Output-based aid in health
The Argentine Maternal-Child Health Insurance Program

by Lars Johannes

To fight infant mortality in the poorest provinces of Argentina, local authorities and the World Bank set up the Maternal-Child Health Insurance Program in 2004. The program is administered by provincial governments, which receive funding on the basis of the numbers of mothers and children enrolled and the performance on results-based “tracers”—sets of indicators measuring service delivery and quality. The services are provided by existing health care facilities, which receive a standard payment per patient and per service provided. The health care facilities compete on the basis of quality.

Even in the 1990s, when Argentina had strong economic growth and ranked 17th in the world in per capita health spending, the country had difficulty in providing access to health care for its poorer citizens. Its health system ranked 71st on a performance index calculated by the World Health Organization. The system was (and still is) fragmented and geared primarily to the formally employed. Meanwhile, a large part of the poor population, working mostly in the informal sector, had no health coverage. During Argentina’s economic crisis in 1997–2002 the disparities grew as per capita health spending dropped from $687 in 1998 to $233 in 2002.

Many more poor Argentines lost their health insurance during the crisis. Formal employment with health benefits was replaced by lower-paying jobs in the informal sector. The poverty rate rose by 20 percentage points—reaching 50 percent of the population in 2004—and the number of extremely poor nearly doubled. The tough economic conditions made it difficult for people to compensate for the loss of insurance through out-of-pocket spending. At the same time public health programs were unprepared for the big growth in demand for their services.

All these constraints on health care showed up in health indicators. In 2004 infant mortality and the incidence of infectious diseases in mothers and children began to rise for the first time in decades, with the biggest increases occurring in the poorer provinces.

How the program works
To respond to the growing crisis in health, particularly in maternal and child health, the government of Argentina and the World Bank in 2004 created the Maternal-Child Health Insurance Program, known to the Argentine public as Plan Nacer.

Targeting of subsidies
Using an output-based aid approach, the program focuses on providing basic health services to the poorest groups in the poorest provinces of Argentina, located in the northern part of the country. The targeted provinces have an infant mortality rate significantly above the national average. The goal is to reach 80 percent of the target population (600,000 beneficiaries) by the end of the third year.

All pregnant women and children up to age six who live in a participating province and are not covered by the existing health insurance system are eligible to enroll free of charge. The package of services provided by the program includes about 80 cost-effective interventions targeting the main causes of infant and maternal mortality. Health services are contracted from independent third-party providers (public and private), certified as able to provide the services included in the package.

Implementation
The program is implemented in each participating province by a health service purchasing unit supervised by the provincial government, under an implementation agreement with the national government. The

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health service purchasing units are responsible for enrolling participants in the program and for conducting awareness-raising activities for the target population.

The program incorporates an output-based approach in two ways:

- Funding is disbursed to the provincial governments on the basis of two sets of results: the number of patients enrolled and the performance on a set of output and outcome oriented tracers (health indicators) in the target group.
- As in a voucher scheme, independent service providers are reimbursed for eligible treatments provided to patients enrolled in the program. Since beneficiaries are free to choose their service provider, the providers compete for patients on the basis of quality.

**Program funding**
The program is funded jointly by the government of Argentina and the World Bank. For the first three years the government is to provide half the financing and the World Bank the other half. After three years, when the World Bank’s financing begins to phase out, the provincial governments will gradually step in to finance its share.

The program funds are held in a special account from which disbursements are paid on the basis of performance (figure 1). The health service purchasing units receive 60 percent of payments for confirmed enrollment of patients, and the other 40 percent on the basis of performance on 10 output-oriented indicators called “tracers” (table 1). The tracers include both targets on the output-level like numbers of vaccinations and on the outcome-level like newborns’ average weight at birth. Enrollment and tracer targets are set in annual performance agreements between the national and provincial governments.

Tying disbursement of a large share of the program funds to enrollment targets gives the health service purchasing units an incentive to achieve high enrollment numbers. Tying another substantial share to health quality indicators gives them an incentive to ensure high-quality service provision by contracted service providers and to encourage participants to use the services offered. Program funds are released only after achievement of performance targets are verified by independent third-party auditors.

because the disbursements are capped by the number of enrolled population, the provincial governments and their health service purchasing units bear the risk of budget overruns, giving them an incentive to negotiate and manage their contracts with service providers efficiently. But because interventions are paid for on the basis of previously agreed fees, health service

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**Table 1 Output-based tracers**

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<th>Tracer</th>
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<tr>
<td>1. Timely inclusion of eligible pregnant women in prenatal care services</td>
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<td>2. Effectiveness of early neonatal and delivery care (Apgar Score)</td>
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<td>3. Effectiveness of pre-natal care and prevention of premature births (birth weight above 2.5 kilos)</td>
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<td>4. Quality of pre-natal and delivery care (testing for STDs, vaccine program completed for pregnant women)</td>
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<td>5. Medical Auditing of Maternal and Infant death</td>
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<td>6. Immunization Coverage (measles vaccine)</td>
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<td>7. Sexual and Reproductive Health Care</td>
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<td>8. Well child care (1 year old or younger)</td>
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<td>9. Well child care (1 to 6 year old)</td>
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<td>10. Inclusion Indigenous Populations</td>
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purchasing units can pass on some of the operational risks to the service providers.

**Pricing of services**
The per-capita payments for services (capitations), similar to insurance premiums, are based on an actuarial calculation much like those used by insurance companies and health maintenance organizations. For each intervention the calculation includes a unit price and the risk of the target group requiring that intervention, based on historic reference data for a population with similar characteristics.

Unit prices for each intervention covered were determined through a costing exercise based on the prices of inputs for the provider. To confirm that the unit prices are reasonable, a benchmarking exercise compared them with prices for comparable services by existing providers in Argentina and with costs in comparable projects in the region.

**Service provision**
Service providers are reimbursed on the basis of the number of interventions performed. Beneficiaries’ freedom to choose their service providers makes this reimbursement a demand-side subsidy, analogous to a voucher scheme for a pre-defined benefit package (for more on demand-side subsidies in health, see World Bank 2005). The underlying principle of a demand-side subsidy is that “money follows the patient”—meaning that service providers compete for patients.

Providers offering more attractive services and conducting better outreach to the target group therefore stand to benefit more from the program than those offering services that the target group finds unsatisfactory. In addition, providers risk being excluded from the scheme if they neglect quality or are found to have defrauded the system. To be reimbursed, participating institutions must provide medical records for auditing, and these are verified by patient surveys (figure 2).

The fixed fee-for-service payment means that service providers are free to choose how to provide the service, as long as it meets the quality requirements of the program as set by the service purchasing departments. That means dealing with a tradeoff between the quality and attractiveness of the service offered and the cost of providing that service. How providers do so is up to them. However the purchasing departments (in cooperation with auditors) audit key indicators on the quality of service delivery included in agreed intervention protocols. Only providers efficient enough to offer services below the reimbursement price while still attracting patients will be able to sustain their participation in the program.

The program’s market-based approach provides a better mechanism for allocating resources than the historical approaches of financing inputs via line-item budgets, more commonly used in public health care. Service providers rely on first-hand information and consumer preferences in deciding how to provide services. They are free to invest in more equipment or better facilities, since only they bear the risk of that investment. Similarly, they are free to offer financial incentives for good performance on top of salaries to attract qualified personnel. And because the scheme gives participating providers an incentive to increase productivity, it may help reduce absenteeism (an issue in Argentina’s public health care system, according to Di Tella and Savedoff 2001).

**Results so far**
The results in the initial phase of the program have been promising. Between January 2005 when the program began to operate and March 2006 the number
of people enrolled reached 369,559—some 45 percent of the eligible population and more than the target number. The positive experience resulted in an additional World Bank loan approved in November 06 to include additional 1.7m beneficiaries in 15 additional provinces.

Conclusion
The Argentine Maternal-Child Health Insurance Program uses an interesting approach of combining output-based contracting with an output-based funding mechanism. Particularly innovative is the combination of enrollment numbers and performance indicators as a way to address the tradeoff between quantity and quality.

The program’s transfer of performance risks to health service purchasing units and service providers helps increase accountability. Health service purchasing units bear risks related to factors mainly within their control, such as the marketing of the scheme to the target group and the design and enforcement of contracts with service providers. Service providers bear operational risks more closely related to the provision of services. Managing these risks effectively requires gaining first-hand information from and experience with the target group. And that helps in gearing services to the intended beneficiaries.

Designating a target group for enrollment helps improve the targeting of the subsidy. And decentralized management at the provincial level helps ensure that the subsidies reach only the intended beneficiaries.

The design has also allowed the government to introduce significant structural changes to the health system at provincial level such as linking financing to results (service delivery and outcomes), implement output and quality information systems with regular audits, improve costing and pricing capacity, and establish performance based incentives for health personnel. Those are significant changes that contribute to increased accountability, efficiency and choice within the health sector.

The arm’s-length relationships between participants in the program help increase transparency and accountability thus providing incentives for efficiency. Together with reporting and documentation requirements, these arrangements also make it easier to identify problems and adjust the system accordingly.

The achievements so far show the advantages of the concept of combining output-based contracting with output-based funding. Due to the program’s continued success, the World Bank and the Argentine government have decided to expand it to other provinces.

References

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