

Maternal suicides in Italy

**Serena Donati¹, Alice Maraschini², Donatella Mandolini¹,
Ilaria Lega¹**

¹National Centre for Disease Prevention and Health Promotion,
Istituto Superiore di Sanità, Rome, Italy

²Statistical Service, Istituto Superiore di Sanità, Rome, Italy



Maternal suicides in high-income countries with maternal mortality surveillance systems

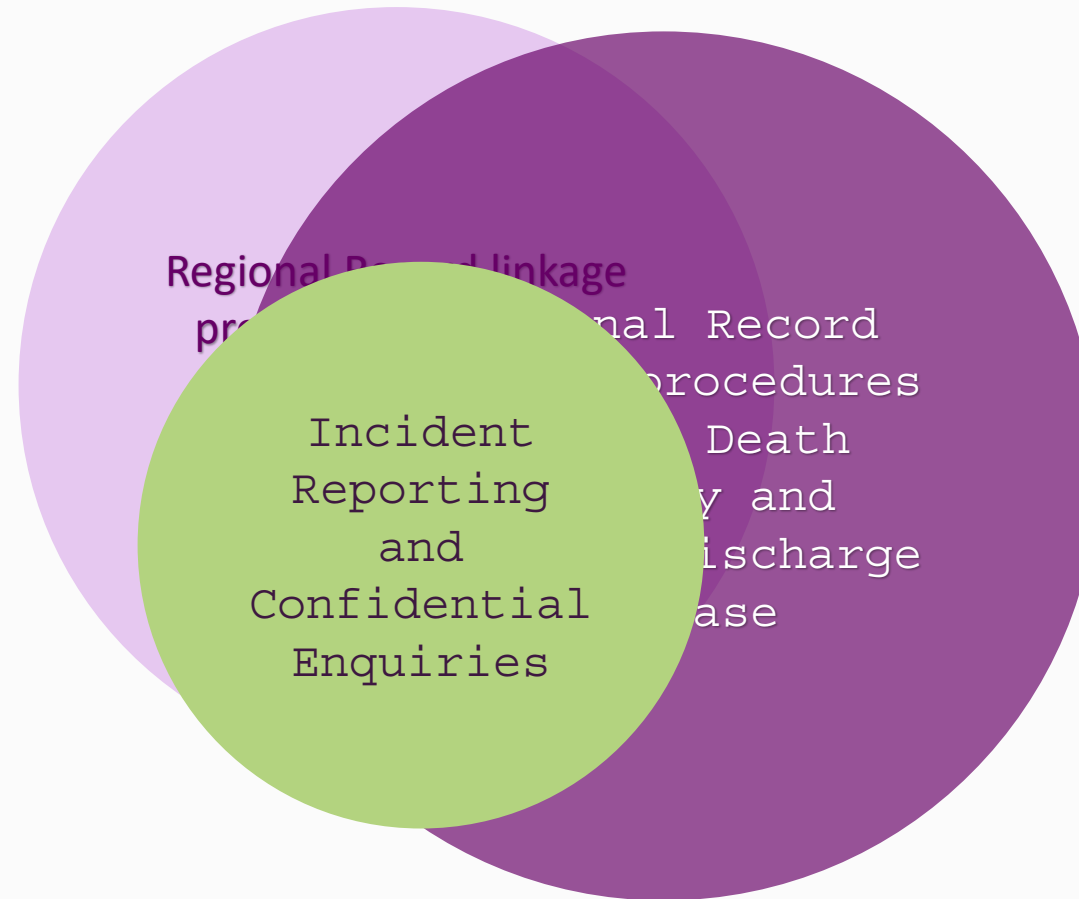
Country and study period	MMR per 100,000 live births
Sweden (1980-2007) ¹	3.7
Ontario-Canada (1994-2008) ²	2.6
Finland (2001-2012) ³	3.3
France (2016–2018) ⁴	2.1
Netherlands (1996–2020) ⁵	2.6
United Kingdom (2020–2022) ⁶	2.5
Italy (2011-2021)	2.4

1 Esscher A et al. Suicides during pregnancy and 1 year postpartum in Sweden, 1980–2007. *British Journal of Psychiatry*. 2016; **2** Fisher J, et al. Perinatal suicide in Ontario, Canada: a 15-year population-based study. *CMAJ*. 2017; **3** Karalis E, Ulander V-M, Tapper A-M, Gissler M. Decreasing mortality during pregnancy and for a year after while mortality after termination of pregnancy remains high: a population-based register study of pregnancy-associated deaths in Finland 2001–2012. *BJOG*. 2017; **4** Vacheron MN et al. Mortalité maternelle par suicide et autres causes psychiatriques en France 2016–2018, *Gynécologie Obstétrique Fertilité & Sénologie*; **5** Lommerse KM et al. The contribution of suicide to maternal mortality: A nationwide population- based cohort study. *BJOG*. 2024;131(10):1392–1398; **6** MBRRACE-UK Collaboration. *Saving Lives, Improving Mothers' Care 2024: Lessons learned to inform maternity care from the UK and Ireland. Confidential Enquiries into Maternal Deaths and Morbidity 2020–22*. Oxford: National Perinatal Epidemiology Unit, University of Oxford; 2024.





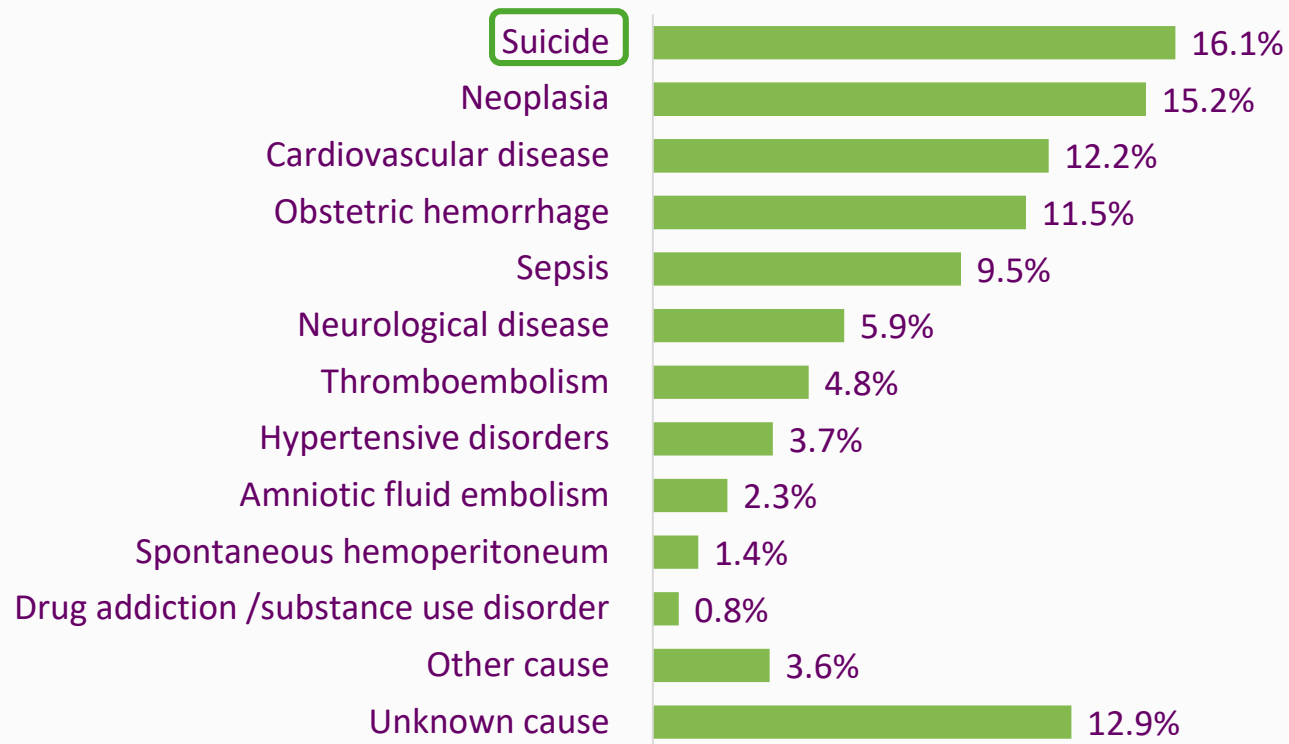
The integrated ItOSS approach to identifying maternal deaths in Italy





Causes of maternal deaths up to 1 year from pregnancy outcome identified through integrated record linkage procedures, Italy 2011–2021

Causes of maternal deaths up to 1 year from pregnancy outcome (N=776)



125 maternal suicides: one case per month

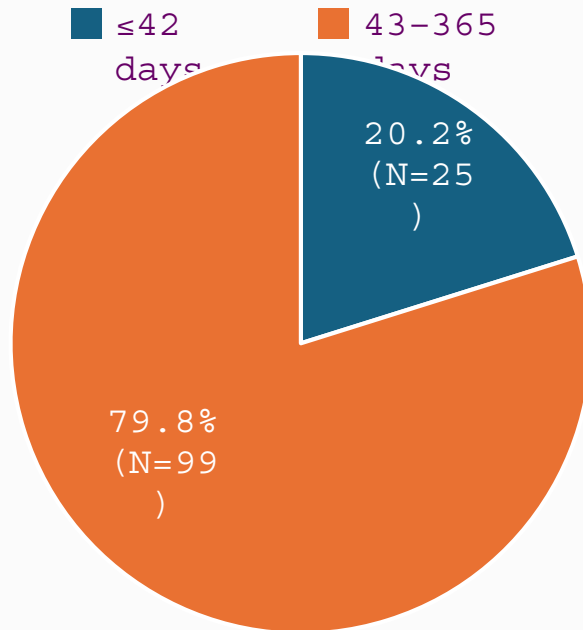
MMR: 2.41 per 100,000 (95% CI: 2.01–2.88)



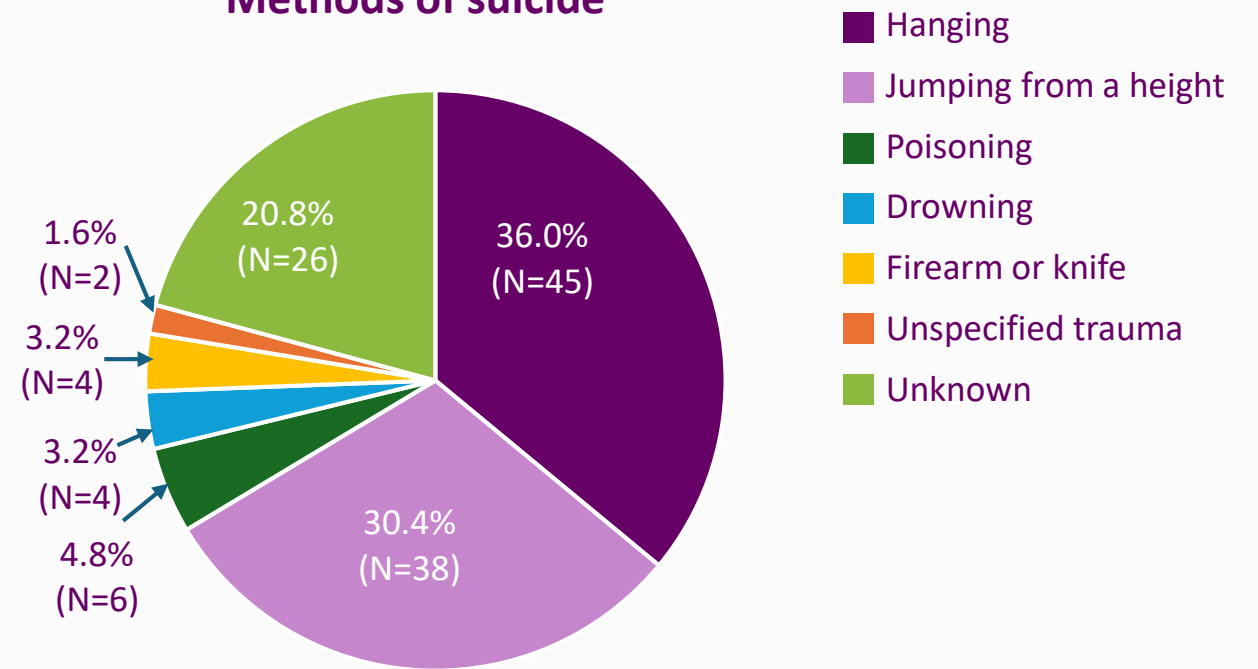


Characteristics of maternal suicides (N=125)

Timing of suicide

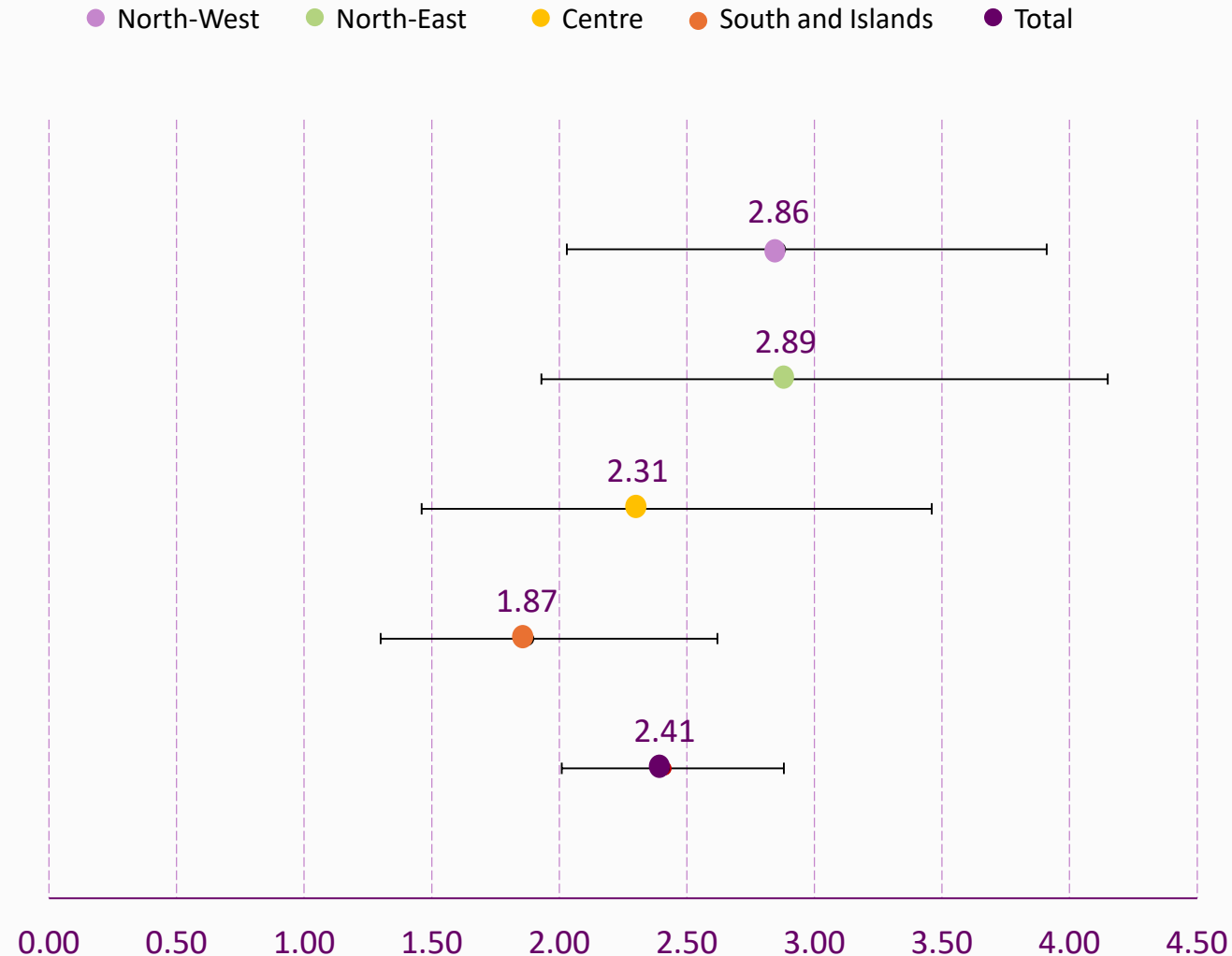


Methods of suicide





Maternal suicide MMR by geographic area, Italy 2011-2021 (N=125)



Campania

0.73 per 100,000 (95% CI: 0.20–1.86)

Friuli-Venezia Giulia

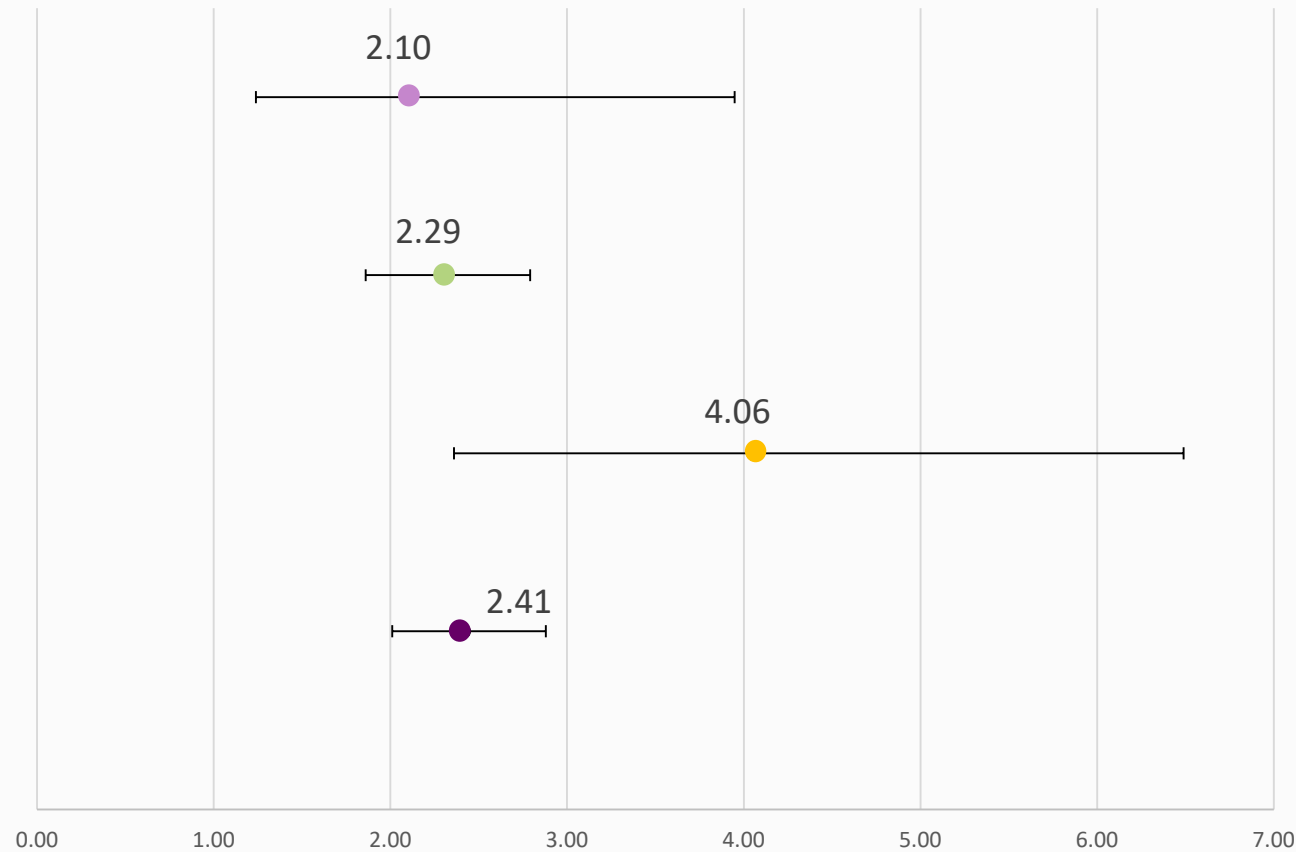
6.41 per 100,000 (95% CI: 2.35–13.96)





Maternal suicides MMR by age group, Italy 2011-2021 (N=125)

● <25 years ● 25-39 years ● 40+ years ● Total



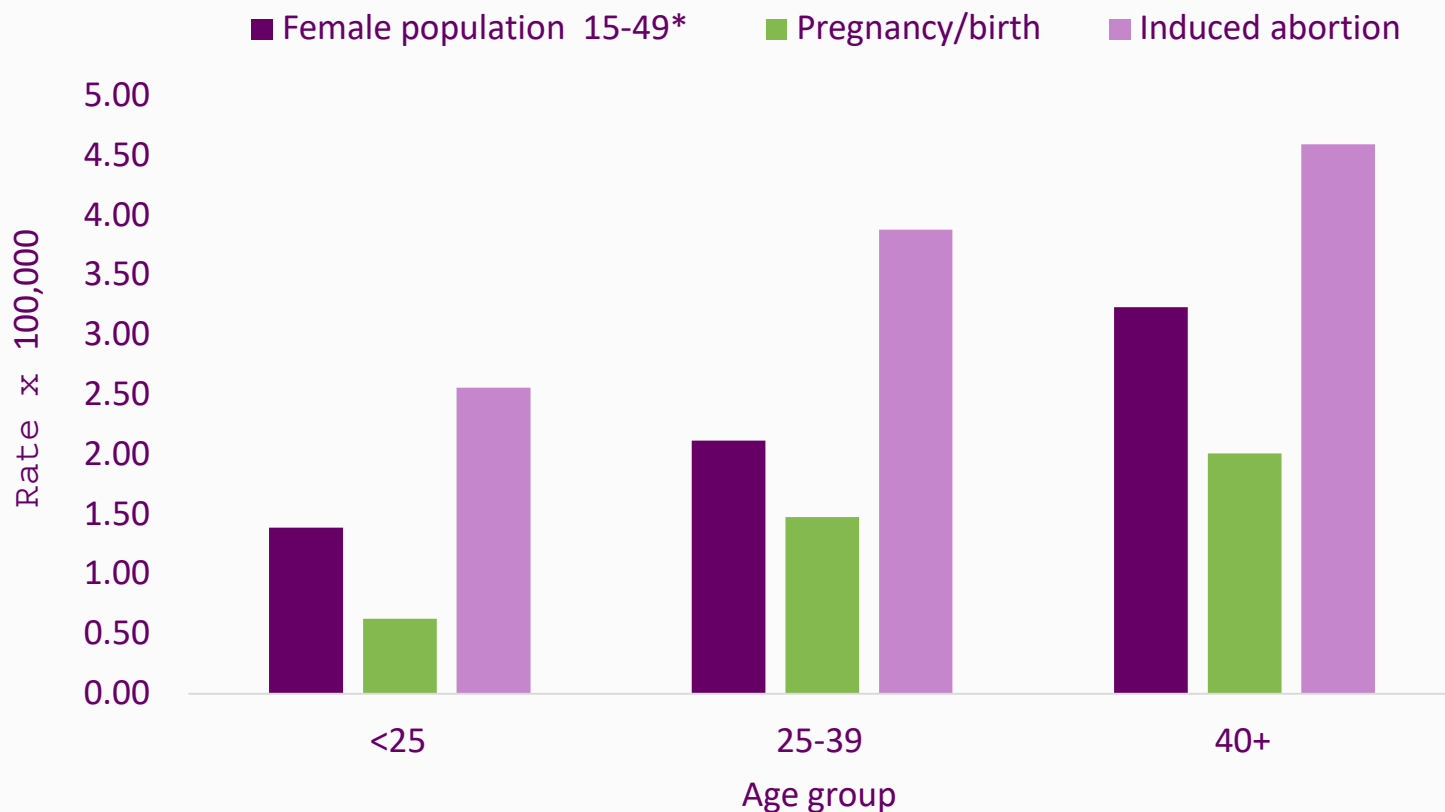
Foreign women: no statistically significant difference with Italian women

Educational attainment: not analyzed due to substantial missing data

Social vulnerability: data unavailable



Maternal suicide rate by pregnancy outcome and age group, compared with the population of women aged 15-49 years



Number by pregnancy outcome:

8 during pregnancy
67 after birth
15 after miscarriage
34 after induced abortion
1 unknown

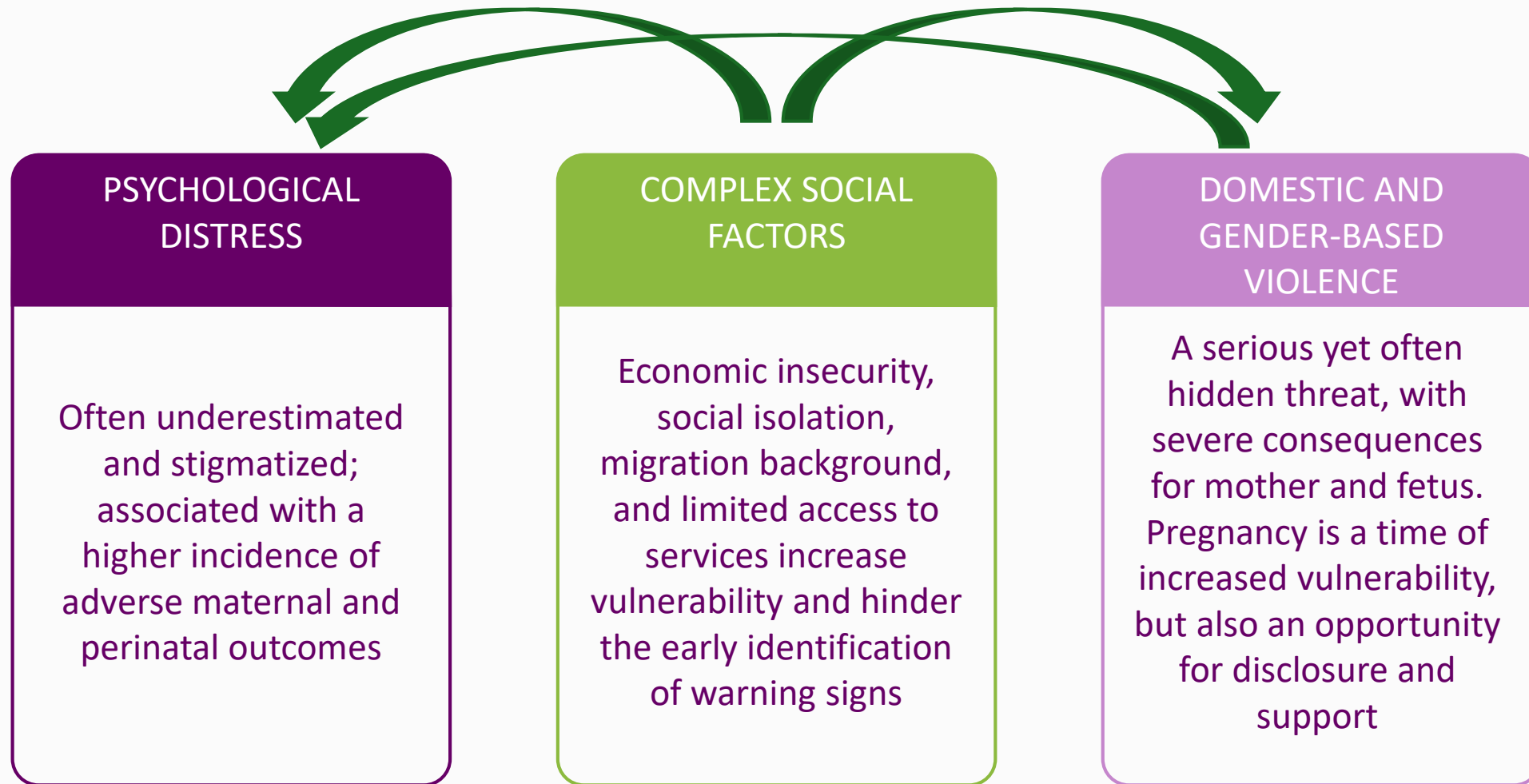
Evidence limitations:

Previous studies suggest that the observed association may reflect common underlying risk factors rather than an independent harmful effect of induced abortion.

*ISS analysis based on ISTAT cause-of-death data



Towards integrated perinatal psychosocial care





In-depth analysis through record linkage of multiple healthcare data sources, years 2011–2021



8 participating regions

54% of national live births

69.6% of all suicides (87/125)

Healthcare data sources	Data source availability	Selection by type of data sources
Emergency Department	82.8%	All admissions
Pharmaceutical prescriptions	88.5%	ATC code: N03A, N05, N06A, N06CA, N07B, R06A.
Outpatient specialist care	100.0%	Specialty: 040 Psychiatry, 042 Toxicology, 032 Neurology
Mental health services	41.4%	All admissions

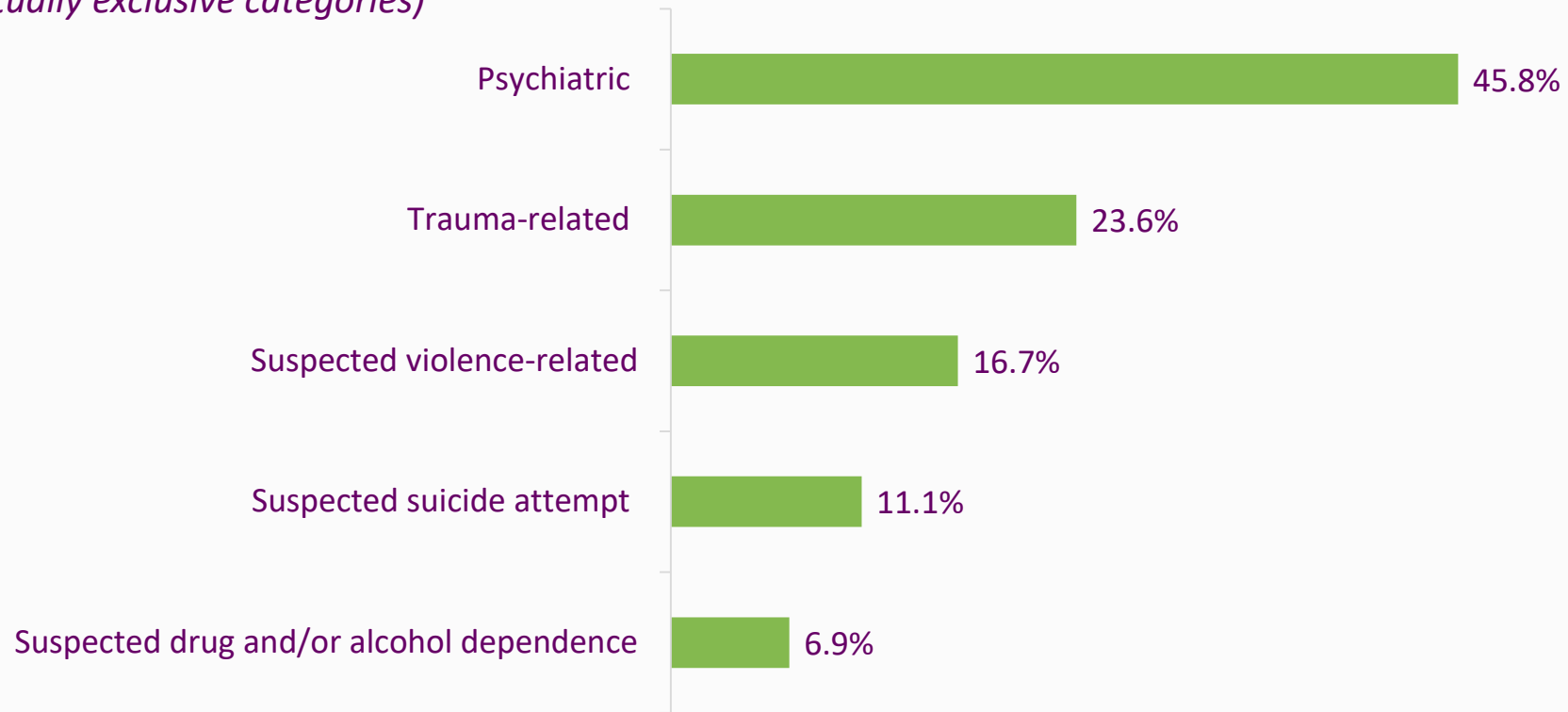
Data-source availability varied by region and year





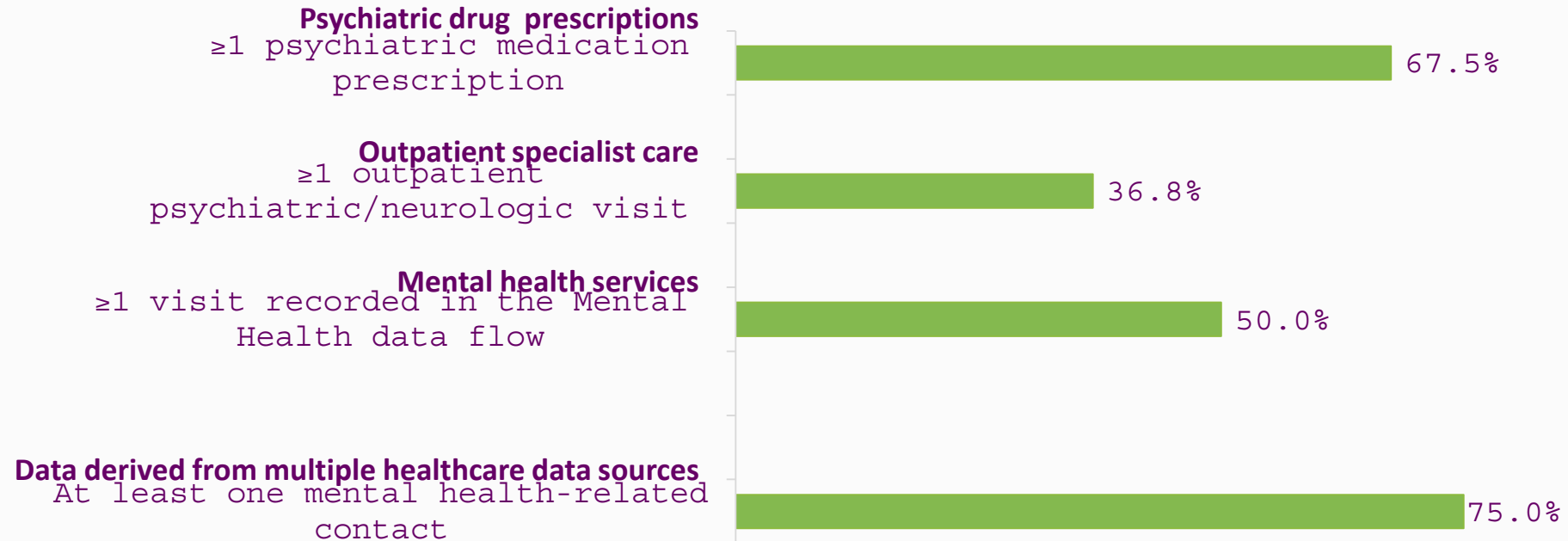
Data derived from healthcare data sources (N=87/125)

Reasons for Emergency Department visit *(not mutually exclusive categories)*





Data derived from healthcare data sources





Psychiatric diagnoses inferred from multiple healthcare data sources

Psychiatric diagnosis	N	%
Bipolar disorder	6	7%
Major depressive disorder	5	6%
Borderline personality disorder	2	2%
Adjustment disorder	2	2%
Obsessive-compulsive disorder	2	2%
Unspecified psychosis	2	2%
Anorexia nervosa	1	1%
Substance-induced mental disorders	1	1%
Personality disorder	1	1%
Schizoaffective disorder	1	1%
Unknown mental health/psychiatric conditions	N	%
Contact with the National Health Service for psychiatric care with an unknown diagnosis	35	40%
Unspecified mental disorder	24	28%
Unspecified severe mental disorder	5	6%

26%

74%



Healthcare data alone cannot capture the complexity of women's life and care pathways following a reproductive event.

Confidential enquiries into late maternal suicides are urgently needed to assess preventability, improve care, and guide action.





Previous ItOSS in depth analysis

ORIGINAL ARTICLE



Maternal suicide in Italy

Ilaria Lega¹  · Alice Maraschini¹ · Paola D'Aloja¹ · Silvia Andreozzi¹ · Daniela Spettoli² · Manuela Giangreco³ · Monica Vichi⁴ · Marzia Loghi⁵ · Serena Donati¹ · the Regional maternal mortality working group

Received: 27 December 2018 / Accepted: 3 May 2019
© Springer-Verlag GmbH Austria, part of Springer Nature 2019

Archives of Women's Mental Health
<https://doi.org/10.1007/s00737-019-00977-1>

Maternal suicides

MMR within 1 year of the end of pregnancy:

2006–2012: 2.3 per 100,000

12% of maternal deaths (N=67)

2011–2019: 2.4 per 100,000

16.9% of maternal deaths (N=114)

Past psychiatric history

60% of the deceased women had a history of psychiatric disorders.

More than 75% had no documented psychiatric history in obstetric records.

Integrated care network

Half of the deceased women with documented postpartum suicide risk had no access to secondary mental health care services.





National survey of Mental Health Departments

> Eur Psychiatry. 2024 May 24;67(1):e46. doi: 10.1192/j.eurpsy.2024.1749.

Perinatal mental health care in the Italian mental health departments: a national survey

Ilaria Lega ¹, Simona Mastroeni ¹, Claudia Ferraro ¹, Annette Bauer ², Mauro Bucciarelli ¹,
Silvia Andreozzi ¹, Enrica Pizzi ¹, Serena Donati ¹;
Group for Maternal Mental Health in the first 1,000 days of life



Nationwide cross-sectional survey, 2023

119 Mental Health Departments (**93.7%** response rate)

58% offer preconception counseling

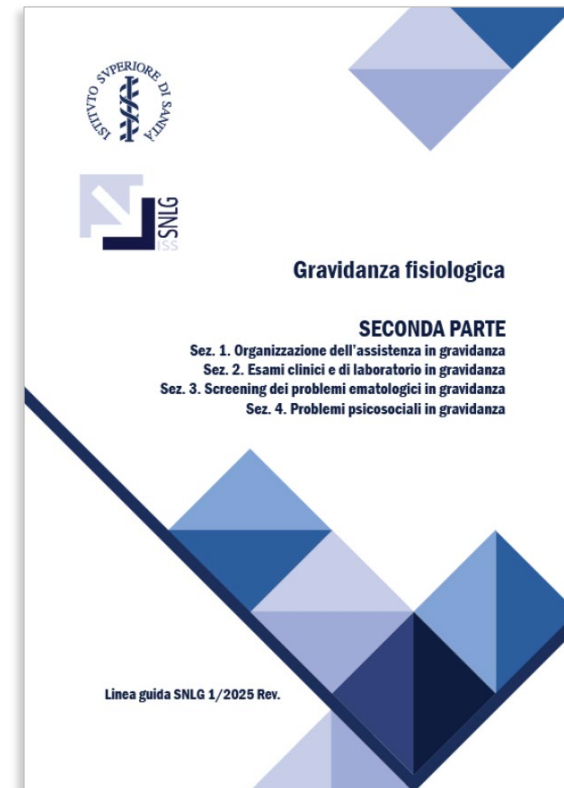
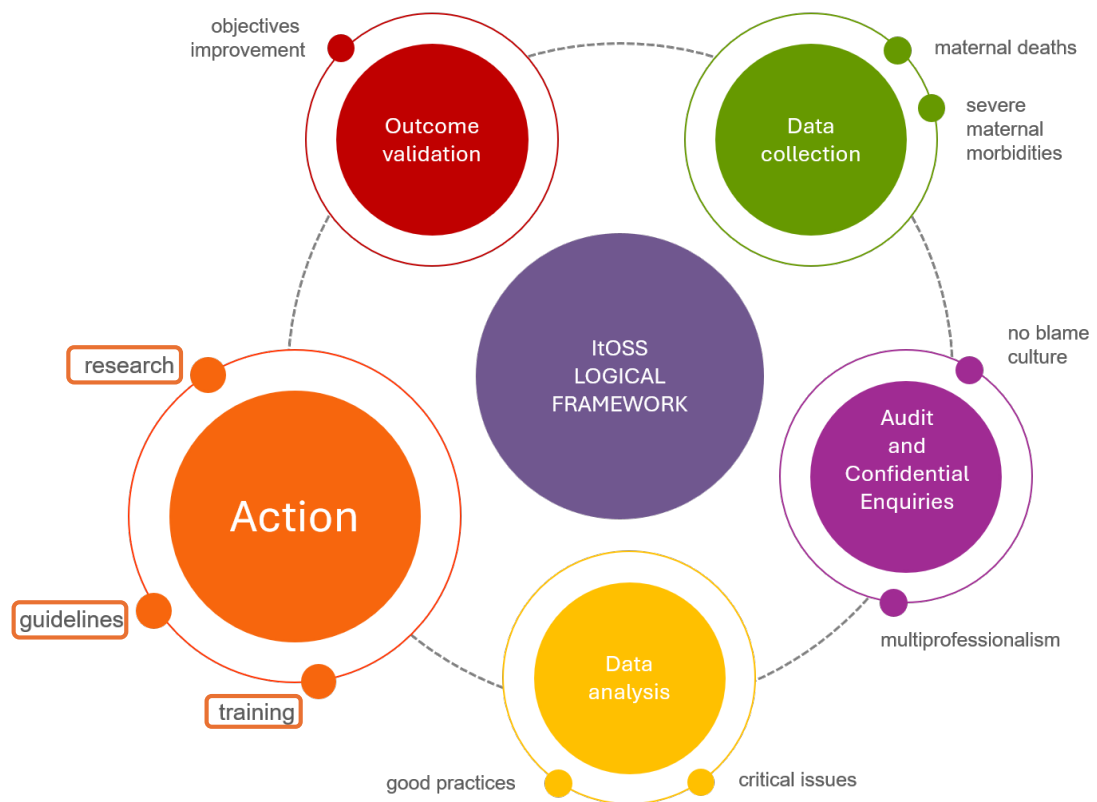
20% have written integrated care pathways for perinatal mental disorders

43% have reference professional for psychopharmacological treatment

23% have established an outpatient clinic for perinatal mental disorders

0% have mother-baby units





For the first time in Italy, the update of the national evidence-based guideline on “Physiological Pregnancy” has developed evidence-based recommendations on **psychosocial problems** during pregnancy



Summary of national guideline key recommendations



The updated guideline recommends:

- **Depression screening** for all women at every routine antenatal health assessment and up to one year postpartum, using risk-factor assessment and the Whooley questions.
 - **Anxiety screening** for all women at every routine antenatal health assessment and up to one year postpartum, using the 2-item Generalized Anxiety Disorder scale (GAD-2).
 - **Assessment of exposure to domestic and gender-based violence** at every routine health assessment
 - **Assessment of complex social factors** at every routine health assessment.
 - **Mandatory training** on these issues as part of both initial training and continuing professional development for all professionals involved in perinatal care.
- **Establishment of an integrated care network**, where not already available, to ensure the diagnosis and treatment of depression and anxiety during pregnancy and the postpartum period, **involving mental health services, social services, and other relevant community-based agencies.**





Urgent priorities



Challenge the myth of pregnancy as an “always happy” time

Train professionals in psychosocial health promotion

Adopt a proactive approach at every contact with women

Use validated tools to identify psychosocial risk

Develop integrated care pathways to ensure communication and continuity across primary care, maternity, abortion, community paediatrics, and mental health services

Planned ItOSS activities for 2027



Disseminate the updated guideline recommendations

Pilot their implementation

Launch confidential enquiries into late maternal suicide

Develop an e-learning course on psychosocial risk detection and assessment during the perinatal period





My heartfelt thanks to the wonderful national ItOSS research and clinical community, and to the entire ItOSS team!



Edoardo Corsi Decenti



Martina Ventura



Donatella Mandolini



Ilaria Lega



Mauro Bucciarelli



Serena Donati



Romina Pausilli



Monica Pirri



Simona Mastroeni



Alice Maraschini



Silvia Andreozzi



Claudia Ferraro



Paola D'Aloja



Margherita Tommasella

