing suitable responses to avoid costly delays and other inefficiencies.

104. The project design identified health sector devolution as a potential risk. This was also highlighted as a main concern during the ADB Board meeting for project approval. However, the loss of coordination among national, regional, and local governments was not anticipated and possible mitigating strategies were not built into the project design. Also, LGUs were not included in consultations with the wider stakeholders during project appraisal. This was an oversight in the project design given that ADB had recognized the potential difficulties and provided support through technical assistance to facilitate this transition. As noted in the PCR, a broader and more in-depth involvement of stakeholders might have led to an earlier recognition of the extensive technical and administrative difficulties that adversely affected project implementation.

G. Executing Agency Performance

105. The overall performance of DOH as the executing agency is assessed "less satisfactory". After the midterm review, performance improved significantly resulting in

[45] Two government regulations on waste management, the Republic Act No. 8749 (Clean Air Act) and Republic Act No. 9003 (Solid Waste Management Act), apply to the disposal of hospital waste.
[46] The first level of Sentrong Sigla certification requires proper disposal of biomedical waste.

achievement of most of the output targets. However, the initial implementation problems and delays compromised the quality of outputs and substantially limited the project impact.

106. DOH successfully brought together a diverse group of financiers to realize the goals of the newly established national program on women's health. DOH undertook the project implementation agreements to facilitate participation of LGUs as mandated following the health sector devolution. Loan covenants and other implementation arrangements were mostly complied with. Progress reports and audited financial reports were submitted regularly. DOH also coordinated the regular mission reviews and followed up on agreed actions.

107. However, the Project performed very poorly up until the midterm review. The lack of institutional support of the PMO and inadequate support of senior management at DOH were the main reasons for poor performance. The PMO did not have an adequate number of experienced staff to manage the Project. In addition, the lack of support from DOH technical units undermined the PMO's capacity to implement the Project. These factors resulted in poor coordination and supervision of consultant firms and individuals, and serious delays in procurement and disbursement. Following the midterm review, DOH made necessary institutional and management arrangements to respond to these problems and to take corrective actions.

V. ISSUES, LESSONS, AND FOLLOW-UP ACTIONS

A. Issues

108. DOH capacity and its internal administration and management systems remain important constraints for the success of future projects. Project delays reflected cumbersome DOH procedures in procurement, contract review, disbursement, liquidation, and approval processes. The work of technical and administrative units of DOH was not adequately synchronized for efficient project implementation. Some of these problems that adversely affected project performance remain, despite attempts to reform the system. DOH technical units have limited capacity to support special project activities. Opportunities for effectively using consultants to fill these gaps and for upgrading internal capacities through technology transfer and professional development do not seem to be adequately utilized. A more permanent solution via institutional reforms and modernization of DOH units needs to be developed, tested, and institutionalized.

109. The policy shift to facility-based delivery that DOH is poised to implement nationwide undermines the project approach of reducing the maternal mortality at local levels via investment in safe home delivery and risk monitoring, coupled with strengthening the referral facilities and services. While developing a facility-based delivery system may be the right long-term direction for maternal care services, its cost and feasibility needs further assessment, particularly in those areas where home deliveries constitute 80% or more of total births.[47]

110. The provision of adequate maternal health care to poor women, especially those in remote areas, remains a challenge. As with other public services, the provision of maternal health care in remote areas will involve higher cost per person than in more accessible areas. Nevertheless, improving the maternal health of poor women should be an integral component of

[47] During a recent joint assessment and project implementation review mission conducted by development partners supporting the Sector Development Approach for Health, it was recommended to DOH that, given the large number of home births, it develop a maternal health policy that would allow a phased approach whereby dual support is provided for both home and in-facilities delivery.

national programs on equity grounds. Remote areas are mostly inhabited by ethnic minority groups and a tailored strategy that judiciously combines modern and traditional concepts and approaches to maternal care will be the one most likely to have a high impact.

111. Benefit monitoring and evaluation is not integrated in the DOH structure and systems, which partly explains why it failed to deliver in this Project. Not only did the benefit monitoring and evaluation component lack institutional support, no one in the bureaucracy pushed for its effective design and implementation. Its implementation was driven primarily by the need to comply with aid agency requirements and project covenants rather than an institutional need to gauge whether and how project activities were effectively carried out, or to reflect on the results of project investments relative to their intended outcomes or impact. With devolution and decentralization of service delivery and provisions, DOH needs a functioning benefit monitoring and evaluation system in place to track project activities and outputs, and health sector performance and impact.[48] There is a need to incorporate initial technical and financial support to establish a permanent structure within DOH, with appropriate staff and operating budget support.

B. Lessons

112. For effective outcome and impact, project investment should not be spread too thinly nor be so ambitious in scope as to become unmanageable. The project interventions, while generating some positive outcomes at the local level (para. 61), did not show much impact at the regional level because they were too small to produce a broader impact. Investment in only a few rural health units and barangay health stations per municipality was not sufficient to create the critical mass needed for wider impact. Investing in a health service delivery system for the whole province based on a thorough needs assessment would not only be more effective but also more efficient in terms of cost of collateral investments in project management, monitoring, supervision, and evaluation. Given the contextual factors and equity issues, strategic investment choices need to be made when deciding geographical coverage. These lessons were taken into account in the design of phase II of the national WHSMP and the subsequent ADB health project. [49]

113. A strong and well-functioning PMO managed by senior DOH staff is essential for improving the overall coordination and control of project activities. The PMO should have an adequate number of well trained staff and should be well integrated within the institutional framework of the DOH. In line with the recommendations of the special evaluation study on the role of project implementing units,[50] it is also desirable to assess the potential effects of alternative project implementation arrangements on the long-term capacity of DOH. More resources should be invested in ensuring institutional capacity for enhancing project sustainability and effectiveness.

[48] DOH is currently designing a monitoring and evaluation system, which would be integrated with DOH and LGUs to allow for the monitoring of activities and outputs.

[49] Initially, ADB's follow-on health project (Loan No. 2136-PHI) was prepared for a loan amount of $33 million but was later reduced to $13 million to support investment in 3 provinces only. ADB has therefore learnt from its experiences of WHSMP and moved to targeted interventions, and comprehensive support to the project site. The first stage of the project implementation was dedicated to preparing subprojects thoroughly and in partnership with other development partners investing in those provinces. However, recruiting consultants through DOH remains a problem.

[50] ADB. 2005. *Special Evaluation Study on the Role of Project Implementing Units*. Manila.

114. Effective inter-local health zones[51] can help provide better public health services under the devolved health systems. The LGUs were able to provide better health services under the devolved health system when they planned, coordinated, and shared resources with neighboring municipalities. This approach can be an efficient and cost-effective system in the long term, although it may require substantial support initially for developing and establishing the required institutional capacity.

115. Effective entry points for provision of better public health services are provincial and municipal health officers. The provincial health officers are the main personnel overseeing and implementing health policies for the provinces, while municipal health officers have similar roles for municipalities. They are often the main source of health information for governors and mayors who are the heads of LGUs.[52] The key informant interviews indicated that health officers with strong commitment and experience in public health were able to secure additional funds from LGUs for the required physical capital, human resources, and consumables. Empowering these health officials by enhancing their skills in health sector management and promoting greater ownership could serve as an effective entry point for improving the provision of health services.

116. An assessment of the procurement and disbursement system of DOH needs to be undertaken, with concrete steps taken to improve the situation. This requires streamlining and modernizing the system, ensuring staff are adequately trained, and establishing clear guidelines to ensure timeliness of procurement and disbursement.

117. Future programs on women's health and safe motherhood should include interventions that address issues of abortion and unwanted pregnancy. The most recent National Demographic and Health Survey affirmed that the population growth target could be better achieved if such unwanted pregnancies were avoided. Induced abortion, which is a significant underlying cause of maternal mortality, could also be eliminated. In addition, inclusion of family planning advocacy in future programs could contribute towards reduced maternal mortality, as high fertility and maternal mortality are correlated. During the focus-group discussions and key informant interviews, the health care service providers and officials were almost unanimous in their opinion that more support in family planning is needed. Mayors interviewed in Agusan del Sur province indicated that promotion of family planning does not necessarily conflict with religious sentiments. A league of mayors in Agusan del Sur has adopted a slogan to promote family planning—*"maliit na pamilya kayang kaya",* which translates to "life becomes easier with smaller family." Family planning is one of the most commonly sought-after services at the rural health units. However, these services are not always adequately available. DOH does not supply birth control products, with such supplies depending mostly on aid agency-assisted projects.

118. The combination of interventions provided in the Project—facilities upgrading, referral systems improvement, IEC, and program management—could serve as a model for future

[51] Inter-local health zone refers to a district or catchment area comprising a number of neighboring municipalities, whose main function is to improve networking and strengthen cooperation with regard to health matters. Several stakeholders—including national health organizations represented by the Center for Health Development of DOH, provincial government organizations, nongovernment organizations, and the private sector—play a role in the inter-local health zone. The key participants are the neighboring municipal LGUs with their rural health units and barangay health stations, the district hospital, and the district health office. The intended functions of the inter-local health zone are to formulate, implement, and evaluate (i) local health plans, (ii) a health information system, (iii) a two-way referral system, (iv) a health resources management and development system, (v) health care financing, (vi) hospital regulation and management, (vii) community mobilization, and (viii) benefit monitoring and evaluation.

[52] Governors are the heads of provinces and districts; mayors are heads of municipalities.

programs. Although there was some evidence of incidental effects in other areas, suitable scaling-up strategies are needed to generate impact on a broader scale.

119. Increased contact with health centers and formally trained health professionals does not necessarily lead to behavioral change towards delivering babies at health facilities. Most of the deliveries continue to be assisted by hilots at home. With additional training, hilots can continue to play an important role and complement the facility-based approach in providing improved maternal care.

120. Due to attribution problems, the outcomes and impact on maternal health cannot be solely attributed to project interventions. The extent of outcome and impact of the maternal care component was dependent on other complementary components of the national WHSMP. As there were many other projects targeting improved reproductive health, any outcome on general maternal health cannot be clearly linked to the national WHSMP either.[53] However, the Project provided support and contributed substantially towards augmenting maternal care services at the local level.

121. A rigorous impact evaluation is needed to provide further insights for future design and implementation of maternal health projects in the Philippines. Such rigorous evaluation should include (i) evaluation of the whole national WHSMP to avoid attribution issues that are problematic when only a part of the program is assessed, and (ii) information from a more representative sample of households with a larger sample size and spread across regions to capture spatial variations in project performance.

C. Follow-Up Actions

122. Table 5 outlines the recommended follow-up actions.

[53] The national WHSMP was implemented concurrently with several other projects targeted at improving reproductive health. Capiz province, for example, had a long-term, UNICEF-supported project for improving reproductive health. The international agencies currently with projects on women's health in the Philippines—particularly on reproductive health, maternal and child care and population management—are the Canadian International Development Agency, European Commission, Gesellschaft für Technische Zusammenarbeit (GTZ) of Germany, KfW, United Nations Population Fund, UNICEF, United States Agency for International Development (USAID), World Bank, and World Health Organization (WHO). ADB. 2005. *Country Strategy and Program (2005–2007). Philippines*. Manila.

Table 5: Recommended Follow-up Actions

Actions	Responsibility	Time Frame
1. Develop transitional phasing-out strategies for home based delivery.	DOH, ADB and cofinancier	Initiate discussion during the midterm review of the WHSMP Phase II.[a]
2. Fast-track the unification of Sentrong Sigla certification and PhilHealth accreditation of primary care facilities.	DOH and PHIC	2008
3. Integrate safe motherhood program indicators into planned National Demographic Health Survey for 2008.	DOH and National Statistical Coordination Board	2007
4. Institutionalize outputs of the IEC components at the primary health facilities.	DOH	During the midterm review of the WHSMP Phase II.
5. At project preparation stage, assess DOH (and local government) capacity to administer and monitor a foreign-assisted project including budget availability and financial management capacity.	ADB	2008

ADB = Asian Development Bank; DOH = Department of Health; IEC = information, education, and communication; PHIC = Philippines Health Insurance Corporation; WHSMP = Women's Health and Safe Motherhood Project.

[a] The Women's Health and Safe Motherhood Project Phase II will be conducting a midterm review around mid-2007. The Work Bank is financing the project.

Source: Operations evaluation mission.

FINDINGS OF THE BENEFICIARY HOUSEHOLD SURVEY AND FOCUS-GROUP DISCUSSIONS

A. Introduction

1. In the project completion report (PCR), output indicators were used to assess project performance. A major component excluded from the PCR was the evaluation of the Women's Health and Safe Motherhood Project (the Project) from the perspectives of beneficiaries and health service providers. The project performance evaluation report included additional information derived from household surveys and focus-group discussions to assess the eight targets specified during project appraisal.[1]

B. Methodology

2. A sample-based approach was adopted due the lack of benchmark information for assessing project outcomes and impacts. Information based on small samples, although insufficient to assess the whole Project, does provide useful quantitative and qualitative perspectives on project outcomes and impacts.

3. Two approaches were used to generate the information required. A survey of households was conducted to obtain beneficiary perspectives on project outcomes and impacts. Focus-group discussions and key informant surveys were held to generate additional information from the perspective of the maternal health care providers.

4. The survey was designed to permit project intervention and nonintervention comparisons to assess project performance. Households from locations serviced by the Project and nearby locations not serviced by the Project were included in the survey. This sampling design enabled the construction of a benchmark against which outcomes and impacts could be assessed. Locations not serviced by the Project provided the baseline scenario for the situation that would have prevailed had the Project not been implemented.

5. The household survey was conducted in Capiz (Visayas) during December 2006. A multi-stage sampling design was used. The sampling design consisted of the selection of municipalities in the first stage, *barangays*[2] from the selected municipalities in the second stage, and finally the selection of households in the third stage. Four municipalities and 21 barangays were identified for inclusion in the survey. Out of the four municipalities, two represented the project-intervention situation and the other two represented the project-nonintervention situation. From each selected municipality, four or five barangays were included in the sample (Table A1.1). In the final stage, households were randomly selected from the chosen barangays using the official list of resident households. A total of 102 households were included in the survey. This consisted of 52 households in the target area serviced by the Project and 50 households from nearby locations not serviced by the Project (Table A1.2).

6. One woman of reproductive age (aged 15–49 years) was chosen from each of the 102 households for interview. A structured questionnaire was used for the survey. Information on

[1] Asian Development Bank. 1994. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Republic of the Philippines for the Women's Health and Safe Motherhood Project.* Manila.

[2] A *barangay* is the smallest local-government unit in the Philippines.

pregnancy history before and after 2000, the year when households started to receive the project services fully, was also collected during the survey.[3]

Table A1.1: Municipalities and Barangays Included in the Household Survey, 2006

Municipalities With Project Intervention	Municipalities Without Project Intervention
Maayon Municipality	Mambusao Municipality
Piña	Bunga
Poblacion Ilaya	Manibad
Quinat-uyan	Poblacion Proper
Indayagan	Poblacion Tabuc
Kabungahan	Tumalalod
New Guia	
Sapian Municipality	Pilar Municipality
Bilao	Cayos
Agsilab	Olalo
Agtatacay Sur	Dulangan
Poblacion	San Esteban
Majanlud	Rosario

Source: Operations evaluation mission household survey.

Table A1.2: The Household Survey Samples, 2006

Sample Size	Municipalities With Project Intervention	Municipalities Without Project Intervention
Number of Respondents	52	50
Number of Pregnancies	210	189
Number of Pregnancies since 2000	60	48

Source: Operations evaluation mission household survey.

7. The focus-group discussions were conducted in three provinces—one from each of the three island groups. These were Agusan del Sur in Mindanao, Capiz in the Visayas, and Quezon in Luzon. The discussions were conducted to solicit the information from service providers (midwives and *hilots*[4]) regarding the available health facilities, institutionalization of community-based referral and support systems, and relevance and effectiveness of training and other support services provided for improving the maternal health service delivery. The focus-group discussions covered 10 rural health units, five from areas with project intervention and five from areas without intervention (Table A1.3). A total of 135 respondents participated in the discussions.

[3] "Before" scenarios were constructed using the year 2000 as a benchmark. The data analysis for before and after comparison indicated similar trends to the project intervention and nonintervention comparison.

[4] *Hilots* are traditional birth attendants.

Table A1.3 : Information on the Location of the Focus Group Discussion, 2006 and 2007

Province	RHUs With Project Intervention		RHUs Without Project Intervention		Date
	Municipality	Number	Municipality	Number	
Agusan del Sur	San Francisco and Veruela	10	Esperanza and Sta. Josefa	12	11–16 December 2006
Capiz	Maayon and Sapian	20	Mambusao and Pilar	18	1–8 December 2006
Quezon	Maclelon	5	Catanauan	70 [a]	8–12 January 2007

RHU = rural health units.

[a] Two focus-group discussions were conducted with traditional birth attendants, almost all trained at Catanauan municipality in Quezon province, were present at the discussion. The group was fairly organized and headed by a president who calls for regular meetings.

Source: Operations evaluation mission focus-group discussions.

C. Findings

8. The results from the focus-group discussions and the household surveys are presented here in the context of each of the eight targets listed at project appraisal. As indicated above, these sample results provide some perspectives on the progress based on the targets, although care should be exercised in extrapolating the results for the whole project due to a small sample size. Statistical tests for differences across municipalities were not conducted due to small sample size.

9. The basic characteristics of households in areas with and without Project intervention were similar (Table A1.4). Overall, more than 90% of the respondents were married, each woman had an average of 5.5 children, about 35% had completed secondary education, and around 90% owned a home and lived within about 10 minutes travel from rural health units or barangay health stations.

Table A1.4: Characteristics of the Surveyed Households

Background Information	Municipalities With Project Intervention	Municipalities Without Project Intervention
Respondents Married (%)	96.2	92.0
Household Size (average)	5.9	5.6
Home Ownership (%)	88.5	92.0
Completed Secondary School (%)	38.5	36.0
Completed Elementary School (%)	25.0	32.0
Reproductive History		
Number of Children per Woman (average)	5.5	5.6
Number of Children aged Less than 15 years at the Survey Time per woman (average)	2.5	2.3
Distance to Health Facilities[a]		
Hospital	57.9	59.8
RHU or BHS	13.3	9.0

BHS = barangay health station, RHU = rural health unit.

[a] Average time in minutes by local transportation.

Source: Operations evaluation mission household survey.

1. Target 1: To Reduce the Maternal Mortality Ratio by 25%

10. During focus-group discussions, the midwives reported that the maternal mortality in their service areas had decreased from two or three annually over the past 5 years to one or none currently. This decreasing trend in maternal mortality was reported in municipalities both with and without project intervention. The main contributing factors identified were (i) an increase in general awareness among women about the need for better care during pregnancy, (ii) support for safer home delivery, (iii) improved prenatal and postnatal care services, (iii) a reduction in tetanus toxoid-related death in deliveries assisted by trained hilots, (v) improved access to health centers for risky pregnancies, and (iv) better identification and referral systems for high-risk pregnancies. This reflected a general improvement in maternal health in the country. The focus-group discussion response was unclear as to whether there was any difference in the project-intervention versus the project-nonintervention municipalities.

2. Target 2: To Reduce the Incidence of Low Birth Weight by 10%

11. The survey data indicated that municipalities with Project intervention had a 7.1% lower incidence of low birth weight than the nonintervention municipalities (Table A1.5), which is close to the 10% target. However, there was also an increase in the percentage of babies who were either not weighed or whose weights were not recorded. Babies born at home were mostly not weighed.

Table A1.5: Birth Weight of Babies in Capiz Province Since 2000

	Municipalities With Project Intervention		Municipalities Without Project Intervention		% Point
Weight at Birth	Number	%	Number	%	Difference
Less than 2.5 kg	7	11.7	9	18.8	(7.1)
More than 2.5 kg	36	60.0	28	58.3	1.7
Weight Not Taken[a]	17	28.3	11	22.9	5.4

[a] Not Weighed or Weight Not Recorded.

Source: Operations evaluation mission household survey.

3. Target 3: To Increase Prenatal Attendance to 100%

12. The target of 100% coverage for prenatal support was nearly achieved, with over 98% of pregnant women reported to have received prenatal care in the municipalities supported by the Project (Table A1.6). Prenatal care coverage in municipalities where the Project did not provide any support was also high at over 90%. Women in project-intervention municipalities visited health centers more frequently (85% visited health centers more than four times) compared to 83% in the nonintervention municipalities.

Table A1.6: Prenatal Coverage in Capiz Province Since 2000

	Municipalities With Project Intervention		Municipalities Without Project Intervention		% Point
Prenatal Care	Number	%	Number	%	Difference
More than four visits	51	85.0	39	81.3	3.8
Less than four visits	8	13.3	6	12.5	0.8
No Prenatal Care	1	1.7	3	6.3	(4.6)

Source: Operation evaluation mission household survey.

13. The basic services provided were (i) the measurement of blood pressure and weight, (ii) the testing of urine and blood samples, (iii) advice on nutritional needs, and (iv) the monitoring of danger signs during pregnancy. Monitoring of danger signs was emphasized in the project service areas as a way of preventing maternal death. These services were accessed by proportionately more women (11%) in the project-intervention municipalities than in project-nonintervention municipalities (Table A1.7). In both groups of municipalities the most commonly performed services were blood pressure measurement (100%), and the measurement of weight and height.

Table A1.7: Prenatal Services Provided in Capiz Province Since 2000

	Municipalities With Project Intervention		Municipalities Without Project Intervention		% Point
Prenatal Care	**Number**	**%**	**Number**	**%**	**Difference**
Weight Measured	175	100.0	188	97.4	(2.6)
Height Measured	119	68.0	157	81.3	13.3
Urine Sample	61	34.9	66	34.2	(0.7)
Blood Sample	47	26.9	49	25.4	(1.5)
Pregnancy Danger Signs Explained	7	4.0	28	14.5	10.5

Source: Operations evaluation mission household survey.

14. During the focus-group discussions, medical staff working in project-supported rural health units and barangay health stations with adequate medical facilities indicated a higher level of commitment as they were able to provide higher-quality services. The barangay health workers referred pregnant women to rural health units for prenatal care. These health units generally provided a home-based mother record, available micronutrients, advice on various issues of safe motherhood, and recommendations on follow-up visits for the duration of the pregnancy. If pregnant women were giving birth at home, they were instructed to visit rural health units for postpartum check-ups within a couple of days of delivery. The general level of support activities was greater in municipalities supported by the Project.

15. The training provided by the Project to rural health units for improved service delivery and gender sensitivity was considered to have helped raise the capacity for more effective prenatal care. Some notable features of the training mentioned were specific guidelines on timing and frequency of visits, and monitoring of danger signs. The training on gender sensitivity and various other service-delivery approaches was valued by the staff and was mentioned as being particularly useful. The Midwives Manual for Delivery produced by the Project was considered to be a very useful reference source for diagnosis of complications during pregnancy. The manual was reported to have been used extensively in the project-supported rural health units.

16. The positive contribution of training was indicated by the reported higher level of prenatal care coverage in the intervention municipalities. Over 98% of the respondents from the intervention municipalities reported to be satisfied with the prenatal services, a difference of nearly 11% in comparison with nonintervention municipalities (Table A1.8).

Table A1.8: Level of Satisfaction with Prenatal Care Services in Capiz Province Since 2000

Level of Satisfaction	Municipalities With Project Intervention		Municipalities Without Project Intervention		% Point Difference
	Number	%	Number	%	
Satisfied	59	98.3	42	87.5	10.8
Not Satisfied	0	0.0	3	6.3	(6.3)
Don't know	1	1.7	3	6.3	(4.6)

Source: Operation evaluation mission household survey

17. Information from the household surveys established that around 10% of miscarriages were attributable to domestic violence. The training on domestic violence helped improve the awareness of the service providers about the impact of domestic violence on women's health and the pregnancy outcomes.

4. Target 4: To Increase the Rate of Supervision of Deliveries by Trained Attendants to 100%

18. Doctors, nurses, or midwives attended 66% of deliveries in the intervention municipalities compared to 42% in the nonintervention municipalities. Supervision of delivery by midwives accounted for most of the difference. About 63% of babies were delivered at home in both groups of municipalities. Most babies were delivered naturally, but five out of 399 babies were delivered through Caesarian section. The proportion of deliveries attended by hilots in the intervention municipalities was 25% lower. Generally, home births were attended by hilots. This trend indicated a greater role of the midwives in the home and in-facility based deliveries (Table A1.9).

Table A1.9: Delivery Attendant by Health Professionals and Place of Birth in Capiz Province Since 2000

Item	Municipalities With Project Intevention		Municipalities Without Project Intervention		% Point Difference
	Number	%	Number	%	
Birth Attended					
Doctors and Nurses	15	25.0	13	27.1	(2.1)
Midwives	25	41.7	7	14.6	27.1
Hilots	20	33.3	28	58.3	(25.0)
Place of Delivery					
Hospitals	14	23.3	11	22.9	0.4
RHUs and BHSs	5	8.3	5	10.4	(2.1)
Private facilities	3	5.0	1	2.1	2.9
Home	38	63.3	31	64.6	(1.3)

BHS = barangay health station, RHU = rural health unit.
Source: Operations evaluation mission household survey.

19. The survey data indicated that there was an increase over time in the number of births attended by health professionals in municipalities without project intervention. However, in the municipalities with the project intervention, 67% of births were attended by health professionals, compared with 21% attendance in the municipalities without project intervention.

5. Target 5: To Provide Referral Services for all High-Risk Pregnancies and for All Obstetric Emergencies

20. About 14% of pregnant women in the intervention municipalities and 12% in the nonintervention municipalities had experienced and reported pregnancy danger signs.[5] Of these women, 17% were referred to medical facilities in both groups of municipalities (Table A1.10). In the intervention municipalities, 70% of these women delivered normal babies, a difference of around 10% compared with the nonintervention municipalities. The incidence of babies with abnormalities was estimated to be 17% lower in the intervention municipalities, and the incidence of miscarriages estimated to be nearly 5% lower.

Table A1.10: Referral Services for High-Risk Pregnancies in Capiz Province

	Municipalities With Project Intervention		Municipalities Without Project Intervention		% Point
Pregnancy details	**Number**	**%**	**Number**	**%**	**Difference**
High-risk Pregnancy	30	14.3	23	12.2	2.1
Referred to Higher Health Facility	5	16.7	4	17.4	(0.7)
Pregnancy Outcome					
Normal Baby	21	70.0	14	60.9	9.1
Baby with Abnormalities	4	13.3	7	30.4	(17.1)
Not Born Yet	1	3.3	0	0.0	3.3
Miscarriage	4	13.3	2	8.7	4.6

Source: Operations evaluation mission household survey.

21. In the intervention municipalities, midwives were consulted by 60% of the respondents, while hilots (48%) were the main service providers in the nonintervention municipalities (Table A1.11). Over 90% of pregnant women from the intervention municipalities received services from health professionals (doctors, nurses, and midwives) compared with only 52% in the nonintervention municipalities—a difference of 38%. Proportionately, more respondents from the intervention municipalities also indicated a higher level of satisfaction with the referral services (83%).

22. The higher level of satisfaction of the services received corresponded well with the information generated during focus-group discussions with midwives who reported to be more confident in diagnosis, providing advice, and treatment. The midwives reported that the training they received in basic and emergency referral protocol services and intravenous insertion were most useful in identifying the cases that required referral and for providing the appropriate support in the interim.

23. The effectiveness of referral and medical care systems in intervention municipalities was indicated by higher frequencies of normal births, higher attendance by health professionals, and lower frequencies of miscarriages and abnormal births as compared with the nonintervention municipalities.

[5] Some of the danger signs reported were vaginal bleeding, swollen hands or feet, being pale or anemic, headache, dizziness, and blurred vision.

Table A1.11: Health Professionals Consulted for High-Risk Pregnancies in Capiz Province

Item	Municipalities With Project Intervention		Municipalities Without Project Intervention		% Point Difference
	Number	%	Number	%	
Service Provider					
Doctors	8	26.7	4	17.4	9.3
Nurses	2	6.7	0	0.0	6.7
Midwives	18	60.0	8	34.8	25.2
Hilots	2	6.7	11	47.8	(41.2)
Level of Satisfaction					
Satisfied	25	83.3	12	52.2	31.2
Not Satisfied	0	0.0	6	26.1	(26.1)
Don't Know	5	16.7	5	21.7	(5.1)

Source: Operations evaluation mission household survey.

24. The home-based mother record distributed widely under the Project was used in both groups of rural health units and barangay health stations to identify high-risk pregnancies, monitor danger signs and make appropriate referral arrangements for basic and emergency obstetric care. The basic emergency obstetric care and comprehensive emergency obstetric care referral systems designed under the Project continued to be followed. The training on partograph (monitoring for labor duration) and intravenous insertions was widely thought to have improved the capacity for emergency referrals. The rural health units in San Francisco in Agusan del Sur province adopted an improved two-way, color-coded referral system that was developed under another health project supported by the Asian Development Bank.[6]

25. According to midwives and hilots, the main factor contributing to the delayed transfer to referred treatment facilities was the time needed to convince and prepare the patients. The predominant reasons for hesitation to be transferred were the perceived high cost of delivery and the transportation cost. The transportation provided for this purpose by the Project was not used in any of the rural health units visited by the operations evaluation mission. Other reasons mentioned were the perceived limited capacity of these centers to provide rapid and high-quality medical services. These facilities often did not have a fully qualified obstetric gynecologist and the surgeons were generally not available at all hours. Inability to access health centers was considered to be an important factor contributing to maternal death. Project outputs such as the construction of maternal waiting homes[7] were reported to be helpful for women living in distant areas.

6. Target 6: To Decrease the Incidence of Iron-Deficiency Anemia and Iodine Deficiency Disorders by 50% Among Women of Reproductive Age; and Target 7: To Decrease the Incidence of Vitamin A Deficiency by 50% Among Children Under 1 Year of Age

26. Iodine capsules and vitamin supplements were received by proportionately more women in the project-supported municipalities than in municipalities that were not supported by the Project. Over 90% of pregnant women received vitamin A supplements in the intervention

[6] ADB. 2006. *Project Completion Report on the Integrated Community Health Services Project in the Philippines.* Manila. [Loan No. 1396-PHI(SF)]

[7] Facilities where high-risk-pregnancy women can temporarily stay until delivery and be attended to by a qualified health service professional.

municipalities while the corresponding rate was only 64% for the nonintervention municipalities. The micronutrients supplements were distributed more as prophylactic treatment and there was no proper monitoring of deficiency or sufficiency levels. In the case of iron supplements, the difference between the two groups of municipalities was small and other factors may have contributed to the apparently lower rate indicated in the intervention provinces (Table A1.12).

Table A1.12: Micronutrients Received by Pregnant Women in Capiz Province Since 2000

	Municipalities With Project Intervention		Municipalities Without Project Intervention		% Point
Micronutrients	**Number**	**%**	**Number**	**%**	**Difference**
Vitamin A	47	90.4	32	64.0	26.4
Iodine Capsule	25	48.1	21	42.0	6.1
Iron	43	82.7	43	86.0	(3.3)

Source: Operations evaluation mission household survey.

7. Target 8: To Provide Tetanus Toxoid Vaccine to All Pregnant Women.

27. The survey data indicated that over 90% of the respondents received the first tetanus toxoid shot, and nearly 50% also received the recommended second shot. The nonintervention municipalities had a slightly higher rate for tetanus toxoid shots. This was reportedly due to the diversion of funds allocated for the purchase of tetanus toxoid shots in the intervention provinces to the provision of other high-priority medical supplies. (Table A1.13)

Table A1.13: Tetanus Toxoid Vaccine Received by Pregnant Women in Capiz Province Since 2000

	Municipalities With Project Intervention		Municipalities Without Project Intervention		% Point
Tetanus Toxoid	**Number**	**%**	**Number**	**%**	**Difference**
Received TT Shots	47	90.4	47	94.0	(3.6)
Received Two TT Shots	22	42.3	25	50.0	(7.7)

TT = tetanus toxoid.
Source: Operations evaluation mission household survey.

D. Conclusions

28. The household survey and focus-group discussions found some evidence regarding progress towards the achievement of specified targets in the intervention municipalities as compared to the nonintervention municipalities.

29. The public health care centers in both groups of municipalities established maternal care packages that included provision of basic prenatal and postnatal services, supplies, and counseling for all pregnant women. However, there were differences between the two groups of municipalities in the coverage and quality of services provided to clients. In the project-supported municipalities, upgrading of medical infrastructure and provision of additional medical equipment, supplies, and training contributed to improved service delivery. There were improvements in the project-supported rural health units on the types of maternal care services provided, types of monitoring systems in place, the quality of service delivery, and the capacity of midwives to provide appropriate interventions during obstetric emergencies.

30. As with most evaluations, attribution of the observed improvements in health care services to the project is a difficult issue. There are two major issues in the current context. It is

difficult to separate out the benefits generated from other projects or programs aimed at improving reproductive heath in the Philippines. It is even more difficult to segregate the outcomes generated by the Asian Development Bank component versus the other components of interventions within the national Women's Health and Safe Motherhood Project.

MATERNAL HEALTH CARE POLICIES AND SYSTEMS IN THE PHILIPPINES

A. Introduction

1. Women's Health Status

1. Maternal mortality is defined as death of women during pregnancy, at childbirth or in the period after childbirth. The maternal mortality ratio was estimated at 209 per 100,000 live births in 1990. This fell to an estimated 172 per 100,000 live births in 1998, but remains unacceptably high. In 1998 maternal deaths represented approximately 14% of all deaths to women aged 15–49.

2. Maternal deaths in the Philippines are mainly due to postpartum hemorrhage, hypertension and its complications, sepsis, obstructed labor, and complications from abortions. Of these, 25% of all maternal deaths are due to hypertension, 20.3% to postpartum hemorrhage, and 9% to pregnancy with abortive outcome. Most maternal deaths can be prevented through quality maternal care.

3. The fifth Millennium Development Goal (MDG) is to improve maternal health. The target is to reduce the maternal mortality ratio by 75% between 1990 and 2015. Two indicators were set for achieving the goal—reducing maternal death and increasing access to reproductive health. For the Philippines, the maternal mortality ratio would need to be reduced to 90 deaths per 100,000 live births by 2010 and 52 deaths per 100,000 live births by 2015. Access to reproductive health services would need to increase to 60% by 2005, 80% by 2010, and 100% by 2015 to achieve the target. There is reported to be a low to medium probability of achieving the MDG.[1]

4. Total fertility rates declined from 4.1 children per woman in 1993 to 3.5 in 2003, but this is still one child more than the desired fertility rates. Use of modern contraceptive methods show an upward trend from 23.9% of married women of reproductive age in 1993 to 33.4% in 2003, but it is still not enough to satisfy the demand for interventions for family planning .[2]

2. National Health Sector Policy Direction

5. In 1991, the Local Government Code of the Philippines devolved responsibility for public health, primary care, and selected hospital services to local governments. In compliance with this, the Department of Health (DOH) in 1993 transferred all assets and staff of rural health units, municipal governments and those of *barangay*[3] health stations to city governments; staff of district and provincial hospitals were transferred to provincial governments throughout the country. To allow for a smooth transition and minimize disruption to service delivery, DOH entered into agreements with local governments to provide limited technical assistance and logistical support to ensure sustained implementation of national priority health programs.

6. With municipal and city governments taking full responsibility for the operation of rural health units and barangay health stations, and provincial governments taking full responsibility for the operation of district and provincial hospitals, the DOH service-delivery role has been limited to the operation and management of all regional hospitals and medical centers which

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[1] ADB. 2005. *Country Strategy and Program (2005–2007). Philippines*. Manila.
[2] Department of Health (DOH). 2005. *National Objectives for Health Philippines 2005–2010*. Manila.
[3] *Barangays* are the smallest local-government unit in the Philippines.

provide tertiary care services as well as the teaching, training, and research functions inherent in the operation of these hospitals. DOH also retained responsibility for (i) regulatory, licensing, and accreditation functions in accordance with existing laws; (ii) health services and disease control programs covered by international agreements, such as diseases requiring quarantine measures and disease-eradication programs; (iii) components of national programs funded from foreign sources; and (v) locally funded programs that are being pilot tested or developed. Moreover, DOH is empowered to intervene in all cases of national threats of epidemics, calamities, or disasters that endanger the health of the larger population beyond political borders and local jurisdictions. For this reason, DOH undertook a reorganization to enable it to fulfill its postdevolution functions and responsibilities.

7. In 1999, DOH introduced the Health Sector Reform Agenda, reformulated in 2005 as FOURmula ONE, which shifted attention from the management of vertical programs, most of which had been devolved, to sector-wide issues of financing, governance, regulation, and service delivery (encompassing both public health and hospital services). Addressing these issues was deemed pivotal in performing DOH's central coordinating role in health. Health care financing reforms addressed issues of adequacy of investment in health care, efficiency of health care spending, and equity in sharing the burden of payment for health. Governance reforms addressed efficiency and effectiveness of the overall organization and management of the health care system given the multitude of players in the provision and delivery of services. Regulation reforms focused on quality assurance, effective monitoring of adherence to standards, and policing the performance of the health sector. Service-delivery reforms focused on improving access to affordable quality care.

8. Health care financing and regulation were identified as key drivers for sector reform, and the agenda for action included (i) setting health care standards and linking these with technical assistance and financing incentives, (ii) raising the total health care spending to at least the minimum recommended World Health Organization (WHO) benchmark of 5% of gross national product (GNP), (iii) developing new sources of funding for health, (iv) more equitably distributing the burden of payment for health care among the various sources, and (v) improving the efficiency of public health spending. The targeted sharing of health care funds from various sources for specified uses is shown in Table A2.1.

Table A2.1: Target Use of Health Care Funds

	Source of Funds				
		Social	Private Sector		Total
Use of Funds	**Government**	**Insurance**	**Out of Pocket**	**Others**	**By Use**
Personal Health Care	10	25	20	7	**62**
Public Health	20	0	0	0	**20**
Others	10	5	0	3	**18**
Total	**40**	**30**	**20**	**10**	**100**

Source: Department of Health, Health Sector Reform Agenda.

B. Overview of Maternal Health Care Policies

9. Maternal care has been an integral part of national public health priorities, but when integrated as the Maternal and Child Health program it has often received less attention than child care. The primary focus of maternal care has been the provision of prenatal, natal, and postnatal care. The standard package of care includes a minimum of four prenatal visits, the first of which should take place in the first trimester of pregnancy, natal care by a trained birth attendant, and at least one postnatal visit within 41 days of delivery. During prenatal visits, the

health of both mother and fetus are monitored, risk factors are assessed, and specific interventions—including micronutrient supplementation, tetanus toxoid injection, weight monitoring, fetal development monitoring, health, nutrition and family planning advice, and preparation for labor—are given to reduce risks. The home-based mother record was introduced as a tool for risk assessment and monitoring of the health of mother and child during pregnancy, at delivery, and immediately after delivery.

10. When primary health care was adopted in 1981, community-based approaches and indigenous practices were highlighted, and the program recognized the following as qualified birth attendants: (i) medical doctors (both general practitioners and obstetricians), (ii) public health nurses, (iii) rural health midwives, (iv) private midwives, and (v) trained *hilots*.[4] Both home deliveries and facility-based deliveries were recognized as appropriate. Women whose pregnancies were assessed as normal were encouraged to deliver at home or in a primary care facility, while those assessed as high risk were advised to deliver in hospital. In some urban areas, the establishment of special birthing facilities, referred to as lying-in clinics, was also encouraged.

11. Prior to the implementation of the national Women's Health and Safe Motherhood Project (the national WHSMP) maternal care focused primarily on the medical aspects, without giving due attention to client needs for privacy, gender and culture sensitivity, and other psychosocial and special health care needs. Other aspects of reproductive health were also not given special attention as part of women's health, but were treated as part of general public health care. In the early 1990s, a task force was created to formulate the national policy and program on women's health and safe motherhood.

12. The national WHSMP broadened the scope and sharpened the focus of services for women. In addition to traditional mother and child health and family planning services, the national WHSMP called for greater attention to privacy and gender issues in health care including violence against women, women's cancer, infertility, sexually transmitted diseases, adolescent fertility, menopause, and other health problems specific to women. The national WHSMP also recognized the important role of women's health in reducing fetal and infant deaths, and corrected the lopsided attention given to the child in traditional mother and child health programs. It pursued the dual-pronged strategy of making both home-based and facility-based delivery safer.

13. A strategic shift in maternal care policy is currently underway with DOH gearing up to strengthen capacity for facility-based delivery attended by health professionals and discouraging home delivery attended by hilots. The strategic thrust for 2005–2010 (footnote 1) is summarized below.

(i) To launch and implement basic emergency obstetric care and comprehensive emergency obstetric care in coordination with DOH. These services entail the establishment of one strategically located emergency obstetric care facility for every 125,000 head of population. The strategy calls for facilities and communities to plan for childbirth and the upgrading of technical capabilities of local health providers.

(ii) To improve the quality of prenatal and postnatal care. Pregnant women should have at least four prenatal visits, with time for adequate evaluation and

[4] *Hilots* are traditional birth attendants.

management of diseases and conditions. Postpartum care should extend to more women after childbirth, after a miscarriage or after an unsafe abortion.

(iii) To reduce women's exposure to health risks through the institutionalization of communication messages and advocacy on responsible parenthood as an integral part of the health care service delivery package for all women of reproductive age, especially those younger than 18 and those over 35 years of age, women with low education and financial resources, women with unmanaged chronic illness, and women who have given birth in the last 18 months.

(iv) To advocate for resource generation and allocation for health services provided for the mother and the unborn, particularly with local government units (LGUs), nongovernment organizations, and partner agencies.

14. As with all national priority health programs of DOH, the national WHSMP is now aligned with the FOURmula ONE health sector reform agenda. This replaces the conventional programming approaches of defining program objectives, targets, strategies, implementation approaches, activities, performance indicators, and monitoring and evaluation tools which are currently the domain of local governments. The program focuses on (i) developing appropriate service-delivery standards and protocols which will be integrated into the regulatory reform package; (ii) designing appropriate financing strategies to sustain program implementation at various stages which will be integrated into the financing reform package; (iii) defining mechanisms for governance and service delivery across the various operating structures of local government, private providers, and other partner institutions; and (iv) above all, defining the policy and financing incentives, as well as sanctions, that DOH will use to stimulate effective implementation of the program by strategic partners and secure successful delivery of desired health outputs and outcomes.

15. For health care financing reform, the national WHSMP has been aligned with PhilHealth to define the Maternity Care Package as the long-term financing mechanism to sustain the delivery of accessible and quality maternal care by LGUs. As a complementary activity, the program links with FOURmula ONE to promote enrollment of indigents and the self-employed to facilitate the achievement of universal social health insurance coverage. The program is also encouraging cost-sharing arrangements with LGUs availing of official development assistance (ODA) from health sector aid agencies to promote adherence to national policies and standards in service delivery.

16. With regard to regulatory reforms, women's health and maternal care service-delivery standards and protocols are integrated with Sentrong Sigla certification, which is DOH's recognition for facilities that meet standards and are deemed capable of providing quality care. Sentrong Sigla certification is being linked with PhilHealth accreditation, which qualifies health facilities to maternity care package benefits reimbursement. Moreover, maternal care and women's health performance evaluation tools are integrated into the LGU scorecard currently being finalized as the instrument for recognizing and rewarding LGUs which are providing effective services and achieving national health performance targets.

1. Health Service Delivery Structures and Mechanisms

17. Women's health and maternal care services are delivered through existing structures and organizations, both public and private. The public health system consists of over 16,000 barangay health stations and almost 2,000 rural health units in all municipalities and cities

across the country. These centers provide a range of preventive, curative, and rehabilitative services, mostly aimed towards low-income groups. Barangay health stations are staffed by a midwife supported by a cadre of volunteer barangay health workers, while rural health units are supposed to be staffed by a doctor, nurse, midwife, sanitary inspector, and sometimes a dentist and medical technologist. In reality, however, rural health units in the more remote areas do not have the full complement of health staff, especially doctors and dentists. The population served by public health personnel deployed in hardship areas is often much larger than what is considered effective for health service delivery. Recently the lure of overseas employment has also eroded the supply of nurses, both in the public health and hospital systems.

18. The barangay health stations and rural health units usually provide public health and primary care services and refer complicated cases to district or provincial hospitals. District hospitals provide emergency care and a limited range of in-patient and out-patient care within the technical competencies and capabilities of general-practice physicians with special training for at least 6 months in the basic specialties of medicine, obstetrics and gynecology, and pediatrics. Its Chief of Hospital is a qualified surgeon. District hospitals are equipped to perform basic laboratory and radiology functions appropriate to the services provided. Provincial hospitals provide outpatient and inpatient care within the technical competencies and capabilities of medical specialists in the fields of medicine, obstetrics and gynecology, pediatrics, and surgery, and are equipped to give laboratory and radiology support appropriate to the services provided.

19. Patients requiring more specialized care are referred to the regional hospitals or medical centers which are usually located in major urban centers. These hospitals and medical centers, which are managed and operated by DOH, provide a wide range of inpatient and outpatient care in the basic specialties and subspecialties. They are also usually accredited as specialty teaching and training hospitals and are capable of undertaking clinical research and advanced studies to develop and test new health and medical technologies.

20. The management and administration of the public health service-delivery system is fragmented, with barangay health stations and rural health units administered by over 1,000 city and municipal governments. District and provincial hospitals are administered by 79 provincial governments, and regional hospitals and medical centers are administered by DOH.

21. At the other end of the spectrum, private sector health care comprises thousands of single-proprietor outpatient clinics providing primary care services, over 1,000 hospitals of all types and sizes ranging from six to 1,000 beds, thousands of pharmacies, and thousands of traditional healers and birth attendants. The private hospital system is dominated by primary level, family-owned, for-profit operations. Private tertiary-level hospitals are found in major cities and are perceived to provide higher quality services than public tertiary hospitals. These private health care providers generally cater to upper- and middle-income households.

22. Public and private providers of hospital services deliver roughly equal amounts of care, with private hospitals supplying approximately half of all hospital beds. In 2005, of the 1,838 registered hospitals, 702 were government owned with a total bed capacity of 43,739, and 1,136 were privately owned with a total bed capacity of 43,397.

23. DOH is the central authority for coordinating the health sector and is also responsible for making policy, setting standards, defining national priority public health programs, licensing and regulation of health facilities, and coordinating disaster and emergency preparedness and

response. Table A2.2 summarizes the various levels of health care organization and the specific facilities and services provided at each level.

Table A2.2: Public Sector Health Facilities Administration and Services

Administration	Category of Health Care Facilities	General Services Provided	Health Professionals
National and regional	Hospitals and medical centers	Tertiary care, teaching, training, research	Chief of Hospital, Chief of Clinics, medical specialists in a broad range of specialties and subspecialties.
Provincial	Hospitals	Secondary care, limited tertiary care	Chief of Hospital, Chief of Clinics, medical specialists in obstetrics, gynecology, surgery, medicine, pediatrics
District	Hospitals	Primary clinical care, limited secondary care	Medical specialist in surgery (also Chief of Hospital), general practitioner with some training in obstetrics, gynecology, pediatrics, family medicine, anesthesia
Municipal	Rural health units	Primary health care services, public health services (including disease control, health promotion, health education)	Municipal health officer or rural health physician, public health nurse, rural health midwife, sanitary inspector, medical technician, dentist
Barangay	Barangay health stations	Same as rural health units	Midwife, barangay health workers

2. Financing the Health Sector: Implications for Women's Health

24. In absolute terms, total health care spending remains short of the WHO recommended benchmark of 5% of GNP, accounting for only 3.2% of GNP in 2003–2004, with $2.97 billion in 2003 and $3.3 billion in 2004. Personal health care accounted for 78.3% of total health care spending, while public health accounted for only 10.3% in 2004. National Government expenditure was $527 million, with DOH accounting for the largest share of $309 million. Local government expenditure was $475 million, while social health insurance was $333 million. The private sector accounted for the largest share, spending $1.95 billion, of which $1.55 billion came from household out-of-pocket payments.

25. Using the recommended benchmark of 5% of GNP as a reference, the targeted total health care spending in 2004 would have been $5.17 billion, which when compared to the actual expenditure of $3.3 billion, would result in a deficit of $1.86 billion (Table A2.3).

Table A2.3: Target Versus Actual Health Care Expenditure, 2004
($ billion)

Sources and Uses of Funds	Target	Actual	Surplus (Deficit)
All Sources and Uses	5.17	3.30	(1.86)
Government Sources			
Personal Health Care	0.52	0.45	(0.07)
Public Health	1.03	0.33	(0.70)
Other	0.52	0.23	(0.29)
Social Health Insurance			
Personal Health Care	1.29	0.27	(1.02)
Other	0.26	0.05	(0.21)
Private Sources			
Household Out-of-Pocket			
Personal Health Care	1.03	1.55	0.52
Other Private Sources			
Personal Health Care	0.36	0.31	(0.05)
Other	0.16	0.09	(0.07)

Note: Peso converted to US dollars using the exchange rate of P50 = $1 as it applied to 2004.
Source: National Health Accounts, 2004, National Statistics Coordination Board and the Health Sector Reform Agenda.

26. Table A2.3 highlights the following: (i) health care is grossly underfunded; (ii) the highest deficit is in social health insurance coverage for personal health care; (iii) government spending for public health is grossly inadequate; (iv) household out-of-pocket payments bear the biggest burden of payment for personal health care; (v) although personal health care took up the largest share of government spending, the amount spent is still inadequate; and (vi) the deficit in other uses of funds from government sources indicate underfunding for the cost of health sector administration, covering administrative supervision and monitoring of health program performance, quality assurance, and regulation of the health sector.

27. The underfunding of public health programs is particularly worrisome, as women's health and maternal care compete with other equally important public health areas, including disease control, health promotion, preventive care, and environmental health.

28. The large deficit in social health insurance coverage for personal health care partly accounts for the high household out-of-pocket health care spending. This may explain why a large proportion of women prefer to deliver at home, as the cost of hospital or facility-based delivery is high.

3. Issues and Directions for Future Action

29. The chronic underinvestment in health or the gross inadequacy in total health care spending is probably the most important issue in the health sector. In over 15 years of national health accounting, health care expenditure has never risen above 3.5% of GNP (achieved in 1997), which is still significantly below the recommended WHO benchmark of 5% of GNP. When funds are inadequate, there is always a greater tendency to allocate money to the more urgent personal health or curative care areas rather than the more important and cost-effective, but less urgent, areas of public health and preventive care. Targets prescribed by the Health Sector Reform Agenda for more cost-effective use of funds are difficult to achieve when the total amount of available funds is severely limited.

30. Clearly there is a need for increased government investment to raise the quality of care in the public health system, both at local and national level. The public health delivery system is generally overextended, health facilities are poorly equipped and maintained, essential medical and other supplies are frequently in short supply, and capacity for effective emergency response is often seriously compromised. Defining the standards for quality care for public health facilities via Sentrong Sigla and other regulatory tools is an essential first step, but it needs to be effectively followed up with a rational program of investment to upgrade public health facilities. DOH has signified its intention to use ODA as leverage to initially stimulate LGU investment in health facilities and service upgrading, and progressively move towards leveraging national and ODA resources to promote LGU delivery of desired health outputs and outcomes. This needs to be quickly translated into operational guidelines and mechanisms for improved women's health and maternal care.

31. Social health insurance needs to be expanded, both in terms of its population coverage and scope of benefits in order to relieve households of the unduly large burden of payment for personal health care, including maternity care at primary, secondary, and tertiary levels. Social health insurance also holds the promise of stimulating investment by local governments in improved public health facilities, by designing appropriate benefit packages as incentives for sustained provision of quality care. The MCP is a step in the right direction as it stimulates local government and even the private sector to invest in improved maternity care facilities. For optimum results, DOH regulatory policies and standards need to work together with those of PhilHealth. For this purpose, fast-tracking the synchronization and unification of Sentrong Sigla certification of public health facilities and PhilHealth accreditation of those same facilities is strongly recommended.

APPRAISAL ESTIMATE AND ACTUAL COST BREAKDOWN BY PROJECT COMPONENT

($ million)

	Appraisal Estimate			Actual Cost		
Project Component	**Foreign Exchange**	**Local Currency**	**Total Cost**	**Foreign Exchange**	**Local Currency**	**Total Cost**
Maternal Care						
Civil Works	7.02	2.71	9.73	8.19	3.31	11.50
Equipment and Supplies	26.20	6.67	32.87	10.63	1.08	11.71
Training	0.00	1.78	1.78	0.00	0.00	0.00
Consultant Services	0.45	2.70	3.15	0.00	3.27	3.27
Operation and Maintenance	0.00	1.34	1.34	0.00	0.00	0.00
Insitutional Development						
Information, Education and Communication	0.00	6.30	6.30	0.00	4.95	4.95
Project Management	0.00	1.10	1.10	0.00	1.38	1.38
Total Base Cost	**33.67**	**22.60**	**56.27**	**18.82**	**13.99**	**32.81**
Taxes and Duties	0.00	1.51	1.51	0.00	0.00	0.00
Contingencies	4.64	3.37	8.01	0.00	0.00	0.00
Service Charge During Implementation	1.71	0.00	1.71	0.59	0.00	0.59
Total Project Cost	**40.02**	**27.48**	**67.50**	**19.41**	**13.99**	**33.40**

Source: Project Completion Report.

RATINGS MATRIX FOR CORE EVALUATION CRITERIA

Table A4.1: Relevance (20%)

Support Components	Assessment	Rating value	Weight (%)	Weighted rating
Maternal Care: strengthening referral system	Relevant	2	40	0.80
Maternal care: strengthening the national Safe Motherhood Program	Relevant	2	30	0.60
Information, education, and communication	Relevant	2	15	0.30
Project Management Office	Relevant	2	15	0.30
Overall Relevance Rating	**Relevant**			**2.00**

[a] The rating follows the standard rating for projects as follows: (i) Highly Relevant >2.5, (ii) 2.5 >= Relevant >= 1.6, (iii) 1.6 > Partly Relevant >= 0.6, and (iv) 0.6 > Irrelevant.

Source: Operations evaluation mission.

Table A4.2: Effectiveness (30%)

Support Components	Assessment	Rating value	Weight (%)	Weighted rating
Maternal Care: strengthening referral system	Effective	2	40	0.80
Maternal care: strengthening the national Safe Motherhood Program	Effective	2	30	0.60
Information, education, and communication	Less effective	1	15	0.15
Project Management Office	Less effective	1	15	0.15
Overall Effectivenss Rating	**Effective**			**1.70**

[a] The rating follows the standard rating for projects as follows: (i) Highly Effective >2.5, (ii) 2.5 >= Effective >= 1.6, (iii) 1.6 > Partly Effective >= 0.6, and (iv) 0.6 > Ineffective.

Source: Operations evaluation mission.

Table A4.3: Efficiency (30%)

Support Components	Assessment	Rating value	Weight (%)	Weighted rating
Maternal Care: strengthening referral system	Less efficient	1	40	0.40
Maternal care: strengthening the national Safe Motherhood Program	Less efficient	1	30	0.30
Information, education, and communication	Less efficient	1	15	0.15
Project Management Office	Less efficient	1	15	0.15
Overall Efficiency Rating	**Less efficient**			**1.00**

[a] The rating follows the standard rating for projects as follows: (i) Highly Efficient >2.5, (ii) 2.5 >= Efficient >= 1.6, (iii) 1.6 > Partly Efficient >= 0.6, and (iv) 0.6 > Inefficient.

Source: Operations evaluation mission.

Table A4.4: Sustainability (20%)

Support Components	Assessment	Rating value	Weight (%)	Weighted rating
Maternal Care: strengthening referral system	Likely	2	40	0.80
Maternal care: strengthening the national Safe Motherhood Program	Less likely	1	30	0.30
Information, education, and communication	Less likely	1	15	0.15
Project Management Office	Likely	2	15	0.30
Overall Sustanibility Rating	**Less likely**			**1.55**

[a] The rating follows the standard rating for projects as follows: (i) Most Likely >2.5, (ii) 2.5 >= Likely >= 1.6, (iii) 1.6 > Less Likely >= 0.6, and (iv) 0.6 > Unlikely.

Source: Operations evaluation mission.

Table A4.5: Overall Assessment

Criterion	Weight (%)	Assessment	Weighted Rating Value	Weighted Rating
Relevance	20	Relevant	2.00	0.40
Effectiveness	30	Effective	1.70	0.51
Efficiency	30	Less efficient	1.00	0.30
Sustainability	20	Less likely	1.55	0.31
Overall Rating		**Partly successful**		1.52

[a] The rating follows the standard rating for projects as follows: (i) Highly Successful >2.5, (ii) 2.5 >= Successful >= 1.6, (iii) 1.6 > Partly Successful >= 0.6, and (iv) 0.6 > Unsuccessful.

Source: Operations evaluation mission.

ASSESSMENT OF THE PROJECT OUTCOMES AND IMPACTS BASED ON PUBLISHED OFFICIAL DATA

A. Background and Method

1. The authoritative database on health statistics, the National Demographic Health Survey, was used to measure the achievement of the outcome and impact targets specified during project appraisal. This data, published every 5 years (1993, 1998, and 2003), was utilized to assess the achievements. The data for 1993 pertains to the year the Project was designed, 1998 to the year when project interventions actually took place after initial implementation delays, and 2003 to the year after project completion in 2002.

2. Analyses were conducted to determine the achievements against the specified targets, which were a mix of outcome and impact targets (para 8). The Project impacts, such as reduction in maternal mortality ratios and reduction in the incidence of low birth weights, are dependent not only on the project activities but also on other external factors that condition the translation of outcomes into impact. Such external factors may reduce the size of the impact or delay its realization. On the other hand, project outcomes are more closely related to the project activities. Given this, the assessment of project outcomes and impacts would require consideration of a different time frame and spatial scale.

3. The Project only covered 41 out of 79 provinces in the Philippines. In each of these 41 provinces, the Project covered less than 10% of the total population. Thus the use of provincial, regional or national level data for project evaluation can indicate an overall underachievement even when the Project may have achieved the targets in the locations where it was implemented. This proviso should be considered while interpreting the results below that are based on the analysis of published aggregate-level data.

4. To evaluate project performance, the analysis at the national level involved temporal comparison of outcome and impact targets. This comparison used a before-project scenario as the baseline against which to assess the performance after the Project. The regional analysis also involved this temporal before-and-after comparison. At the regional level, benchmarks for project intervention and project nonintervention were constructed, in order to enable comparison by grouping provinces into categories that varied in the degree of project intervention. This was achieved by grouping the data into the following categories: (i) high-intervention region, where all provinces in the region were supported by the Project; (ii) medium-intervention region, where more than half the provinces in the region were supported (except for Calabarzon region where only two provinces were supported); (iii) low-intervention region, where only one province in the region was supported; and (iv) nonintervention region where the Project did not support any intervention.

B. Secondary Data Analysis

1. Target 1: To Reduce the Maternal Mortality Ratio by 25%

5. Direct measurement of success in maternal mortality could not be carried out due to lack of a consistent data series over time. The maternal mortality ratio was estimated at 209 per 100,000 live births in 1990. Subsequent estimates placed the ratio at 191 per 100,000 live births

in 1993 and 172 per 100,000 live births in 1998.[1] Estimates of the maternal mortality ratio were not made in 2003, hence no comparable data was available to determine the post-project status of this target.

6. In the absence of statistically valid estimates of the maternal mortality ratio in 2003, infant mortality rates were used as proxy indicators to assess improvements in maternal well-being. Infant mortality rate is a sensitive indicator of general health status of the population and is linked to maternal mortality in the sense that maternal death could raise the risk of infant death. Infant mortality rates could therefore be an indirect measure of maternal well-being. The reductions in infant mortality could partly be attributed to maternal survival.

7. Modest success in reducing infant mortality was observed in high-intervention regions, but it was not fully reflected in the national average, probably because of the inadequate scale of project operation. Nationally, average infant mortality rates decreased progressively from 52 per 1,000 live births in 1993 to 36 per 1,000 live births in 1998 and 30 per 1,000 in 2003. Decreases in infant mortality rates from 1993 to 1998 may be attributed to external factors since very little was done by the Project up until 1998, but the drop from 1998 to 2003 could probably be partly influenced by the project interventions which began to be more fully implemented from 1998. The proportionate decrease in infant mortality rates at the national level, however, slowed down from almost 31% from 1993 to 1998 to just about 17% from 1998 to 2003, indicating that no measurable impact was made at national level on infant mortality and, indirectly, on maternal mortality.

8. Regional data showed that the proportionate decreases in infant mortality rates from 1998 to 2003, ranging from 25.5% to 67.4% in the high-intervention regions, were significantly higher relative to the national average of 16.7%, and relative to the proportionate decrease from 1993 to 1998. The changes in mortality rates in regions of medium or low interventions did not show a consistent pattern, probably because project interventions were unevenly spread within those regions. Reductions were generally lower and less dramatic in the nonintervention regions than in the high-intervention regions, with the notable exception of Ilocos Norte (Table A5.1). Overall, these statistics indicate that the Project made some impact on reducing infant mortality, with the impact being limited to the high-intervention areas only.

[1] It would, however, not be statistically possible to conclude that the maternal mortality in 1998 represented a true decline from the 1990 baseline of 209 because of the large sampling errors associated with the estimation method. Analysis of sampling errors suggest that the 95% confidence limits around these estimates are in the order of 30%, meaning that the true estimate of the maternal mortality ratio lies somewhere between 120 and 224, which encompasses the estimate of 209.

Table A5.1: Philippine Infant Mortality Rates by Region; 1993, 1998, 2003

Region	Infant Mortality Rate (per 1,000)			% Decrease	
	1993	1998	2003	1993–1998	1998–2003
Philippines	52	36	30	30.8	16.7
High Intervention[a]					
CAR	58	43	14	25.9	67.4
Eastern Visayas	69	61	36	11.6	41.0
ARMM	68	55	41	19.1	25.5
Medium Intervention[b]					
Cagayan Valley	59	37	28	37.3	24.3
Southern Tagalog	48	35		27.1	
Calabarzon	—	—	25	—	—
Mimaropa	—	—	44	—	—
Bicol	60	31	28	48.3	9.7
Western Visayas	57	26	39	54.4	(50.0)
Zamboanga Peninsula	61	45	27	26.2	40.0
Caraga	—	53	35	—	34.0
Low Intervention[c]					
Central Visayas	50	24	28	52.0	(16.7)
Socsksargen	55	48	27	12.7	43.8
Non-Intervention					
NCR	38	24	24	36.8	0.0
Ilocos Region	50	42	29	16.0	31.0
Central Luzon	42	29	25	31.0	13.8
Northern Mindanao	55	41	38	25.5	7.3
Southern Mindanao	53	41	38	22.6	7.3

ARMM = Autonomous Region of Muslim Mindanao; CAR = Cordillera Administrative Region; Calabarzon = Cavite, Laguna, Batangas, Rizal, and Quezon; Mimaropa = Mindoro, Marinduque, Romblon, and Palawan; NCR = National Capital Region; Socsksargen = South Cotabato, Sultan Kudarat, Saranggani, and General Santos.

[a] High Intervention = all provinces in the region were covered.

[b] Medium Intervention = more than half the provinces in the region were covered (in Calabarzon only two provinces were covered).

[c] Low intervention = only one province in the region was covered.

Source: National Statistics Coordination Board. 2003 and 2006. *Philippine Statistical Yearbook* . Manila.

2. Target 2: To Reduce the Incidence of Low Birth Weight by 10%

9. Birth weight data derived from the National Demographic Health Survey indicated progress in two regions despite a worsening national trend. Improvements were observed in Caraga, a medium-intervention region, and in the Autonomous Region of Muslim Mindanao, a high-intervention region (Table A5.2). Caraga achieved the desired 10% reduction in the proportion of low birth weight infants from 1998 to 2003.

Table A5.2: Low Birth Weight Infants by Region; 1993, 1998, 2003

	Low Birth Weight (Less than 2.5 kg)	
Region	**1998**	**2003**
Philippines	9.6	13.0
High Intervention[a]		
CAR	9.2	16.7
Eastern Visayas	8.5	18.0
ARMM	4.5	4.1
Medium Intervention[b]		
Cagayan Valley	4.6	8.5
Southern Tagalog	9.2	
Calabarzon		11.2
Mimaropa		10.1
Bicol	10.9	11.1
Western Visayas	12.1	19.9
Zamboanga Peninsula	7.3	15.3
Caraga	11.6	10.4
Low Intervention[c]		
Central Visayas	12.6	20.4
Socsksargen	5.9	10.1
Non-Intervention		
NCR	12.3	12.8
Ilocos Region	7.1	7.2
Central Luzon	9.2	11.9
Northern Mindanao	6.0	13.1
Southern Mindanao	10.6	16.8

ARMM = Autonomous Region of Muslim Mindanao; CAR = Cordillera Administrative Region; Calabarzon = Cavite, Laguna, Batangas, Rizal, and Quezon; Mimaropa = Mindoro, Marinduque, Romblon, and Palawan; NCR = National Capital Region; Socsksargen = South Cotabato, Sultan Kudarat, Saranggani, and General Santos.

[a] High Intervention = all provinces in the region were covered.

[b] Medium Intervention = more than half the provinces in the region were covered (in Calabarzon only two provinces were covered).

[c] Low intervention = only one province in the region was covered.

Source: National Statistics Coordination Board. 2003 and 2006. *Philippine Statistical Yearbook* . Manila.

10. It is not clear why this target was included since the project design did not have any direct intervention targeted to birth weights, and none of the key informants or focus-group discussion participants mentioned low birth weight as a target. Neither was it mentioned as a key information, education, and communication message. It is perhaps, thus, not surprising that impact on low birth weight was limited despite the likely positive incidental benefit derived from maternal health interventions.

3. Target 3: To Increase Prenatal Attendance to 100%

11. The rate of prenatal attendances by trained health service providers remained almost static, rising from 83.1% in 1993 to 85.7% in 1998 and 87.6% in 2003. The targeted 100% prenatal attendance was perhaps overly ambitious given the limited geographic scope of the Project and the difficulty of increasing service coverage once the threshold of 85% is reached. Three regions, however, appear to need more attention: (i) the Autonomous Region of Muslim Mindanao, with a 2003 prenatal attendance figure of 49.8%; Zamboanga Peninsula, with 77.1% attendance; and (iii) Eastern Visayas with 79.1% (Table A5.3).

Table A5.3: Pre-natal Care Service Attendance by Region; 1993, 1998, 2003

Region	1993 (%)		1998 (%)		2003 (%)	
	Medical professionals	TBAs	Medical professionals	TBAs	Medical professionals	TBAs
Philippines	83.1	9.8	85.7	6.3	87.6	6.5
High Intervention[a]						
CAR	87.7	3.5	84.6	0.7	86.0	2.9
Eastern Visayas	79.2	11.4	77.4	7.7	79.1	17.9
ARMM	—	—	42.3	48.2	49.8	45.3
Medium Intervention[b]						
Cagayan Valley	83.6	2.7	72.6	6.6	90.1	3.3
Southern Tagalog	83.6	5.5	86.2	5.1	—	—
Calabarzon	—	—	—	—	91.0	1.7
Mimaropa	—	—	—	—	82.0	8.7
Bicol	73.1	15.3	80.8	10.2	85.6	8.6
Western Visayas	82.6	7.9	92.8	2.6	93.4	1.5
Zamboanga Peninsula	67.5	29.4	73.7	19.2	77.1	11.7
Caraga	—	—	89.3	4.5	90.5	5.8
Low Intervention[c]						
Central Visayas	87.6	9.5	93.4	2.3	91.4	4.8
Socsksargen	69.3	22.0	82.5	9.2	82.1	12.3
Non-Intervention						
NCR	91.2	2.1	93.0	1.4	92.1	3.1
Ilocos Region	86.4	4.4	86.1	2.8	91.3	1.4
Central Luzon	93.4	2.8	92.7	2.1	92.4	2.2
Northern Mindanao	85.9	8.6	83.1	5.0	91.1	0.9
Southern Mindanao	78.7	12.1	89.3	2.5	90.2	6.0

ARMM = Autonomous Region of Muslim Mindanao; CAR = Cordillera Administrative Region; Calabarzon = Cavite, Laguna, Batangas, Rizal, and Quezon; Mimaropa = Mindoro, Marinduque, Romblon, and Palawan; NCR = National Capital Region; Socsksargen = South Cotabato, Sultan Kudarat, Saranggani, and General Santos.

[a] High Intervention = all provinces in the region were covered.

[b] Medium Intervention = more than half the provinces in the region were covered (in Calabarzon only two provinces were covered).

[c] Low intervention = only one province in the region was covered.

Source: National Democratic Health Survey; 1993, 1998, 2003.

4. Target 4: To Increase the Rate of Supervision of Deliveries by Trained Attendants to 100%

12. The proportion of deliveries supervised by trained health providers increased from 52.8% in 1993 to 56.4% in 1998 and to 59.8% in 2003. In one high-intervention region (Cordillera Administrative Region), the relatively high proportion (22.4%) of deliveries supervised by those other than trained attendants is a concern, but quite understandable as it is a tribal custom in this region for deliveries to be attended by household members only (Table A5.4).[2] Clearly, a customized strategy to promote safe motherhood needed to be developed for this region.

[2] The proportion of deliveries performed by those other than traditional birth attendants and medical professionals is not indicated in Table A5.4 but could be derived when the sum of traditional birth attendants and medical professionals is deducted from 100%.

Table A5.4: Deliveries Attended to by Medical Professionals and Traditional Birth Attendants by Region; 1993, 1998, 2003

	Medical Professionals (%)			Tradtional Births Attendents (%)		
Region	**1993**	**1998**	**2003**	**1993**	**1998**	**2003**
Philippines	52.8	56.4	59.8	45.3	41.3	37.1
High Intervention[a]						
CAR	52.3	48.1	59.6	21.8	16.3	14.1
Eastern Visayas	32.4	27.7	36.0	67.4	70.3	62.3
ARMM	—	15.5	21.7	—	81.9	76.6
Medium Intervention[b]						
Cagayan Valley	36.6	42.1	53.2	56.3	49.2	42.9
Southern Tagalog	54.9	59.8	—	44.5	39.9	—
Calabarzon	—	—	74.7	—	—	24.4
Mimaropa	—	—	29.3	—	—	66.3
Bicol	30.3	44.2	47.8	68.7	55.1	50.2
Western Visayas	48.3	48.1	47.4	49.5	50.8	49.7
Zamboanga Peninsula	33.4	39.6	31.0	65.4	55.2	64.3
Caraga	—	40.3	42.5	—	58.5	55.4
Low Intervention[c]						
Central Visayas	51.2	55.7	68.3	48.4	44.0	29.0
Socsksargen	32.2	43.0	37.2	66.4	55.1	58.7
Non-Intervention						
NCR	88.5	91.5	87.9	10.6	7.8	11.6
Ilocos Region	64.9	66.4	74.2	34.6	33.3	24.6
Central Luzon	80.6	84.3	85.8	19.4	15.4	12.0
Northern Mindanao	38.4	34.6	41.0	60.3	61.0	49.4
Southern Mindanao	36.4	47.0	47.6	57.8	48.8	43.6

ARMM = Autonomous Region of Muslim Mindanao; CAR = Cordillera Administrative Region; Calabarzon = Cavite, Laguna, Batangas, Rizal, and Quezon; Mimaropa = Mindoro, Marinduque, Romblon, and Palawan; NCR = National Capital Region; Socsksargen = South Cotabato, Sultan Kudarat, Saranggani, and General Santos.

[a] High Intervention = all provinces in the region were covered.

[b] Medium Intervention = more than half the provinces in the region were covered (in Calabarzon only two provinces were covered).

[c] Low intervention = only one province in the region was covered.

Source: National Democratic Health Survey; 1993, 1998, 2003.

13. A shift towards increased supervised deliveries by professionally trained attendants was complemented by an increased proportion of deliveries at a health facility (from 28.2% in 1993 to 34.2% in 1998 and 37.8% in 2003), and a decline in the still-dominant proportion of home deliveries (from 71.5% in 1993 to 65.5% in 1998 and 61.4% in 2003) (Table A5.5).

Table A5.5: Deliveries at Health Facility and at Home by Region (Philippines); 1993, 1998, 2003

	Place of Delivery (%)					
	Health Facility			Home		
Region	**1993**	**1998**	**2003**	**1993**	**1998**	**2003**
Philippines	28.2	34.2	37.8	71.5	65.5	61.4
High Intervention[a]						
CAR	32.2	33.0	44.8	67.6	66.5	55.2
Eastern Visayas	19.9	17.0	20.7	79.9	82.6	79.3
ARMM	—	6.3	10.7	—	92.6	88.4
Medium Intervention[b]						
Cagayan Valley	10.7	19.7	25.7	89.3	80.1	73.9
Southern Tagalog	24.1	34.0	—	75.7	66.0	—
Calabarzon	—	—	45.8	—	—	53.5
Mimaropa	—	—	15.7	—	—	83.0
Bicol	11.3	19.6	21.9	88.4	80.0	76.3
Western Visayas	26.2	32.0	33.4	73.6	67.8	65.9
Zamboanga Peninsula	11.2	18.5	15.6	88.5	80.8	83.8
Caraga	—	22.0	26.1	—	77.8	73.6
Low Intervention[c]						
Central Visayas	26.9	26.7	39.8	73.1	72.4	58.8
Socsksargen	15.6	21.7	23.1	84.4	77.8	76.2
Non-Intervention						
NCR	68.3	72.4	69.6	30.7	27.6	30.0
Ilocos Region	18.1	26.8	29.1	89.3	80.1	73.9
Central Luzon	40.3	49.1	49.4	59.6	50.7	49.3
Northern Mindanao	19.1	20.0	28.9	80.6	79.7	70.2
Southern Mindanao	23.1	33.6	41.0	76.7	66.2	59.0

ARMM = Autonomous Region of Muslim Mindanao; CAR = Cordillera Administrative Region; Calabarzon = Cavite, Laguna, Batangas, Rizal, and Quezon; Mimaropa = Mindoro, Marinduque, Romblon, and Palawan; NCR = National Capital Region; Socsksargen = South Cotabato, Sultan Kudarat, Saranggani, and General Santos.

[a] High Intervention = all provinces in the region were covered.

[b] Medium Intervention = more than half the provinces in the region were covered (in Calabarzon only two provinces were covered).

[c] Low intervention = only one province in the region was covered.

Source: National Democratic Health Survey; 1993, 1998, 2003.

5. Target 5: To Provide Referral Services for All High-Risk Pregnancies and All Obstetric Emergencies

14. This target is vague on the quantitative and qualitative targets. The Project provided support for upgrading of primary care and referral facilities to improve their capacity to assess and manage high-risk pregnancies and deliver emergency obstetric services when needed. Whether the investment was sufficient to cover all high-risk pregnancies and all obstetric emergencies is debatable, however, as no nationwide mapping and capacity assessment of health facilities was undertaken, and upgrading of facilities was highly selective and thinly spread.

15. Undoubtedly, all primary care and referral facilities upgraded under the Project had improved service capacity for both high-risk pregnancies and obstetric emergencies, and key informants and focus-group participants affirmed that indeed project investments raised the value placed on the facilities by the community and inspired health care providers to deliver more and better services. The operations evaluation mission field visits to selected sites also confirmed that the upgrading of facilities, though modest even by local standards, was useful,

effective, and valued by both health care providers and users alike. Deficiencies were noted in the appropriateness of some facilities for transport and referral of clients, and some medical and surgical equipment was defective, but generally the upgraded facilities were observed to have delivered more and better quality obstetric, gynecological, and neonatal services.

16. Quantifying the impact on referral without the needed baseline and ex post data on high-risk pregnancies and obstetric emergencies is not possible, but data on the proportion of pregnant women who were advised to go to a specific facility in case of pregnancy complications was included in the 2003 database, and was used as a proxy target (at time of project evaluation only) to assess the extent to which referral to appropriate facilities was incorporated into routine prenatal practice. The data indicated that 56.6% of pregnant women were not so advised. Of those who were advised to go to a referral facility, 35.4% were advised to go to a public health facility and 14.7% to a private facility (Table A5.6). It is probably indicative of relative project success that the top referral facilities cited coincided with the ones upgraded by the Project, but it is also of concern that a significantly larger proportion of pregnant women had no information on where to go in case of complications.

Table A5.6: Pregnant Women Not Referred to a Health Facility in Case of Pregnancy Complication by Region, 2003

		Referred to Health Facilities	
	Informed	Public	Private
Region	**(%)**	**(%)**	**(%)**
Philippines	56.6	35.4	14.7
High Intervention[a]			
CAR	61.9	30.0	12.1
Eastern Visayas	73.7	23.5	3.5
ARMM	68.7	33.8	3.3
Medium Intervention[b]			
Cagayan Valley	61.8	27.9	12.4
Southern Tagalog			
Calabarzon	52.4	31.1	21.9
Mimaropa	63.1	33.2	6.3
Bicol	68.1	29.5	13.1
Western Visayas	52.2	44.2	13.1
Zamboanga Peninsula	64.9	30.6	6.4
Caraga	34.4	74.9	19.8
Low Intervention[c]			
Central Visayas	44.1	44.0	18.3
Socsksargen	57.0	37.6	13.9
Non-Intervention			
NCR	48.2	35.0	21.6
Ilocos Region	68.9	22.7	8.9
Central Luzon	71.1	22.4	10.7
Northern Mindanao	36.5	66.5	16.8
Southern Mindanao	51.3	39.9	22.2

ARMM = Autonomous Region of Muslim Mindanao; CAR = Cordillera Administrative Region; Calabarzon = Cavite, Laguna, Batangas, Rizal, and Quezon; Mimaropa = Mindoro, Marinduque, Romblon, and Palawan; NCR = National Capital Region; Socsksargen = South Cotabato, Sultan Kudarat, Saranggani, and General Santos.

[a] High Intervention = all provinces in the region were covered.

[b] Medium Intervention = more than half the provinces in the region were covered (in Calabarzon only two provinces were covered).

[c] Low intervention = only one province in the region was covered.

Source: National Democratic Health Survey; 1993, 1998, 2003.

6. Target 6: To Decrease the Incidence of Iron Deficiency Anemia and Iodine Deficiency Disorders Among Women of Reproductive Age by 50%

17. No estimates of iron deficiency anemia and iodine deficiency disorders were made at project design, although reference was made to data on anemia prevalence among pregnant and lactating mothers in 1982 and 1987 and of iodine deficiency in school children in endemic areas in 1987. No baseline and ex post estimates on both nutritional disorders were done by the Project, hence it is not possible to measure or determine project impact based on these targets.

18. The only available data that could be used as proxy targets were of intake of iron tablets or syrup and of iodine capsules. The data showed a slight increase in the proportion of pregnant women who received iron supplements, from 74.6% in 1998 to 76.8% in 2003. The increase was uniformly observed in almost all regions at varying rates, except in the Cordillera Administrative Region, the National Capital Region, and Southern Mindanao (Table A5.7).

Table A5.7: Pregnant Women Who Received Iron Tablets/Syrup and Iodine Capsules by Region, 1998 and 2003

	Iron Tablets and Syrup (%)		Iodine Capsules (%)
Region	**1998**	**2003**	**1998**
Philippines	74.6	76.8	56.6
High Intervention[a]			
CAR	68.4	66.5	53.5
Eastern Visayas	71.1	74.0	44.2
ARMM	38.4	40.2	30.9
Medium Intervention[b]			
Cagayan Valley	63.4	72.7	50.0
Southern Tagalog	78.5	—	59.6
Calabarzon	—	76.9	—
Mimaropa	—	73.8	—
Bicol	66.5	73.3	53.7
Western Visayas	83.2	84.7	64.4
Zamboanga Peninsula	64.3	74.4	51.3
Caraga	81.6	88.8	30.9
Low Intervention[c]			
Central Visayas	78.6	86.9	52.4
Socsksargen	71.6	76.9	55.1
Non-Intervention			
NCR	81.9	76.6	61.4
Ilocos Region	72.0	77.4	61.0
Central Luzon	74.3	80.6	57.6
Northern Mindanao	72.8	79.7	51.3
Southern Mindanao	82.3	80.2	69.5

ARMM = Autonomous Region of Muslim Mindanao; CAR = Cordillera Administrative Region; Calabarzon = Cavite, Laguna, Batangas, Rizal, and Quezon; Mimaropa = Mindoro, Marinduque, Romblon, and Palawan; NCR = National Capital Region; Socsksargen = South Cotabato, Sultan Kudarat, Saranggani, and General Santos.

[a] High Intervention = all provinces in the region were covered.

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[c] Low intervention = only one province in the region was covered.

Source: National Democratic Health Survey; 1998 and 2003.

19. There was no data available on iodine capsule distribution in 2003, but since the salt iodization law was already in full effect it is probably safe to assume that a decrease in iodine deficiency disorders would be seen. However, this achievement can not be attributed to the Project alone.

7. Target 7: To Decrease the Incidence of Vitamin A Deficiency Among Children Under 1 Year of Age by 50%

20. As with target 6, no baseline and ex post estimates were made on vitamin A deficiency among children, although reference was made in the project appraisal document to the extent of adequacy of vitamin A dietary intake among preschool children, pregnant women, and lactating mothers.

21. Also in line with target 6, the proportion of children under 5 years who received vitamin A supplements was used as a proxy target to indirectly determine the extent of vitamin A deficiency among children. National Demographic Health Survey data showed an increase from 70.6% of children receiving vitamin A supplement in 1998 to 76.0% in 2003. The increase was unevenly distributed among regions, with the Autonomous Region of Muslim Mindanao showing the largest rate of increase (58.8%), but still ending up with the lowest proportion (at 50.5%) of children receiving vitamin A supplements in 2003 because of a very low baseline of 31.8% in 1998. As with iron supplementation, the Project probably enabled the high-intervention regions to catch up with the nonintervention and low-intervention regions in the levels of vitamin A supplementation for children under 5 years old (Table A5.8).

Table A5.8: Children Received Vitamin A supplements by Region, 1998 and 2003

Region	Vitamin A Supplement (Children 5–59 months, %) 1998	2003
Philippines	70.6	76.0
High Intervention[a]		
CAR	74.0	74.9
Eastern Visayas	68.6	76.1
ARMM	31.8	50.5
Medium Intervention[b]		
Cagayan Valley	68.4	65.3
Southern Tagalog	70.0	—
Calabarzon	—	82.3
Mimaropa	—	68.5
Bicol	75.3	70.9
Western Visayas	75.5	76.9
Zamboanga Peninsula	68.2	64.4
Caraga	70.0	79.7
Low Intervention[c]		
Central Visayas	73.3	77.9
Socsksargen	71.4	79.5
Non-Intervention		
NCR	72.5	80.8
Ilocos Region	68.4	74.6
Central Luzon	70.3	83.2
Northern Mindanao	74.1	76.7
Southern Mindanao	76.4	72.3

ARMM = Autonomous Region of Muslim Mindanao; CAR = Cordillera Administrative Region; Calabarzon = Cavite, Laguna, Batangas, Rizal, and Quezon; Mimaropa = Mindoro, Marinduque, Romblon, and Palawan; NCR = National Capital Region; Socsksargen = South Cotabato, Sultan Kudarat, Saranggani, and General Santos.

[a] High Intervention = all provinces in the region were covered.

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[c] Low intervention = only one province in the region was covered.

Source: National Democratic Health Survey; 1998 and 2003.

8. Target 8: To Provide Tetanus Toxoid Vaccine to All Pregnant Women

22. Although included as an outcome target, it is noted that tetanus toxoid was not provided by the Project because the Department of Health was said to have sufficient supply of the vaccine at the time. Also noted is the project recommendation that women receive at least two tetanus toxoid injections during their first pregnancy, hence the proportion of pregnant women who received two tetanus toxoid shots at prenatal care is the commonly used and recommended target. All mothers were targeted for tetanus toxoid injections. The achievements were, however, significantly below the two tetanus toxoid shots of universal coverage target. Nationally, the proportion of pregnant women given two tetanus toxoid shots decreased from a baseline of 42.2% in 1993 to 37.8% in 1998 and 37.3% in 2003.

23. A negative rating was indicated by the declining and very low national achievement levels for two tetanus toxoid shots. Regionally, partial success was indicated by the increasing trend from 1998 to 2003 but that was countered by the very low 2003 achievement levels in the high-intervention regions. Almost the same could be said of the other regions, with a few exceptions (Table A5.9).

Table A5.9: Women Given Two Tetanus Texoid Shots at Pre-natal Care by Region; 1993, 1998, 2003

	Tetanus Toxoid Shots at Pre-natal Care (% with at Least Two Shots)		
Region	**1993**	**1998**	**2003**
Philippines	42.2	37.8	37.3
High Intervention[a]			
CAR	37.8	30.3	34.9
Eastern Visayas	44.8	33.4	35.1
ARMM	—	20.4	23.4
Medium Intervention[b]			
Cagayan Valley	48.8	39.6	47.9
Southern Tagalog	46.6	38.7	—
Calabarzon	—	—	36.3
Mimaropa	—	—	43.1
Bicol	44.1	38.1	29.1
Western Visayas	51.1	49.0	39.6
Zamboanga Peninsula	45.4	44.4	36.8
Caraga	—	40.1	42.3
Low Intervention[c]			
Central Visayas	38.1	41.2	46.4
Socsksargen	39.4	49.9	42.7
Non-Intervention			
NCR	34.1	30.3	34.9
Ilocos Region	35.1	38.7	37.4
Central Luzon	44.5	34.7	31.9
Northern Mindanao	38.7	32.1	36.8
Southern Mindanao	42.0	43.8	49.1

ARMM = Autonomous Region of Muslim Mindanao; CAR = Cordillera Administrative Region; Calabarzon = Cavite, Laguna, Batangas, Rizal, and Quezon; Mimaropa = Mindoro, Marinduque, Romblon, and Palawan; NCR = National Capital Region; Socsksargen = South Cotabato, Sultan Kudarat, Saranggani, and General Santos; TT = tetanus toxoid.

[a] High Intervention = all provinces in the region were covered.

[b] Medium Intervention = more than half the provinces in the region were covered (in Calabarzon only two provinces were covered).

[c] Low intervention = only one province in the region was covered.

Source: National Democratic Health Survey; 1993, 1998, 2003.

C. Conclusion

24. The Project indicated some impact in reducing maternal mortality, in increasing prenatal attendance by a medical professional, and in increasing attendance by a medical professional during delivery in the high-intervention regions. As there were only three high-intervention regions, the observed impacts did not manifest at the national level, thereby supporting the conclusion that scattering the interventions too widely diluted their effectiveness in bringing about the desired changes in women's health conditions. At the aggregate level, the Project had limited impact in reducing the proportion of low birth weight infants, and increasing the proportion of pregnant women with at least two tetanus toxoid injections. Since no direct interventions were provided to influence these two targets, these were probably intended as beneficial incidental effects of the Project, which apparently were not manifested in the postproject scenario.

25. A slight impact on the referral of pregnant women as measured by information given on where to go in case of complication is indicative of the usefulness and effectiveness of the intervention aimed at upgrading the facilities. This was also supported by information obtained from focus-group discussions, key informant interviews, and actual field observation of use of upgraded facilities. Nevertheless, the volume of investment and the thin spread across the provinces and regions diluted its national and regional impact, hence a larger proportion of pregnant women were not informed or advised on where to go in case of complications.

26. The analysis showed that for a project like this to have more immediate and measurable impact, interventions should be more geographically focused, have a more substantive local coverage to create a critical mass, and generate wider local government unit participation.

MANAGEMENT RESPONSE TO THE PROJECT PERFORMANCE EVALUATION REPORT FOR WOMEN'S HEALTH AND SAFE MOTHERHOOD PROJECT IN THE PHILIPPINES
(Loan 1331-PHI[SF])

On 17 September 2007, the Director General, Operations Evaluation Department, received the following response from the Managing Director General on behalf of Management:

I. General Comments

1. We appreciate OED's evaluation of the Women's Health and Safe Motherhood Project in the Philippines. The Women's Health and Safe Motherhood Project (the project) was ADB's first health sector project in the Philippines, and also ADB's first project designed exclusively for improving women's reproductive health and well-being. ADB provided leadership, mobilized significant donor resources and prepared the project in close collaboration and partnership with other key development partners working in the country.

2. We note that the Project Performance Evaluation Report (PPER) rated the project "partly successful", which is one level lower than the rating of the Project Completion Report (PCR). We also note the PPER's observation that the difference in rating is due to (i) the changes in assigned weights as a result of reduced numbers of evaluation criteria and (ii) the downgrading of rating for relevance by one level.

3. **Revised PPER Rating Criteria.** Under the revised PPER rating assessment framework the project was rated on 4 criteria whereas the PCR used a 5-criteria rating scheme. The exclusion of one criterion—"institutional development and other impacts" meant the substantial progress achieved by the project in these areas, and acknowledged by the PPER, were not fully captured and factored into the assigned weights and resulting PPER rating.

4. **Relevance.** The only variance between the PPER and the PCR rating was in the "relevance" criterion with the PPER downgrading the rating by one level from "highly relevant" to "relevant." The PPER acknowledges the project correctly identified a critical need to improve the quality and coverage of maternal health services, even ahead of the MDGs, and was consistent with government priorities and ADB's country strategy and program. It still remains relevant and is a priority sector of the government. Despite the project's relevance, the PPER downgraded the "relevance" criterion on project design issues such as ambitious spatial coverage, inadequate consultation during project preparation and some coordination and implementation problems given the multiple co-financing partners. Issues of project design were also dealt with under the "effectiveness" criterion.

II. Comments on Lessons and Follow-up Actions

5. We agree with OED that spatial coverage was ambitious and some outcome indicators, such as 100% supervised deliveries, were unrealistic. We appreciate the PPER's finding that despite this, "the project made substantial progress towards meeting the outcome targets." The PPER observed that the project achieved some impressive results such as: (i) increased proportion of deliveries supervised by trained birth

attendants and in health facilities; (ii) decreased maternal mortality rates over time; (iii) improved capacity of rural health units and barangay health stations for service delivery; (iii) manuals developed by the project for mid-wives becoming the most frequently used reference in the primary health care facilities, and (iv)) both the frequency and quality of prenatal services increased over time in project areas.

6. We acknowledge that the project encountered some implementation difficulties due to problems of coordination, management, and limited capacity of local government units. These difficulties were perhaps inevitable given the multiple partners, both grant and loan modalities and the newly introduced decentralized system in the Philippines. We note that subsequent projects, such as the Health Sector Development Program (Loan 2136/2137-PHI]), have taken keen steps to strengthen local government units project management capacity; strengthen monitoring and evaluation systems that are integrated within the larger systems at the central and local government levels, and work closely and comprehensively with as few as 3–5 provinces at a time.

7. We also agree with OED's overall recommendations for supporting the sector by (i) building comprehensive policies, (ii) conducting needs assessments and feasibility studies before identifying investments for projects and subprojects, and (iii) strengthening financial management and procurement management systems.

8. ADB is working closely with the government and other development partners in all of these areas under the Health Sector Development Program. ADB is also actively engaged in policy dialogue with the Department of Health, and will continue to be engaged in the coming years, including in strengthening the country's maternal health policy and the overall health system.