



PAY FOR PERFORMANCE FOR IMPROVED HEALTH IN EGYPT

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Inside

About the P4P Case Studies Series **2**
Acronyms **2**
Introduction **3**
What Drove the Decision to Try P4P in Egypt? **4**
Generating Buy-In: From Proposal to Decision to Implement P4P **8**
P4P Scheme Design **11**
Lessons Learned and Key Challenges **29**
Conclusion **31**
References **31**

In 1997, the Egyptian Ministry of Health and Population (MOHP) embarked upon a reform program to restructure and reengineer the health sector with the goal of increasing health insurance coverage and access to high-quality health services, and improving health outcomes. As part of the reform, a Family Health Model for service delivery in primary health care facilities was introduced in three pilot governorates (and later rolled out in two additional governorates), and in 2001, pay for performance (P4P) was incorporated into the reform program in all five governorates. Through P4P, health care providers receive a financial incentive, which is distributed to facility staff when they reach certain targets.

Initial results suggest that the reform program helped to achieve improvements in the quality of care, and increased satisfaction levels among both health care providers and beneficiaries. The MOHP therefore scaled up the Family Health Model for service delivery but the scale-up of the successful performance-based financing model is stalled because of financial uncertainty. The two reforms are interdependent and it is unlikely that the scale-up of the model will have the same level of impact without the associated financial incentives.



ABOUT THE P4P CASE STUDIES SERIES

Pay-for-performance (P4P) is a strategy that links payment to results. Health sector stakeholders, from international donors to government and health system policymakers, program managers, and health care providers increasingly see P4P as an important complement to investing in inputs such as buildings, drugs, and training when working to strengthen health systems and achieve the Millennium Development Goals (MDGs) and other targets that represent better health status for people. By providing financial incentives that encourage work toward agreed-upon results, P4P helps solve challenges such as increasing the quality of, as well as access to and use of health services.

Many developing countries are piloting or scaling up P4P programs to meet MDGs and other health indicators. Each country's experience with P4P is different, but by sharing approaches and lessons learned, all stakeholders will better understand the processes and challenges involved in P4P program design, implementation, evaluation, and scale-up.

This Health System 20/20 case study series, which profiles maternal and child health-oriented P4P programs in countries in Africa, Asia, and the Americas, is intended to help those countries and donors already engaged in P4P to fine-tune their programs and those that are contemplating P4P to adopt such a program as part of their efforts to strengthen their health system and improve health outcomes.

Annexed to each case study are tools that the country used in its P4P program. The annexes appear in the electronic versions (CD-ROM and Health Systems 20/20 web site) of the case study.

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ACRONYMS

BBP	Basic Benefits Package
EGP	Egyptian Pound
EU	European Union
FH	Family Health
FHC	Family Health Center
FHF	Family Health Fund
FHU	Family Health Unit
HCP	Health Care Provider
HIO	Health Insurance Organization
HSRP	Health Sector Reform Program
MD	Ministerial Decree
MOHP	Ministry of Health and Population
MOSS	Ministry of Social Solidarity
NGO	Nongovernmental Organization
P4P	Pay for Performance
TB	Tuberculosis
TSO	Technical Support Office
TST	Technical Support Team
USAID	United States Agency for International Development

INTRODUCTION

What follows is a brief case study on Egypt's experience with pay for performance (P4P). In 1997, the Egyptian Ministry of Health (MOHP) and development partners launched a reform program to restructure the health sector with the goal of increasing health insurance coverage, expanding access to high-quality health services, and improving health outcomes. As part of the reform, a Family Health Model (FH Model) for delivering primary health care was introduced. In 2001, P4P was incorporated into the reform initiative in the five governorates where health sector reform was being piloted. Initial results suggest that the reform effort was associated with improvements in the quality of care and increased satisfaction levels among both health care providers (HCPs) and beneficiaries. The MOHP has scaled up the FH Model for service delivery, but scale-up of P4P is stalled because of financial uncertainty. However, the reforms are interdependent and it is unlikely that the scale-up of the FH Model will achieve the same results and have the same level of impact without the associated financial incentives.



Introduction of a family health model for delivering primary health care was a core component of Egyptian health reform .



WHAT DROVE THE DECISION TO TRY P4P IN EGYPT?

In 1965, Egypt established the Health Insurance Organization (HIO), a quasi-governmental agency with a mandate to provide health insurance to government, public, and private sector enterprises with the goal of reaching universal coverage in 10 years. By the late 1980s, however, only 6 million people out of a population of 48 million (12.5 percent) were covered. Coverage was expanded again in the early 1990s, when Egypt established the Student Health Insurance Program, which provided health insurance coverage to 9 million school children. By end of 2002, the HIO had approximately 30 million beneficiaries.

Nevertheless, health insurance coverage remained inequitable and its financing was highly fragmented. For example, a worker married to an unemployed spouse was covered but not the spouse. School-age children who were out of school were not covered either. Moreover, the quality of services was poor and the health service delivery system inefficient. For example, although Egypt's bed capacity was comparable to that of other countries at a similar income level, the average bed occupancy was estimated at 25 percent



P4P in Egypt addresses priority health concerns, including maternal and child health, reproductive health and family planning, TB, immunization and chronic conditions.



for the nation as a whole, and 35 percent at MOHP hospitals. Moreover, most Egyptians, including those living in the poorest regions, sought care from the private sector, ostensibly because of perceived poor quality of services in the public sector, even though public services were provided for free.

While there were several programs to expand health insurance coverage, mainly through population categories (such as farmers and fishermen), and to improve efficiency and quality, comprehensive reform in the health sector was needed.

Between 1993 and 1997, several strategic and technical reports were prepared to guide the formulation of a health reform program, and in 1997, the MOHP with support from the European Commission, the United States Agency for International Development (USAID), and the World Bank launched the Health Sector Reform Program (HSRP), aimed at improving access, coverage, equity, efficiency, quality, and sustainability of the health sector.

Given the long-term nature of the HSRP, it was decided to have a first phase to pilot the HSRP in three governorates with the following objectives: (i) to improve population health status and well being in the three pilot governorates through universal coverage with a basic package of primary health care and public health services and (ii) to improve access to, efficiency, and quality of primary health care services in the three governorates.

The key aspects of the HSRP were the following:

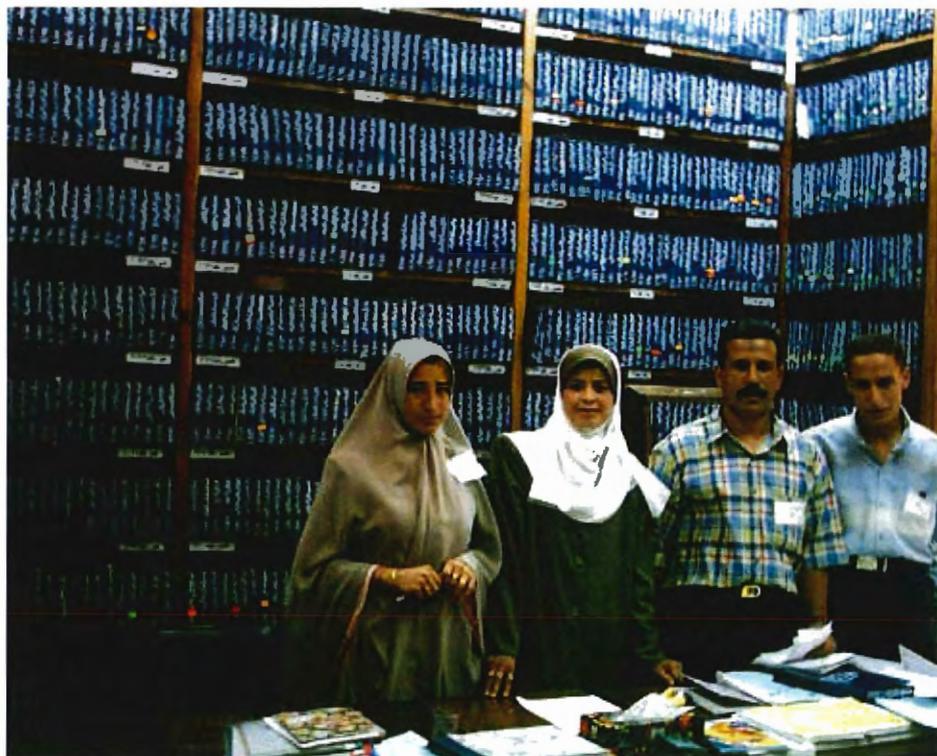
- Insurance coverage would be expanded on family and geographic bases.
- The Basic Benefit Package (BBP) would initially cover primary and basic health services (secondary-level services were included during implementation).
- Purchasing would be separate from provision and the HSRP funds would be channeled through a purchasing agency, the Family Health Fund (FHF), which was intended to be autonomous.
- The FHF would contract with both public and private health care facilities and other service delivery organizations, including nongovernmental organizations (NGOs).
- Health service delivery would be developed as a FH Model, with health care facilities developed and rationalized according to a Master



Plan as different levels of family health units and centers (FHUs and FHCs), based on epidemiological and demographic needs and staffed by FH doctor(s), and medical records kept for each family in a family health folder.

- All health care facilities (public and private) would have to be accredited in order to be contracted with the FHF.
- Payments to HCPs would be linked to specific and measurable performance indicators.

Among the first steps in implementing the HSRP was the decision to define the BBP and its costs, which was done in 1997. In designing the P4P scheme, the cost of personnel was a key component. A study by Frère et al. (1998) was conducted to determine the total income and in turn the incentive structure for providers under the reform program. The study calculated the number of BBP contacts for each type of personnel (doctor, nurse, or technician) and the cost of personnel based on assumptions about salary and productivity. The annual salary for a full-time FH doctor was then determined based upon a patient load of 20 patients per day for a six-day work-week for 35 weeks per year; this salary included 26 percent of benefits to ensure consistency with the Civil Service rules. A national provider survey, conducted in 1995, examined patterns of job holding, which was then the basis for calculating the total income of providers in Egypt (Nandakumar et al. 1999). For the purpose of the P4P exercise, it was assumed that doctors would not be allowed to hold multiple jobs and they would work full-time delivering services contained in the BBP. It was therefore necessary to adjust upward their government salaries. The extent of adjustment was based upon the findings of the aforementioned national survey. Salaries of nurses were also revised upwards.



P4P rewards providers for actual results achieved and provides them with autonomy on how bonuses are spent.



Between 1998 and 2002, the FHF were established, the Master Plan for Alexandria was completed, the family health care facility levels including standards and guidelines established, the BBP (see Annex A, Egypt Basic Benefit Package) and its costing estimated, the clinical information system developed, the accreditation criteria developed, the payment systems established, and the flow of funds determined. In addition to the three initial pilot governorates (Alexandria, Menoufia, and Sohag), the HSRP was rolled out to two additional governorates, Suez and Qena.

As part of the reform process, it was decided that payments to health care facilities and HCPs would be linked to specific and measurable performance indicators. After several years of trying to improve the quality of health care solely through improvements in infrastructure and management, P4P would pay providers for actual results achieved, and in the process, give them more autonomy over how funds (i.e., bonuses) were spent.

P4P sought to address priority health concerns in Egypt, including maternal and child health, reproductive health/family planning, tuberculosis (TB), immunization, and chronic conditions. More specifically, the P4P scheme aimed to improve:

- Inadequate antenatal care utilization levels
- Low contraceptive use
- Low rates of delivery with skilled attendant
- High child morbidity from diarrhea and respiratory infections
- Low immunization levels and low usage of Integrated Management of Childhood Illnesses programs
- Low TB case detection and treatment completion rates
- High burdens of diabetes, hypertension, obesity, and addiction to drugs and tobacco
- High stigma around and low awareness of mental health issues



GENERATING BUY-IN: FROM PROPOSAL TO DECISION TO IMPLEMENT P4P

International donors planted the seeds for expanding health insurance coverage on a geographic basis including implementing P4P within the Egyptian health sector; however, the MOHP became the P4P champion, taking on ownership of the program as it recognized the potential to motivate health care staff and improve the quality of services.

A diverse group of stakeholders, including donors (primarily experts from the European Union [EU], USAID and its contractor Partnerships for Health Reform, and the World Bank), HCPs (MOHP doctors and administrators), and local health sector reform consultants, were consulted to design the P4P program through intensive meetings and workshops at the central and peripheral levels. Including providers in discussions about P4P was instrumental in gaining their buy-in to the scheme, and indeed, they were eager to improve quality and increase productivity in order to receive bonuses.

In the HSRP pilot, insurance coverage was expanded, not on a professional or status basis, but on a geographic basis, and to whole families, not just individuals. The BBP initially covered primary and basic health services (secondary-level services were included during implementation in 2003/04), and purchasing was separate from provision; the HSRP funds are channeled through an autonomous purchasing agency (the FHF), which contracts with both public and private providers, including NGOs, while the Technical Support Office (TSO) is responsible for program implementation.



A paper outlining the steps necessary to establish the FHF in Alexandria described “the critical role of the performance-based contracting and provider incentive payment functions of the FHF” in supporting and sustaining high-quality family health care (Edmond et al. 1999). The paper also discussed the importance of the FHF management information system in administering the contracting system as well as providing data for monitoring, evaluation, cost analysis, and overall effectiveness. Performance-based contracting and provider incentive payment functions were thus fundamental concepts in designing the FH Model.

In addition to the TSO and FHF, there were other major stakeholders with an interest in the development and impact of the family health project in general and the FHF in particular. Some of these stakeholders, such as the MOHP, the HIO, the technical support team (TST), and regional MOHP offices, played an essential role in the pilot; their involvement was crucial to increase understanding about, and reduce or eliminate resistance to the pilot project.

Open ongoing communication and broad stakeholder involvement were critical to planning and implementation of reforms.

The TSO addressed resistance to reform by emphasizing open and ongoing communication and broad stakeholder involvement in both the planning and implementation of reform activities. Beginning in the

early phases of the pilot, TSO staff, supported by technical assistance from USAID, delivered information seminars to key stakeholders; the seminars placed the pilot in the broader context of long-term health sector reform in Egypt. TSO seminars also described the development of the FHF, FHUs, FHCs, and referral district hospitals as the essential components of the pilot project. Seminar audiences included TSO staff, the TST, and the HIO Advisory Committee, as well as doctors and nurses from the MOHP, the HIO, and the private/NGO sector. These information seminars were effective in introducing the pilot project to key stakeholders, and following the seminars,





participating doctors and nurses were invited to submit applications for employment at the FHF or the pilot FHUs and FHCs.

Early outreach to stakeholders also included focus group discussions with doctors to explore attitudes toward current health system issues and payment policies, as well as possible ways to resolve those issues. The use of policy/discussion papers as a tool for policy development was an additional device designed and implemented specifically to foster communication, collaboration, and cooperation among the various stakeholders. The policy development process has been kept informal to encourage feedback and invite challenges to the recommended course of action. At the local level, regular meetings with TST and HIO Advisory Committee members have ensured that the individuals responsible for the implementation at the FHUs and FHCs are well informed, fully involved, and well supported.



P4P SCHEME DESIGN

INDICATORS AND TARGETS

At the outset, governorate-level targets were established for each

indicator based on calculations from the Master Plan, which defined the catchment areas for each health care facility and the demographic and epidemiological profiles of the population, as well as the historical and expected utilization patterns. Targets for each facility were then established so that aggregate facility-based targets constitute the total targets for the governorate.



A group of providers discuss steps to be taken to reach its facility's targets..

Targets vary by health care facility and are determined based on previous trends and achievements. Some of the targets are the same for each facility; one of these is immunization, which should be over 95 percent. Other targets, such as those that relate to family planning, vary by facility based on current utilization data and demographic indicators (e.g., the number

of married women of reproductive age in the catchment area).



The TSO chose P4P program indicators. The P4P program implementation began with a limited number of performance indicators. During early implementation, it was noted that HCPs focused on providing the indicator-related services to the facility's existing patients rather than seeking out new clients through outreach services. HCPs were therefore able to attain easily the quantitative targets. It was also noted that there was little improvement in the quality of services. In response, the program was adjusted in two ways: the list of indicators was expanded to include quality and institutional indicators, and payment was determined based on an undisclosed subset. The program also improved supervision. The scheme currently contains the following indicators:

- Number of children fully vaccinated in the catchment area
- Number of new users of all types of modern contraceptive methods among married women of reproductive age in the catchment area
- Number of pregnant women receiving regular antenatal care visits compared to the total number of pregnant women in the catchment area
- Number of drugs per visit (target is less than 2)
- Rate of patient referral to the district hospital (target is between 1–8%)
- Number of visits per day (target is between 20 and 48)
- Rate of completion of visit encounter forms (target is over 98%)
- Rate of completion of medical records data (target is over 90%)
- Patient satisfaction rate (target is over 90%)
- Patient waiting time (target is less than 20 minutes)

HCPs are encouraged to perform well on all of them, because they do not know in advance which will be monitored. The quality of supervision and data collection were also improved prior to scale-up, through further supervisor training and implementation of automated data reporting.

indicator seeks to limit the number of drugs prescribed per encounter.





In addition, the quality assessment was further enhanced to include the following eight areas: patient rights, patient care, safety, support services, management of information, quality improvement program, family practice model, and management of the facility. Health care facilities have to be accredited in order to be contracted. (See Annex B, on the dimensions of quality and accreditation process.)

RECIPIENTS, INCENTIVES, AND PAYMENTS

A combination of provider payment mechanisms is used for paying contracted health care facilities. The basic mechanism is fee-for-service in combination with an adjusted payment aiming at controlling associated moral hazards, achieving efficiency, and enhancing quality of services provided. This necessitates using a hybrid payment mechanism with various monetary values for different levels of utilization and performance-based incentives.

The contract between the FHF and health care facilities clearly stipulates the list of services and the price for each intervention in the BBP. Each FHF submits for review the list of services and prices to the TSO. The process of P4P calculation is as follows (MOHP 2007):

- Interventions within the BBP are classified into two main categories: visits (visit fee) and other interventions.
- For visits, escalating rates are used to promote service utilization and to improve efficiency of contracted health care facilities. For example, EGP 1 (\$0.18) is used for the first 10 visits/day, EGP 2 (\$0.36) for 15 visits/day, EGP 3 (\$0.55) for 20 visits/day, EGP 4 (\$0.73) for 25 visits/day, and EGP 5 (\$0.91) for 30 visits/day. The maximum payment is for five visits each working hour; the FHF will not pay for any visits above this level to curb unnecessary utilization.
- For preventive care visits such as immunization, antenatal care, and family planning services, there is a slightly different fee and copayment structure that varies between EGP 0.5 (\$0.09) and EGP 2 (\$0.36) according to the type of visit/service and the category of health worker performing the service.
- For other interventions, such as dental services, laboratory investigations, and radiology, payments are made through transferring a percentage (40–60 percent) of the collected fees to the health care facility.

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- All the above amounts in claims (visit fees + preventive services + other interventions) are totaled and 60–70 percent of that amount is transferred to the HCP after a financial and technical review of claims; the rest is paid against performance indicators and/or beneficiaries' complaints to ensure the quality of service and client satisfaction.

When a health care facility meets certain targets, a cash payment is made to the facility manager, who then distributes the incentives to the staff involved in attaining the target. Each facility has its own predetermined protocol, based on a point system, to determine which staff participated in achieving the goals. The point system is based on certain variables, such as qualifications, experience, number of days worked, and efforts made to achieve the indicators in each area.

The total of the payments made to the health care facility is divided by the sum of the points earned by the staff and multiplied by the number of points for each individual. This determines the amount of financial incentive each individual receives each month. All HCPs receive a base salary, which is typically low, in addition to an incentive payment, and all health facility personnel (doctors, nurses, technicians, administrators, other health workers, and support staff) are eligible to receive incentives, which can account for as much as 250 percent of worker salary. Incentives are paid monthly and are determined according to the monthly supervision reports.

Each health care facility has the autonomy to use the incentive payments as deemed appropriate with no constraints. In addition to bonuses, transfers can be used to acquire inputs such as drugs, and medical and non-medical supplies. The District Health Authority may support health care facilities in this process (MOHP 2007).

MONITORING ACHIEVEMENT OF INDICATORS AND VALIDATING RESULTS

Trained supervisors from the FHF, the Directorate of Health at the governorate level, and the District Health Authority supervise health care facilities, monitor their activities, and report their achievements. Three supervisory teams monitor facilities and one or more trained supervisor visits each facility each month to determine that performance indicators and targets are being met.



For a health care facility to receive payment for targets achieved, the following steps must be taken. This process normally takes about two months after the end of each quarter.



Step 1: Health care facilities submit to the FHF on a monthly basis the lists of enrollees and targets achieved.

Step 2: The FHF audits all documents submitted each quarter and conducts random field visits to confirm the accuracy of data provided, the application of all instructions and procedures mentioned in the operational manual, and the validity of all documents submitted.

Step 3: The FHF compiles and submits governorate- and facility-level data to the TST and TSO, together with the financial request for payment.

The results validation process is thorough and ultimately determines how large the incentives to be paid to each health facility should be.

Step 4: The TSO sends a copy of all documents received from the FHF to the External Concurrent Auditor to conduct a technical audit, and the TSO reviews a random sampling of all documents submitted from FHF to verify that:

- All documents have been prepared based on instructions in the operations manual
- All poor uninsured are certified by the Ministry of Social Solidarity (MOSS) and/or the FHF
- The lists of insured people prepared by the HIO do not contain the names of any uninsured people
- The list of the poor uninsured and the list of the uninsured excluding poor do not include any duplicate names
- All information mentioned in all documents either originals or copies provided by each FHF matches
- An enrolled person's signature in the enrolled register and the visit register match

Any cancellation based on the TSO audit is written up and the reason for the cancellation described in a separate report for each FHF.

Step 5: Once the data are validated, reports are provided to the FHF, which reviews them to determine the actual achievements made and determine the size of the incentives to be paid to each health care facility. The FHF reconciles any discrepancies before approving payment.

TRANSFERRING PAYMENT

Payments are transferred from the TSO to the FHF, which is responsible for managing the funds. The TSO, which is within the MOHP, oversees the three main peripheral FHF offices in the pilot governorates to facilitate timely payment.

The management of finances was a significant challenge to operating the P4P program. It was critical that all the FHF staff understood their roles as part of dynamic health reform, and knew how to manage their new responsibilities and authority, including managing resources for the incentives. To avoid complications, strict guidelines and supervision of FHF staff were implemented. Additionally, the way in which finances were managed and programs implemented became more rigorous in order to ensure timeliness and accuracy of payments. Stronger supervision from the central FHF at the MOHP and the involvement of the Directorate of Health at the governorate level also helped achieve proper financial management. Adjustments in number and skill mix were made to FHF staff in order to ensure the most appropriate staffing pattern for P4P implementation. Finally and importantly, proper training of FHF staff in P4P was carried out.

Training and supervision were critical to strengthening financial management.





MANAGEMENT STRUCTURE

The P4P scheme in Egypt is managed primarily by the MOHP through the FHF with support from donors, mainly the EU and World Bank. Donors and the FHF were responsible for designing the contracts and performance agreements between the FHF and health districts and facilities, which are signed each year (see Annex C, Model FHF/Facility Contract). The conditions and terms of the contracts are standardized, but the targets differ. Egyptian consultants helped to establish the prices and weights of different incentives and targets, which are monitored on a monthly basis. The targets to be achieved were determined by different stakeholders (MOHP, donors, and consultants) and have been adjusted periodically based on the experiences in the facilities.

It is important to note that a critical change was made to the design of the pilot. Originally, the FHF was supposed to be managed by the HIO, given the HIO's experience in managing insurance functions for more than four decades. But the MOHP decided to directly manage the FHF through the TSO, which negatively affected the prospects for financial sustainability for P4P, as detailed below. Further, the TSO was supposed to be "a think tank," conducting policy research and providing technical support to the different MOHP units implementing the HSRP. Instead, it was developed into a fully staffed MOHP directorate.

ROLE OF THE MOHP/TSO

The MOHP, through the TSO, has two main functions: (i) a regulator and supervisory body for other entities (FHF and providers) and (ii) a pool for receiving funds from the donors and redirecting available funds to regional FHF's based on criteria and targets, which are in an agreement between the TSO and FHF. As part of its supervisory role, the TSO ensures that there is legitimate use of transfers and that the FHF's fulfill their responsibilities as regional purchasers of health care services. Moreover, the TSO acts as a coordinator between FHF's and other entities at the central level such as the HIO, the MOSS, and donors.

ROLE OF THE FHF

The FHF, as a regional purchaser of health care services on behalf of its beneficiaries, is responsible for:

- Receiving funds (reimbursements) from the TSO for the uninsured and exempted poor. Amounts received cover current prices of both enrollment fees and copayments as averages per person in the pilot governorates. Prices are determined by the MOHP/TSO through

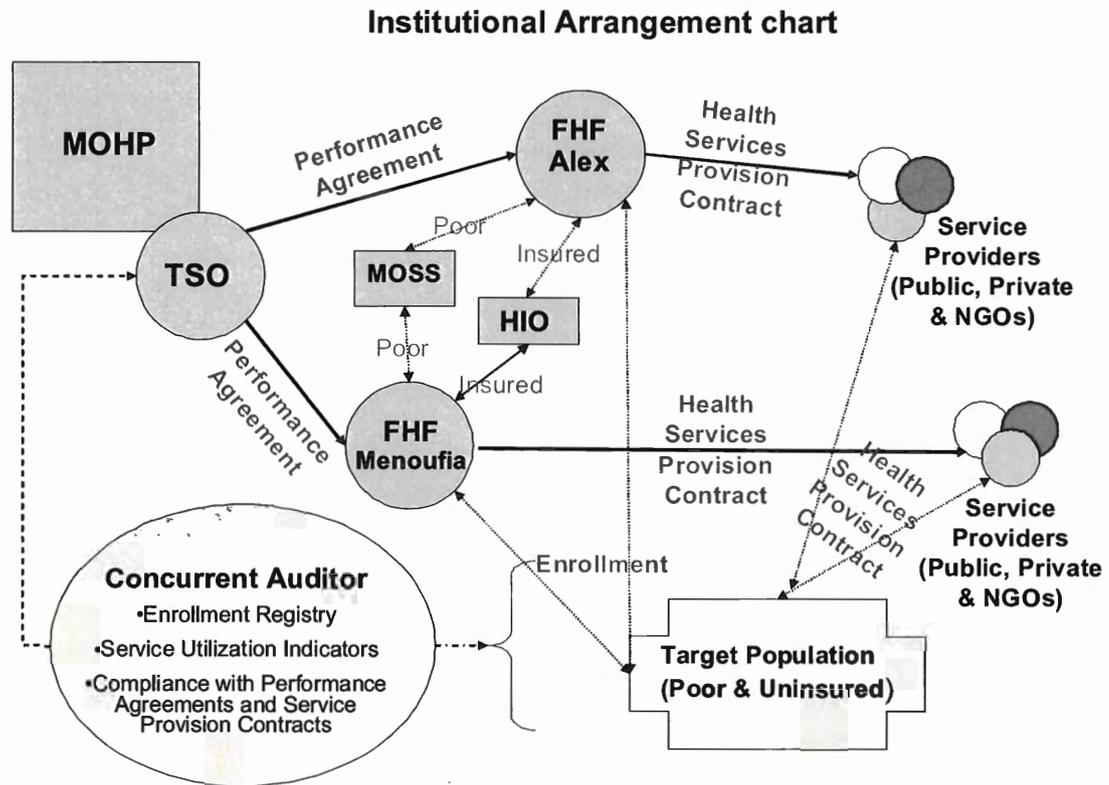


ministerial decrees (MDs) and/or other complementary official procedures implemented in the field.

- Purchasing primary health care services from health care facilities whether public or private. The purchasing function comprises the following activities:
 - Registration and updating qualified beneficiaries' lists and reporting of them to the TSO periodically
 - Establishing a contracting mechanism with accredited health care facilities
 - Establishing a system of sanctions and deductions for health care facilities
 - Purchasing from the contracted facilities the required primary health care services provided to the enrolled population, in accordance with conditions set by the MOHP/TSO
 - Monitoring the performance of contracted facilities
 - Maintaining and administering a database system that includes: provider profile, beneficiary registration, service utilization (number of visits, laboratory tests, X-ray referral, prescriptions, and other information), contracts, and financial management
 - Analyzing utilization data and assessing facility performance
 - Performing social marketing activities

Figure 1 depicts the organizational structure and relationships of the different entities responsible for implementing the HSRP in Alexandria and Menoufia (MOHP 2007).

FIGURE I: THE HSRP ORGANIZATIONAL STRUCTURE IN ALEXANDRIA AND MENOUFIA



START-UP SYSTEMS AND INVESTMENTS TO GET P4P UP AND RUNNING

Prior to the launch of the pilot, significant changes to the health system were required. Development of the Master Plan was a major innovation to guide the planning and reorganization of the service delivery system together with provision of medical equipment and supplies based on population needs, which led to the rehabilitation and construction of a new set of health care facilities. The role of FH doctors, who act as gatekeepers for health services, was also introduced.

One of the most important changes was the health insurance enrollment strategy, which shifted to cover entire families and not just individuals, and organizing medical records around family health folders that include all family members. In addition, different systems to support service delivery were developed including the clinical guidelines and protocols, training of health care workers on the new model, and the clinical information systems.



On the health financing side, three innovations were introduced. First, the BPP was developed and its costs determined – which was the basis of designing the P4P scheme, including the incentive structure. Second, expanding coverage on a geographic basis required a new system for identification and registration of beneficiaries, particularly the poor. Third, separation of finance from provision required the creation of a new entity, the FHF, to act as the payer.

Information systems were developed for the FHF. These systems, critical to carry out P4P, have two major components: the clinical information system, which captures the utilization data of the beneficiaries; and the FHF information system, which was developed for managing the flow of funds and payments to providers. This required development of an extensive software program and prototype, including the development of the technical platform so that these different systems can interface seamlessly.

A significant amount of training occurred to ensure that the P4P system would run smoothly. Training materials and processes were developed by consultants in coordination with MOHP officials. Central and peripheral FHF staff trained other staff at all levels of the system (from the FHF to health providers) to better understand their roles and responsibilities within the new incentive system. Staff were also trained on use of the new financial system and management systems.

During implementation of the P4P program, donors and the MOHP made regular monitoring visits to supervise the management of the funds and ensure smooth processes.

STRENGTHENING THE SCHEME: REVISIONS REQUIRED POST-IMPLEMENTATION

Several revisions were required during implementation – improving the system was a continuous process. First, the Master Plan guidelines for health service delivery that were initially developed for Alexandria underwent several revisions to make them more cost effective and responsive to local circumstances in the other governorates. Similarly, the BBP was expanded for the practical reason that patients could not be turned away because their condition was not in the package. For example, in a survey of the top 10 diagnoses in four family health facilities over a six-month period, the most frequent diagnosis, arthritis, was not part of the BBP, and was therefore added (Partnerships for Health Reform 2001, 57).



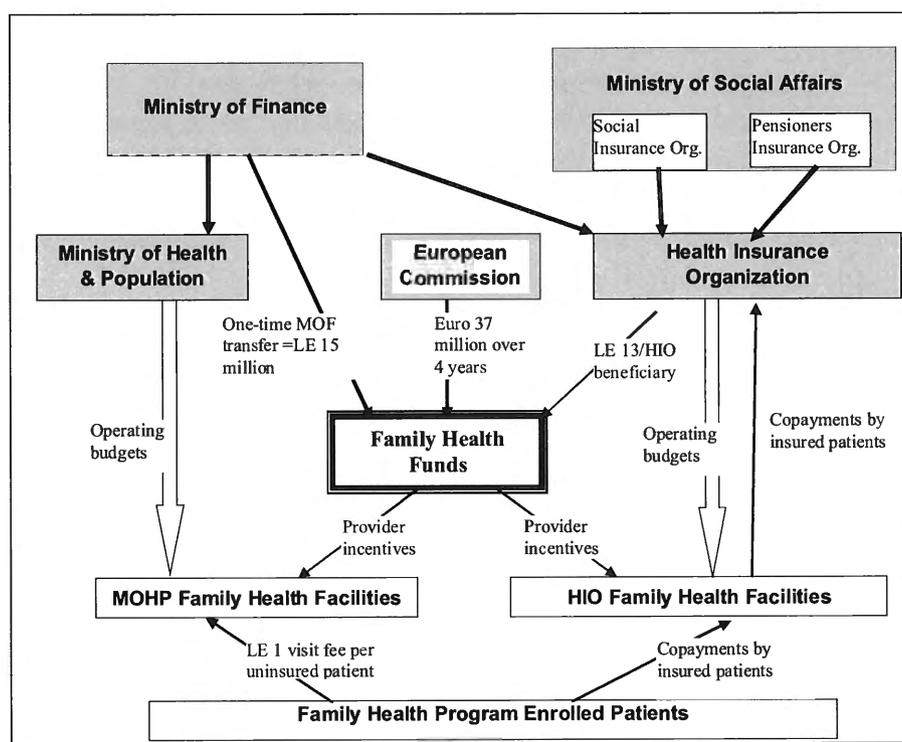
In addition, as already discussed, the list of indicators was expanded when it was observed that providers were focused mainly on achieving the quantitative targets and not on equally improving the quality of all health services provided. Once this was realized, the list of indicators was expanded to include quality indicators as well. Supervision was also improved: now, multiple supervisory teams can look at any set of indicators during their visits, and often look at different indicators each month. Facilities do not know in advance which team will look at which indicators, which encourages the facilities to improve all the health services and indicators rather than focusing on specific ones.

Improvements to the information system were critical in guiding implementation and improving program performance. The clinical information system was functioning adequately while the FHF information system required extensive software modifications given the constant changes made to the P4P system. Further software development has made it possible to conduct month-by-month trend analyses to determine how each HCP is performing on specific indicators, and allows the FHF to provide targeted support to facilities when indicators are not met. The information system also allows the FHF to compare district-level data. All this helps the FHF monitor the quality of care within the facilities.

FINANCING THE SCHEME: CURRENT FUNDING CONCERNS ABOUT FUTURE SUPPORT

The HSRP pilot, including the P4P scheme, was financed by USAID (\$80 million), the World Bank (\$90 million), the EU (\$120 million), and the African Development Bank (\$14 million). In addition, the government of Egypt contributed about \$100 million from its own budget, including in-kind contributions. The major share of these funds was used to rehabilitate and reorganize the health service delivery system in the pilot governorates. A significant part of these funds were used to directly finance the P4P system, with the EU contributing about \$50 million. Figure 2 depicts the flow of funds in the HSRP through the FHF.

FIGURE 2: THE FLOW OF FUNDS IN THE HSRP THROUGH THE FHF



Notes: MOF=Ministry of Finance, LE = Egyptian Pound

Donor funding was intended to initiate the pilot, including P4P, with the understanding that a new law reforming the national health insurance program would be passed in order to institutionalize and scale up the pilot program. The draft law was prepared, but it did not pass through the Parliament.

Recognizing that the financial sustainability of the P4P scheme is a major challenge, the MOHP issued a series of MDs to generate new financing streams and secure the sustainability of funds for the P4P pilot. The decrees were implemented through the FHF in pilot governorates and in all facilities participating in health reform and P4P. They mandated user fees, which were introduced in 2006 and accounted for a percentage of both the cost of the visit and drugs. Also introduced was a yearly registration fee, collected at the facility level, for each individual enrolled in the program (with a maximum for the family). Registration at the facility entitles beneficiaries to follow-up care at a discounted rate, in addition to discounted medications. However, the user fees were prohibitively expensive for the poor and their utilization of services



dropped. As a result, an exemption policy for the poor was put in place later in 2006 to reduce the financial barriers experienced by the poor. In 2009, the MOHP collaborated with the MOSS to develop and validate rosters of the poor in the pilot governorates.

All funds collected through user fees are transferred from health care facilities directly to the FHF, which then redistributes the funds back to the facilities based on the P4P performance targets. All funds are scrupulously monitored by a representative of the Ministry of Finance, to reduce the potential for fraud during the process of fund transfer to and from the FHF and the health care facilities. Payments distributed to facilities are transferred to the staff through payroll and each person must sign for the amount of money received.

Despite a decrease in donor funding, particularly from the EU, the P4P scheme continues to be operational, partly due to implementation of the user fee policy. The sustainability of funding for the P4P program is an increasingly sensitive topic, however, as there are limited resources within the MOHP to allow for continued government financial support. Currently, the MOHP is exploring options for longer-term financing to ensure continuation of the program, including the transfer of the FHF management to the HIO, which has more experience in managing insurance programs.

FROM THEORY TO EVIDENCE: EVALUATION RESULTS

There have been four major assessments of the Egyptian HSRP, all of which show positive results. Although it is difficult to attribute improvements directly to P4P, it is unlikely that such results could have been achieved without the incentive payments.

A 2004 World Bank assessment (El-Saharty et al. 2004) of the HSRP pilot found that the FH Model was well received by both patients and providers. The comprehensive package of services provided under one roof for entire families, along with the establishment of an appointment system, has reduced unnecessary transportation costs and waiting time for patients. Quality of care has also been improved, and both doctors and patients value the concept of continuity of care (i.e., being seen by the same FH doctor and having a single medical record).

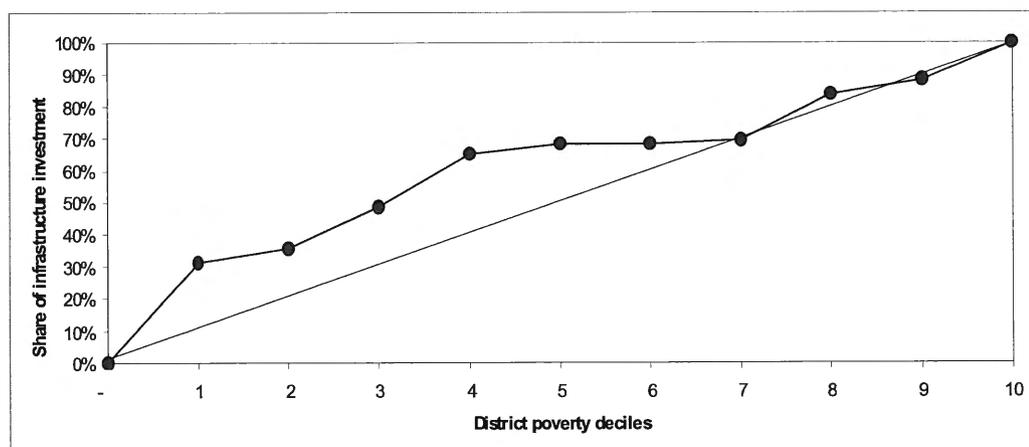
A key strength of the P4P scheme was including institutional indicators such as attainment of accreditation status, enrollment levels, and patient



satisfaction. This assessment also suggested that P4P resulted in a more responsive payer-provider relationship and induced new behaviors and attitudes among providers such as knowing their patients and their medical history and encouraging them to come for medical checkups. The assessment concluded that the interplay of these three innovations (the FH Model, performance-based incentive system, and rationalization of health infrastructure investment) resulted in increased provider satisfaction and productivity, with doctor encounters increasing from three to 16 per day.

The World Bank conducted a second impact evaluation of the HSRP pilot in 2006, and it showed generally positive results (Grun and Ayala 2006). Using benefit incidence analysis to identify which share of the HSRP expenditures went to the poorest, it found that over 30 percent of infrastructure investment went to the poorest decile of districts, and about 50 percent of the infrastructure value went to the poorest three deciles (Figure 3).

FIGURE 3: SHARE OF INFRASTRUCTURE INVESTMENT BY POVERTY DECILE

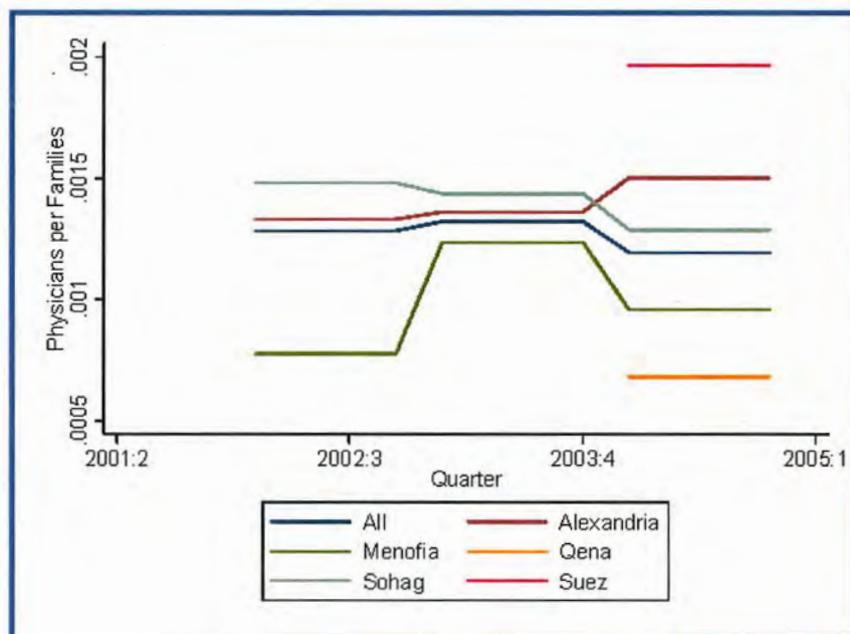


Source: Grun and Ayala (2006)

By December 2005, around 5 million people were benefitting from the HSRP in the five pilot governorates. The doctor-families ratio varied widely across governorates and regions, from seven doctors per 1,000 families in Qena to 20 doctors per 1,000 families in Suez (Figure 4). (In the Netherlands the ratio is about 12 per 1,000.) Additionally, on average, the number of days facilities experienced drug stock-outs decreased.



FIGURE 4: RATIO OF PHYSICIAN PER FAMILIES IN THE PILOT GOVERNORATES

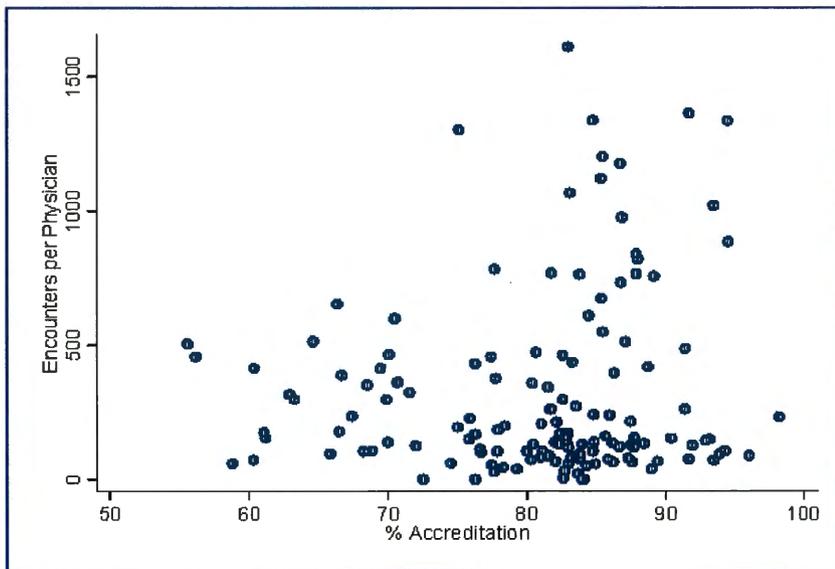


Source: Grun and Ayala (2006)

The increase in doctor encounters was associated with the increase in the health care facility accreditation score (Figure 5), which suggests that utilization of family health services was found to respond positively to quality improvement. A high accreditation score was also clearly associated with higher customer satisfaction (Figure 6). Econometric evidence points to a positive effect of infrastructure investment and FHF contracting (incentive payments) to accreditation scores. Also, a high accreditation score, as well as high per capita infrastructure investment were clearly associated with higher customer satisfaction. It is important to note that the accreditation score is one of the indicators linked to P4P.

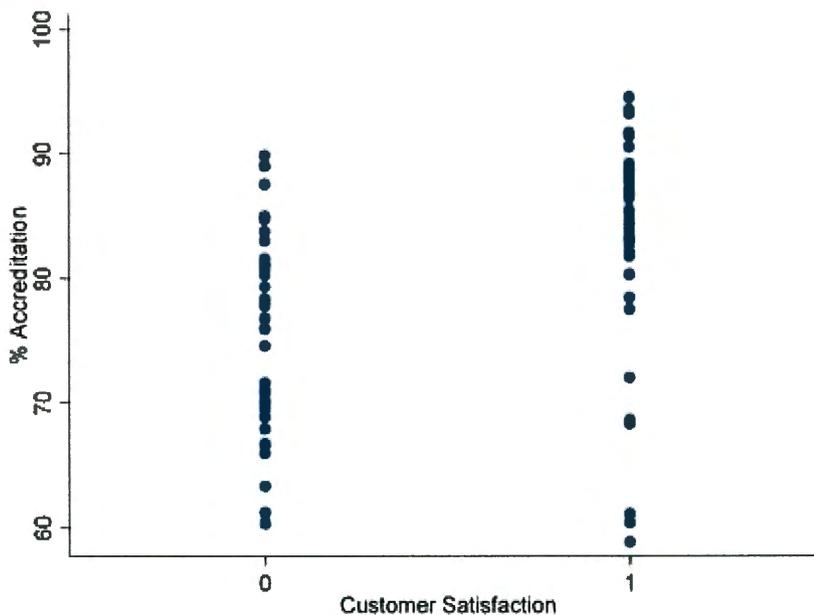


FIGURE 5: RELATIONSHIP BETWEEN PATIENT ENCOUNTERS PER DOCTOR AND PERCENT FACILITY ACCREDITATION



Source: Grun and Ayala (2006)

FIGURE 6: RELATIONSHIP BETWEEN FACILITY ACCREDITATION SCORE AND PATIENT SATISFACTION



Source: Grun and Ayala (2006)



A third evaluation, conducted by McKinsey in 2007, suggested that the Egyptian P4P program improved the quality of health care in participating health care facilities, particularly because only facilities that are accredited can participate in the P4P scheme. The evaluation also found that HCPs were more satisfied in their jobs, as evidenced by lower turn-over rates. Further, supervision of health care facilities improved, and information and reporting systems improved among P4P facilities.

Finally, an evaluation of the HSRP conducted by the World Bank in 2010, which focused on the results in Alexandria and Menoufia, revealed the following:

- The BBP was available to 3 million persons including 1.9 million poor people, and 2.4 million beneficiaries were registered and covered by the FHF to receive the BBP, of which 1.1 million were uninsured and 0.6 million were poor.
- Regarding the rationalization of health infrastructure, 1,103 family health facilities have been constructed or renovated in compliance with the governorate Master Plans.
- In terms of efficiency of services, the average utilization rate was 2.3 visits per person per year, but had declined in the previous three years, possibly because of overstaffing or decreased funding for incentives.
- The average number of daily encounters per FH doctor was only 12, which led the MOHP revise its standard roster of FH doctors from 500 to 1,000–1,200 families per doctor.

The above results demonstrate that the pilot project achieved very good results in terms of increased health coverage to the poor, utilization rates, and patient satisfaction. These results may be attributed to several interventions such as infrastructure investment, separating finance from provision (contracting out with providers), linking payment to performance (P4P), training, and quality improvement.

In our view, infrastructure investment (facility rehabilitation/construction, upgrading of medical equipment, provision of medical supplies, etc.) was a necessary but not sufficient condition to achieve these results. Several previous programs in Egypt have focused on improving the physical infrastructure of the health service delivery system but did not achieve similar results. The key innovation in the HSRP is the P4P scheme that included separation of finance from provision, contracting out with providers, and linking payment to performance.



Given this success, the MOHP is proceeding with scaling up the pilot to other governorates through its own resources using the “capital investment budget” that covers mainly the infrastructure investments to upgrade the service delivery system according to the FH Model. But with the end of the EU funding that was supporting the payment of incentives, the Egyptian government is struggling to mobilize financial resources to fully scale up the model, as its budget structure does not permit paying incentives outside the Civil Service law.

This is a major challenge because the infrastructure investment and P4P are intertwined and the latter constitutes an integral part of the FH Model. It is unlikely that the scale-up will achieve the same results as the pilot. In fact, as noted in the latest evaluation report cited above (World Bank 2010), the average utilization rate per person per year had declined, from 25 daily encounters per doctor in 2006 to 12 daily encounters in 2009, possibly because of decreased funding for incentives, an indication of the effect of lack of incentives on improving service utilization and patient satisfaction.



P4P was a key component of the health reform program that has achieved quality of care improvements and increased satisfaction levels.



LESSONS LEARNED AND KEY CHALLENGES

The HSRP pilot provides valuable lessons for other countries that would like to pursue a similar program, particularly P4P.

- Given the complexity of health reform and the broad spectrum and long-term nature of interventions required, there is a critical need to assess the political economy of reform, particularly in terms of the feasibility of changing the regulatory framework (i.e., new laws) and the prospects for financial sustainability of the scheme from the state budget.
- The numerous studies and analytical reports that were prepared for the HSRP design provided solid evidence on the technical soundness of the pilot and contributed to its acceptability by decision makers.
- The incentive structure under the P4P scheme was based on detailed cost analysis and provider surveys, which made the incentive adequately structured to motivate the health workers to participate in the program and be more responsive.
- A key feature of the HSRP was the flexibility of the program. During implementation, the program could be adapted as lessons were learned. Similarly, a phased implementation, by governorate (first Alexandria, then Menoufia, then Sohag, and then Suez and Qena) and by component (service delivery restructuring, then accreditation, and so on) provided an opportunity to make changes as implementation proceeded.



- An effective communication strategy was devised at the beginning of program implementation, to inform stakeholders at the policy level, which aided in obtaining their buy-in. However, the awareness campaigns did not continue throughout the pilot, particularly at the community level, to explain the fee structure and range of services available to beneficiaries as well as the exemption policies for the poor. A sustained communications strategy at all levels is necessary to maximize the effectiveness of P4P programs.
- Capacity building was a key factor in the success of the pilot, particularly the development of the technical competency of the local teams in the governorates, both in the TSTs and the FHF. The phase-out of foreign technical assistance has had a limited effect on implementation.
- Aligning incentives was key to achieving the program results and avoiding unintended consequences. Initially, health workers responded only to indicators linked to incentives and neglected other health services. When the incentive structure was aligned with broader health service improvement objectives, the health workers responded accordingly.
- The design of effective information and monitoring and evaluation system was a critical component that enabled the program to monitor progress and make necessary adjustments, as well as demonstrate impact.



CONCLUSION

The HSRP pilot – the combination of an expansion of health insurance, improvements to infrastructure, and use of performance-based incentives – was successful at improving the quality and use of health services in Egypt.

The MOHP is scaling up the pilot to the national level with a focus on improving the service delivery system according the FH Model. But sustainability of funding remains a key challenge for extending the P4P, which was mainly due to the delay in passing a new health insurance law and the inability of the MOHP to generate adequate revenue streams to finance the scheme. The government of Egypt has taken serious steps to rectify these shortcomings, but the future is still uncertain and it is unlikely that the scale-up of the service delivery model alone will achieve similar results without the P4P scheme, as these reforms are interdependent.



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