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MOROCCO

**30 Years of Collaboration Between
USAID and the Ministry of Health**

A Retrospective Analysis

Safe Motherhood



Morocco

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A RETROSPECTIVE ANALYSIS

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**USAID/Morocco
Morocco Ministry of Health**

**MEASURE *Evaluation*/Tulane University
USAID Cooperative Agreement no. HRN-A-00-97-00018-00**

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- STI/HIV/AIDS – Ms. Lisa Manhart

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OVERVIEW OF THE RETROSPECTIVE ANALYSIS

Purpose of the Series of Reports

This series of four reports details the productive collaboration between the United States Agency for International Development (USAID) and the Moroccan Ministry of Health (MOH) spanning a period of over 30 years. It focuses on four health areas in which USAID support has been the greatest: family planning, child survival, safe motherhood, and sexually transmitted infections (STIs)/HIV/AIDS.

Morocco has made tremendous strides in its health programs, as evidenced by steadily improving health outcomes over time. In part because of this success, USAID began a strategy of “withdrawal” from Morocco, which was slated to begin in the year 2000. Subsequently USAID decided to maintain a modest level of funding through 2004 to support the activities of a “mature program,” including sustainability and decentralization.

What was accomplished during the more than thirty years of collaboration between the MOH and USAID? This series of reports is designed to address that question. The specific objectives of this retrospective analysis are:

1. To document the evolution of the programs in family planning, child survival, safe motherhood, and sexually transmitted infection/AIDS under the MOH – USAID collaboration;
2. To place the health initiatives in Morocco in a larger international context as a means of better understanding the evolution of programs in Morocco;
3. To present measurable results in health status indicators that link directly to these health initiatives;
4. To identify keys to the success of specific programs that may represent valuable lessons learned for programs in other countries; and
5. To recognize the past obstacles and continuing challenges to the implementation of health programs in the four areas.

Many factors contributed to improvements in health status in Morocco over the past three decades: improvements in socio-economic conditions, exposure to ideas from other countries, investments from other donors, among other factors. Whereas this series of reports focus almost exclusively on the MOH-USAID collaboration, other factors and other parties share in the credit for the progress made to date. Notwithstanding, this series of reports has been prepared to demonstrate the sustained investment by USAID in the Moroccan health programs and the results achieved to date.

The current report covers the period from the early 1965 (when family planning first surfaced as a concern) to 2000, when Phase V funding ended. USAID continues to provide bilateral support to the MOH through an agreement (Assistance for Family Planning and Maternal-Child Health, Accord 608-0223) that aims at expanding the resource base and capacity for sustainable development in the period 1999-2005, but the

current activities are outside the scope of this retrospective analysis of the Moroccan program.

Audience for this Series of Reports

This series provides a comprehensive overview of the major events that occurred in relation to the four health areas in question. It will serve as a reference to MOH personnel, donor agency staff, international visitors, academics, and others with the patience and appetite for a relatively detailed account.

Methodology

A team of MEASURE *Evaluation* staff and independent consultants conducted the analysis for this series of reports. Team members conducted in-depth interviews with key informants and reviewed relevant program documents. The purposive sample of key informants included the following:

- Persons with substantial experience in the management of some aspect of the four health program areas;
- Personnel from both the central and regional/provincial level;
- Personnel from both the public and private sector;
- Personnel from non-governmental organizations (NGOs);
- Representatives of donor agencies; and
- Persons outside the program (researchers, economists, sociologists, demographers).

A complete list of all persons interviewed appears in Appendix A.

Limitations

The team encountered several constraints in conducting this retrospective analysis. First, all of the in-depth interviews — especially those relating to events in the distant past — were subject to recall bias. Respondents were most gracious in attempting to reconstruct events from over a decade ago, but there is an inherent bias in doing so.

Second, the key informants included persons closely involved in the program who tended to have a favorable outlook toward these health initiatives. The team did not attempt to identify and interview persons who might have provided alternative interpretations to this set of events, given the difficulty of drawing up any type of systematic list of such individuals. The team did, however, try to solicit information on both positive and negative aspects of the program from those interviewed, and most respondents were quite forthcoming.

Third, it was difficult and in some cases impossible to obtain financial information on components of MOH activities funded by other donors. Thus, the team was not able to assess the financial contribution made by USAID relative to the total amount of international aid for each sector.

Fourth, the existing documentation was more extensive for some programs than others and for some periods than others. Although four reports were prepared, the descriptions of the programs herein do not do justice to the many triumphs and frustrations of designing and implementing these activities.

Summary of Findings – Safe Motherhood

The MOH approach towards safe motherhood has evolved over time since the 1970s from one concerned primarily with prenatal care to one focused on improving provider's skills and medical conditions to manage obstetric complications in an effort to reduce maternal mortality. During the past decade, Morocco has taken serious steps towards decreasing maternal mortality with USAID's support by improving clinical infrastructure for emergency obstetric care, changing public awareness and attitudes through entertaining mass media programs, and increasing the number of trained clinicians in the management of emergency obstetric complications. While the maternal mortality rate in Morocco has declined over the past two decades, it remains high for a country of its level of development with over 200 deaths per 100,000 live births.

USAID support to safe motherhood activities began with support to the family planning program. This was seen as one of the means of lowering maternal risk of death. Beginning in 1995, however, USAID funded safe motherhood activities apart from family planning and is largely recognized as the first donor in Morocco to support a pilot project aimed at increasing and improving access to emergency obstetric care.

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ACRONYMS

BEOC	Basic Emergency Obstetric Care
CEOC	Comprehensive Emergency Obstetric Care
CNFRH	<i>Centre National de Formation en Reproduction Humaine</i> - National Center for Training on Human Reproduction
DHS	Demographic and Health Survey
DP	<i>Direction de la Population</i> – Direction (Office) of Population
DPES	<i>Direction de la Prevention et de l'Encadrement Sanitaire</i> – Office of Prevention and Health Training
EmOC	Emergency Obstetric Care
ENC	<i>Enquête Nationale Contraceptive</i> – National Contraceptive Survey
EU	European Union
FP	Family Planning
FP/MCH	Family Planning/Maternal & Child Health
GOM	Government of Morocco
IEC	Information, Education and Communication
IFCS	<i>Instituts de Formation aux Carrières de Santé</i> - Institutes of Training for Health Careers
INAS	<i>Institut National de l'Administration Sanitaire</i> – Institute of National Health Administration
IPPF	International Planned Parenthood Federation
JHU	Johns Hopkins University
JHU/CCP	Johns Hopkins University / Center for Communication Program
JSI	John Snow Inc.
KAP	Knowledge, Attitudes and Practices
MCH	Maternal and Child Health
MIS	Management Information System
MOH	Ministry of Health
MSH	Management Sciences for Health
NGO	Non-governmental Organization
PACR	Project Action Completion Report
PMI	<i>Protection Maternelle et Infantile</i> - Maternal and Child Protection
PSE	<i>Protection de la Santé de l'Enfant</i> - Protection of Child Health
PSGA	<i>Programme de Surveillance de la Grossesse et de l'Accouchement</i> - Pregnancy and Birth Surveillance Program
PSME	<i>Protection de la Santé de la Mère et de l'Enfant</i> - Protection of Maternal and Child Health
RH	Reproductive Health
SEIS	<i>Service des Etudes et d'Information Sanitaire</i> - Service for Research and Computer Science
SIDA	Swedish International Development Authority
SMI	Safe Motherhood Initiative
SMI/PF	<i>Santé Maternelle-Infantile/Planification Familiale</i> - Maternal Child Health/Family Planning

SOUB	<i>Soins Obstetricaux d'Urgence de Base</i> - Basic Emergency Obstetric Care
SOUC	<i>Soins Obstetricaux d'Urgence Comprehensive</i> - Comprehensive Emergency Obstetric Care
SPSM	<i>Service de la Protection de la Santé de la Mere</i> - Service of Maternal Health Protection
SSE	<i>Service de la Surveillance Epidémiologique</i> - Service of Epidemiological Surveillance
TA	Technical Assistance
TBA	Traditional Birth Attendant
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VDMS	<i>Visites à Domicile de Motivation Systematique</i> - Systematic Motivational Home Visits
WHO	World Health Organization

SAFE MOTHERHOOD

I. INTRODUCTION

'Every minute of every day, somewhere in the world, a woman dies as a result of complications arising during pregnancy and childbirth.

The majority of these deaths are avoidable.'

A Joint WHO/UNFPA/UNICEF

World Bank Statement

Today approximately 585,000 women die every year as a result of complications of pregnancy and childbirth.^{1,2} More than one woman dies every minute from such causes and less than one percent of these deaths occur in developed countries.³ Approximately 60 million women in the developing world give birth each year without skilled help – attended to only by a traditional birth attendant, a family member or no one at all.⁴ Women experience more than 50 million maternal health problems annually.^{5,6} As many as 300 million women – more than one-quarter of all adult women living in the developing world – currently suffer from short or long-term illnesses and injuries related to pregnancy and childbirth.^{7,8}

The international community began focusing on the high rates of maternal mortality in developing countries as the United Nations celebrated the end of the Decade for Women (1976-1985). One year later, in 1987, the Safe Motherhood Initiative (SMI) was launched at a global conference in Nairobi, Kenya, marking the beginning of international collaborative efforts aimed at decreasing maternal mortality levels by half by the year 2000. This Initiative, still active, calls for action at local, national and international levels to reduce the high rates of maternal mortality and improve women's health in the developing world.⁹ As Thaddeus and Maine point out in their article, *Too Far to Walk: Maternal Mortality in Context*, preventing the deaths of pregnant women is the key objective of SMI, "not because death adversely affects children and other family members, but because the women are intrinsically valuable."¹⁰

According to the WHO and UNICEF, the level of maternal mortality in a given country is an indicator of inequity. Levels of maternal mortality demonstrate the widest disparities when used to compare levels of development between countries and regions. Levels of maternal mortality provide insight on the status of women, their access to health care services and the adequacy of the health care system in responding to their needs.¹¹

Nowhere are the levels of maternal mortality higher than in developing countries and, by extension, the status of women often lower. According to the WHO/UNICEF's revised 1990 estimates of maternal health care (conducted in 1996), a woman from a developing country had a lifetime risk of 1 in 48 of dying from pregnancy and childbirth while a

woman from a developed country faced a lifetime risk of 1 in 1,800.* In Northern Africa, a woman's lifetime risk of dying from pregnancy and childbirth was one in 155. In Tunisia, Morocco's neighbor, a woman's lifetime risk of dying from pregnancy and childbirth was one in 140. However, in Morocco in 1992, a woman's lifetime risk of dying from pregnancy and childbirth was one in 42, a surprisingly high level for a country of its socio-economic development.^{12,13,14}

In 1987, the same year as the Nairobi conference, the Government of Morocco established a more focused approach towards maternal health care activities. This approach has evolved over time since the 1970s from one concerned primarily with prenatal care to one focused on improving provider's skills and medical conditions to manage obstetric complications in an effort to reduce maternal mortality. The evolution of Morocco's approach towards safe motherhood mirrors the paradigm shift in the larger international safe motherhood community from a model focused on prevention (i.e., prenatal care) to one focused on improving the management of obstetric complications resulting from pregnancy and childbirth.

Several international donors have contributed and assisted Morocco's Ministry of Health (MOH) in its safe motherhood program. For many of these donors, namely USAID, support to safe motherhood activities began with support to the family planning program. This was seen as one of the means of lowering maternal risk of death. In fact, in the 1980s, the MOH justified its expanding family planning initiative to policy makers and opponents as a means of reducing maternal mortality. In 1995, however, USAID began funding safe motherhood activities apart from family planning. Donors such as the WHO, the World Bank, UNFPA, the European Union (EU), and UNICEF also began funding specific safe motherhood programs in the 1990s. USAID, however, is largely recognized as the first donor to support a pilot project solely dedicated to improving and increasing access to emergency obstetric care (EmOC). This report will trace the evolution of Morocco's Safe Motherhood program through the phases of USAID support and will examine the role of USAID and other major players over the past three decades.

* Lifetime risk is defined as the risk of an individual woman dying from pregnancy or childbirth during her lifetime. Calculations are based on maternal mortality and fertility rates in a country. A lifetime risk of 1 in 3,000 represents a low risk of dying while 1 in 100 is considered a high risk.

Box 1. What is Safe Motherhood?

According to the World Health Organization (WHO), safe motherhood is a woman's ability to have a safe and healthy pregnancy and delivery.¹⁵ Safe motherhood can be achieved by providing high-quality maternal health services to all women. These services include:

- Care by skilled health personnel before, during and after childbirth;
- Emergency care for life threatening obstetric complications;
- Services to prevent and manage the complications of unsafe abortion;
- Family planning to enable women to plan their pregnancies and prevent unwanted pregnancies;
- Health education and services for adolescents;
- Care for new births; and
- Community education for women, their families, and decision-makers.¹⁶

II. STAGES AND ACCOMPLISHMENTS

A. Pre-USAID Phase Funding

● Protection of the Mother and Child Program

Until the beginning of the 1970's, prenatal care services were available through private clinics, doctor's offices, and a few public health centers in peri-urban and urban areas. In 1972, a Ministerial Decree formally included prenatal care as an activity to be conducted at health centers throughout the country. While the MOH integrated these activities into the Child Health Care Program, the focus was on the health of the child and little attention was paid to the health of the mother. In the Ministry's 1973-1977 Five Year Plan, the Protection of Mother and Child Program (*Protection Maternelle et Infantile – PMI*) activities focused on prevention and education in the areas of: 1) malnutrition, 2) infectious diseases, 3) vaccinations, and 4) family planning. The only activities aimed specifically at married women were family planning services.¹⁷

● Protection of the Health of the Child Program

The PMI program was later renamed the Protection of the Health of the Child Program (*Protection de la Santé de l'Enfant – PSE*) and focus remained primarily on health services for newborns and children up to two years of age in urban and rural health centers. Under the PSE program, the MOH developed standards and patient forms requiring three prenatal consultations (one during each trimester) and one post-natal consultation for women. Paramedical personnel completed patient forms during prenatal exams and conducted individual and/or group discussions for pregnant women on topics

such as hygiene during pregnancy, family planning, and child health care (such as regular baby weighing and vaccinations).¹⁸

While the PSE program developed an initial system (e.g., forms and registers) to collect information on pregnant women, promotion of prenatal care was not widespread and many women, especially those in rural areas, may not have known that these services were available at certain health centers. Few women sought prenatal care and even fewer women delivered in supervised medical environments, opting instead for services from traditional birth attendants (TBAs). In 1971, paramedical personnel numbered around 8,000 with the majority being men.¹⁹ During this time, the MOH did not actively encourage women to pursue nursing degrees, and there were fewer than 200 midwives in the entire country. The few women that did pursue nursing or midwifery degrees would end up teaching rather than working in the field. In a Muslim society, the idea of a male nurse examining a pregnant woman constituted a barrier both for the woman to decide to seek care and for the husband to allow her to seek such care.

B. USAID Phase I: 1971-1977

• Protection of the Health of the Mother and Child Program

In 1977, Protection of the Health of the Mother and Child Program (*Protection de la Santé de la Mère et de l'Enfant* – PSME) replaced the PSE program. This change in name did not affect the care or services available to pregnant women and only reinforced the idea that the health of the mother and child went hand-in-hand. Except for a limited number of peri-urban maternities, the monitoring of pregnancies was not given a high priority in the PSME program.²⁰ During this phase, USAID support focused on family planning activities and did not include specific support for any other safe motherhood activity.

C. USAID Phase II: 1978 - 1984

• Protection of the Health of the Mother and Child Program

The 1981-1985 National Economic Plan called for the development of primary health care centers (*Services de Soins de Base*) throughout the country and improved coverage of prenatal care. This plan extended primary health care coverage, including prenatal consultations, to a larger population through the construction of new health centers.²¹ Concurrently, the *Visites à Domicile de Motivation Systematique* (VDMS) Program, a multi-purpose health intervention of distribution of family planning methods through visits by nurses and paramedical staff to homes, integrated distribution of iron and vitamin supplements for pregnant and lactating women and provided referrals to health centers for prenatal care.²² However, despite these efforts, the actual number of health centers that conducted antenatal care services remained low, especially in rural areas.²³

In response to the lack of antenatal care activities, the MOH revised the PSME program and implemented a few maternal health care activities including:

- Installation of maternity beds in select rural primary health centers;
- Development of training courses for TBAs at health centers in five major cities (Agadir, Casablanca, Marrakech, Fès and Rabat); and
- Conduct of a pilot project working with TBAs to improve childbirth conditions in rural areas.²⁴

These activities improved conditions for pregnant women in rural areas.

Box 2. Maternal Health Care Services Available 1985 - 2000

Rural dispensaries (*dispensaires*) staffed by a nurse comprise the first level of care for rural areas. At the second level are the primary health care centers (*centre de santé de base*) located in rural as well as urban areas staffed by a physician. Both the dispensaries and the health centers offer primary and curative care. Antenatal care is available at these levels. Some health centers, in rural and urban areas, have small wards with four to eight maternity beds set aside for childbirth.²⁵ These wards are called birthing rooms (*maisons d'accouchement*). Some rural health centers also have mobile units that visit hard-to-reach villages providing family planning, immunizations, and referrals to the health center or local hospital, which is the next level of care. Hospitals provide the same services as the health centers but have some limited surgical and laboratory facilities. These facilities also have delivery wards (*maternités*). These hospitals are often staffed by general practitioners with limited formal surgery qualifications and few hospitals have an obstetrician/gynecologist (ob/gyn) on staff. The next level is the network of provincial and regional hospitals located in the major urban centers that have separate maternity wards. These facilities can perform specialized surgery or rehabilitation. Women who experience complications of pregnancy or childbirth are referred to these hospitals.²⁶

During the late 1970s and 1980s, one researcher described the health network in Morocco as an “upward-moving pyramid with the local clinic at the bottom.” According to Bowen, “the web of doctors, dispensaries, nurses, medicines and hospitals that make up the public health services constitutes a new and forbidding world that takes time and initiative to manage.” She stated that many Moroccan women had doubts about entering the public health system due to its “unknown and seemingly arbitrary systems, its remote and omniscient doctors, haughty nurses, guarded hospitals and battery of foreign medical terms.” According to Bowen, a Moroccan woman during this time period would have needed to be both seriously ill and extremely determined before she would have decided to seek help in the public health system.²⁷

D. USAID Phase III: 1984 - 1991

Two major events during this period of support affected the worldwide approach towards maternal health care. The first was the 1985 publication of Rosenfield's and Maine's article "*Maternal Mortality- A Neglected Tragedy. Where is the M in MCH?*" The second was the 1987 Nairobi Conference on safe motherhood. These events challenged the widely held belief that antenatal care, a key component of primary health care and part of the global strategy for health adopted at the Alma Alta conference in 1978, was one of the best strategies to reduce maternal mortality. While this approach is still relevant today for many developing countries where there are often thousands of people per physician, for some health problems, namely maternal mortality, this strategy is less effective.²⁸

As can be seen from Box 3, many of the causes of maternal mortality, primarily complications stemming from hemorrhage or obstructed labor, cannot be prevented by preventive measures such as screening during prenatal care. According to Rosenfield and Maine, "a sizeable proportion of serious complications occur among women with no recognizable risk factors."²⁹

Box 3. Major Causes of Maternal Mortality

Approximately 75 percent of obstetric deaths are attributed to hemorrhage, infection, toxemia, and obstructed labor (in varying order depending on the country).³⁰ In Morocco, the major causes of maternal mortality are attributed to:

- *Dystocie* and uterine rupture (between 15 and 28 percent of deaths);
- Hemorrhage (between 18 and 26 percent of deaths);
- Infection (between 17 and 22 percent of deaths); and
- Toxemia (between 13 and 15 percent of deaths).³¹

In the early phases of the program, the assumption was that by increasing the coverage of prenatal care (minimum of three visits), women at high risk would be detected and referred for treatment to an appropriate facility and the risks would be reduced for a substantial portion of women. This assumption, however, relied upon various factors including:

- Health staff (e.g., nurses or midwives) having the appropriate training in order to detect risks and carry out basic treatment;
- Nurses or midwives being able to educate women on appropriate care during pregnancy;
- Higher level health personnel (e.g., doctors) being available and trained to treat/manage high risk cases;

- Health facilities being supplied and equipped adequately to prevent or manage obstetrical emergencies; and
- Women being able to (i.e., want to) use maternal health care services.³²

The financial, technical, and social issues related to ensuring these factors were constraints that the MOH faced and would attempt to address during this phase and the next.

● **Pregnancy and Childbirth Monitoring Program**

The MOH established the Pregnancy and Childbirth Monitoring Program (*Programme de Surveillance de la Grossesse et de l'Accouchement* – PSGA) in 1987.³³ This marked the beginning of a MOH program focused solely on maternal health, apart from child health care programs. The objectives of the PSGA were:

- To achieve a satisfactory level of coverage of maternal child health care in order to diminish maternal morbidity, mortality, and peri-natal mortality;
- To develop, improve, and increase prenatal care services so that 25 percent of pregnant women in urban areas and 20 percent of pregnant women in rural areas received such care;
- To improve childbirth conditions so that at least 50 percent of births were attended by qualified health personnel; and
- To assure that 50 percent of women and newborns received post-natal care.³⁴

The development of a more articulated plan towards maternal health care was consistent with the focus on maternal mortality within the international health community and the need for comprehensive services for pregnant women before, during, and after childbirth.

The PSGA program introduced tetanus vaccinations, promoted antenatal care, and encouraged women to deliver in *maisons d'accouchement* and local hospitals.³⁵ The PSGA also worked with TBAs in 14 provinces, focusing especially in rural areas. Some local level health providers conducted trainings and studies with TBAs; however, these constituted events at the local level rather than national policy.

The role played by TBAs must be given some mention here because of their large role in pregnancy and childbirth. Throughout history, most Moroccan women delivered their babies at home with the help of a family member, friend, or TBA (*quabla*). TBAs were, and still are, highly valued in society for their skills. These women are well known in their communities and many women use the same midwife to deliver all their babies, treating them almost as a relative in terms of affection.³⁶ Over the past two decades, select health personnel in provinces as well as some donor-funded projects (e.g., UNICEF) have worked with TBAs, however, they have never been formally embraced by the health care system even though many women still consult them for childbirth.

While PSGA efforts contributed to some improvements in maternal health, barriers such as distance to health centers, especially in rural areas, made access to health services

expensive and time consuming. Other barriers to the utilization of health services included the lack of qualified personnel distributed throughout the country. Almost three-quarters of all health personnel worked in the two regions of Rabat-Salé-Zemmour-Zaer and greater Casablanca. Less than half of the rural population lived within a six kilometer radius of a health center, and the coverage by itinerant nurses was insufficient to reach a dispersed population.³⁷ Also, there were still insufficient numbers of female personnel to provide maternal health care. According to Wylie, “cultural factors dictate the need for female health workers to do prenatal examinations...”³⁸

In an effort to recruit more women into the nursing profession, the MOH began an obstetric nursing program targeted to women. However, the obstetric nurses (*infirmières accoucheuses*) had a difficult time fitting into the health system, and men still dominated the profession. There was also a serious shortage of qualified midwives at health facilities during this time. Some experts regarded this as a carryover from the French educational system that focused on nursing education rather than midwifery. Midwives were trained at the *Ecole de Cadre* that produced six to 12 midwives per year. These midwives would graduate at the equivalent of a Master’s level in the United States. These individuals would generally go on to teaching positions at nursing schools or *Ecole de Cadre*. Very few were posted at health care facilities in the field.

Given this situation, the MOH restructured the PSGA during the period 1988-1992 with the aim of improving the management of resources, health personnel, information systems, and training of health staff. The two major objectives of the restructuring were to ensure that construction of rural primary health care centers be given priority and that efforts focus on improving skills of health staff. USAID support during this period focused largely on the training of MOH staff, however, still primarily for family planning.³⁹ In 1990, the PSGA became known as the Service for the Protection of the Health of the Mother (*Service de la Protection de la Santé de la Mère – SPSM*).

• **Materials and Equipment**

During this same period (1988 to 1990), USAID and the WHO purchased materials and equipment for the *maisons d’accouchements* and maternities. The MOH also developed partograms, technical guides, and protocols for maternal health care as well as a new form for the monitoring of pregnancies that required three prenatal consultations and added a requirement for supplemental visits for women detected to have a high-risk pregnancy. Also during this period, the UNFPA took the lead in assisting the MOH to develop a management information system designed to collect information on family planning, pregnancies, childbirths, nutritional status, diarrheal control, and immunizations for local level program planning and management. USAID also provided assistance with this activity. The MOH trained provincial level health staff in the use of the MIS in 1991.⁴⁰

- **INAS Obstetric Intervention Study**

A key INAS study conducted during this phase of support, financed with USAID assistance, focused on the prevalence of maternity-related interventions. This study reviewed obstetrical interventions that took place in all maternity wards (public and private) throughout the country in 1989. The study revealed serious deficits in the number of obstetrical interventions at the urban, provincial and rural levels, due to lack of facilities, equipment and/or trained personnel. These deficiencies, however, were almost four times as great in rural settings than in urban ones. The study also revealed a maternal mortality ratio* of 192 deaths per 100,000 births in public hospitals and a median neo-natal mortality rate of 45 deaths per 1,000 births.^{41,42,43,44}

These results were a wake-up call to legislators, health providers and the international donor community. The recommendations made by INAS included increased and improved coverage for the unmet need for obstetrical interventions. The study proposed a strategy that gave priority to both preventive measures (i.e., promotion of family planning and prenatal care) as well as curative measures focused on the management of all possible obstetric complications. The study called for an overall improvement of the nation's health infrastructure by strengthening existing facilities with surgical wards and equipment as well as staffing these facilities with qualified health staff (e.g., gynecologists and midwives).⁴⁵

During this time, the late 1980s, less than one-third of women delivered their babies in medically supervised environments and less than 25 percent received prenatal care.⁴⁶ One of the reasons why women may not have sought prenatal care or delivered in a medically supervised environment was that women, their husbands, friends, and family simply did not perceive that being pregnant was a condition that necessitated a visit to a doctor or midwife. While pregnancy and childbirth can be potentially dangerous, they are still commonly regarded as natural phenomena, not as an illness for which travel to a health center or hospital is justified (along with the ensuing expenses). Similarly, while pregnancy is considered a normal event, death during labor and delivery may be considered unavoidable. These fatalistic views can lead to the perception that the condition is not treatable and may affect a woman's decision to seek care in a timely manner.⁴⁷

By the end of Phase III support, USAID began its initial efforts in the area of maternal health care with one of the first activities being the review of the training curricula for midwives. In USAID's Project Action Completion Report (PACR) for Phase III, one of the key recommendations included: "Priority needs to be given to pregnancy and prenatal care. Infant and child mortality surveys have revealed that many infant deaths are in fact neonatal deaths. An increased focus on pregnancy monitoring and prenatal care is recommended to try to decrease these incidents." The report called for efforts to improve prenatal care, however, still within the guise of improving infant and child health status rather than improving maternal health status. USAID as well as other international

* The maternal mortality ratio is the number of maternal deaths per 100,000 live births. It indicates the risk of maternal death among pregnant women and those who have recently delivered.

international donors' efforts would later expand into the area of safe motherhood during the next phase of support.

E. USAID Phase IV: 1989-1996

The purpose of USAID's Phase IV assistance project was to "improve the impact, efficiency, and sustainability of family planning and maternal/child health (FP/MCH) programs in Morocco."⁴⁸ This period of support included conferences on safe motherhood, international donor funding for a new training format of midwives, an evaluation of the materials used at health centers for monitoring pregnancies, and the upgrading of basic health centers.

● Conferences on Maternal Health Care

During this phase, the MOH organized one international conference and two national level conferences that fueled the growing concern on maternal health care. The first event was the 1991 Maghreb Conference on Safe Motherhood. Representatives from five Arab countries, various national and international experts in the field, as well as representatives from the international donor community came together to formulate a common plan of action aimed at reducing maternal and perinatal morbidity and mortality. This conference also achieved a consensus for the need to develop a more applied training program for midwives who would later work in health center birthing rooms or in maternities delivering babies (rather than becoming teachers at training institutes). The two other national events organized by the MOH included a meeting to approve the national strategy for the reduction and prevention of maternal and perinatal mortality and a national colloquium on health held in Ouarzazate in July 1992. At the Ouarzazate conference, safe motherhood emerged as a major theme.^{49,50}

● Training and Management Information Systems

Beginning in 1994, UNFPA took the lead in assisting the MOH Training Division (*Division de Formation, Direction des Ressources Humaines*) to redesign the training curricula for midwives offered at the Training Institutes for Careers in Health (*Instituts de Formation aux Carrières de Santé - IFCS*). The USAID-funded SEATS Project also contributed to these efforts by assisting the MOH in developing appropriate materials (e.g., partograms and protocols) for the training of health personnel. In 1994, an evaluation of the forms used to monitor pregnancies (*fiches de surveillance de la grossesse*) revealed that health personnel were not completing the forms correctly. The SEATS project provided technical assistance in improving the training curricula and instruction manuals of materials for staff working in primary health care center birthing rooms (*maisons d'accouchement*) and in rural maternity wards (affiliated with provincial level hospitals).

- **Construction and Remodeling of Health Facilities**

USAID also financed the construction and/or remodeling of several health centers largely because of the results of INAS' obstetric intervention study and the National Health Facilities Infrastructure Study conducted in 1987. The National Health Facilities Infrastructure study revealed serious problems encountered by rural populations when accessing health facilities for more sophisticated maternal health services (as well as for clinically supervised family planning methods). In order to assure greater access by the rural population to these clinic-based services, USAID financed the construction and/or remodeling of 35 health facilities. Due to this support, a total of 14 rural dispensaries and five rural health centers became primary health centers thanks to the addition of family planning and maternal and child health care modules.⁵¹

- **UNICEF and UNFPA**

UNICEF and UNFPA became actively involved in safe motherhood activities during this period. UNICEF contracted a John Snow consultant to review the Ministry's 1992-1996 maternal health care plan and provide recommendations for UNICEF's Programme of Cooperation. The main recommendations included strengthening antenatal care services through training of MCH nurses, improving supervision, developing referral systems, improving home and institutional deliveries, and developing IEC programs on safe motherhood. During this period, UNICEF trained TBAs working in rural areas and provided them with the essential materials for their birthing kits (*trousse*) as well as IEC materials.

UNFPA also developed a plan of operations for 1992-1996 known as its Comprehensive Population Programme. This was a 17 million dollar program with the largest component (eight million) for IEC activities. The program also contained an MCH component that proposed to "support MCH services for improved prenatal and delivery care and integrate family planning with all MCH services strategies including adequate in-service training in prenatal, delivery, and post-partum care."⁵² As part of this program, UNFPA opened rural maternities in the Ouarzazate area in the early 1990s. Unfortunately, few women sought services from these facilities. UNFPA also helped in introducing a prenatal schedule (*echeancier*) aimed at improving the delivery of prenatal care. These schedules targeted nurses working in primary health care centers because there were so few midwives during this time.

F. USAID Phase V: 1994 - 1999

The overall goal of USAID's Morocco Family Planning/Maternal and Child Health Phase V Project was to improve the health of women of reproductive age and of children under the age of five.⁵³ Phase V support included a maternal mortality reduction program to improve the survival of women of childbearing age.⁵⁴ The program included two components: 1) a pilot project aimed at improving maternal health care services, and 2) a national IEC campaign to increase awareness about maternal mortality and "convey the message that women need not die in childbirth."⁵⁵

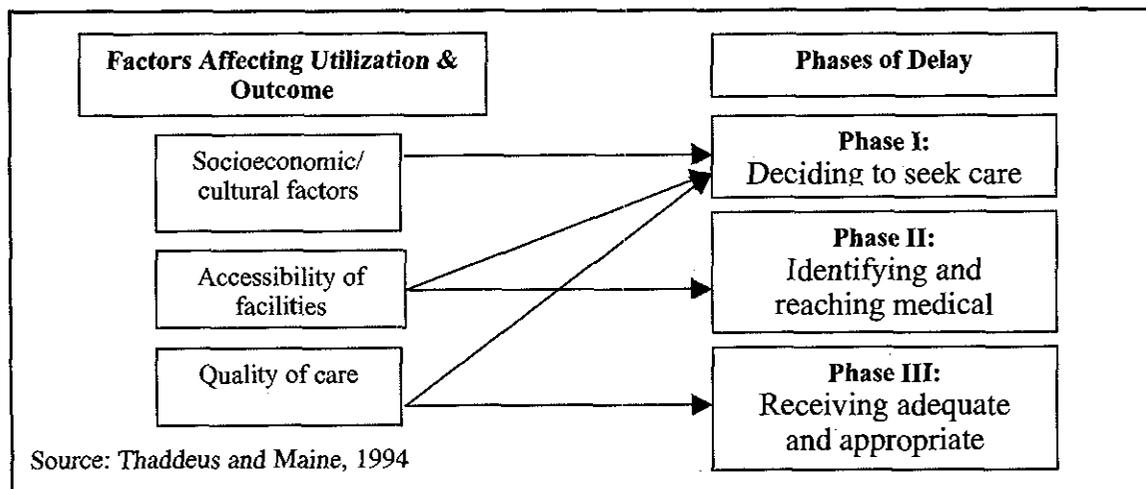
This period of support would see a change in strategy by the MOH towards maternal health care and the largest involvement by an international donor, USAID, in safe motherhood activities to date. Under the Phase V Family Planning and Maternal Child Health Project, safe motherhood became a key component of USAID-funded activities during this phase of support. Key events during this period included:

- **Visit by Dr. Deborah Maine**

When JSI began its Phase V project, it was unclear what role safe motherhood activities would play. One of JSI's first activities was to convene a blue ribbon panel of national and international experts on safe motherhood to assess the maternal health care environment. Following this meeting, JSI contacted Dr. Maine to visit Morocco to help assess the maternal health care situation and provide suggestions on how to approach a safe motherhood project.

Dr. Maine suggested an approach based on the concept of "Three Delays" that she presented to the MOH as well as USAID and JSI. This concept identifies three levels of potential delay that contribute to maternal deaths. The first delay is associated with the delay in the decision by the pregnant woman and her family to decide to seek medical care when an obstetric emergency arises (cultural and socioeconomic factors). The second delay occurs when trying to reach the appropriate health center to deal with the emergency (access and distance factors). Finally, the third delay is associated with any delays in receiving appropriate medical attention after arriving at the health center (health system weaknesses). In order to have an impact on reducing maternal mortality, the focus of Morocco's national strategy had to change its focus from prenatal care to improvement of management of obstetrical complications. This included improving providers' (i.e., doctors, nurses or midwives) skills to manage obstetric complications. This view excluded TBAs, whether trained or not, with the rationale that TBAs generally cannot manage obstetric complications or perform lifesaving procedures needed to reduce maternal mortality.⁵⁶

Figure 1. Three Delay Model



• **Change in MOH Maternal Health Strategy**

The MOH announced its new maternal health strategy in 1995, largely influenced by Maine's recommendations. This new strategy included:

- Improving conditions at hospitals and maternities for the management and treatment of emergency obstetric complications;
- Improving conditions at rural maternities and *maisons d'accouchement* attached to primary health centers;
- Improving the conditions for home birthing;
- Reinforcing family planning activities; and
- Promoting IEC campaigns.⁵⁷

This change in strategy, based on the concept of "Three Delays," signified the adoption of a national policy to improve access to emergency obstetric care (EmOC). Reducing maternal mortality was now one of the key priorities of the MOH.

• **Pilot EmOC Project**

In 1995, USAID became the first international donor to support a project solely dedicated to improving safe motherhood.⁵⁸ Until this time, very few projects aimed to improve conditions at hospitals and maternities. In fact, there was some initial resistance at USAID to implement a project focused on hospital care. However, Maine argued that the only way to substantially save women's lives was to improve the medical care they receive when an obstetrical emergency arises. After the MOH's change in strategy, several international donors became interested in funding projects to improve the management of EmOC at hospitals and rural maternities.⁵⁹

In 1995, the MOH, with assistance from JSI, began a pilot project based on the "Three Delays" model. This pilot project had three objectives:

1. To increase the availability of EmOC;
2. To increase the utilization of EmOC; and
3. To improve the quality of EmOC.⁶⁰

Project activities focused on reducing the second and third level of delays by upgrading existing facilities including retraining of existing staff in the two regions of Fès-Boulemane and Taza-Al Hoceima-Taounate. The primary goal was to develop services for comprehensive EmOC (CEOC) in seven hospitals, and basic EmOC (BEOC) in 52 health centers in these two regions (eight provinces with a population slightly greater than 3 million). The criteria for selecting provinces for the project included the rate of cesareans, obstetric complication rates, existing health infrastructure, and transportation infrastructure. The strategy of the project was to upgrade health centers to offer a minimum package of BEOC services (*Soins Obstétricaux d'Urgence de Base* - SOUB centers). If additional treatment was necessary (e.g., cesareans, blood transfusion), these SOUB centers would refer the client to a CEOC center (*Soins Obstétricaux d'Urgence*

Comprehensive - SOUC) at a local hospital. The major inputs of the project included: infrastructure, equipment, training, information systems, standards and protocols, and IEC.⁶¹

Box 4. Basic Elements of Emergency Obstetric Care and Comprehensive Emergency Obstetric Care

Basic Emergency Obstetric Care (BEOC) includes:

- Use of oxytocics;
- Use of antibiotics;
- Use of anticonvulsants;
- Manual removal of placenta;
- Use of vacuum extractor;
- Removal of retained products of conception;
- Referral; and
- *Reanimation* of newborn (in Morocco).

Comprehensive Emergency Obstetric Care (CEOC) includes all the elements of BEOC plus:

- Cesarean section; and
- Blood transfusion.

Maine and Goodburn evaluated the pilot project in 1999 and deemed it a success. EmOC service delivery had started or increased in almost all of the planned sites leading to an increase in the availability of EmOC facilities. The number of cases treated at the CEOC and BEOC facilities (i.e., service utilization) also increased. Finally, the evaluators found evidence that the quality of care provided improved.⁶²

The pilot EmOC project was the first project under the framework of the decentralized maternal health program. The project used a decentralized management approach with constant communication and input from the regional delegates and their teams in all aspects of the project from design to implementation. In fact, the delegates from the Fès-Boulemane and Taza-Al Hoceima-Taounate regions had already been active in trying to address the need for improved maternal health services before the project was even conceived.

• **Qualitative Research Study**

Three years into the pilot EmOC project, in 1998, a consultant from the Fès-Boulemane region conducted a qualitative research study examining the social and cultural management of obstetrical complications in the same regions as the EmOC project. The

aim of the study was to achieve a better understanding of the attitudes towards pregnancy and childbirth held by women and their families. The major findings were as follows:

- A majority of participants did not perceive symptoms such as swollen extremities, bleeding, abdominal pain, dizziness, fainting and heart palpitations as necessitating a medical consultation, rather they believed that the symptoms would go away on their own;
- Many participants felt that pregnancy was an act of God and proof of sexual relations and therefore, pregnant women should keep themselves hidden;
- Many participants who recognized the need for antenatal care stated that such services were often inaccessible due to distance and cost of transportation; and
- Participants cited unfavorable reception by health personnel at the health facilities.

One of the recommendations resulting from the study was the need for more targeted IEC campaigns directed at women and their families to increase the awareness of signs of possible obstetric complications and improved quality of care and reception at health facilities.⁶³

● **National Safe Motherhood IEC Campaign**

The other major component of the MOH's safe motherhood program during this phase was the launching of the national IEC campaign by the MOH's IEC Division, with assistance from John Hopkins University Center for Communication Program (JHU/CCP). The goal of the IEC campaign was to raise awareness of maternal mortality and spread the message that women did not have to die as a result of the complications from childbirth.

The communication strategy was implemented in two phases. The first phase concentrated on increasing policy-makers' awareness of the high level of maternal mortality in Morocco. Major components of this advocacy effort included:

- Dissemination of a documentary video produced by the IEC Division, *Khlat Eddar*, calling for the mobilization of resources and improvements in EmOC;
- Development and dissemination of a press kit to accompany the video; and
- Development and distribution of materials geared for health professionals urging them to take responsibility for preventing maternal deaths by emphasizing EmOC skills at each appropriate level of service delivery.

As a result of these efforts, media coverage of the maternal mortality situation increased dramatically in Morocco.

The second phase of the communication strategy focused on the development of messages aimed at women and their families to recognize the signs of complications during pregnancy and childbirth in order to make timely decisions to seek care when needed. The MOH's IEC Division wrote (with support from JHU/CCP), recruited actors, and directed a play, *Aide –Toi, le Ciel t'Aidera*, ("Help Yourself, Heaven Will Help

You”) that toured major urban and rural areas, visiting a total of 30 cities and villages and reaching an estimated population of 37,000 people.⁶⁴ The central message of the play was that every pregnant woman is exposed to dangers during pregnancy and childbirth. This play was professionally videotaped and played on the national long-distance bus lines for three months and aired on national television.⁶⁵

The IEC Division also produced a dramatic video, *The Merchant’s Daughter (Bent Ettager)*, about a wealthy merchant and his only daughter. This video follows the daughter as gets married, becomes pregnant, experiences all the signs and symptoms of pre-eclampsia and finally dies. The video provided rural women and their families with information regarding the danger signs of pre-eclampsia and eclampsia that for many Moroccan women and their families were unknown. The symptoms are often regarded as “normal inconveniences of pregnancy.”⁶⁶

The national communications strategy focused first on involving policy-makers, influential people, and health providers to “buy into” and take responsibility for the problem of maternal mortality. Concurrently, the MOH, with donor support, upgraded health facilities, improved practitioner’s skills and equipped centers with needed medical supplies and materials. MOH efforts then shifted to focus on increasing the awareness of women and their families of the possible risks of pregnancy and childbirth. The communication strategy was “successful in placing maternal mortality reduction high on the national agenda, resulting in mobilization of resources and improvements in EmOC.”⁶⁷

- **Regional Safe Motherhood Projects**

Also under this phase of support, the MOH, with assistance from JSI, implemented two regional projects on prenatal consultations in Fès and Meknès-Tafilalet. The Fès project examined the contribution of prenatal care to reducing maternal mortality given that most complications during childbirth cannot be predicted. The main project activity was to develop an IEC prenatal care module explaining the signs of potential complications and encouraging women to deliver in a medically supervised environment. Women who came for prenatal care were the primary audience.⁶⁸

The Meknès-Tafilalet project was the result of a case study on peri-natal mortality at the Mohammed V Hospital in Meknès. The study raised questions about the quality of prenatal care provided by health facilities and revealed an absence of a referral/feedback system. The aim of this project was to improve the quality of pregnancy monitoring to ensure that clear messages were transmitted to women regarding possible obstetric complications and advantages of giving birth in a medically supervised environment. The project also attempted to improve the referral system between referral centers and primary health care facilities.

- **Training**

There was a strong push for the recruitment of midwives during the mid-1990s. Prior to the early 1990's there were around 200 midwives throughout the country, in contrast to some 800 midwives today. The MOH, with assistance from JSI, trained midwives and obstetrical nurses in interpersonal skills to ensure better assistance to women during all the stages of childbirth. A total of 12 midwives participated in a workshop on developing training materials and became trainers of midwives at the IFCS in Rabat.⁶⁹

- **Material Development**

During the last year of Phase V, JSI assisted the MOH in developing and publishing standards of Emergency Obstetrical and Neonatal Care. These standards assist program managers in determining the human and material resources required for services at different levels, in standardizing the criteria for management and referral of obstetrical and neonatal complications, and in conducting clinical procedures compatible with international standards.⁷⁰ JHPIEGO also assisted the MOH in revising the curriculum on EmOC for sixth year medical students.

- **Marrakech Conference on Maternal Mortality**

In March 1997, the First World Congress on Maternal Mortality (*1ere Congrès sur la Mortalité Maternelle*) was held in Marrakech. Over 2,500 specialists from 60 countries came to Morocco to analyze the reasons behind the continuing high rates of maternal mortality in developing countries and to develop strategies to reduce these high levels. This event marked the first time that Morocco was at the center of the international safe motherhood movement.

- **UNFPA Safe Motherhood Projects**

Other international donors became active in safe motherhood activities during this phase. UNFPA is currently implementing two safe motherhood projects with support from the Gates Foundation and a total budget of \$2 million. The first project is a national needs assessment of the maternal health care program and service environment. Regional workshops assessing the need for safe motherhood services on a regional basis are being held throughout the country. Thus far, workshops have been held in Marrakech and Tangiers. This project is allotted 25 percent of the total budget (US\$500,000).

The second project is replicating the "Three Delays" strategy of the pilot EMOC project in the 13 provinces where UNFPA is currently conducting a \$7 million reproductive health project. The project will transform five BEOC centers to CEOC by installing surgical wards at the provincial hospitals in Azilal, Errachidia, Ouarzazate, and Kelaa. The activities of this project include a maternal audit, EmOC, *reanimation*, and training of OB/GYNs.

- **Other Donors**

The European Union is currently implementing a project (1998-2002) focused on rehabilitating and equipping 20 hospital maternities with necessary materials and ambulances. The project includes a training and IEC component as well as providing medication and contraceptives.

III. MEASURING PROGRESS

Of the four areas covered in the retrospective analysis reports, measuring outcomes for safe motherhood is by far the most difficult. Maternal deaths are often under-reported because many women die outside of the health system, making accurate registration of deaths difficult. More importantly, the actual number of maternal deaths occurring in a specific place at a specific time is relatively small. Therefore, the methods used to calculate maternal deaths are often complicated and expensive to use since it is necessary to conduct large-scale population surveys in order to obtain precise estimates.^{71,72} Maternal deaths are also often misclassified. Health workers may not know why a woman died or whether she was recently pregnant. Sometimes a maternal death may be intentionally misclassified, especially if the death was associated with an illegal abortion. Studies conducted in some developing countries reveal that the actual number of maternal deaths was double or triple what was initially reported.⁷³

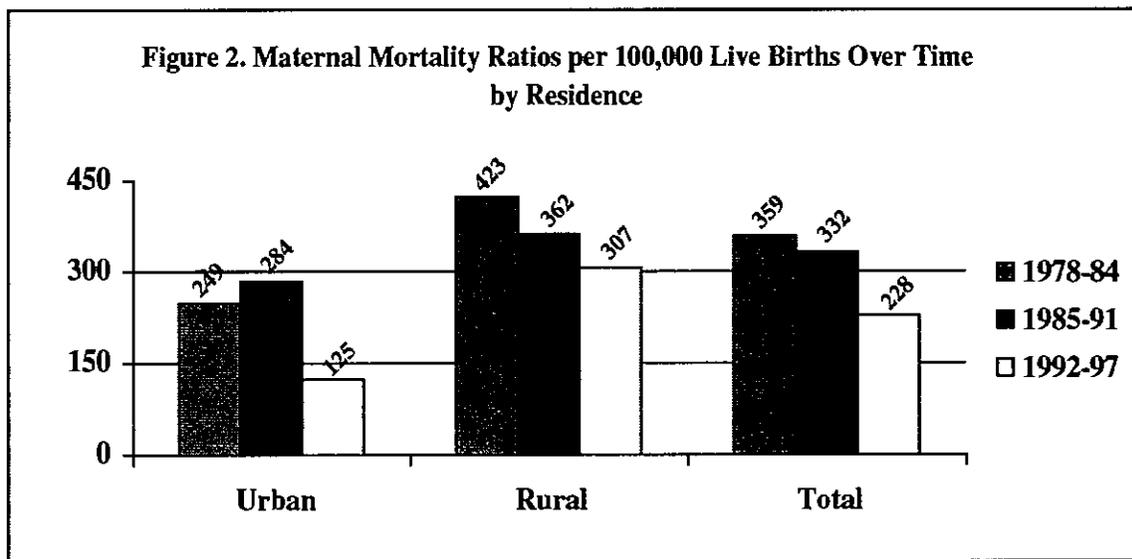
Because of the difficulty of obtaining accurate measures of maternal mortality, evaluators often collect data on two factors related to obstetrical outcome: proportion of births assisted by skilled health providers and births that occur in a medically supervised facility. Alternative indicators on availability and utilization of essential obstetric services are also used. Data for these process indicators can be collected and analyzed at health facilities without large-scale population surveys. Fortunately, data from six population-level surveys conducted in Morocco provide information on maternal health care over the last 20 years of USAID support.

- **Maternal Mortality**^{74,75}

With the exception of urban maternal mortality rates between 1985-1991, maternal mortality declined over the past two decades (see Figure 2). However, Morocco's maternal mortality rates remained high for a country of its level of development with over 200 deaths per 100,000 live births.* To put this in a regional context, Tunisia's maternal mortality rate more than a decade earlier (1982/83) was 192 deaths per 100,000 live births. While both the urban and rural mortality rates decreased substantially in Morocco over a 20-year period, the rural mortality rate was more than double the urban rate,

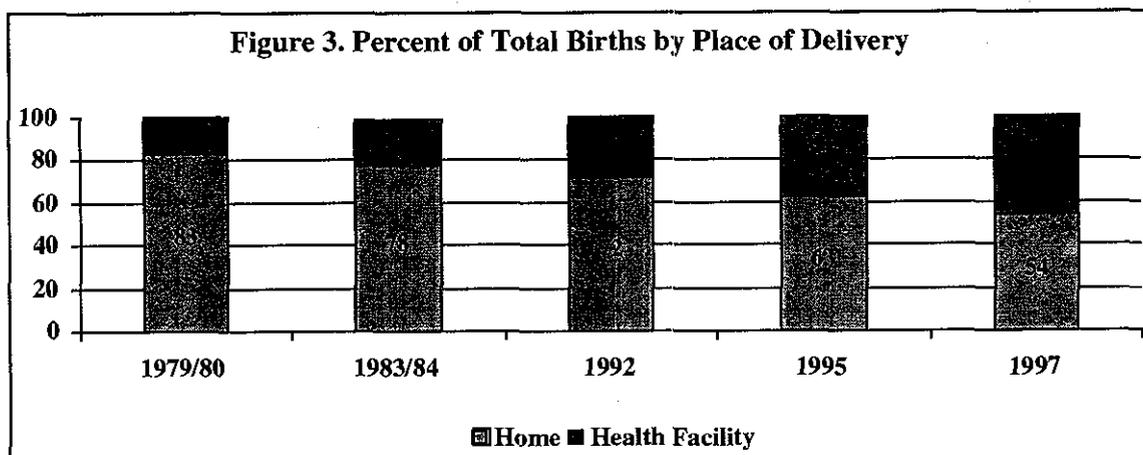
*The maternal mortality estimates for the period 1978-1991 come from the 1992 DHS. DHS does not routinely collect data on maternal mortality because the sample size needed for such estimates is larger than that used by the DHS. Therefore, trends should not necessarily be interpreted from the data. In contrast, the 1997 PAPHCHILD survey contained a sufficiently large sample size to produce reliable estimates of maternal mortality.

signifying that there is still much to be done to increase access and promote services for maternal health care in rural environments. One study suggested that the current level of maternal mortality reveals serious deficits in the health care system, especially at the level of referrals and care for obstetric emergencies.⁷⁶ Projects such as the MOH's EmOC project, funded by USAID, are designed to increase access to essential obstetric care in areas of high maternal mortality and thus, to decrease maternal mortality. It is too soon, however, to measure their impact.



- **Place of Childbirth**^{77,78,79,80,81}

As can be seen from Figure 3, the majority of births take place in the home. As of 1979/80, only 17 percent of births occurred in a health facility. This has increased steadily over the past 20 years, though only to 46 percent as of 1997. Again, urban women were far more likely than their rural counterparts to give birth in a health facility (62 percent vs. 26 percent, as of 1997; data not shown). The findings suggest greater access to health care facilities among urban women as well as greater awareness of the advantages of giving birth in a medical facility.



According to the 1997 PAPCHILD Survey, the major reason reported by women for not delivering in a medically supervised environment was lack of transportation, mentioned by 50 percent of urban women and 31 percent of rural women delivering at home. In contrast, almost 25 percent of women who did deliver in a health facility reported that they would have preferred delivering at home (n = 286).

- **Attended Births** ^{82,83,84,85,86}

Ideally, all births should be attended by a trained clinician (doctor, nurse or midwife). The data in Table 1 indicate that the percent of births attended by a trained health provider has risen steadily, from 20 percent in 1979/80 to 40 percent in 1995 (data is not provided in the 1997 PAPCHILD Survey). The ratio of physicians to nurses and midwives at the birth has remained fairly steady over the 20-year period, in the range of 1:4 or 1:5. The percent of births attended by TBAs has gradually declined from 75 percent in 1979/80 to 41 percent in 1995.

Table 1. Percent of Assisted Births by Type of Attendant Over Time

Attendant Type	1979/80	1983/84	1987	1992	1995
TBA	74.8	53.3	57.7	47.6	41.0
Midwife/Nurse	17.0	18.9	20.1	25.0	28.9
Friend/Family	4.6	18.5	n/a	19.8	17.5
Doctor	2.6	5.3	5.9	6.0	10.7
Other	1.0	3.9*	15.4*	1.6	0.2*

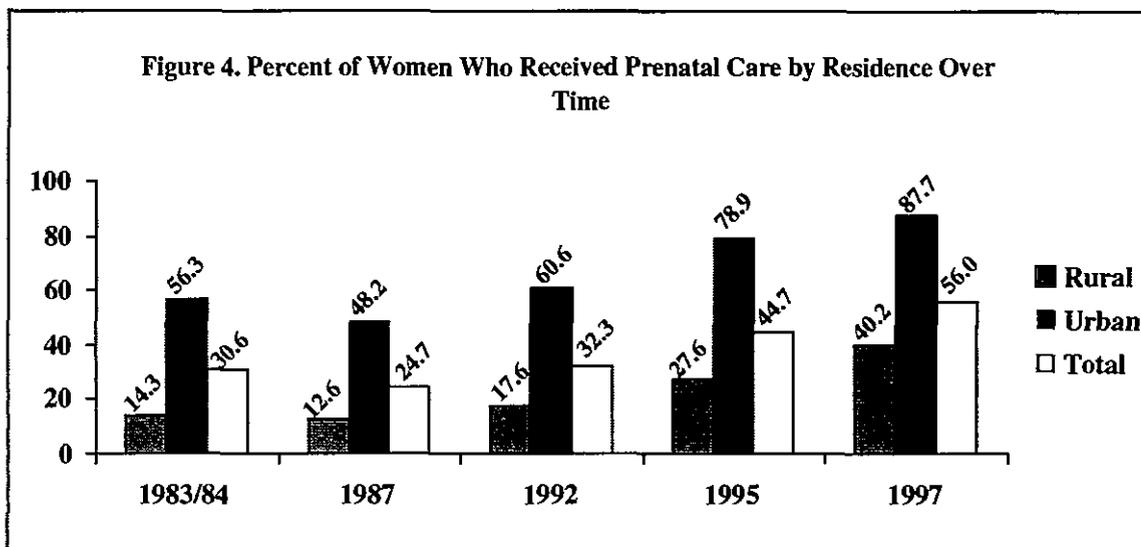
n/a: data not available

*: total not equal to 100 percent

- **Prenatal Care** ^{87,88,89,90,91}

Although prenatal care is not predictive of obstetrical outcome, evaluators often track it as a means of documenting the percentage of women in contact with a medical facility during pregnancy. As can be seen from Figure 4, the percent of pregnant women receiving at least one prenatal visit increased steadily over the past 20 years, from 31 percent in 1983/84 to 56 percent in 1997. Urban women were almost twice as likely as

rural women to receive prenatal care; this finding has remained fairly consistent over the five surveys with available data.



The 1997 PAPCHILD survey provides more in-depth information on prenatal care than the previous nationally representative surveys. According to this survey, 28 percent of women reported that they sought prenatal care because of the desire to have a healthy pregnancy “without problems,” while 27 percent reported that they sought care to alleviate any worries and verify that the pregnancy was normal. A total of 22 percent of respondents reported that they received prenatal care to avoid and prevent any further possible obstetric complications due to a history of complications.

The 1997 survey also provides information on why women did not get prenatal care. Over 50 percent of women (57 percent) reported no problems with their pregnancy and therefore, did not seek care. An additional 22 percent reported that prenatal care was not available while 10 percent indicated that prenatal care services were too expensive.

• **Tracking Progress over the Period of USAID Support**

The data from the six population-level surveys suggests that changes in two select intermediate outcomes (percent of deliveries in a health facility and percent of deliveries attended by a doctor, nurse or midwife) began to occur before the official “launch” of safe motherhood activities in Morocco, possibly in response to an improved standard of living on one hand and improved maternal-child health/family planning on the other. For example, the intensive family planning program conducted under VDMS unquestionably improved maternal-child health services country-wide, before safe motherhood activities began in the early 1990s.

The most recent survey, PAPCHILD in 1997, indicates a continued increase in the percentage of births attended by trained clinicians and a decrease in the rates of maternal mortality. However, given that the major programmatic initiatives in safe motherhood

did not begin until 1995/96, it is difficult to attribute the improved outcomes to these program interventions. However, the interventions are expected to continue and even accelerate these trends in the future. If not yet contemplated, the MOH and USAID may want to implement data collection now that would allow for the evaluation of the impact of the safe motherhood initiative in the future (as opposed to simply monitoring trends over time).

IV. KEYS TO SUCCESS OF THE SAFE MOTHERHOOD PROGRAM

During the past decade, Morocco has taken impressive measures to decrease maternal mortality: improving clinical infrastructure for EmOC (in two regions), changing public awareness and attitudes through entertaining mass media programs, and increasing the number of trained clinicians in management of EmOC.

Is Morocco a “success” story for maternal mortality? On one hand, the country continues to have high rates of maternal mortality by regional and international standards: 228 deaths per 100,000 live births as of 1997. In a country with impressive achievements in family planning, far less progress has been made in reducing maternal mortality.

On the other hand, Morocco’s “success” consists of the decisive actions it has taken in the area from the mid-1990s to the present. Morocco has clearly joined the movement within the international reproductive health community to aggressively address maternal mortality, in large part by shifting its emphasis from prenatal care to improving services for treating and managing emergency obstetrical complications.

Five elements have been key to the progress made in safe motherhood to date.

- The MOH reorganized its maternal mortality prevention efforts based on the concept of the “Three Delays” model and has systematically set about improving service infrastructure to treat EmOC accordingly.
- USAID – usually unwilling to support hospital-care based interventions – provided funding to test this new approach in Morocco by supporting the pilot EmOC project in two regions with previously high levels of maternal mortality.
- The MOH launched extensive mass media activities that have attracted the attention of the population as well as that of policy makers. The high quality productions have enhanced the image and its importance of this program.
- Implementing these interventions in the context of decentralization has transferred ownership to the regional and provincial levels. As a result, this approach has provided a model of a “successful” decentralized project.
- In contrast to family planning and HIV/AIDS, safe motherhood programs had wide spread social approval from the start. The wish to reduce the number of mothers who die in childbirth is universal.

Perhaps the most important sign of the success of the safe motherhood program is that other international donors have pledged to continue the efforts begun under the pilot

EmOC project. The most immediate example of this is UNFPA's safe motherhood project replicating the strategy used by the pilot EmOC project.

V. USAID'S CONTRIBUTION

USAID has been one of five main donor agencies to support safe motherhood activities in Morocco over the past decade. Until 1989, USAID's primary contribution to safe motherhood was its support to the national family planning program. From the late 1980s to the early 1990s, USAID provided support for specific safe motherhood activities: construction and remodeling of the primary health care centers, revision of training curricula for midwives, and research on obstetrical interventions. As of 1995, USAID began to channel its funding for safe motherhood into improving the infrastructure of facilities for EmOC, with secondary support for training and IEC campaigns.

USAID has not been alone in its support of safe motherhood in Morocco. Over the past 10 to 15 years, UNFPA, the World Bank, and UNICEF have provided significant funding to Morocco for safe motherhood. More recently, the EU has begun providing support for maternal health care. It is difficult (and perhaps artificial) to separate the donor support for safe motherhood from that of family planning and child survival.

Donors differ in the type of items they finance. Much of the World Bank support has gone to finance renovation and construction activities for health facilities. Similarly, the EU is currently supporting the rehabilitation of hospital maternities. UNICEF's primary contribution has been towards training and support of TBAs and the development of IEC materials. UNFPA's support has also assisted in IEC material development as well as training of nurses and midwives. More recently, UNFPA is implementing two safe motherhood projects with support from the Gates Foundation through Columbia University. In contrast, USAID traditionally funded training of health care providers, research on varying maternal health care issues as well as supporting some renovation and construction of health care facilities. However, in 1995, USAID overcame its resistance to hospital-based interventions and provided major support to finance the improvement of health facilities and staff to manage obstetrical complications in the two pilot areas: Fès-Boulemane and Taza-Al Hoceima-Taounate.

VI. FUTURE STEPS

The major challenge facing Morocco in its effort to reduce maternal mortality is to increase the number of equipped health facilities with trained health providers to manage obstetric complications throughout the country. The MOH must also continue its efforts to increase awareness among women, their husbands and family of the risks of pregnancy and encourage all women to consult a health facility for prenatal care in an effort to identify possible high-risk pregnancies.

USAID support to the MOH over the next four years will continue to include funding for safe motherhood activities through the JSI-led project in the regions of Tangiers-Tetouan and Souss-Massa-Draa. This project focuses on decentralized management of primary health care services and includes an EmOC component in select provinces.

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APPENDIX A

Key Informants Interviewed

This list contains all the key informants that were interviewed for the retrospective analysis reports (family planning, child survival, safe motherhood, and STI/HIV/AIDS).

USAID/Morocco

Ms. Susan Wright, HPN Officer
Ms. Helene Rippey, Senior Technical Advisor
Ms. Zohra Lhaloui, Project Management Specialist

Ministry of Health (MOH)

Direction de la Population (DP)

Dr. Mostafa Tyane, Director
Dr. Najia Hajji, Chief of Family Planning Division
Dr. Hamid Checkli, Chief of Child Health Division
Dr. Ali Bensalah, Chief of Maternal Health Division
Dr. Mohamed Abouakil, Service Delivery
Dr. Tsouli, Maternal Health Division, INAS Laureate
Mr. Abdelylah Lakssir, M&E Specialist
Dr. El Arbi Rjimati, Child Health Division
Dr. Mohamed Braikat, Head of National Immunization Program
Mr. Mohamed Bigmegdi, National Immunization Program
Mr. M. Brahim Ouchrif, Administrative Services
Ms. Rerhryaye Touria, Secretary, Child Health Division

Direction de la Planification et des Ressource Financières Service d'Etudes et d'Information Sanitaire (SEIS)

Dr. Mohamed Laziri, Director
Mr. Mustapha Azelmat, Chief Engineer and Survey Specialist

Direction de la Epidémiologie et la Lutte Contre les Maladies

Dr. Jaouad Mahjour, Director
Dr. Ahmed Zidouh, Chief of the Epidemiology Surveillance
Dr. Kamal Alami, Chief of STD/AIDS
Dr. Hamida Khattabi, Epidemiologist
Dr. Abderrahmen Filali Baba, Chief of Leprosy (former Chief of STD/AIDS)

Direction des Hôpitaux et des Soins Ambulatoires

Dr. Saida Choujaa-Jrondi, Director
Dr. Darhkaoui, Chief Ambulatory Health

Direction des Ressources Humaines – Division de la Formation

Mr. Achaati, Chief of the Training Division

Ms. Temmar, Midwife Trainer and Responsible for Basic and Continuing Training Program

Dr. Mohamed Zaari Jabiri, Head of Continuing Training Program

Institut National d'Hygiène

Dr. Rajae El Aouad, Chef of Immunology

Sefrou Region

Dr. Riouch, Sefrou Delegate

Marrakech Region

Dr. Mohamed Ben Chaou, Regional Coordinator

Dr. Moulay Lakbir Alaoui, Chief Doctor of SIAAP, Marrakech-Menara

Mr. Mohamed Aniba, Major of SIAAP, Marrakech-Menara

Dr. Zenjali, Physician, El Massira I Health Center

Ms. Ben Jebli Feturio, PSGA Educator

Casablanca Region

Dr. Jaafar Heikel, Delegate, Casablanca – Anfa

Médecin Privé

Dr. Mohamed Zarouf

JSI/Morocco:

Dr. Theo Lippelveld, Chief of Party

Ms. Boutaina El Omari, IEC Program Manager

Dr. Redouane Abdelmoumen, Public Health Specialist

Ms. Malika Lassri, Private Sector Program Manager

FNUAP

Dr. Belouali, Coordinator

CNFRH

Prof. Alaoui, Director

Institut Pasteur Maroc

Dr. Abdellah Benslimane, Director

Dr. Souad Sekkat, Immunology Unit

Ligue Marocaine de la Lutte Contre les MST/SIDA

Dr. Sekkat, President (also former Chief of STDs at the Military Hospital)

ALCS

Dr. Hakima Himmich, Chief of Infectious Diseases
Dr. Amine Boushaba, Prevention Program Coordinator
Dr. Adib Baakly, AIDS Care Program Coordinator
Ms. Sara Garmona, Prevention Program with Prostitutes Coordinator

AMSED

Dr. Malak Ben Chekroun, President
Dr. Issam Moussaoui, Project PASA Coordinator

OPALS

Dr. Nadia Bezaoui, President (former STD/AIDS Chief)

Union Européenne

Mr. Massimo Ghidinelli, Technical Assistant, STD/HIV/AIDS Program

Association Marocaine pour la Planification Familiale (AMPF)

Mr. Graigaa, Director
Ms. Bennamar, Board Member

Commercial Market Strategies (CMS)

Dr. Mohamed Ktiri, Country Director
Ms. Houda Bel Hadj, Chief of Program
Mr. Mohamed Jebbor, Country Manager

Catholic Relief Services (CRS)

Ms. Fouzia Soussi, Administrative Chief

USAID/Washington

Ms. Michele Moloney-Kitts
Dr. Miriam Labok
Mr. William Trayfors
Mr. Carl Abdou Rahmaan
Mr. Gerald Bowers
Ms. Joyce Holfield
Ms. Dale Gibbs

John Hopkins University/Center for Communication Programs

Ms. Sereen Thaddeus

WHO/Egypt

Dr. Mechbal, Representative