

## **Regional inequalities in health for Italian children.**

*Maurizio Bonati, Rita Campi*  
Laboratory for Mother and Child Health  
“Mario Negri” Research Institute, Milan

Of the 20734 people (36.1% of Italians) living in southern Italy, 7333 (35.4%) are poor, living with less than 521 Euro/month.<sup>1</sup> However, 4642 poor people of the South (63.3%) are living with less than 435 Euro/month, representing a more dramatic figure. With this profile, southern Italy can be considered the European country with the highest density of poverty weighted for national income.<sup>2</sup> Moreover, since poverty, in the new context of developed countries, is related to the number of poor families, it is important to note that two thirds of the 2456 poor Italian families are in the South.<sup>3</sup> The fact that families in southern Italy are more numerous than elsewhere in the country, with a higher poverty rate for families with  $\geq 3$  children or with a head of the family with a low literacy level, must also be taken into consideration.<sup>3</sup> Inequalities within countries, including developed ones, are well known and affect child health particularly.<sup>4,5</sup> Social and economic factors are determinants of child health inequalities and the grave matter of childhood poverty. Thus, for communities and the future public health of countries in general, the monitoring and complex planning of child welfare represent strategic milestones of a society.

In the last few decades, the live birth rate in Italy has decreased by almost one half (from 16.8 in the 1970s to 9.2 in 2001), with a reduction of the “natural change” between births and deaths. However, this trend was less evident in the South compared to the North (17 to 12.5%), where both birth rate and fertility are lower.

Two-thirds of the national infant mortality rate (3.3 per 1000 live births) accounts for neonatal death, in particular for death within the first week of life (early neonatal mortality). Neonatal mortality varies widely between the different regions, with rates four times higher in the South (i.e. Sicily and Basilicata's rates are 5.7) compared to the North (Friuli V.G.'s rate is 1.3).

Although birth weight is one of the recognized factors related to infant mortality, the regional distribution of low and very-low birth weight infants is close to the national averages of 6.0 and 0.8 percent, respectively. However, the risk of early neonatal death for low birth weight infants born, for example, in Sicily or Abruzzo is more than nine times higher than that the risk for newborns in the Aosta Valley (rates of 91.7 and 101.7 vs. 11.4, respectively), suggesting a wide gap in quality of perinatal care (health care structures and quality of health assistance) associated with latitude in Italy.

Hospitalization rates during childhood (age  $\leq 14$  years) are similar between regions (average 151.8 per 1000 inhabitants) with a prevalence for infants, male children, and diseases of the respiratory system. However, more than 22% of hospitalized children of the Basilicata and Molise regions and more than 13% of children from the Calabria and Abruzzo regions migrate to hospitals in Northern or Central Italy, suggesting face to the need a lack of paediatric services both in terms of quality and quantity.

The inequalities concerning Italian children, however, are not only related to health treatment but also to health prevention. The uptake rate for measles by the 2<sup>nd</sup> birthday, for example, ranges from 54.9% in Calabria to 89.6% in Tuscany.<sup>6,7</sup> Italy continues to have the lowest coverage rate for measles among the European countries and a national campaign was set up to increase the coverage to an expected rate of 90-95%.<sup>8</sup>

However, latitude based, social and educational differences have profound effect on the welfare of Italian children. An unbalanced ratio between supply and demand of public social services can be observed in Campania and Sicily, which are both in the South and are the two regions with the highest birth-rate (11.5 and 10.4, respectively) and the lowest national rate of access to nursery school (96 and 91.8).

Both regions with Calabria and Puglia (all in southern Italy) show a rate of primary school abandonment 2.5 times higher than in the Friuli V.G. region (about 24 vs. 9).

The geographical trend is similar to that of the labor force, aged 15-19 years, who does not have a job (the youth unemployment rate ranges from 65.2 and 61.4 for Calabria and Sicily, respectively, to 7.1 for Trentino A.A.). In such a context, characterized by a high rate of school dropout and a low youth employment rate, the risks of living in difficult circumstances (scant educational level, family poverty, illegal work, etc.) for children (and their families) in southern Italy are undeniably higher than those for children from the Northern regions.

Inequalities existing in society raise fundamental questions about actions taken to improve health in an ethical framework where human rights and dignity are also taken into consideration.<sup>9</sup> Inequality is based on the deprivation of rights such as education, work, and access to social services and means loss of human dignity, which is linked to poverty.<sup>10</sup> Wellbeing is not only affected by money and economic status (i.e., global domestic product and income), but also by social and health rights and opportunities. Quality of life matters are fundamental, especially for children, since they are concerns that need to be guaranteed starting from birth for the whole life with the better wellbeing. Child health will always be a priority, not only between, but also within, countries, and not only in developing, but also

in developed, countries until inequalities are overcome. The Italian scenario concerning the future for all children is not encouraging. In a country with an aging population and with an increasing gap between regions, the need for public health programs focusing on promoting, monitoring, and improving child wellbeing should be a recognized challenge and one of the political commitments to provide the needed resources.

### **References**

1. Caritas Italiana, Fondazione E. Zancan. Vuoti a perdere Rapporto 2004 su esclusione sociale e cittadinanza incompiuta. Feltrinelli, Milano, 2004.
2. [http://europa.eu.int/comm/eurostat/newcronos/reference/display.do?screen=detailref&language=en&product=EU\\_strind&root=EU\\_strind/strind/ecobac/eb011](http://europa.eu.int/comm/eurostat/newcronos/reference/display.do?screen=detailref&language=en&product=EU_strind&root=EU_strind/strind/ecobac/eb011). (last update November 12, 2004).
3. ISTAT. La povertà relativa in Italia nel 2003. <http://www.istat.it>
4. UNICEF. Child Poverty in Rich Nations. Florence, Italy: UNICEF, Innocenti Research Centre; 2000.
5. Victora CG, Wagstaff A, Armstrong Schellenberg J, Gwatkin D, Claeson M, Habicht JP. Applying an equity lens to child health and mortality: more of the same is not enough. *Lancet* 2003; 362: 233-41.
6. Ciofi Degli Atti ML, Rota MC, Bella A, Salmaso S; ICONA Study Group. Do changes in policy affect vaccine coverage levels? Results of a national study to evaluate childhood vaccination coverage and reasons for missed vaccination in Italy. *Vaccine* 2004; 22:4351-7.
7. A survey on measles vaccination policies in Italian Regions. *Ann Ig* 2004; 16(3):421-8.
8. Ministero della salute. Campagna straordinaria MRP: <http://www.ministerosalute.it/servizio/campagna.jsp?idarc=9> (last update November 12, 2004).
9. Horton R. Rediscovering human dignity. *Lancet*; 2004; 364: 1081-85.
10. Spencer NJ. Poverty and child health. 2nd ed. Abingdon, United Kingdom: Radcliffe Medical; 2000.