

Maternal Mortality as a Public Health Challenge

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USC Health Journalism Webinar

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Definitions (in the U.S.)

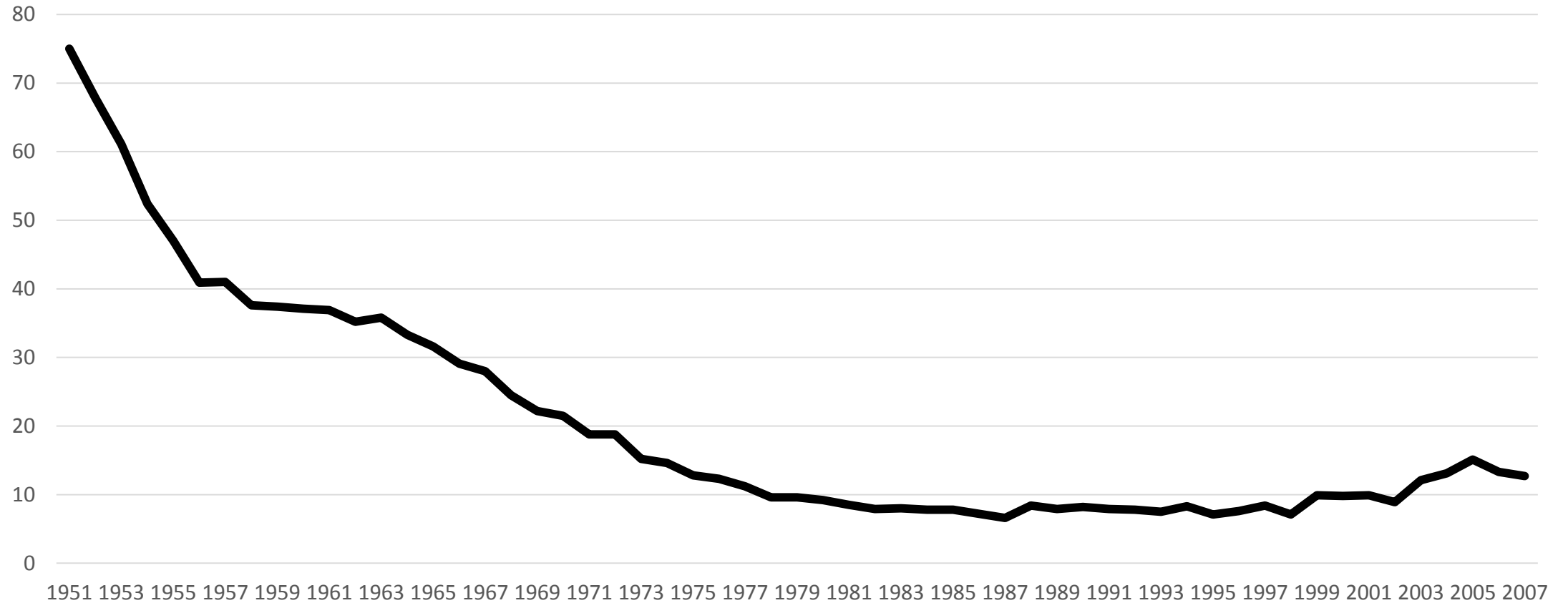
- **Maternal Mortality Ratio** – the death of a woman *while pregnant or within 42 days of termination of pregnancy*, irrespective of the duration and site of the pregnancy, from any cause *related to or aggravated by the pregnancy* or its management but not from accidental or incidental causes. Typically reported as a ratio per 100,000 births.
- **Pregnancy Related Death** – the death of a woman during pregnancy or *within one year* of the end of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy.
- **Pregnancy Associated Death** – The death of a women while pregnant or *within one year* of termination of pregnancy, *irrespective of cause. (WHO calls these “pregnancy related”)*

**Is there a problem
in the U.S.?**

**Is there a problem
in the U.S.?**

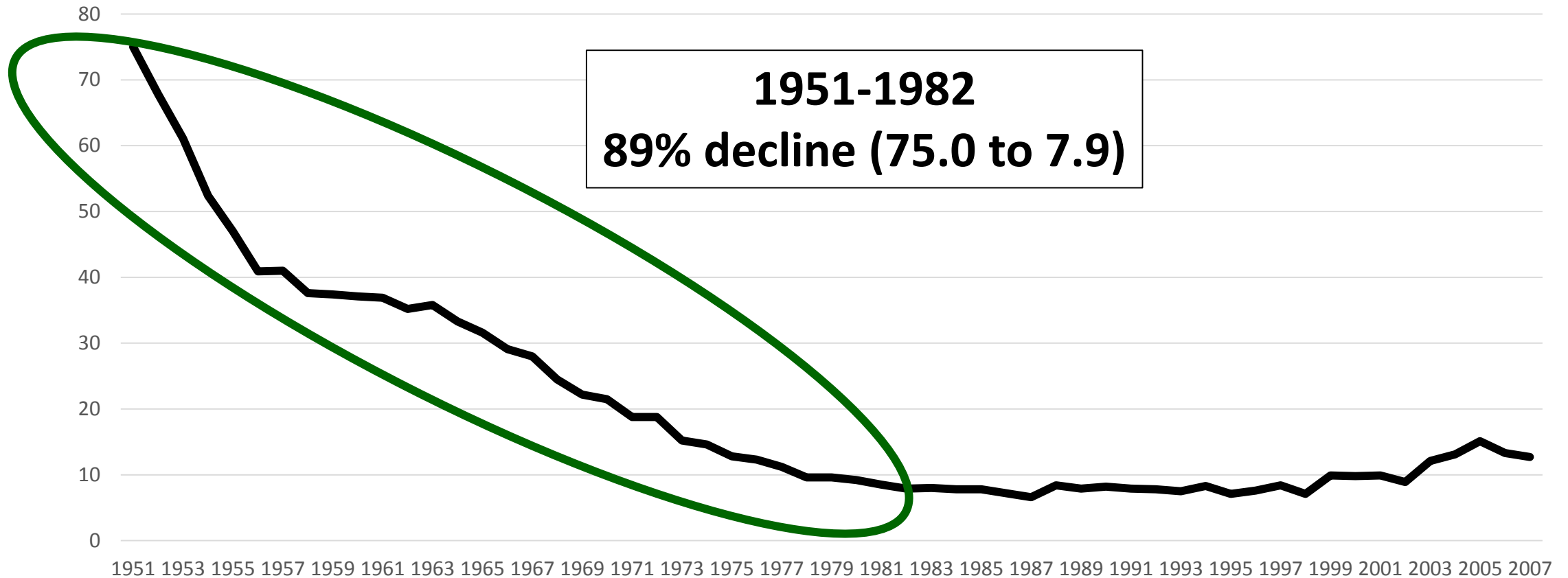
Yes

U.S. Maternal Mortality (per 100,000 live births), 1951-2007



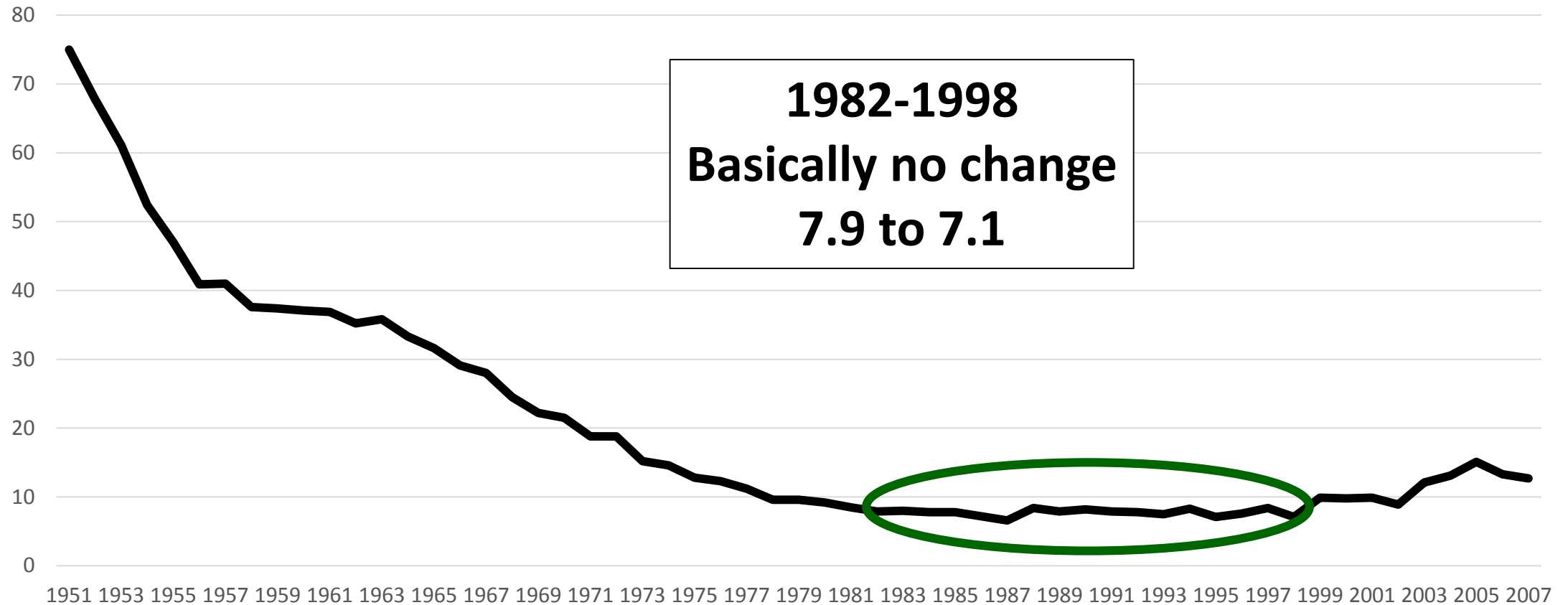
Source: NCHS. Deaths: Final Data. Annual Reports.

U.S. Maternal Mortality (per 100,000 live births), 1951-2007



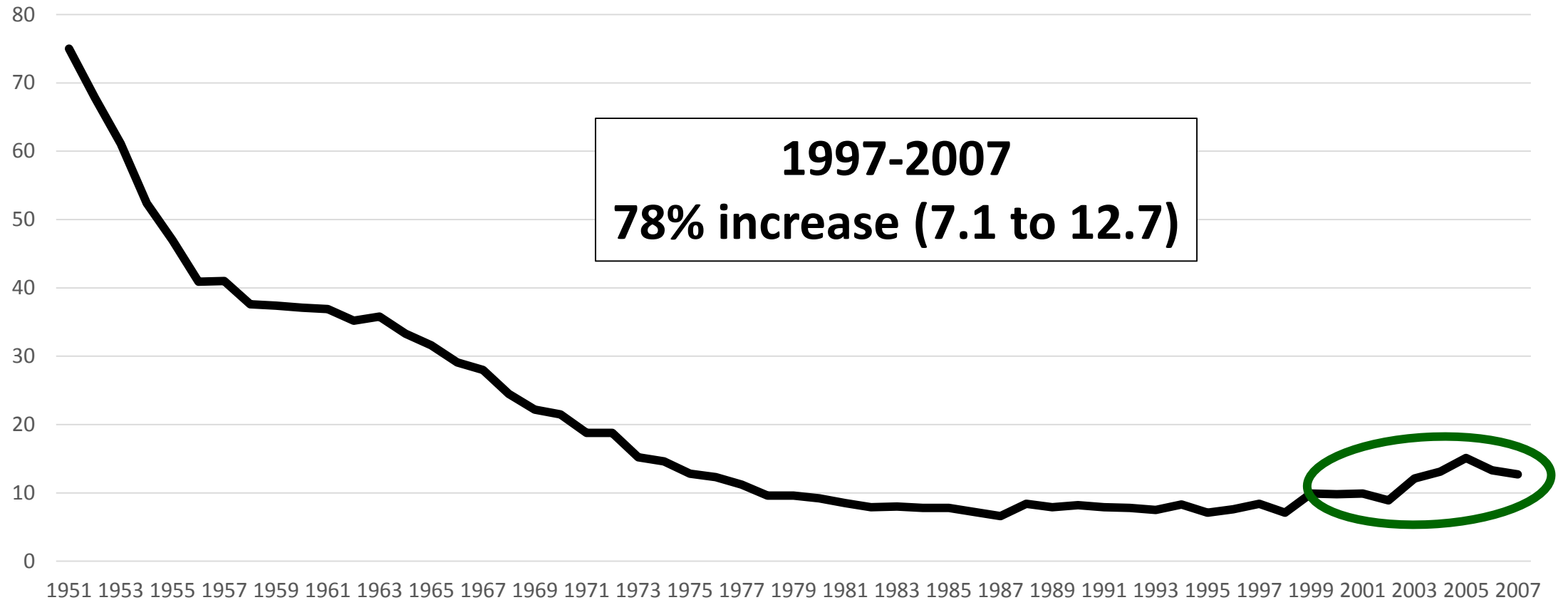
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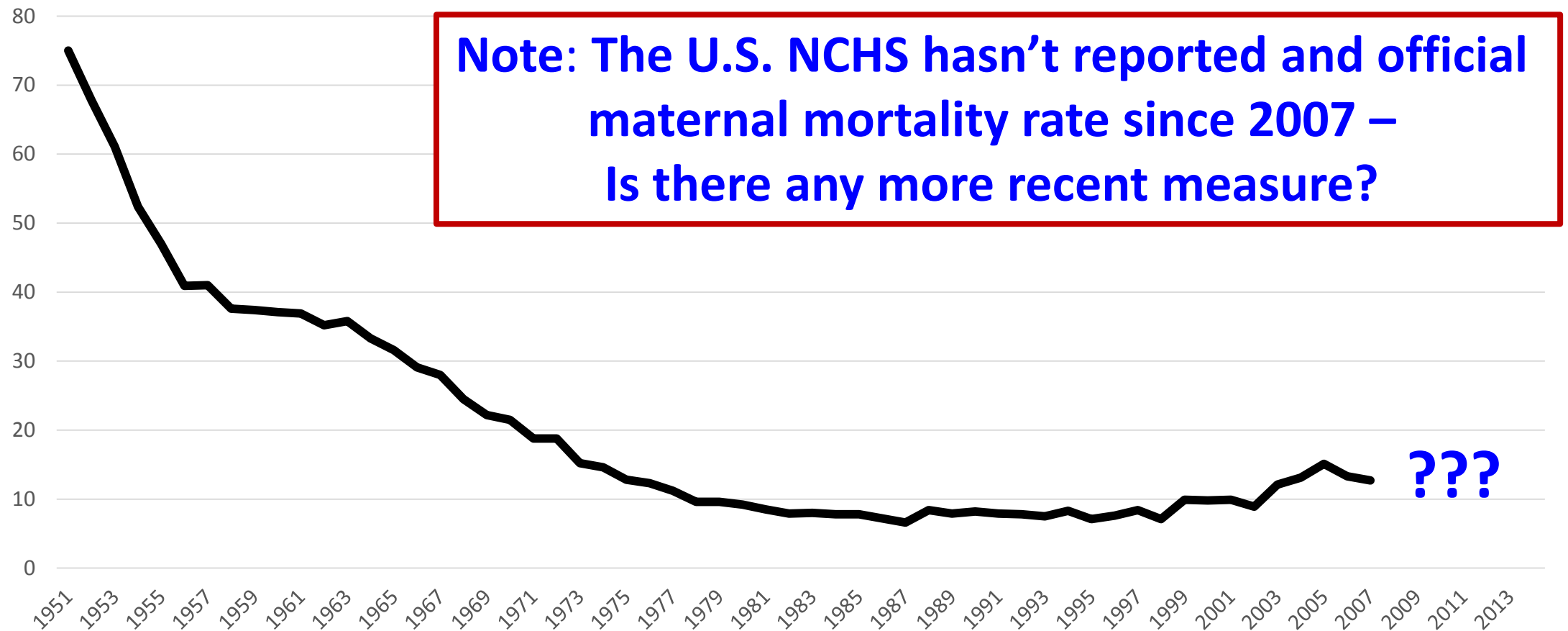
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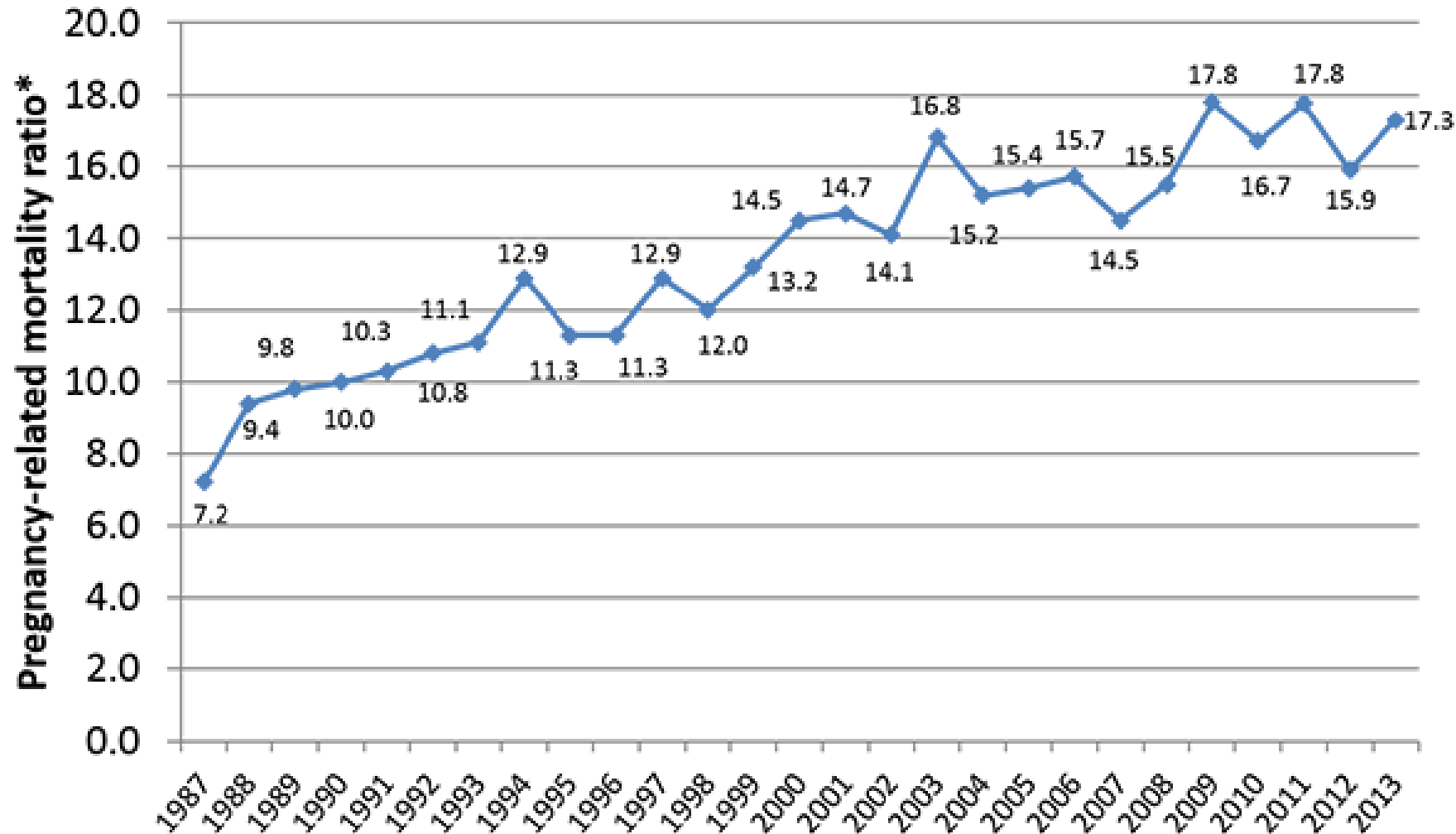
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U.S. Maternal Mortality (per 100,000 live births), 1951-2007



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Pregnancy Related Mortality, U.S., 1987-2013

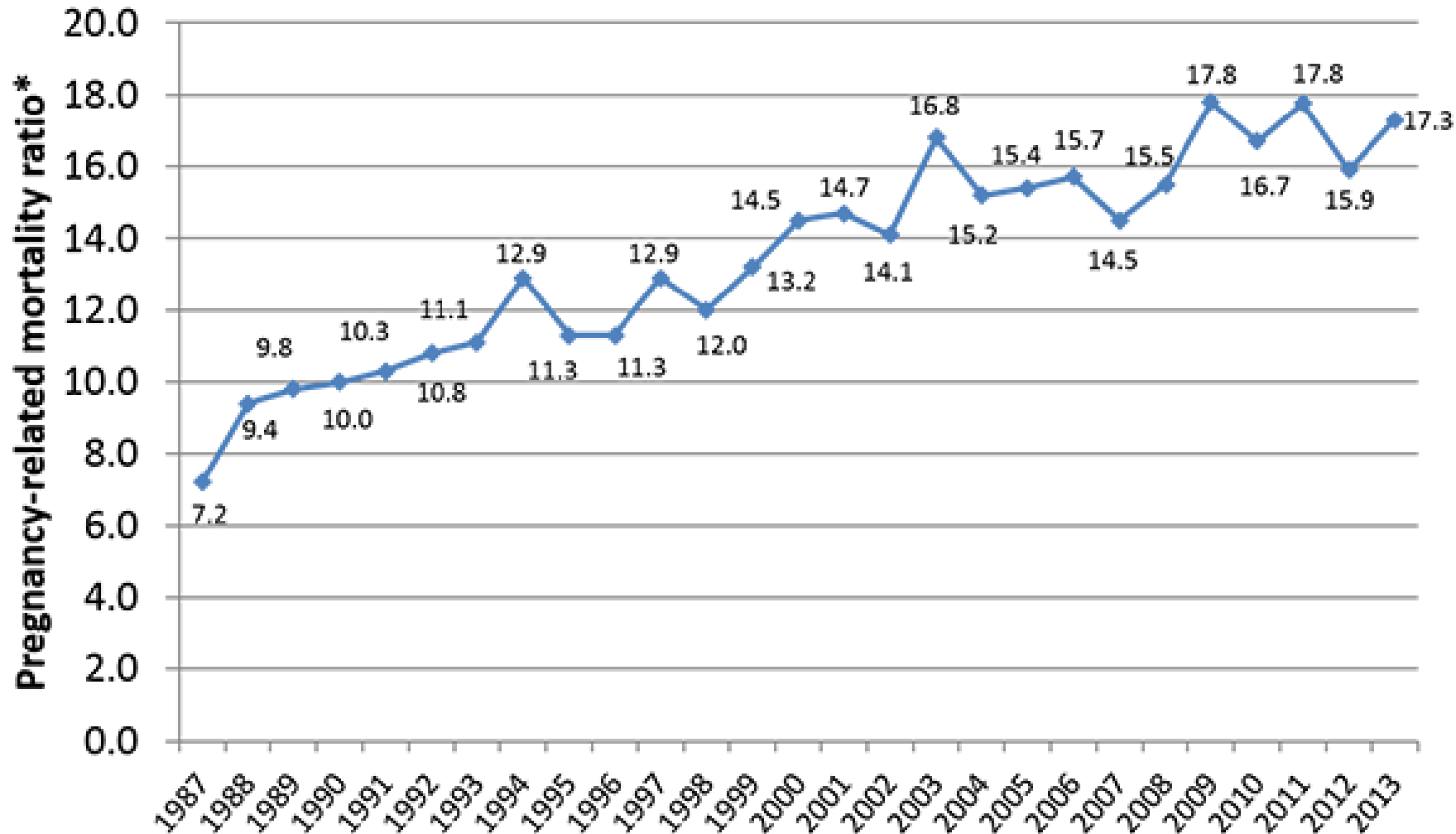


*Note: Number of pregnancy-related deaths per 100,000 live births per year.

Source: CDC. Pregnancy Mortality Surveillance System

<https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pmss.html>

Pregnancy Related Mortality, U.S., 1987-2013



NOTE: This isn't a measure of maternal mortality and hence not comparable to other countries.

Source: CDC. Pregnancy Mortality Surveillance System

<https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pmss.html>

*Note: Number of pregnancy-related deaths per 100,000 live births per year.

**So can we compare the U.S. to
other countries?**

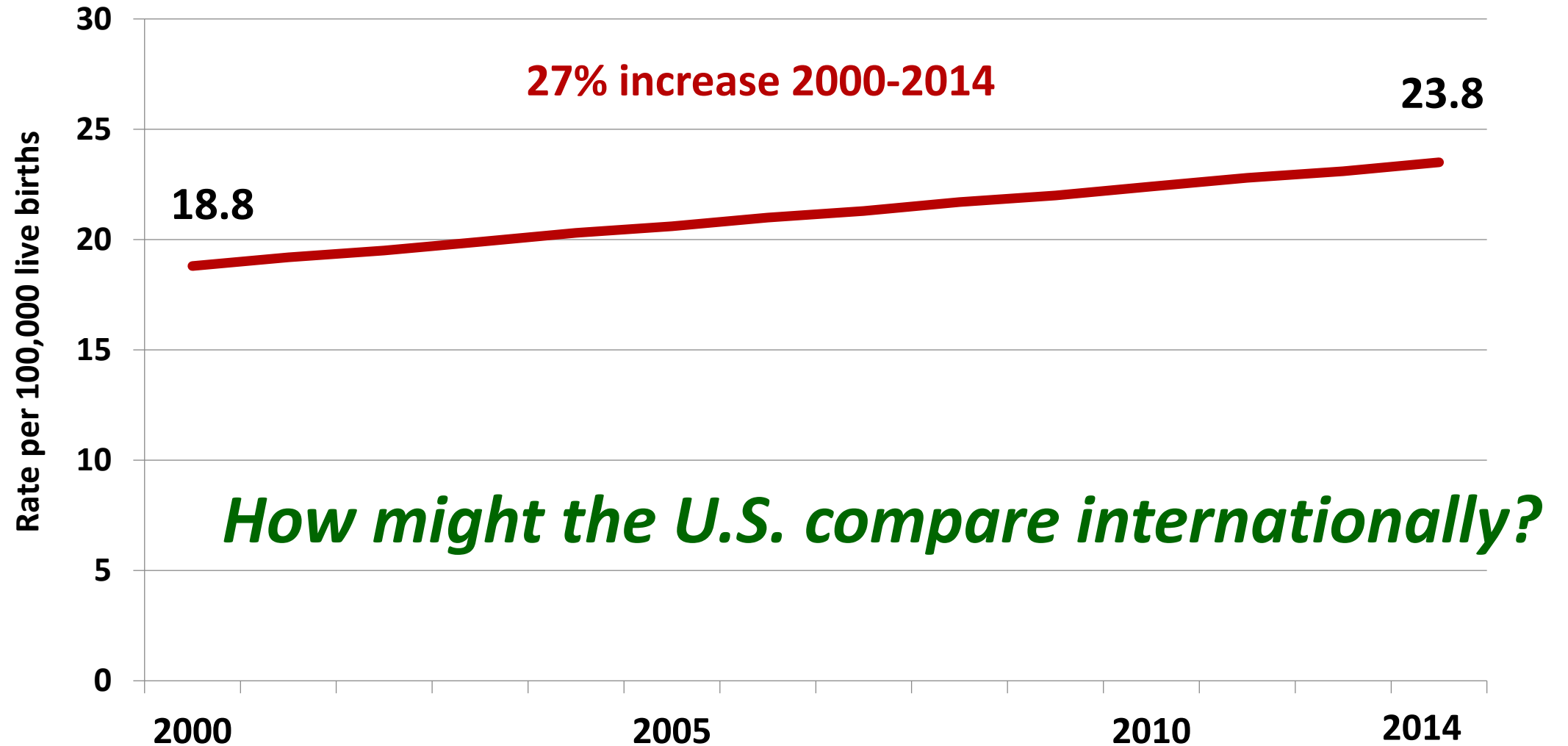
Recent Increases in the U.S. Maternal Mortality Rate

Disentangling Trends From Measurement Issues

Marian F. MacDorman, PhD, Eugene Declercq, PhD, Howard Cabral, PhD, and Christine Morton, PhD

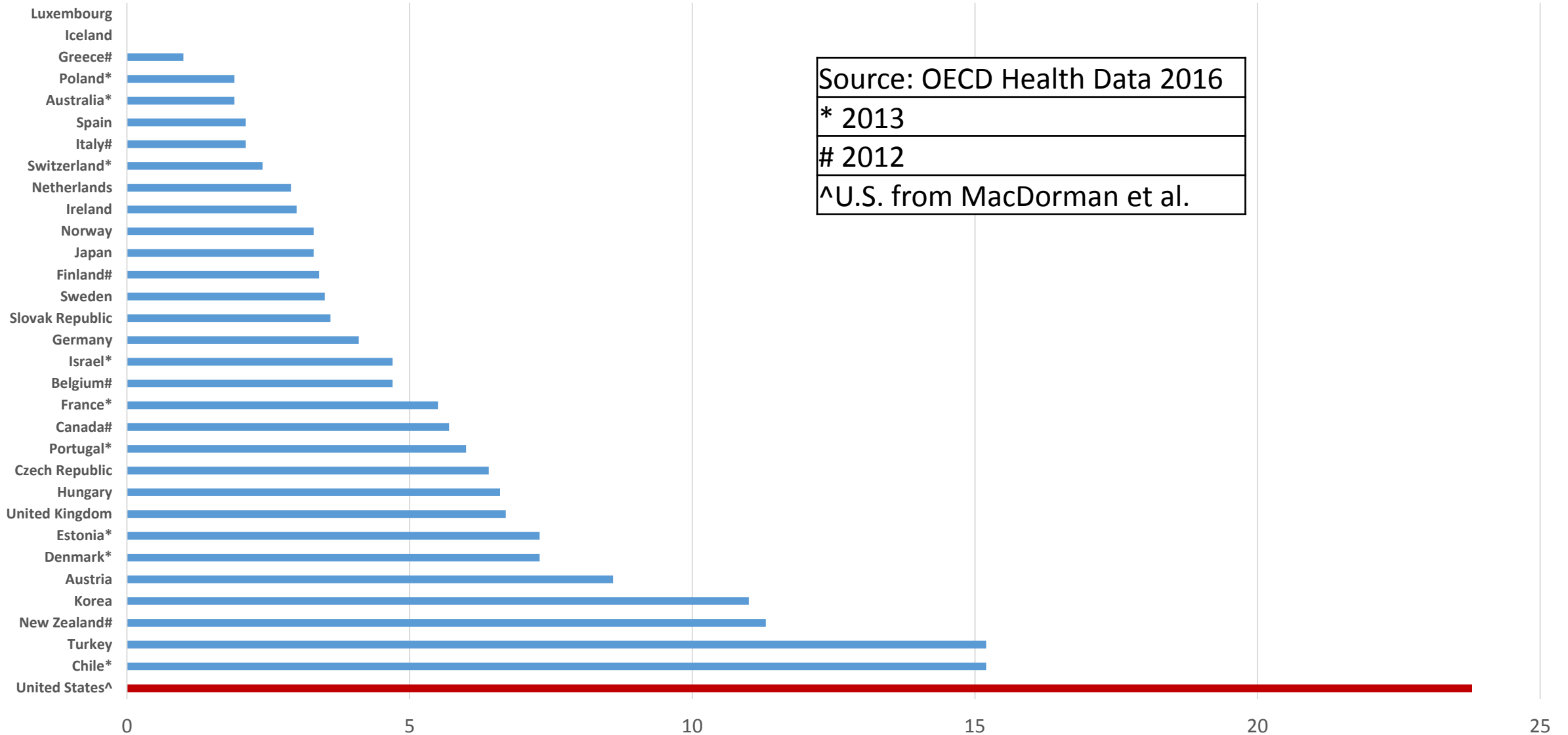
RESULTS: The estimated maternal mortality rate (per 100,000 live births) for 48 states and Washington, DC (excluding California and Texas, analyzed separately) increased by 26.6%, from 18.8 in 2000 to 23.8 in 2014. California showed a declining trend, whereas Texas had a sudden increase in 2011–2012. Analysis of the measurement change suggests that U.S. rates in the early 2000s were higher than previously reported.

Estimated MMRs, 48 states* and DC, 2000-2014



*Excludes California and Texas.

Maternal Mortality Ratios, OECD* Countries, 2014



Source: OECD Health Data 2016

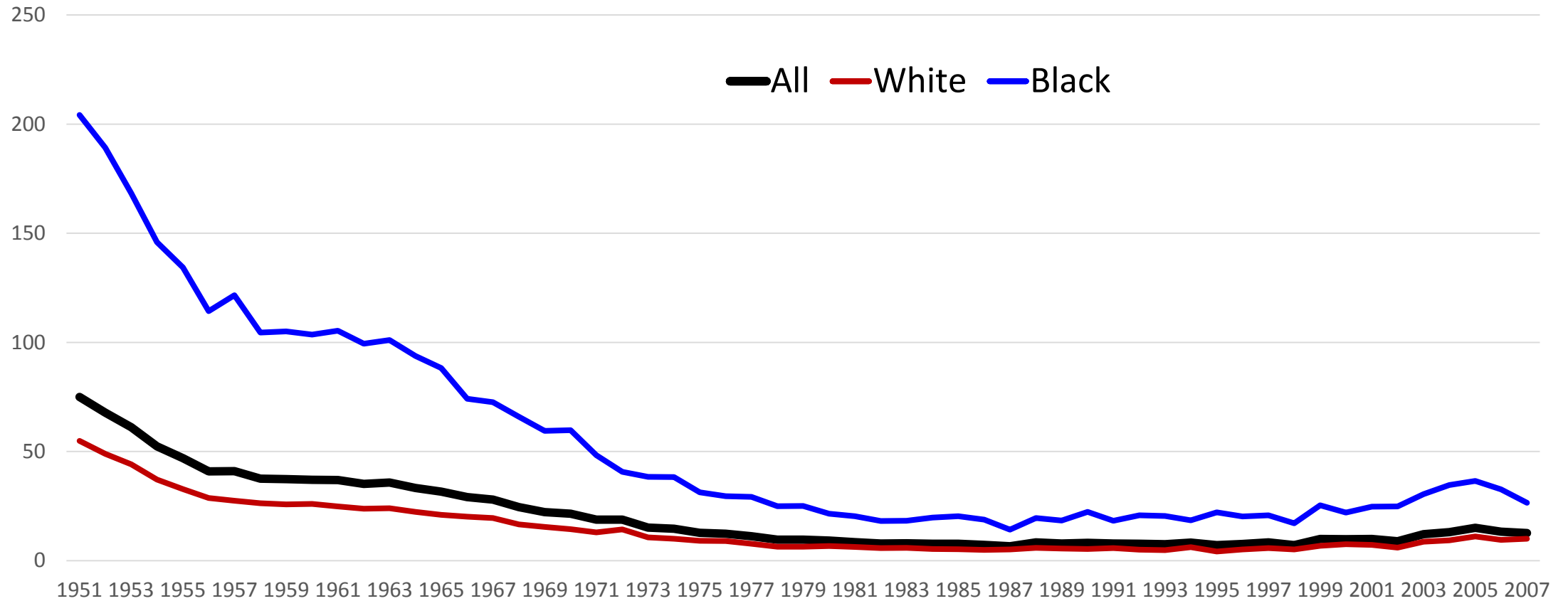
* 2013

2012

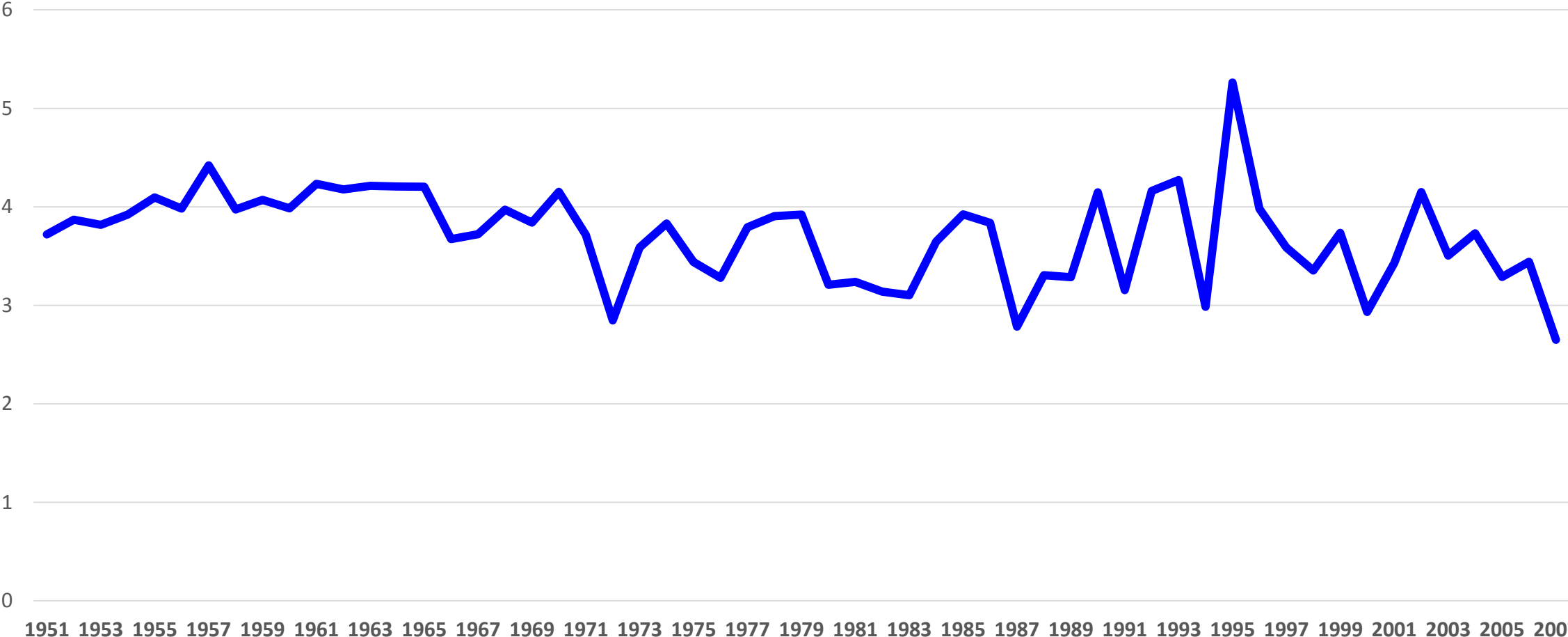
^U.S. from MacDorman et al.

* Organization for Economic and Cooperation and Development

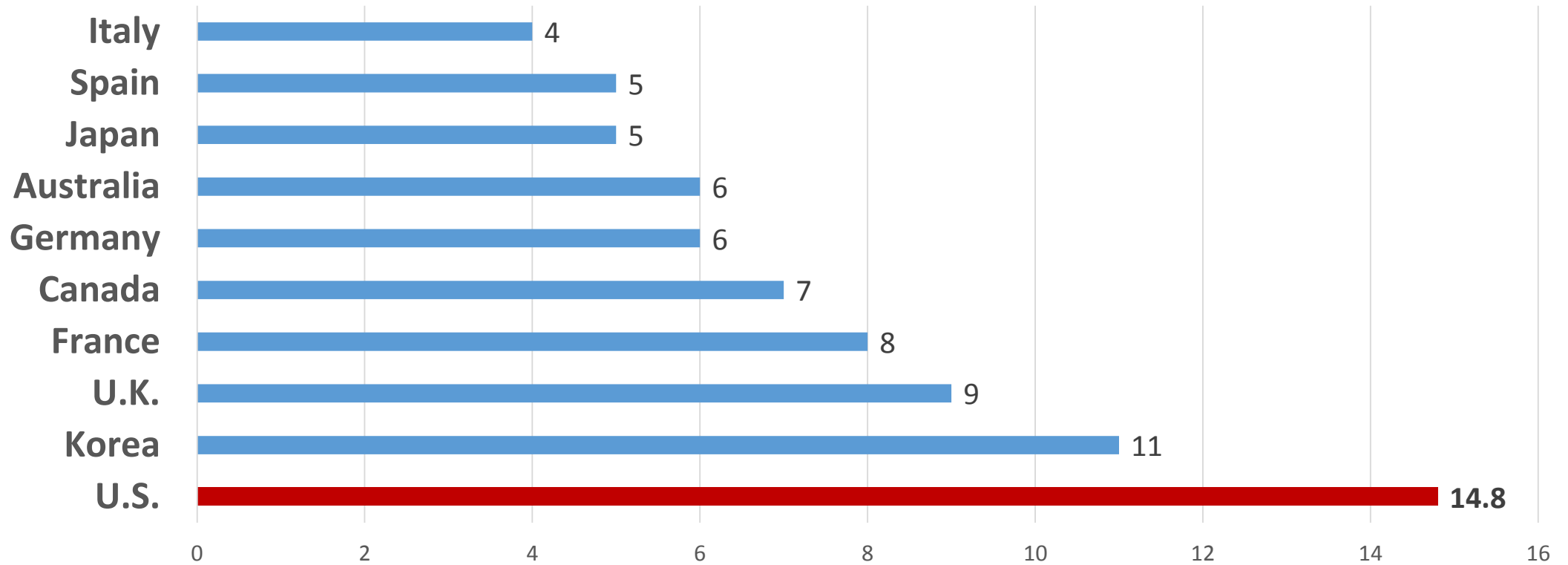
U.S. Maternal Mortality (per 100,000 live births), 1951-2007 by Race



U.S. Maternal Mortality Ratio of Black to White Rates 1951-2007



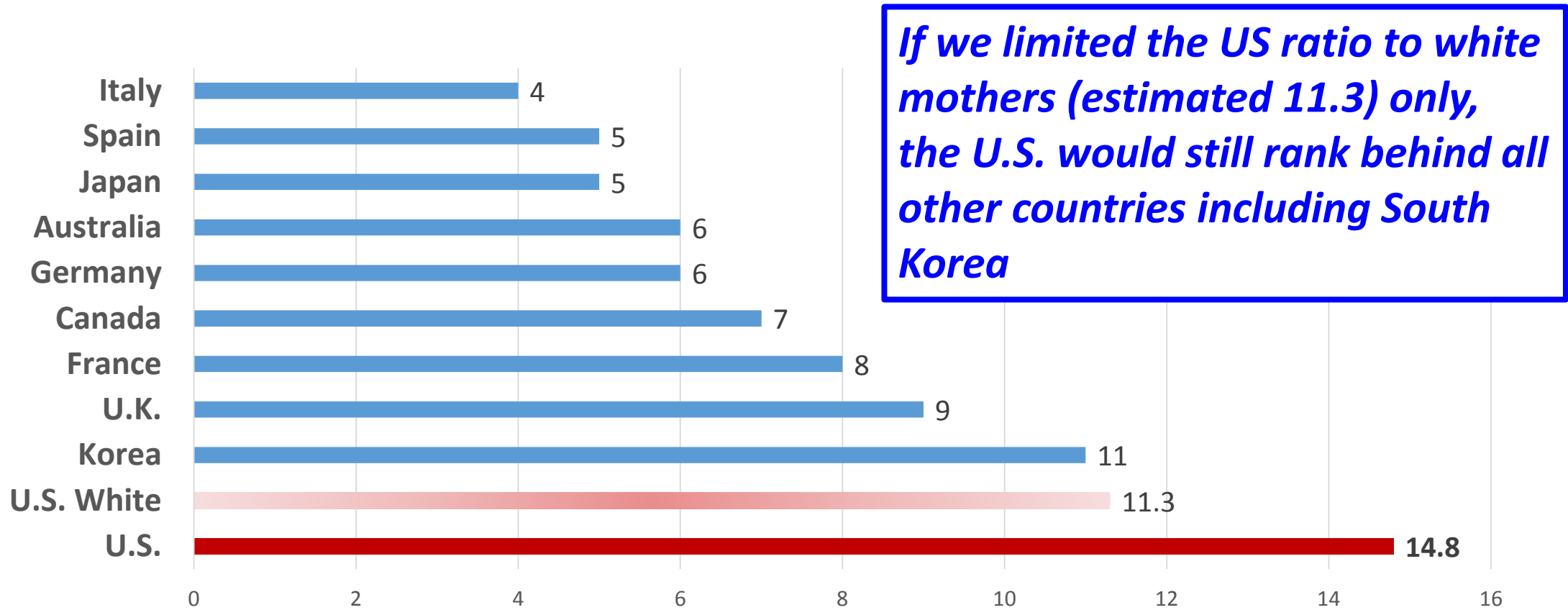
U.S. MMR* Compared to Countries with 300,000+ births, 2014, using WHO Estimates



* Maternal Mortality per 100,000 births

Source: *Maternal Mortality: 1990 to 2015* Estimates by WHO, UNICEF, UNFPA, World Bank Group & UN Population Division. Geneva: 2015.

U.S. MMR* Compared to Countries with 300,000+ births, 2014, using WHO Estimates



* Maternal Mortality per 100,000 births

Interracial Differences

Where would estimated rates leave the U.S. in international comparisons?

Hispanic 10.0 (Lithuania 10/Portugal 10)

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Where would estimated rates leave the U.S. in international comparisons?

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NH White 11.3 (Bulgaria 11/S. Korea 11)

NH Black 36.2 (Uzbekistan 36/ Mexico 38)

So, by even a conservative standard the US fares poorly in international comparisons.

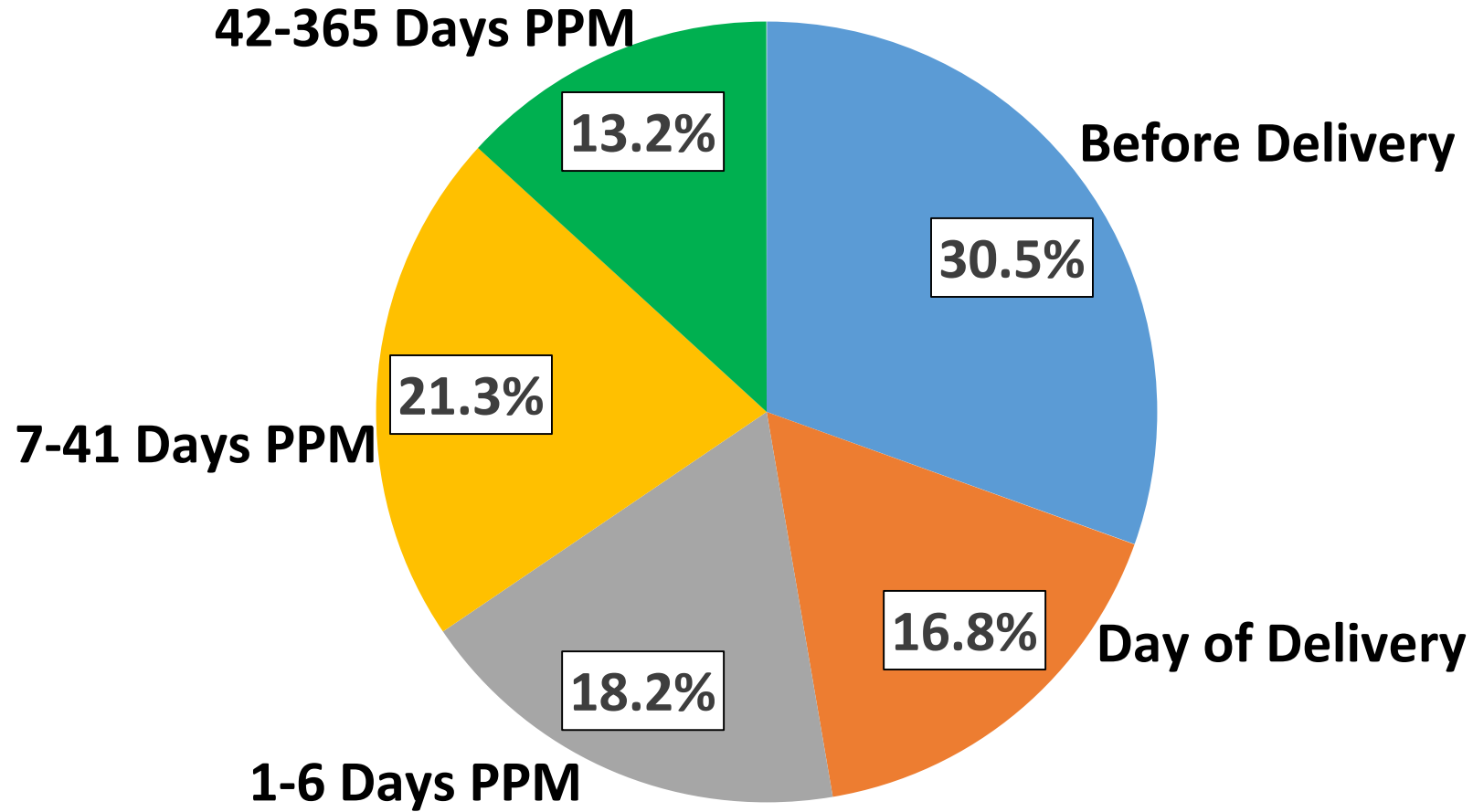
What can be done?

Key is a combined clinical, public health and policy response.

Dr. Main will describe the exceptional efforts underway to deal with the clinical challenges.

Why a public health response is also needed.

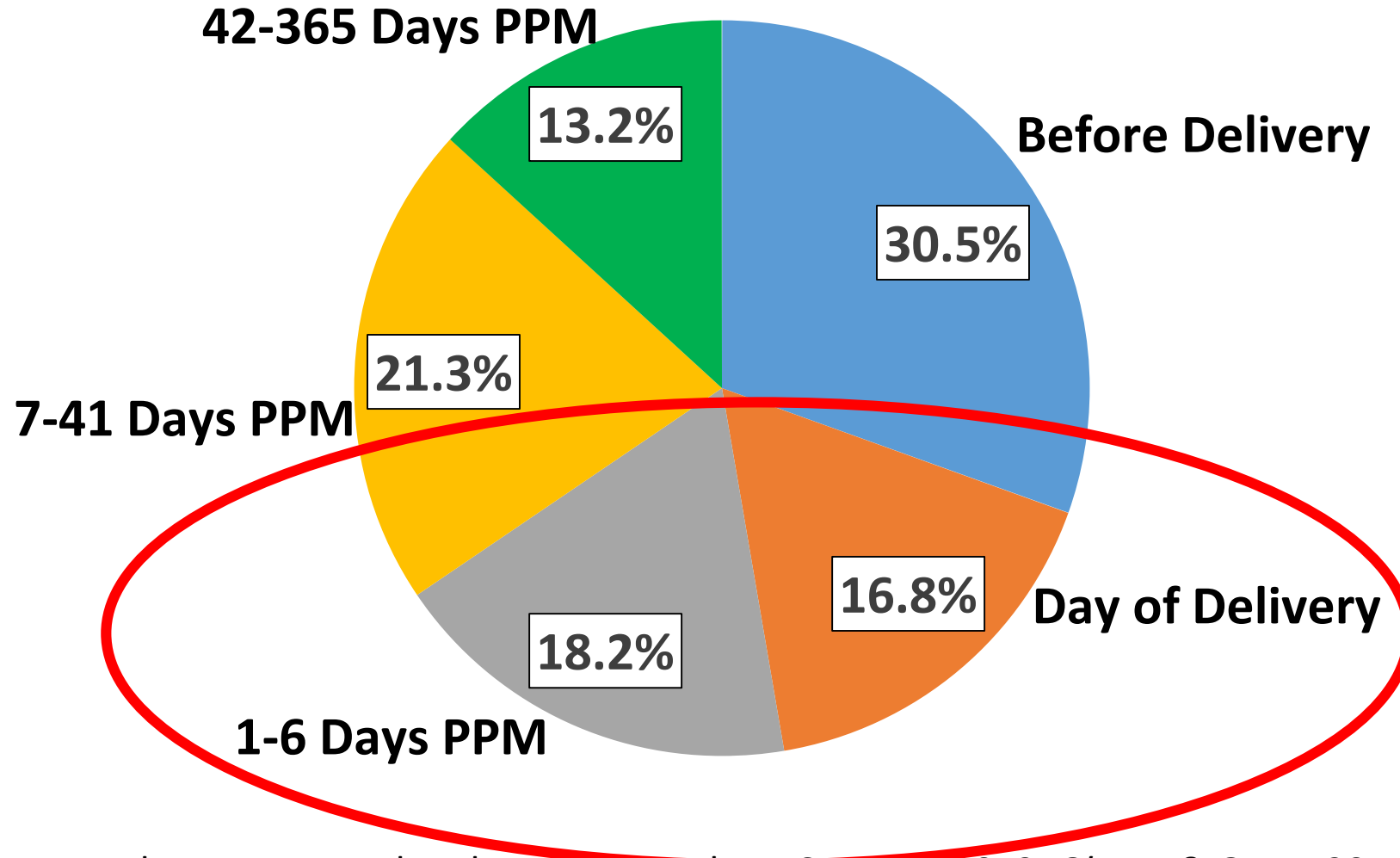
Timing of Maternal Deaths



Source: Creanga A et al. Pregnancy Related Mortality in the U.S., 2011-2013. *Obstet & Gynec* 2017.

Why a public health response is also needed.

Timing of Maternal Deaths



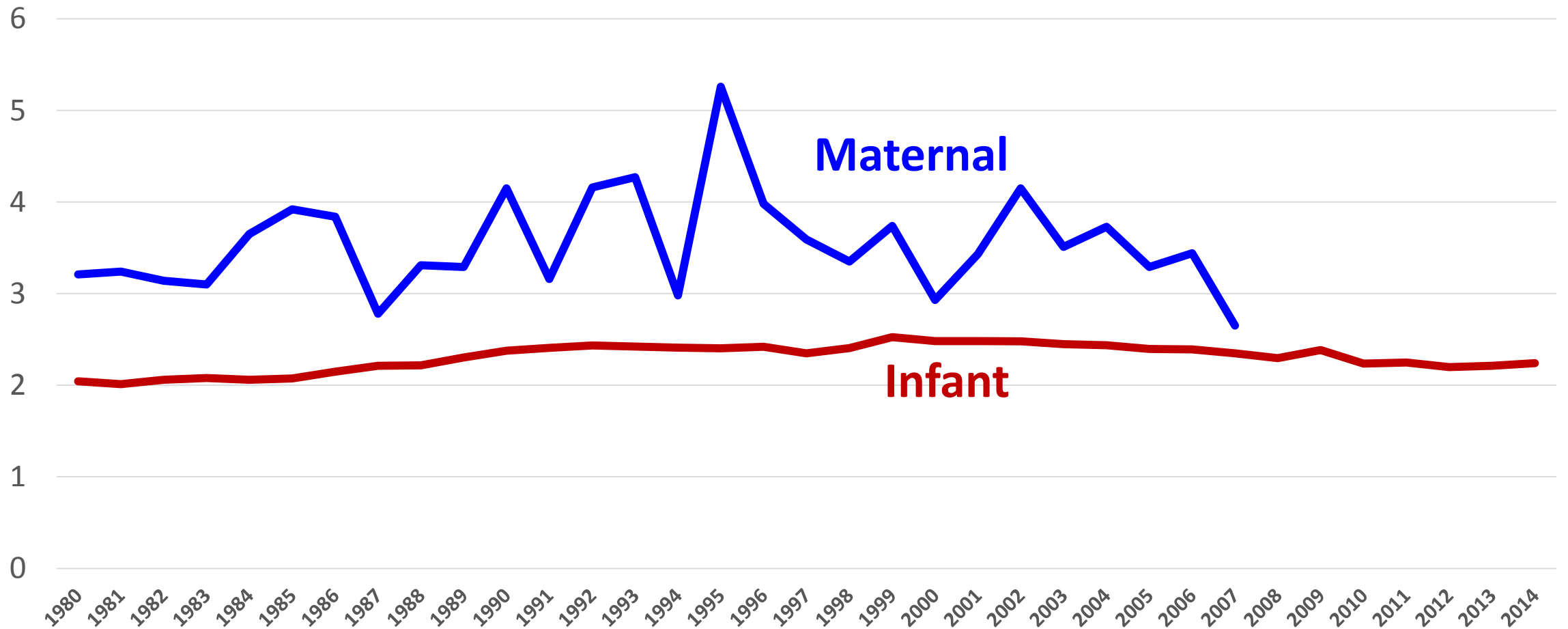
Source: Creanga A et al. Pregnancy Related Mortality in the U.S., 2011-2013. *Obstet & Gynec* 2017.

What's the policy response needed?

- Investment in the public health infrastructure so we can better determine just who is dying, when and how they are dying.
- More importantly there needs to be an investment in

WOMEN'S HEALTH WHEN THEY ARE NOT PREGNANT

Infant & Maternal Mortality Black to White Ratios of 1980-2014



Level of Coverage: Variation in Medicaid Eligibility by Pregnancy Status

As of January, 2017	Medicaid Eligibility	
	Pregnancy	Parents Family of 3
U.S. Average	203%	107%
Connecticut	263%	155%
Maine	214%	105%
Massachusetts	214%	138%
New Hampshire	205%	138%
Alabama	146%	18%
California	213%	138%
Florida	196%	33%
Iowa	380%	138%
New York	223%	138%
Texas	203%	18%

Maternal Mortality is the tip of the iceberg on women's health.

Maternal deaths account for about 1% of all deaths to women 15-49 in the U.S.

The death rate for women 15-49 has not improved.

Focusing only on pregnancy will not solve the problem of maternal mortality in the U.S.

www.birthbythenumbers.org



Slides will also be posted here.

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8 doulas



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