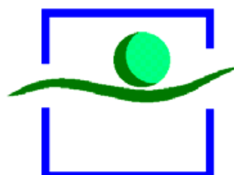
MOROCCO
Reproductive and Child Health Programs

30 Years of Collaboration
United States Agency for International Development (USAID)
and
the Ministry of Health of the Kingdom of Morocco

1971-2000



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The opinions expressed are those of the authors and do not necessarily reflect the views of USAID or the Ministry of Health.

Foreword from the Ministry of Health

This document succinctly and unequivocally chronicles the success of a long-lasting effort. Indeed, this has been a long and fruitful partnership between the Ministry of Health and USAID. The main purpose of this collaboration is to improve the health and well-being of Moroccan families.

The constant devotion shown throughout these years by the health providers, managers and leaders of the Ministry of Health in working to achieve our stated objectives, as well as the excellent assistance and support provided by USAID for our efforts, are evident on each page of this publication and attest to the huge success of this partnership.

This collaboration has helped strengthen the health system of Morocco through the development and reinforcement of technical and managerial capacities, especially in family planning, maternal and child health, and STI/AIDS. The results are in part attributable to the willingness of the managers, contractors and consultants of USAID to transmit and share with their Moroccan partners the newest knowledge, skills and experience acquired in these areas. Therefore, I wish to express my personal satisfaction concerning the quality of our collaboration, which has steadily increased and improved over time.

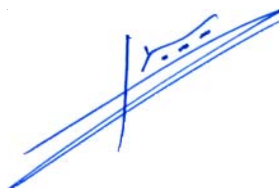
I was not directly involved in this partnership, but I know that, during these 30 years, the partnership between the Ministry and USAID has consistently progressed, integrating the lessons learned during each phase of the program. Thus, our collaboration started with a focus on family planning, which broadened first to include child survival, then maternal health, and finally STI/HIV/AIDS. The achievements attest, on the one hand, to the spirit that has prevailed during all the phases of the partnership and, on the other hand, to the shared commitment in applying the standards of technical performance and management. We have put in place ambitious projects, which have occasionally given us difficult moments. However, the results are clear, shown not only in impressive improvements in health indicators but also in the degree of mutual understanding and trust between our institutions, over and above the written modalities of protocols and project agreements.

Each time an official agreement has been concluded, the two partners have found means to reinforce and deepen the formal commitments that had been made. I am confident in the solid relationships we have built. They will remain, without doubt, fruitful for a long time, and will continue to contribute to the improvement of the Moroccan health system, in general, and the health of mothers and children, in particular. My thoughts go to all the "Friends of Morocco" who have left after so many years of dedicated work, and who remain our best friends even far

away from the Kingdom of Morocco. Beyond the technical results, this human dimension will always be a great achievement and attest to the open-mindedness, tolerance, conviviality, and comprehension: values that we all share. The promotion and sustainability of these values will be ensured by the society project implemented by **His Majesty the King Mohammed VI.**

This long experience compiled with the friendship formed between our respective leaders and with the target population, constitutes a proof of our ever-lasting relationship.

Dr. Mohamed Cheikh Biadillah



Minister of Health
The Kingdom of Morocco

Foreword from USAID

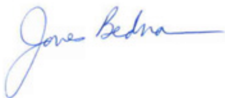
This publication documents the impressive efforts, and results, of the long collaboration between the people of Morocco and the United States. The United States Agency for International Development (USAID) and the Moroccan Ministry of Health, working as partners, have improved the health of Moroccan citizens, especially women and children. It has been a source of great satisfaction and pride for me and for many others in USAID and the broader American community to participate in this effort. The dedication and professionalism of a host of people within the Ministry of Health and other Moroccan associations, USAID and its contractors and grantees, are directly responsible for the success of these programs. Without a doubt, other factors such as the persistent desire to continually improve results and the open and honest communication between USAID and the MOH also contributed to the success of our collaboration.

The quality and closeness of the relationship between the Moroccan government and the American government have not only benefited these programs but also have been strengthened through them. Therefore, I have no doubt that even after the end of USAID assistance in population and health programs, our two governments will continue to pursue opportunities for such an effective collaboration.

Our thirty year partnership, it can be agreed as well, provides a model for other countries. Other national public health programs at different stages of development can benefit from important lessons learned in Morocco, especially if they carefully monitor and evaluate their programs.

I would like to especially congratulate the health managers at all levels of the Moroccan Ministry of Health, and in particular the Directorate of Population, for all their achievements. I am glad that USAID, through its own staff and partners, has been your valued partner in this effort. Finally, I am convinced that the successes of the Moroccan program will inspire other countries and organizations to invest in strong partnerships for long term progress in public health.

James Bednar



Mission Director
USAID/Morocco

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Acronyms and Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ALCS	Association for the Fight Against AIDS (Association de Lutte Contre le SIDA)
AMPF	Moroccan Family Planning Association (Association Marocaine de Planification Familiale)
ARI	Acute Respiratory Infection
AVSC	Association of Voluntary Surgical Contraception (now EngenderHealth)
AZT	Azidothymidine
BASICS	Basic Support for Institutionalizing Child Survival
BCG	Bacillus of Calmette Guerin
BFHI	Baby Friendly Hospital Initiative
CAs	Cooperating Agencies
CBD	Community-based Distribution
CDC	Centers for Disease Control
CMS	Commercial Market Strategies
CNFRH	National Center for Training on Human Reproduction (Centre National de Formation en Reproduction Humaine)
CPT	Contraceptive Procurement Table
CSM	Commercial Social Marketing
DHS	Demographic and Health Survey
DP	Directorate of Population (Direction de la Population)
DPES	Office of Prevention and Health Training (Direction de la Prevention et de l'Encadrement Sanitaire)
DPSI	Division of Planning, Statistics and Computer Science (Division de la Planification, de la Statistique, et de l'Informatique)
DPT	Diptheria, Pertussis, Tuberculosis
EmOC	Emergency Obstetric Care
ENPS	National Population and Health Survey (Enquête Nationale sur la Population et la Santé)
EPI	Expanded Program on Immunization
EU	European Union
FHI	Family Health International
FP	Family Planning
FP/MCH	Family Planning/Maternal and Child Health
FPLM	Family Planning Logistic Management
FPMD	Family Planning Management Development
GOM	Government of Morocco
GPA	Global Program on AIDS
GTZ	German Technical Cooperation
HAART	Highly Active Anti-Retroviral Therapy
HIV	Human Immunodeficiency Virus
IEC	Information, Education, and Communication
IFCS	Training Institutes for Health Professionals (Instituts de Formation aux Carrières de Santé)
IMCI	Integrated Management of Childhood Illness
INAS	National Institute of Health Administration (Institut National de l'Administration Sanitaire)
IPPF	International Planned Parenthood Federation
ITSF	French International Therapeutic Solidarity Fund
IUD	Intrauterine Device
JHPIEGO	Johns Hopkins Program for International Education in Gynecology and Obstetrics
JHU	Johns Hopkins University

JHU/CCP	Johns Hopkins University/Center for Communication Programs
JHU/PCS	Johns Hopkins University/Population Communication Services
JICA	Japan International Cooperation Agency
JSI	John Snow Inc.
KAP	Knowledge, Attitudes, and Practices
MCH	Maternal and Child Health
MEASURE	Monitoring and Evaluation to Assess and Use Results
MIS	Management Information System
MOH	Ministry of Health
MPH	Master of Public Health
MSH	Management Sciences for Health
MSMP	Moroccan Social Marketing Program (Programme Marocaine de Marketing Social)
NFPP	National Family Planning Program (Programme National de Planification Familiale)
NGO	Non-Governmental Organization
NVD	National Vaccination Days
OCP	Chérifien Phosphate Office (Office Chérifien des Phosphates)
OMNI	Opportunities for Micronutrient Interventions
ORS	Oral Rehydration Salts
PACR	Project Action Completion Report
PHR	Partnerships for Health Reform
PMU	Program Management Unit
QA	Quality Assurance
RH	Reproductive Health
SEATS	Service Expansion and Technical Support Program
SEIS	Service for Research and Health Data (Service des Etudes et d'Information Sanitaire)
SETI	Service for Research and Computer Science (Service des Etudes et Traitement Informatique)
SIDA	Swedish International Development Authority
SOMARC	Social Marketing for Change Project
STI	Sexually Transmitted Infection
TA	Technical Assistance
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VDMS	Systematic Motivational Home Visits (Visites à Domicile de Motivation Systematique)
VSC	Voluntary Surgical Contraception
WHO	World Health Organization

Executive Summary

For the past thirty years, the United States Agency for International Development (USAID) has been the principal partner of the Ministry of Health (MOH) in Morocco in the development and expansion of family planning and mother and child health programs. This collaboration is an example of a successful partnership that respected the sovereignty and health policies of Morocco while capitalizing on technical approaches developed with USAID assistance. This report documents this successful collaboration, the impressive results achieved, and the challenges ahead. It provides a model for USAID in developing health partnerships with other countries. It is also an important model for Morocco both within its own health care system and in its exchanges with developing countries eager to achieve similar successes in maternal and child health.

Cooperation between the MOH and USAID began in the early 1970s, five years after the start of the Moroccan National Family Planning Program. Deep concerns had been raised about the high rate of population growth, both nationally and internationally, but most countries in the region were unwilling or unable to address this problem directly. In Morocco, the decision to offer family planning was spurred by courageous declarations by His Late Majesty King Hassan II, in the context of a traditional pronatalist society. In 1965, a Royal Memorandum explicitly linked the problem of rapid population growth with socioeconomic development. By the following year, the High Commission on Population and local population committees were created. Laws dating back to the French protectorate under the Dahir of July 10, 1939, that prohibited the sale and marketing of contraceptive products were repealed by 1967.

The initial USAID/MOH partnership in the 1970s provided vital impetus for family planning in Morocco. In particular, it started the Systematic Household Motivational Visits (VDMS) Program, a key element of success of the national family planning program. The cooperation between USAID and the MOH evolved and adapted to the country's needs and priorities. Project appropriations increased over time, growing from $3 million in 1971-1977 to $52 million in 1993-2000, attesting to the relationship of trust and the strong shared interest between the two parties. Altogether, between 1971 and 2000, there were five USAID/MOH projects totaling 126 million dollars. A sixth and final collaboration between USAID and the MOH covering the 2000-2003 period is underway to ensure the sustainability of the population, health, and nutrition programs.

In the beginning of this partnership, family planning was strongly emphasized. Programs for child survival activities were given more emphasis starting in the 1980s, and specific programs to reduce maternal mortality and treat sexually transmitted infections began in the 1990s. Institutional environment and policy aspects of the health care system were addressed as of 1990. Program sustainability was directly addressed in a transition plan begun in 1996. Thus, over time USAID and the MOH accomplished a broad range of actions, with the support of numerous U.S. implementing agencies.

The collaboration between the MOH and USAID contributed to spectacular results in some health indicators and notable advances in others. Infant mortality dropped from 91 deaths per 1000 live births in 1979/80 to 37 per 1000 in 1997. Mortality among young children (1-5 years of age) also decreased sharply, falling from 52 deaths per 1000 live births in 1979/80 to 10 per 1000 in 1997. Contraceptive prevalence among married women rose from 19% in 1979/80 to 59% in 1997. The percentage of children fully vaccinated by 24 months of age increased from 54% in 1987 to 87% in 1997. The percentage of pregnant women having at least one prenatal visit increased from 31% in 1983-84 to 56% in 1997.

The Moroccan Ministry of Health, in collaboration with USAID and other donors including UNFPA, UNICEF, WHO, and the EU, and with the support of loans from the World Bank, used effective strategies for reducing infant morbidity and mortality. High-level political support for family planning and vaccination contributed significantly to their success. The commitment of successive MOH officials and their dedication to health causes, both at the central level

and in the field, are a major asset. The MOH partnership with USAID created competent multidisciplinary teams well-qualified to maintain the gains already achieved and to sustain progress in the future.

Certain strategies proved very pertinent, such as the VDMS Program, which provided key services to women living in remote areas, and showed that family planning was well accepted by the Moroccan population. Rather than establishing new, vertical structures for family planning, the MOH opted for integration of family planning with other maternal and child health activities within existing health care structures, carried out by the same personnel. This approach was very effective in attracting and retaining clients and maximizing the use of available health staff. The MOH and USAID were able to document progress and to identify additional areas of intervention thanks to the availability of high-quality data. Additional partnerships, with the private sector and Moroccan universities among others, contributed to program sustainability.

The Moroccan health system still has numerous challenges in maternal and child health. One of the major challenges is to correct inequality of care and health care coverage. Rural populations still find it difficult to access health care, which is reflected in significant differences in health indicators between rural and urban areas. The relatively low MOH budget and the gradual withdrawal of USAID support for the sector constitute an additional challenge in maternal and child health programs.

Moroccan officials have expressed the desire to develop a new form of cooperation with USAID that departs from the traditional donor/recipient model. Moroccan-American exchanges could be promoted on several levels and in a variety of areas. The will of both partners, and their commitment to reproductive health programs, should result in a new type of partnership that meets their respective expectations.

I. Introduction

This document summarizes the productive collaboration between USAID and the Moroccan MOH spanning a period of over three decades. It is a synthesis of a series of four reports focusing on the health areas in which USAID support in Morocco has been the greatest: family planning, child survival, safe motherhood, and sexually transmitted infection (STIs)/ HIV/AIDS.[1]

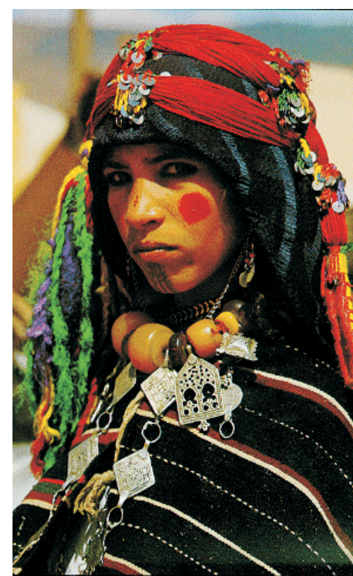
This document, as well as the series of four reports, attempts to answer the question "what was accomplished during the more than thirty years of collaboration between the MOH and USAID?" By demonstrating what was accomplished in Morocco and by identifying keys to the success of specific programs, valuable lessons learned are expected to help USAID programs in other countries.

This document focuses on the period from 1971 to 2000, when the bilateral program between USAID and the Ministry of Health ended. Morocco has made tremendous strides in its health programs, as evidenced by steadily improving health outcomes over time. Because of this success, in the mid-1990s, USAID began a strategy to phase down its health program in Morocco. To provide transitional support to the MOH and strengthen sustainability, USAID and the MOH signed a Memorandum of Understanding (key interventions promote sustainability of population, health, and nutrition programs) for the period 2000-2003, but this phase is outside the scope of this report.

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 report focuses almost exclusively on the MOH-USAID collaboration, other factors obviously had an influence, and other parties share the credit for the progress made in the health of Moroccan women and children.

Methodology

Four reports were prepared; one each on family planning, child survival, safe motherhood, and STI/HIV/ AIDS. A team of MEASURE *Evaluation* staff and independent consultants conducted in-depth interviews with key informants and reviewed relevant program documents.[2] A consultant then prepared the first draft of this synthesis report based on the series of four reports. USAID/Morocco, MEASURE *Evaluation,* and a review committee from the MOH finalized the report.



[1] For a more detailed account of USAID's support in the four health areas, readers are referred to the series "Morocco 30 Years of Collaboration between USAID and the Ministry of Health A Retrospective Analysis," USAID/ Morocco, Morocco Ministry of Health, MEASURE *Evaluation*/Tulane University, April 2002.

[2] A complete list of all persons interviewed appears in Appendix B.

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. The descriptions of the programs herein do not do justice to the many triumphs and frustrations of designing and implementing these activities.

Organization of Report

This report begins with an overview of the MOH/USAID five bilateral projects. Sections III through VI provide a more in-depth account of the four programmatic areas in which USAID's involvement was the greatest: family planning, child survival, safe motherhood, and STI/HIV/AIDS. These sections summarize the evolution of the specific programs under the MOH and USAID collaboration. Each section recognizes past obstacles and continuing challenges to the implementation of health programs in the four areas. Section VII presents measurable results in health status indicators that link directly to the MOH/USAID health initiatives. Section VIII describes the factors that have contributed to the success of the MOH/USAID programs, and Section IX focuses on the activities that have promoted program sustainability. Finally, Section X offers a view of the challenges ahead for the Moroccan MOH with regard to the four health areas. The Appendices include a chronology of significant events over the three decades of USAID support to Morocco and a list of the informants interviewed for the retrospective analysis series on which this report is based.

II. USAID/ Ministry of Health Projects

Five grant agreements were signed between the MOH and USAID concerning family planning and mother and child health between 1971 - 2000. Through these agreements, 126 million dollars were invested in health and population programs, making USAID the lead donor in Morocco for maternal and child health. These projects evolved as a function of priorities, but some components were continued throughout, such as the purchase of contraceptives and equipment, technical assistance, and the training of health care professionals.

Management of USAID/MOH Projects

The series of USAID/MOH projects were jointly managed by personnel from the MOH and from USAID/Morocco, in a spirit of cooperation and teamwork. Management mechanisms varied over time, as agreed upon by the two parties given the nature of the program at different stages of the collaboration.

The principal MOH managers of the partnership with USAID were the Director of Population (for general oversight of the program) and the Director of Equipment and Maintenance (for construction efforts). Over time, as USAID's support expanded to other aspects of the health system, other Directorates within the Ministry of Health including those of Plan and Finance, Hospitals and Ambulatory Care, Epidemiology and Disease Control, and Legal and Regulatory, became more closely involved in the partnership.

On the USAID side, active oversight by a dedicated Mission team was complemented by input from a number of different program managers working in USAID/Washington. In the early stages of the USAID/MOH collaboration, a large number of different USAID central projects and U.S. cooperating agencies were responsible for technical support of different aspects of the program. By 1993, USAID, in agreement with the MOH, competed and awarded a series of institutional contracts for an American firm to directly manage agreed activities and disbursements on a daily basis.

From the 1970s through the early 1990s the size of the USAID/Morocco staff, both Moroccan and American, grew in tandem with the size and complexity of the program, and then gradually decreased in the 1990s as program elements became more targeted and an institutional contractor took on some of the day-to-day management responsibilities.

A high-level joint MOH/USAID steering committee, meeting one or two times a year, set the overall orientation for the program. During the latter phase of collaboration, a Project Management Unit (PMU) was convened regularly by the MOH Director of Population (or equivalent) and the USAID Population and Health Officer for technical planning and oversight of specific activities. The PMU, held monthly and often biweekly, brought together all MOH and USAID activity managers, contractors or consultants, and other invitees according to the subject matter under discussion. It proved to be an efficient way to ensure prompt action and effective communication among the wide number of partners involved in the various programs, and also allowed frank and thorough airing of any issues that came up between the different partners.

MOH Contributions to Program Costs

Throughout all phases of collaboration with USAID, the MOH contributed most of the ongoing costs of the national health program, including:

- Personnel salaries;
- Basic operating and training expenses;
- Overhead and building occupancy expenses;
- Land for construction projects;
- Construction and renovation of buildings (with the exception of specific construction within the framework of grant agreements);
- Depreciation expenses for buildings, vehicles, and equipment;
- Purchase of drugs, some medical equipment, and office furniture and supplies; and
- Payment for insurance policies.

USAID was responsible for most of the remaining program costs: contraceptives, training, vehicles, compensation for VDMS Program personnel, medical and audiovisual equipment, information system technology, and technical assistance.

The Ministry of Health's financial contribution to the program was not specified until Phase V. To increase program sustainability, the Phase V Grant Agreement specified annual increases in the MOH contribution relative to USAID's contribution for specific program elements. By the end of this period, the MOH had assumed full responsibility for purchase of all vaccines and contraceptives needed in the national public program.

MOH/USAID Collaboration 1971 - 2000

Phase I: 1971-1977 Family Planning Assistance $3,046,000

This project marked the start of cooperation between the MOH and USAID. It included the purchase of contraceptives, the construction of structures specific to family planning (13 family planning referral centers and the premises of the Population Division), and the start of the Systematic Motivational Home Visits Program (VDMS).

Phase II: 1978-1985 Support for Family Planning Programs $11,887,000

This project financed:

- Expansion of the VDMS Program in 13 provinces;
- Construction of 10 family planning referral centers;
- Creation of the National Center for Training in Human Reproduction (CNFRH) in Rabat to provide clinical training in family planning;
- Training of health care professionals in voluntary surgical contraception (VSC);
- Conduct of the first contraceptive prevalence survey; and
- Limited introduction of information, education, and communication (IEC) activities through the Moroccan Family Planning Association (AMPF).

Phase III: 1984-1991 Assistance for Family Planning and Demographic Issues $26,200,000

The substantial increase in USAID funding demonstrated USAID's commitment to the Moroccan program. These funds were used for the purchase of contraceptives, expansion of the VDMS Program, support for VSC, and IEC. Some child survival activities were supported, including vaccination and programs to combat diarrheal diseases. The National Program to Combat Protein-Caloric Malnutrition benefited from considerable support through Catholic Relief Services (CRS) for the introduction of new screening indicators, the distribution of weaning flour, and communications promoting growth and breastfeeding. For the first time, involvement of the private sector was included, with the 1989 start-up of social marketing of "Protex" condoms and the initiation of partnerships with private companies to promote family planning for their employees.

Phase IV: 1989-1996 Family Planning and Child Survival Assistance $31,000,000*

* Out of which $7 million was transferred to Phase V

This phase included:

- Reinforcement of private sector involvement with the launching of oral rehydration salts, "Biosel" and the oral contraceptive "Kinat Al Hilal" under the National Social Marketing Program;
- Support for child survival activities including vaccine coverage, efforts to reduce infant mortality due to diarrhea, and improvement in prenatal consultation services;
- Support for extending health care coverage through the purchase of 44 vehicles, 400 high-speed scooters, 775 metal cargo boxes, and 775 helmets for outreach staff;
- Construction of two referral centers at the Rabat and Casablanca University Hospitals, 20 VSC units at the provincial level, and the establishment of nine regional training centers;
- Installation of photovoltaic power at 82 sites in 11 provinces in the south to improve the quality of services and the living conditions of health care professionals;
- Large-scale purchases of medical equipment and office furniture;
- Development of information subsystems and integration of management and research aspects into action plans;
- Introduction of policy considerations: recovery of hospital costs, reform of the health care policy, and extension of health insurance; and
- Purchase of contraceptives worth $12,000,000.

Phase V: 1993-2000 Reduce Fertility, Improve Maternal and Child Health $52,000,000

This joint program had two main objectives: (1) the increased use of family planning, maternal, and child health services and (2) the sustainability of these services. During this phase, a transition plan was implemented to ensure sustainability and to preserve the gains achieved. Phase V financed commodities, technical assistance, and equipment. For the first time, maternal health problems were highlighted in the project. In addition to general technical assistance to strengthen the national family planning and child health programs, specific activities included:

- A pilot project in two regions to improve emergency obstetric care, accompanied by a national communication strategy;
- Expansion of IEC activities, increasing from $700,000 in Phase III to $5 million in Phase V;
- Construction completed for eight referral centers, 19 communal health care centers, the Salé depot, and renovation of the Casablanca and Agadir depots;
- Purchase of 180 all-terrain vehicles for the mobile health program;
- Introduction of Integrated Management of Childhood Illness (IMCI);
- Introduction of the Quality Assurance approach;
- Development of a strategy for continued education of health workers;
- Support for the national strategy for combating micronutrient deficiencies; and
- Purchase of contraceptives in the context of a phase-over plan with the MOH.

For the first time, the amount of the MOH's contribution appeared in the project document; it came to $108 million, of which 60% went towards personnel salaries and 6% for the purchase of contraceptives. During this phase, an American institutional contractor (John Snow, Inc.) provided technical services and coordination of activities.

Special Objective 07: 2000-2003 Key Actions for the Sustainability of Population, Health, and Nutrition Programs – $14,100,000

Under a Memorandum of Understanding, the MOH and USAID agreed to a post-bilateral transition program to ensure sustainability of the programs they developed together. It has two main program elements:

- Decentralization of basic health care at the regional level: Souss-Massa-Draa and Tanger-Tétouan regions; and
- Expansion of reproductive and child health services in the private sector.

In addition, the Special Objective supports targeted actions to reinforce the sustainability of previous efforts, a Demographic and Health Survey in 2002, and efforts to reduce micronutrient deficiencies.

U.S. COOPERATING AGENCIES ACTIVE IN MOROCCO UNDER USAID/MOH PROJECTS

Project/Organization(s)	Time Frame	Main Area(s) of Intervention
Child Survival		
✸ BASICS I/Academy for Educational Development (AED), John Snow Inc. (JSI), Management Sciences for Health (MSH)	1993-1999	Introduction of Integrated Management of Childhood Illness (IMCI) approach, technical assistance for management and delivery of immunization services, private sector involvement in ORS
✸ Catholic Relief Services (CRS)	1970-1991	Title II program, micronutrient programs, distribution of ORS, breastfeeding promotion
Contraceptive Logistics Management		
✸ Centers for Disease Control (CDC)	1978-1997 1999-2000	Technical assistance to mission in contraceptive logistics management, epidemiologic training
✸ FPLM/John Snow Inc. (JSI)	1984-1998	Contraceptive logistics system
Demographic and Health Services		
✸ Westinghouse	1982-1989	1983/84 National Contraceptive Prevalence Survey, 1987 National Population and Health Survey, and research capacity building
✸ Macro International	1991-1998	1992 National Population and Health Survey, 1995 Panel Survey, and research capacity building
✸ MEASURE DHS+/Opinion Research Corporation Company (ORC) and Macro	2000-2003	2002-2003 Demographic and Health Survey
Family Planning – Clinical Methods		
✸ JHPIEGO/Johns Hopkins University	1985-1991	Medical school curriculum changes, clinical upgrades and teaching methodology
✸ AVSC (now EngenderHealth)	1993-2000	Training in voluntary surgical contraception (VSC) and other clinical methods of family planning, capacity building in VSC and other clinical methods
✸ Population Council	1992-1993	Trial period for the introduction of Norplant
Family Planning – Management and Training		
✸ ENTERPRISE/John Snow Inc. (JSI)	1984-1991	Family planning information and services in the workplace
✸ FPMD/Management Sciences for Health	1987-1995	Management strengthening for MOH and targeted institutions (INAS, CNFRH)
✸ PRIME/INTRAH	1989-1999	Training of health workers, training methods and systems
Information, Education, and Communication (IEC)		
✸ Johns Hopkins University Center for Communication Programs (JHUCCP)	1985-1992 1993-2000	IEC strategy and capacity building, entertain-educate approach

Institutional Contractors (in-country teams)

Contractor	Years	Activity
SEATS/John Snow Inc. (JSI)	1989-1992	Institutional contractor under Phase IV
RONCO	1989-1992	Institutional contractor under Phase IV for training
John Snow Inc. (JSI)	1993-2000	Institutional contractor for USAID/MOH Phase V
	2000-2003	Institutional contractor for USAID/MOH Special Objective
University Research Corporation (URC)	1993-2000	Subcontractor for Quality Assurance activities for USAID/ MOH Phase V
	1999-2003	Subcontractor for Quality Assurance activities for USAID/ MOH Special Objective

Micronutrients

Contractor	Years	Activity
OMNI I + II/John Snow Inc. (JSI)	1993-1998	Vitamin A survey and program development
MOST/International Science and Technology Institute (ISTI)	1999-2003	Micronutrient deficiency prevention, food fortification

Monitoring and Evaluation

Contractor	Years	Activity
The EVALUATION Project/ Tulane University	1992-1997	Research studies, capacity building, and professional training
MEASURE *Evaluation*/ Tulane University	1997-2002	Quick Investigation of Quality (QIQ), training in quality research methods, capacity building, research studies

Policy Reform

Contractor	Years	Activity
RAPID I + II/The Futures Group International	1978-1985	Population projections as a policy tool
OPTIONS/The Futures Group International	1989-1992	Family planning policy development and implementation
POLICY/The Futures Group International	1992-2000	Family planning market segmentation and program sustainability
PHR/Abt Associates	1995-2000	Health policy development and sector reform

Social Marketing

Contractor	Years	Activity
SOMARC/The Futures Group International	1989-1998	Private sector social marketing of contraceptives
Population Services International (PSI)	1993-1996	Social marketing of oral rehydration salts
Commercial Market Strategies (CMS)/Deloitte, Touche Tomatsu	1999-2003	Private sector health services and products

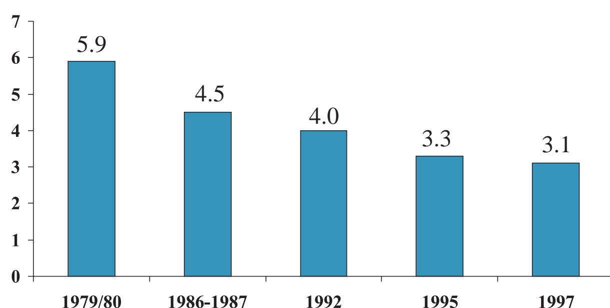
STI/HIV/AIDS

Contractor	Years	Activity
AIDSCAP/Family Health International	1994-1996	Introduction of syndromic approach to manage STIs
International AIDS Alliance	1995-2001	Building capacity of Moroccan NGOs to address HIV/AIDS

III. The Family Planning Program

The collaboration between the Moroccan Ministry of Health and USAID in initiating, expanding, and making sustainable a high-quality family planning program is a success by any measure. During the past two decades, the percentage of married women in Morocco who use a method of contraception rose

Total Fertility Rate among Women of Reproductive Age over Time



from 19% to 59%. The sharply decreased national fertility rate confirms the impact of this program. The Moroccan total fertility rate, which expresses the average number of children each woman bears in her life, dropped from 5.9 children per woman in 1979/80 to 3.1 in 1997.

Early Acceptance of Family Planning

By the mid 1960s, rapid population growth was internationally recognized as a major challenge for developing countries. However, particularly in traditional, pronatalist societies, family planning was not welcomed by most national leaders. In Morocco, economists in the Ministry of Plan recognized the negative impact of rapid population growth on economic development. Based on an analysis by the Ministry of Plan, His Late Majesty King Hassan II issued a royal memorandum in 1965 that linked the problem of rapid population growth to the socioeconomic development of the country.

The National Family Planning Program (NFPP) was started in February 1966 by the Ministry of Health of Morocco. Family planning was integrated into existing health care services from the outset of the program. Family planning services were first made available in urban areas, and the intra-uterine device (IUD) was the main contraceptive method offered. However, the rapid introduction of IUDs into an insufficiently prepared health care system hurt long-term acceptance of the method in Morocco. The contraceptive pill, which was introduced in 1968, was accepted enthusiastically by Moroccan women. By 1970, the number of pill users already exceeded the number of IUD users.

Family planning gained real momentum in Morocco at the end of the 1970s. Since then, the program has expanded steadily within a favorable national context and with strong, sustained USAID backing and other international support. The late 1970s and early 1980s represented a dynamic period with strong support by policy-makers. To ensure the acceptability of family planning, Moroccan health officials sought a balance between explicit population policy statements, promoted by USAID, and minimizing the potential negative backlash from social conservatives. Therefore, Morocco did not promulgate an official population policy. Moroccan health officials opted instead for a lower public profile while strengthening the provision of family planning services. Thanks to the commitment of political leaders, the responsiveness of the program to national concerns, the dedication of health care professionals, and the support of USAID, the Moroccan National Family Planning Program has become an internationally recognized success.

Expansion of Family Planning Services Nationwide

In 1977, an innovative system of outreach visits by health agents to individual homes, called the Systematic Motivational Home Visits Program (widely known by its French acronym, VDMS), was developed by the MOH and USAID to meet the family

planning needs of remote populations. This strategy made family planning information and services available to women who otherwise may not have heard of them, especially in rural areas. The VDMS program is widely recognized as key to the early acceptability and success of the NFPP. At a time when Ministry officials were skeptical that family planning could be relevant for Morocco's Muslim culture, the initial pilot of VDMS in Marrakech demonstrated that family planning was accepted by traditional, mainstream Moroccan families. The VDMS program also represented a decisive step in the collaboration between the MOH and USAID. Furthermore, this program led to early international recognition of Morocco as a country that was ready to try novel strategies with promising results. In the 1980s, the expansion of VDMS services to include child health activities further increased its relevance to the Moroccan public.

The concurrent expansion and improvement of the public health care network in Morocco was also crucial to the development and success of the national family planning program. Over the thirty-year period covered by this report, the Ministry of Health steadily expanded the number of public health centers throughout Morocco and increased the quality of care in these sites (with financial support from USAID and other international assistance). Family planning is now provided at all public health care facilities: urban and rural clinics, birthing centers, and urban and rural maternity hospitals. Contraceptive methods are provided free of charge in these facilities.

To improve the quality of family planning services in Morocco, USAID also supported the construction of specialized units within the MOH such as:

1) A national and international family planning training center connected with the University of Rabat (Centre National de Formation en Reproduction Humaine -CNFRH). The CNFRH has provided training in IUD insertion and Voluntary Surgical Contraception (VSC) to thousands of doctors and nurses, and established high-quality VSC services at 34 provincial hospitals. This center of excellence gave Morocco international visibility in clinical contraception.

2) Referral centers. The MOH and USAID built a total of 23 family planning referral centers in different provinces to develop decentralized family planning expertise and serve as a visible symbol of government support for family planning. These centers were very important in initial program development. Over time, however, with the improvements in family planning skills among all health staff and the increased availability of family planning methods (except for VSC) at basic health care facilities, the role of these centers became less important than they were in the early stages of the family planning program. The MOH is currently expanding their function to other areas of reproductive health.

3) Regional training centers. Nine regional training centers located in the principal Moroccan provinces provide training in family planning. Trainers are staff from the nurse training institutes, referral centers, and obstetric and gynecology departments. This has greatly increased access to family planning training for medical and nursing staff throughout Morocco.

4) Storage facilities for contraceptives. A contraceptive warehouse was built in Casablanca and another was renovated in an effort to improve the management and distribution of contraceptives nationwide. A storage facility was also built in Salé to cover the northern part of the country, and a storage facility in Agadir was renovated for the southern part of the country.

USAID Technical Assistance to the Ministry of Health

USAID technical support to the national family planning program was concentrated in five essential areas: contraceptive logistics, continued training of health providers, development of effective Information-Education-Communication (IEC) strategies, establishment of a health information system, and involvement of the private sector in family planning.

1. Contraceptive Logistics

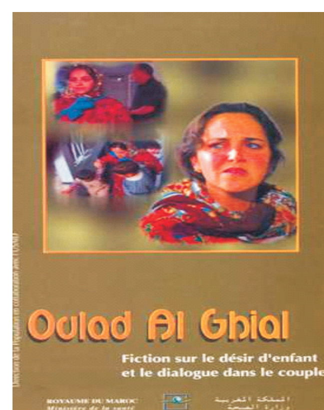
USAID provided considerable technical and financial support to the National Family Planning Program to set up an effective contraceptive logistics system and make it fully sustainable. Contraceptive man-

agement was streamlined and standard procedures were developed, ensuring product flow between all levels of the health network. Through widespread training for family planning managers, procedures for forecasting needs for contraceptive products and their procurement were established. Distribution of contraceptives nationwide was assured by the acquisition of trucks with joint USAID and MOH funds. As a result of this strong investment in logistics, the National Family Planning Program has rarely experienced inventory shortages at any level of the health system.

2. Training

Training of health personnel has been a priority in all phases of MOH/USAID projects. The training provided through these projects covered clinical family planning, contraceptive logistics, counseling, management, data processing, evaluation, and research techniques. The majority of training sessions were led by MOH senior staff either in Rabat or in the provinces. In addition, 29 Moroccan health professionals received Master's in Public Health (MPH) from universities in the United States. Workshops, field trips, and practicums were also organized both in Morocco and abroad.

To ensure that every health professional has the skills to provide family planning services, USAID assisted the MOH to revise reproductive health curriculums and design new training modules for midwives and for 6th-year medical students. This included training instructors in how to use the new training modules. A specialized health administrative institute, the National Institute of Health Administration (INAS), was created in 1989, attesting to the commitment of Morocco to improve the management of Moroccan health programs. INAS offers training equivalent to a master's degree in public health and has developed a large group of public health managers with the technical and management skills to operate health care programs effectively. Since the MOH and USAID agree that health professionals should receive regular refresher training and exposure to new approaches, a strategy for continuing education of health professionals based on local needs and expertise was also developed and introduced with USAID support.



3. Information-Education-Communication (IEC)

IEC activities made a major contribution to the success of family planning in Morocco, despite a slow start-up. Initially, Moroccan officials were reluctant to place the National Family Planning Program in the public spotlight for fear of a social or political backlash. They also did not want to create a high demand for family planning services before the health care system was ready to meet that demand.

An evaluation of the USAID/MOH project in the late 1980s emphasized shortcomings in IEC as compared to the impressive progress achieved in other areas. In contrast to the 1980s, in the 1990s communication was high on the agenda for all of the MOH's priority programs. In 1990, a national IEC strategy was formulated and a national consensus seminar was organized for the first time. In 1993, for the first time, the National Family Planning Program was highlighted by a "National Family Planning Week" organized for four consecutive years with the support of USAID.

These campaigns permitted politicians, health care professionals, and other partners to promote family planning that, until then, was addressed solely within health care structures. In the last phase of USAID bilateral support, IEC activities were given especially high priority. With the support of USAID technical assistance, the MOH developed integrated activities for promoting family planning and for reducing maternal mortality. These communication activities were designed for "entertainment-education," an approach used in many USAID programs to foster awareness and behavior change.

4. Health Information Systems and Surveys

The family planning program has benefited from an information, monitoring, and evaluation system developed by the MOH with extensive support from USAID. After working on numerous DHS and similar surveys, MOH senior staff are expert in the organization of national household surveys. The regularity and high quality of data generated in these surveys permitted the MOH, USAID, and other interested partners to document progress and identify areas requiring additional activities. Furthermore, with USAID support, specific studies were carried out on key topics of concern to the family planning program: quality of care, market segmentation, and regulations governing procurement and delivery of goods and services. Qualitative research was also conducted to better understand the population targeted by family planning programs; qualitative studies investigated rumors about family planning, constraints on acceptance of the IUD, reasons for discontinuation of use of injectables, men's perceptions and practices regarding family planning, and laws on family planning.

Another main aspect of the USAID/MOH collaboration was development of a routine information system to track family planning and other maternal and child health preventive care. Through several iterations, MOH managers worked with USAID consultants to develop an integrated, user-friendly, national public health information system. The objective was to provide information to health managers at every level of the system to use in making decisions concerning their programs. After extensive investment in computer hardware and software as well as technical assistance, routine reports on the delivery of FP and other MCH services are now generated by provincial, regional, and national health managers. Use of these data for decision-making is an ongoing theme of the last joint program of USAID and the MOH.

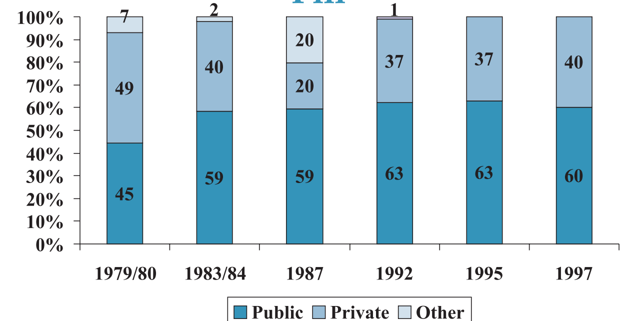
5. Participation of the Private Sector in Family Planning

The private sector now plays an important role in the National Family Planning Program, due to joint MOH/USAID efforts over the past decade.

The National Social Marketing Program, begun in 1989, was a decisive step in the evolution of the National Family Planning Program. In addition to increasing contraceptive prevalence, the objectives of this program were to increase private participation in health care costs, to promote client choice, and ensure availability of high-quality services across the public and private sectors.

The condom was the first contraceptive launched under this program. The challenge was considerable because condom use was a taboo subject in Morocco at that time, and the National Family Planning Program, after exclusively targeting women, was dealing for the first time with men. The program, however, was successful; by 1993, USAID's financial support was no longer needed for condom sales to continue to expand. The launching of the pill as a socially marketed product in 1992 was comparatively easy since its acceptability is so high in Morocco. The socially marketed pill gained wide recognition and a high market share soon after its introduction. This product "graduated" from USAID financial support in 1996. Continued publicity for these pills is funded by the distributors themselves from sales proceeds.

Evolution of Sources of Supply for the Pill



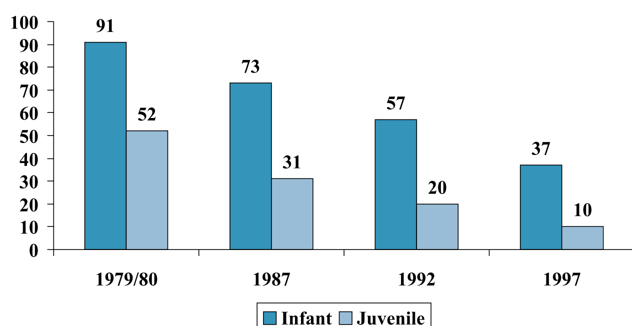
The introduction of the IUD and the injectable contraceptive in 1997 and 1998 as socially marketed products posed more difficulties. A key contributing factor to the difficulties encountered in socially marketing these two products include their lower levels of acceptability as contraceptive methods among Moroccans due to a combination of factors and the resistance among many private health professionals to supply these methods. Family planning clients are also more used to obtaining these two types of methods from the public sector. As a result, these products are not yet considered fully sustainable without USAID funding of marketing assistance.

Increasing the private sector share of reproductive health services in Morocco continues to be an important objective of the MOH and USAID in their final stage of collaboration. The private sector market share for family planning has stagnated in recent years at around 37% of all contraceptives used in Morocco. Not only socially marketed products but also affordable, high-quality health services are needed if the private sector is to become a strong source of family planning and child health care in Morocco. In the final stage of USAID's assistance to the health sector, private sector involvement is receiving strong attention.

IV. The Child Health Program

Due to the efforts of the MOH, with support from USAID and other donors, the infant mortality rate (IMR) has dropped impressively over the past several decades, from 91 deaths per 1000 live births in 1979/80 to 37 per 1000 live births in 1997. Mortality among children in their first five years (i.e., 1-5 years) has also decreased, falling from 52 deaths per 1000 live births in 1979/80 to 10 per 1000 in 1997.

Evolution of Infant and Young Child Mortality per 1,000 Live Births



General Program Coverage

The VDMS Program, instituted in 1977 by the MOH and USAID, made health prevention services more accessible to children. For the first time, women living far from basic health care facilities were offered vaccination and other services for their children either directly at their homes or within their communities. Meanwhile, considerable efforts were made by the MOH to increase access to basic health care in fixed facilities. Between 1987 and 1996, the number of basic health care facilities rose from 800 to 1900. These were mainly stand-alone clinics but 132 clinics include birthing centers and 106 public hospitals serve as referral centers for lower-level facilities. All preventive activities aimed at children and their mothers are provided by the same personnel in the same healthcare setting. This integration is one of the strengths of the maternal and child health programs in Morocco. Immunization is the linchpin of these programs.

Access to basic services for rural populations, however, remains a challenge. In 1996, 31% of people in rural areas lived outside a 10-km radius from a health care facility. For this reason, in 1994, USAID helped the MOH reinforce their mobile strategy by purchasing 180 vehicles for outreach activities including family planning, vaccination, and other basic preventive services. However, due to the numerous challenges faced by rural clinics in staffing, funding recurrent costs, and management of the outreach strategy, the coverage and services provided by mobile teams remain low relative to investments. The MOH and USAID have agreed that these challenges can only be successfully addressed through decentralized management of health services, which is a main element in the last collaboration between the two partners.

Vaccination

In Morocco, vaccination for smallpox began in 1929, and smallpox was declared eradicated in 1950. The BCG vaccine was introduced in 1949 and the DPT vaccine in 1963. To improve immunization coverage, the MOH organized a polio immunization campaign in 1964 in large cities and a general campaign for all vaccines in 1967, and USAID participated with UNICEF and other donors in the costs of these cam-

paigns. However, in 1980, a MOH/UNICEF evaluation showed continued low immunization coverage.

In 1981, the Expanded Program on Immunization (EPI) was created by the MOH to protect children from six diseases according to a national vaccination calendar: tuberculosis, diphtheria, tetanus, pertussis (whooping cough), poliomyelitis, and measles. USAID helped fund EPI activities, particularly through the home-to-home visits (VDMS) program. In 1984, USAID's assistance to the immunization program and other aspects of the MOH's child health program increased and would remain a key element of USAID/MOH collaboration from then on. A 1986 evaluation showed improvements in vaccination status, but coverage of children under one year of age remained less than 50%.

In 1987, the EPI was restructured and transformed into the National Immunization Program with the launching of National Vaccination Days (NVDs). These operations benefited from royal support, the commitment of health care professionals, and support from USAID and many other donor agencies including UNICEF and Rotary International. The NVDs sparked unprecedented social mobilization around a health issue. They allowed thousands of children to be covered, especially in remote areas, and gave the MOH huge visibility and credibility. NVDs are still done annually even though they are a costly way to provide routine vaccinations. The MOH is launching a measles eradication effort and micronutrient programs through the NVDs. Regional health officials are now urging more flexibility in adapting NVDs to better fit regional calendars or special regional needs.

In 1993, Morocco adopted the Vaccine Independence Initiative to ensure financial autonomy for the national immunization program. USAID provided the entire initial amount of funding to establish a revolving fund for the MOH to have instant credit at UNICEF for its subsequent purchases. After each order is placed, the MOH ensures that the Ministry of Finance transfers funds to the UNICEF account to replenish the revolving fund. In 1999, hepatitis B vaccination was introduced into the National Vaccination Program, and USAID provided an additional sum to the revolving fund to cover the cost of this vaccine.

Immunization coverage in Morocco is now high. As shown in the most recent national survey in 1997, 88% of children under one year were fully immunized against diphtheria, tetanus, pertussis and poliomyelitis, and 84% against measles. The hepatitis B vaccine is now routinely given to all newborns.

Treatment of Diarrhea and Respiratory Illnesses

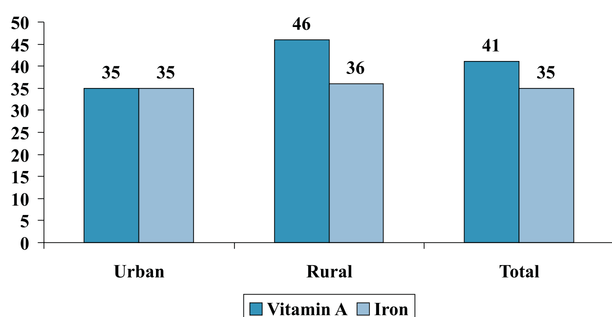
During the 1970s and 1980s, other child health activities experienced roughly the same evolution as the vaccination program. The National Program to Combat Malnutrition, the Program to Combat Diarrheal Diseases, and the prenatal care program were all established by the MOH in 1987, with the support of USAID, UNICEF, and other donors. The fight against diarrheal disease was strengthened in 1988 via USAID-funded national campaigns to promote the prevention of dehydration and malnutrition secondary to diarrhea through the use of oral rehydration salts (ORS). While hospitalizations due to dehydration diminished sharply, the use of ORS for every diarrheal episode remained at approximately 14% according to the 1992 DHS. Later, with USAID support, the program was expanded to the private sector by means of the social marketing of ORS under the brand name BIOSEL. By 1997, according to the most recent national survey, ORS was used in 29% of all cases of children with diarrhea.

To reduce mortality due to respiratory illness, the MOH began a special program in 1992 with the support of UNICEF, WHO, and the African Development Bank, and limited support from USAID. The program reinforced the training of health workers and increased the supply of medicines to treat respiratory infections. By 1997, there were dramatic reductions in infant mortality due to other causes, but the rate of infant mortality attributable to respiratory illnesses had still not declined significantly.

Prevention of Malnutrition, Including Micronutrient Deficiencies

Throughout the 1970s, mothers received nutrition education and dietary demonstrations through food distribution programs run by the MOH, using Title II food from USAID. In this period, a study on the nutritional status of children was conducted and a na-

Vitamin A and Iron Deficiency in Children Under 6 Years of Age, 1995/96



tional program for training nutrition technicians was instituted at nursing schools. By 1987, in an agreement between the MOH and USAID, general food distribution was changed to targeted distribution of weaning cereal, which was provided in the context of growth monitoring, promotion of breastfeeding, management of malnourished children, and distribution of vitamin D to prevent rickets.

The MOH nutritional program later expanded to include the prevention of other micronutrient deficiencies. The MOH, UNICEF, and USAID conducted several studies between 1992 and 1996 to determine the levels of iron, iodine, and vitamin A deficiencies in Morocco.

In 1998, a National Committee on Micronutrient Deficiencies was created and a strategy for combating deficiencies was defined. The strategy included three pillars: supplementation for at-risk populations, nutritional education, and fortification of staple foods with micronutrients. These actions were developed as a partnership between the private and public sectors, with community mobilization. Iodized salt is already on the Moroccan market; flour enriched with iron, B vitamins, and folic acid are about to be introduced nationwide, and studies are underway for other fortified foods.

Breastfeeding

The average duration of breastfeeding in Morocco is high (13.5 months), but reported rates of exclusive breastfeeding in the first four months of life have varied according to different surveys: 62% in the 1992 DHS, 37% in the 1995 DHS panel survey. According to the 1997 PAPCHILD survey, 62% of infants 0-3 months of age are exclusively breastfed and the average duration of exclusive breastfeeding is 3 months (4 months in rural areas versus 2 months in urban areas). These variations may mainly reflect differences in data collection methodology. Nonetheless, the relatively low level of exclusive breastfeeding contributes to a high prevalence of diarrhea among children less than one year of age. The MOH stepped up the promotion of exclusive breastfeeding through the joint WHO/UNICEF "Baby Friendly Hospitals" initiative, but in 1998 only 17 out of 45 hospitals were officially designated by UNICEF as "baby-friendly hospitals" regarding breastfeeding. Exclusive breastfeeding for the first six months of life is not widely perceived in Morocco, even by health workers, as a norm. More health education work is necessary to convince health workers, and the mothers they counsel, of the benefits of exclusive breastfeeding in early infancy.

Integrated Management of Childhood Illness

Vertical programs have definitely improved the health of children, but such programs are limited in scope. Evaluation of worldwide trends in infant mortality and morbidity led WHO in the early 1990s to adopt a new approach: the integrated management of childhood illness (IMCI). It is based on the fact that 70% of infant deaths can be attributed to five preventable or treatable causes: pneumonia, diarrhea, malaria, measles, and malnutrition. A full IMCI program includes three components: changes in diagnosis and treatment protocols for clinical care of sick children, improvements in the health system to assure a supply of necessary medicines and other support for these changes, and a community component to encourage proactive management of child illness within families and communities.

In 1997, with the support of USAID, the MOH implemented IMCI through a pilot project in two regions. To introduce IMCI in Morocco it was necessary, on the one hand, to obtain a consensus among the health care professionals from the MOH and the schools of medicine concerning the new approach and, on the other hand, to adapt the tools proposed by WHO while still retaining the WHO imprimatur. The training of local teams in clinical IMCI required substantial human and financial resources. The community component of IMCI gave families increased responsibility in the management of childhood illness, but

also required considerable financial resources and extensive work by local health teams.

Despite the heavy workload that the start-up of IMCI presented to MOH managers, the degree of commitment of these same MOH officials to the IMCI approach shows how clearly they feel it to be an improvement in child health care. With support from USAID, IMCI has been introduced into the curriculum of nursing schools, and the MOH is expanding the introduction of IMCI into new regions with the help of other donors as well as USAID.

An evaluation of the clinical component of IMCI, conducted in April 2000, showed that one year after training, the care provided to children in the IMCI areas was of higher quality than that provided outside the IMCI areas. However, the study underscored the problem of periodic stock-outs of medicines, especially the six products deemed indispensable to IMCI. A chronic shortage of basic medicines for treating diseases also discourages parents from bringing their children in for treatment before illnesses are far advanced.

The financial burden of purchasing medicines for ill children rests mainly on individual families, and to a lesser degree on the MOH budget, which is clearly inadequate at present. Covering the costs of basic medicines and ensuring an effective delivery system for curative medicines in rural areas remains a challenge for the MOH. A national commitment and strategy to cover the need for basic medicines for curative care is necessary to continue Morocco's impressive progress in reducing infant mortality through IMCI.

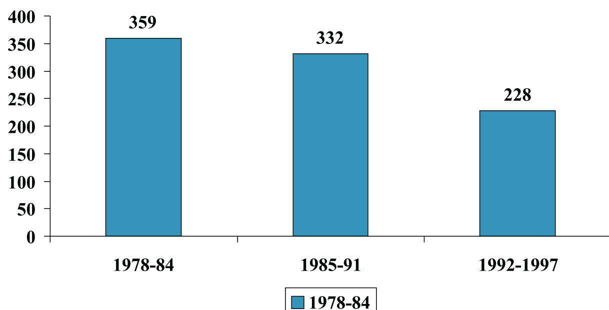
V. The Safe Motherhood Program

Understanding the Persistent Problem of Maternal Deaths in Morocco

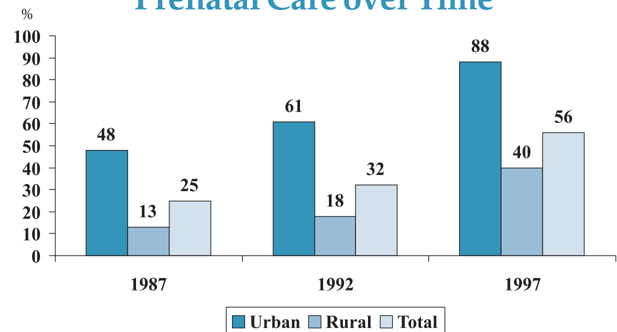
While family planning has clearly helped improve maternal health by reducing unplanned and unsafe births, for many years insufficient attention was paid internationally to the risks that women faced during pregnancy and childbirth. Once the safe motherhood initiative was launched worldwide in 1987, reducing maternal mortality in the developing world became an international objective. Until that time, management of pregnancy and childbirth in developing countries was mainly focused on reducing child mortality. Even when maternal care was a recognized priority, early safe motherhood efforts focused on identifying high-risk pregnancies and referring those women to hospitals to deliver, rather than on expanding the coverage or quality of obstetric care.

Morocco mirrored this perspective on childbirth and maternal care. Because infant deaths are much more frequent than maternal deaths, child health was initially perceived as a more acute need than maternal health. Prenatal consultations were promoted mainly as a way to reduce infant mortality. From the 1960s through the 1990s, the MOH worked to strengthen prenatal care, with some support from USAID and from other donors. However, Morocco did not have strong international support to tackle maternal problems during and after childbirth.

Maternal Mortality Ratios per 100,000 Live Births over Time



Women of Reproductive Age Receiving Prenatal Care over Time

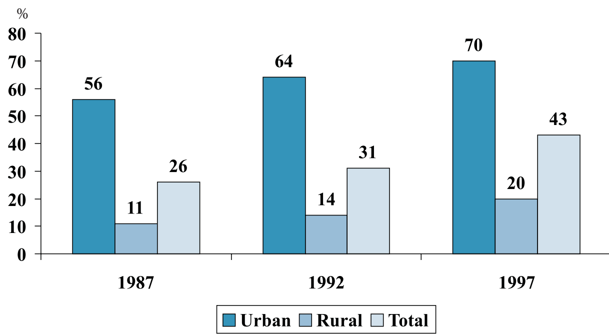


For many years, in addition to family planning, prenatal care was the primary component of maternal care programs in Morocco. There were also modest increases over time in the number of birthing centers. Prenatal care and birthing centers were provided at the most basic levels of the health care system. However, in rural areas, accessibility remained limited and the only recourse for pregnant women was often a nurse, who was not always qualified to manage complications of pregnancy or delivery.

As the VDMS program expanded its scope of services, it contributed to an increase in prenatal coverage in certain areas and permitted more contacts between health providers and the population. However, the services provided under the program were limited to basic screening. The percentage of women who had prenatal consultations increased in urban areas but remained relatively low in rural areas.

Deliveries supervised by a trained professional have been consistently promoted by the MOH, but in Morocco many women continue to deliver at home. In urban areas, women have much greater access to adequate obstetric facilities than do rural women. To remedy this, birthing centers were constructed by the MOH to improve delivery conditions in some rural areas. In areas even further removed from the health care network, an approach involving traditional birth attendants (TBAs) was tried, but the results were not conclusive. Including TBAs in a network for the management of pregnant women seemed attractive initially but ran up against numerous prob-

Percentage of Deliveries in a Monitored Setting over Time



lems: low skill level of the TBAs despite awareness training by the MOH, lack of transport for women having difficult labors, and inadequate equipment and skills at the local level birth centers even when women were referred there by TBAs.

With support from UNFPA and USAID, the MOH reformed professional midwife training in Morocco in the 1990s, to increase the number of skilled midwives in an effort to remedy the shortage of qualified personnel. As a result, the number of professionally licensed midwives in Morocco rose from 200 in 1990 to 800 in 2000.

To Reduce Maternal Mortality: Reduce the Three Delays

An important international evolution in safe motherhood strategies occurred in the early 1990s. Managing the risks of pregnancy and delivery primarily through prenatal care was increasingly perceived as an ineffective way to reduce maternal mortality. Despite enormous efforts worldwide to refine the identification and referral of high-risk births, a large proportion of serious obstetric complications occur in women who do not exhibit any detectable risk factor. To significantly reduce maternal mortality, it would be necessary to combine prenatal care with an improvement in the management of deliveries, with a focus on the management of obstetric emergencies. This approach was enthusiastically adopted by Moroccan officials.

In 1995, USAID and the MOH agreed to undertake a pilot project for the management of emergency obstetric care in two regions of Morocco: Fès-Boulemane and Taza-Al Hoceima-Taounate. In these regions, USAID funded the renovation and equipping of MOH birthing centers and hospital maternity wards to provide higher quality care. To improve the management of difficult deliveries, norms and standards were developed and technical guides were produced. Maternal care professionals were trained in emergency obstetric techniques and in interpersonal communications. To better monitor obstetric care, a new register was developed that tracked obstetric complications and measures taken to treat them. The information system was also revised.

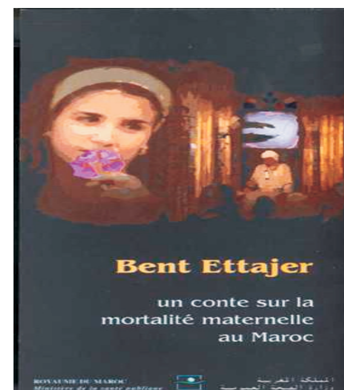
The pilot obstetric emergency management approach was based on the concept that three delays contribute substantially to maternal deaths:

- Delay in deciding to seek care for a complication of pregnancy or delivery;
- Delay in getting to the appropriate health care facility for treatment; and
- Delay in management of the emergency once at the facility.

Communicating Safe Motherhood

The Three Delays concept highlighted the importance of raising awareness and changing the behavior of families as well as health care professionals. The communication strategy that accompanied the pilot project placed considerable emphasis on preventing these delays.

Women and their families were encouraged to recognize the risk of maternal death and to seek medical care via a film produced under the pilot program, “The Merchant’s Daughter” also known as, “Heaven helps those who help themselves,” which echoes a popular Arab saying.



This film emphasized the need to react more urgently to problems in pregnancy and childbirth. For many Moroccan women, pregnancy is considered a natural phenomenon that does not require any special care. Signs such as edema and bleeding during pregnancy do not worry women or their family members. Death during labor is perceived to be an unavoidable fatality and is even honored, "A woman who dies during childbirth goes straight to paradise."

The communications strategy developed under this initiative also produced materials to awaken decision-makers to the abnormally high maternal mortality rates in Morocco. A video was produced that relates in a poignant manner the death of a woman in childbirth. The title speaks volumes about the subject; "The House Has Become Empty" evokes the emptiness and destruction of the house following the death of the mother.

Expanding Coverage to Reduce Maternal Deaths Nationwide

The emergency obstetric care strategy developed under the MOH/USAID pilot project required substantial technical and financial investments. In this pilot, for two of the sixteen regions of Morocco, seven hospitals were equipped for complete emergency obstetric care and 52 health care centers were equipped for basic emergency obstetric care. The first evaluation of the pilot project demonstrated improvements in conditions for the management of pregnant women.

Moroccan health officials are currently engaged in an intensive effort to replicate this approach nationwide, with the strong support of other national authorities. Convinced by the results of the pilot, a variety of donors, including UNFPA, the Gates Foundation, the European Union, Belgian Assistance, GTZ, JICA, UNICEF, WHO, and Spanish NGOs have joined USAID in supporting the MOH safe motherhood program in other regions of Morocco. Given the strong engagement of the Moroccan government, the mobilization of multiple partners, and the strong national will to reduce maternal deaths, there is every indication of success.

VI. The Fight against STI/HIV/AIDS

A Difficult Problem to Address in Morocco

The diverse colloquial expressions that refer to syphilis and urethral discharge attest to a widespread familiarity with sexually transmitted infections (STIs) in Morocco. However, these infections are not openly acknowledged as being due to sexual transmission. For instance, in Moroccan dialects syphilis is commonly called "flowers" and genital discharge is called "cold." Viewed and experienced as shameful, socially humiliating diseases, STIs are not publicly discussed in Morocco. Within the public health system, screening for syphilis was conducted for many years, with notification of cases via clinic activity reports, with no precise diagnostic criterion.

For many years, Moroccan men who suspected a sexually transmitted infection (symptoms are easier for men to detect than for women) tended to avoid public clinics and go directly to pharmacists for treatment or, to a lesser extent, to private doctors. It is estimated that 50% of STI cases are treated in the private sector. In the public sector, these diseases are mainly detected among women during maternal health consultations. They are also a major concern in public university health departments, where they represent 60% of the reasons for health consultations. Until 1994, management of STIs was not standardized, medicines were not always available, and insufficiently treated, recurrent forms were frequent.

The AIDS type 1 and 2 virus were identified in 1982. It was only four years later that the first case was identified in Morocco, a man who had been contaminated by a blood transfusion following a surgical intervention in France.

STIs and HIV/AIDS in Morocco

- 400,000 cases of STIs per year.
- An estimated 8,000 persons with HIV
- 780 cumulative cases of AIDS in 2000

Source: MOH, 2000.

Syndromic Approach for Case Management of STIs

With the advent of AIDS, and in view of the results of epidemiological studies in Tanzania that confirmed a strong link between untreated STIs and risk of HIV-AIDS infection, MOH officials changed their approach concerning STIs. In Morocco, the HIV/AIDS epidemic is still in the initial stage with low levels of HIV sero-prevalence, and the levels of bacterial STIs, which can be cured, are higher than those of viral STIs. In 1994, STIs and HIV/AIDS were discussed in public for the first time, and the MOH decided to test syndromic management of STIs, with technical assistance from USAID.

Three important studies were carried out by the MOH and USAID: the first to validate and adapt WHO algorithms for syndromic management of STIs to Morocco's epidemiological profile; the second to determine the cultural context and adapt terms used in counseling; and the third to evaluate the quality of STI treatment offered by the MOH prior to introduction of the syndromic approach. Between 1998 and 2000, in a model of multi-partner coordination, the MOH received support from the European Union, WHO, UNFPA, and UNDP as well as USAID to introduce this new approach country-wide.

The adoption of syndromic identification and treatment of STIs in Morocco revolutionized the perception and management of STIs and HIV/AIDS among health workers. The first benefit of this new way of dealing with sexually transmitted infections was that patients could be treated at regular health facilities, not just in specialized health clinics. In the multi-purpose health centers, health workers learned to speak about STIs more easily, lifting barriers on frank discussion. The syndromic approach is based on a decision tree with signs and symptoms. For the introduction of the new approach, health workers benefited from clinical management and counseling training to ensure quality services, and they received reference manuals. Analysis of symptoms, together with an evaluation of the risk of contracting STIs, enables a diagnosis to be made and treatment to be prescribed

according to the syndrome rather than the pathogen. Laboratory tests, which are very expensive, are not used; immediate treatment is initiated, which reduces the possibility of secondary transmission and the complications of untreated infections. This approach has significantly improved the identification and management of STIs in Morocco, although some concerns remain about false positives (especially among women) and the potential social problems as well as unnecessary treatment that could result from false positives.

Today the majority of health workers have been trained in the syndromic approach, and frequent evaluations have been organized so that they can share their respective experiences and maintain this new dynamic. The evaluations show that patients presenting symptoms are better received by health workers and better informed, and health workers are more at ease talking about and treating these so-called "shameful" diseases. For STI treatment using the syndromic approach, an extra effort has been made to ensure that necessary medicines are available at health care facilities. The private sector has also responded to this program by making available specific packets of the necessary drugs at a cost affordable to the population.

This approach also permitted improved notification of cases, with standardized criteria used by all health workers. An epidemiological monitoring system permits the trends in STIs to be followed. At the same time, with USAID support the capacity of laboratories to diagnose STIs (when needed) was increased in provincial health facilities as well as at the national level. A national STI reference laboratory was created at the National Institute of Hygiene.

The collaboration developed by the National AIDS Prevention Program with donor agencies in Morocco to introduce this program was exceptional. While USAID mainly provided technical support for this approach, the program officials were able to mobilize a broad range of support from local and international groups. This expanded funding has allowed the syndromic approach to be adopted throughout the country at a markedly lower cost than initially expected. Regular meetings were organized between the partners and the MOH to monitor the program and plan future activities. This close collaboration contributed consistency and uniformity to the activities that otherwise would have varied from one province to another depending on the donor agency.

More Open Discussion of STI/HIV/AIDS Issues in Morocco

The work performed by MOH teams to improve STI treatment led to more general recognition among health workers that too many Moroccans, especially young people, are still unaware that they may be vulnerable to AIDS. It is difficult to talk about sexuality and multiple partners in a Muslim country where any extramarital relationships are prohibited. Therefore, information and education strategies were developed by the MOH using indirect slogans such as "Protect yourself against AIDS" and "Become informed about AIDS."

The willingness of MOH personnel to engage in more frank discussion with different groups has been reinforced by the intervention of non-governmental organizations active in this domain. USAID has supported the development of capacity among local non-governmental groups in Morocco to address sensitive issues such as STIs and HIV/AIDS. Non-governmental associations have fewer problems in addressing sensitive issues, and working locally enables these subjects to be broached with greater openness and transparency. With the development of decentralized management of health services, the MOH, with USAID's support, is creating regional committees to develop locally appropriate interventions to reduce the risk of transmission of STIs and HIV/AIDS, particularly among more vulnerable sub-groups of the general population.

The collaboration between the non-governmental organization ALCS (Association de Lutte Contre le SIDA) and the MOH has served as a model for the relationship between the MOH and NGOs in general. The interventions are complementary: the NGOs focus on preventive activities, while the MOH is in charge of the treatment of patients. For example, ALCS offers its sites and volunteer doctors for setting up free and anonymous diagnostic centers, and the MOH supplies the screening products and the medicines. There are currently seven of these diagnostic centers, extending access to these services and providing other opportunities for preventive counseling. Now, intersectoral committees have been created in the regions to expand the participation of re-

Important Dates in the Management of STIs and HIV/AIDS in Morocco

- 1986 First AIDS case in Morocco
- 1987 Creation of the National Intersectoral Committee to Combat AIDS
- 1988 Creation of the STI/HIV/AIDS department in the Directorate of Epidemiology and Disease Control
  Celebration of the first National AIDS Day in Morocco
  Establishment of an AIDS declaration monitoring system
- 1990 Institutionalization of HIV screening among blood donors
- 1993 Establishment of an HIV infection monitoring system
- 1995 Initiation of studies to adapt syndromic management of STIs for Morocco
- 1997 PAPCHILD household survey includes questions on STIs and HIV/AIDS
- 1998 Development of the National HIV/AIDS Diagnosis and Treatment Strategy
- 2000 Syndromic approach for treatment of STIs used in all provinces

source persons. These committees plan STI/HIV/AIDS prevention activities and include all groups that have access to at-risk populations.

Case Management for People Living with HIV/AIDS

While USAID has not directly supported this aspect of the Moroccan reproductive health program, the MOH has worked with non-governmental organizations to offer treatment to those living with AIDS in Morocco. The first phase consisted of treating opportunistic infections. AZT was used between 1992 and 1995, but was discontinued in 1995 because of resistance to monotherapy. Three-drug therapy was introduced in 1998 for symptomatic AIDS patients, financed by three sources: the MOH, which allocated $335,000, the French International Therapeutic Solidarity Fund (ITSF), and some limited support from national insurance organizations. In 2000, this program provided free treatment for 113 people, but another 150 were on a waiting list because resources were not sufficient to cover their costs.

Although the MOH has not up to this point had the resources to offer free three-drug therapy to all persons infected, it has established mechanisms for treating people including developing eligibility criteria and treatment protocols. There are two reference centers for initiating and monitoring three-drug therapy: in Rabat for the provinces in the north, and in Casablanca for the provinces in the south. Maintenance doses are dispensed at regional centers. Because of the difficulties already encountered in managing patients, the MOH and ALCS are currently participating in an assessment study with UNAIDS on the feasibility of three-drug therapy in the context of developing countries. The preliminary results were presented at the 13th World AIDS Conference in Durban. Morocco has made great strides in increasing access to anti-retrovirals. The costs of anti-retrovirals has decreased considerably since Morocco's participation in the UNAIDS "Access" initiative. Morocco is currently working with the UNAIDS program and has addressed a proposal to the Global Fund for AIDS, Tuberculosis and Malaria to widen the availability of therapeutic treatment to all AIDS patients.

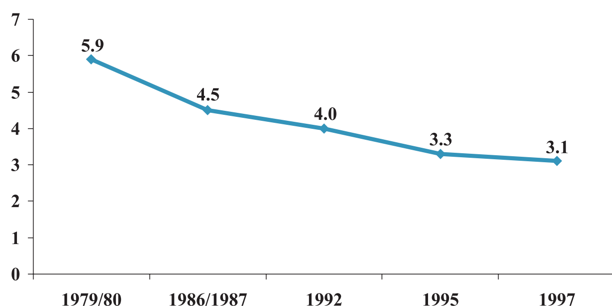
VII. Collaboration between USAID and the Moroccan Ministry of Health: Key Results

This section highlights the major achievements made in the four relevant health areas over the three decades of USAID support to the Moroccan MOH. Most of the data is taken from the six nationally representative surveys that were carried out in 1979/80, 1983/84, 1987, 1992, 1995, and 1997. Other sources of data include the 1988 and the 1998 national surveys on the "Causes and Circumstances of Infant and Child Death."

Family Planning

The total fertility rate (TFR) declined dramatically over time, from 5.9 children in 1979/80 to 3.1 children in 1997.

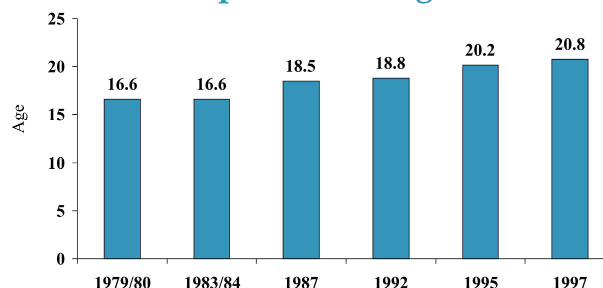
Total Fertility Rate Women of Reproductive Age over Time



It is important to recognize that factors other than the national family planning program, such as the median age at first marriage, have also contributed to this decline. The median age of women at marriage increased from 16.6 years in 1979/80 to 20.8 years in 1997.

The success of family planning in Morocco is best illustrated by the steady increase in contraceptive prevalence at the national level over time: from 19% in 1979/80 to 59% in 1997. This level of contraceptive prevalence puts Morocco in the category of "family planning success stories," although the most successful countries worldwide have now reached levels of prevalence in the high 60s or low 70s.

Median Age at First Marriage among Women of Reproductive Age over Time

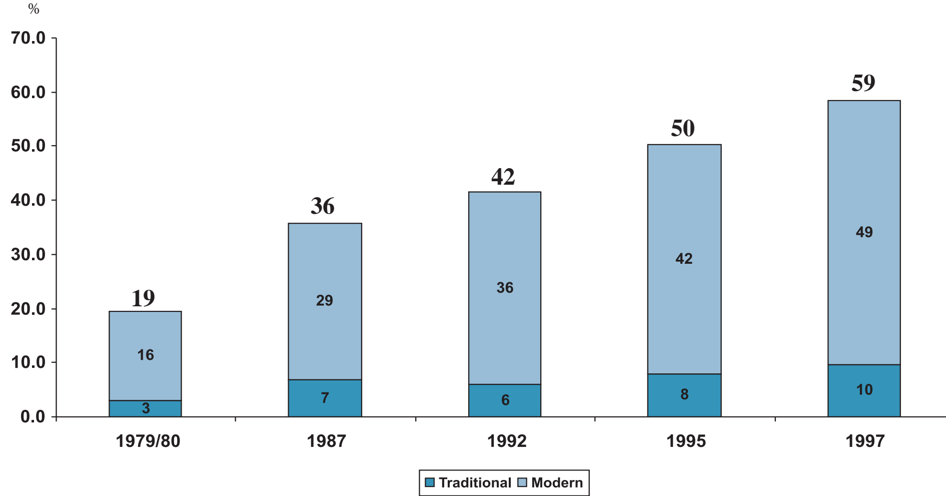


The majority of users (58-63%) in the past five national surveys obtained their contraceptive methods from the public sector, including hospitals, maternity clinics, health clinics, mobile outlets, and home visits (VDMS). This percentage has remained relatively constant over time (if one assumes the 20% "Other" for 1987 is a methodological artifact). Among those using the private sector, the percent obtaining their method from pharmacies increased from 9% in 1987 to 31% in 1992, and continued to increase thereafter, reflecting the role of social marketing.

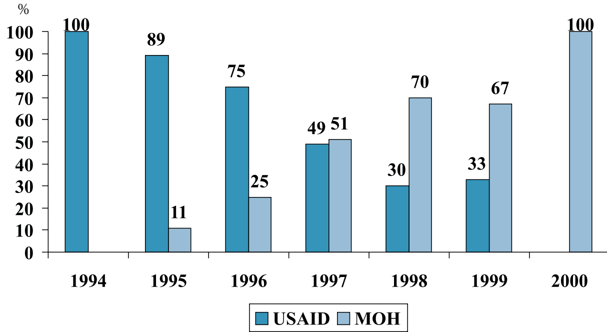
Method mix has remained highly consistent over the past 20 years. At every national survey, the pill has dominated the method mix, constituting over 60% of all use at every survey. Traditional methods are the second most prevalent (ranging from 14-19% of use), followed by the IUD and female sterilization. Other methods have had low levels of use in Morocco.

Until 1995, USAID was responsible for all contraceptive purchases, and contraceptives were a major component of all the USAID projects. As part of the withdrawal of USAID support, USAID and the MOH developed plans for the procurement of contraceptives solely by the MOH. This plan outlined the amount to be contributed by each partner. The gradual transfer of contraceptive procurement occurred as scheduled. As of the year 2000, 100% of all public sector contraceptive procurement was done by the MOH and forecasting needs have been projected until the year 2004.

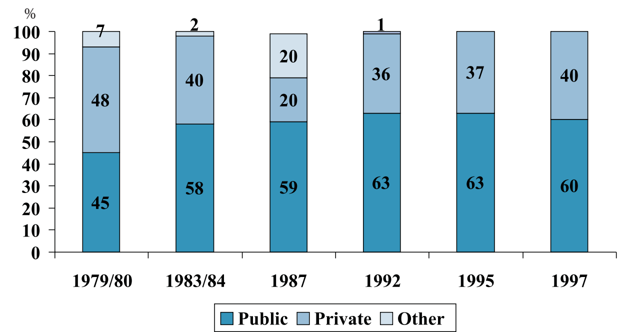
Contraceptive Prevalence among Married Women of Reproductive Age



Phase-Over in Contraceptive Purchases (Percentage Covered by Each Party)



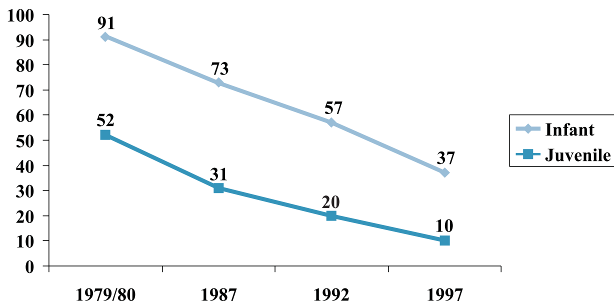
Source of Modern Methods among Women Currently Using Any Method: Private vs. Public Facilities



Evolution of Method Mix over Time (Percent of Users by Method)

Method	1979/80	1983/84	1987	1992	1995	1997
Pill	71	66	64	68	64	66
IUD	8	10	8	8	8	9
Sterilization	4	6	6	7	8	5
Other Modern	1	1	3	3	4	4
Traditional Methods	16	17	19	14	16	16

Evolution of Infant and Young Child Mortality per 1,000 Live Births



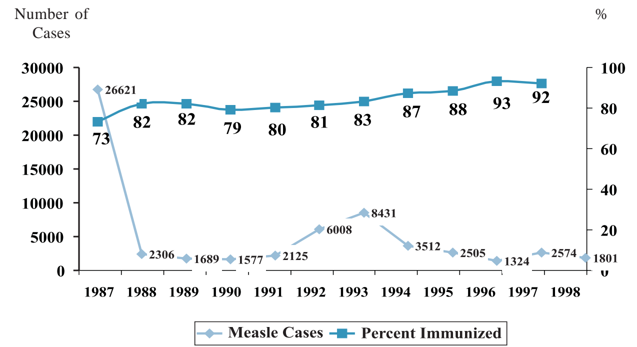
Child Health

Due to the efforts of the MOH, with USAID and other donor support, the infant mortality rate (IMR) has dropped impressively over the past several decades, from 91 deaths per 1000 live births in 1979/80 to 37 per 1000 live births in 1997. Child mortality among children less than five years of age has also decreased, falling from 52 deaths per 1000 births in 1979/80 to 10 per 1000 live births in 1997.

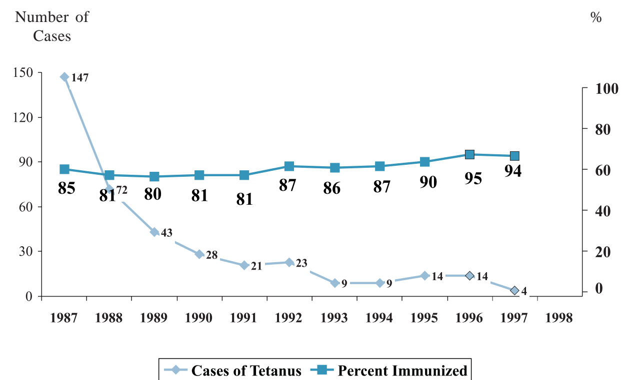
Analysis of two other national surveys on the "Causes and Circumstance of Infant and Child Deaths" conducted in 1988 and 1998 shows a sharp decrease in overall child mortality. This decline can be primarily credited to the success of the national vaccination program. One of the main findings of the two surveys conducted in 1988 and 1998 was a pronounced decrease in the number of vaccine-preventable diseases: an 86% reduction in measles and whooping cough, which have become rare causes of death, and a 90% reduction in neonatal tetanus, attesting to the efficacy of the vaccination program.

Total immunization coverage for children 0-24 months in ages has increased over time, from 54% in 1987 to 87% in 1997. However, despite these impressive gains, rural immunization rates are still considerably lower than urban rates. While 94% of children aged 12 to 23 months were fully vaccinated in urban areas in 1997, only 81% were fully vaccinated in rural areas. Factors contributing to these low levels of rural coverage may include ineffective mobile strategies, problems with cold chain logistics, insufficient supervision and continuing education for health personnel, and low levels of community participation.

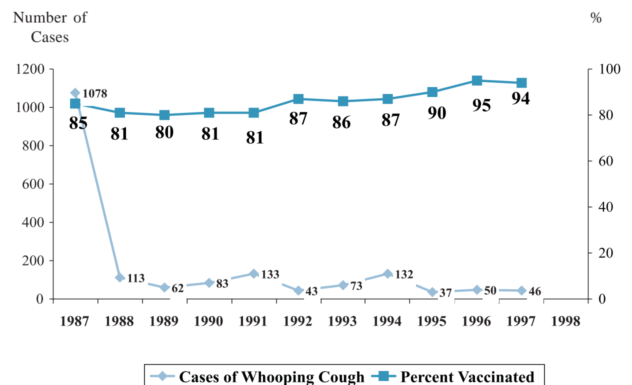
Evolution of Measles Cases



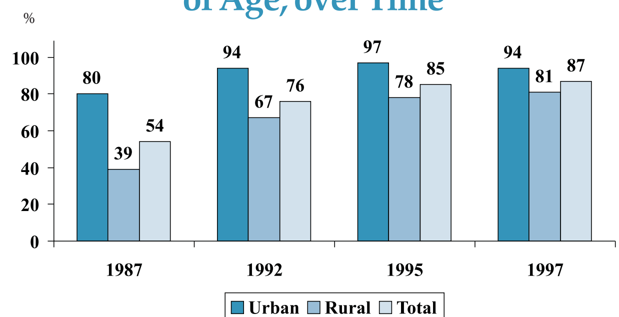
Evolution of Cases of Neonatal Tetanus



Evolution of Cases of Whooping Cough



Fully Vaccinated Children by 24 Months of Age, over Time



Safe Motherhood

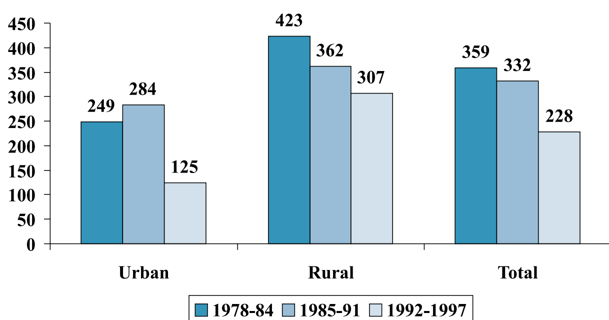
Of the four areas covered in this report, measuring outcomes for safe motherhood is by far the most difficult. Maternal deaths are often under-reported because many women die outside of the health system, making accurate registration of deaths difficult. More importantly, the actual number of deaths 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 surveys in order to obtain precise estimates. Maternal deaths are also often misclassified. Health workers may not know why a woman died or whether she was recently pregnant.

Because of the difficulty in 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 obstetrical services are also used.

In Morocco, data from the population-level surveys conducted provide information on maternal health care over the past 20 years, beginning with maternal mortality. With the exception of urban maternal mortality rates between 1985-1991, maternal mortality declined over the past two decades. 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.

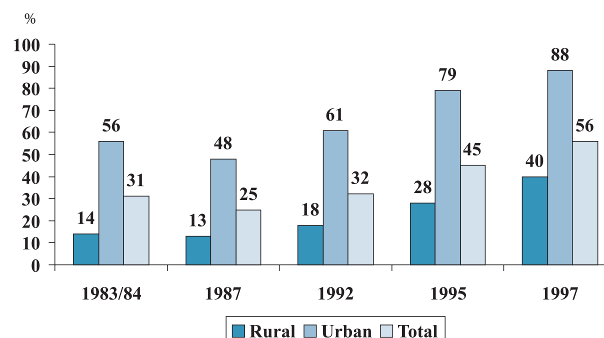
While both the urban and rural mortality rates decreased substantially in Morocco over a 20-year period, the rural mortality rate was more than double the urban rate, signifying that there is still much to be done to increase access and promote services for maternal health care in rural environments. Projects such as the MOH's Emergency Obstetric Care Project, funded by USAID, were 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.

Maternal Mortality Ratios per 100,000 Live Births over Time, by Residence



The most recent survey, conducted in 1997, indicates a continued increase in the percentage of women receiving prenatal care and the percentage of births attended by trained clinicians. The percent of pregnant women receiving at least one prenatal visit increased from 31% in 1983/84 to 56% 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.

Percent of Women Who Received Prenatal Care by Residence over Time



The percentage of births attended by a trained health provider has risen steadily, from 20% in 1979/80 to 40% in 1995. 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% in 1979/80 to 41% in 1995.

Percent of Assisted Births by Type of Attendant over Time

Attendant Type	1979/80	1983/84	1987	1992	1995
TBA	75	53	58	48	41
Midwife/Nurse	17	19	20	25	29
Friend/Family	5	19	n/a	20	18
Doctor	3	5	6	6	11
Other	1*	4	15*	2*	1

*Does not equal 100% due to rounding

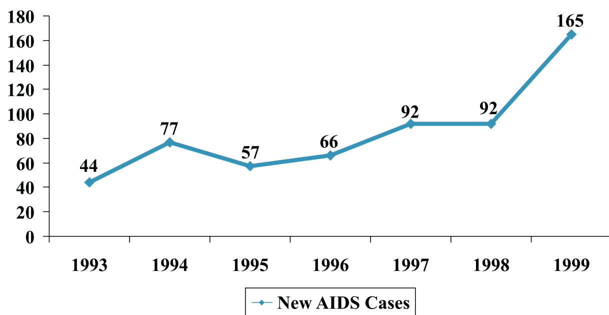
Given that the major programmatic initiatives in safe motherhood did not begin until 1995/96, it is difficult to attribute the improved outcomes to these program interventions. However, the interventions are expected to continue and even accelerate these trends in the future.

STI/HIV/AIDS

The number of newly reported cases of AIDS has steadily increased over time, but remains relatively low. It is estimated, however, that in the year 2000, over 2,000 Moroccans were newly infected with HIV. Knowledge of AIDS has also increased over time, although HIV and STI knowledge has been infrequently measured on a population level.

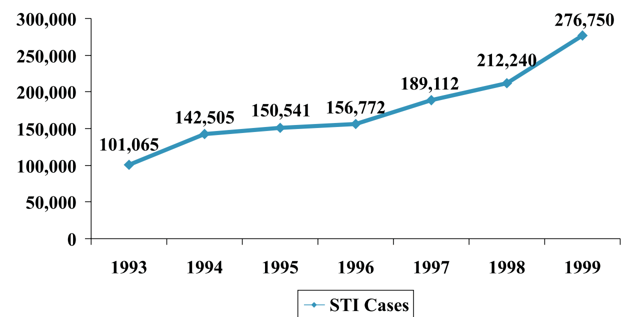
Reported STI rates have also increased over time, however, this may reflect increased care-seeking in the public health care sector rather than true increases in absolute numbers.

Number of New AIDS Cases over Time



Rates of syphilis in pregnant women are an excellent indicator of STI prevalence in the general population and changes over time are a good measure of the effectiveness of interventions aimed at reducing STI/HIV transmission. In Morocco, syphilis in pregnant women doubled from 1996 to 1998 (from .64% to 1.6%), but appears relatively constant since 1998. The syndromic approach has only recently been introduced and it is too early to expect to see a reduction in syphilis among pregnant women as a result of the program.

Total Number of STI Cases Reported over Time



VIII. Factors Contributing to the Success of the USAID/MOH Collaboration

This section highlights several factors that have contributed to the success of the USAID/MOH collaboration over the past 30 years.

1. High-Level Political Support

The introduction of family planning was marked by the commitment of the highest political authorities in the country. In 1965, His Late Majesty King Hassan II made population control a priority and strengthened his position with the repeal in 1966 of obsolete laws prohibiting the sale and distribution of contraceptives. Their Royal Highnesses Princess Lalla Meriem, chairwoman of the Moroccan Association for Support of UNICEF, and Princess Lalla Fatima Zohra, chairwoman of the National Union of Moroccan Women, contributed considerable support to mother and child health issues and chaired numerous events. The highly promoted national vaccination and family planning campaigns sparked social mobilization throughout the country.

2. Strong Commitment of MOH Officials, Reinforced by Training

The successive heads of the reproductive health programs at both the peripheral and the central levels have demonstrated consistent and impressive dedication to these programs. The training of health workers has been a priority throughout the collaboration between the MOH and USAID, with both partners convinced of its importance. Basic training and continuing education curriculums, training methodologies, and a wide series of training sessions were developed and given high-level technical and financial support. Thus, the different programs have developed competent multidisciplinary teams that play a fundamental role in achieving and maintaining program gains.

3. A Close, Constructive Collaboration between the Two Partners

A succession of MOH and USAID officials worked closely together to improve mother and child health in Morocco. The two partners were able to work as a team and were able to constantly adapt and readjust the actions undertaken. Program management was adapted over time as activities become more complex. The flexibility and transparency that has characterized the relations between the two partners was a major factor in the success of the programs. This close collaboration resulted in a high degree of trust and friendship; thus at USAID/Washington there is now a core group of “Friends of Morocco,” while within Morocco, the MOH officials encourage frequent high-level interchanges and are eager to continue contacts whether or not funds are available from USAID for specific programs.

4. Adequate Financing of Programs

Because of high-level support within Morocco, the commitment of MOH officials, and the consistent support of USAID and other donor organizations, the key maternal and child health programs have been well financed through critical periods of program growth. Between 1971 and 2000, USAID invested 126 million dollars in mother and child health programs. Thanks to this support, the national maternal and child health programs have reached a certain maturity, which will help them overcome the difficulties inherent in the discontinuation of direct USAID assistance to these programs after 2004. The Moroccan government has consistently made and respected commitments to fund family planning and other priority programs, as evidenced particularly during the transition period, when the government took over the full costs of contraceptives and vaccines for the nation, aided previously by loans from the World Bank. The widespread availability and free provision of contraceptives has been a strength of the national family planning program.

5. Full Program Integration

A broad range of maternal and child health services is provided at the same health centers, by the same personnel. The VDMS Program implemented with USAID support was a precursor to this integration, permitting women living in remote areas to receive a package of actions promoting their health and the health of their children. Promotional and informational

campaigns were organized in such a way as to cover several topics at once: family planning, safe motherhood, breastfeeding, and, to a lesser extent, STIs and HIV/AIDS. The later introduction of the syndromic approach for the management of STIs further strengthened integration of services in the basic health care system. The model of integrated care has proven highly effective and Moroccan officials are proud that they resisted a more vertical approach proposed earlier by USAID.

6. High-Quality Information

MOH and USAID officials consistently invested in the production of quality data, enabling them to measure progress and to identify areas requiring specific interventions. The World Fertility Survey (1979-1980), the Contraceptive Prevalence Survey (1983-1984), the National Health and Demographic Surveys (1987 and 1992), the Panel Survey on Population and Health (1995), and the National Survey on Mother and Child Health (PAPCHILD 1997) all provided reliable program information. Routine health statistics were also considered a priority to provide information on usage of services. As a result of collaboration between USAID and the MOH, health managers now have a state-of-the-art computerized interactive database. The computerization of health care services has improved communication within central structures linked as a network and peripheral structures. Qualitative research was conducted as needed to better define the target populations and determine their knowledge, attitudes, and practices.

7. Partnership with the Private Sector

In Morocco, the public sector gave impetus to preventive programs and then involved the private sector. Partnership with the private sector was fostered through USAID projects, starting with the social marketing of condoms in 1988. The social marketing of condoms enabled men to be directly involved in family planning: "Family planning is also the man's responsibility." It also permitted condoms to be initiated first as a method of contraception and then later as a means of preventing STIs and HIV/AIDS. The pill was launched as a socially marketed product in 1992, and injectables and the IUD in 1997-1998. For STIs, the MOH estimates that the proportion of patients treated by the private sector represents up to 75% of the cases. Consequently, training sessions were organized by the MOH for private health care professionals to involve them in correct syndromic treatment of STIs. The pharmaceutical industry placed the relevant antibiotics on the market at a price affordable to the population. To combat micronutrient deficiencies, under a strong partnership between the MOH and food companies, iodized salt is currently being marketed in Morocco and the fortification of wheat flour with iron, folic acid, and B vitamins is soon to be introduced with the support of USAID under the MOST project. Enrichment of oil with vitamin A is also envisioned.

8. Integration of Program Elements into Medical Schools

Several important partnerships between the MOH and the Universities of Rabat and Casablanca, with USAID support, contributed to the long-term success of maternal and child health programs. For family planning, not only did the National Center for Training in Human Reproduction (CNFRH), affiliated with the Rabat Medical School, contribute technical training in clinical methods, but also the MOH partnered with the medical schools in Rabat and Casablanca to revise the curriculum for medical students in reproductive health. For obstetric care, a series of training agreements between University instructors and the MOH for refresher training for local obstetric teams can be cited. The involvement of eminent professors in the training of private doctors in the management of STI/HIV/AIDS contributed to the acceptance of this new approach. For child health, Integrated Management of Childhood Illness was introduced into the medical curriculum at the School of Medicine in Rabat, and its introduction is currently under way in Casablanca. In contrast, the syndromic approach for treatment of STIs has not yet been included in these curriculums.

IX. Actions Promoting Program Sustainability

The sustainability of these programs after USAID assistance ends in 2004 has been a major concern for both partners. USAID is working with the MOH to ensure that the health care system can continue offering essential services with reduced external assistance. In the early 1990s, a transition plan was established. The two partners agreed that USAID would gradually withdraw financing for specific elements and the MOH would take on the financial responsibility for these elements. In the Phase V agreement, the MOH's contribution to these expenses is listed as an indicator to measure the government's commitment with respect to the sustainability of the activities.

The Phase-Over of Contraceptives

Through 1994, all contraceptives for the annual needs of the MOH were purchased by USAID, constituting a major element of the different USAID-funded projects. To prepare for USAID's eventual withdrawal from the sector, a strategy to achieve financial autonomy for contraceptive purchases was developed for Morocco. This strategy was implemented by the MOH and USAID, with considerable help from different cooperating agencies.

A number of studies and tools were developed to facilitate the transfer of these financial obligations. These included preparation of an advocacy document for the MOH to convince government officials to allocate sufficient resources for the family planning program; various studies of the contraceptive market of Morocco, including potential market segmentation; establishment of a system for estimating contraceptive needs; and several large national workshops to reach consensus among decision-makers on the need to adequately fund reproductive health programs in Morocco. As an important cost-containment measure, due to advocacy work, taxes and customs duties on imported contraceptives were sharply reduced.

The transfer of the purchase of contraceptives to the MOH was carried out as planned. The MOH met and even exceeded its commitments. As of 2000, the purchase of contraceptives is entirely covered by the MOH. Supply forecasts have been estimated up to 2004, and financial provisions are in place, partially supported by a loan from the World Bank through 2001.

The Phase-Over of USAID Financing for Specific Expenses

1990-1995:	Decreased funding by USAID for fuel and spare parts
1995:	Initiation of the purchase of contraceptives by the MOH
1996:	Purchase of 100% of vaccines and 23% of contraceptives by the MOH
2000:	Purchase of all contraceptives by the MOH

Involving the Private Sector in Reproductive and Child Health Programs

The Social Marketing Program has contributed to the sustainability of family planning and child health activities by diversifying the source of financing for these programs. It has also made quality contraceptive methods and ORS available to the public at a moderate price. Today, 34% of contraceptives and 13% of ORS are obtained from the private sector. The availability of iodized salt on the Moroccan market is also a success of the partnership between the MOH and the food industry. Fortification of flour with iron, folic acid, and B Vitamin is on the near horizon, and studies are currently under way for the enrichment of oil with vitamin A. Medicines for the treatment of STIs are being placed on the market at affordable prices. The partnership between the private and public sectors is increasingly important for the sustainability of the MOH programs and is receiving considerable attention and support from both the MOH and USAID in the current phase of collaboration.

The Vaccine Independence Initiative

A 1999 study on the costs and financing of the National Vaccination Program, funded by USAID, documented the different stages of vaccine financing:

- 1970-1989: The major components (vaccines, supplies, and cold chain) were financed by international donor agencies, including UNICEF, USAID, and WHO. The Rotary Club contributed by purchasing vaccines.
- 1990-1999: The support from donor agencies began to decrease but MOH purchases were accomplished using a loan from the World Bank.

As of 1993, Morocco began to participate in the Vaccine Independence Initiative, a program established by UNICEF to help countries achieve self-sufficiency in the purchase of vaccines. This mechanism permits the MOH to purchase vaccines through the UNICEF procurement system using local money. USAID contributed the initial working capital to UNICEF to establish a revolving fund for the vaccine purchases. This program simplified the purchase of vaccines. This approach clearly shows the evolution of the national vaccination program towards self-sufficiency. The contributions of donor agencies have evolved from the direct purchase of vaccines to facilitation of the purchase and financing.

X. The Challenges Ahead for Reproductive and Child Health in Morocco

This section highlights some of the remaining challenges to be faced by the MOH as it continues to improve programs in family planning, child survival, safe motherhood, and STI/HIV/AIDS over the coming years.

1. Improve Access to Care in Rural Areas

Limited access to health care in rural areas continues to challenge the health system. In 1996, close to 31% of rural citizens lived more than 10km away from a health care facility. The mobile strategy was designed to provide basic services to remote and isolated populations, but has not proved effective. According to a recent household consumption survey, 45% of the Ministry of Health's budget is used by the richest one-fifth of households, and 20% of the poorest households receive only 7% of the resources. As another indicator of limited access of rural populations to key services, the number of public sector pediatricians outside of hospitals dropped from 190 in 1994 to 135 in 1998. The disparity in access to health care is reflected in program indicators.

Disparities Between Urban and Rural Settings

Indicator	Urban	Rural
Percent of women receiving prenatal care	88%	40%
Births in a monitored setting	70%	20%
Infant Mortality	24 per 1,000 live births	46 per 1,000 live births

2. Upgrade Quality of Care and Use of Services

The quality of services has been a constant concern of MOH officials and of USAID. Major efforts have been made in the different programs to address quality issues: norms and standards were defined and adopted for family planning and safe motherhood activities, IMCI and the syndromic approach were introduced to improve the quality of patient management, and procedure manuals were developed for nurses and laboratories. In 1992, the MOH and USAID started the "Integral Quality Management" project in five provinces, and by 1999, it had been extended to seven provinces and 53 sites. Over this period of time, a large number of health workers have received quality assurance training.

Despite these efforts, studies have repeatedly shown that both urban and rural populations have a negative perception of the quality of health care services. They cite poor customer service, lack of medicines, and inadequate communication. Doctors and nurses are often perceived as overwhelmed by the sheer number of mothers and children who come for consultations. Despite the high volume of training in counseling and IEC organized in all of the programs, some service providers maintain a traditional demeanor in treating their clients, and the hierarchical approach that characterizes social relationships in all domains of Moroccan life is likewise present in service provider-client interaction.

The promotional campaigns organized for family planning, vaccinations, and diarrheal diseases have improved the general public's knowledge concerning health. Today the population is in a better position to request and even require quality services. A perception of poor quality explains in part the under-utilization of services. If the MOH is to succeed in persuading more women to choose an appropriate family planning method, to come for pre-natal care, to deliver in health facilities, and to bring their children routinely for post-natal care, the perceived and actual quality of services must continue to improve.

3. Allocate the Necessary Funds

The budget for public health represented 5% of the overall national budget in 1999, versus 7% during the sixties. The health budget per capita is significantly lower than in many other countries at a similar level of economic development. Within this budget, salaries and support for the hospital network consume the lion's share. Therefore, reproductive health activities, although they are considered a priority, have a very small pool of resources. This shortfall in pro-

gram resources is more critical as USAID withdraws its direct assistance to the sector. In addition, there is no medical insurance mechanism for lower-income groups. The health insurance system covers only 15% of the population, which is represented in large part by civil servants and employees of large companies. Currently, all contraceptives and vaccines used in the public program are purchased by the MOH. If steps are not taken to improve medical coverage and guarantee sufficient funding for reproductive health and child health programs, program gains could be compromised and program sustainability will be at risk.

4. Increase Involvement of the Private Sector in Preventive Programs

The Ministry of Health has always led maternal and child health programs and continues to provide the vast majority of preventive care as well as an important share of curative activities. Major efforts have been made by USAID and the MOH over the past 10 years with a view to ensuring a better balance between the public and private sectors in the national health care system. Some undeniable successes, such as the Social Marketing Program for contraceptives and ORS in partnership with the pharmaceutical industry, and the sale of iodized salt in partnership with the food industry, can be cited. There is still a long way to go: the involvement of general practitioners in mother and child health programs confronts fundamental problems regarding the positioning of general practitioners and the role they can play in the health care system.

5. Increase Involvement of Women at all Levels of the Health System

In Morocco, historically the percentage of women working outside the home has been quite low, but this is changing rapidly; approximately half the students now in medical schools are female. Within the MOH, women holding positions of responsibility are rare: out of 68 directors (physicians-in-chief at the provincial level), only 2 are women. In the field, female doctors and nurses are sorely lacking, particularly in rural areas. The MOH has not yet adequately responded to the preference expressed repeatedly by clients for having female health staff for programs targeting women. This situation is made worse by the aging of personnel, with many nurses and midwives retiring and recruitment remaining low. The departure of outreach nurses, who are not being replaced any more, weakens the effectiveness of the mobile teams.

6. Reach Out to Marginalized Populations and Expand the Range of Reproductive Health Services

In Morocco, reproductive health programs are aimed at married women of childbearing age exclusively. Men and unmarried women face huge barriers in obtaining these services from the public sector. This is increasingly important given the increase in the average age at marriage, the growing number of single adults, the increased risk of HIV/AIDS, and the recommendations of the Cairo Conference to provide reproductive health information and services to youth. Some aspects of other reproductive health problems such as cancer detection should be considered for inclusion in the Ministry's preventive programs.

7. Adapt to Decentralization of Health Systems Management

These priority programs were all planned and implemented from the central level. The MOH has embarked on decentralization to further improve program performance, in the context of the evolution of the political environment. Several years ago a policy decision was made to decentralize and to create regional structures in Morocco, a radical change in approaching health care problems. Regional and provincial teams are becoming increasingly involved in the identification of needs and in program development. They can thus better meet the expectations of the population and develop more targeted interventions. Decentralization is currently a major topic of discussion within MOH teams. Under the post-bilateral project covering 2000-2004, USAID is helping the MOH test and implement decentralized management and program development mechanisms.

8. Develop South-South Collaboration

Morocco is a co-founder and active partner of the consortium of developing countries that have banded together to develop south-south cooperation. These countries have great experience in certain reproductive health programs and have decided to strengthen ties among themselves and with less developed countries. The success of the Moroccan National Family

Planning Program, and other key health programs, makes it a solid source of instruction and technical expertise for other countries in Africa and in the world. Morocco should be encouraged to share its experiences in reproductive and child health with other countries.

Appendix A: Timeline of Significant Events

1971
USAID and the MOH sign Project #608-0112 - Family Planning Assistance (PHASE I) for the period 1971-1977.

Moroccan Family Planning Association (Association Marocaine de Planification Familiale - AMPF) founded.

1973 - 1977
The Ministry's Five Year Plan for Maternal and Child Protection (Protection Maternelle et Infantile - PMI) focuses on prevention and education activities in four areas: 1) malnutrition, 2) infectious diseases, 3) vaccinations, and 4) family planning.

1974
The Maternal and Child Protection Program becomes the Protection of the Health of Children Program (Protection de la Santé de l'Enfant - PSE). Activities in health centers focus on children 0-2 years.

1975
The first PSE activity guide developed. A pregnancy care form to be filled out by a health care provider encourages women to have three prenatal consultations during pregnancy (one during each trimester) and one post-natal consultation.

1977
Pilot Systematic Motivational Home Visits Project (Visites à Domicile de Motivation Systematiques - VDMS) launched in Marrakech with USAID funding.

The PSE Program becomes the Protection of Maternal and Child Health Program (Protection de la Santé de la Mère et de l'Enfant - PSME). Activities still focus on the health of children.

1978
USAID and MOH sign Project #608-0155 - Support for Family Planning Programs (PHASE II) for the period 1978-1985. In addition, they sign Project #608-0151, a separate, smaller project for health management activities for the period 1978-1984.

1979 - 80
National Fertility Survey conducted (WFS) with USAID funding.

1979 - 82
National Program to Control Diarrheal Disease (Le Programme National de Lutte Contre les Maladies Diarrheiques - PLMD) implements a pilot project to distribute oral rehydration salts (ORS) in clinics in three provinces.

1980
The Ministry's Five Year Plan for 1981-1985 promotes the concept of primary health centers (Services de Soins de Base - SSB) and extends coverage of these health centers.

1981
The Expanded Program on Immunization (Programme Elargi de Vaccination - PEV) established, providing vaccination against tuberculosis, whooping cough, diptheria, measles, tetanus, and poliomyelitis.

MOH subscribes to the WHO sponsored "International Code of Marketing Breast Milk Substitutes."

1982
The VDMS Expansion Project covers 11 additional provinces. Door-to-door delivery of contraceptives and health services includes provision of iron and vitamin supplements for pregnant or lactating women, with USAID funding.

The National Center for Training in Human Reproduction (Centre National pour la Formation en Reproduction Humaine - CNFRH) founded in Rabat to train health personnel in family planning.

1983
HIV/STI Surveillance Committee created in Morocco.

National distribution of oral rehydration salts begins.

1983 - 1984
National Contraceptive Prevalence Survey conducted with USAID support.

1984
USAID and MOH sign Project #608-0171 - Assistance for Family Planning and Demographic Issues for the (PHASE III) for the period 1984-1991.

1986
First AIDS case detected in Morocco - man infected by transfusion while working in France.

Creation of the National Committee in the Fight Against AIDS (Comité National de Lutte Contre le SIDA). Activities limited to procurement and management of medication for AIDS patients

The Service for Research and Health Data (SEIS) and the Service for Research and Computer Science (SETI) established.

1987
The PSME program becomes the Surveillance of Pregnancy and Childbirth Program (Programme de Surveillance de la Grossesse et de l'Accouchement - PSGA), signalling a more focused approach on maternal health care.

The Expanded Program on Immunization (PEV) restructured and renamed the National Immunization Program (Programme National d'Immunization - PNI). "National Vaccination Days" are launched.

National Population and Health Survey conducted with USAID funding.

1988
Division of STI/HIV/AIDS (Service MST/SIDA) established by the MOH.

First seminar conducted on AIDS, with emigrant workers as target population.

First World AIDS Day celebrated in Morocco.

Testing of donated blood for HIV in selected regions.

1989
USAID and MOH sign Project #608-0198 - Family Planning and Child Survival Assistance (PHASE IV) for the period 1989-1996.

A social marketing program introducing the "Protex" condom launched.

The National Institute of Health Administration (Institut National d'Administration Sanitaire - INAS) established.

1989-90
INAS study on obstetrical interventions conducted.

1990
Recurrent VDMS expenses transferred from USAID to the MOH.

The PSGA becomes the Protection of Maternal Health Program (Service de Protection de la Santé de la Mère - PSM) and a separate Protection of Child Health Program (Service de Protection de la Santé de l'Enfant - PSE).

Monotherapy with AZT introduced in Morocco.

1991
The Maghreb Conference on Safe Motherhood held in Marrakech.

MOH establishes an action plan for breastfeeding promotion including: (1) in-service training and awareness building for health professionals, (2) implementing BFHI in all hospitals, (3) developing a Morocco-specific code on breast milk substitutes.

MOH conducts first general population knowledge, attitudes, behaviors and practices study on HIV/AIDS.

1992
National Conference on Health in Ouarzazate, USAID Administrator attends.

A health management information system developed with USAID support collects information on family planning, pregnancy and birth monitoring, nutritional status, diarrheal control, and immunization data for local-level program planning and management.

Demographic and Health Survey (DHS) conducted with USAID funding.

Acute Respiratory Infections (ARI) control program established by MOH with financial support from UNICEF and WHO. Preliminary activities include drug procurement and training of health providers in four pilot provinces (Agadir, Kenitra, Meknés, and Marrakech).

Social Marketing of oral contraceptives (Kinat Al Hilal initiated with USAID funding)

1993
The MOH Five Year Plan for 1993-1997 seeks to reduce maternal and neonatal morbidity and mortality.

USAID and MOH sign Project #608-0223 - Reduce Fertility, Improve Maternal and Child Health (PHASE V) for the period 1993-2000.

USAID provides initial capital for MOH participation in the UNICEF Vaccine Independence Initiative to help Morocco become more autonomous in funding the vaccination program.

African Conference on AIDS held in Marrakech.

External review of the national STI/HIV program conducted by WHO/GPA team.

Contraceptive phase-over strategy developed.

Condom social marketing program is graduated to full financial autonomy.

1995
Dr. Deborah Maine visits Morocco to assess the maternal health care situation. MOH announces new maternal health strategy in 1995, largely influenced by Maine's recommendations.

The MOH with USAID support launches Emergency Obstetric Care (EmOC) Pilot Project in the Fès-Boulemane and Taza-Al Hoceima-Taounate.

Beginning of transfer of responsibility for purchase of contraceptives from USAID to the MOH.

Moroccan legislation mandates and sets standards for iodization of all salt.

Introduction of bi-therapy for AIDS patients in Morocco.

1997
First World Conference on Maternal Mortality held in Marrakech.

Social marketing of oral contraceptives reaches financial autonomy.

1998
The MOH study "Causes and Circumstances of Child Deaths" funded by USAID finds a remarkable decrease in deaths due to vaccine preventable illnesses.

MOH begins reporting HIV seropositivity in addition to AIDS cases.

Highly Active Anti-Retroviral Therapy (HAART) made available to AIDS patients in Morocco.

Pilot project begins vaccination for Hepatitis B as part of the national immunization program.

First training sessions held for the syndromic approach.

AZT therapy introduced for seropositive pregnant women.

1998/99
Anthropological study on the sociocultural management of obstetrical complications conducted in Fès-Boulemane and Taza-Al Hoceima-Taounate with USAID funding.

New family planning and safe motherhood course for sixth year medical students introduced in the Rabat School of Medicine in 1998 and Casablanca School of Medicine in 1999, developed with USAID support.

1999
Vaccination of infants for Hepatitis B becomes part of the nationwide program.

Shift from etiology-based reporting of STI to syndrome-based reporting.

2000
USAID and MOH sign Memorandum of Understanding Key Actions for the Sustainability of Population, Health, and Nutrition (PHN) Programs for the period 2000-2003.

MOH purchases 100% of contraceptives for the public sector.

Training in the syndromic approach for treatment of STIs completed in all 67 provinces.

Appendix B: Key Informants Interviewed

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

USAID/Morocco

Ms. Susan Wright, Former Health, Population, and Nutrition Officer
Ms. Helene Rippey, Former Senior Technical Advisor
Ms. Zohra Lhaloui, Health, Population, and Nutrition Officer

Ministry of Health (MOH)

Direction de la Population (DP)
Dr. Mostafa Tyane, Director
Dr. Najia Hajji, Former Chief of Family Planning Division
Dr. Mohamed Abou-ouakil, Head of the Family Planning Division/Head of the Intersectorial Coordination and Collaboration Service
Dr. Hamid Checkli, Chief of Child Health Service/Mother and Child Health Division
Dr. Ali Bensalah, Chief of Maternal Health Service/Mother and Child Health Division
Dr. Tsouli, Maternal Health Division, INAS Laureate
Mr. Abdelylah Lakssir, M&E Specialist/Family Planning Division
Dr. El Arbi Rjimati, Mother and Child Health Division
Dr. Mohamed Braikat, Head of National Immunization Program/Mother and Child Health Division
Mr. Mohamed Bigmegdi, National Immunization Program
Mr. M. Brahim Ouchrif, Divisionary Administrator/Family Planning Division
Ms. Rerhryaye Touria, Secretary, Mother and Child Health Division

Direction de la Planification et des Ressource Financières
Dr. Mohamed Laziri, Director
Mr. Mustapha Azelmat, Head of Studies and Health Information Services (SEIS)

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 STI/AIDS Services
Dr. Hamida Khattabi, Epidemiologist and Manager of STI/AIDS Services
Dr. Abderrahmen Filali Baba, Chief of Leprosy (former Chief of STI/AIDS)

Direction des Hôpitaux et des Soins Ambulatoires
Dr. Saida Choujaa-Jrondi, Director
Dr. Darhkaoui, Chief Ambulatory Healthcare Division

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, Chief 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

Private Physician

Dr. Mohamed Zarouf

JSI/Morocco (Institutional Contractor Staff for Phase V)

Dr. Theo Lippelveld, Former Chief of Party
Ms. Boutaina El Omari, IEC Program Manager
Dr. Redouane Abdelmoumen, Public Health Specialist
Ms. Malika Lassri, Private Sector Program Manager

UNFPA

Dr. Belouali, Coordinator

CNFRH

Prof. M.T. Alaoui, Director

Pasteur Institute, Morocco

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 STIs 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 Bezad, President (former STI/AIDS Chief)

European Union

Mr. Massimo Ghidinelli, Technical Assistant, STI/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
Dr. Norma Wilson

John Hopkins University/Center for Communication Programs

Ms. Sereen Thaddeus

WHO/Egypt

Dr. Mechbal, Representative

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