Background

The maternal and child health situation in Argentina is critical. While Argentina is the Latin American country with the largest health expenditure per capita (US$800/year) the infant mortality rate is relatively high (about 20 per 1,000). The infant mortality rate in Argentina is higher than in many other countries in the region which spend much less on health (e.g. Chile, Cuba, Costa Rica, and Uruguay). Uruguay, Chile and Costa Rica also exhibit a higher life expectancy at birth. Argentina also has high maternal mortality rate (44 per 100,000 in 1995) which is above the maternal mortality rates in Chile, Uruguay and Cuba. The discouraging results on the above two health status indicators are the result of deficient preventive and curative care, which leads to lower life expectancy. We will now discuss certain inequities in the economic and health systems which have a negative impact on the above mentioned health status indicators that affect the health and quality of life of vast sectors of the population in Argentina.

Economic aspects

During the decade following the hyperinflation crisis of 1989, Argentina was subject to a process of privatization and structural adjustment. As a result, inflation was controlled and the Gross Domestic Product (GDP) rose until the crisis in 1995 (Table I). However, during this period, foreign debt and the rate of unemployment soared (Table II) and the GDP distribution was modified, resulting in a concentration of wealth and an increase in poverty (Table II) (CEPAL, 1996a; CEPAL, 1996b; INDEC, 1999).

During the 1990s, foreign direct investment in new industries and services was low, but it focused on the acquisition of public and private assets and in financial speculation. Technology was upgraded partially in certain industrial sectors, and, the opening of the economy without the creation of new industries, led to dramatic levels of unemployment. In addition, the average salary dropped for most of the work force. Recent studies show that, as a result of this economic policy, more than half of the children living in the most densely industrialized and populated area of Buenos Aires (1.3 million) were poor ($51-148 $/month/child). In the last 10 years the rate of unemployment experienced a four-fold increase and the average income of poor households is $256/month ($1=US$1) (INDEC, 1999).

The toughest aspect of inequity: The diferent chances to survive the first year of life

In the last decade the infant mortality rate (IMR) in Argentina slowly dropped, albeit with periods of stagnation in some provinces (Table III) (Direccion de Estadisticas Vitales, 1997). The national level IMR fails to show the deep differences by poverty level among provinces and among areas. Table IV shows that some provinces in the North, which are the poorest areas in the country, have really high rates of IMR plus a pattern of stagnation during the period analyzed (Direccion de Estadisticas Vitales, 1997). In the previous Table some provinces have been omitted for the sake of clarity, but care has been taken to reflect all the different behaviours of the IMR. In some provinces with higher population (Santa Fe and Mendoza) there is a steady reduction of the IMR, but in other provinces which have almost one third of all births (Buenos Aires and Cordoba), the IMR is practically stagnant. In the remaining provinces (provinces in the south and the center) there are fewer births and there is a general tendency towards reduction of IMR.

There are several poor jurisdictions with IMR 30% higher than the national average and this can be correlated to poverty and the low educational background. Maternal mortality rate behaves in a similar way, with rates proportionally higher in the provinces of the North: Chaco (16.6 per 10,000), Formosa (17.2 per 10,000), Jujuy
IMR linked to poverty indicators and maternal education

The records of deaths and births in children do not include the necessary data to determine the socioeconomic status of the family. Therefore, the mother's occupation can include in the same category very different levels of income. At the same time, the definition of father's occupation is very confusing, and there is no reference to income. Only, insufficient maternal education (illiteracy and primary school not finished) is associated with low social classes. Table V shows the relation between maternal education and the global IMR.

There is obvious difference in the frequency of functional illiteracy - in the provinces in the North illiteracy is much higher than in Capital Federal. The IMR of this group, which represents almost 100,000 births/year is extremely high in comparison to the remaining levels of education. Another possibility is to link the IMR to the UBN (Unsatisfied Basic Needs), which is an indicator of the social status of a family (INDEC, 1995). See Table VI.

A household with UBN possesses one or more of the following: crowding, inadequate housing, children not attending school, or four or more family members with low educational background. The table shows that there is a direct correlation between poverty and IMR - the greater the number of households with UBN, the higher the IMR. Neuquin constitutes an exception. It is the only province with a long established system of primary care operating for the past 30 years. In relation to the number of households with UBN, the IMR in Neuquin is lower than expected.

The last comprehensive survey of UBN households dates back to 1991 and it is likely that the situation nowadays is even worse. Additionally, in Argentina there are geographical areas which are so poor that the IMR can be compared to the IMR in sub-Saharan Africa (for example, the aborigin region of Salta where the IMR is above 200 per 1,000, or Jujuy).

Problems of the primary and preventive care system

In Argentina, the primary and preventive care for mother and child have many problems. While the doctor-to-population ratio is high, the number and training of the nurses is not enough. This is only one aspect of a deeper contradiction: the expenditure on curative medicine, which is somewhat developed, is high and the expenditure on primary care, with its many organizational problems, is low. Neither the State nor health researchers have analyzed the situation in a comprehensive way, even though there are many examples of the inefficiency of the preventive care system for mother and child.

In Argentina more than 90% of births take place in a hospital (public or private), however, the attention women receive during pregnancy is very poor in quality. A study carried out in the Maternidad Sarda (the largest maternity hospital in Capital Federal, with 8,000 births/year) which receives mostly poor people with no social security living in Buenos Aires, showed that between 1988 and 1994 the frequency of prenatal care was very low (Grandi and de Sarasqueta, 1996). See Table VII. Also, the frequency of prenatal control during the first trimester was very low (between 8.4 and 20.6%) from 1988 to 1994. The following table (Table VIII) shows the advanced pregnancy stage at first medical contact, related to the same risks factors (Grandi and de Sarasqueta, 1996).

Both tables (Tables VII and VIII) uncover serious structural problems in prenatal care in general and worse yet in the management of certain perinatal conditions. This tendency persisted during the period covered by the study and it creates a context in which the pregnant woman has no access to public hospitals to receive obstetric care. The lack of access undoubtedly affects perinatal morbidity and mortality.
Certain researches have proven that the impoverished population, without social security, not only gets poor quality care but also they have cases of preventable diseases such as syphilis, AIDS, severe anemia, chronic vulvovaginitis, etc.

When analyzing (see Table IX) the lower respiratory tract infections (LRTI), one of the most frequent causes of mortality in breastfed infants, serious inefficiencies in curative and preventive care are detected (de Sarasqueta et al., 1993).

Patients who either died of or recovered from LRTIs had received poor quality care. This did not take into account neither the risk factors nor the severity of the case, thus leading to worsening of the condition. The system addresses isolated episodes of LRTI without following up on the patient. This is connected to the fact that, as regards primary care, only 10% of this population group sees a Family Doctor and most of the visits are due to illness. In such curative visits, there is neglect of preventive care issues such as vaccination and growth and development control.

**Prevention of infant mortality**

The next table shows the reduction in U5MR in some Latin American countries in comparison to Argentina. Between 1960 and 1997, 16 countries have reduced the U5MR more than Argentina. Argentina ranks almost at the bottom of the list (Gonzalez and Tobar, 1997). See Table X.

The IMR in Argentina is double the lowest corresponding rates in Latin America and is three times higher than the lowest rates of IMR in the world. This means that 8,000 children die each year due to causes than could be easily prevented with low and medium complexity preventive and curative techniques (TABLE XI). This holds true particularly for the low social classes, and it shows once more the inequity of the health system (Direccion de Estadisticas Vitales, 1997).

**Inefficient and unequal health expenditure in Argentina**

Today it is impossible to separate the expenditure in maternal and child health from the total health expenditure because they are not differentiated in the social accounting and the health budget. Besides, the national and provincial expenditures frequently overlap and many budget lines have been approved but not put into practice. Therefore we will analyze the health expenditure in Argentina under the hypothesis that the inefficiency and inequity found are also applicable to maternal and child health. Table XII shows the population covered by the health system (Gonzalez and Tobar, 1997).

It is evident that almost half of the population does not have social security. For the most part they are poor people who only have access to the public health system, which also assists many people who have social security, through covenants or simply because of system inefficiency. The distribution of the population with social security is uneven with the percentage being lower in the poorer provinces (for example: Total country:46%, Chaco 33.7%, Formosa 29.2 %, Santiago del Estero 23.5%, and Tucuman 28.5%). In addition, social security expenditure as a percentage of the GDP dropped between 1985 and 1995 due to the economic adjustment and the increase of unemployment. The unequal health expenditure analyzed by social class can be seen in Table XIII (Gonzalez and Tobar, 1997).

The spending of the higher social classes is seven to ten times more than then 93% of the population under social security and the people without social security (Gonzalez and Tobar, 1997). The State's share in the public expenditure is low (618 millions) and the provincial expenditure has been reduced because of the economic crisis and financing problems. Besides, only 20% of the public expenditure (976 million) goes to prevention programs, showing once again the deficit in primary care (Gonzalez and Tobar, 1997).
The social security funds have also been reduced by the increase in unemployment and the drop in private contributions which affects the joint funds and increases debts and problems in financing.

As regards the inadequate expenditure distribution. The expenditure on medicines, for instance, accounts for 35% of the total health expenditure, making Argentina the country with the highest expenditure in medicines in Latin America. There are studies that conclude that a significant part of that sum does not have proven therapeutical effectiveness. In addition, administrative and bureaucratic spending is really high, representing 80 to 90% of the total in the public sector. The expenditure on technology and equipment is very high on account of irrational decisions on the part of the State and provinces and surcharges.

Finally, the inequity is reflected in the quality of the service related to expenditure. This is clear in Neonatal Intensive Care (NIC) [Table XIV].

Since the main component of expenditure is the medical staff, it is obvious that the critical newborn will receive unequal treatment. Subsequently, this impacts morbidity and mortality in the poorer population. The following table [Table XV] relates this to maternal education (Abeya, 1995).

**Conclusion**

Argentina is a clear example of deep social and economic inequity, expressed by the IMR, UBN, and GDP per capita. The health expenditure is high but inadequately distributed and the social and organizational scenario worsens the inequity and inefficiency.

Unlike countries with lower IMR in the world, in Argentina abortions are illegal and the employment of certain contraceptive methods, such as the IUD, is on the one hand discouraged by the Church and on the other depends on isolated incentives of Municipalities or hospital authorities. All this because there is no official family planning program. The teaching of planned parenthood to children and adolescents is insufficient which leads to high pregnancy rates among minors (Total Argentina: 15.7%, Capital Federal 7.16%, and Chaco 22.17%) and the high rate of multiparous women (Total Argentina: 24.4%, Capital Federal 8.8%, and Misiones 35.2%) (UNICEF, 1999). Both these rates have noticeable dispersion across the country.

The public sector in urban areas is divided according to the administrative structure (municipal, provincial, or national hospitals). In the public sector the tasks, efforts, staff, and expenditure frequently overlap because there is no joint program and there is no Government control.

Except where there is only one hospital, in large urban areas, there are no obligation for specialized institutions to take care of pregnant women and children without social security living in their area. Therefore, there are delays in their medical assistance far away from their homes (Schwarcz, 1997 and 2000a).

The public sector has no obligation towards certain groups and receives insufficient funds from the State or the provinces. In spite of this, the public sector is forced in some cases to charge the poor for the medical care. A recent study shows that in a periurban area near Buenos Aires, 35% of pregnant women actually paid for prenatal care, but in 75% of the cases the attention received was deficient (Schwarcz et al., 1999).

In Argentina, there are no levels of specialization: proximate hospitals give the same services, such as delivery assistance and neonatal intensive care, with different results, but most patients without social security are not timely and systematically referred to more specialized institutions in the case of high risk pregnancies or children with critical conditions (Schwarcz, 1998; Schwarcz et al., 1998; Schwarcz and Pertino, 1998; Schwarcz, 2000b). In Argentina, there is no national program which has clear goals for the health of mothers and children and that is properly implemented, evaluated, and monitored and with its own stable budget. There are temporary programs, uncoordinated and at times overlapping, directed by officers appointed thanks to political connections. These officers change with each government.
Human resources for the health sector can be represented by an inverted pyramid in which the number of professionals is much higher than the number of technicians and auxiliary staff. There are four doctors per nurse and 5.4 nurses per 1,000 inhabitants (OPS, 1998).

Figures for 1994 indicate that there were 85,000 nurses in Argentina: 1.2% have a university degree, 29.4% have a tertiary level degree, 57.6% are auxiliary nurses and 11.7% have no formal training. There are no official figures, but it is evident that the better trained nurses can be found mostly in the private sector (OPS, 1998). In the public sector there are not enough nurses. The nurses that are there are underpaid, with wages ranging from US$350/month in provincial hospitals to US$600-800/month in hospitals located in Capital Federal. Most of the staff is not professional but auxiliary, and have a second job in private hospitals or institutions pertaining to social security. On account of this, the absenteeism rate in public hospitals is high and there is occupational exhaustion. In the social security sector, the number and wage level of nurses depends on the economic situation of the institution. Thus, in the private sector, wages for nurses can be three times those in public hospitals.

The doctor-to-population ratio in Argentina is high (1:367) but focused largely in the main urban areas (Capital Federal 1:119, Formosa 1:911) (OPS, 1998). Professional training may vary, though increasing numbers of qualified doctors finish their residency in Obstetrics/Gynaecology, Pediatrics and Neonatology each year. The concept of "full time" does not exist in a public hospital, where wages are low but variable. The income doctors working in public hospitals and providing primary care is noticeably lower in the provinces than in Capital Federal. Usually a doctor has three or four jobs (public hospital, social security, private practice, and sometimes in the private sector) providing different levels of quality of assistance according to the institution. Therefore, he faces an ethical dilemma because he is able to offer top quality attention to high class mothers and children but he is unable to give the same level of quality to the lower classes. For instance, the mortality of preterm babies between 1,000 and 1,500 grams can range from less than 5% to 30% according to the hospital, and usually the attending physician is the same in the different hospitals. This situation leads the doctor to choose the private sector, which guarantees the highest quality in medical care and hold most medical congresses in Argentina, and to give up the lower classes and specially primary and preventive care.

In brief, in Argentina, the lower class women, who practically do not receive information on family planning, cannot decide when to get pregnant or terminate a pregnancy, do not have easy access to proper obstetric care (she may even have to pay for it), and she does not know where the delivery will take place in cases that require neonatal intensive care.

As regards the health expenditure, it is evident -

- There is unequal distribution by which the wealthy (<10% of the population) receive much more than the poor (50% of the population)
- The low percentage of population destined to preventive measures, lower than in poorer countries which exhibit better indicators in maternal and child health (Chile, Cuba, and Costa Rica)
- The lack of a well organized and efficient primary care system
- The irrational expenditure on medicines and sophisticated equipment, in response to marketing actions and not necessarily according to real needs and favoring the needs of rich people above that of the poorer population.

The model adopted by Argentina resembles the model of the United States health care system, which strongly emphasises curative medicine and the health care providers' revenue (not only in social security but also in private health insurance), neglecting almost entirely preventive and primary care.

Today, that pressure has increased, and foreign and domestic capitals lobby for deregulation to manage private health insurances of the highest income people within social security, while the role of the State is slowly disappearing. In addition, suppliers of products and intermediaries push for a rise in the expenditure. To counteract this inequity, the State should be in charge of health again and take steps to meet the needs of people,
not the markets. This means giving equal opportunity to all, and establishing a well organized and efficient health system. The State should provide the mother and the child with basic health care, mandatory and free, guaranteed to all people without health coverage. It should include -

- Education on family planning
- Easy access to free contraceptive methods, to exert the right to choose when to have a child
- The coverage of a health program, with the possibility to go to a hospital or health center in which efficient preventive and curative care is provided.

The existing public hospital system must be reorganized according to levels of specialization, from primary care centers to more specialized hospitals. In the provinces or areas lacking proper coverage, a comprehensive study should be undertaken to plan future actions according to epidemiological needs. There is clear evidence that these actions are feasible and efficient. Between 1986 and 1991, with the help of the Kellogg Foundation and the Michigan State University, we developed a primary care program for indigent people, and we were able to control the number of pregnancies, educate people on reproductive health and reduce the number of low birth weight cases. All this in a context of community work that fostered community participation in the health (Schwarcz and de Sarasqueta, 1995).

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