

Impact of terminations of pregnancy on stillbirth rates

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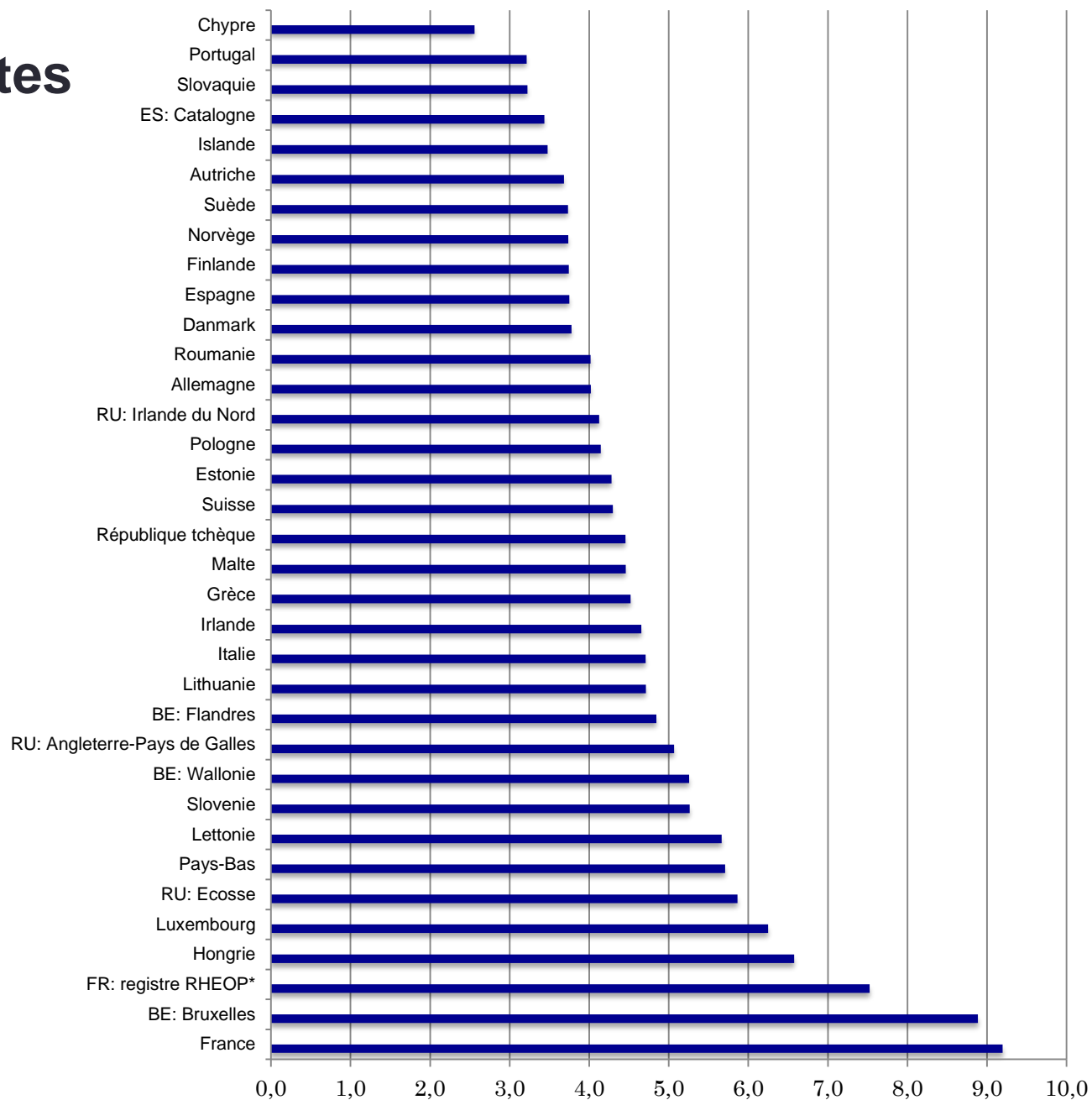
CONTEXT

Fetal mortality rates

In 2010

p 1000

from under 3 to 9 p 1000



Introduction

- Wide variations in fetal mortality rates:
 - True differences or variations in recording stillbirths?
 - Registration limits (Mohangoo et al 2011)
 - Recording of births at the limit of viability (Smith et al)
- Impact of terminations of pregnancy (TOP) depends on
 - Regulations: legal or not? gestational age limit?
 - Medical practice for TOP
 - Registration of TOP
 - collection with fetal deaths? specific registry? Or no registration?
 - Ability to distinguish TOP in fetal death statistics
- No study on the impact of TOP on the overall fetal mortality rates in international comparisons
 - Previous studies are national or done on registries of congenital anomalies

Objectives

- To describe the regulations about TOP
- To describe how TOP are registered
- To assess the impact of TOP on the international comparisons of fetal mortality rates
 - Is the ranking of countries different when TOP are excluded?
 - For fetal deaths at 22 wks +
 - For fetal deaths at 28 wks +

Sources and definition

- **Main sources: EURO PERISTAT**

- Description of the data sources and their inclusion criteria
- Number of fetal deaths and TOP
- In France: no medical birth registry, no reliable data on stillbirths in vital statistics
 - 2010 : representative sample of births, N=15000
 - 2012 : hospital discharge statistics, N=800 000
- For regulations
 - Legislation in Europe (IPPF edition 2012) and descriptions in EURO PERISTAT

- **Definition of TOP**

- Induced abortion at 22 weeks or later

RESULTS

TOP: regulations (or practice) (1)

Very rare	before 22 wks	Before 28 wks	No limit
Ireland	Austria	Latvia (<23wks)	Belgium
Malta	Denmark (?)	Lithuania (<23wks)	France
UK: N Irl	Estonia	UK: E+W (<24wks)	Hungary
Poland	Netherlands(?)	Portugal (<25wks)	Slovakia
	Sweden	Finland (<25wks)	Switzerland(?)
	Spain (?)	Italy (<28wks)	
		Germany (< 24wks?)	
		Iceland (<25wks?)	
		Greece (<24wks?)	
		Norway(<xxwks?)	

(1) Out of TOP for maternal rescue (or very severe CA in some countries)

TOP: registration

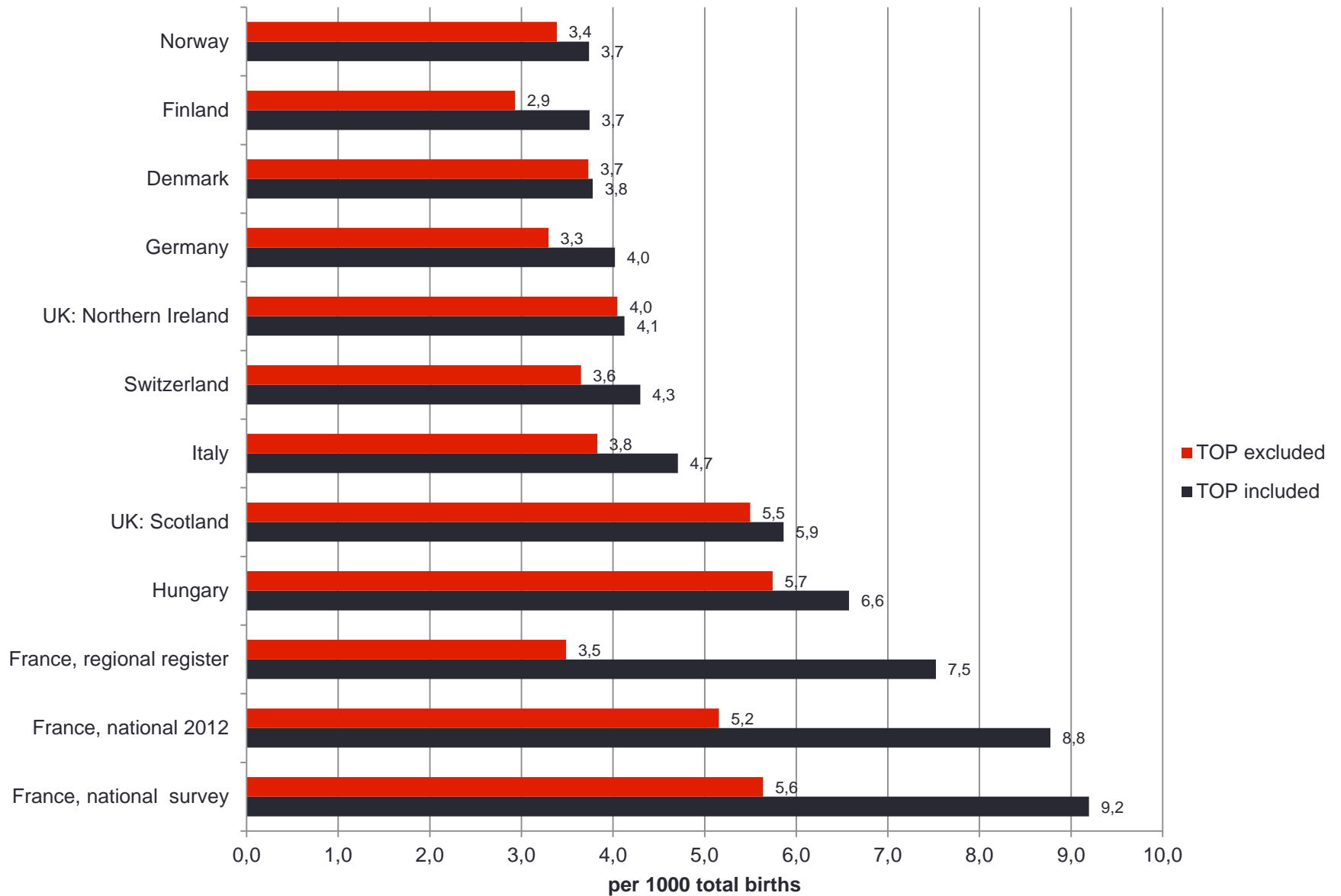
Very rare TOP after 21 wks	TOP registered with stillbirths but unknown	TOP registered with stillbirths and known	Specific registry
Estonia	Austria (rare after 21)	Denmark	Germany
Ireland	Belgium	Finland	Italy
Latvia (22wks)	Iceland (rare?)	France	UK : E+W(1)
Lithuania (22wks)	Netherlands (rare after 21 wks)	Hungary	Slovakia?
Malta	UK: E+W(1)	Norway	Portugal(1)
Poland	Portugal(1)	UK: N Irl	
Spain		UK: Scot (?)	
Sweden		Switzerland	

(1) no or underregistration of fetal deaths at 22-23 wks and rare TOP at 24 wks +

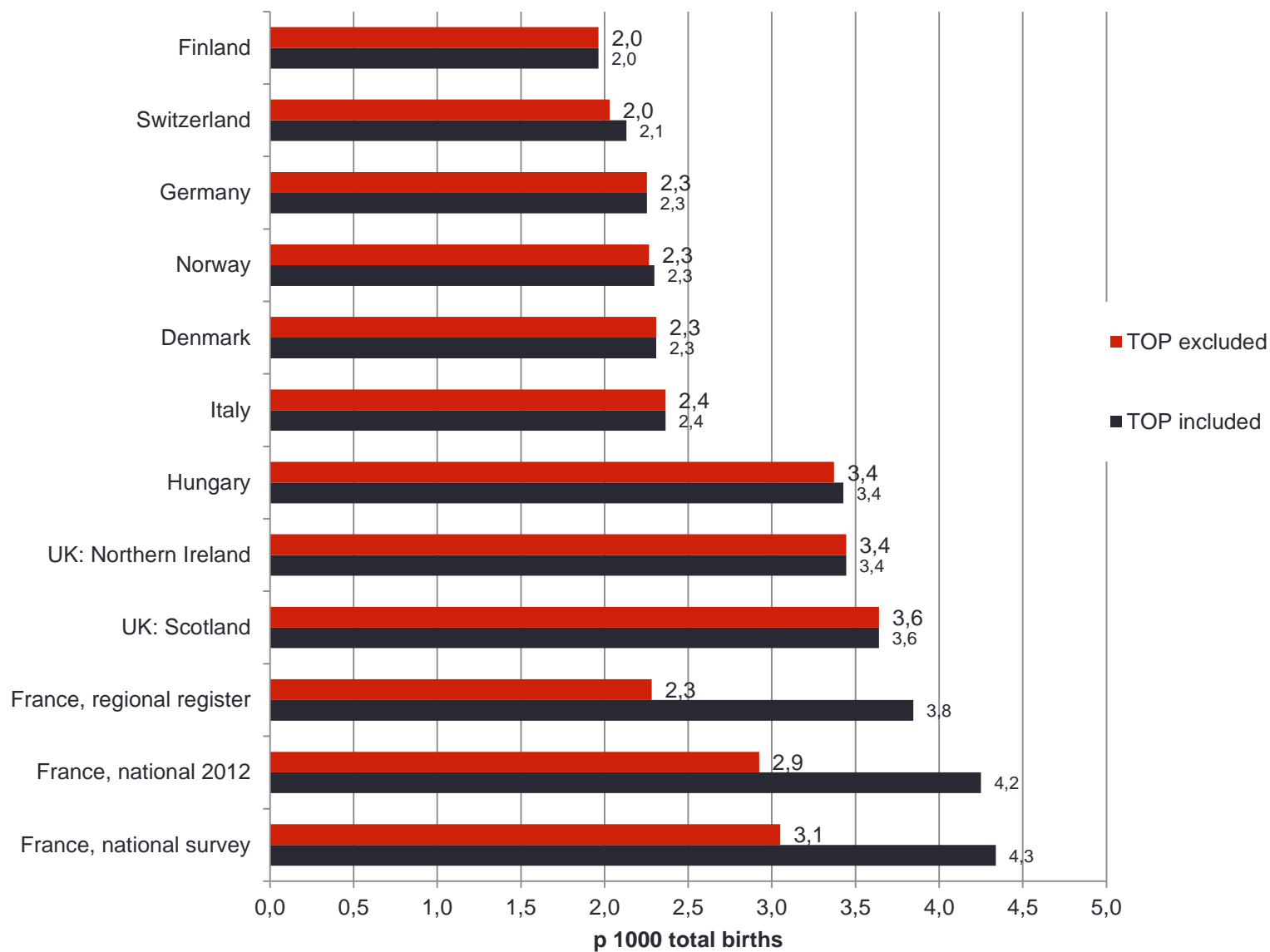
% TOP in fetal deaths

	22 wks +	24 wks +	28 wks +
Denmark	1.3	0.0	0.0
UK: N Irl	1.9	1.9	0.0
UK: E+W	NA	4.0	NA
UK: Scot	6.2	0.0	0.0
Norway	9.4	4.0	1.4
Hungary	12.7	2.0	1.6
Switzerland	15.1	7.4	4.7
Germany	18.0	0.0	0.0
Italy	18.7	0.9	0.0
Finland	21.7	0.7	0.0
France 2010	38.7	39.2	29.7
France 2012	41.2	41.4	31.2

Rate of fetal deaths at 22 weeks +



Rates of fetal deaths at 28 weeks +



DISCUSSION

Main results

- Wide variations in regulations, medical practice and registration of TOP
- Statistics on TOP are known in 11 countries or regions; inclusion of TOP in fetal death rates not systematic in 2 countries
- Impact of TOP on ranking of countries by fetal mortality rates:
 - major impact on fetal deaths rates at 22 wks+
 - no impact on fetal death rates at 28 wks+, except in France (and other countries?)

Strengths

- Population-based approach of almost all European countries
- Use of our network of experts to understand the national regulations and guidelines and their impact on data.

Limits

- Estimations based on vital statistics or medical birth registers
 - Different rules in registration within each country?
- Difficulties in interpreting national regulations and their impact on the number of TOP
 - Eg: no GA limit in the regulation but no TOP after 24 weeks
- Under-reporting of TOP or misclassification of TOP is unknown

Review of literature

- International comparisons in Europe:
 - EUROCAT: TOP for congenital anomalies 24 wks + (Garne 2010)
 - Mosaic: TOP at 22-31wks in 9 European regions (Papiernik 2008)
high proportion of TOP in Ile de France (France) and Lazio (Italy)
- Contribution of TOP to stillbirth rates:
 - Northern England 2002-5 (24wks +) (Bythell et al) 9 % (4% in our study)
 - British Columbia 2008-10 (Joseph et al) \pm 50 %
 - New Zealand 2011: 34% (total) and 24% at 24 wks +

Interpretation of the differences the French example

- Very active policy of antenatal screening
- Late screenings for CA
 - At 22 weeks or later
 - Number of TOP: higher at 24 wks than at 22 weeks
- No gestational age limit for TOP

Conclusion

- **Using a lower cutoff of 28 weeks to present fetal death rates may make rates more comparable**
- **However, TOP still have an impact on fetal mortality at 28 wks or later in some countries because of differences in screening of congenital anomalies and termination of pregnancy (in France for instance)**
- **We need better information on TOP (especially in countries where TOP are allowed at 22 wks +)**



TOP if no limit in the regulation

comparisons with available data on TOP (E-PERISTAT)

	very rare at 22 wks +	Before 24 wks	Before 28 wks	After 28 wks
Belgium				X
Czech Rep			X	
France				X
Germany		X		
Greece	?	?	?	?
Hungary				rare
Iceland	?	?	?	?
Slovakia	?	?	?	?
UK: E,W,S			rare	
Norway				rare
Switzerland				rare

4 pays particuliers

- Belgium : pratique fréquente dans la partie francophone ; impact élevé à Bruxelles car 2 centres universitaires de diagnostic concentrent les cas ; pas d'enregistrement
- France : pratique très fréquente à tous les âges, enregistrement prévu par le PMSI ; si non REHOP
- Germany : jusqu'à 24 semaines, registre à part fondé sur l'AG, alors que limite d'enregistrement fondée sur le poids (500 g)
- Italy : jusqu'à 28 semaines, registre spécifique

TOP: regulations

- Criteria
 - women's health: severe complications vs emotional health
 - genetic risks
 - fetal malformations (severe?)
 - lethal malformations
- Interpretation of limits: viability=letality ? or 21 wks?
- Gestational limits
 - Viability or 2nd trimester (definition?) or up to 21 weeks
 - Other limits up to 22, 24, 26 wks
 - No limit
- Regulations are not static (pressures to prohibit TOP)
 - Eg when no law (Lithuania),