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PREVENTIVE HEALTH SECTOR ASSESSMENT

THE CURRENT LANDSCAPE OF MATERNAL AND CHILD HEALTH SERVICES IN EGYPT

June 2012

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CONTENTS

List of Acronyms	v
Executive Summary	vii
1. Maternal and Child Health Program Overview	1
2. Methodology	3
3. Policy Environment.....	5
3.1 Regulatory Policies	5
3.2 Strategic Focus	5
3.3 Political Commitment.....	5
4. Management Systems.....	7
4.1 Organizational Structure.....	7
4.2 Planning	7
4.2.1 The Central-Governorate Level.....	7
4.2.2 The Governorate-Facility Level	8
4.3 Decision-Making.....	8
4.4 Resource Management	8
4.4.1 Data Management	8
4.4.2 Human Resource Management.....	10
4.4.3 Financial Resource Management.....	12
5. Service Delivery.....	13
5.1 Supervision	13
5.2 Quality of Service	14
5.2.1 Provider Perspective	14
5.2.2 Client Perspective	16
6. Community Outreach	19
7. Service Utilization.....	21
8. Accessibility	23
8.1 Geographical Accessibility	23
8.2 Accessibility of Female Providers.....	24
9. Recommendations	27
9.1 Policy Environment – Strategic Focus.....	27
9.2 Management Systems.....	28
9.3 Service Delivery	29
9.4 Accessibility of Services.....	30
References.....	31

LIST OF TABLES

Table 4.1: Availability of MCH Work Plans.....	8
Table 4.2: Providers' Years of Experience in Delivering MCH Services.....	11
Table 5.1: Primary Barrier to Quality Service Delivery.....	15
Table 5.2: Primary Recommendation to Improve Quality.....	16
Table 5.3: Results of the Client Exit Survey: Provider Interactions	16
Table 5.4: Results of the Client Exit Survey: Facility Conditions	17
Table 5.5: Results of the Client Exit Survey: Satisfaction and Cost.....	18
Table 6.1: Facility Outreach Activities by Governorate.....	19
Table 7.1: Reason for Coming to the Facility.....	22
Table 8.1: Reason for Coming to the Facility.....	23
Table 8.2: How Did You Come to the Facility Today?	23
Table 8.3: Did You Pay for Transportation?	24
Table 8.4: How Much Did You Pay for Transportation?	24
Table 8.5: Patient Preferences for Female Providers.....	25
Table 8.6: Would You See a Male Doctor if No Female Doctor was Available?.....	25

LIST OF ACRONYMS

BBP	Basic Benefits Package
CQIS	Continuous Quality Improvement System
d4 Report	Four Donors Report (World Bank, EC, USAID, Danida)
DHA	District Health Authority
DHS	Demographic and Health Survey
EGP	Egyptian Pound
FHM	Family Health Model
FP	Family Planning
HMHC	Healthy Mother Healthy Child
HSRP	Health Sector Reform Program
IC	Infection Control
IL	Implementation Letter
IMCI	Integrated Management of Childhood Illness
MCH	Maternal and Child health
MDG	Millennium Development Goal
MIS	Management Information System
MOHP	Ministry of Health and Population
NHA	National Health Accounts
NID	National Immunization Day
NMMSS	National Maternal Mortality Surveillance System
P4P	Pay-for-Performance
PHC	Primary Health Care
SMC	Safe Motherhood Committee
TB	Tuberculosis
USAID	United states Agency for International Development

EXECUTIVE SUMMARY

The Ministry of Health and Population (MOHP) has undertaken a series of steps to transform and strengthen the financing and delivery of health care services in Egypt. Some of these changes include moving from vertical programs to an integrated Family Health Model (FHM), changing the manner in which services are contracted and paid for, and making the social insurance system more sustainable. At the same time, there is diminished donor assistance to Egypt, which could affect program performance. It is within this context that this Preventive Health Sector Assessment study was undertaken. The purpose of this assessment is to evaluate the performance of the Maternal and Child Health (MCH) program to provide feedback and recommendations for improving the impact, effectiveness, efficiency, equity, and sustainability of these programs. The study uses a combination of qualitative and quantitative data collection, in addition to conducting a review of key literature on the MCH sector in Egypt.

Preventive health care, including the delivery of MCH services (prenatal care, child health care and immunization, family planning, and reproductive health) continues to be among the priorities of the MOHP. Under recent reforms, preventive services were restructured to accommodate the provision of integrated services. Preventive programs are now treated as one integrated program with a unified strategy and shared resources. MCH mid-level managers perceive this change as indicating a lack of direct political support to MCH services as a national strategic health priority, despite the global emphasis on Millennium Development Goals 4 and 5. Furthermore, most mid-level managers and stakeholders claim that there is a general trend to support curative care over preventive health care. When programs were integrated, services were diluted and responsibilities overlapped. Further efforts are required to bridge the gap between vertical and integrated services.

The current MCH environment in Egypt is characterized by a shortage of providers in remote, rural areas, and gaps in facility cleanliness and the provision of supplies to facilities, despite increased funding for health care from the central government. Study participants expressed concern about decreased training on MCH topics and insufficient resources for supervisory visits. Nevertheless, clients expressed a high level of satisfaction with care received.

Further evidence is needed to assess the impact of the integrated FHM on MCH outcomes. A strategic plan should be developed to capitalize on the existing support for improving maternal and child health, to fully implement the transition from a vertical to an integrated service delivery model and to carefully allocate resources. Careful management is necessary to optimize the use of existing skilled health workers, while future initiatives could improve the strength of the skilled health workforce. Community initiatives, such as reinvigorated Safe Motherhood Committees and community mobilization interventions, are needed to ensure that facilities are responsive to local health care needs.

I. MATERNAL AND CHILD HEALTH PROGRAM OVERVIEW

In the 1970s, maternal and child health (MCH) services were provided through a vertical program which was funded by the Ministry of Health and Population (MOHP) and the United States Agency for International Development (USAID), in addition to other donors. Vertical programming relies on the provision of separate and distinct programs that cater to the unique goals of MCH, such as its own training curricula, staffing patterns, information systems, supervisory tools, and a top-down management approach.

Under an organizational restructuring, the MCH program was subsumed into the General Department of Primary Health Care (PHC), raising concerns about the position of the MCH program within the overall MOHP administration. The Family Health program, however, emphasizes decentralization by entrusting district health authorities (DHAs) with management and financing of health care services. This approach endorses the original structure that is based on a district health system, which has been in place since the early 1960s. In 1996, MOHP introduced MCH services into the package of basic health services offered at PHC clinics.¹

In 1997, Egypt started to implement the health sector reform program. The policy reform strategy focused on rolling out the Family Health Model (FHM) in all PHC facilities, so it was necessary to integrate MCH services into the FHM package. FHM was piloted in 1997–1998 in six governorates: Sharkeya, Menoufia, Kafr-Elsheikh, Beheira, Menia, and Sohag. In 1999, FHM was rolled out to cover all health units in three governorates: Alexandria, Menoufia, and Sohag. By 2011, approximately half of all PHC facilities had been converted to Family Health Units.

Under reform, the family practitioner becomes the gatekeeper for the system and is responsible for a roster of patients. Family Health Unit facilities provide basic preventive and curative outpatient services, including MCH services. FHM is a cornerstone of the reform program. It brings high-quality services to patients and will integrate most of the vertical programs into the Basic Benefit Package (BBP) of services. Integrated services reach more clients by using all opportunities for service delivery, requiring fewer provider-client contacts. The integration of existing vertical programs is in complete alignment with ministerial strategic directions. Although integration can be seen as a dilution of resources, including staff time and energy, integration of services can improve the efficiency and effectiveness of the delivery system by reducing the number of provider-client contacts.

¹ Published on Egyptian Initiative for Personal Rights: <http://eipr.org>

2. METHODOLOGY

The MOHP has undertaken a series of steps to transform and strengthen the financing and delivery of health care services in Egypt. In addition to moving from vertical programs to an integrated FHM, these changes include changing the manner in which services are contracted and paid for, and making the social insurance system more sustainable. At the same time, there is diminished donor assistance to Egypt which could affect program performance. It is within this context that this Preventive Health Sector Assessment study was undertaken. In consultation with the MOHP, three major programs were selected (Family Planning [FP], MCH, and Infection Control [IC]). The purpose of this assessment is to evaluate the performance of the MCH program to provide feedback and recommendations for improving the impact, effectiveness, efficiency, equity, and sustainability of these programs. Therefore, the study has the following three objectives: (1) understand how well the program structures and processes have worked to achieve program objectives; (2) assess program needs going forward; and (3) use the analyses to make actionable recommendations on how to promote the effectiveness, efficiency, sustainability, and equity of this program in improving MCH outcomes.

The study methodology uses a combination of qualitative and quantitative data collection, in addition to conducting a review of key literature on the MCH sector in Egypt. The qualitative portion of the research consisted of in-depth interviews with four key stakeholders from the FP, MCH, and IC programs at the central MOHP level. These interviews served as the basis for semi-structured interviews that were carried out with 17 stakeholders from the three preventive sector programs in the following governorates: Alexandria, Ben Suef, Dhakalia, Qalyoubia, Qena, and the Red Sea. The participants were selected based on their affiliation with the programs to represent the management and staff of these programs in the study governorates. Focus group discussions were conducted with FP staff.

Thirty-two participants took part in the study; 21 stakeholders were interviewed and 11 participated in the focus groups. Of all participants interviewed, 15 of the respondents were senior program (FP, MCH, IC) officials in the governorates included in this study. The remaining respondents were mid-level officials working in these programs. Nearly all the interviews took place at the MOHP governorate headquarters “Moderiat El Seha” in each governorate, with some governorates (such as Qena) being exceptions. The participants in the focus groups were 11 of the FP staff in two governorates; the staff included health educators, nurses, and media and public relations specialists at the governorate level.

Most of the participants indicated that they preferred not to be identified by name or official position in the report. Therefore the report refers to participants as “stakeholders.” There are six to eight stakeholders for each program, and they are referred to in the report as Stakeholder 1–Stakeholder 8 depending on the program (for example “MCH Stakeholder 1” is one of the interviewees for the MCH program at either the central level or one of the governorates). Even though the MOHP is striving to build an environment of trust and transparency, the reluctance of most participants to be identified by name indicates that a lot of work remains to be done in order to build such an environment in the MOHP.

The qualitative data were collected using semi-structured interviews, which included open-ended questions that allowed the participants to express themselves freely and to present the program situation as they perceive it. Questions included “How is the program doing before and after the implementation of the FHM?”; “Do you face any barriers or obstacles in doing your work?”; “Did you notice any difference in your work after the Implementation Letter has ended? Has it affected

your work in any way?” Following the inductive analysis, the revealed themes were examined and incorporated in the study report.

The quantitative component of the study consisted of conducting exit interviews at public health facilities in all six governorates. A total of 3,031 interviews with clients (1,738 for FP and 1,293 for MCH) seeking care at the health facility were conducted, in addition to a total of 337 interviews with providers at each of these facilities. The public health facilities that were included in the sampling framework were identified using a random selection process.

Finally, a desk review was conducted to review program documents, working papers, and research conducted about the MCH program in Egypt.

3. POLICY ENVIRONMENT

3.1 REGULATORY POLICIES

Supportive legal and regulatory environment: Preventive health care, including the delivery of MCH services (prenatal care, child health care and immunization, FP, and reproductive health) continues to be among the program priorities of the MOHP. From the service delivery perspective, over the past period, there have been several laws, decrees and operational policies issued in support of preventive health care programs. One example is Ministerial Decree 197/2002 to form the Safe Motherhood Committee (SMC) to monitor and work on reducing maternal mortality rates. Based on information provided by the National Maternal Mortality Surveillance System (NMMSS) and reported by SMC indicating an increase in maternal mortality rates due to misuse of uterus stimulus, the Central Administration of PHC issued Release 1/2002 banning uterus stimulus. These policies were synergistically coupled with social policies that aim at improving the social status of vulnerable groups, such as laws supporting child rights, forbidding child labor, and banning female genital cutting. However, this supportive policy environment was not well articulated into a clearly defined MCH strategy and comprehensible implementation plans.

3.2 STRATEGIC FOCUS

The Egypt health sector strategy developed in January 2003 is a replication of the Health Sector Reform Program (HSRP) – commonly referred to as the “D4 Report.” It is a revised version of the 1997 HSRP Strategy Document. According to MOHP General Administration for Strategic Planning and Monitoring, this is the latest strategy forming MOHP policies at present. It is a broad comprehensive strategy for the health sector, including preventive health care services reform.

The strategy emphasizes the provision of “*high quality primary health care services that is both effective and affordable by the state*” through applying reform strategies in providing BBPs (MOHP 2003: 174). One of MOHP priorities as stated in the D4 is to “*expand the application of Family Health Model aiming to identify different health problems in the community and provide primary health care services for individuals, families and the community.*” However, this strategy document is not widely disseminated or even easily accessible to stakeholders other than MOHP central management. A separate strategy for the preventive sector or its affiliated programs was hardly accessible either. It is worth mentioning that key strategic principles of PHC provision are posted on the MOHP official website as the PHC strategy, focusing on achieving Millennium Development Goals (MDGs) by 2014 through the efficient implementation of FHM. However, there was a general consensus among interviewed middle-management that the central MOHP has a strategy for the preventive sector, where no separate strategy is developed for each of the preventive programs.

إستراتيجية الرعاية الصحية الأولية
المبدا الأساسية
الإرتقاء بالحالة الصحية للمجتمع الوصول إلى الأهداف
التنموية للألفية من خلال التطبيق الأمثل نموذج صحة الأس
رة بكلا أبعاد هفي جميع وحدات الرعاية الصحية الأولية بنها
ية عام 2014
لتحقيق التغطية الشاملة بمنظما التأمين الصحي الاجتماعي
كلا لمصر بينجزمة الخدمات الصحية الأساسية وجوده
ذلك تخفيف المعاناة عن المواطنين .

3.3 POLITICAL COMMITMENT

Political support and commitment are misconceived: High-level political support for MCH has existed since 1990, when Egypt was one of six countries to convene the World Summit for Children. As MOHP policies were gearing toward reform, preventive services were restructured to

accommodate the provision of integrated services. This brought preventive sector structure away from “clear-cut” vertical programs with separate components including MCH. Preventive programs are now treated as one integrated program having a unified strategy and commonly shared resources. This has been articulated by MCH middle-level management as a felt lack of direct political support to MCH services as a national strategic health priority. Furthermore, most middle-level managers and stakeholders claimed that there is a general trend to support curative care more than preventive health care. This contradicts the fact that more financial resources were being channeled to preventive health care during the past decade (2001–2008). Such misconception of political commitment to preventive health care programs could be attributed to the fact that vertical preventive programs such as MCH have appeared to become less of a program priority due to the overriding concept of integration of health care services under the family health service delivery model. This transitional restructuring phase from verticality to integration caused confusion to mid-level managers, who were previously fully responsible, totally independent, and in full control over their program. When programs were integrated, all services were diluted and responsibilities overlapped. The transitional phase was inefficiently managed and implemented. Further efforts are still required to bridge the gap between vertical services and integrated services.

4. MANAGEMENT SYSTEMS

4.1 ORGANIZATIONAL STRUCTURE

The MCH program is run centrally through its own general department within the preventive sector, under the Central Administration of Integrated Health Care. However, under an organizational restructuring, the MCH program was subsumed into the General Department of PHC, raising concerns about the position of the MCH program within the overall MOHP administration. The Family Health program, however, emphasizes decentralization by entrusting DHAs with management and financing of health care services, including setting reproductive health goals and targets. This approach endorses the original structure that is based on a district health system, which has been in place since the early 1960s. DHAs have been established in each of Egypt's governorates and traditionally have been responsible for management of PHC facilities located within their geographical boundaries.

“If the MCH is no longer a department, it'll have less control over resources and decision-making and it is an indication that it is considered less important now.” (MCH Stakeholder 4)

“We are worried about the change and wonder what it'll mean for our work.” (MCH Stakeholder 6)

4.2 PLANNING

4.2.1 THE CENTRAL-GOVERNORATE LEVEL

Linking sector planning with resource allocation: As mentioned in the previous finding, middle-level managers stated that the MOHP preventive sector has a long-term strategy. Additionally, they mentioned that central departments develop operational plans on an annual basis. However, there is an impression among mid-level management that the overall strategy and the annual operational plans are not linked to the resources required for implementation, compared to what was previously allocated to MCH when it used to operate as a vertical program. Planning and management of human resources and budgets are functions of separate departments. Thus these processes are sometimes handled pro forma instead of reflecting the actual needs as assessed through an integrated planning and resource allocation process.

Due to the disconnect between the planning and implementation processes and resource allocation and management, central administrations tend to rely on external funding sources, through other government line items or from international donors, to implement specific short-term projects or subactivities in their operational plans. Although this external donor funding mechanism only contributes to 3 percent of the overall MOHP funding, it is seen to have a positive impact on expediting the implementation of priority interventions. However, it also creates side funding channels that might have a negative impact on program sustainability, especially in the longer term.

Moving from vertical programs to integration seems to have drawbacks, in particular on linking plans to resource allocation and also on the amount of resources allocated to MCH services. This may be an opportunity to strengthen existing MCH services through renewed planning to guarantee that plans reflect actual MCH needs.

4.2.2 THE GOVERNORATE-FACILITY LEVEL

Interviews with service providers in targeted facilities indicated that, on average, 76 percent of interviewees reported that they have a work plan to guide implementation, 98 percent reported that it is regularly reviewed, and 87 percent reported that plans are available to be seen (Table 4.1).

TABLE 4.1: AVAILABILITY OF MCH WORK PLANS

	Is there a work plan?	Is it reviewed regularly?	Is it available to be seen?
Alexandria	95%	97%	85%
Dakahlia	81%	100%	88%
Qalyoubia	73%	93%	74%
Qena	58%	100%	87%
Bani Suef	67%	100%	97%
Red Sea	67%	100%	100%

4.3 DECISION-MAKING

With regard to the overall operational management, most middle-level managers and service providers indicated that the decision-making process at the health directorate level is relatively clear and there are lines for communicating decisions between the health directorates and health centers and vice versa. However, in certain circumstances, especially when a decision is related to a centrally funded program or policy, there can be delays in important decisions requiring approval from the central level. Reasons behind this delay were not clearly depicted through the conducted interviews.

The central MOHP sets strategies and strategic plans. Health directorates participate to varying degrees in the development of these strategies and are also required to develop operational plans at the health directorate level. It was found that in most circumstances strategic plans were not effectively communicated throughout the hierarchy of the sector and do not necessarily guide the development of specific operational plans that are budgeted, resourced, and monitored to achieve the sector's strategy goals. MCH directors at the governorate level implied that these centrally developed strategies are not operationalized with the allocation of the required resources to ensure appropriate and timely implementation. A result is that, despite the fact that the governorate and district levels handle most activity-specific operational plans, they do not fully participate in the central planning and resource allocation process. Interviewed MCH governorate directors reported that the MOHP/central level used to invite them to participate in a bi-annual meeting to discuss MCH-related issues. Lately, these meetings have stopped, which hinders communication and coordination between the central and governorate levels. Interviewees asserted that their voices became unheard at the central level. Governorate- and district-level managers became executives rather than active partners in policy implementation.

4.4 RESOURCE MANAGEMENT

4.4.1 DATA MANAGEMENT

Multiple data management and information systems exist at the PHC level. Service delivery data are routinely collected and reported at the health center level. Data collection is done manually at the facility level and is automated at the district and higher levels. The Management Information System (MIS) Unit at the central level monitors the information on a monthly basis, and estimates that data

are 75 percent accurate. Given that 25 percent of the data collected are inaccurate, this suggests a need for further investigating how the MIS Unit can more effectively develop a system of quality assurance for data being collected. As a first step, the MIS Unit could invest in trying to better understand at which level (health center, district, or higher) these data inaccuracies are occurring, what the main constraints preventing more consistent, accurate data being collected are, and what systems could be implemented to improve accuracy and reliability. It was also unclear the extent to which data were effectively analyzed and communicated to decision makers.

In an effort to integrate health information systems at the PHC level, the Family Health program attempted to abolish the ledger system for collecting MCH information in order to unify systems and reduce the reporting burden. However, the capacity to extract information from client health files is limited. Therefore, abolishing the ledger-based MCH system before having a reliable and functioning alternative may have resulted in a significant loss of information. According to a report published on *Egyptian Initiative for Personal Rights*,² despite MOHP efforts in efficiently managing MCH data, challenges still persist. Examples:

- No secondary analysis of findings, such as analysis linking women's educational level and mortality, or wealth and mortality, etc.
- Incomplete information: no clear information on avoidable mortality factors or geographic comparison of mortality rates
- Inaccurate (or less precise information) on rural areas where mortality rates are higher

In addition to ensuring the quality of the data being collected, an important next step for the MIS Unit would include setting up mechanisms for analyzing and reporting the data in a systematic way. Systematic analyses of these data would not only provide a better understanding of trends in MCH outcomes at the local, district, and regional levels. It would also create additional incentives for ensuring the collection of higher-quality data, as long as there is a feedback mechanism to cross-check data and provide support for improved data collection efforts, particularly at the health center level.

Data management for maternal mortality

There is a separate system for collecting data related to maternal mortality, which has been institutionalized into the MOHP MCH structure (i.e., the health office, the health district, the health directorate at the governorate level, and the MOHP central level). The NMMSS was established in 2002 to document all maternal mortality cases in the 27 governorates. It was established in the same year as the creation of the National Commission on Safe Motherhood, headed by the Minister, and local SMCs at the governorate level (Ministerial Decree 197/2002).³ The commission's main objective is to reduce maternal mortality rates. On a monthly basis, the NMMSS data collection system provides the governorate, district, and facility SMCs with information about the causes of maternal deaths. The head of the MCH program at the governorate level is responsible for gathering the information and sending it to the General Manager for MCH at the central level. The SMCs use these data in their monthly meetings to develop and implement improvement plans to reduce maternal deaths. SMCs meet quarterly with the central commission to discuss plans and progress. Interviewed MCH governorate directors provided highly positive feedback on SMCs and their effective role in addressing maternal mortality causes. However, they believe that SMCs have become less effective over time and recommended that their role be reactivated in all governorates. MCH directors attributed the reduction in SMC effectiveness to the lack of technical, supervisory, and logistical resources that were previously made available through the Healthy Mother Healthy Child (HMHC) project.

² Published on Egyptian Initiative for Personal Rights (Source URL: <http://eipr.org>)

³ Ibid.

In practice, the NMMSS is still functioning as a data collection system. To date, data are routinely gathered at the district and governorate levels and reported monthly to the central level. However, data are not efficiently utilized. SMCs have become inactivate in some governorates. They are not efficiently performing their role of studying collected information, analyzing death causes, and discussing possible interventions for future improvement. The MOHP has become less interested in SMCs, and therefore less aggressive in supervising SMCs' performance. In addition, SMCs performed best when they were financially supported through donor funds. These funds were directed to data processing at the central and governorate levels. Reductions in donor funds, coupled with reduced political commitment, seem to have had a negative effect on SMCs' performance. This may be contributing to Egypt's slow pace in achieving the targeted reduction of maternal mortality rates from 54/100,000 in 2011 to 43/100,000 by 2015 (MDG 5: Target 5.A).

4.4.2 HUMAN RESOURCE MANAGEMENT

The preventive sector continues to face challenges in appropriately allocating human resources for health. A World Health Organization (WHO) report documents the imbalance in human resources by type of personnel (WHO 2006). There is a surplus of physicians, while there are shortages of qualified nurses, midwives, and paramedical staff. There are also important inequities in the distribution of human resources across regions, particularly in Upper Egypt where there are significant shortages in conjunction with poor health outcomes. Interviewed MCH governorate directors confirmed that Upper Egypt governorates in general continue to suffer from such shortages, especially among nurses, whereas Qena in particular suffers from a shortage of physicians. Red Sea also suffers from staff shortages due to the hazardous and remote locations of facilities there.

Physicians are required to work for two years in underserved areas. The program called is called "Taklif" (required service) and is managed by the central MOHP. MCH governorate directors interviewed for this report noted that physicians often find excuses to avoid serving in such areas or to shorten their stay. They added that the Taklif program does not consider physicians' geographical preferences when making assignments. Physicians may not wish to work in remote facilities that are far from the physician's residence, even if additional financial incentives were granted.

In Upper Egypt, cultural practices restrict women's work, especially in remote areas. This has contributed to the shortage of nurses in the area. It also impacts the services provided in PHC facilities, as it leaves some PHC facilities completely unattended while others are overstaffed. At the time of this report, 72 PHC facilities in Upper Egypt did not have physicians.

Variation in providers' skills and capacity among governorates: Based on data collected from providers in six governorates, there is notable variation in providers' years of experience in providing MCH care. In the Red Sea for example, all interviewed physicians reported less than one year of experience (Table 4.2), while 50 percent of providers in Dakahlia and Qena reported 1–10 years of experience. Qalyoubia had more experienced staff: 44 percent of interviewed providers had 11–20 years of experience. Alexandria showed the highest percentage (50 percent) of MCH providers having more than 20 years of experience. This indicates that remote governorates like Red Sea have difficulty retaining medical staff despite incentives paid to serve in remote facilities, given that 100 percent of these providers have less than one year of experience. On the other hand, urban areas like Alexandria have higher rates of staff retention among MCH providers. There may be variation in the quality of service provided across governorates due to variation in staff longevity. This potential variation in quality, due to differences in staff experience, might also suggest that greater resources should be devoted to areas where providers have less experience by providing them with additional benefits and support, such as greater supervision, additional training, and potentially higher incentives for serving in these remote locations.

TABLE 4.2: PROVIDERS' YEARS OF EXPERIENCE IN DELIVERING MCH SERVICES

Years	Dakahlia	Red Sea	Alex	Beni Suef	Qalyoubia	Qena
< 1	30%	100%	13%	9%	33%	0%
1–10	50%	0%	25%	18%	22%	50%
11–20	20%	0%	13%	36%	44%	33%
> 20	0%	0%	50%	27%	0%	17%
Didn't answer	0%	0%	0%	9%	0%	0%
Total	100%	100%	100%	100%	100%	100%

Reduced emphasis on MCH and FP through the integrated Family Health training model: For almost 15 years, multiple departments within the preventive sector had been planning and implementing rigorous training plans to build the clinical competence of services providers in fields such as MCH and FP. Since the adoption of the FHM, PHC training programs transitioned from multiple training programs for PHC, MCH, and FP to a single, 35-day pre-service training program for newly hired (new graduate) physicians. The training is composed of a package of PHC services that includes both MCH and FP care. This program reduced training time to 12 days – probably to reduce cost and due to the inability of physicians to stay away from their clinics for such a long period – allocating four hours only to MCH. The revised training program is insufficient to cover all MCH topics, according to interviewed MCH governorate directors.

“Definitely four hours are not enough to cover MCH-related topics, especially in that fresh graduates have limited information in the field of MCH,” said one of the interviewed MCH governorate directors.

“MCH relies mostly on nurses as they provide 70% of MCH service. This usually helps in covering physicians’ shortage until fresh graduates are assigned through ‘Taklif,’” noted a top-level MCH manager.

There is no comparable program for nurses. As described in the following section, the limited availability of funds and technical resources for training MCH nurses is a serious issue because MCH work at PHC facilities is heavily dependent on nurses, especially with the rapid physician turnover, and many of these nurses working at PHCs are not highly qualified bachelor-level nurses (MCH Stakeholder 1).

Impact of Implementation Letter discontinuation on training interventions: While the USAID Implementation Letter (IL) was in effect, the MCH program organized training sessions and seminars throughout the year to build the capacity of service providers. The IL had provisions for training and supervisions. The IL included transport costs, per diems for trainers and supervisors, and funds for the logistics of conducting training sessions. After the IL ended, MOHP budget allocations for these activities did not match the levels under the IL and these activities were affected (MCH Stakeholders 2, 5, 6).

“We try to find resources to maintain the training activities as much as we can but it’s not always possible.”(MCH Stakeholder 5)

Provider training was dramatically curtailed following the termination of IL funding. Notwithstanding the ending of IL funding, several clinical training programs were reduced and in some governorates brought to a halt over the past few years. For example, no integrated management of childhood illness (IMCI) training was conducted for recently graduated physicians from the Red Sea for several years, which resulted in the IMCI program being suspended there. Since IMCI training can only be

conducted centrally, any shortages of funds seriously affect the program's ability to conduct training covering the entire country.

Interviews with providers show that at least 50 percent of providers feel that training could be improved by increasing the number of training sessions provided. In Alexandria, 13 percent of physicians cited "easy transportation" as a way to improve the training program. In Dakahlia, 9 percent of physicians cited "training inside units" and providing "well-trained trainers" as other means of improving the training program.

4.4.3 FINANCIAL RESOURCE MANAGEMENT

Improved provider payment mechanisms: Providers are paid through a Pay-for Performance (P4P) scheme implemented as part of the broader health reform initiative to improve the quality of health care (El-Saharty et al. 2010). P4P, which is also referred to as performance-based incentives, describes programs that "link compensation to results and serve as potentially powerful catalysts for strengthening health systems and achieving health targets" (Health Systems 20/20 2011). P4P has sought to address priority health concerns in Egypt including MCH, reproductive health/FP, tuberculosis (TB), immunization, and chronic conditions, as it measures units' performance based on Performance Indicators addressing MDGs. According to Ministerial Decree no. 144 for year 1997, high-performing employees in all PHCs are entitled to incentives ranging from 100 percent to 150 percent of their basic salaries. To identify high performers, a supervisory team is assigned from the central level to evaluate units' performance against achievement of MDGs. Based on the supervisory team evaluation, units were graded for performance. Units with scores of 80 percent or more are considered high performers and are entitled to incentives. Supervisory visits were sustained and promoted through the Ministerial Decree no. 274 for year 2007, which allocated 200 percent incentives to the supervisory team conducting centrally scheduled visits; this was increased to 400 percent for visits to remote units.

P4P remained effective from 1997 to 2006 as facilities were regularly evaluated through routine supervisory visits by a central trained team that monitored facility performance through a set of indicators related to MDGs. In practice, however, the system had its drawbacks, as reported by one MCH stakeholder. The incentives were directed to certain staff members who were considered "key staff," such as the family physician and the nurse. Other staff members were not entitled to payment. This created friction among staff and discouraged some members from performing their duties. As one of MCH top management stated, "A facility nurse sometimes has to clean the unit by herself as cleaning workers refused to help since they do not get paid for their high performance." Moreover, the P4P method was weakened by the issuance of Ministerial Decree no. 75 for the year 2006, which stated that all PHC physicians, dentists, and pharmacists were entitled to monthly incentives ranging from 100 percent to 600 percent of their basic salaries. All PHC nurses were entitled to monthly incentives ranging from 75 percent to 100 percent of basic salaries.

Continued out-of-pocket expenditure on health care: The delivery of preventive and curative health care relies on multiple financing resources. As stated in the Egypt National Health Accounts (NHA) Report for 2007/08 (MOHP and Health Systems 20/20 2010: 33) and 2008/09 (MOHP and Health Systems 20/20 2011: 5), out-of-pocket payments continue to be the largest source for spending on health care (60 percent and 72 percent of total health spending, respectively). Over the past decade, the MOHP has significantly increased funding for curative and preventive health care, tripling its expenditures on PHC from EGP1.1 billion in 2001/02 to EGP3.66 billion in 2007/08. This significant increase in funding, however, was accompanied by persistently high out-of-pocket expenditures and was not matched by a significant improvement in health care utilization especially in underserved, impoverished communities. Further investigation is required to explain this discrepancy; however, discussions with MOHP managers indicated that most of these additional costs were aimed at physical renovation of facilities and not necessarily improving quality and effectiveness of program implementation. This might (albeit to a limited extent) explain the disconnect between the increase in resource utilization and the reduction in service quality.

5. SERVICE DELIVERY

5.1 SUPERVISION

Interviews with senior and mid-level managers at the central and governorate level indicated that they appreciate the value of supportive supervision as a means of improving quality in health care. They consider supervision a priority in maintaining continuous support to service providers and as an effective means of quality improvement through hands-on problem identification and solution. The MCH supervision system, previously designed by the MCH sector with technical assistance received through the HMHC project, has set the standard for a robust, quality-driven supervision process where trained supervisors conduct regular scheduled and ad hoc visits to MCH centers where they follow a specific supervision protocols to support the MCH delivery process. This system still exists. However, program challenges hinder the achievement of its original goals. MCH stakeholder interviews revealed that supervisory visits are strongly affected by service integration coupled with reduction of funds.

Weakened supervision as a result of reduced resources: Direct USAID-IL funding used to be allocated to implement introductory and refresher training to newly recruited and current MCH supervisors. With the discontinuation of ILs, the replenishment of supervisors was not supported by a rigorous training program. Thus, newly appointed supervisors do not have the technical supervisory skills of those previously trained under the vertical programs. Furthermore, IL funding was used to offset costs related to the implementation of supervision visits, including fuel costs, transportation allowances, and sometimes hiring short-term, nonpermanent drivers. Since the discontinuation of the IL funds, middle managers claim that the supervision system has been negatively affected as the efficiency of allocating and disbursing the necessary resources is now hampered by MOHP operational procedures. For example, scheduling supervisory visits and making required transportation and logistical resources available continues to be a challenge preventing the implementation of planned supervisory visits. In most circumstances, supervisors either have to reschedule their trips or they arrive late after the departure of the service providers. Reduced demand of the supervision reports and the lack of effective incorporation of supervision into quality improvement, resource mobilization, and training activities were also significant factors affecting supervision.

The MCH program suffers from deficiencies in both communication and transportation, which hinders the work. Most program vehicles are old and function poorly, so supervisory teams struggle to reach some health facilities. Facilities in the most remote areas are thus the most neglected regarding monitoring and supervision. The unavailability and inadequacy of transport makes it unrealistic for district and governorate MCH supervisors to visit remote places such as Shalateen in the Red Sea governorate, for example (Stakeholder 4). The MCH program does not conduct operations research or process evaluations and, therefore, does not have access to information that could assist in modifying operations.

Reduced effectiveness of supervisory visits due to service integration: The introduction of the Family Health program reduced the effectiveness of supervisory visits. The scope of the supervision visit has now expanded to cover a broad array of health services as well as management and operational processes, instead of focusing on a set of services or a specific team of service providers. This expanded scope has a dilution effect on the time and effort allocated to supporting MCH service delivery and providers. It was unclear whether the findings of these supervisory visits were effectively processed and whether follow-up actions were taken accordingly.

MCH central management described a supervisory system conducted on multiple levels: local, central (through samples), district, and governorate. The system is based on checklists that supervisors use during their field visits. Before integration, supervisory field visits were completely dedicated to monitoring MCH performance indicators. Sufficient time was available to measure all MCH indicators and detect problems. Since integration, MOHP supervisory teams conduct comprehensive visits measuring health unit performance broadly, including all integrated services. The MOHP visit schedule is fixed, with four visits monthly. This lessens the time dedicated to sufficiently monitor MCH services according to MCH performance indicators. Moreover, MOHP cannot fund additional visits for the MCH program beyond the scheduled visits due to lack of funds and required resources (vehicles, travel expenses, accommodation, etc.) (MCH Stakeholders 5, 6, 7).

5.2 QUALITY OF SERVICE

Following the 1992/93 maternal mortality study (MOHP 1994), the MOHP developed national standards for obstetric and neonatal care and revised the medical school curriculum. A training manual was developed to improve provider competency. National standards and guidelines for quality MCH care are shared with providers and used during training events. During supervisory visits, supervisors check to make sure that the protocols are being followed. If they are not, they provide feedback to the head of the facility. The MOHP has also successfully adopted a Continuous Quality Improvement System (CQIS) developed to assure compliance with clinical and management performance standards and the development of self-improvement plans. Combined with competency-based training methodologies, the CQIS involves continuous interaction, encouragement, and support of medical and nursing faculties, as well as local MOHP clinical supervisors/lead trainers. The Integrated Standards of Practice manual was updated by the USAID-funded Integrated Reproductive Health Services Project, which was launched in 2006.

5.2.1 PROVIDER PERSPECTIVE

Providers who responded to our survey identified the primary barriers to the provision of quality health services. While responses varied across governorates (Table 5.1), a common problem across all governorates included in the survey was insufficient medication and medical supplies. These supplies were mainly gloves: 50 percent of providers in Alexandria reported missing gloves, followed by 29 percent in Qalyoubia and Red Sea.

Another problem, noted in all areas except in the Red Sea, was insufficient doctors and nurses.

Other problems that were included: insufficient number of rooms (Dakahlia, Red Sea, and Alexandria), lack of water and difficult transportation (Qalyoubia, Qena), insufficient cleaning staff (Dakahlia, Beni Suef), clients not being aware or cooperative (Dakahlia, Red Sea), lack of telephones (Red Sea), and low client visit rates (Alexandria).

“If I have to go for a supervisory visit, I have to take a bus and it will take a very long time from one end of the governorate to another – it’s just not realistic.” (Stakeholder 5)

Our results are similar to the results from the Egypt MCH Service Provision Assessment 2004 report (MOHP et al. 2005) which found that, across all regions and all types of facilities, there was a lack of available medicines for treating complications during pregnancy. None of the facilities had access to all necessary medications to treat pregnancy complications. While facilities tend to have commonly recommended antibiotics, only 2 percent of facilities had medications to treat the four main sexually transmitted infections. The report also found that facilities tend to lack the elements to provide quality antenatal care services. Similar to our findings, facilities tend to lack the essential items for infection control. The results show that only 50 percent of facilities have access to soap, only 23 percent have access to clean latex gloves, and only 10 percent of facilities have all necessary items for infection control. Transportation was not generally reported as a problem, though a few stakeholders mentioned it.

TABLE 5.1: PRIMARY BARRIER TO QUALITY SERVICE DELIVERY

	Dakahlia	Red Sea	Alex.	Beni Suef	Qalyoubia	Qena
None	0%	17%	7%	4%	15%	15%
Insufficient medications or medical supplies	20%	17%	40%	25%	15%	15%
Insufficient rooms	14%	33%	20%	0%	8%	8%
No water	0%	0%	0%	0%	15%	15%
Insufficient doctors/nurses	14%	0%	13%	25%	15%	15%
Difficult transportation	7%	0%	0%	0%	15%	15%
Insufficient cleaning staff	13%	0%	0%	25%	8%	8%
Clients are not aware/not cooperative	32%	17%	0%	4%	8%	8%
No telephone	0%	17%	0%	0%	0%	0%
Excessive paperwork	0%	0%	7%	0%	0%	0%
Low client visit rate	0%	0%	14%	0%	0%	0%
Insufficient training	0%	0%	0%	8%	0%	0%

From the providers' point of view, several steps could be followed to improve the quality of the MCH services. Table 5.2 summarizes providers' responses to the question of which intervention would most improve quality. Many providers in each governorate in the study believed that making sufficient medication and supplies available would solve the problems they face (Table 5.2). Other solutions included: having "Raedat" (health workers) provide educational messages (Dakahlia, Red Sea, Beni Suef, and Qalyoubia), making more physicians/nurses available (Dakahlia, Red Sea, Alexandria, and Qena), decreasing routine paperwork (Beni Suef and Qalyoubia), making enough cleaning staff available (Dakahlia and Beni Suef), providing running water (Qena), and providing fans and air conditioning (Red Sea). There are certain differences between the responses provided regarding perceived barriers to service delivery and their recommendations for improving quality of care. Some of the reasons for these differences may be due to perceptions of quality of care, and what factors constitute a high quality of care, versus views on service delivery. For example, in Qalyoubia and Qena, 15 percent of providers cited difficult transportation as a service delivery constraint but only 8 percent cited improvements in roads as quality-improvement measures. Therefore, there are differences in the factors that providers perceive as relating to how services are provided (including factors limiting access to services), versus what factors will affect the quality of the service itself. In addition, there may be differences in providers' perceptions of what constitutes quality service delivery. For example, in Beni Suef, the lack of doctors and nurses is cited as a barrier to service to delivery but not cited as a recommendation for quality improvements. Such inconsistencies suggest that there may be misunderstandings about what constitutes quality of care and there is a need for increased communication and awareness about the components of quality of care.

TABLE 5.2: PRIMARY RECOMMENDATION TO IMPROVE QUALITY

	Dakahlia	Red Sea	Alex.	Beni Suef	Qalyoubia	Qena
None	14%	17%	8%	8%	8%	17%
Make available enough medications, sonar, medical supplies: syringes	21%	33%	46%	23%	25%	25%
Make available running water	0%	0%	0%	0%	0%	17%
Make available enough physicians/nurses	14%	17%	23%	0%	0%	25%
Make available enough cleaning staff	14%	0%	0%	15%	8%	8%
Improve the road to the health unit	7%	0%	0%	8%	8%	8%
Health workers (Raedat) should give educational messages	29%	17%	8%	31%	33%	0%
Restrict work to morning shift	0%	0%	8%	0%	0%	0%
Fans and air conditioners	0%	17%	0%	0%	0%	0%
Decrease routine paperwork	0%	0%	8%	15%	17%	0%

5.2.2 CLIENT PERSPECTIVE

Human element

Based on the results from the client exit surveys, there is a high rate of satisfaction with MCH services, despite lingering questions about gaps in quality. Ninety-five percent of women reported that the provider addressed their questions during the visit, although only 57 percent reported that the physician explained her condition (Table 5.3). Ninety-five percent of respondents reported satisfaction with the length of the visit. These rates did not vary dramatically by governorate. Seventy-four percent of women had enough privacy during the visit. This rate varied from a low of 61 percent for clients in the Red Sea, to 91 percent for clients in Qena. Sixty-two percent of women were satisfied with the confidentiality at the facility, but this ranged from 41 percent in Beni Suef to 95 percent in Qena. Overall, 99 percent of clients felt that they were treated “very well or well” by the doctor. Beni Suef has low patient satisfaction in three key aspects: 38 percent for doctors explaining the patient’s conditions, only 41 percent were reassured of confidentiality, and 70 percent believed there was adequate privacy during their consultation with the provider. While the relatively high rate of satisfaction with visits (except in Beni Suef) suggests that these visits meet clients’ expectations, there appears to be a significant difference between these expectations and the quality of care, as a function of the doctor explaining the health condition. Patient satisfaction with visits will also not necessarily proxy for quality of care because patients are not aware of the components that constitute a high quality of care, such as the physician correctly diagnosing a condition and prescribing the appropriate treatment given the diagnosis.

TABLE 5.3: RESULTS OF THE CLIENT EXIT SURVEY: PROVIDER INTERACTIONS

% Clients	Doctor explained my condition	Doctor addressed my questions	Satisfied with length of stay	Privacy available	Confidentiality reassured	Well treated by the physician
Alex.	76%	92%	91%	88%	82%	97%
Dakahlia	60%	96%	97%	64%	66%	99%
Qalyoubia	45%	99%	91%	66%	40%	100%
Qena	58%	95%	99%	91%	95%	100%
Beni Suef	38%	92%	96%	70%	41%	98%
Red Sea	92%	100%	96%	61%	53%	100%
Total	57%	95%	94%	74%	61%	99%

Facility conditions

The client survey highlighted dramatic gaps in cleanliness and sanitation in facilities (Table 5.4). While 96 percent of respondents judged the waiting area to be clean (as perceived by the survey respondent), a majority of respondents reported that the lab was unclean in all but two governorates and there was wide variability in the cleanliness of bathrooms. Few bathrooms had soap. Only 6 percent of respondents in Red Sea reported soap in the restroom. These gaps in basic upkeep are consistent with the problems reported by providers, specifically the availability of water and shortages of cleaning staff.

Almost all clients (99 percent) said that the hours of the facility were convenient. Fifty-five percent reported that they received MCH services in a separate room, ranging from 82 percent in Qalyoubia to 40 percent in Dakahlia.

There is also variation in the percentage of clients who were asked to buy drugs outside of the facility. In Qena and the Red Sea, only 10 percent and 14 percent of clients (respectively) were asked to buy drugs outside the facilities, while this percentage is as high as 74 percent in Alexandria. Other data (not shown) highlight that these data do not reflect that all drugs were purchased outside of the facility, but only that some needed to be purchased outside. These findings suggest that the facilities may lack some of the necessary drugs for the conditions being treated and clients are asked to obtain these drugs from other locations. These findings highlight important concerns about the quality of care being provided at these facilities, since drugs are not directly available at the facility. In addition, the requirement that clients obtain drugs from outside the facility may also create additional barriers to access if the cost of drugs (including transportation costs to access them) results in clients not being able to obtain all the necessary medications.

TABLE 5.4: RESULTS OF THE CLIENT EXIT SURVEY: FACILITY CONDITIONS

	Waiting area			Convenient working hours	Cleanliness		Soap available in bathroom	Separate MCH room	Asked to buy drugs from outside the clinic
	Available	Clean	Enough seats		Lab	Bathroom			
Alexandria	99%	99%	77%	96%	17%	94%	27%	42%	74%
Dakahlia	99%	91%	64%	99%	42%	50%	24%	40%	56%
Qalyoubia	99%	99%	75%	100%	38%	71%	34%	83%	50%
Qena	93%	87%	75%	100%	62%	61%	18%	44%	10%
Beni Suef	98%	99%	80%	98%	79%	92%	62%	58%	57%
Red Sea	100%	99%	81%	100%	23%	34%	6%	49%	14%

Overall satisfaction with MCH services

Across the survey area, clients report a high rate of satisfaction⁴ (97 percent) with the MCH services received, with no significant variation by governorate (Table 5.5). Seventy-seven percent reported that they perceive the cost of the MCH services as inexpensive and 19 percent reported it is free.

TABLE 5.5: RESULTS OF THE CLIENT EXIT SURVEY: SATISFACTION AND COST

Governorate	Overall satisfaction		Impression on cost of care		
	Yes	No	Expensive	Not expensive	Free
Alexandria	95%	5%	5%	79%	17%
Dakahlia	97%	3%	1%	97%	3%
Qalyoubia	96%	4%	3%	80%	17%
Qena	99%	1%	1%	79%	21%
Beni Suef	95%	5%	3%	55%	43%
Red Sea	100%	0%	2%	80%	20%

Many of the respondents did not provide recommendations for quality improvements. This is not necessarily surprising given that the client is not always aware of what constitutes necessary quality improvements compared to factors that may only affect client satisfaction (like waiting time). This also highlights the need for more client awareness about quality of care, such that clients can become better advocates for themselves in demanding improvements in MCH care. The recommendations that were provided included: “making available an appropriate building” (for respondents in the Red Sea, Alexandria, and Qena), “increasing the number of staff including OB physicians and nurses” (for all respondents except in Dakahlia), and “making available enough medications, equipment, and supplies” (for respondents in Dakahlia, Alexandria, and Qalyoubia). Some of these responses, like increasing number of physicians and nurses and increasing the availability of medications and supplies, are consistent with responses from providers.

⁴ The survey does not define what constitutes patient satisfaction and simply asks clients to respond based on their own criteria for satisfaction (which may or may not include measures of quality).

6. COMMUNITY OUTREACH

Following the 1992 maternal mortality study, the MOHP carried out mass media campaigns to encourage families to seek medical care and to increase knowledge of danger signs during pregnancy, delivery, and the postpartum period. Progress in maternal and child health was also aided by an emphasis on community outreach by young women in the villages, house-to-house counseling, and breastfeeding campaigns. The latter ceased during the past few years, but will be reinstated as part of the MCH five-year plan. The MCH program believes these campaigns had a significant impact and will help to improve the nutritional status of children in Egypt (MCH Stakeholder 6).

The MCH client exit interviews assessed the efficiency of provision of the outreach activities conducted by the facility, including educational materials available at the health center, the presence of women's or family clubs, and receiving a home visit from a health worker in the previous six months. Sixty-two percent of the respondents reported the presence of a women's club, 12.5 percent reported receiving educational material, and 43 percent reported receiving a visit from the health worker (Raedat). Table 6.1 shows the variation in these activities across governorates.

TABLE 6.1: FACILITY OUTREACH ACTIVITIES BY GOVERNORATE

	Facilities with women's or family club	Health worker visited in the past 6 months	Received educational material during the visit
Alexandria	79%	36%	14%
Dakahlia	26%	46%	10%
Qalyoubia	86%	21%	5%
Quena	49%	63%	33%
Beni Suef	77%	70%	11%
Red Sea	50%	28%	15%

7. SERVICE UTILIZATION

Clients who completed exit interviews seek health care services that they consider essential. These include immunization (39 percent of visits in these governorates) and treatment for a sick child (26 percent across governorates). The proportions vary across governorates. In Qena, for instance, 61 percent of clients reported that they came for immunization, which is the highest percentage among governorates. Meanwhile, Red Sea has the lowest percent of immunization visits (8 percent) among governorates in this study. Based on the 2008 Demographic and Health Survey (DHS) (El-Zanaty and Way 2009), 86 percent of children are fully immunized in the Red Sea (when grouped with the Local Governorates), which represents the lowest rate of all the regions. During the two years prior to the DHS, there were several National Immunization Days (NIDs) conducted to ensure that children were fully immunized against polio. Ninety-one percent of children in the Local Governorates participated in one of the NIDs. In Alexandria, 43 percent of clients were seeking treatment for a sick child. Other services were less commonly utilized, with “delivery” having the lowest percentage of visits (0.07 percent), followed by “premarital exam” (0.10 percent), “postnatal care” (0.30 percent), then “dental care” (1.31 percent). These numbers may be low in part because some facilities in the study may not provide all types of services.

Clients are not utilizing the full breadth of services available in PHC facilities. Clients seek the facility primarily for a select group of common health care services. Although premarital exam is a procedure imposed by law (Ministerial Decree 338/2008 and its amendment 475/2010) to complete marital paperwork, it is not sought through PHC facilities, as it is available in MOHP hospitals. Likewise, dental care may be sought in hospitals rather than PHCs. This duplication of services between PHCs and hospitals has led to an underutilization of MCH services at PHCs. Reactivating a referral system may help decrease the burden on hospitals and promote the role of PHCs as a primary health care provider.

TABLE 7.1: REASON FOR COMING TO THE FACILITY

	Premarital exam	Antenatal care	Tetanus Shot (mother)	Delivery	Postnatal care	Neonatal screening	Growth monitoring	Immunization	Sick child	OB/Gyn	Dental care
Alexandria	<1%	13%	5%	<1%	1%	3%	11%	21%	43%	2%	1%
Dakahlia	<1%	3%	4%	0%	<1%	5%	2%	33%	39%	9%	3%
Qalyoubia	<1%	20%	14%	0%	<1%	2%	2%	46%	13%	2%	<1%
Qena	0%	10%	11%	0%	1%	7%	1%	61%	7%	4%	0%
Beni Suef	<1%	11%	15%	<1%	<1%	5%	1%	47%	20%	1%	<1%
Red Sea	0%	43%	5%	1%	1%	3%	5%	8%	27%	2%	6%

8. ACCESSIBILITY

The Egyptian national constitution affirms the right of health to every citizen. Thus the accessibility of primary health services is a fundamental aspect in evaluating service delivery. Findings of MCH client exit surveys highlight clients' preference of receiving MCH services through selected facilities. The main reasons that clients cited for choosing the health facility were: proximity to home (36 percent), availability of needed service (23 percent), and affordable service fee (11 percent) (Table 8.1). Price of service was cited as a reason, primarily for clients from Alexandria and from Qena. Clients from Dakahlia and from the Red Sea also preferred facilities with a female doctor. Finally, in Beni Suef, many clients (21 percent) reported that the facility they visited was the only facility available. Many clients (67 percent) reached the health facility by foot, while 33 percent used motorized transport. In the Red Sea, 77 percent of clients used motorized transport. On average, clients traveled 15 minutes to reach the facility. The longest travel time is 23 minutes for clients in the Red Sea.

TABLE 8.1: REASON FOR COMING TO THE FACILITY

	Close to home	Provides needed services	Like provider	Female doctor	Good care	Price	Recommended by "Raedat"	Recommended by family member	Only facility
Alexandria	42%	20%	4%	<1%	3%	18%	3%	3%	6%
Dakahlia	35%	26%	12%	40%	6%	7%	3%	2%	9%
Qalyoubia	43%	28%	2%	7%	7%	6%	1%	1%	4%
Qena	31%	22%	3%	5%	5%	24%	8%	2%	1%
Beni Suef	29%	16%	8%	2%	10%	8%	3%	2%	21%
Red Sea	14%	26%	9%	32%	13%	4%	2%	<1%	0%

8.1 GEOGRAPHICAL ACCESSIBILITY

Data in Table 8.2 show that a majority of respondents go to clinics on foot (67 percent). Red Sea respondents use motorized vehicles the most (77 percent), which may indicate that clinics there are less accessible geographically than in other governorates.

TABLE 8.2: HOW DID YOU COME TO THE FACILITY TODAY?

	On foot	Motorized transport
Alexandria	70%	30%
Dakahlia	58%	42%
Qalyoubia	75%	25%
Qena	60%	40%
Beni Suef	80%	20%
Red Sea	23%	77%

Most respondents do not pay for transportation (71 percent), except for Red Sea where 63 percent indicated that they pay (Table 8.3). This finding is consistent with the previous finding of high use of motorized transport in Red Sea governorate.

TABLE 8.3: DID YOU PAY FOR TRANSPORTATION?

	No	Yes
Alexandria	72%	28%
Dakahlia	60%	40%
Qalyoubia	79%	21%
Qena	66%	34%
Beni Suef	83%	17%
Red Sea	37%	63%
Total	71%	30%

Respondents from Dakahlia (47 percent) and Red Sea (44 percent) have the highest spending on transportation to reach clinics (Table 8.4). The high rate of nonresponse for clients from the Red Sea does call into question the reliability of findings on this particular question. Nevertheless, this may have an impact on geographical accessibility to PHCs in these governorates. In addition, there is concern that 34 percent of respondents in Qena reported having to pay for transportation given that Qena is a poor governorate. The findings below (Table 8.4) show that 25 percent of clients had to pay more than EGP5 for transportation, which further highlights that there are significant barriers to access, particularly among poor populations. These financial and geographic constraints will have implications on the use of services by these particular populations, particularly because the access data are not able to show when these individuals may forgo care due to costs.

TABLE 8.4: HOW MUCH DID YOU PAY FOR TRANSPORTATION?

Cost (EGP)	Dakahlia	Red Sea	Alex.	Beni Suef	Qalyoubia	Qena
0	53%	0%	52%	82%	74%	59%
<1	0%	0%	15%	4%	0%	4%
1–5	47%	44%	15%	4%	26%	12%
>5	0%	0%	0%	8%	0%	25%
No response	0%	56%	18%	4%	0%	0%

8.2 ACCESSIBILITY OF FEMALE PROVIDERS

Dakahlia has the highest percentage of female physicians at 40 percent, followed by Red Sea at 32 percent. By contrast, the level in Qena is only 5 percent. Data on client preferences show that 49 percent of female clients prefer being treated by a female doctor, while 42 percent of women say they have no preference (Table 8.5). The preference for a female doctor ranges from 29 percent in Dakahlia to 66 percent in the Red Sea. When asked if they would see a male doctor if a female were not available, on average 66 percent of respondents said they would see the male doctor, while one-third would either not seek care or seek care somewhere else (Table 8.6). Only 30 percent of women in the Red Sea would agree to see a male doctor, while 60 percent would go to another facility. In Dakahlia, Qena, and Beni Suef, a broad majority of patients (84 percent, 85 percent, and 74 percent, respectively) would agree to see a male doctor.

TABLE 8.5: PATIENT PREFERENCES FOR FEMALE PROVIDERS

	Female	Male	No preference
Alexandria	55%	7%	38%
Dakahlia	29%	15%	56%
Qalyoubia	58%	8%	34%
Qena	49%	3%	48%
Beni Suef	59%	6%	36%
Red Sea	66%	2%	33%

TABLE 8.6: WOULD YOU SEE A MALE DOCTOR IF NO FEMALE DOCTOR WAS AVAILABLE?

	Yes	No, I will not receive care	No, I will go to another clinic
Alexandria	67%	27%	6%
Dakahlia	84%	16%	1%
Qalyoubia	58%	18%	24%
Qena	85%	10%	5%
Beni Suef	74%	11%	16%
Red Sea	30%	10%	60%

9. RECOMMENDATIONS

Identify MCH program priorities and strengthen collaboration for funding. Progress reports, service delivery data, and in-depth interviews with senior and middle MCH program managers pointed out that the discontinuation of the IL funding mechanism has had a negative impact on maintaining multiple operations crucial to sustaining access to quality maternal and child health care. The MOHP and international donors should direct funding toward the achievement of specific outcomes, and therefore be guided by identifying program priorities that need additional funding coupled with documented government commitment to the allocation of matching resources (host country contribution). The assessment team also recommends that direct funding mechanisms could be implemented at a decentralized level, i.e., at the governorate/health directorate or hospitals levels, supporting program outcomes that are designed to fulfill specific health care needs in specific geographic areas.

9.1 POLICY ENVIRONMENT – STRATEGIC FOCUS

Develop a phased approach to integrate MCH services into the FHM. Findings indicate that the FHM might have had a negative effect on the quality and accessibility of MCH services. This was evident from the reduced frequency, duration, and effectiveness of competency-based training courses providers are currently receiving, the reduction of client-provider interaction time, and the reduction in frequency and depth of MCH supervision visits. The model is perceived by MOHP policy- and decision-makers as an effective mechanism for providing integrated, cost-effective preventive health care. Nevertheless, the team found that the system is not developed enough to fully support integration. A phased approach is recommended, where continued support for vertical programs during a limited period of time is paralleled with efforts to build integrated systems. The assessment team recommends generating evidence to assess the impact of the integrated FHM on MCH outcomes. A **cluster randomized controlled trial** could be designed to compare MCH outcomes between communities receiving FHM services versus those still receiving vertical MCH services.

Develop and articulate an updated MCH strategy: As described in the report, the general policy environment is very supportive to reducing maternal and child mortality and morbidity through the provision of accessible MCH services. This environment, however, is not reflected in a clear strategy that sets the pace for achieving quantifiable MCH outcomes. The assessment team recommends that the MOHP engage in a strategic planning process that reinstates the government's commitment to expanding access to MCH care. A revised MCH strategy should be developed clearly depicting the path to achieving quantifiable, measurable outcomes in reducing maternal and child mortality, improving access to perinatal care, and the effective management of high-risk pregnancies.

The purpose of the strategy development process extends beyond the mere definition and communication of strategic goals and objectives. Once the strategy is formulated, the MOHP should engage in an organized process to define the costs and resources required for implementation. The strategy should also be used as leverage to ensure higher-level political commitment and that this commitment is reflected in the development of operational policies that ensure the allocation and deployment of appropriate resources required to achieve defined strategic objectives.

Develop a human resources for health strategy: Investments previously made in building the technical capacity of managers and service providers have resulted in satisfactory returns in quality of care and improved service delivery outcomes. However, these investments have not proven to be sustainable, as they were not supported by a solid human resources policy that links service delivery

with the allocation, deployment, and motivation of human resources and supporting them through a performance management system. The team suggests that the MOHP, specifically the MCH and Human Resources departments, work in close coordination with medical and nursing schools and develop a joint human resources for health strategy for MCH. The strategy should focus on institutionalizing a mechanism whereby medical and nursing schools can generate trained graduates with the skills required to deliver quality MCH services. This includes the review and integration of pre-service training programs conducted by these medical schools with the in-service training (both structured and on-the-job) that is being conducted by the MOHP. A major outcome of this strategy will be the establishment of a platform through which resources are effectively managed to create a cadre of trained MCH providers deployed and supported to deliver quality MCH services throughout the country.

Support innovative human resources distribution/allocation strategies: Another important product of the human resources for health strategy is an agreed-upon approach whereby service providers are incentivized to relocate to areas that suffer from lack of trained personnel, low MCH indicators, and remote and underserved rural and poverty pocket geographic areas. The strategy should guide policies that define new mechanisms of providing incentives for providers to accept being deployed in these underserved areas. As stated in the assessment's findings, these areas suffer from high provider turnover rates – especially physicians – as they tend to apply for post-graduate or residency programs to start their professional “specialization” training. The MOHP can benefit from the Health Systems 20/20 project's work in the area of workforce planning to identify staffing needs based on evidence-based methodology. MOHP work to date with Health Systems 20/20 in the area of workforce planning has only focused on the hospital sector. It is recommended that this work be expanded to include PHC services in order to get a comprehensive picture about the status of the workforce in the preventive sector. The MOHP – through linking the provider distribution with opportunities for post-graduate training and residency programs – can provide incentives for providers who serve at least two-to-three-year periods in such defined areas of need. This could be linked to the current “Taklif” program. Another incentive to be considered is linking performance with payment where providers assigned to remote areas receive monetary incentives based on the achievement of specific MCH care outcomes while abiding by quality of care standards.

9.2 MANAGEMENT SYSTEMS

Reactivate the role of the MCH Department: Findings indicate that the golden days during which maternal and child mortality ratios were significantly reduced were those when the MCH Department was structured in a semi-independent manner as a general department within the preventive sector. Findings also indicated that effective leadership and program commitment played a significant role in the success achieved by the department. The assessment team recommends the reactivation of the MCH Department as a general department that is interdependent with other preventive and curative sectors' departments.

The assessment team also strongly recommends reactivating the direct support to the MCH departments at the health directorate level. Building on the current Family Health program, the MOHP could adopt a decentralized approach where a degree of autonomy is provided to MCH departments at the health directorate level – each directorate develops its own goals and targets and is held accountable for achieving these targets through the allocation of sufficient human and budgetary resources.

Revise the role of the family health physician: The assessment team strongly recommends a review of the role of the family health physician as the provider of MCH services. His/her role should be reviewed in light of a revised BBP (discussed below). The assessment team also recommends assessing the core competencies of nurses and the consideration of expanding their role in the provision of MCH care – where they can perform under direct supervision from health center directors and MCH supervisors.

Reactivate and support SMCs: As mentioned in section 4.4.1 (Data Management), SMCs have proven to be successful in managing maternal mortality surveillance and in guiding appropriate action to improve quality of MCH care at the secondary level. However, the lack of continuous capacity building (an element that was previously maintained by the HMHC project through direct IL funding from USAID) and of allocation of appropriate resources hindered the sustainability of these committees. The assessment team strongly recommends that the MOHP takes active steps to institutionalize SMCs as the technical body that oversees quality of MCH care and that recommends and monitors actions needed to tackle quality- and access-related problems.

USAID (through the direct funding mechanism) can play a crucial role in institutionalizing SMCs. While mobilizing technical support contracts to build the capacity of SMCs to set targets, plans, and to monitor progress, USAID can introduce performance-based funding mechanisms where SMCs and/or health directorates receive funds in accordance with defined, agreed-upon program outcomes.

Institutionalize MCH supervision: As described in the assessment, MCH supervision (introduced through the HMHC project) has proven to be a very effective mechanism in ensuring that MCH services are provided with satisfactory quality standards. Findings clearly indicate the MCH supervision system has lost traction after the discontinuation of the direct IL funding mechanisms. The assessment team strongly recommends that the MOHP reactivates the MCH supervision system, investing more in the availability of medical and nursing faculty personnel at the governorate level.

9.3 SERVICE DELIVERY

Revise the BBP: As described earlier in this section, the MCH assessment demonstrated a negative effect on some elements related on the delivery of MCH services delivered primarily at the PHC level. However, the report could not find evidence indicating if these effects had an impact on reducing MCH outcomes. Accordingly, the assessment team recommends the revision of the BBP. Specifically, the team recommends revising the MCH benefits defined within the package and the extent to which these benefits are effectively consumed by Egyptian families.

Revise the cost of delivering the BBP: The MCH assessment team could not find specific costing studies that analyze the costs of delivering the current BBP. We therefore recommend that the MOHP analyzes the costs incurred to deliver MCH and compare these costs with actual service utilization and health outcomes, preferably at the governorate level. These costing exercises will be of great value in guiding the funding for MCH care and in improving the effectiveness of the MCH service delivery program.

Empower communities to actively participate in the service delivery process: The MCH assessment report clearly identifies that outreach activities, health promotion interventions, and behavior change communication activities are being implemented with a satisfactory level of success. However, most of these activities build on a passive role of the community as a consumer of MCH services and information. In order to expand demand for MCH services, the assessment team recommends the design and implementation of community mobilization interventions where by communities actively participate in setting their health priorities, share in managing the MCH service delivery process, and hold the MOHP accountable to respond to their health care needs. Women's clubs could be a good starting point. Women attending women's clubs could be assisted to establish women's health committees where they can interact with the health centers' providers and managers in planning, monitoring, and improving MCH care.

Increase communication and education about quality of care: The findings highlight a need for more education and awareness about the standard of care for MCH in order to create greater awareness about the factors that constitute high-quality care. Additional training could be given to providers to increase their awareness of the key components of quality of care. Similarly, greater

client awareness of the components of quality of care (such as understanding which tests should be performed during antenatal care visits and what the minimum standards are for quality of care for MCH services) would provide clients with greater awareness to advocate for themselves in demanding higher-quality services.

Ensure access to drugs within the facilities: The findings demonstrating that clients are often expected to obtain drugs outside of the facility highlight the need to focus on the constraints that currently exist within the facility in terms of ensuring consistent, reliable access to the necessary drugs for comprehensive MCH services. A first step would be to further investigate whether these constraints are the result of procurements mechanisms, drug shortages, and/or delays from higher-level sources, in order to develop a plan for more efficiently managing drug and supply procurement consistent with the facilities' needs. Such systems will likely have implications for access and quality of care, since clients who are now required to obtain drugs outside of the facility may be forgoing these treatments if the cost (including transportation) of finding other sources for drugs is prohibitive.

9.4 ACCESSIBILITY OF SERVICES

Ensuring access to services: The results on geographical accessibility to services highlight that significant barriers may exist to using health services as a result of lack of proximity to health services. For example, this is of concern in Qena, a relatively poor governorate, where a significant proportion of clients have to pay a significant amount for transportation. While the data do not highlight whether clients end up forgoing care because of geographical constraints, there needs to be greater consideration given to identifying clients who face the greatest geographical and financial barriers to access, and determine alternative or complementary systems for ensuring their access to care.

Strengthen research capabilities and conduct more research studies: Similar to the FP program, there is a need for a research strategy with a well-planned research agenda. Updating the 2004 Service Provision Assessment Survey (MOHP et al. 2005) with a new study is also critical to understanding the current situation. The MCH program should take the lead in policy analysis and share results with other stakeholders. Policymaking and organization should be guided by the information available to the MOHP through studies and observed trends, especially since current information regarding MCH users and financial distributions is either missing or not effectively utilized.

REFERENCES

- El-Saharty, Sameh, Mohamed Elhayatmy, Kimberly Switlick Prose, and Rena Eichler. August 2010. Pay for Performance for Improved Health in Egypt. Health Systems 20/20 P4P Case Studies Series. Bethesda, MD: Health Systems 20/20 project, Abt Associates Inc.
- El-Zanaty, Fatma and Ann Way. 2009. Egypt Demographic and Health Survey 2008. Cairo: MOHP, El-Zanaty and Associates, and Macro International.
- Health Systems 20/20. 2011. *Health Systems 20/20 and Pay for Performance (P4P)*. Brief. Bethesda, MD: Health Systems 20/20 project, Abt Associates Inc.
- Ministry of Health and Population (MOHP). January 2003. *Egypt Health Sector Analysis and Future Strategies*. Cairo: MOHP.
- Ministry of Health and Population (MOHP). 1994. National Maternal Mortality Study: Egypt 1992–1993. *Preliminary report of findings and conclusions*. Cairo: MOHP.
- Ministry of Health and Population (MOHP) and Health Systems 20/20. September 2010. *National Health Accounts 2007/2008: Egypt Report*. Bethesda, MD: Health Systems 20/20 project, Abt Associates Inc.
- Ministry of Health and Population (MOHP) and Health Systems 20/20. November 2011. *Egypt National Health Accounts: 2008/09*. Bethesda, MD: Health Systems 20/20 project, Abt Associates Inc.
- Ministry of Health and Population (MOHP), El-Zanaty Associates, and ORC Macro. 2005. Egypt: Service Provision Assessment Survey 2004. Calverton, MD: MOHP and ORC Macro.
- World Health Organization (WHO). 2006. "Health System Profile – Egypt." Cairo: Regional Health Systems Observatory, WHO-EMRO.
<http://gis.emro.who.int/HealthSystemObservatory/PDF/Egypt/Human%20resources.pdf>