

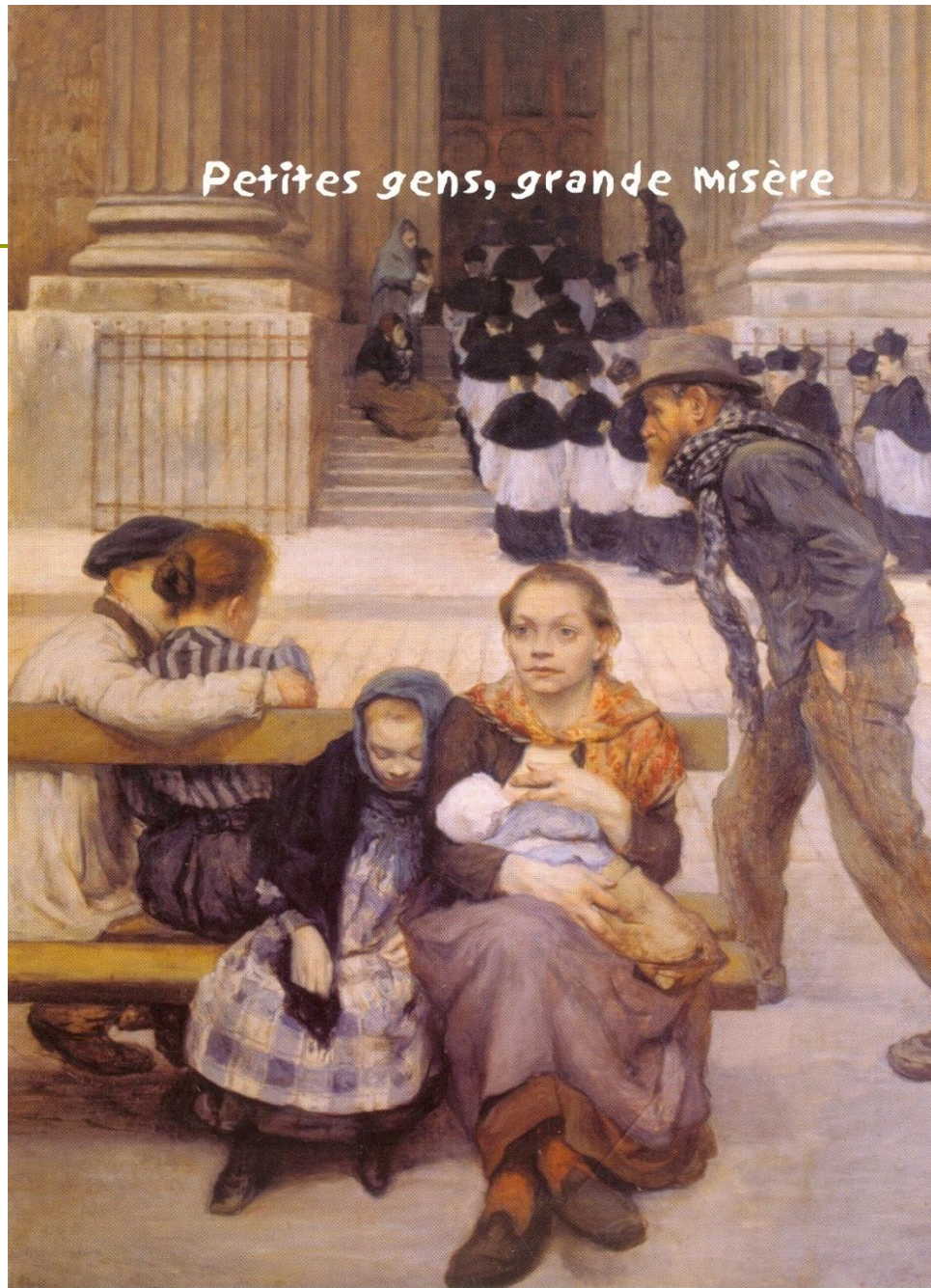
Maternal education as risk marker in perinatal health outcome EURO-Peristat data in 2004



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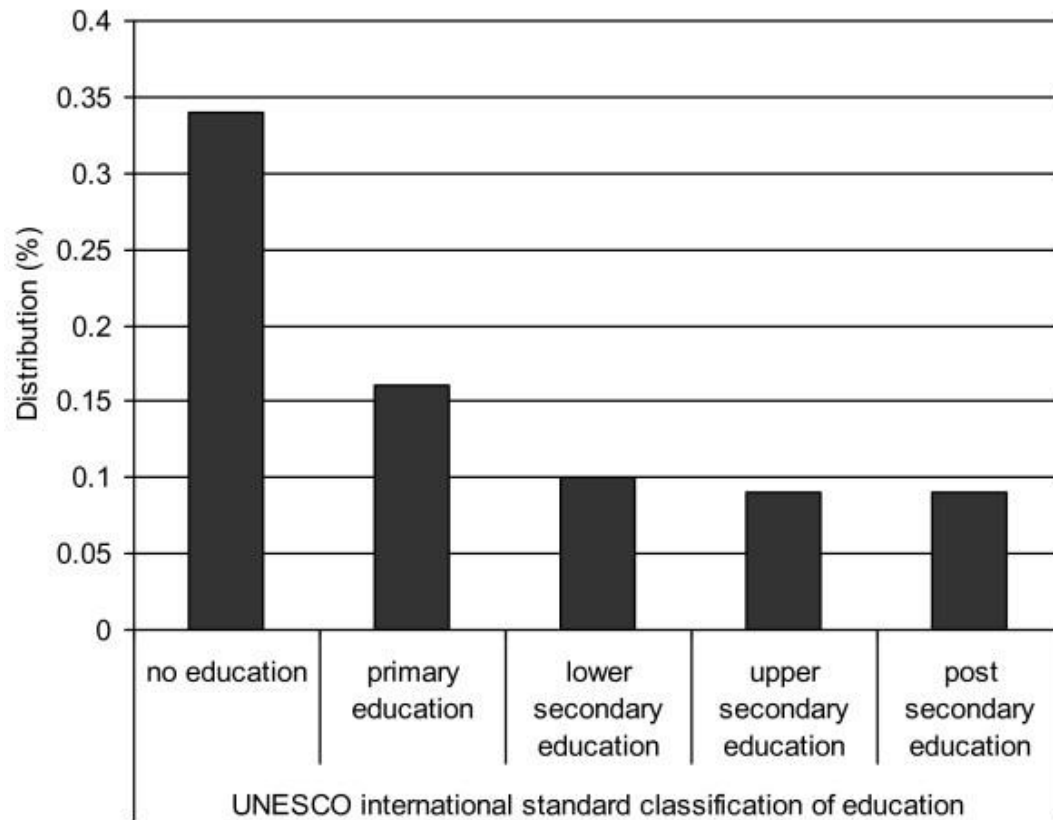
Petites gens, grande misère



Justification: 5 scientific qualities of indicator

- **Stable** indicator, each individual only having the possibility to progress, as opposed to occupation (possible rapid change in both directions)
 - > Good marker for women who are not working, for recent migrants, sometimes from countries with high female illiteracy rates
- **Used and promoted by UN and UNESCO** and MDGs as indicator (and target) / ISCED classification in use
- **Well correlated with perinatal outcome**
- There is some evidence that the poor outcomes related to social disadvantage may be **vulnerable to appropriate targeted interventions** and specific care
- It **remains relevant even** in the Nordic countries, **where there is strong social support** from the state
- **A causal pathway has been suggested**

Maternal mortality / education



Justification: practical aspects for EURO-PERISTAT

- ▣ More systematically used in EURO-P-29 than other markers of social disadvantage such as occupation, ethnicity, migration, housing, lack of access to care, undocumented etc ...
- ▣ However within the EU, each country has developed its own markers of social disadvantage. More specifically UK/Ireland are more prone to using occupation and ethnicity while “the continent” uses education and nationality/country of origin



Children, Port Glasgow

Definition used in Euro-Peristat 2004

- Highest degree achieved. The International Standard Classification of Education (ISCED), established by UNESCO in 1997 has been adopted which comprises 7 categories:
- Level 0 - Pre-primary education
- Level 1 - Primary education or first stage of basic education
- Level 2 - Lower secondary or second stage of basic education
- Level 3 - (Upper) secondary education
- Level 4 - Post-secondary non-tertiary education
- Level 5 - First stage of tertiary education
- Level 6 - Second stage of tertiary education

Data availability in 2004

- ❑ Used ISCED (n=9)
 - Austria (3L), Be-Flanders (5L), Finland(4L), Lithuania, Poland (6 L), Portugal (5L), Slovak Republic (4L), Slovenia (6L) and Spain-Valencia(6L)
- ❑ Used their own categories (n=7)
 - ❑ Be-Brussels, Czech Republic, Estonia, France, Hungary, Italy and Latvia
- ❑ No data provide (n=11)
 - ❑ Cyprus, Denmark, Germany (provided data according to occupation) Greece, Ireland, Luxembourg, Malta, Netherlands, Norway, Sweden, United Kingdom
- ❑ Data available by 3 categories in 16 countries (9+7)
 - ❑ Primary or none
 - ❑ Secondary
 - ❑ Postsecondary

Data availability out of 26 countries

N=27 (25 countries+2 Belgian Regions)	n (country)	%
Use ISCED definition (1)	9*	33.3
Used their own categories (2)	7	25.9
Data available by 3 categories (1+2)	16	59.3
Data not reported	11	40.7

*1 Country : No data on educational level 0 &1 (Primary or none)

Methodological in the computation reporting and interpretation

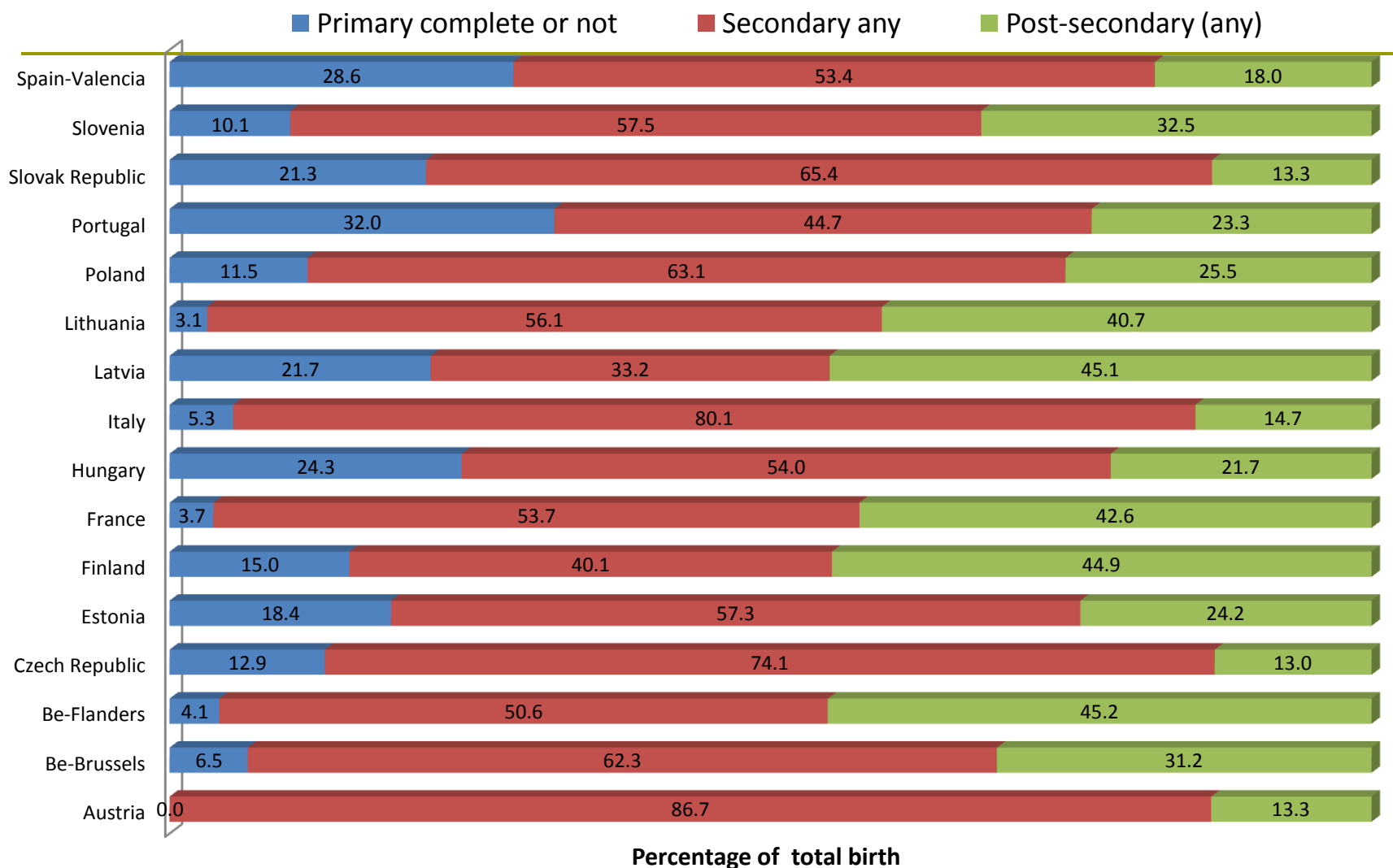
- ▣ The reporting is not always complete. ISCED classification, though it was first described more than 10 years ago is not yet implemented in all European countries
- ▣ There are the different streams in secondary education
- ▣ 2 large countries (Germany & UK) no information on mother's education

Educational distribution by total birth



For 11 countries reported on
mother's education

Distribution of mother's education based on stated numbers of total birth



Mortality by education



For the countries where data
has been collected

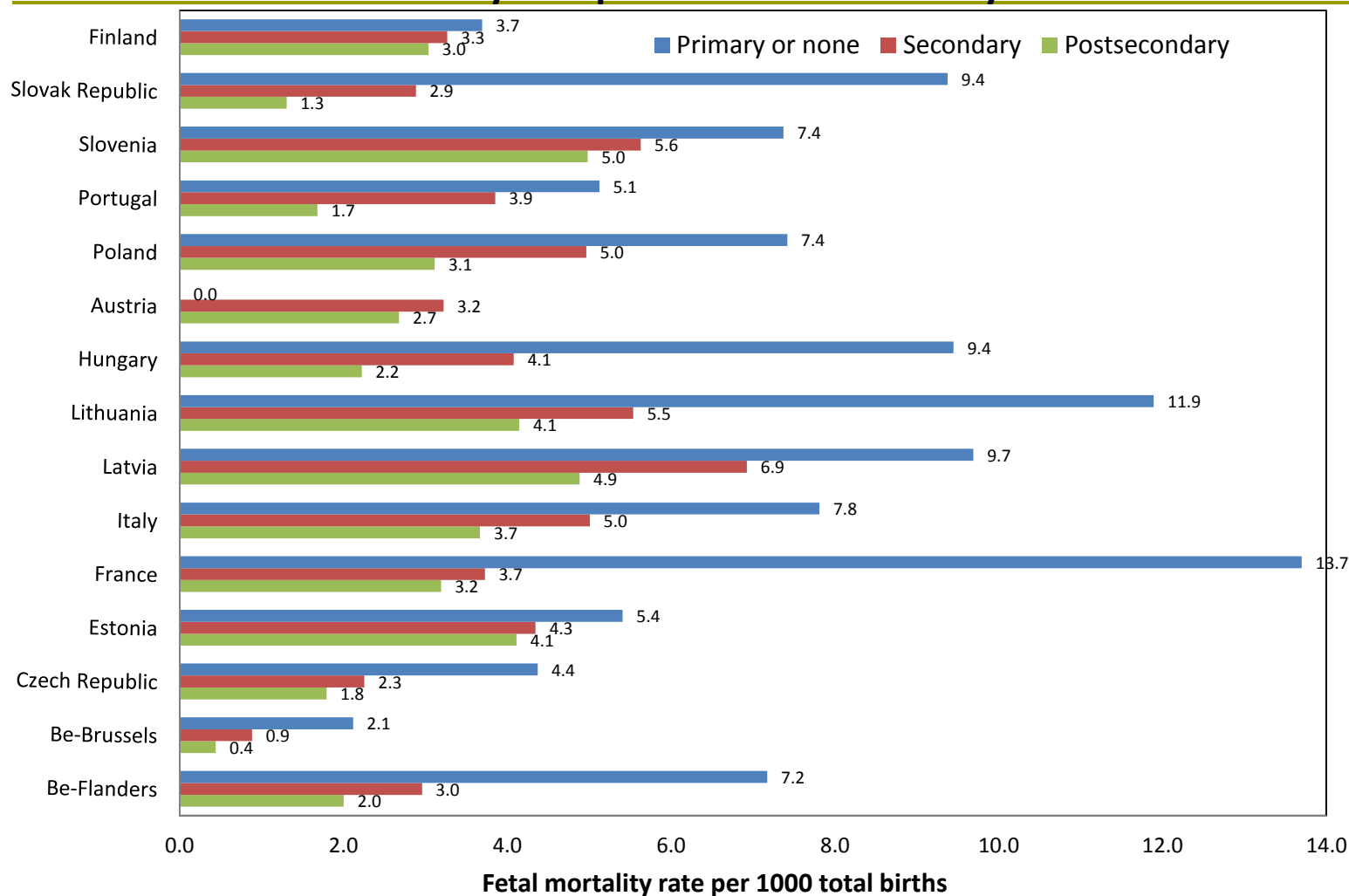
Data availability

N=27 (25 countries+2 Belgian Regions)	n (country)	%
Provided data on foetal death *	15	55.6 (15/27)
Provided data on neonatal death *	11	40.7 (11/27)

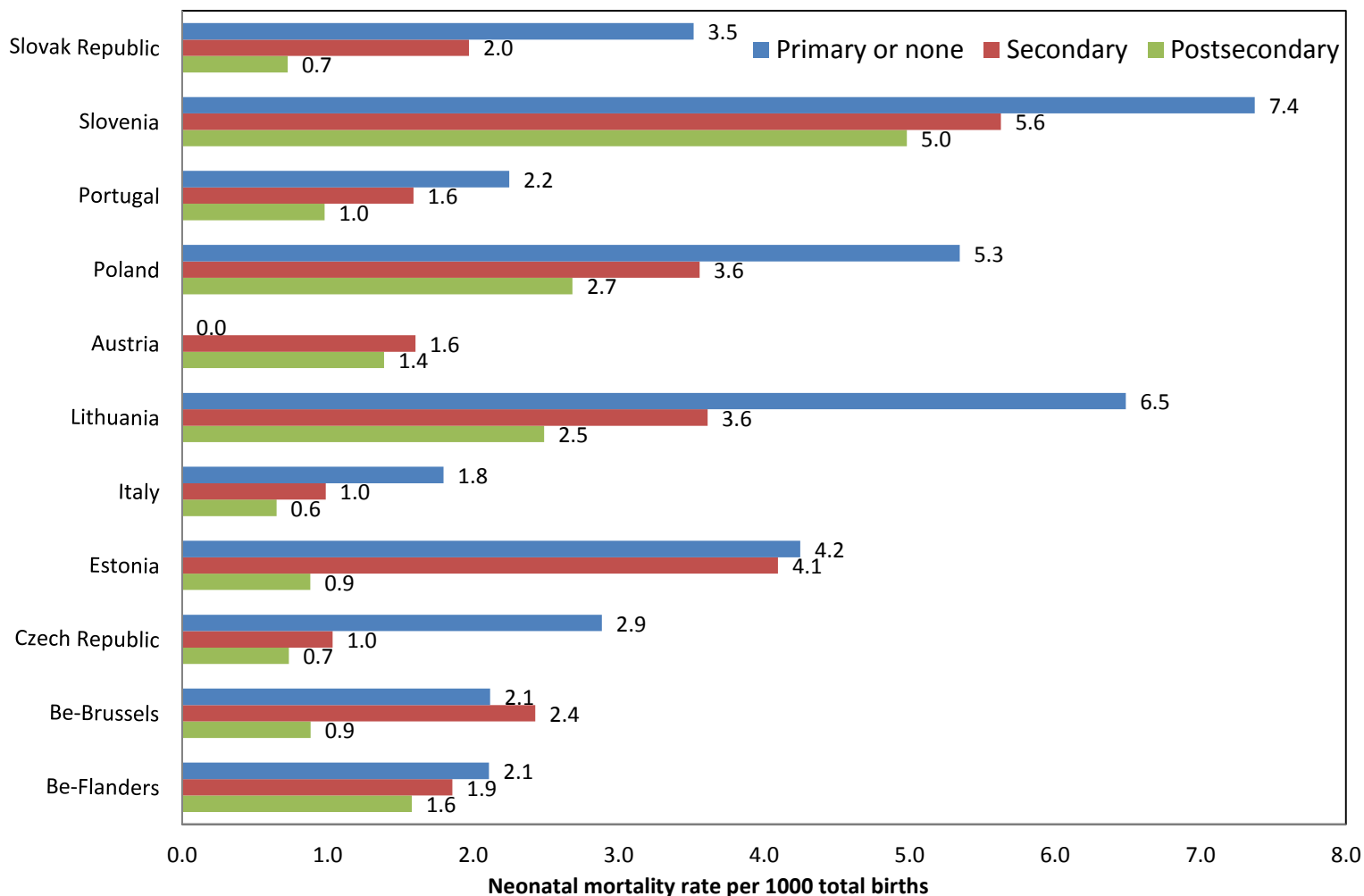
* No data on foetal death: Spain-Valencia. Austria no data on primary categories.

** No data on neonatal death: Spain-Valencia, France, Latvia, Hungary, Finland. Austria no data on primary education categories

Fetal mortality rate per 1000 total births by mother's education



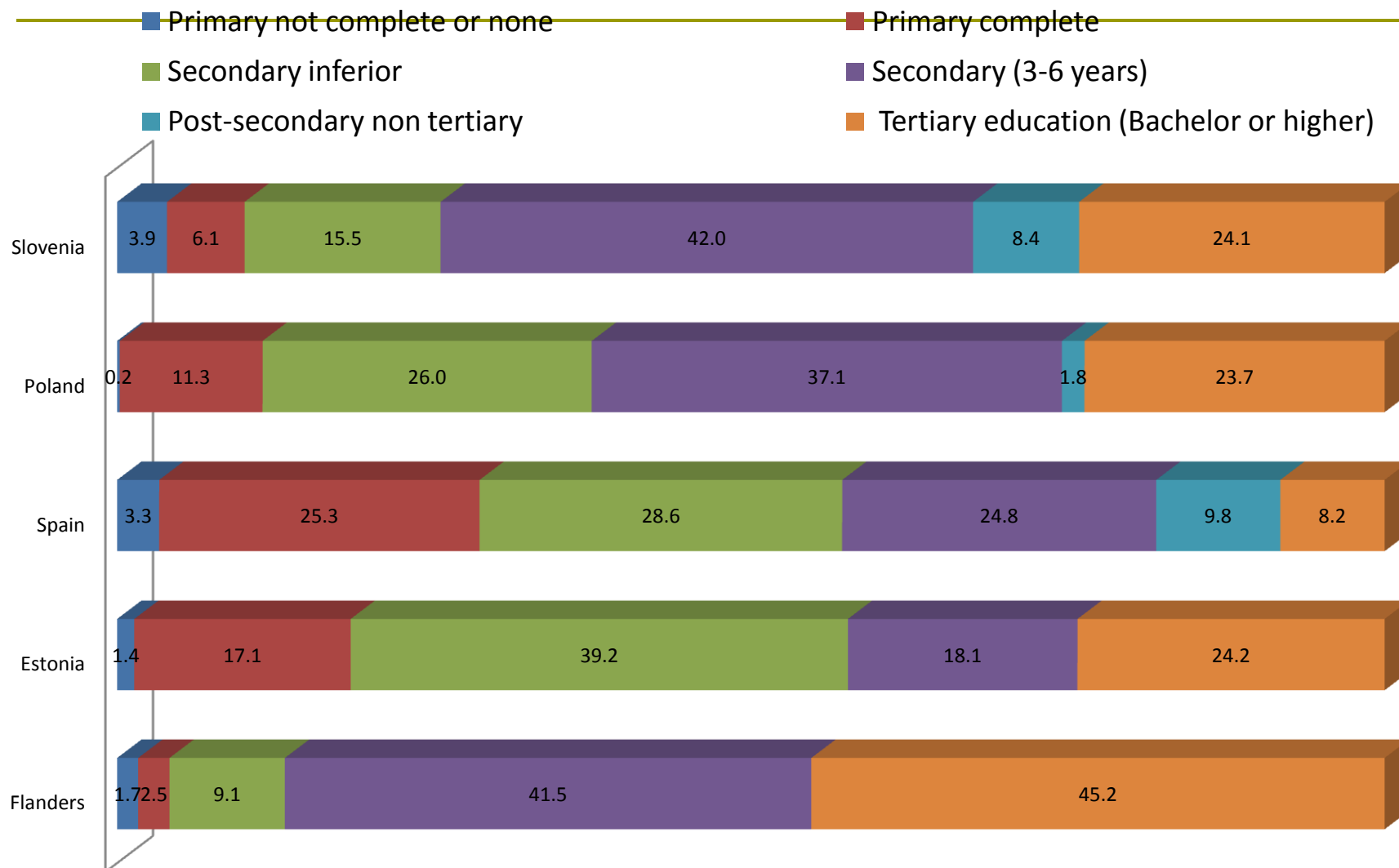
Neonatal mortality rate per 1000 total births by mother's education



Discussion on outcome

- A similar trend has been observed
 - Women with low education levels had more frequently foetal & neonatal death
 - The gradient is less marked in Nordic countries
- Which method to be used to compare the difference between countries?
 - Standardize for age of population ?
 - Sensitivity analyses (include all available categories)?
 - Country / Regional grouping (gradient less strong in Nordic countries)

R5 Distribution of mother's education based on stated numbers of total birth



Conclusion

- ❑ Paper in preparation
- ❑ Important indicator for 2010 data collection
 - Unknown must be given
- ❑ Other good markers for 2010 (personal opinion)
 - Country of origin
 - Gestational age at booking / 1st antenatal visit

