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World Bank

June 2003

Online at https://mpra.ub.uni-muenchen.de/15418/
MPRA Paper No. 15418, posted 26 May 2009 00:05 UTC

CHAPTER 4

REACHING HEALTH AND EDUCATION TARGETS IN ARGENTINA: A PROVINCIAL-LEVEL ANALYSIS

Margaret Miller, Ruwan Jayasuriya, Elizabeth White, and Quentin Wodon[15]

Introduction

It is difficult to overstate the difficulties that Argentina is facing in 2002, simultaneously on economic, social and political fronts. It is the fourth straight year of economic contraction in the country, with activity expected to decline by more than 10 percent in 2002 alone. The convertibility plan, which set a fixed one-to-one peso/dollar exchange rate was abandoned in January 2002, dollar deposits in Argentine banks were converted to pesos and severe restrictions were placed on withdrawals. Since January, the exchange rate has climbed to more than 3 to 1, putting extreme pressure on prices. The national unemployment rate is in excess of 20% (e.g., 21.4% in May 2002).

Not surprisingly, poverty has increased dramatically in 2002, with a poverty rate in May 2002 of 53% and nearly 25% of the population classified as "indigent," defined as lacking the resources necessary to purchase food meeting minimum daily caloric requirements. The increase in poverty in the country has been accompanied by a sharp increase in inequality, with the wealthiest 10% of the population earning 30 or more times the income of the poorest 10%—a figure which had been only 12 times as recently as the mid 1970s. An unstable political situation has contributed to the country's economic problems, including the resignation of the elected President, Fernando de la Rua, in December 2001, high profile corruption cases involving government officials and uncertainty about the timing and outcome of the next presidential election, slated for 2003.

This chapter analyzes the relevance of the Millennium Development Goals (MDGs) in Argentina–a middle income country in crisis–as well as prospects for the attainment of the goals. As can be seen in Table 4-1, Argentina exhibits many indicators of an advanced developing economy including a high degree of urbanization, low birth rate, high life expectancy and until 2001, one of the highest per capita income levels in the developing world. The selection of Argentina—a relatively affluent developing country—was made in order to better understand how the MDGs, which sometimes are seen as appealing only to the poorest nations, are viewed by middle-income

15. We are grateful to Guillermo Cruces for providing the data used in the efficiency analysis.

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TABLE 4-1: DEMOGRAPHIC AND ECONOMIC INDICATORS

	Latin America & Caribbean	Argentina
Population: Total, 2001 (in millions)	524	37
Population: Avg. annual growth % 1990–2001	1.6	1.3
Population: Urban (% of Total)	75.8	88.3
Life expectancy, 2000 (years)	70	74
PPP GNI pc ($) 2001	7,070	11,690
GDP pc: Avg. annual growth % 1990–2001	1.5	2.4
Exports % of GDP, 2001	17.6	10.8
Total debt service (% exports), 2000	38.6	71.3

Source: World Bank 2001.

countries. Another reason for the selection of Argentina was to understand the role for long-term goals, like the MDGs, when a country is undergoing a profound crisis.

In Argentina, the provinces have primary responsibility for delivering basic services in health and education. Since the decentralization of public services in the mid-1990s, the majority of expenditures on health and education are made at the provincial level and service delivery in these sectors is the responsibility of provincial governments. For these reasons, an analysis of the relevance of the MDGs in Argentina, and prospects for their attainment, must involve both the national and sub-national levels of government.

The province of Santa Fe was selected to provide a sub-national focus for this chapter, due to its size and importance in Argentina (8% of the population, 7% of GDP and 20% of exports) and the fact that it represents a type of "median case," since it is neither the richest nor the poorest of the provinces and has many indicators close to the national averages. In Santa Fe, education and health represented 45% of the provincial budget in 2000. Although Santa Fe has managed to contain public expenditures and limit accumulation of debt, other provinces have not been as capable of managing their expenses. Excessive borrowing by provinces has been a factor in the current crisis and a significant share of these funds has gone toward social sector spending.

This chapter focuses primarily on the health and education targets of the MDGs. Goals in these sectors comprise the majority of the Millennium Goals. These sectors also have a high priority in terms of social expenditures in Argentina and in Santa Fe. By focusing on these two sectors, we are also able to go into greater depth regarding the policy environment, progress over time and prospects for improvements.

Comparing National and Provincial Development Goals with the Millennium Development Goals

In spite of the rapid deterioration in living standards in Argentina and increases in poverty, there is no comprehensive national poverty reduction plan. Santa Fe also lacks a comprehensive poverty reduction strategy but, as mentioned above, there is clearly a commitment to social objectives since the health and education budgets together account for approximately one-half of the provincial budget. There are, however, sector strategies for education and health which relate to some of the MDG targets, both at the national and provincial levels. Table 4-2 presents Argentine goals, both at the federal level and in Santa Fe, corresponding to the MDGs.

Goals for Education

In education, the quantitative goals which are listed in Table 4-2 are taken from the Federal Education Pact, a law passed in 1997 which codified earlier agreements between the provinces and federal government related to education reform. These ambitious national goals were set for the period 1995 to 1999 but largely went unmet and reflect priorities still relevant today, including 100% uni-

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TABLE 4-2: COMPARISON OF SELECTED MILLENNIUM DEVELOPMENT GOALS (MDGS) AND ARGENTINA & SANTA FE DEVELOPMENT GOALS (ADGS)

Millennium Development Goals (MDGs)	**Argentina & Santa Fe Development Goals**	**ADG more(+)/less (–) ambitious than MDG**
Eradicating Poverty and Hunger	**Reduce the percentage of poor and hungry households**	
Halving 1990 $1 a day poverty and hunger rates	*Target 1:* There does not seem to be a specific goal for reducing poverty by a certain date in Argentina	NC
	Target 2: There does not seem to be a specific goal for reducing hunger by a certain date in Argentina	NC
Universalizing Primary Education	**Universalize education and improve education quality** (goals from the Federal Education Pact, Law 24.856, September 1, 1997)	
Ensure all children complete primary school	*Target 1:* Extend public education to all five year olds (100% enrolment)	+
	Target 2: Attain 100% enrolment for all 6 to 14 year olds	+
	Target 3: Attain 70% enrolment for all 15 to 17 year olds	+
	Target 4: Reduce repetition rates by 50%	NC
	Target 5: Reduce illiteracy by 50%	+
	Target 6: Incorporate 100% of schools in the new education structure	NC
Promoting Gender Equality	**Ensure gender equality and women empowerment**	
Equalizing the ratio of girls to boys in education	*Ratio of girls/boys enrolled in school*	A
	Equal numbers of girls and boys are enrolled in primary and secondary education—girls even have a slight lead over boys.	
	Ratio of literate females/males	A
	Literacy rates are on par between the sexes.	

(*Continued*)

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TABLE 4-2: COMPARISON OF SELECTED MILLENNIUM DEVELOPMENT GOALS (MDGS) AND ARGENTINA & SANTA FE DEVELOPMENT GOALS (ADGS) (*CONTINUED*)

Millennium Development Goals (MDGs)	**Argentina & Santa Fe Development Goals**	**ADG more(+)/less (–) ambitious than MDG**
Reduce Child Mortality	**Reduce child mortality, child malnutrition and reduce the birth rate** (for Santa Fe)	
Reduce the 1990 under-5 mortality rate by two thirds by 2015	*Target 1:* Reduce the infant mortality rate from 13.7 per 1000 live births in 2000 to 12 per 1000 live births by 2002 (down from 23.5 per 1000 in 1990)	+
	Target 2: Reduce the neonatal (<28 days) mortality rate from 9 per 1000 live births in 2000 to 8 per 1000 in 2002	NC
	Target 3: Reduce the mortality rate for children between one and four years of age to 35 per 100,000 inhabitants by 2000 (down from 61 in 1993)	+
	Target 4: Increase and maintain mandatory vaccination coverage of children above 90% (measles coverage at 99% in 1999)	+
Improve Maternal Health	**Improve maternal health** (for Santa Fe)	
Reduce the 1990 maternal mortality by three quarters	*Target 1:* Reduce the maternal mortality rate to 20 per 100,000 live births by 2002 (down from 28 in 1998 and 43.3 in 1990)	+
	Target 2: Increase the percentage of pregnant women with at least 5 prenatal medical visits to 70% of all pregnancies by 2002 (up from 54.7% in 2000)	NC
	Target 3: Increase the percentage of pregnancies with first prenatal visit before the 20th week to 60% of total by 2002 (up from 48.3% in 2000 and 34.8% in 1995) (*More than 98% of births in Santa Fe occur in hospitals, health centers and other institutions.*)	NC A

Source: Authors Note: In column 3, "NC" means Not Comparable, and "A" means achieved.

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versal primary enrolment beginning at age five, increasing enrolments in secondary schools, reducing repetition rates and improving literacy.

Another goal of the Federal Education Pact was to incorporate 100% of all Argentine schools in the national education reform program which lengthened mandatory education from six to nine years, followed by more specialized high school curricula for the final three years of secondary school. This goal has proven to be a significant challenge at the provincial level since it requires investments in new curricula, retraining of teachers, reconfiguring of physical space and interventions to encourage students to complete a longer cycle of education.

In Santa Fe, the main objective of the Ministry of Education since the late 1990s has been the implementation of the national education reform program. No specific targets or indicators have been established, however, to measure the province's progress toward this goal. For this reason, no quantitative indicators for education are included in Table 4-2 for Santa Fe.

How do national and provincial priorities in education compare to the MDGs? Argentina participated in the United Nations Education Summit in Jomtien, China but did not develop an action plan or strategy based on the Summit, as occurred in the health sector, to be discussed shortly. Still, both national and provincial strategies have recognized the importance of achieving universal primary education, which is a fundamental aspect of the Jomtien platform which went on to inform the MDGs. Increasing equity in the education system, as well as strengthening the contribution of education to reducing inequalities in Argentine society, represent another set of priority issues which are relevant to the goals expressed in the MDGs. Salaries of more educated workers have increased much more rapidly in recent years in Argentina than those of unskilled workers, so human capital formation through education remains a key way of moving people out of poverty. The education reform, for example, was intended to strengthen education quality and better prepare students for full participation in Argentine economic and social life. It is still unclear the extent to which the reform will attain these objectives.

In other important ways, however, Argentine goals for the education sector diverge from the Millennium Goals, in particular with regard to greater attention to secondary schooling. Some of the differences between Argentine goals and the MDGs in education—as well as those related to gender equity in education—can be explained by Argentina's relatively strong performance. The youth literacy rate is over 90% in nearly every province and is 96% nationally. Equal numbers of girls and boys are enrolled in primary and secondary education (girls even have a slight lead over boys) and literacy rates are also on a par between the sexes. Argentina has also achieved the goal of nearly universal enrolment in primary education, as virtually all children in the country enter primary school when six or seven years of age.

The weakness in the primary education system, which does not appear to have received the attention it deserves, is the relatively low rate of completion of primary school–often a counterpart of high repetition rates leading to drop-outs. In some of the nation's poorer provinces, such as Misiones, only about two-thirds of students are finishing primary school (completing the 7th grade) within ten years of entering the system, in other words, allowing for pupils who repeat as many as three years. While completion rates in Santa Fe exceed the national averages at all grade levels, there is still concern with excessive repetition rates, which are higher than national averages for the early grades (1–6) and which may be particularly elevated in specific school districts within the province. Further, school abandonment in Santa Fe reaches almost 30% by the final three years of secondary education (the period referred to as the polimodal).

Goals for Health

There is much greater overlap between health goals in Argentina and the MDGs, which both focus on primary care, mother-child health and control of infectious diseases. The complementarities between the Millennium Development Goals and Argentina's national goals in the health sector are not a simple coincidence. Argentina actively participated in the United Nations Conferences which developed the goals that were eventually included in the Millennium Declaration. For example,

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subsequent to the nation's participation in the 1990 Children's Summit in New York, Argentina drafted a national action plan to achieve the children's and maternal health goals resulting from that meeting. The "National Commitment to Mothers and Children," which was published in 1991, presented national goals in line with those developed at the UN Summit, as well as means for achieving them. This national goal-setting exercise was not integrated into management of health resources and budget in the 1990s, however, in part because of a move to decentralize health services to the provinces.

More recent national strategic plans for the health sector identify priority issues but not quantitative targets. For example, the Ministry of Health issued a new strategic plan in 2000 which focused on changing the way care is provided, by shifting resources toward primary care and preventive medicine. Specific indicators were to be developed by the Federal Committee for Health (COFESA–Consejo Federal de Salud), that includes the Ministers of Health for all the provinces, and at the provincial level, but due to the crisis and subsequent change of government this strategy was never fully implemented.

The Ministry of Health in Santa Fe has focused their strategic planning on maternal and child health since at least 1995. In that year the Ministry published a five year plan, "Provincial Goals for Maternal and Child Health 1995–2000," designed to improve basic health indicators. The five year plan was explicitly described as the province's action plan for meeting goals for improving maternal and child health which were developed in the 1990 UN Children's Summit and then included in the 1991 Argentine plan discussed previously. It established specific targets for reducing infant mortality, child mortality, maternal mortality and for making other improvements such as reductions in malnutrition and numbers of low birth-weight babies and increasing vaccination rates in Santa Fe (Provincia de Santa Fe, 1995).

In 2001 a new strategic plan for maternal and child health was presented by the Ministry of Health—key indicators from this strategy are presented in Table 4-2. "The Health of Mothers, Girls and Boys: Betting on Life" established a framework for improving basic health indicators and set specific quantitative targets for progress between 2001 and 2002, many in common with the 1995–2000 plan. In most cases, the 2002 goals are less ambitious than those set in 1995 for 2000, with the notable exception of infant mortality, for which a target of 12 deaths per 1,000 live births is set, down from the 2000 target of 13.3. The increase in coverage of required vaccinations in 2002 is below the 2000 target—at 90%—and appears to be within reach, since most of the different vaccines already have coverage rates above 90%. The most ambitious of the 2002 goals seems to be the reduction of maternal mortality from 28 to 20 per 100,000 in just one to two years. Only limited progress has been made toward this goal in the last five years and the rationale for expecting such a rapid improvement is not clear. In addition to Santa Fe's strategies for maternal and child health, the province also has developed plans for controlling infectious diseases, such as AIDS and tuberculosis.

Why do the health goals set in the MDGs resonate as well as they do with national and provincial priorities in health? After all, Argentina has achieved infant mortality rates which are beginning to approach developed country levels and has relatively low levels of infection from HIV/AIDS and tuberculosis. One reason has to do with the mission of public health authorities to assist the most vulnerable members of society, which include expectant mothers and children, as well as to control the spread of infectious disease. Investments in infant and child health, in particular, are popular initiatives which easily garner public support. Another reason is that pre-natal care, attended births and prevention of infection from HIV or TB are ways to avoid more costly emergency care or treatment of chronic illness and thus are good investments. Maternal and child mortality is also an area where equity concerns are great, since IMR, U5MR and MMR vary significantly across Argentine society, by province and within provinces by regions and income levels. Finally, health sector specialists are accustomed to working with indicators to manage disease and monitor mortality and especially the indicators for infant, child and maternal mortality are part of a core set of indicators frequently followed by public health authorities internationally. The indicators for AIDS and tuberculosis are also relevant in Argentina, however, since these diseases affect a

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relatively small share of the population they have less visibility than other goals, such as those for mothers and children, and also have a lower priority than they would in countries with very high infection rates.

With respect to the environment, Argentina has made little progress in establishing quantitative targets. One exception, however, is the case of voluntary greenhouse gas targets, where Argentina is a world leader. Argentine policy makers are also concerned about increasing access to clean water, which is one of the main MDGs, however, no specific national targets have been established for this goal.

Progress Toward the Goals

Measuring progress toward the Millennium Goals or toward specific national or provincial goals is complicated by the current crisis. For example, reductions in poverty attained during the 1990s have been drastically reversed in the last one to two years and hunger and malnutrition have increased. These changes will affect Argentina's ability to meet the Millennium Goals but it is difficult, if not impossible, to accurately predict the long-term consequences of the present crisis on poverty reduction, much less on other indicators. For example, the effect of the crisis on indicators such as infant mortality and school enrolments has yet to be determined, because of the lag-time between falls in income and changes in these indicators, uncertainty about the relationship between macroeconomic performance, public expenditures and outcomes in health and education and the time it takes to reliably collect and disseminate this data.

In this section, Argentina's progress toward the MDGs is reviewed, both at the national and provincial levels. The most recent available data is presented, but often these figures predate the current crisis. Even so, the data provide insights as to Argentina's progress in the social sector since 1990 and the country's ability to meet future goals. When there is information indicating the direction of changes over the past year, comments are included.

Consider first poverty. The increase in poverty in Argentina over the past year has been well-documented. The national statistical agency, INDEC, regularly releases poverty rates; as of mid-2002 the national (urban) poverty rate was 53%, up from 36% one year earlier. Figure 4-1 shows the evolution of poverty rates in Argentina since 1990 through 2002. As can be seen, Argentina suffered from the Tequila crisis after Mexico's devaluation in 1995 and 1996, but recovered in 1997 and 1998. Since then, however, poverty has been steadily rising, with a large increase in the first half of 2002 due to the collapse of the economy. Santa Fe has followed the national trends in poverty. In Figure 4-1, we reproduce trends in the share of the population in poverty according to six regions estimated by Cruces et al. (2002). In the figure, Santa Fe is part of Pampeana, a region that is neither very poor, nor very rich, but which has witnessed an increase in poverty since 1999 and especially over the first half of 2002 similar to other regions

In education, Argentina maintained a high rate of primary enrolment and increased secondary enrolments since the mid-1990s. As Figure 4-2 shows, primary enrolments were basically constant at around 96 to 97% between 1995 and 2001. (The dip in enrolments in 1999 is probably a data anomaly.) Santa Fe performed slightly better than the national average in net primary enrolments, ending 2001 with a rate of 97%.

In terms of net secondary enrolments, there were significant improvements in the 1990s at both the national and provincial level, as can be seen in Figure 4-3. Nationally, net secondary enrolment rates improved from about 70% in 1995 to more than 75% by 2001. In Santa Fe even faster progress was achieved, with an increase of more than ten percentage points in the period to reach 78% by 2001.

Santa Fe, and Argentina more generally, have virtually attained the MDG of universal primary enrolment. With rates in the high 90s, almost all children in the country begin school between six and seven years of age. The more pressing problem is increasing completion rates for primary school–another MDG indicator. High repetition rates which then contribute to school abandonment before completion of the full primary cycle continue to be a problem in Santa Fe and other provinces.

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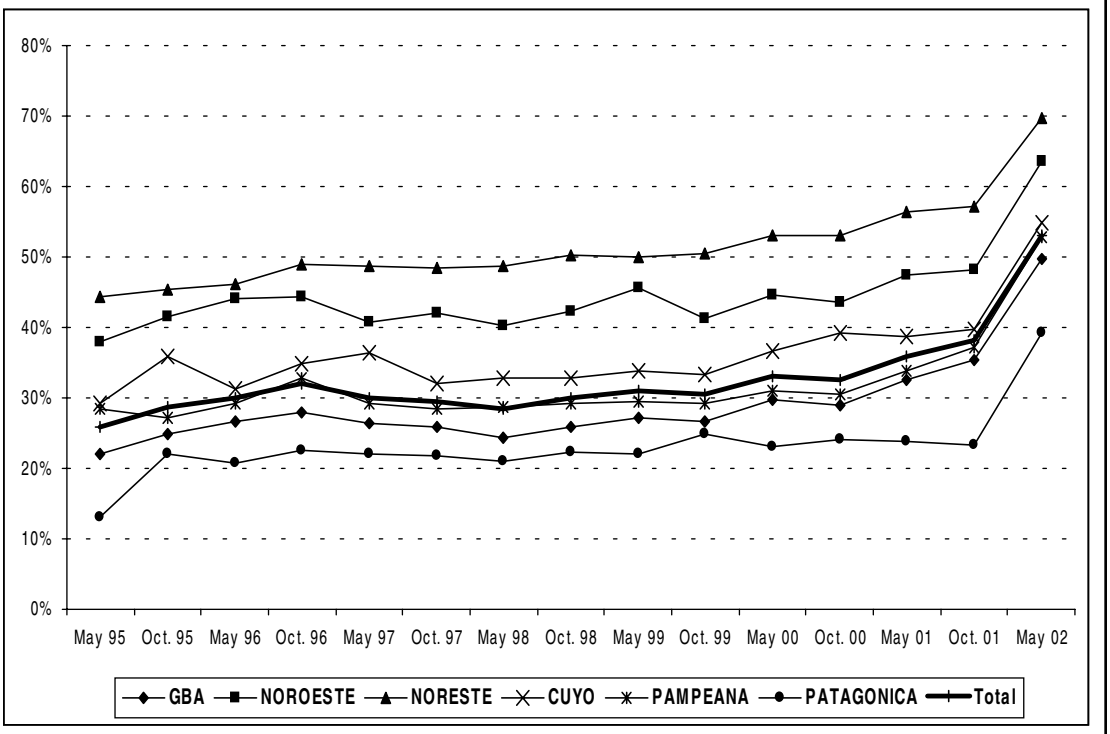
FIGURE 4-1: PROPORTION OF POOR INDIVIDUALS IN REGIONS, URBAN ARGENTINA, 1995–2002



Source: Authors.

In the crisis atmosphere of early 2002, efforts are being made to maintain services—and keep up enrolments—in the face of declining budgets, in real and sometimes even nominal terms. In the province of Buenos Aires, for example, the budget for education was trimmed by 500 million pesos for 2002 (in comparison to 2001) prompting protests from the teachers' union and a rethinking of the agreement between the province and union. There are already alarming anecdotal information indicating children are dropping out of school due to economic necessity, and thus another immediate concern of the national authorities is to maintain previous achievements of relatively high enrolment rates and literacy rates in the face of economic turmoil as well as contribute more effectively to poverty reduction and greater equality of opportunity.

In health indicators, since 1990 Argentina has made significant progress in reducing both infant and child mortality rates. Infant mortality fell from 25.6 to 16.6 deaths per 1,000 live births between 1990 and 2000 and under-five mortality fell from 28 to 22 deaths per 1,000 during the same period. While these represent important reductions, they do not put Argentina in line to meet the Millennium Goals of a two-thirds reduction by 2015. In the case of infant mortality, at the current rate of reduction of approximately 3.45% per year, Argentina will achieve a reduction of just under 60% by 2015, or 10.4 deaths per 1,000 live births, short of the MDG target of 8.4 deaths. By way of comparison, countries with IMR statistics close to 8.4 in 2000 include South Korea, Hungary and Croatia. With under-five progress rates of approximately 2.6% per year, Argentina will fall further short of the MDG target, achieving a halving of child mortality by 2015 rather than a reduction of two-thirds (for a summary of a model-based analysis of the likelihood of Argentina and other Latin American countries of reaching the MDGs, see Hicks and Wodon, 2002.)

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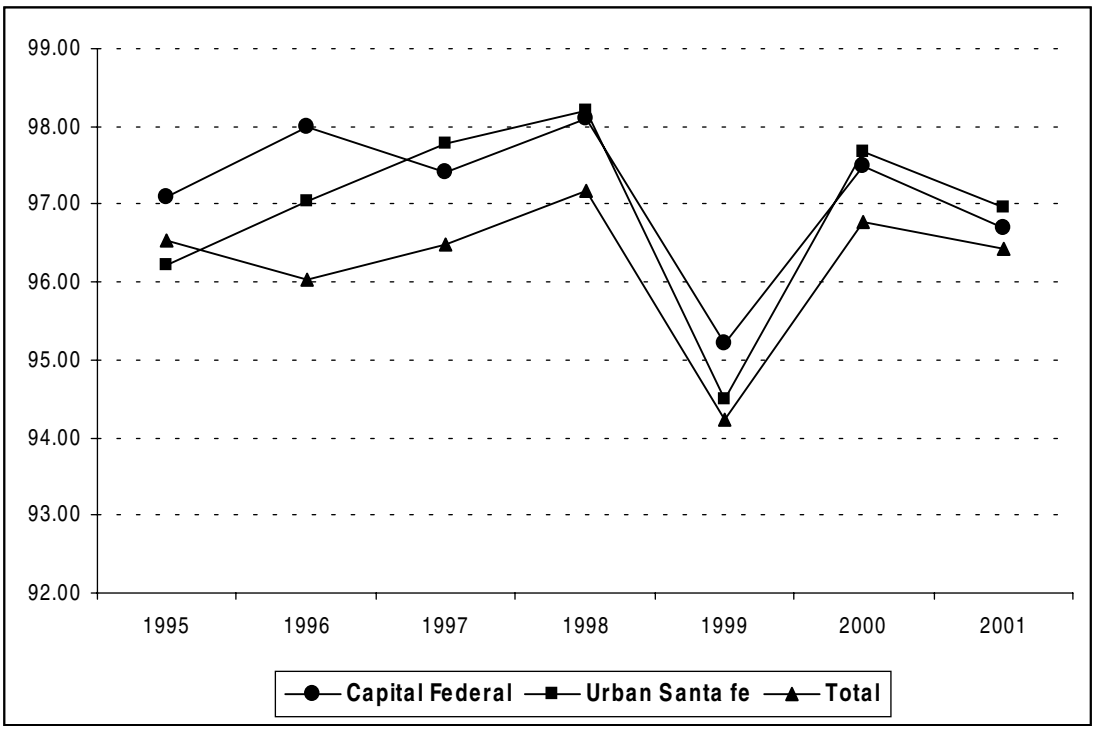
FIGURE 4-2: NET PRIMARY ENROLMENT, 1995–2001



Source: Authors.

As would be expected, the distribution of infant deaths is not even throughout the country, with poorer communities and provinces experiencing rates as much as three times as high as the city of Buenos Aires, which has the lowest rate at 9.4 per 1,000 live births. Corrientes posted the highest rate in 2000, at 30.4, followed by Jujuy, Formosa, Tucumán, Misiones, Chaco, Catamarca and La Rioja, all with rates in excess of 20 per 1,000. Infant mortality rates for the provinces are highly correlated with regional poverty; the correlation statistic for infant mortality with the percent of population under the poverty line is 0.76. However, there are noticeable exceptions to this rule. For example, Santiago del Estero is one of the poorest provinces, with 48% of the population under the poverty line in 2001 and provincial GDP less than half the national average. Despite the province's poor economic performance, infant mortality rates are among the lowest in the country at 13.2, following only the City of Buenos Aires, Tierra del Fuego and Neuquén. On the other hand, Santa Cruz, which has one of the lowest poverty rates and GDP more than 70% over the national average, has an infant mortality rate above the national average at 17.2 per 1,000—a level similar to poorer provinces including San Luis (17.2 per 1,000) and Entre Rios (16.9 per 1,000).

Progress on maternal mortality in Argentina has been less impressive during the 1990s. Given the country's income level and other health indicators, maternal mortality rates remain relatively high at 38 per 100,000 live births in 1999. Argentina is likely to fall far short of the Millennium Goal of reducing maternal mortality by three-quarters, to about 10 deaths per 100,000 live births, by 2015. The high maternal mortality rate is particularly disturbing given the high rate of attended births, which exceeded 97% in 1995. The national health strategy sets several goals in relation to this problem including all expectant mothers having five pre-natal visits and having the first of these no later than 20 weeks into the pregnancy. However, one factor which is not discussed in the

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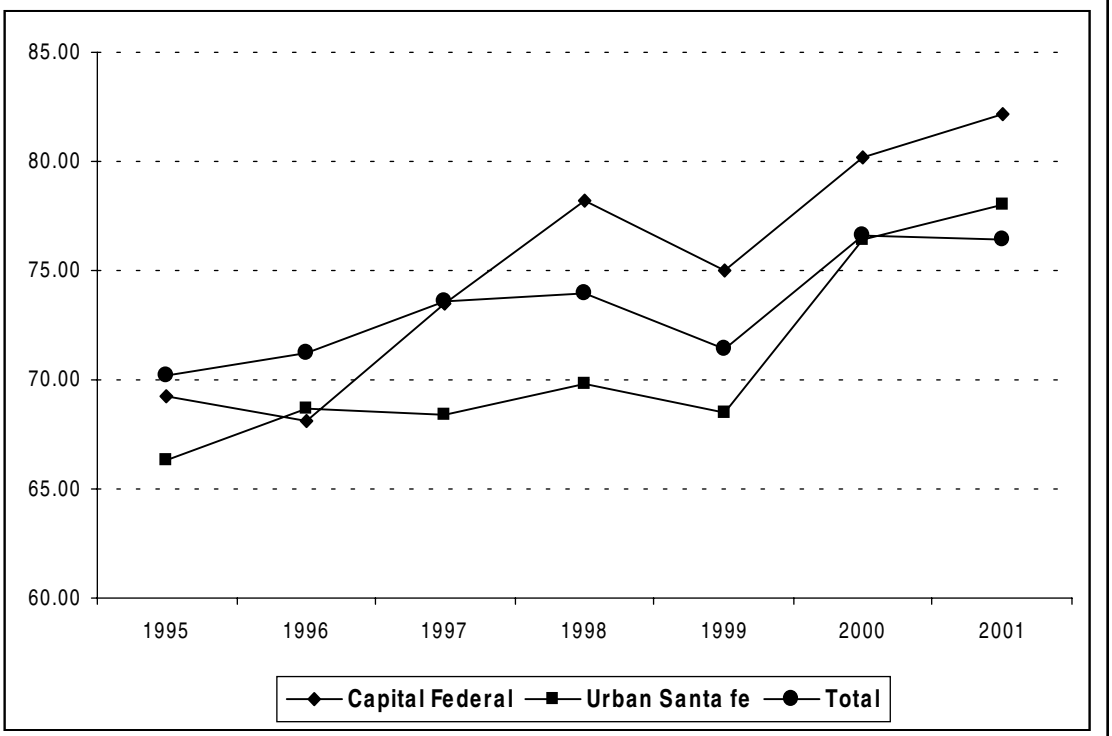
FIGURE 4-3: NET SECONDARY ENROLMENT, 1995–2001



Source: Authors.

strategy is deaths related to illegal abortions. This procedure is not legal in Argentina and therefore not offered through the public health system. Although reasonably safe illegal abortions are usually obtainable for those who can afford to pay, they are beyond the reach of the poor. Because of the controversy surrounding this procedure in a country where more than 90% of the population are Catholic, this problem is unlikely to be addressed soon.

As with infant mortality, maternal mortality rates vary greatly by province, with Formosa registering by far the worst rates—more than 150 per 100,000—in both 1999 and 2000. The lowest rates in 1999 and 2000 were found in the city and province of Buenos Aires and in Córdoba, which all registered rates below 20 per 100,000 in both 1999 and 2000. Presumably, this is in part due to the prevalence of high quality hospital care in these areas. Although Santa Fe also boasts urban centers with good hospitals, the rate for the province was close to the national averages of 41 in 1999 and 35 in 2000. It is also worth noting that the variance in maternal mortality rates was greater during this period than the variance in infant mortality. It is also useful to note that the correlation between income and maternal mortality is much weaker than in the case of infant mortality. Since maternal deaths are relatively infrequent, they provide indications of the capacity of health systems to address acute problems, including internal bleeding, as much as an indication of overall wellness of the population.

In terms of AIDS, tuberculosis and other contagious diseases such as leprosy, malaria and chagas, Argentina had mixed success during the 1990s. While the country has thus far contained the spread of AIDS, estimated in 1999 to have infected less than one percent of the population (0.9%), the situation is precarious. The federal government does not have a coordinated AIDS strategy and the main AIDS prevention and treatment program, which has been funded through a World Bank

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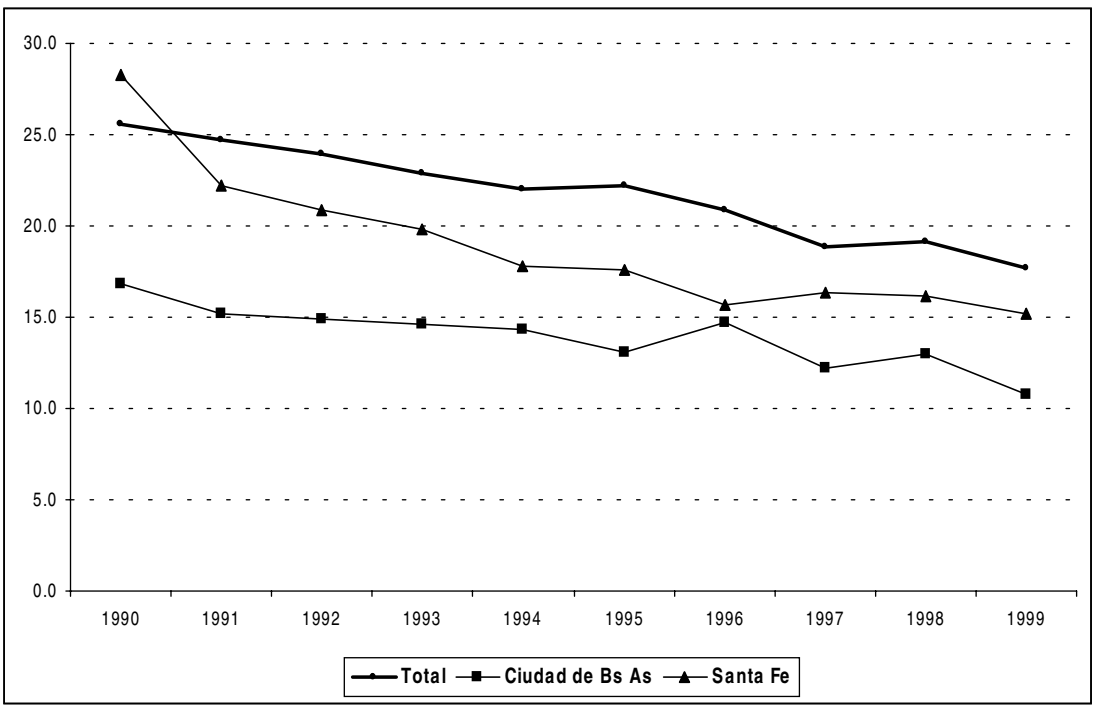
loan about to close, does not have future funding secured. The current crisis and devaluation have also greatly increased the cost of AIDS related drugs, including the staple anti-retrovirals, which are all imported, leading to reported shortages for current patients and doubts about the Government's ability to attend to new patients.

In Santa Fe, the goals set in 1995 were ambitious, having been established at a time when the economic situation in Argentina was improving and poverty was falling. In maternal mortality, the goal was to move from 25 deaths per year in 1990 (43.3 per 100,000) to 11 by 2000 (20.1 per 100,000). Infant mortality, which was approximately 1500 in 1990 (23.5 per 1,000) was to be reduced to 734 by 2000, a rate of 13.3 per 1,000. Mortality in children under five years of age was to be reduced from a rate of 61 per 100,000 (135 cases) in 1993 to 35 per 100,000 by 2000 (77 cases).

Figures 4-4 and 4-5 compare the reductions in infant and child mortality, respectively, at the national level with reductions in Santa Fe and the City of Buenos Aires between 1990 and 1999. As is evident, Santa Fe registered the steepest reductions in IMR and U5MR in this period, especially through 1995.

At current rates of progress, Santa Fe is on track to meeting the Millennium Goal of reducing infant mortality by 2/3 between 1990 and 2015. In fact, if they can sustain a rate of decline in IMR exceeding 5% per year, as was the case in the 1990s, Santa Fe will exceed the MDG, posting a reduction of more than 70% to 6.52 rather than 8 per 1,000 live births. In terms of maternal mortality, progress between 1990 and 2000 was good, falling by more than 4% per year, which would put the progress on track for a reduction of about ⅔ between 1990 and 2015, short of the ¾ goal set in the MDGs. The main concern with MMR is that this statistic has not changed much since

FIGURE 4-4: INFANT MORTALITY RATE (PER 1000 BIRTHS), 1990–1999



Source: Authors.

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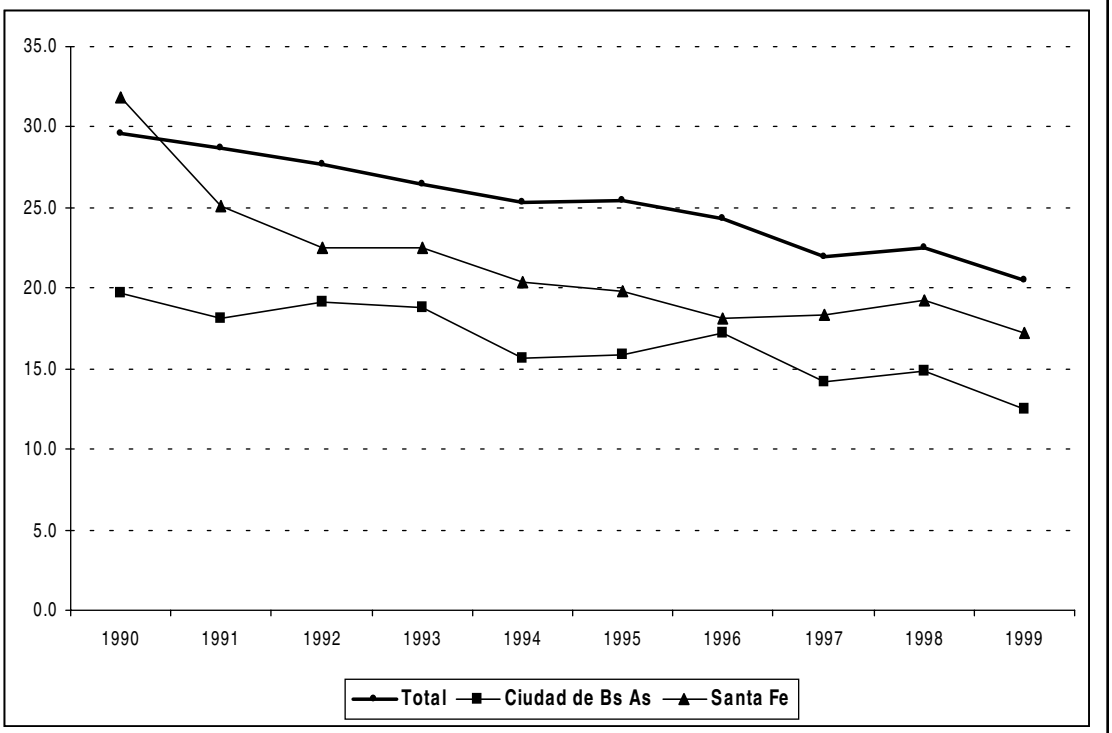
FIGURE 4-5: CHILD MORTALITY RATE (PER 1000 BIRTHS), 1990–1999



Source: Authors.

1995, so the province may be facing a situation where further reductions in maternal mortality will require different types of interventions or programs than those currently available.

Obstacles and Opportunities for Accelerating Progress Toward the Goals

The Crisis in Argentina

The most important and most obvious challenge facing Argentina in making progress toward the MDGs and other national goals is the current crisis. Poverty rates have soared to above 50% nationwide and the unemployment rate is close to 25%; many Argentines cannot afford necessities including food and basic medical care. In this kind of acute situation the focus is on surviving in the short-term, not working toward long-term goals, so it is natural to question the relevance of the MDGs. In terms of the goals themselves—reduction of poverty and hunger, strengthening primary education and gender equity, improving child and maternal health, controlling infectious disease and protecting the environment—the crisis has actually increased the relevance of many of them in this middle-income country. However, the crisis has also made some of the quantitative targets associated with the goals seem overly ambitious—especially when the targets would suggest Argentina attaining a level of performance approaching developed country norms by 2015.

It is clear that the crisis is retarding progress toward the MDGs, beginning with the goals for poverty and hunger which have increasing rather than decreasing rates of prevalence. The impact on other goals in health, education and the environment is less evident and will depend on the duration of the crisis and the speed of recovery as well as the ability of the government and society to provide a safety net during this time. In this context, it is useful to remember that many of the goals for education and health which were developed prior to the crisis by the national and provin-

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cial governments in Argentina were more ambitious than the MDGs in terms of the rates of progress they envisaged. Given the severity of the present crisis and the social strain it is causing, a reasonable approach might be to identify short to medium-term goals (for the next 1–5 years) and wait a year or two when recovery has begun to evaluate whether there is a need to revise long-term national and provincial goals, including targets for the MDGs.

Even the current crisis, however, may offer opportunities for strengthening Argentina's long-term ability to meet ambitious social goals, including the MDGs. One of these opportunities involves a more efficient and cost-effective public sector in health and education. Salaries of public workers have been cut in real terms by one-third or more as prices of many goods increase while nominal salaries stay fixed. These adjustments reduce the cost of providing services and may help to facilitate needed cuts in the public sector workforce. For example, per capita expenditures on health care have fallen from US $612 in 2001 to an estimated US $183 in 2002, according to the national Ministry of Health—an amount more in-line with the country's ability to pay. In the province of Buenos Aires, the 2002 education budget was cut by 500 million pesos in comparison with 2001, prompting protests but also a rethinking of the agreement between the provincial government and teachers' union.

The crisis also creates strong incentives for policy makers to focus on the most cost-effective means of providing services as budgets are cut in real—and even in nominal—terms. In the health sector these cuts have been particularly acute as a higher percentage of inputs, namely medicines and other medical equipment and inputs, are imported and priced in dollars. As a result, the crisis has led to greater attention on primary care and preventive medicine as cost effective means of maintaining a healthier population. Efforts to consolidate employer-based health insurance schemes are also designed to improve the long-term efficiency and viability of the system.

Another positive change resulting from the crisis may be increased demands for accountability in the public sector from Argentine citizens. Work on improving the quality of public services often includes the importance of involving citizens in the decision-making process. Thousands of people have taken to the streets to protest unpopular policies since 2001. What remains to be seen is whether this energy will be channeled into greater civic participation in the years to come.

Efficiency in Reaching Education and Health Targets

As discussed previously, outcomes in education and health vary significantly between provinces. Many factors could be behind these differences but some of the most commonly cited are income levels and public spending on health and education. Another factor which could have an impact on social indicators is the efficiency of public expenditures (or effectiveness of interventions).

This section analyzes the extent to which inputs such as income levels, public spending and other common factors such as access to potable water (for health) and literacy levels (for education) contribute to outcomes in education and health. The analysis is then extended to understand how efficiently provinces use these inputs in achieving their outcomes. Data for Santa Fe is highlighted and compared with an average for all Argentine provinces. The methodology used in this exercise is briefly described Box 4-1.

Efficiency in Reaching Education Targets

For this exercise six education outcomes are considered: net primary enrolment, net secondary enrolment and language and mathematics test scores for both primary and secondary schooling. The net enrolment rates are used as proxies for education flow variables, while test scores are used as education quality measures. Table 4-3 shows initial, final and average values for these outcomes between 1995 and 1999; there are a total of 120 observations. Santa Fe fares better than the provincial averages for net primary enrolment rate over the period (96.8 versus 96.1), but below par for the net secondary enrolment rate (66.4 versus 72.1). It does better than the provincial average for all education quality measures for both language and math in primary and secondary school. Input use in Santa Fe to reach these outcomes was above the provincial average for per capita GDP

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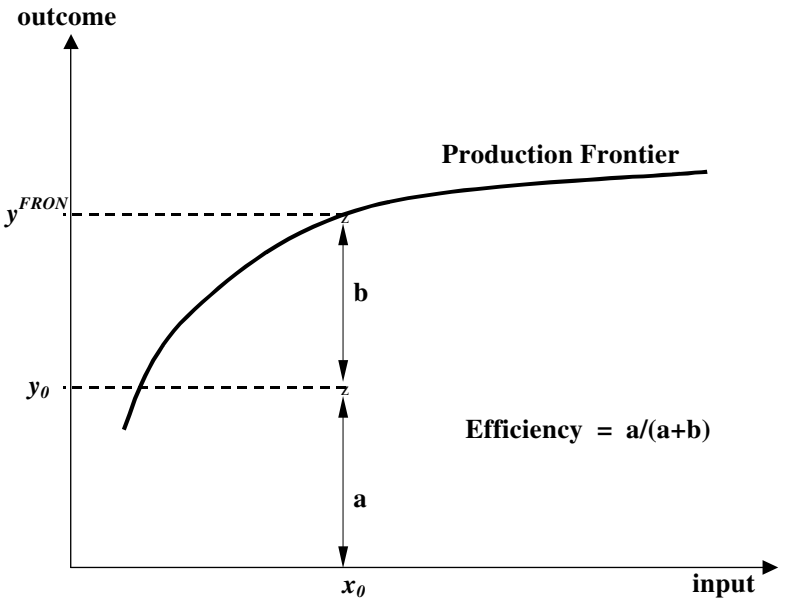
BOX 4-1: THE METHODOLOGICAL APPROACH USED TO ESTIMATE THE EFFICIENCY OF INPUT USE

Consider the one-input one-output example in Figure 4-6. The objective or outcome is depicted along the vertical axis while input use to reach this outcome is depicted on the horizontal axis. The curved line (i.e., the production frontier) represents the maximum possible level of the outcome that can be obtained for a given level of input use. The efficiency (E) of public spending can be defined as the ratio of attained or observed outcome to the best practice outcome for a given level of input use. Assume that a country produces "a" units of outcome from x_0 units of inputs, and that under perfect efficiency it could have produced "a+b" units of the outcome. Efficiency E would then be "a/(a+b)." While the outcome could be improved through an expansion of input use, keeping efficiency constant, it can also be improved through an increase in efficiency, keeping input use constant, or a combination of both.

FIGURE 4-6: MEASURING EFFICIENCY OF INPUT USE



Source: Jayasuriya and Wodon (2003).

In order to measure the efficiency of various provinces in improving health and education indicators, Jayasuriya and Wodon (2003) estimate production frontiers using a stochastic frontier approach, so that the efficiency measures are obtained relative to these estimated frontiers. Per capita GDP, per capita expenditures on the respective social sectors (primary education, secondary education, or health), adult literacy, time (as a proxy for technological progress and other exogenous factors), and in some cases other variables are used as inputs to determine the shape of the production frontier. The efficiency measures are then used to compare the actual outcomes for the indicators in the latest period under review to the outcomes that would be observed under perfect efficiency.

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TABLE 4-3: ENROLMENT RATES, TEST SCORES AND INPUT MEASURES FOR EDUCATION (1995–1999)

	Provincial average			Santa Fe		
	1995	1999	Avg. 1995–99	1995	1999	Avg. 1995–99
Net primary enrolment (% of students)	96.5	94.2	96.1	96.2	94.5	96.8
Net secondary enrolment (% of students)	70.2	71.5	72.1	66.3	68.5	66.4
Language test scores: primary (grades: 3, 6 & 7)	62.0	57.4	59.6	71.6	61.3	64.3
Mathematics test scores: primary (grades: 3, 6 & 7)	59.2	57.3	56.8	71.0	61.6	63.5
Language test scores: secondary (year: 2 & 5)	58.0	57.7	57.2	54.7	68.2	62.3
Mathematics test scores: secondary (year: 2 & 5)	46.8	58.4	53.6	49.2	72.0	60.9
GDP, pc (const 1999 pesos)	7,092	7,101	7,204	7,206	7,329	7,443
Expenditure: Education, pc (const 1999 pesos)	358	376	349	261	272	258
Adult literacy (% of population)	97.6	98.0	97.7	98.0	97.8	97.9

Sources: UNICEF (Argentina), Ministerio de Economía and Ministerio de Educación

(7,443 pesos versus 7,204 pesos) and adult literacy (97.9 percent versus 97.7 percent) during this time but significantly below average for public expenditures on the sector (258 pesos versus 349 pesos).

Three separate models are used to estimate the relationships between the inputs and the best possible health outcomes that can be achieved by the provinces, with the differences between the models consisting in the inclusion of per capita GDP, per capita public education expenditure, or both. The complete estimation results are available in Jayasuriya and Wodon (2003). The main conclusions are as follows:

- While an increase in per capita GDP does not have a statistically significant impact on net primary and secondary enrolment, it does improve test scores, although not by very large amounts. An increase in per capita income of 1,000 pesos increases language test scores by 0.6 to 0.7 points. The impact on mathematics test scores is similar in magnitude, ranging from 0.5 to 0.9 points.
- Net primary enrolment is apparently decreasing over time, but this is because of the unexplained drop in 1999 which may be due to data problems. Enrolment in secondary school, by contrast, improves with each additional year, by almost half a percentage point.
- Adult literacy has a strong positive impact on primary and secondary enrolment, but not on test scores once we control for per capita GDP in the regressions.
- Increasing broad-based per capita public expenditures for education does not have a positive impact on any of the outcomes.

Table 4-4 provides the efficiency measures for the education outcomes using Model I which included both per capita GDP and education expenditures. In most categories, Santa Fe outperforms the provincial average. The only exception is with respect to secondary school enrolments, where it is significantly below the average. This is because until 2000, the secondary enrolment rate in Santa Fe lagged the national average, so the relatively low efficiency rate is not surprising since outcomes were poor. Performance at the secondary level in Santa Fe has improved over time, however. Also, the fact that Santa Fe is doing relatively well for test scores may suggest that weaker students were dropping out of school before taking tests, but this may also have changed in recent years, in conjunction with the overall increase in enrolment.

Using the estimates of efficiency obtained in Table 4-4, Figure 4-7 compares the actual outcomes (latest data point available) to the outcomes that could be reached under perfect efficiency

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TABLE 4-4: EFFICIENCY MEASURES FOR ENROLMENT AND EDUCATION QUALITY (1995–1999)

	Provincial average	Santa Fe
Net primary enrolment	98.958	99.453
Net secondary enrolment	85.255	80.822
Language test scores: primary (grades 3, 6 & 7)	91.355	97.191
Mathematics test scores: primary (grades 3, 6 & 7)	89.755	98.232
Language test scores: secondary (year 2 & 5)	87.236	94.166
Mathematics test scores: secondary (year 2 & 5)	85.841	94.756

Source: Jayasuriya and Wodon (2003).

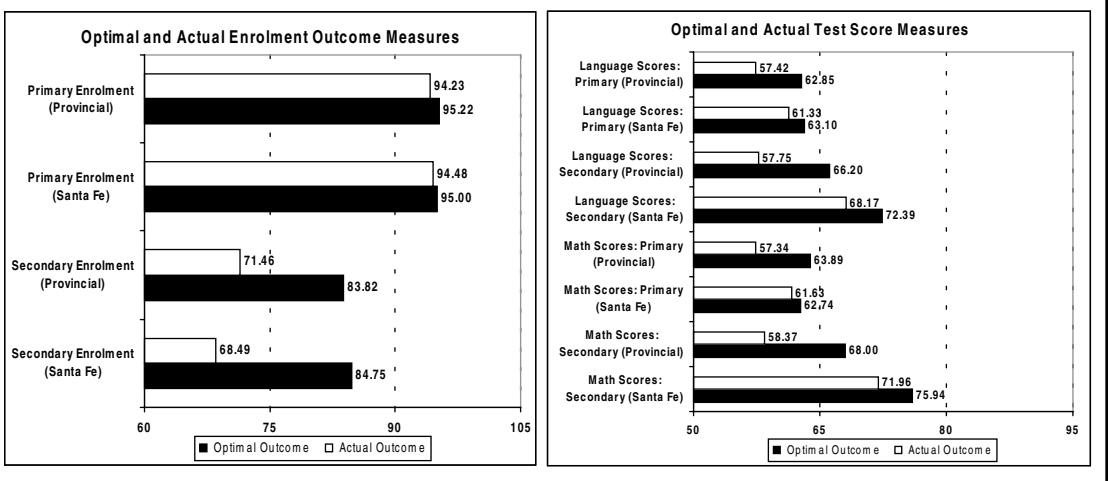
for Santa Fe and for all provinces on average. The figure suggest that the scope for efficiency gains in secondary schooling is higher than in primary schooling. This holds true for reaching better net enrolment outcomes as well as for reaching better test scores for both language and mathematics.

Estimating Efficiency in Reaching Health Targets

Two health outcome measures are considered in this section: infant mortality and child (under 5) mortality. The same methodology is used for health as was used in education. Six inputs are considered in the provincial health production functions: per capita GDP, per capita expenditures on health, the adult literacy rate, the rate of access to public hospitals, the rate of access to potable water and time to capture potential technological progress.

Basic statistics for the health outcome and input measures are provided for the period 1995 to 1999 in Table 4-5. The infant non-mortality rate (per 100) and child non-mortality rate (per 100) are used as health outcome measures. These non-mortality rates are defined as one hundred minus the corresponding mortality rates in order for the production frontier formulation to have larger numbers depicting better outcomes. Santa Fe fares better than the provincial averages for both infant and child non-mortality (98.380 versus 98.005 for infants and 98.147 versus 97.653 for children under five). Input use in Santa Fe to reach these outcomes is above the provincial average

FIGURE 4-7: OPTIMAL AND ACTUAL ENROLMENT AND TEST SCORE MEASURES



Source: Authors' estimation from Table 4.

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TABLE 4-5: INFANT AND CHILD NON-MORTALITY RATES AND INPUT MEASURES FOR HEALTH (1995–1999)

	Provincial average			Santa Fe		
	1995	1999	Avg. 1995–99	1995	1999	Avg. 1995–99
Infant non-mortality, per 100†	97.8	98.2	98.0	96.2	98.5	98.4
Child non-mortality: Age under 5, per 100†	97.4	97.9	97.7	98.0	98.3	98.1
GDP, pc (const 1999 pesos)	7,092	7,101	7,204	7,206	7,329	7,443
Expenditure: Health, pc (const 1999 pesos)	150	153	147	64	66	62
Adult literacy (% of population)	97.6	98.0	97.7	98.0	97.8	97.9
Access to public hospitals (# of births)	17,592	17,714	17,984	28,317	29,318	31,118
Access to potable water (% of population)	89.8	NA	NA	80.0	NA	NA

Sources: ENOHSA, Ministerio de Salud y Acción Social, Ministerio de Economía and UNICEF(Argentina);
†non-mortality are rates used in the estimation. NA means not available (only 1995 data for water access).

for per capita GDP and adult literacy but less than half the provincial average for per capita public expenditures on health (62 pesos versus 147 pesos) and also lower for access to potable water (80.01 percent versus 89.77 percent).

As with education, three separate models (to test for the robustness of the results) are used to estimate the relationships between the inputs and the best possible health outcomes that can be achieved by the provinces. The differences between the three models lie in the inclusion of the per capita GDP and per capita public health expenditure variables. The complete estimation results are available in Jayasuriya and Wodon (2003). The coefficients estimates suggest the following:

- Per capita GDP has a positive and statistically significant impact on infant and child mortality. An increase in per capita income of 1,000 pesos reduces infant and child mortality by 0.5 to 0.7 per 1,000 births. While this is not large, it is not negligible either given that the average provincial rate is around 20 per 1,000.
- Time also has a positive and statistically significant impact on outcomes, with each additional year reducing infant and child mortality by 0.8 to 0.9 per 1,000 births. The impact of time is thus larger than that of per capita GDP, a fact observed in many countries and probably due to progress in medicines and care.
- The impact of per capita health expenditures is, by contrast, rather weak. While spending has a positive and statistically significant impact when per capita GDP is not included in the specification, this impact vanishes when controlling for GDP.
- The other three variables, namely the adult literacy rate, the rate of access to public hospitals, and the rate of access to potable water, all lack statistical significance. This is not especially surprising, although in countries with lower rates of adult literacy, there is empirical evidence that improvements in literacy generate better health outcomes. This may not be the case in Argentina, however, since literacy rates are high—above 95%.

Given that we use three models to test for the robustness of our results to the assumptions used for the models, we have three different estimates of efficiency, but these do not change very much from one model to the next. As shown in Table 4-6, efficiency in reaching better health outcomes for infant and child mortality in Santa Fe is fairly high, and in fact higher than the efficiency measures observed in other provinces. The fact that all efficiency measures are high should not be surprising given the way the measures must be interpreted. For example, in the preferred specification of Model I for 1999, an efficiency measure of 99.81 in Santa Fe (15.21 per 1,000) means that under

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TABLE 4-6: EFFICIENCY MEASURES FOR HEALTH OUTCOMES (1995–1999)

	Provincial average	Santa Fe
Infant mortality, Model I†	99.438	99.810
Infant mortality, Model II†	99.451	99.912
Infant mortality, Model III†	99.412	99.755
Infant mortality: Age under 5, Model I†	99.395	99.850
Infant mortality: Age under 5, Model II†	99.367	99.911
Infant mortality: Age under 5, Model III†	99.397	99.853

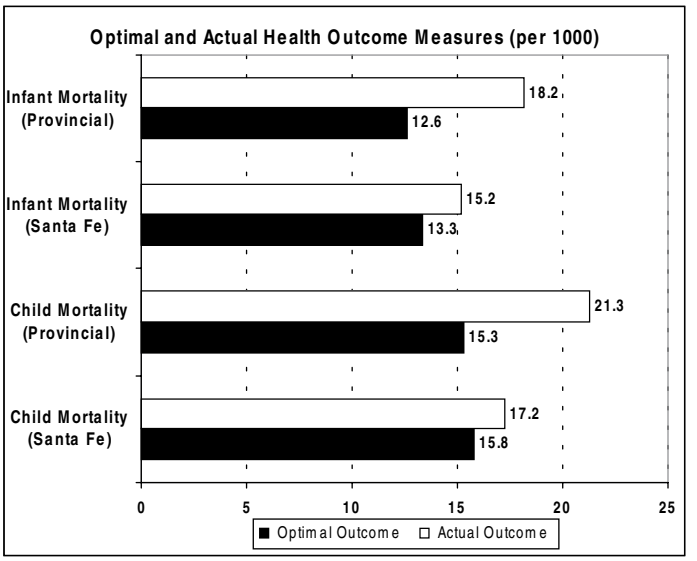
Source: Jayasuriya and Wodon (2003). †non-mortality are rates used in the estimation.

better efficiency, infant mortality could be improved by up to 0.19 percentage points (13.33 per 1,000), with the inputs available to the province. This efficiency improvement of 0.19 percentage points would represent a reduction in infant mortality of 12.4 percent, which is substantial (in real terms: 1.88 per 1,000). In other provinces, the reduction in infant and child mortality from an improvement in efficiency could be larger in absolute terms, since the efficiency measures are lower.

Using the estimates of efficiency obtained in Table 4-6, Figure 4-8 compares the actual infant and child mortality outcomes (latest data point available) to the outcomes that could be reached under perfect efficiency for Santa Fe and for all provinces on average. The figure suggests that the scope of efficiency gains for Santa Fe is smaller than for the provincial average, because efficiency is higher.

In summary, the province of Santa Fe performs relatively well in terms of efficiency measures in both education and health when compared to other Argentine provinces. The main exception is secondary school enrolments where it is considerably below the average. The efficiency findings also suggest that while Santa Fe is currently doing well, there are opportunities for improving out-

FIGURE 4-8: OPTIMAL AND ACTUAL HEALTH OUTCOME MEASURES



Source: Authors' estimation from Table 6.

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comes with no increase in expenditures. These findings are useful to consider in the context of the current crisis, where incomes have fallen and public expenditures have been cut. It may be the case that social indicators can be maintained even during the crisis since many of the factors influencing them, such as literacy rates in education, are not subject to such drastic shifts.

The empirical results presented here also suggest that general increases in public spending on health in the past have not had large impacts on infant and child mortality rates. In education, the evidence is even more stark with no significantly statistical relationship between public spending on the sector and education outcomes. This doesn't mean, however, that government policies and programs are incapable of improving results in health and education. For example, in 2000 five percent of infant deaths were related to respiratory conditions or problems and six percent were related to intestinal or parasite infections, both of which can be dealt with using appropriate and targeted interventions if detected in time. Over half of infant deaths—54%—were related to problems occurring in the first 28 days of life and many of these problems are also treatable if detected in time, but they may require costly interventions or advanced diagnostic capabilities and thus may be difficult to address in many communities. It may also be the case that indicators of social well-being, such as infant mortality, are sensitive to public expenditures when they fall below a given minimum level, which could be reached during the crisis. This can motivate attention to issues such as service delivery and performance monitoring and evaluation techniques which are discussed next.

Strengthening Service Delivery

What are the steps that can be taken so that Santa Fe, and Argentina, can accelerate progress toward reaching development targets, including the MDGs? In education, as well as in health, the public sector is the primary service provider, especially for low-income families who have limited or no access to private institutions. Unfortunately, as discussed in the previous section, empirical studies often find little relationship between public spending on social sectors and indicators of social well-being. One of the reasons for this disconnect may be failures in the delivery of public services. This section identifies weaknesses in public service delivery in Argentina and suggests ways that it could be strengthened.

Before proceeding it is important to note that many factors affect indicators such as infant or maternal mortality and they aren't all in the health sector. The same is true for education outcomes such as learning basic concepts or primary completion rates—and not all of these have to do with education services. In health, for example, education of the mother and access to clean water can have a powerful effect on the health of newborns. Similarly, the health of a child, including adequate nutrition, affects his or her ability to learn as can access to infrastructure, such as roads, which facilitate attendance at school. So not only must service delivery be improved in health and education, but linkages between these sectors and others, such as agriculture and infrastructure, must be better understood and addressed so that maximum results are achieved.

In the 1990s service delivery in Argentina went through a significant reform process, especially in education. Provinces took over management of all primary and secondary schools and financial resources were partially redistributed from the national to the provincial governments to cover these costs. One of the objectives of this reform process was to strengthen accountability at the local level as well as increase the autonomy afforded to service providers. Unfortunately, in 2002, public services in Argentina continue to perform below expectations. This section identifies some of the most important challenges facing service delivery in Argentina with a focus on improving results in the health and education sectors.

1) **Corruption.** Argentina is perceived to have widespread corruption in its public sector. The international watchdog group, Transparency International, ranked Argentina as 57th out of 91 countries on which they reported in 2001. Argentina had a score of 3.5 on the Corruption Perceptions Index used by the group, lower than Panama, Colombia, Mexico and

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Brazil in Latin America and below Egypt, Turkey and many Eastern European nations.[16] Argentina's poor performance is even more evident when evaluated against income. That is, Argentina performed significantly below average on corruption measures for a country of its income level (Kaufman et al., 1999).

The perceived high level of corruption distorts incentives in many ways, including in addition to the obvious misuse of public resources, reducing citizen trust, interest and participation in government operations and services and contributing to poor morale and low expectations among government workers.

2) **Lack of performance incentives in the public sector.** In most instances, public employees are not subject to a professional performance evaluations. Bad performance may only slightly affect a career path and good performance may not be rewarded. For example, in the education sector, performance evaluations rated 80 percent of teachers as "excellent", with no substantive basis for such reviews (World Bank, 2001).

The strong political power enjoyed by unions, especially teachers unions, has contributed to a situation where performance evaluations are not taken seriously. It is difficult to fire teachers or to transfer them between schools once they have attained seniority. Without political support to confront the unions, the information on performance seems useless and yet without a credible accounting of poor performance or other abuses, it is difficult to muster the political will to take action.

This is the situation in Santa Fe, where the lack of timely, accurate and credible information on performance of both students and teachers complicates management of human resources in the Ministry of Education. The vast majority of the budget for the Ministry of Education is dedicated to personnel expenditures. If one takes only personnel directly employed by the Ministry, the figure was 72% in 2000, but if subsidies to private education which support teacher salaries are included, the figure jumps to over 90% (Morduchowizc and Iglesias, 2001). This is a very high level of personnel vs. other expenditures in an educational system (a reasonable norm is closer to 70%) and is indicative of the power exercised by the teachers' union in Santa Fe.

Labor contracts for teachers in Santa Fe make it difficult to efficiently manage human resources, especially in moments of change, such as the province is currently facing with implementation of the national reform program. It is extremely difficult to fire teachers, or even move them between schools once they have seniority. The system does include performance evaluation procedures but these are not being applied in a credible and uniform manner and the information they produce is not being used to inform decisions. As will be discussed later in this chapter, the Ministry of Education is currently upgrading its information systems so that it will have the data necessary to better manage human resources and monitor learning outcomes.

In some instances privatization can provide incentives for improved performance and directly lead to better outcomes. Recent empirical evidence by Galiani, Gertler and Schargrodsky (2002) indicates that the privatization of water concessions in Argentina in the 1990s significantly reduced child deaths and that the effect was greatest in the poorest areas. Overall, child mortality fell by 5 to 7% in areas which had water services privatized and in the poorest municipalities the reduction was an astounding 24%. The authors estimate that on a yearly basis, the lives of 375 young children were spared due to access to clean water. The main avenue by which the privatizations reduced mortality was by increasing access to clean water. Since higher income households in Argentina were already connected to the water system, private service providers had incentives to increase access to lower-income communities which were previously unconnected. Lack of investments by

16. From the June 27, 2001 press release of Transparency International, found at http://www.transparency.org

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the public utility in the decade prior to privatization had meant that service did not keep pace with development, especially in the marginal suburbs of urban centers. The authors found that privatization of water concessions had a significant impact on deaths from water-born illnesses but not on other possible causes of mortality, such as accidents, pointing to the importance of the privatization of water on health outcomes.

3) **Limited autonomy and citizen participation at the service provider level.** At the level where services are provided—in the hospital, health clinic or school—those ostensibly in charge often find they have little room for decision. Budgets and staff are fixed and cannot easily be shifted, programs are designed by Ministry officials in the provincial or national capital, medicines or textbooks are provided centrally. In terms of participation, the poor who most need public services, also have the most difficult time making their concerns heard. Government services are still not perceived as responsive to the concerns of citizens nor are there adequate mechanisms in place to report problems of poor service or corruption.

   A recent study on the education sector in Argentina, "Autonomy, Participation, and Learning in Argentine Schools," by Eskeland and Filmer (2002), documents the importance of these factors for improving education outcomes. The authors use a cross-sectional data set of academic performance in mathematics and language from the 6th and 7th grades to test whether the autonomy enjoyed by school administrators and the participation of parents in the school affect learning outcomes. They find evidence that both autonomy and participation strengthen education results.

   In Santa Fe, an innovative program designed to address the demand-side of the equation for secondary education and increase participation has had notable success. In rural areas, an innovative program of self-paced learning seems to have successfully addressed the problems posed by the extension of primary education through the 9th grade. Students who complete the 7th grade in rural schools in Santa Fe can continue their education through the 9th grade using a specially designed auto-didactic curriculum. Students still attend their primary school, and can seek limited help from teachers of the lower classes, as well as receive instruction on a weekly basis from specialized teachers in math, language, science and other subjects who travel between rural schools. This program has a lower than average per-pupil cost, students have lower repetition rates than average and performance in the polimodal curriculum or high school, if they continue, has been strong. This program is seen to address the demand-side concerns of students and their parents, who would like the opportunity to continue their education but who do not want to leave their rural home to study in towns or cities at a relatively young age.

   While of a different sort, another type of participation concerns the interaction between provincial and national policy makers, through the National Committee for Health and National Committee for Education (Consejos Federales de Salud y de Educación). Researchers evaluating the institutional capacity in Argentina for reform in these two sectors found that the extensive use of this consultative body in education, composed of provincial and national sector ministers and other experts, was a key element in the successes enjoyed in the education reform project. By the same token, the fact that the similar body in health was not engaged in health reform plans reduced the effective implementation of the health reform project (World Bank, 2001).

Towards a Performance Measurement and Management System

One of the ways to address the service delivery issues discussed above is through performance-based monitoring and evaluation (M&E) systems. Focusing on measurable indicators of government performance and related outcomes can become an important factor in achieving goals related to economic growth and social development. Documenting results not only provides valuable information for public sector management, it also enables governments to more effectively communicate with their citizens and demonstrate the impact of policies and programs. Transparent

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reporting on performance and results can encourage participation of citizens in programs, so that they can contribute to—and exert pressure toward—improving the delivery of public services.

As discussed elsewhere in this volume, a performance-based M&E system involves a series of steps to become fully operational. The system must be aligned and coordinated from one level of government and decision-making to another so that data collected at one step in the process is demanded and used for setting resource allocations and priorities on down (or up) the line. In Santa Fe, there are many instances where greater alignment and coordination could be enhanced. For example, strategic planning in the provincial government of Santa Fe is not a central function. Rather, each ministry is responsible for elaborating a strategy for their sector. These plans are developed between September and December for the following calendar year but are only officially presented as a group by the Governor to the Legislature in May—half-way into the year which they cover. There is also no clear linkage between the strategic plans and budget allocations. In fact, since Governor Reutemann returned to the executive office in 1999, the budget allocations for the different ministries have changed little from year to year. This has been because of the economic recession facing the country and province which has limited revenues, the conservative fiscal policies followed by the Governor and his Treasury Ministry, and the high fixed costs (for salaries or infrastructure) in many ministries which make year to year budget shifts difficult.

The impact of the current crisis is to further weaken attention to planning as policy makers focus on addressing the immediate impact of budget shortfalls and increased demand for services in their specific areas of work. This has been particularly true in the Ministry of Health, which has experienced a sharp increase in demand for services combined with rapid increases in the cost of basic inputs, such as medicines. By comparison, the Ministry of Education has not felt as directly the impact of the crisis since demand for services is more constant and there are relatively few imported inputs.

It is also worth noting that there is no alignment between the reporting units used by health, education and other ministries. For example, the Ministry of Health has organized the province into eight sections whereas the Ministry of Education divides the province into nine units. In neither case do these units, which are the basis for statistical reporting on performance in the sector, correspond to political lines such as departments or municipalities. It is thus difficult for elected representatives to clearly identify the performance of health or education in their constituencies, since the statistics are based on ministerial divisions of the province, not politically recognized units. The lack of harmony between the different types of data collected hampers the effective use of information systems while the lack of articulation between data, the budget process, the allocation of resources and decisions hampers efforts for improved governance.

While the crisis has increased the challenges facing the health and education ministries in Santa Fe, it may also provide an opportunity for change as the government tries to maintain services and improve performance with fewer resources. Although the current crisis atmosphere is having a paralyzing effect in many government offices, the overall performance history of Santa Fe suggests that this could be shifted to problem-solving if provided the right incentives. There are innovative pilot programs within the health and education ministries which could serve as early models for a possible results-based M&E system that is well-grounded within institutional capabilities. Thus, when the province is ready to move towards a results focus, it will be able to draw on these experiences and potentially begin the phasing in of management changes. These pilot programs include:

- The Ministry of Education is focusing on building institutional capabilities for data management through PRODISE, which is expected to provide tools and data management hardware capabilities including generation of baseline data and setting of quantitative targets. Another program, SIGAE (School Management and Administration System) is to generate information that can be used for management and strategy design purposes, such as designing strategies to improve quality of education. Lessons learned from these programs can provide critical elements for a results-based M&E system.

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- The goals of health reform in the province of Santa Fe are to increase primary health care services, improve the management in the hospitals, and establish a policy framework for the regulation of the public-private components of the health sector. To achieve these goals, the Ministry of Health is engaged in two results-oriented initiatives. Both of these pilots in the Ministry of Health (MOH) can be used as models for wider sector results-based monitoring and evaluation.
  1) The *indigent insurance* scheme incorporates incentives for providers who receive financial compensation for increasing coverage above and beyond the mandatory level. This may include services such as prenatal care, prenatal screening, TB control, youth and child development, family planning and cancer prevention in women and others (including domestic violence, alcoholism, leprosy (16–20 new cases per year) and teen pregnancy). The baseline for the pilot insurance program was conducted in August–December of 2001 and there is a system in place that collects data on services performed. Periodically program managers look at outcome indicators such as delivery outcomes or infant growth and development. While far from perfect–for example, the budget is not linked with service areas–the indigent insurance program encourages managing towards results and may be able to provide a "quick win" opportunity for testing a results-based monitoring and evaluation system.
  2) *Hospital management contracts* represent another promising initiative. These are renewable six-month contracts, which make the MOH and the hospitals partners in improving the management of the hospitals. As much as 70 percent of the MOH budget in Santa Fe is devoted to hospital operations, and 90 percent of health providers work in curative care. With the increased demand for services and falling real budgets, the MOH had to find a strategy that would energize hospitals into becoming more effective and efficient while at the same time increasing the quality of their services. This reform is focusing not on what services are provided, but on how those services are being provided, including their costs.

Conclusion

This country study reviewed Argentina's progress toward the Millennium Development Goals and the relevance of these goals in a middle-income country currently beset by a severe economic crisis. The study also analyzed the factors influencing some of the key MDGs, such as infant mortality and school enrolments and the efficiency of provincial governments–Santa Fe in particular—in achieving the outcomes. These findings suggested that total expenditures on health or education are not the primary drivers in outcomes and that efficiency improvements would contribute to improved outcomes. The final section reviewed improvements in service delivery and performance monitoring and evaluation as ways to accelerate progress on the goals, even in the context of shrinking budgets. The main conclusions from this work are as follows:

1. The Millennium Development Goals are relevant for Argentina and have significant overlap with already established national and provincial goals and targets. This is particularly true with respect to the health sector, where both national and provincial goals for Santa Fe were developed with reference to UN conference objectives. In education, there is less overlap between national and global goals, but emphasis on primary school completion and achievement is seen as an important issue to be addressed, if not primary school enrolment, which is quite high by most measures.
2. Argentina made solid progress toward the goals between 1990 and 2000, a time of relative prosperity and reductions in poverty. For many of the goals, however, the rates of progress in the 1990s are not sufficient to meet the MDG targets by 2015. Further, the severe crisis besetting the country since 2001 has greatly worsened some indicators, such as the poverty rate, calling into question the country's ability to maintain previous achievements, much less accelerate progress in the short or medium term.

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3. Analysis of the factors affecting outcomes in health and education, using provincial level data, suggest that income levels have a relatively small effect on indicators such as infant mortality and school enrolments. Data on public expenditures shows no relationship to health and education outcomes. These findings suggest the importance of identifying specific, targeted approaches to improving indicators.
4. Two approaches are identified for strengthening Argentina's ability to meet the Millennium Development Goals–improvements in service delivery and adoption of performance monitoring and evaluation techniques. An example of service delivery assisting in the achievement of the MDGs is the privatization of water concessions in Argentina in the 1990s, which improved access to clean water and reduced infant deaths by 5 to 7% in communities which benefited from these private concessions. In terms of performance M&E, Argentina has yet to adopt these techniques across government, although performance contracts, for example with public hospitals in Santa Fe, are beginning to be introduced. While the current crisis atmosphere is not conducive to long-term planning and widespread introduction of M&E techniques, there are clearly opportunities to enhance efficiency—which are vitally important in times of budget cuts—and which may contribute to greater attention to empirically based policy reviews that could lay the basis for future adoption of performance M&E.

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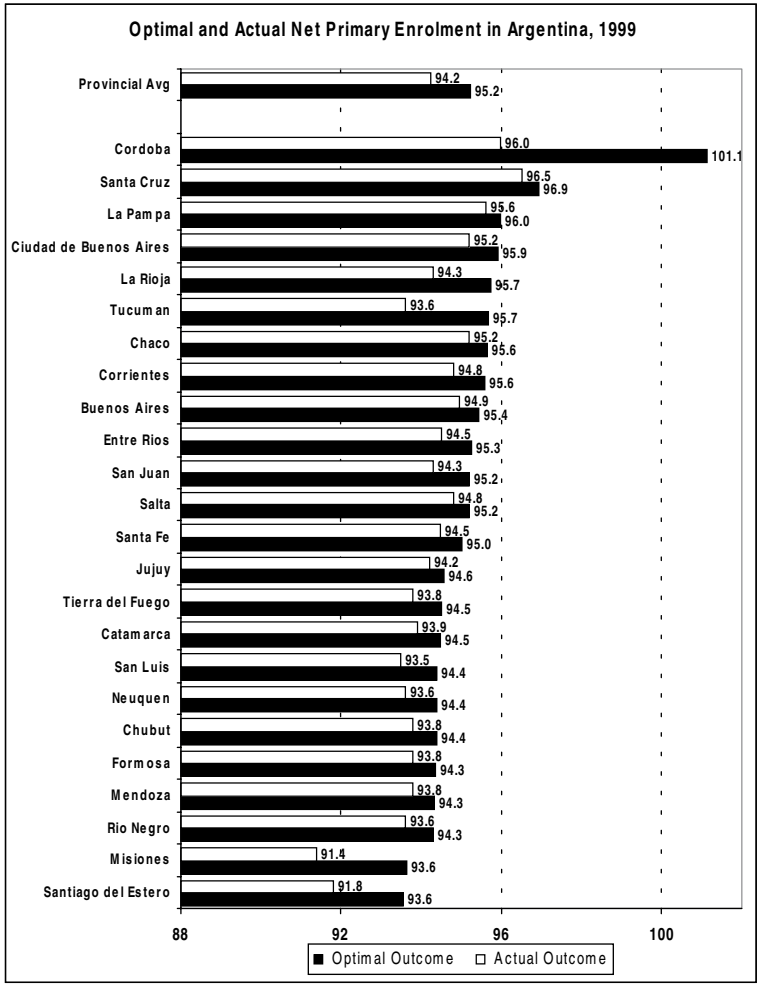
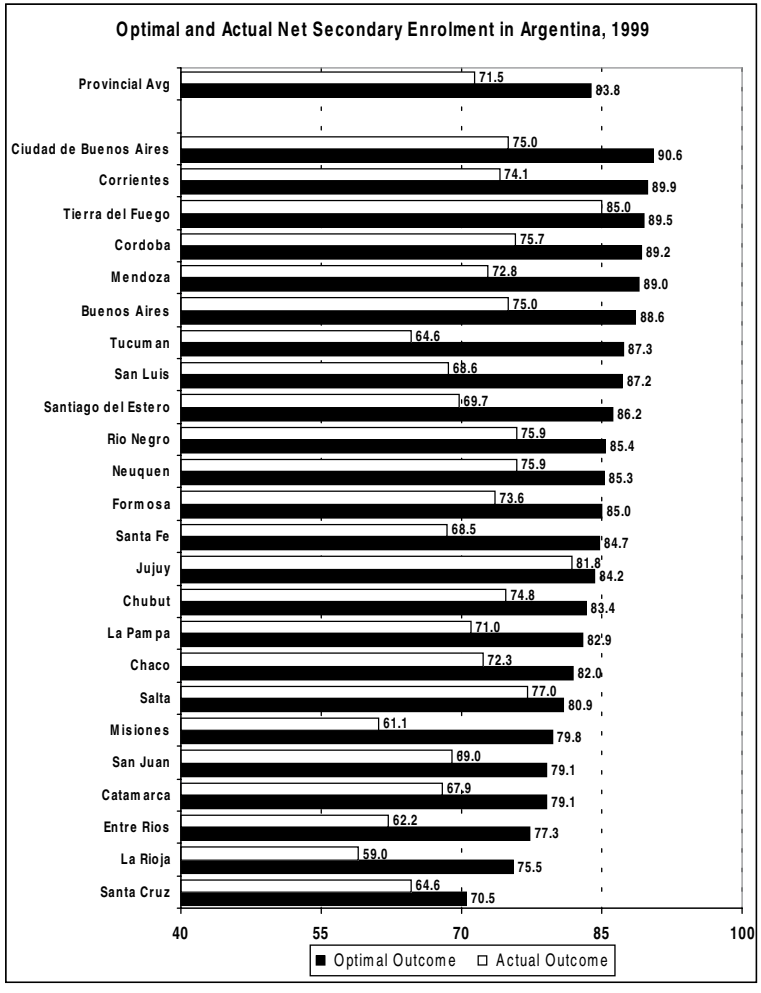
APPENDIX FIGURE A4-1: OPTIMAL AND ACTUAL ENROLMENT OUTCOME MEASURES BY PROVINCE IN ARGENTINA, 1999





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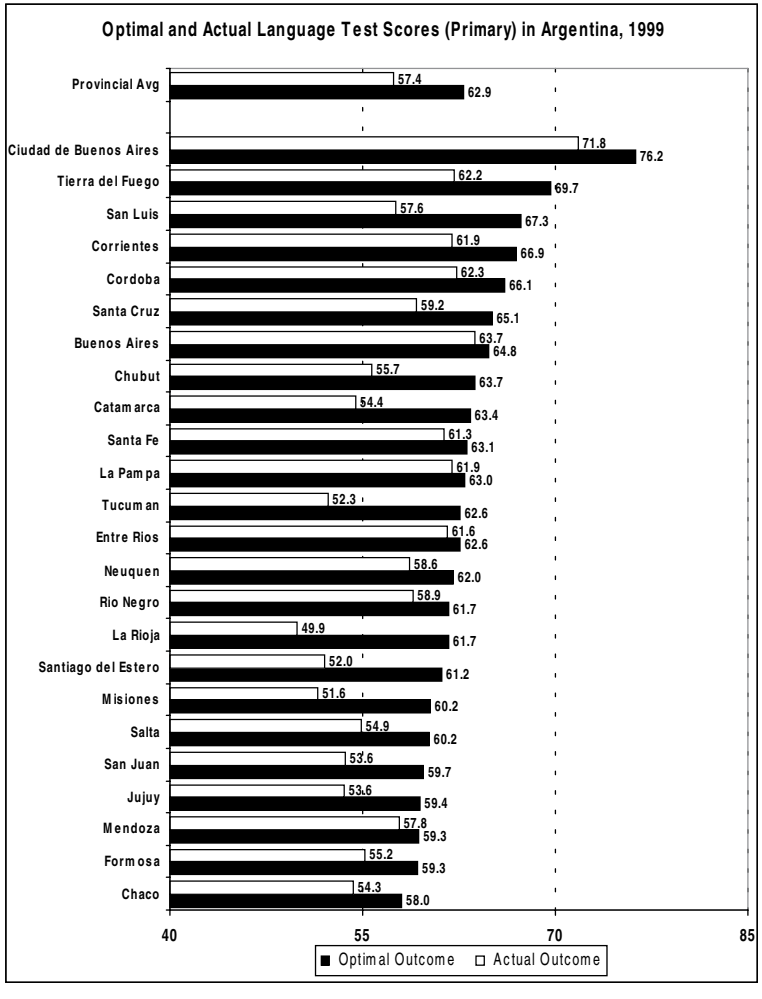
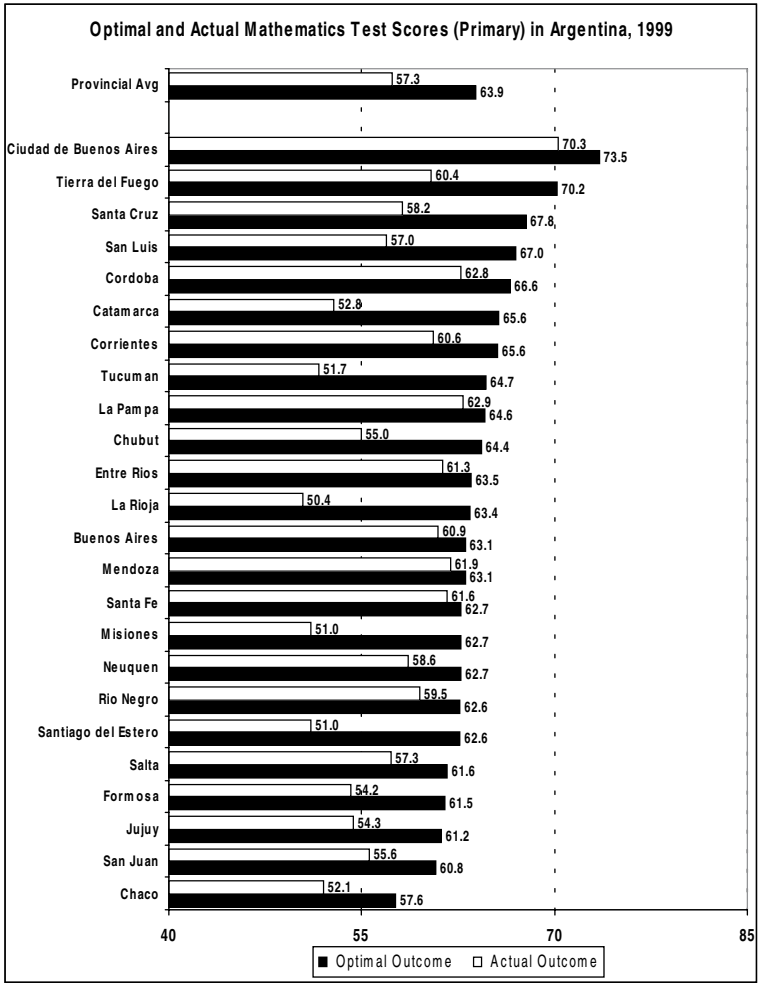
APPENDIX FIGURE A4-2: OPTIMAL AND ACTUAL TEST SCORE MEASURES (PRIMARY) BY PROVINCE IN ARGENTINA, 1999





Source: Authors.

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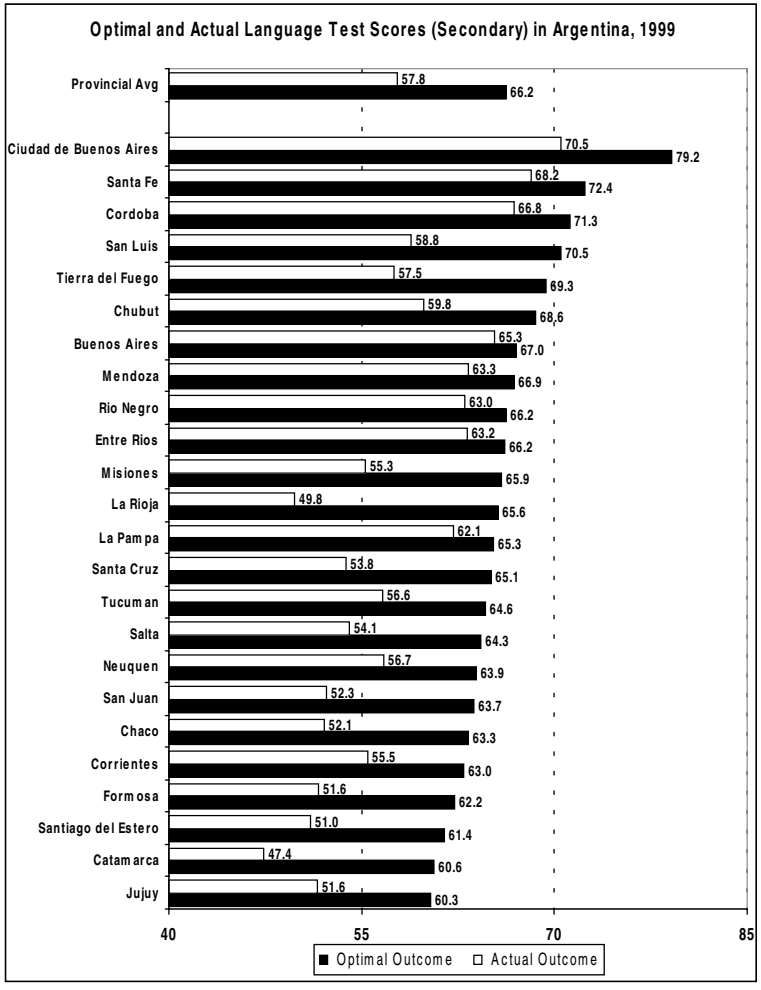
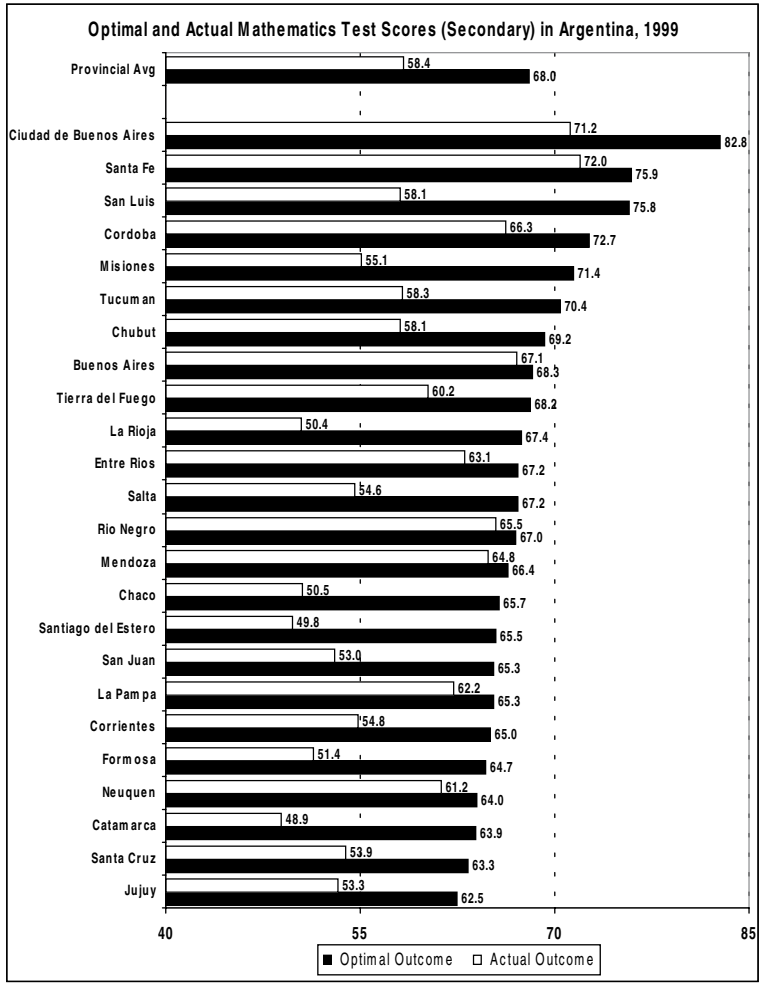
APPENDIX FIGURE A4-3: OPTIMAL AND ACTUAL TEST SCORE MEASURES (SECONDARY) BY PROVINCE IN ARGENTINA, 1999





Source: Authors.

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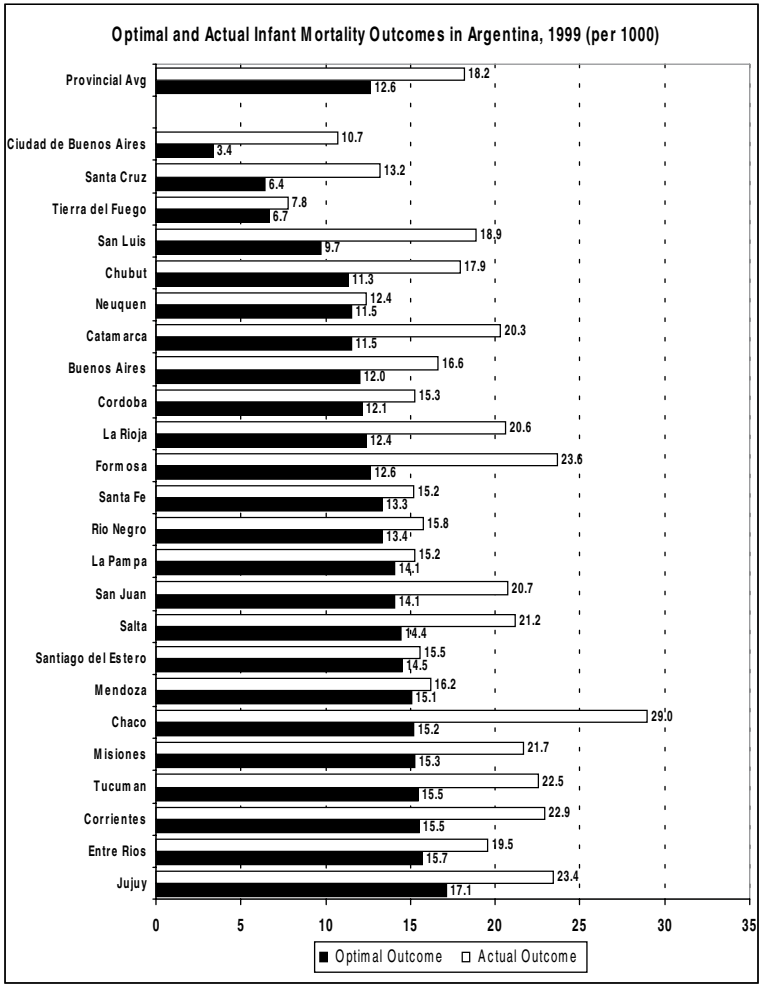
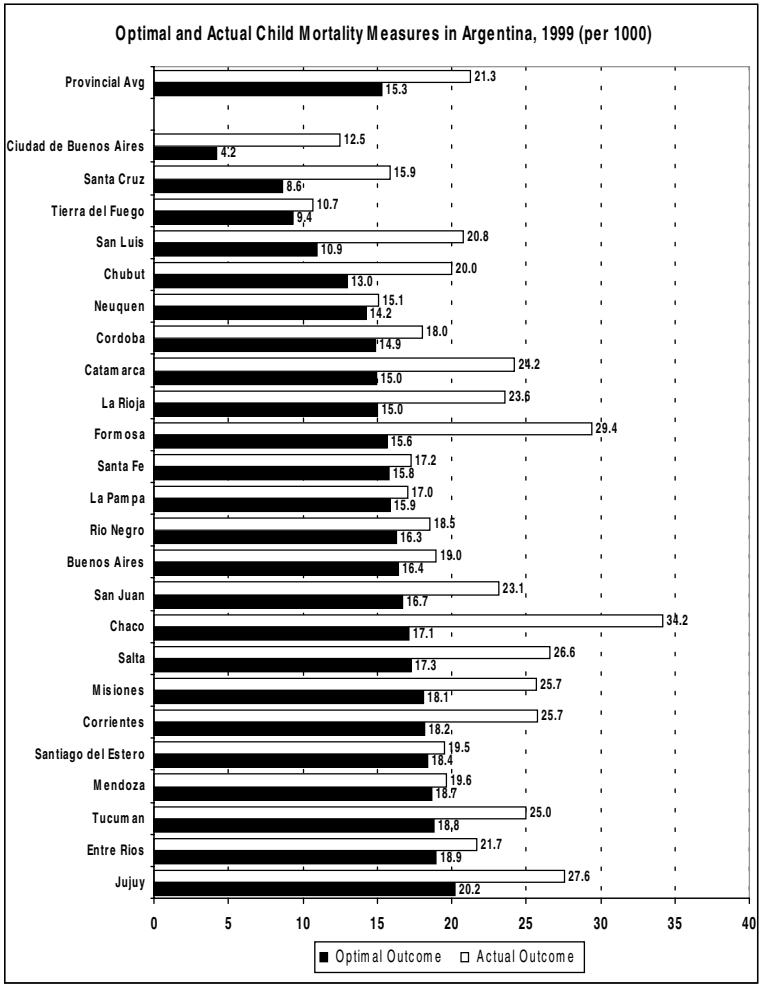
APPENDIX FIGURE A4-4: OPTIMAL AND ACTUAL HEALTH OUTCOME MEASURES BY PROVINCE IN ARGENTINA, 1999





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