

# The second European Perinatal Health Report: documenting changes over 6 years in the health of mothers and babies in Europe

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the EURO-PERISTAT Scientific Committee

The second European Perinatal Health Report from the EURO-PERISTAT project was released on May 27 of this year.<sup>1</sup> Thirty indicators, compiled from routine statistics in 29 countries, are analysed and grouped into four main areas: fetal, neonatal and child health, maternal health, characteristics of the populations and healthcare. The report results from a 3-year collaboration between researchers, clinicians and official statisticians in Europe. It also contains data from two other European projects: Surveillance of Cerebral Palsy in Europe (SCPE) and European Surveillance of Congenital Anomalies (EUROCAT).

Common definitions and inclusion criteria make it possible to overcome some of the differences between countries in the recording of births and deaths and improve the comparability of the data presented.<sup>2 3</sup> Both results for the year 2010 and comparisons with the 2004 data published in the first European Perinatal Health Report are included.<sup>3</sup>

Between 2004 and 2010, fetal, neonatal and infant mortality decreased almost everywhere. Denmark, Italy and the Netherlands experienced the largest absolute declines in fetal mortality rates (a reduction of 1.4 per 1000 total births). Absolute declines in neonatal mortality were greatest in countries where rates were higher in 2004 such as some of the Eastern European countries. However, declines were also observed in countries with low rates in 2004 such as Finland and Sweden, showing that further decreases are still possible.

In some cases, these improvements followed public health actions deliberately undertaken at national level. In the Netherlands, the public debate following this country poor ranking in fetal and neonatal mortality with 2000 and 2004 data led to a series of policy efforts, including audits of perinatal deaths in term babies and establishing a national commission on perinatal care.<sup>4</sup> Also, in 2007 prenatal screening for congenital anomalies was implemented nationwide. As a consequence, between 2004 and 2010 fetal mortality at or after 28 weeks of gestation declined from 4.3 to 2.9 per 1000 births, and neonatal mortality at or after 24 weeks declined from 2.8 to 2.2 per 1000 live births, while the country's low caesarean rates were maintained.

Relating improvements in outcomes to changes in distributions of risk factors is more problematic. The prevalence of some risk factors has increased in European countries, while others have become less prevalent. The proportion of mothers aged 35 and older has increased in all countries except Finland, but the negative impact of this change on the health of pregnant women and neonates may have been moderated by better maternal general health and care. Multiple birth rates have also increased, probably as a result of rising maternal age and more widespread use of assisted reproduction techniques. In contrast, smoking during pregnancy declined in almost all countries where data were available.

Trends in the rates of preterm live births vary between European countries (figure 1). Many countries experienced declines in overall rates, as seen in an earlier EURO-PERISTAT analysis of singleton births,<sup>5</sup> while elsewhere rates remained almost constant. Overall, these findings suggest that the much quoted increase in overall preterm birth rates over the past 15 years may now be coming to an end. In some countries, however, preterm birth rates did increase. Understanding the reasons for these diverse trends could help shape effective preventive public health policies.

The changes since 2004 have not eliminated the wide differences in perinatal health outcomes in Europe, however. Fetal mortality rates at or after 28 weeks of gestation still range from under 2.0 per 1000 total births in the Czech Republic and Iceland to 4.0 or more in France, Latvia, the region of Brussels in Belgium and Romania. The countries of the UK also have relatively high fetal mortality rates, 3.8 in England and Wales and 3.6 in Scotland. Neonatal mortality is lower than 2 per 1000 live births in Iceland, Finland and Sweden but over 4 in Malta and over 5 in Romania. Infant mortality ranges from about 2 per 1000 in Iceland and Finland to more than 5 in Malta and Latvia, and reaches 9.8 in Romania. Documenting these differences is important because it raises important questions about differences between populations, the effectiveness of national maternity care policies and the role of evidence in maternity care.

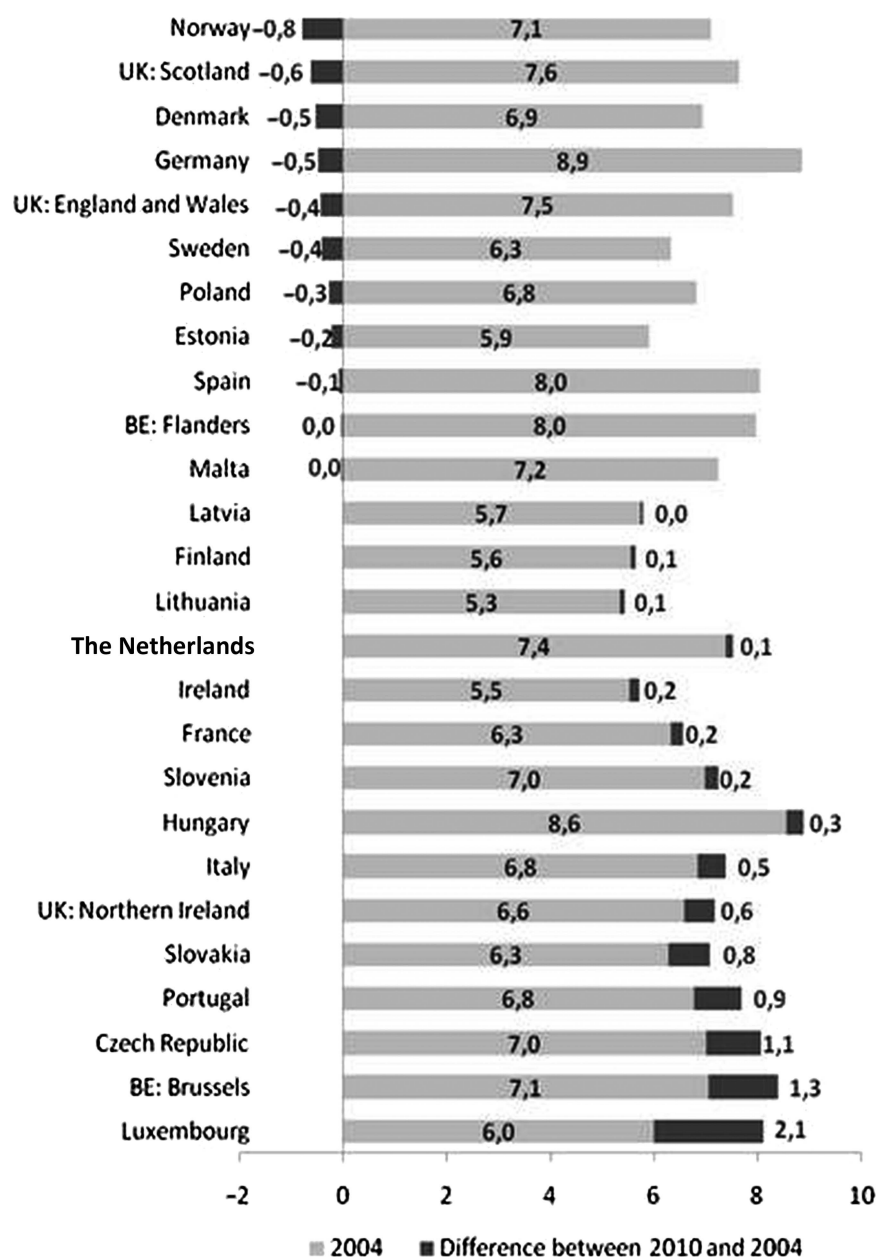
Healthcare indicators continue to reveal marked variations in the approach to childbirth in Europe. Caesarean section rates range from 14.8% in Iceland to 52.2% in Cyprus, instrumental delivery rates range from 0.5% in Romania to 16.4% in Ireland, and episiotomy rates range from under 7% in Denmark and Sweden to over 70% in Cyprus and Portugal. The sizes of the maternity units vary as well: from no births in maternity units with 5000 or more deliveries in the region of Flanders in Belgium and Slovenia to 55.1% in Ireland. There were, however, some common trends: caesarean rates rose in all countries apart from Sweden and Finland where rates declined. Episiotomy rates also tended to decline over this period, although not in countries with already low rates in 2004 such as England, Latvia and Norway.

The EURO-PERISTAT network has now been in place for over 10 years, showing that long-lasting multidisciplinary international collaboration can be achieved. Over the years, the number of participating countries has increased from 15 in 2000 to the current 27 out of 28 European Union (EU) member states plus Norway, Switzerland and Iceland. Data were collected for three different years, 2000, 2004 and 2010 with the first results from the year 2000 having been published as a special issue of the *European Journal of Obstetrics and Gynaecology* in 2003.<sup>6</sup> Thus, time trends in population characteristics and outcomes can now be explored.

Yet to build a truly informative system, further actions are needed to ensure that each country can provide the

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**Figure 1** Percentage of preterm live births in 2004 and difference between 2010 and 2004. NOTES: Countries ranked according to increasing differences between 2010 and 2004. Rate in 2010 can be computed by adding 2004 rate and difference between 2010 and 2004.

full set of EURO-PERISTAT indicators using common definitions and agreed eligibility criteria. For instance, valid comparisons of mortality rates for extremely preterm neonates are still not possible between European countries due to differences in registration criteria for births and in practices for recording late terminations of pregnancy in routine data systems.<sup>2</sup> Agreements about common recording guidelines as well as wider linkage of data from different sources, building on methods already in use in some parts of Europe, could enable fuller use of data already being collected and yield

immediate gains in many countries. The use of individually linked records, anonymised to protect confidentiality, would provide opportunities for a better understanding of the relationship between changes in risk factors, healthcare provided and outcomes.

The biggest question, however, concerns the long-term sustainability of this initiative so far based on national resources, with central funding provided by a series of ad hoc projects under the Health Programme of the European Union. Should perinatal data monitoring be included in the European Statistical

System run by Eurostat? Should the European Centre for Disease Control expand its scope, following the example of its US counterpart, traditionally in charge of monitoring perinatal risk factors and outcomes? Or should a specific programme linking the various perinatal monitoring initiatives be created under the EU Directorate for Health? A solution is urgently needed to sustain long-term routine projects like this and other important European public health initiatives, as this would build on successful experiences and on a considerable amount of expertise and dedicated human resources.

#### Collaborators

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**Contributors** JZ, ADM and MD were editors of the European Perinatal Health Report 2010. JZ and MC produced a first draft of this editorial. ADM and MD carried out analyses of submitted data and provided substantive comments to the manuscript. Members of the EURO-PERISTAT Group contributed to analyses and interpretation of data.

**Funding** The EURO-PERISTAT project is co-financed by the Health Programme of the European Union Directorate General for Health and Consumers which also provides funding for SCPE and EUROCAT (grant number 2003131).

**Competing interests** None.

**Provenance and peer review** Commissioned; internally peer reviewed.

**To cite** Zeitlin J, Mohangoo AD, Delnord M, *et al.* *J Epidemiol Community Health* 2013;**67**:983–985.

Received 22 August 2013

Accepted 26 August 2013

Published Online First 19 September 2013



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*J Epidemiol Community Health* 2013;**67**:983–985.  
doi:10.1136/jech-2013-203291

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*J Epidemiol Community Health* 2013 67: 983-985 originally published online September 19, 2013

doi: 10.1136/jech-2013-203291

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