



# MONITORING PERINATAL HEALTH IN EUROPE



**Jennifer Zeitlin**  
Epidemiological research unit on  
perinatal health and women's and  
children's health, INSERM U953,  
Paris



[www.europeristat.com](http://www.europeristat.com)

# THE EURO-PERISTAT PROJECT

- Project aim:  
*to develop a system for monitoring  
perinatal health in the EU based on valid  
and reliable indicators*
- Funded by the EU Public Health  
Programme



# SCOPE

- Maternal, fetal and infant health during pregnancy, delivery and the postpartum period, as well as the health consequences of events that occur in the perinatal period.
- Demographic, medical, social and health system factors that impact perinatal health.



# OUTLINE


- I. Why Euro-Peristat
- I. Overview of project
- II. Research questions raised by Euro-Peristat data





# **I. WHY EURO-PERISTAT?**

# A PRIORITY FOR SURVEILLANCE

- In Europe,  $\approx 23,000$  stillbirths and  $\approx 22,000$  infant deaths yearly
  - 40,000 ( $\approx 8$  per 1,000 births) with severe impairments, many of perinatal origin
  - Large health inequalities between and within countries
  - Burden falls on young people
  - Adult health affected by pregnancy and infancy
  - Medical advances carry risks and raise ethical questions
    - Increased survival of extremely preterm infants, sub-fertility treatments, prenatal screening
  - A key challenge is to benefit from new technology without over-medicalizing pregnancy and childbirth
- 

# BUT HOW ?

Some simple questions without answers for Europe

- What is the multiple birth rate?
- What is the percent of babies born preterm?
- What is the mortality of these babies?
- What percent of women smoke during pregnancy
- Do women receive sufficient antenatal care?
- Are obstetrical interventions increasing for low risk women?



# WHY MONITOR ACROSS EUROPE ?

- European countries face common challenges in perinatal health
  - Monitoring and evaluating trends
  - Developing European health policies
- Approaches to perinatal health differ greatly throughout Europe
  - Comparing policies and outcomes
  - Identifying effective approaches
- Strength in numbers: attaining critical mass







## II. THE EURO-PERISTAT PROJECT

# EURO-PERISTAT – 3 PRIMARY COMPONENTS

- Selection of an indicator set and development of new indicators
- Collection of data on indicators
- Reporting on indicators



# EURO-PERISTAT NETWORK

- Phase I: 15 Member states (2000-2004)
- Phase II & III 15 + 10 new MS + Norway (2005-2010)
- Phase IV: 27 MS + Norway, Switzerland, Iceland (2011-2014)
  
- Scientific Committee
  - Phase I: One clinician (neonatologists, obstetrician, midwife) and epidemiologist from each country
  - Phase II: one representative per country + a Scientific Advisory Group



# EURO-PERISTAT INDICATORS

- Based on existing national and international recommendations
- A DELPHI consensus process to select indicators
  - PANEL: European clinicians (obstetrics, midwifery and neonatology) as well as epidemiologists and statisticians
  - Updates: with new MS in 2004, and in 2011



# EURO-PERISTAT INDICATORS

- 10 Core Indicators
- 20 Recommended Indicators
- Four categories
  - Population characteristics/Risk factors
  - Health services
  - Fetal/infant/child health
  - Maternal health



# DATA COLLECTION

- For the year 2000
  - *the European Journal of Obstetrics and Gynecology*, Vol 111, Supp 1, 28 November 2003
- For the year 2004
  - European Perinatal Health Report (2008)
- For the year 2010
  - Collection on-going, report in May 2013



## SPECIFICITY OF EURO-PERISTAT PROJECT

- Use a common data collection protocol with careful attention to cross-country comparability
- Collect data using sub-groups making it possible to analyse indicators in more depth
- Bring together a network of specialists who actively participate in analysis of trends and variations





## II. RESEARCH QUESTIONS



# QUESTIONS

- How do infant and maternal health and care vary across Europe and over time?
- Why do these indicators vary?
- Are these variations associated with:
  - Measurement
  - Underlying population characteristics
  - Health policies/practices
    - Ethical issues?
    - Interpretation of scientific evidence-base?
    - Organisation of health services?



# STILLBIRTHS

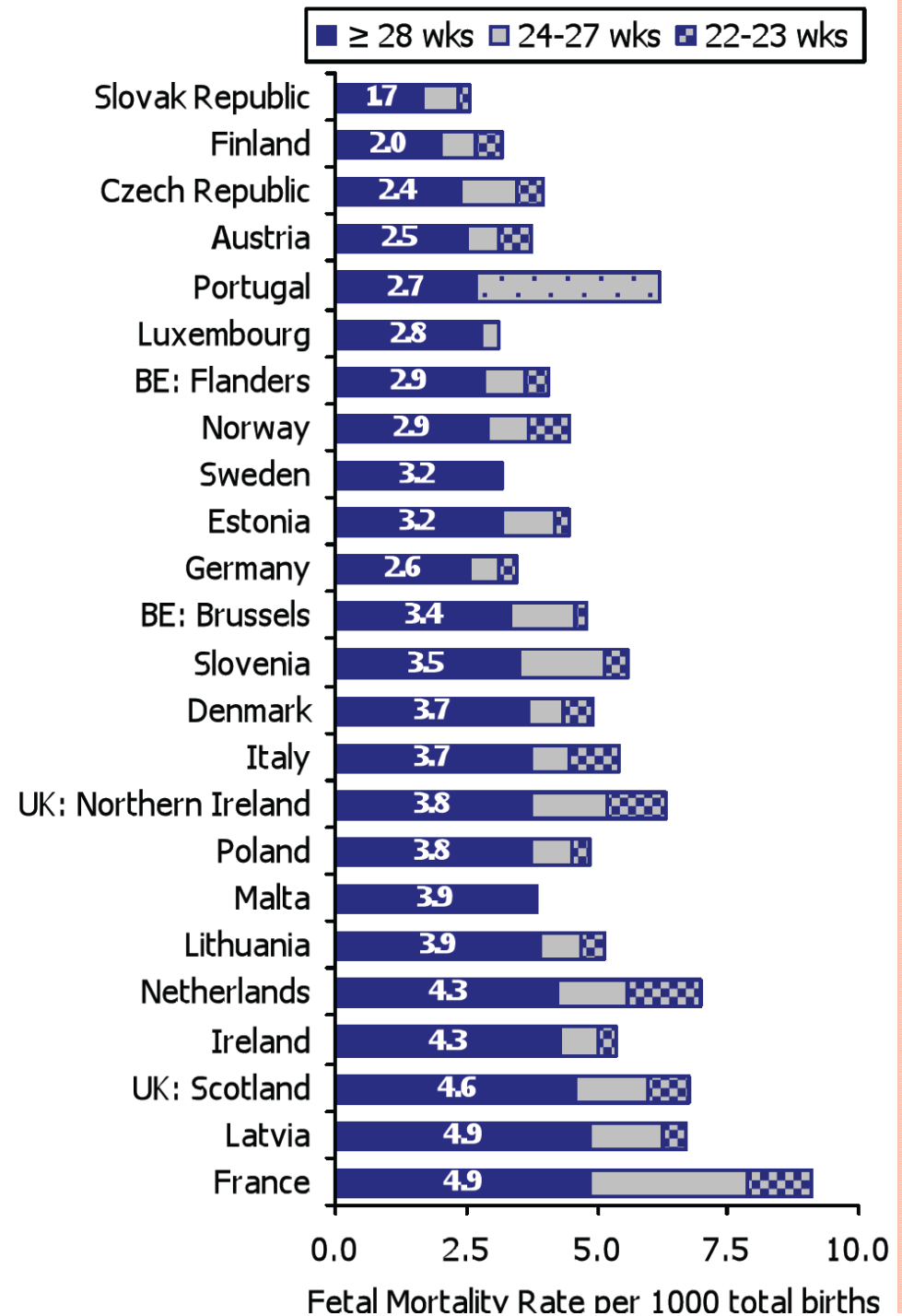
Definition, fetal death  
at or after 22 weeks of  
gestation

Using different  
inclusion criteria

Countries ranked by  
overall mortality rate

2004 data

Mohangoo et al, PloS One (2011)



# NEONATAL MORTALITY

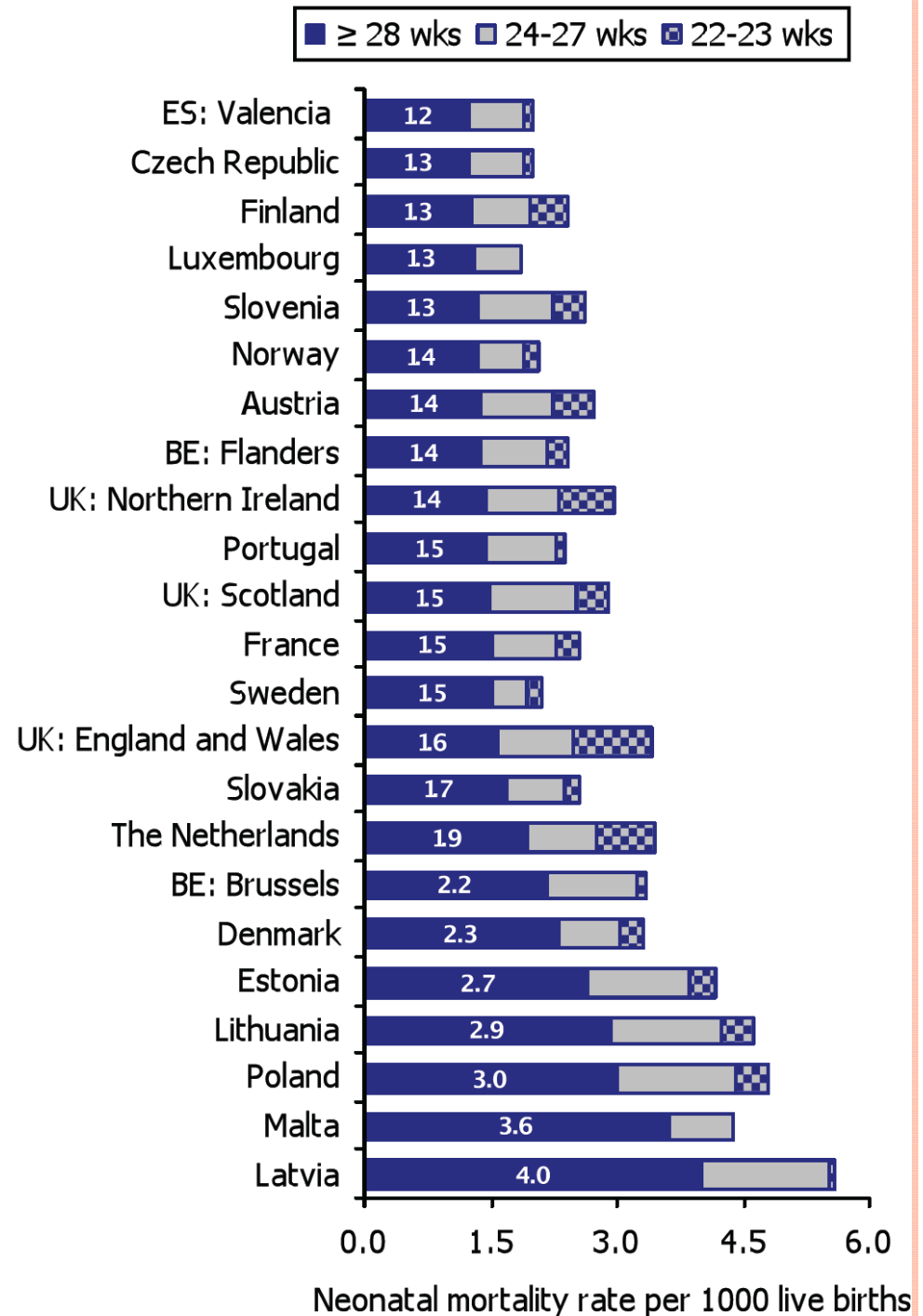
Definition neonatal  
death at or after 22  
weeks of gestation

Using different  
inclusion criteria

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overall mortality rate

2004 data

Mohangoo et al, PloS One (2011)



## CONCLUSIONS MORTALITY ANALYSES

- Births at the limits of viability (22-23 weeks of GA) contributed substantially to the variation in mortality rates
- After exclusion of these births, fetal and neonatal mortality rates still varied markedly
- Patterns of mortality differed for the gestational age at which highest mortality was observed
  - Care of very preterm infants
  - Policies related to screening and termination for congenital anomalies
  - Management of post term births

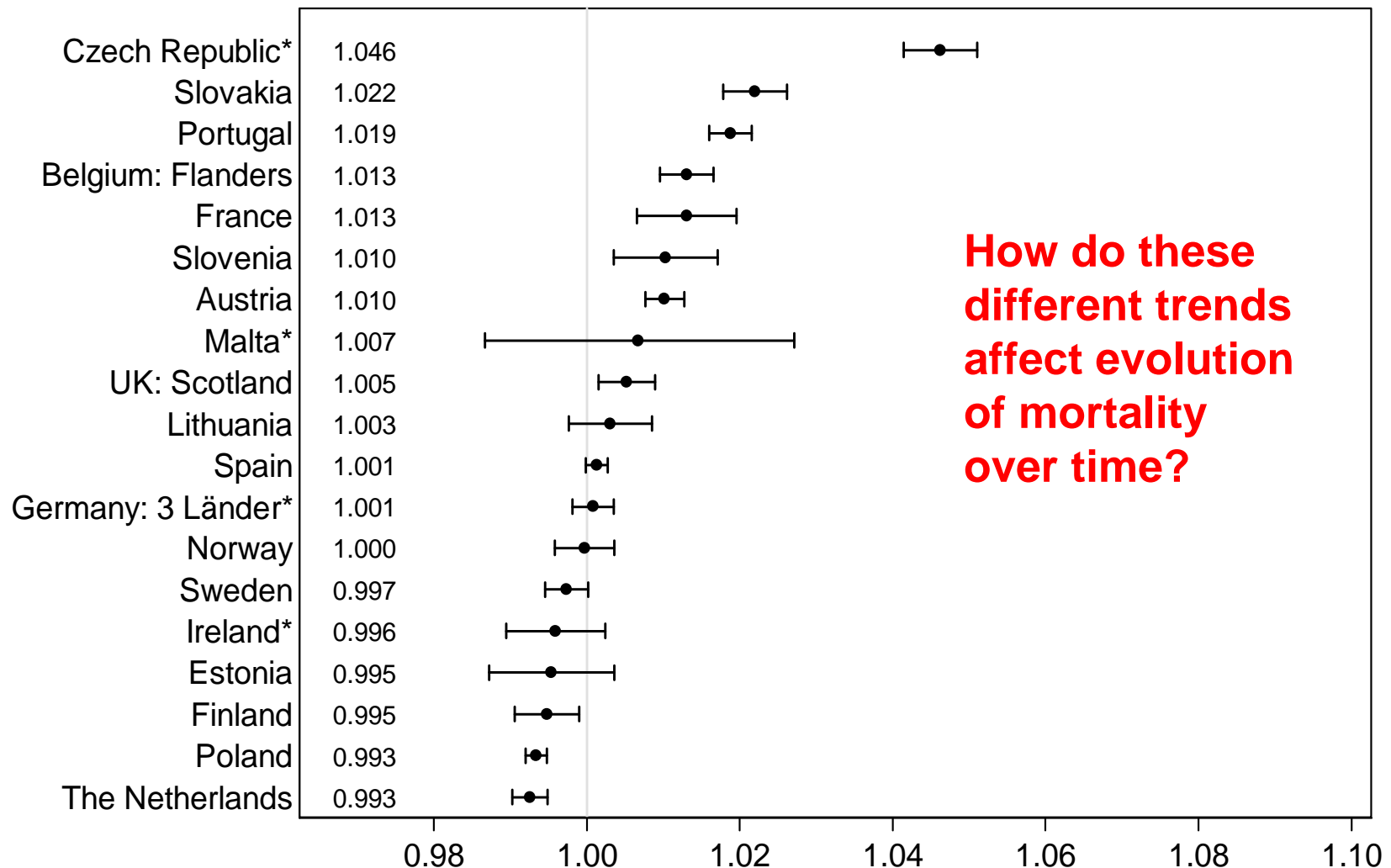


# TIME TRENDS IN PRETERM BIRTH

- Preterm birth is responsible for a large proportion of infant mortality and morbidity and childhood impairments
- Studies showing that preterm birth rates are rising (Blencowe, 2012, Igwe et al)
- Associated with increases in
  - Multiple births
  - Indicated preterm births
  - Prevalence of risk factors (maternal age, obesity)
  - Failure of prevention
- Data not available on preterm birth in international databases (WHO or OECD)



# CHANGES IN SINGLETON PRETERM BIRTH BETWEEN 1996 AND 2008, ANNUAL RATE RATIOS



# RESEARCH APPROACHES

- Ecological analyses of indicators collected on the national level using Euro-Peristat indicators
  - Comparison of indicators across countries and across time
  - Correlation of indicators across countries and time
  - Association of policy and other contextual variables with trends and geographic variation

Bouvier-Colle, BJOG. 2012.

- Ad hoc projects developed within the Euro-Peristat network on specific topics
  - Preterm birth analysis
  - Analysis of risk factors for fetal and neonatal mortality
  - Measuring severe maternal morbidity using hospital discharge data

Anthony S et al. Paediatr Perinat Epidemiol. 2009



# FOR MORE INFORMATION



BETTER STATISTICS FOR BETTER HEALTH  
for pregnant women and their babies

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CYPRUS IRELAND FINLAND FRANCE LUXEMBOURG SCOTLAND



### THE EUROPEAN PERINATAL HEALTH REPORT

Download a copy of the most comprehensive report on perinatal health to date.

[more >](#)



#### Welcome

### ABOUT EURO-PERISTAT

The EURO-PERISTAT project's goal is to monitor and evaluate maternal and child health in the perinatal period - pregnancy, childbirth and the postpartum - in Europe using valid and reliable indicators.

The project began in 1999 as part of the EU's Health Monitoring Programme and has continued into a fourth phase with the ultimate aim



#### NEWS

### SHARING AND REPORTING: NATIONAL PERINATAL HEALTH REPORTS

Cyprus, Ireland  
Finland, France  
Luxembourg, Scotland







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<http://www.europeristat.com/our-network/country-teams.html>

