Better Statistics for Better Health for Mothers and their Babies

Jennifer Zeitlin
Challenges to an optimal start for babies and families

• 40,000 families in Europe experience the loss of a child, either a stillbirth or a neonatal death

• Poor success in prevention means 350,000 preterm births and 75,000 very preterm births every year

• Over half of maternal deaths are associated with sub-standard care; 1-2% of mothers experience severe morbidity

• Some risk factors are increasing: older age at childbirth, multiplicity, overweight and obesity

• Perinatal death and preterm birth more common among poor and socially disadvantaged families
Maternal and newborn health viewed through a European lens

• Similar access to medical knowledge and universal insurance coverage for mothers and babies
• European countries vary enormously in the care and support they provide during pregnancy and to newborn babies
• We can benefit from European success stories and learn from each other through working collaboratively

➢ But to do so, we need to be able to compare health and care between countries
Ignorance in the age of big data

• Data available in each country, but not compiled in international databases
  • Preterm birth
  • Multiple birth rate

• Data not available in every country
  • Smoking during pregnancy
  • Maternal body mass index (obesity)
The EURO-PERISTAT Project

- Aim: to monitor perinatal health in the EU based on valid and reliable routinely collected indicators
- Scope: Maternal, fetal and infant health associated with pregnancy, delivery and the postpartum period

- Co-funded by the Public Health Programme
- InfAct Joint Action
Supported by institutions and experts in 31 countries

Austria  Belgium  Bulgaria  Croatia  Cyprus  Czech Rep.
Denmark  Estonia  Finland  France  Germany  Greece
Hungary  Iceland  Ireland  Italy  Latvia  Lithuania
Luxembourg  Malta  Netherlands  Norway  Poland  Portugal
Romania  Slovakia  Slovenia  Spain  Sweden  Switzerland

www.europeperistat.com
Key principles

- **Valid and comparable** indicators collected using a common protocol and by risk groups
- A limited number of **feasible** indicators
- **Population-based routine** data sources
- **Broad geographic coverage** to promote inclusiveness, equity and diversity
- **Network of specialists** to analyse resulting in >50 publications using Euro-Peristat data
Indicators

- 10 Core
- 20 Recommended

Four categories
- Fetal/neonatal, child health
- Maternal health
- Population characteristics
- Health services

Table 2.1  EURO-PERINATAL indicators (C=core, R=recommended)

**FETAL, NEONATAL, AND CHILD HEALTH**
- C1: Fetal mortality rate by gestational age, birth weight, and plurality
- C2: Neonatal mortality rate by gestational age, birth weight, and plurality
- C3: Infant mortality rate by gestational age, birth weight, and plurality
- C4: Distribution of birth weight by vital status, gestational age, and plurality
- C5: Distribution of gestational age by vital status and plurality
- R1: Prevalence of selected congenital anomalies
- R2: Distribution of Apgar scores at 5 minutes
- R3: Fetal and neonatal deaths due to congenital anomalies
- R4: Prevalence of cerebral palsy

**MATERNAL HEALTH**
- C6: Maternal mortality ratio
- R5: Maternal mortality by cause of death
- R6: Incidence of severe maternal morbidity
- R7: Incidence of tears to the perineum

**POPULATION CHARACTERISTICS/RISK FACTORS**
- C7: Multiple birth rate by number of fetuses
- C8: Distribution of maternal age
- C9: Distribution of parity
- R8: Percentage of women who smoked during pregnancy
- R9: Distribution of mothers’ educational level
- R10: Distribution of parents’ occupational classification
- R11: Distribution of mothers’ country of birth
- R12: Distribution of mothers’ prepregnancy body mass index (BMI)

**HEALTHCARE SERVICES**
- C10: Mode of delivery by parity, plurality, presentation, previous caesarean section, and gestational age
- R13: Percentage of all pregnancies following treatment for subfertility
- R14: Distribution of timing of first antenatal visit
- R15: Distribution of births by mode of onset of labour
- R16: Distribution of place of birth by volume of deliveries
- R17: Percentage of very preterm babies delivered in units without a neonatal intensive care unit (NICU)
- R18: Episiotomy rate
- R19: Births without obstetric intervention
- R20: Percentage of infants breast fed at birth
Euro-Peristat Reports and publications

- For the year 2000

- For the year 2004

- For the year 2010

- More than 60 publications using Euro-Peristat data

*Data available on our website: www.europeperistat.com*
Neonatal mortality at 22 weeks of gestation or more per 1000 total births in 2015

- Differences are over twofold

Lows of 1.5 per 1000 to highs of 3.0 per 1000 and over
Comparison of neonatal mortality rates in 2015 with 2010

Overall, there is a 10% decline

But with high heterogeneity
Percentages of preterm birth, <37 weeks of gestation in 2015

Lows <6% to highs >8%

2% of preterm births in Europe = 100,000 babies
Comparison of preterm birth rates in 2015 with 2010

On average, rates were stable

But some countries experience increases & others decreases
Caesarean section rate in 2010 and difference between 2010 and 2015

Widening disparities with over 40% rates in some countries
Summary

• Europe has strong models for care for pregnant women and newborns (low mortality, low preterm birth, low intervention rates)

• However, large disparities persist between European countries, showing that improvements are possible

• Changes over time are very different in terms of mortality risks, risk factors and caesarean section

➢ Investigation of high performing countries (not always the same ones!) is needed to promote and to share best practices

➢ Tell your national public health institutes in InfAct Joint Action that it is important to ensure sustainable, annual reporting for maternal and newborn health
Thank you