

EDITORIAL**PERINATAL HEALTH INDICATORS.
DIFFERENCES BETWEEN THE INFORMATION RECORDED BY THE NATIONAL
INSTITUTE OF STATISTICS AND BY THE HOSPITALS****Ariadna Ayerza Casas (1,2) and Néstor Herraiz Esteban (3).**

(1) Department of Pediatrics, University Hospital Miguel Servet. Zaragoza. Spain.

(2) Department of Pediatrics, University Hospital Lozano Blesa. Zaragoza. Spain.

(3) Department of Gynecology and Obstetrics. Quiron Hospital. Zaragoza. Spain.

(3) Servicio de Obstetricia y Ginecología. Hospital Quirón. Zaragoza.

The search for objective measures of population health status has been a public health tradition for the last two centuries. Initially, the description and analysis of the health status was focused on mortality and survival rates. Eventually, the need to consider other health status dimensions was recognized, changing from the individual-level characteristic of the most mainstream medicine, to addressing disease control having a wider vision of the concept of health and of population social determinants¹.

The knowledge of health levels, its trends and the distribution of the sanitary situation of the population, as well as its determinants, makes for a scheme of priorities and the assignment of the resources to improve health policy. For this reason, the information for decision-making is focused on the evaluation of the health status and multiple biological, demographic, social and sanitary factors².

Spain has a national system of health indicators that provides a periodic analysis of the

sanitary situation, giving information about the magnitude of a great variety of health problems and its time evolution. This allows managing its trend and geographic distribution². There are different health indicators selected by National and Regional Ministries of Health (Key Indicators of the National Health System³) derived from the application of the program of the World Health Organization Health for All⁴. These indicators are considered a reflection of the current population health in a country, representing the whole sum of economic, educational, nutritional factors and of access to social protection networks⁵. The most commonly used are about morbidity and mortality. Maternal and child health indicators take a special place in addition to indicators about life expectancy, infectious diseases, vaccination, obesity and life habits². Perinatal health group includes indicators that evaluate the most complete picture of the maternal health and perinatal standards concerning the prenatal attention, the childbirth and the maternal and neonatal morbi-mortality, among others.

Correspondence

Ariadna Ayerza Casas

Departamento de Pediatría, Radiología y Medicina Física

Universidad de Zaragoza

aayerzac@hotmail.com

While neonatal mortality rate is commonly related to pregnant women attention quality and neonatal care, the factors that contribute to post-neonatal mortality have more to do with parental socioeconomic status. The birth weight emerges as the most significant and consistent indicator of survival in the first year of life. Thus, infants born at low birth weight (less than 2,500 grams or 5.5 pounds) and especially very low birth weight (less than 1,500 grams or 3.25 pounds) are more likely than infants of normal birth weight to die in the first year of life and to experience long-range physical and developmental health problems⁶.

The majority of the very low birth weight infants are born extremely preterm (<28 weeks of pregnancy), whereas low birth weight infants include a mix of different factors as moderate prematurity (32-37 weeks), intrauterine growth restriction, gestational hypertensive disorders, toxins exposure (tobacco smoke) and, importantly, the inadequate nutritional status and weight gain during pregnancy. Further, it seems that maternal obesity is associated with higher infant weight and lower prevalence of exclusive breastfeeding, all of them nutritional risk factors in the short and long term⁷.

The birth weight documentation in Spain started in 1980, currently through Statistical Bulletin of Childbirth, Births and Abortions². The system of sanitary information of the National Health System⁸ and its Statistical Site⁹ offer public access to the information about trends in health status indicators in Spain and their magnitude in the context of the European Union¹⁰.

It is necessary to emphasize that the mean weight of the Spanish infants has dropped in the last twenty years². Furthermore, the percentage of infants with a weight of 2.500 grams or more decreased in most of the countries of the European Union. In the same way, 8,1 % of the newborn in 2011 had a weight lower than 2.500 grams (2,9 % more than in 1990). Spain is the second-highest

low weight infant percentage country in Europe and its rate keeps rising. In fact, compared to 2004, Spain and Luxembourg have the highest number of low birth weight infants¹¹. This upward trend is supposed to be defined by an increase of premature infants, since the majority presents low birth weight¹². For this reason, it would be advisable to use relative weight indicators including both variables (weight and gestational age). This allows us to categorise infants in small, appropriate or large for gestational age. We need reliable strategies to standardize the clinical practice for the right statistic translation afterwards. The nutritional, socioeconomic and migratory characteristics define population health phenotype as dynamic and changeable. Its idiosyncrasy makes mandatory to know the number of infants considered as small for gestational age (SGA). This clinical condition could change according to the reference growth curve used and would be necessary to use accurate fetal and neonatal graphs adapted for our population. The correct identification of these infants since prenatal stage will provide a better assessment of short and long-term risks as well as an improvement of their outcome¹³.

Spanish Health Information System includes the Statistical Bulletin of Childbirths, processed by the National Statistical Institute (INE). This document collects data about maternal age and socioeconomic status as well as infant weight and gestational age at birth. Nevertheless, the comparison with other European countries official reports reveals the need to pay attention particularly in Spain to the indicators of birth weight and gestational age¹⁴. An indispensable requirement to carry out a proper vigilance of the perinatal and reproductive health it is to have effective and efficient database¹⁵.

The second European perinatal health report questioned the reliability of the information provided of the birth weight and gestational age, due to the high percentage

of absent information and an incoherent relation between the birth weight and gestational age^{1,15}. This fact also is suggested in the study published by Rio et al. in the immigrant population of Catalonia¹⁶. According to this, there are few validation studies that impact to corroborate an improvement in the quality of the available information by this source, in spite of its broader use in Spain¹⁶.

In this respect, it is very interesting the study published in this magazine number¹⁷, in which the degree of conformity is evaluated between the information that the parents contribute to the Statistical Bulletin of Childbirths elaborated by the Spanish National Statistical Institute (INE) and the available information in the maternity hospital where the infant was born, regarding to certain indicators of perinatal health: birth weight and the gestational age. This study was performed with perinatal data of a population larger than 5,000 infants and introduces relative magnitudes, as new element, since the classification of these children in small, appropriate or large for gestational age, could be the best indicator of perinatal health as we remarked before¹³. The study concludes that the INE's data overestimates the prevalence of small for gestational age infants, due to missing data and misreported information. This would be strongly associated with parental socioeconomic characteristics, as concluded in other previous studies^{15,16}. In the light of these results it could be advisable to monitor all the information contributed to the INE, particularly if parents come from certain risk and disadvantaged ethnic groups. It also would be necessary to evaluate the possibility of contributing them directly from the local maternity centres where the births take place, in order to unify the data as well as reducing the mismatching.

Current surveillance data about perinatal health are insufficient to manage the needs of the population in order to implement

healthcare strategies for mother and infants. It is necessary to introduce new perinatal health indicators and on the other hand we should homogenize and acquire external international data to improve quality and make the information reliable. There are some differences among European countries about conceptual definitions and the data collecting networks that make difficult to unify and clarify health indicators. The second European Perinatal Health Report (Euro-Peristat)¹⁵, published in May 2013, leads to a step forwards developing and monitoring a list of new recommended health indicators and integrating information into European statistical systems¹⁸. However, it is necessary to insist on an improvement of the data documentation to give official reports quality for population health research, particularly when comparing perinatal health indicator among different population groups. In the same way, it would be recommendable further investigations to manage quality on official data¹⁶.

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