EURONET-SAMM project:

EUROpean NETwork
on Severe Acute Maternal Morbidity

Anne Chantry

Catherine Deneux-Tharaux

Inserm U1153, Epopé Team

Plan

- Why should we study Severe Acute Maternal Morbidity (SAMM) ?

- SAMM in the last Europeristat report

- The EURONET-SAMM project

Why should we study SAMM?

- Although pregnancy and childbirth are generally healthy events
- They can be associated in some cases with maternal complications that can worsen and lead to maternal death.

- Risk factors of complications are increasing

  - Evolution of maternal profiles
    (⬈age at pregnancy, ⬈% obesity, severe medical history)

  - Evolution of practices
    (⬈% induced labors, ⬈% C-sections)

Insee

EURO-Peristat 2010 report
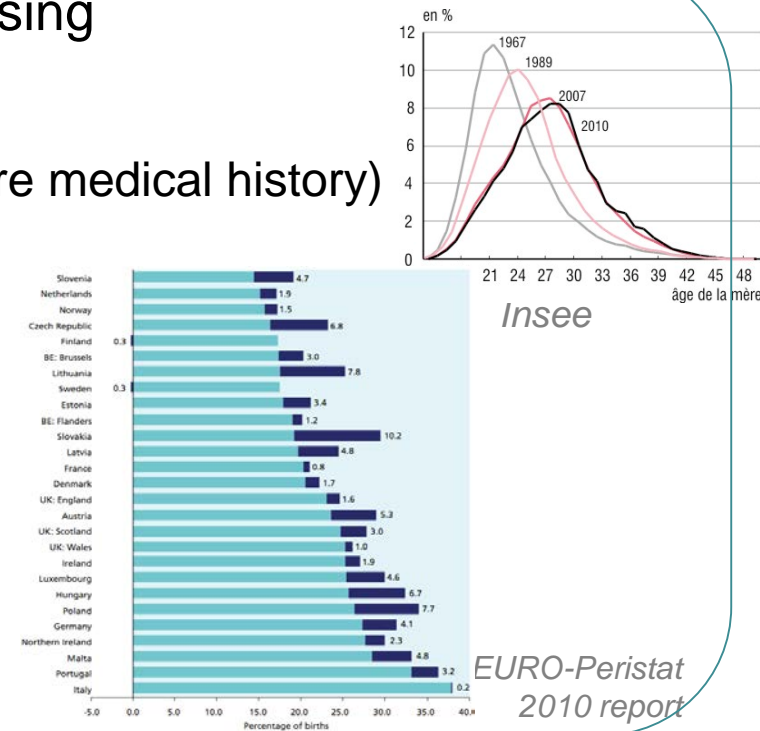
➡ Necessity to monitor maternal health

3

Which indicator to monitor maternal health ?

Over 50 years, **maternal mortality** has been the traditional indicator of maternal health

But it has some limitations due to the scarcity of maternel deaths in high-ressource countries:

- This prevents subgroups analyses by causes of death
- And implies long data collections with the risk of obsolete conclusions

➡ Need for a complementary indicator of severe complications

(Say et al., Best Pract Obstet Gynecol 2009)

4
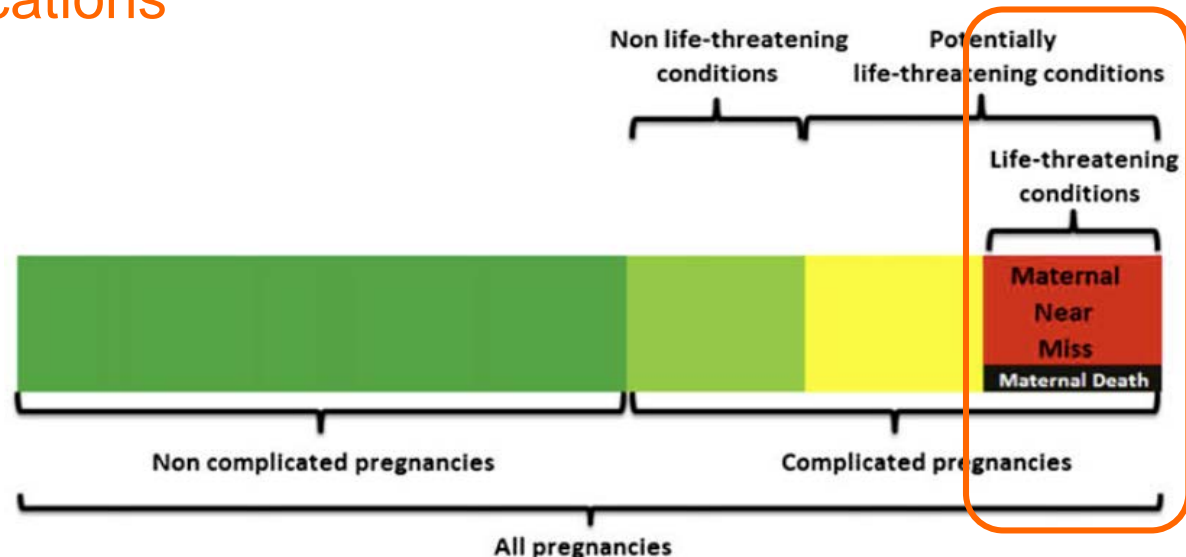
The SAMM indicator

- Main issue:
  To date, there is still no internationally consensual definition of SAMM

  Several previous propositions:

  − Selection of diagnoses, procedures or organ failures, mainly for research focus
  (Waterstone, BMJ 2001 -Zhang, BJOG 2005 –Geller, JCE 2004 –Mantel BJOG 98)

  − WHO near-misses definition (2009): but this definition is controversial/ relevance for high-ressource countries?

  (Say et al., Best Pract Obstet Gynecol 2009)

In the EURO-Peristat group

- The study of SAMM was an objective of the EURO-Peristat II Project

  Objective 3
  Point 2: Analyse data from selected countries on: generating maternal morbidity indicators from hospital discharge data and quality criteria

| Country/coverage | Source | Number of women | Rates per 1000 women Blood transfusion | | | | | | Hysterectomy | Embolisation |
			Eclampsia	ICU admission	3 units or more	5 units or more	Other amount	No units specified		
Belgium										
Czech Republic	1	114 407	0.2	NA	NA	NA	NA	NA	0.3	NA
Denmark	1	62 203	0.5	NA	NA	NA	NA	NA	NA	NA
Germany	1	625 615	0.6	4.9	NA	NA	14.3	NA	1.0	0.0
Estonia	1	15 646	0.3	NA	NA	NA	NA	3.9	1.3	NA
Ireland										
Greece										
Spain										
ES: Catalonia										
ES: Valencia	6	37 236	0.3	NA	NA	NA	NA	8.1	0.5	NA
France	5	832 799	0.9	2.0	NA	NA	NA	6.5	0.7	1.4
Italy										
Cyprus										
Latvia	1	19 003	0.9	NA	NA	NA	NA	3.9	1.2	NA
Lithuania	1	30 568	0.4	NA	NA	NA	NA	NA	NA	NA
Luxembourg	1	6440	NA	3.7	NA	NA	NA	NA	NA	NA
Hungary										
Malta	1	3952	0.0	NA	0.6	0.1	0.7	0.0	0.3	NA
Netherlands										
Austria	4	78 989	0.2	NA	NA	NA	NA	NA	NA	NA
Poland	2	402 826	0.5	0.3	NA	NA	NA	12.3	0.3	0.3
Portugal	7	101 495	0.4	NA	NA	NA	NA	11.9	0.7	0.0
Romania	5	213 055	0.4	NA	NA	NA	NA	NA	NA	0.0
Slovenia	1	22 000	0.4	NA	NA	NA	NA	8.8	0.4	NA
Slovakia										
Finland	1,5	60 421	0.1	NA	NA	NA	NA	22.7	0.4	0.3
Sweden	1	113 488	0.1	NA	NA	NA	NA	NA	0.1	0.7
United Kingdom										
UK: Wales	6,7	32 649	NA	NA	NA	NA	NA	NA	0.0	0.2
UK: Scotland	2	56 529	0.1	NA	NA	NA	NA	NA	0.2	0.0
Iceland	1+4	4834	0.6	0.4	NA	NA	NA	NA	0.2	0.0
Norway	1	61 539	0.5	18.4	NA	NA	NA	18.0	0.3	0.1
Switzerland	3	78 784	0.6	2.3	NA	NA	NA	10.1	0.7	0.4

Country/coverage	Source	Number of women	Eclampsia	Rates per 1000 women — Blood transfusion					Hysterectomy	Embolisation
				ICU admission	3 units or more	5 units or more	Other amount	No units specified		
Belgium										
Czech Republic	1	114 407	0.2						0.3	
Denmark	1	62 203	0.5							
Germany	1	625 615	0.6	4.9	NA	NA	14.3	NA	1.0	0.0
Estonia	1	15 646	0.3		NA	NA	NA	3.9	1.3	
Ireland										
Greece										
Spain										
ES: Catalonia										
ES: Valencia	6	37 236	0.3		NA	NA	NA	8.1	0.5	
France	5	832 799	0.9	2.0	NA	NA	NA	6.5	0.7	1.4
Italy										
Cyprus										
Latvia	1	19 003	0.9		NA	NA	NA	3.9	1.2	
Lithuania	1	30 568	0.4							
Luxembourg	1	6440	NA	3.7						
Hungary										
Malta	1	3952	0.0	NA	0.6	0.1	0.7	0.0	0.3	
Netherlands										
Austria	4	78 989	0.2							
Poland	2	402 826	0.5	0.3	NA	NA	NA	12.3	0.3	0.3
Portugal	7	101 495	0.4		NA	NA	NA	11.9	0.7	0.0
Romania	5	213 055	0.4							0.0
Slovenia	1	22 000	0.4		NA	NA	NA	8.8	0.4	
Slovakia										
Finland	1,5	60 421	0.1		NA	NA	NA	22.7	0.4	0.3
Sweden	1	113 488	0.1						0.1	0.7
United Kingdom										
UK: Wales	6,7	32 649							0.0	0.2
UK: Scotland	2	56 529	0.1						0.2	0.0
Iceland	1+4	4834	0.6	0.4					0.2	0.0
Norway	1	61 539	0.5	18.4	NA	NA	NA	18.0	0.3	0.1
Switzerland	3	78 784	0.6	2.3	NA	NA	NA	10.1	0.7	0.4

Lack of knowledge on SAMM in Europe

8

Lessons from EURO-Peristat II project

- Results are not contributive:
  - Over 50% of missing data
  - Only 5/32 member-states were able to provide all the criterion of SAMM
  - Wide variability for results between countries

    1 to 9 ratio for eclampsia / 1 to 14 for embolizations / 1 to 227 for transfusions

Nevertheless,
  - All countries have permanent databases that could be used

    (hospital discharge databases or perinatal registers, *etc*...)
  - Variations may be due:
    . To real differences
    . To definition interpretations
    . To an heterogeneous accuracy of the coding of events in databases

➡ In the objective to improve the knoweldge on SAMM in Europe, we have built a research project

The EURONET-SAMM project

General objective: To assess the feasibility to study SAMM in Europe with a common definition from permanent databases

Step 1
- To build a network of partners
- To describe data sources and algorithms used to monitor SAMM in partners databases

Step 2
- To conceive a common algorithm for monitoring SAMM that characterize an homogeneous level of severity

Step 3
- To conduct a comparative pilot study of SAMM between partners once the common algorithm will be available

Network of 15 partners from 13 countries

Belgium

Denmark

France

Finland

Germany

Italy

Latvia
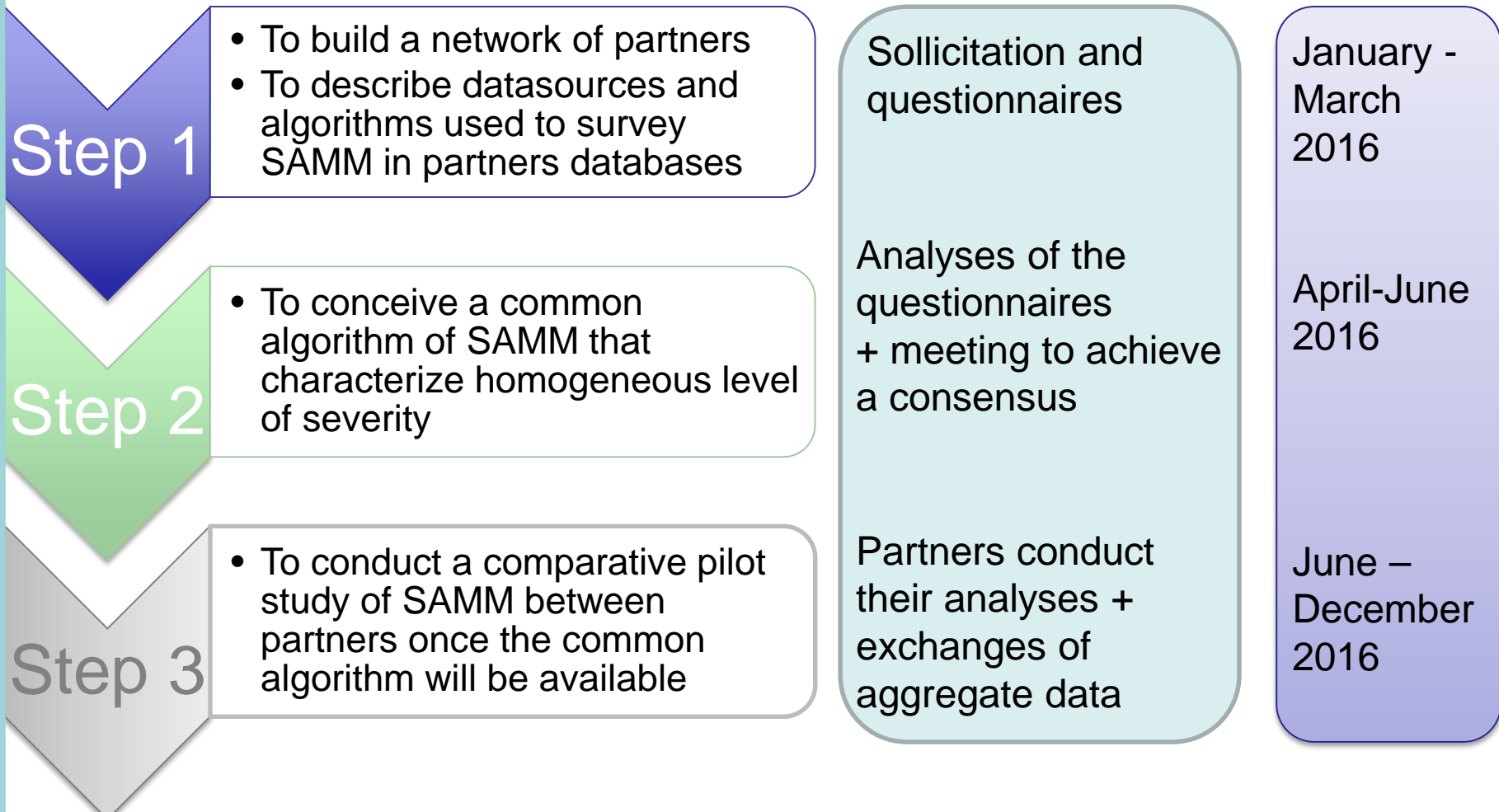
Netherlands

Poland

Portugal

Slovenia

Switzerland

United Kingdom (England/ Scotland/ Wales)

EURONET-SAMM methodology and calendar

Grants: 25 K€ from French Institut de REcherche en Santé Publique - IRESP
Duration: 1 year (from January 2016 to December 2016)

Step 1
- To build a network of partners
- To describe datasources and algorithms used to survey SAMM in partners databases

Sollicitation and questionnaires

January - March 2016

Step 2
- To conceive a common algorithm of SAMM that characterize homogeneous level of severity

Analyses of the questionnaires + meeting to achieve a consensus

April-June 2016

Step 3
- To conduct a comparative pilot study of SAMM between partners once the common algorithm will be available

Partners conduct their analyses + exchanges of aggregate data

June – December 2016

Thank you for your attention