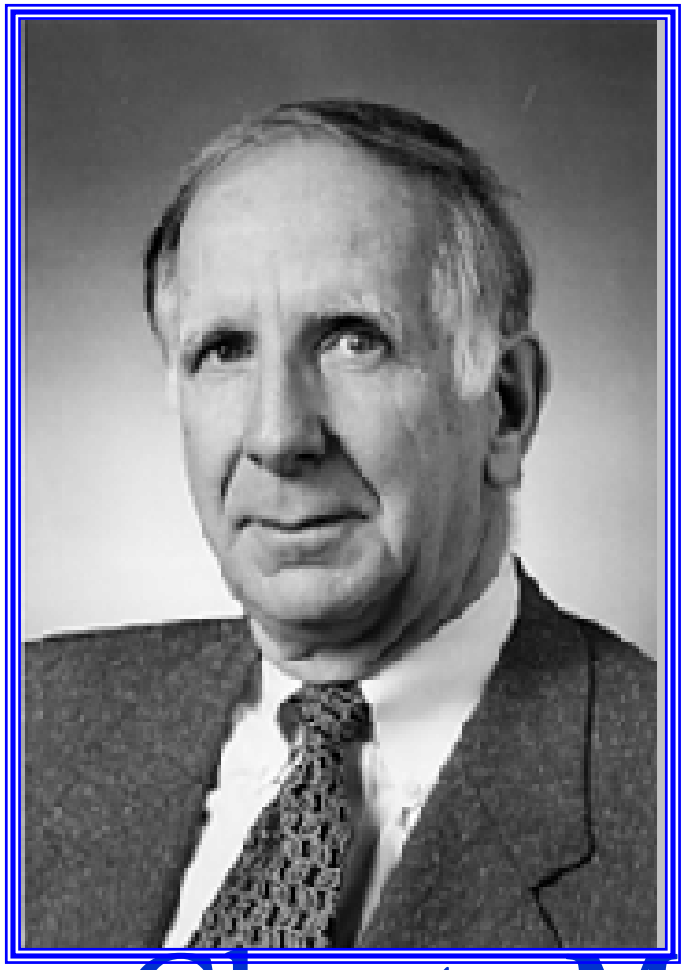


Dr. John Choate Memorial Lecture

Safe Motherhood Project Update-2004

Learning Objectives

- Comprehend the worldwide impact
- List the issues in New York State and NYC
- Understand the District II-SMI Project
- Discuss the medical and systems issues
- Appreciate the need for local “action”
- Recognize the opportunity for involvement

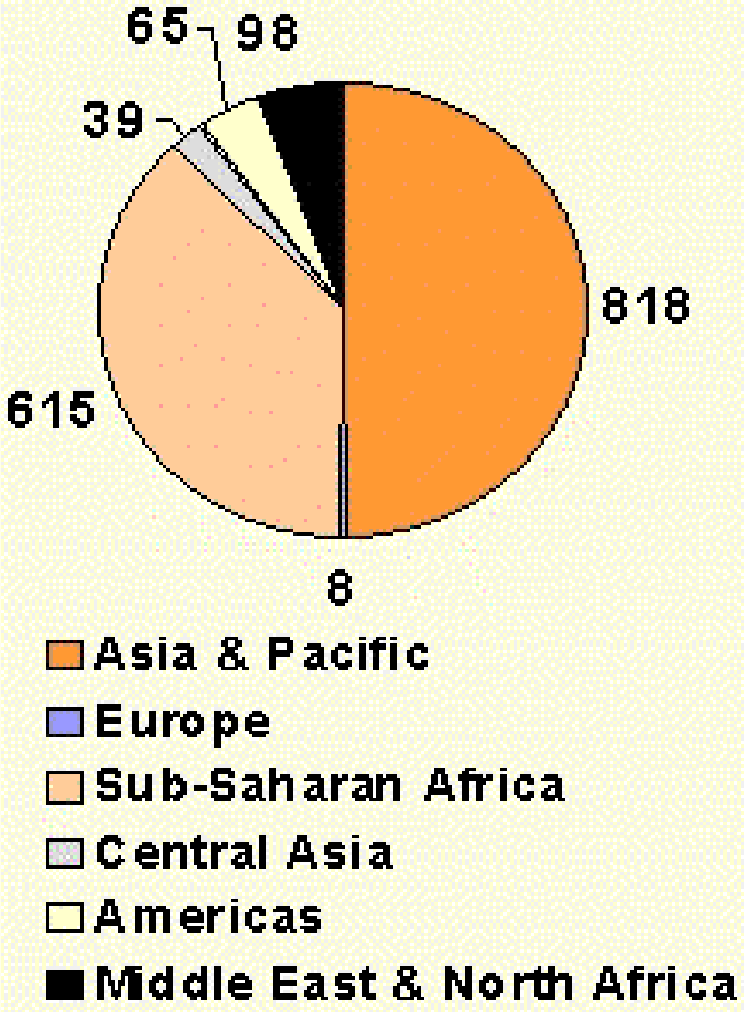
Maternal Mortality: Why Must We Still Be Interested?

- **Measure of the overall effectiveness of our *obstetric* and *general health care system*.**
- **Provides a *sentinel indicator* of problems or "gaps" in the health care system.**

WORLDWIDE

Daily Death Toll:

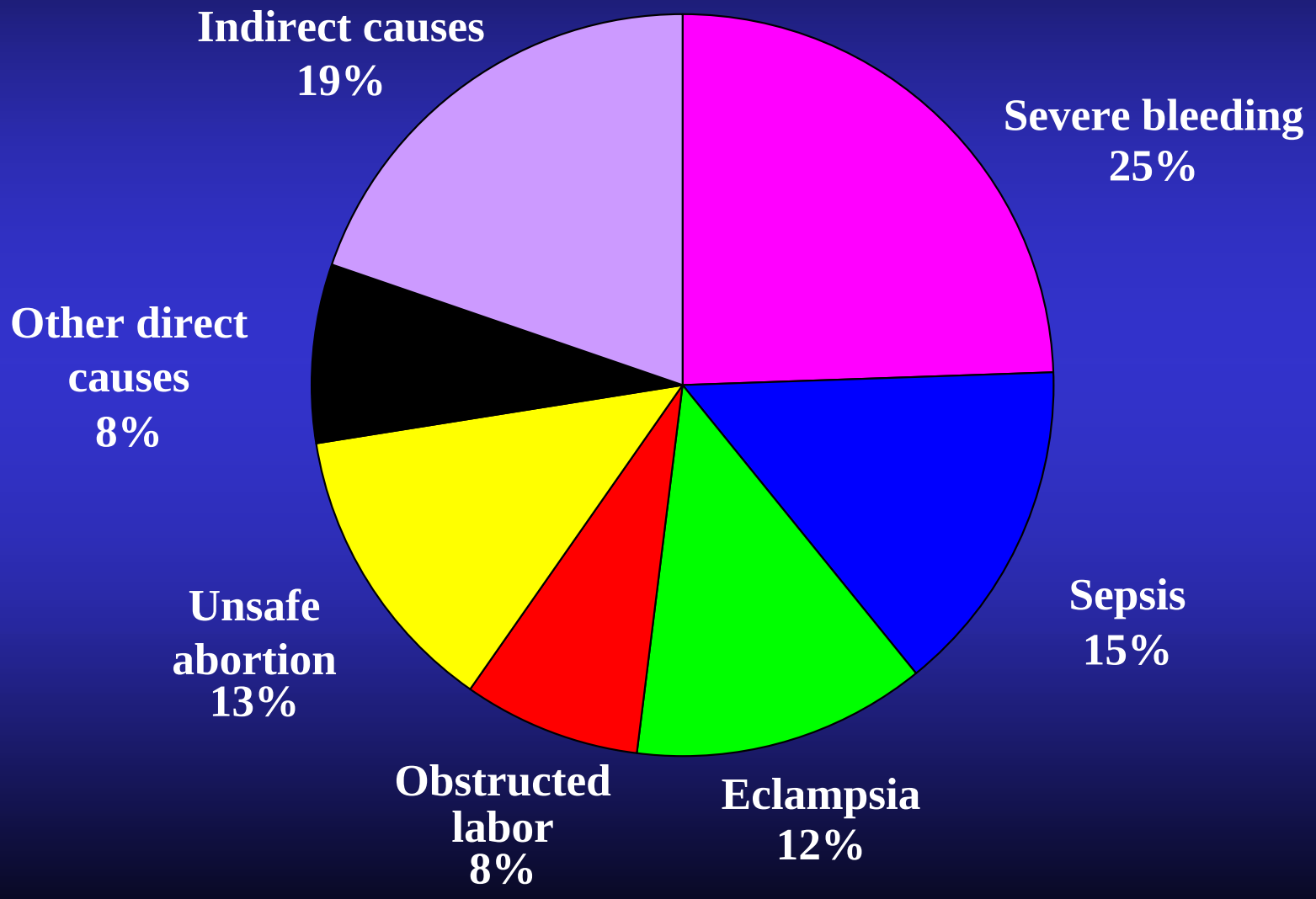
during pregnancy & in childbirth



- 1600 women die each day
- 1 woman dies each minute
- 55% of deaths occur in Asia
- 40% in Africa
- 1% in developed countries

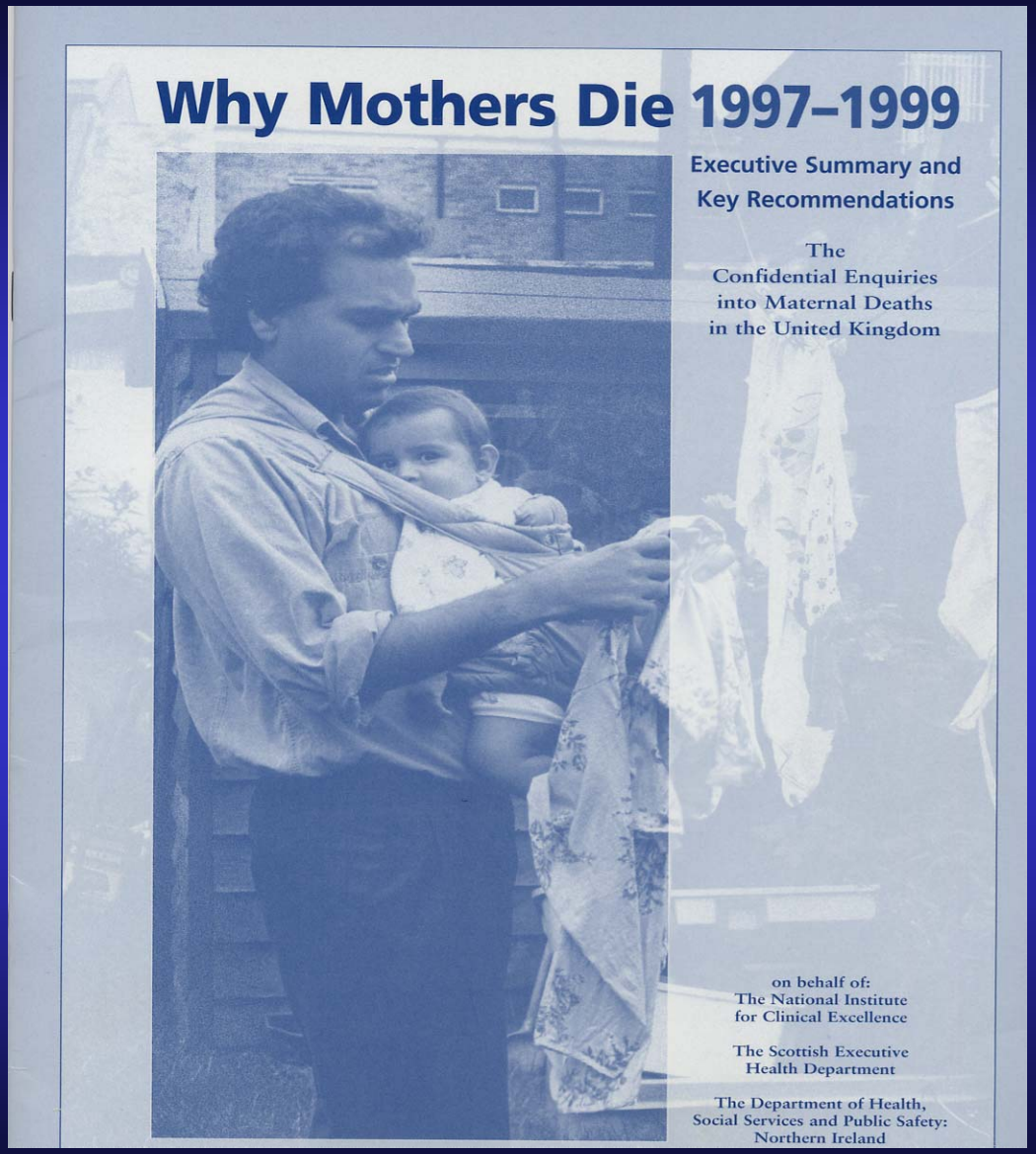
www.unicef.org/pon96/woestima.htm

Worldwide Causes of Maternal Deaths



United Kingdom

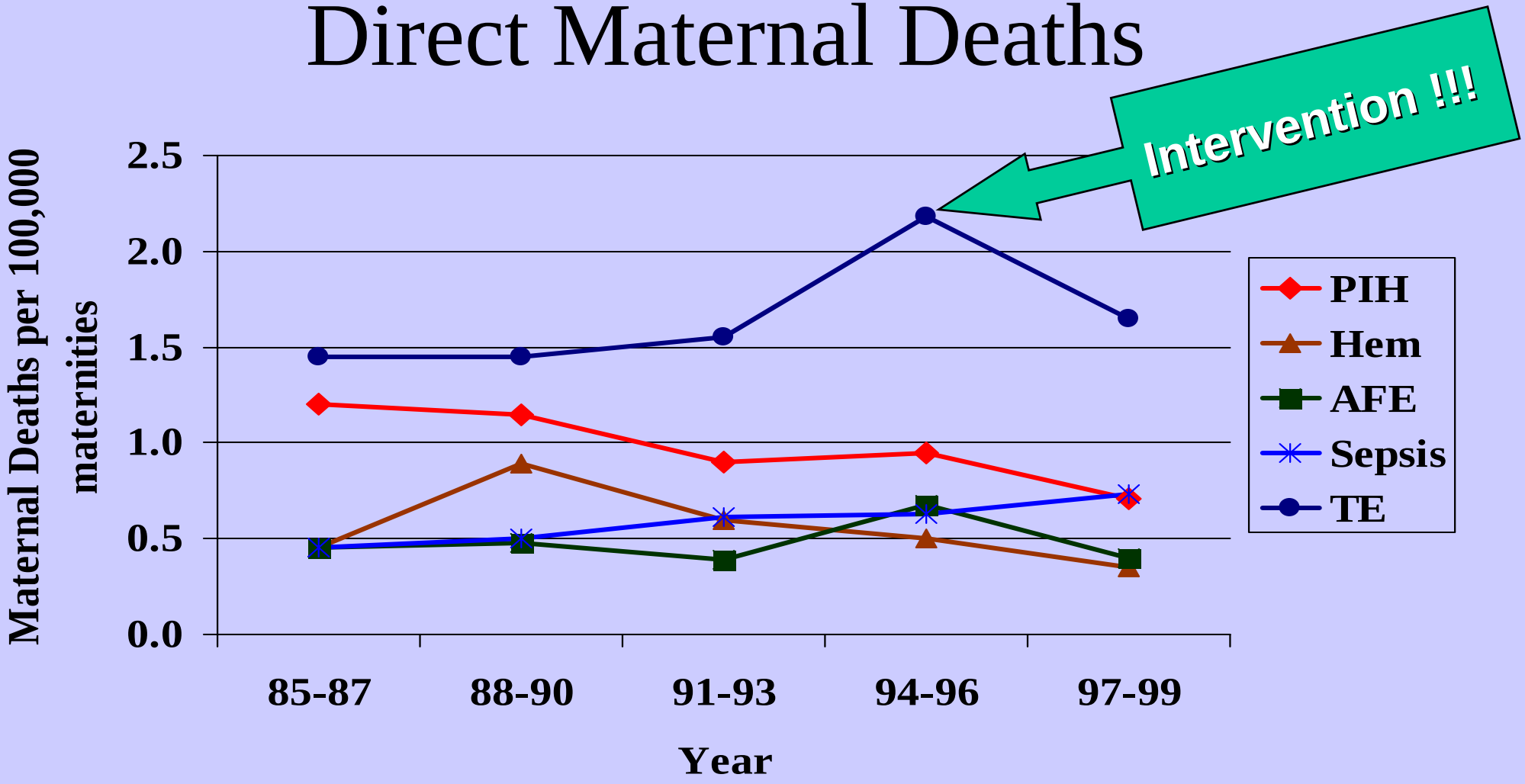
Confidential Enquiries



Confidential Enquiry

- Inception 1952 – a triennial report
- Government **requires** all maternal deaths be subject to CEMD
- All relevant hospital professionals & other health professionals **must** participate in the CEMD

Direct Maternal Deaths



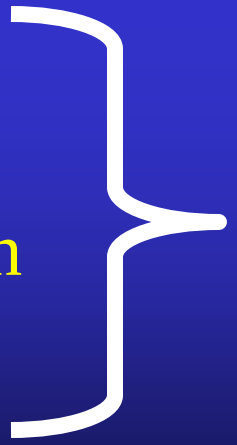
Why Mothers Die 1997 - 1999, CEMD

Facts about TE

- 5 fold increased risk during pregnancy
- Absolute risk of VT is 0.5 - 3 per 1,000
- PE remains a leading cause of maternal death in United States
- 50% of women with a thrombotic event in pregnancy have an underlying congenital or acquired thrombophilia

Frightening Fact

- In about 50% of patients with a hereditary thrombophilia, the initial thrombotic event occurs in the presence of an additional risk factor
  - pregnancy
  - BCP usage
  - orthopedic trauma or immobilization
  - surgery



Our Patients !!

RCOG - Prophylaxis After C/Section

Moderate Risk*

- Age > 35 years
- Obesity > 80 kg
- Parity four or more
- Labor > 12 hours
- Gross varicose veins
- Emergency C/S
- Pre-op immobility (>4 days)
- Preeclampsia
- Current infection
- Other major illness

* Heparin **OR** mechanical methods (stockings or SCD boots)

RCOG - Prophylaxis After C/Section

High Risk*

- ≥ 3 moderate risks
- Personal hx of DVT, PE, thrombophilia, or paralysis
- Extended C/S
- C/Hyst
- Patients with ACA
- Family history of DVT or PE

* Heparin **AND** mechanical methods (stockings or SCD boots)

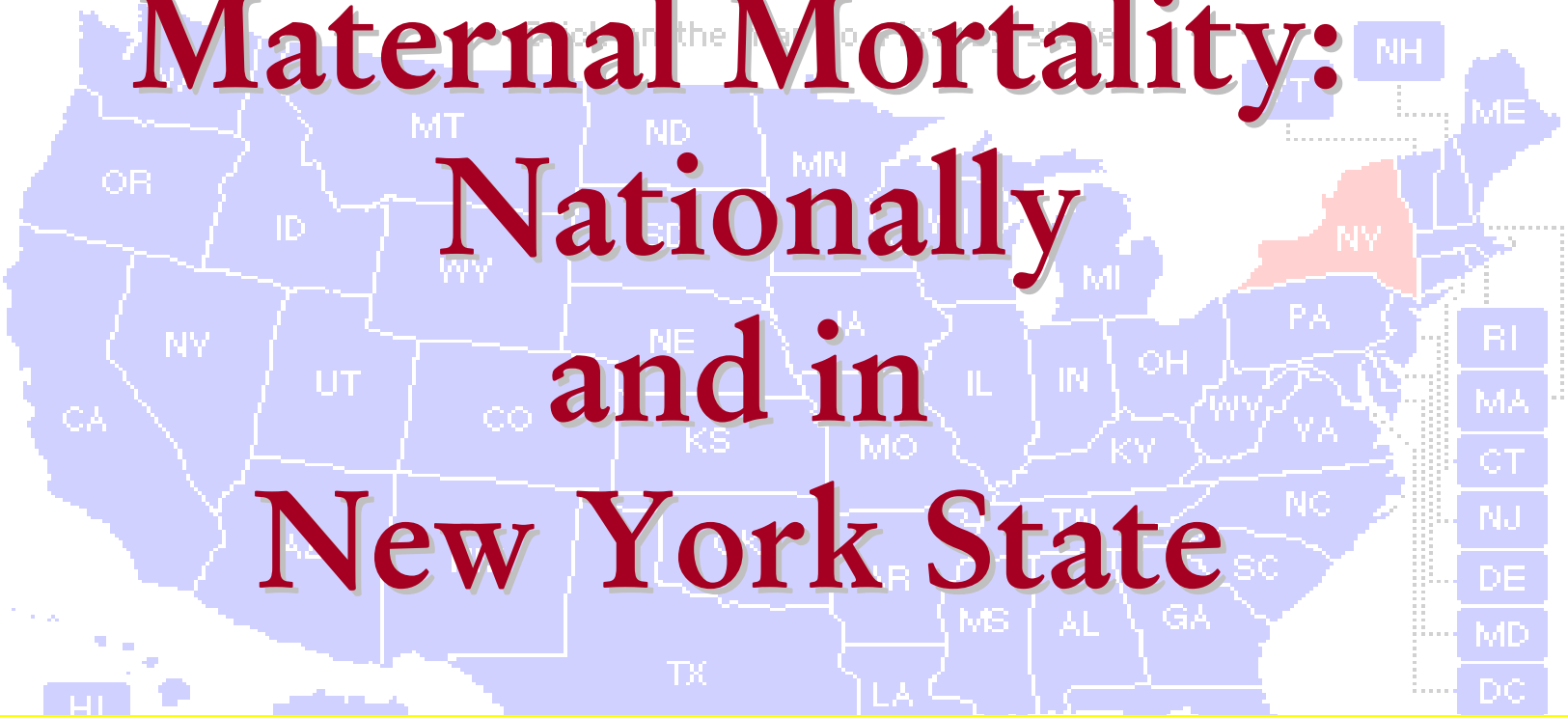
RCOG - Air Travel Recommendations

Pregnant + up to 6 weeks PP	Short (< 4 hours)	Long (> 4 hours)
No additional risk factors	Calf exercises, mobility, hydration	Same plus below knee compression stockings
Weight > 100 kg BMI > 30 Twins or > Thrombophilia Prior DVT	Calf exercises, mobility, hydration, compression stockings	Same plus LMW heparin day of and day after flight

Low-dose aspirin is an acceptable alternative, 3 days before and day of

Safe Motherhood

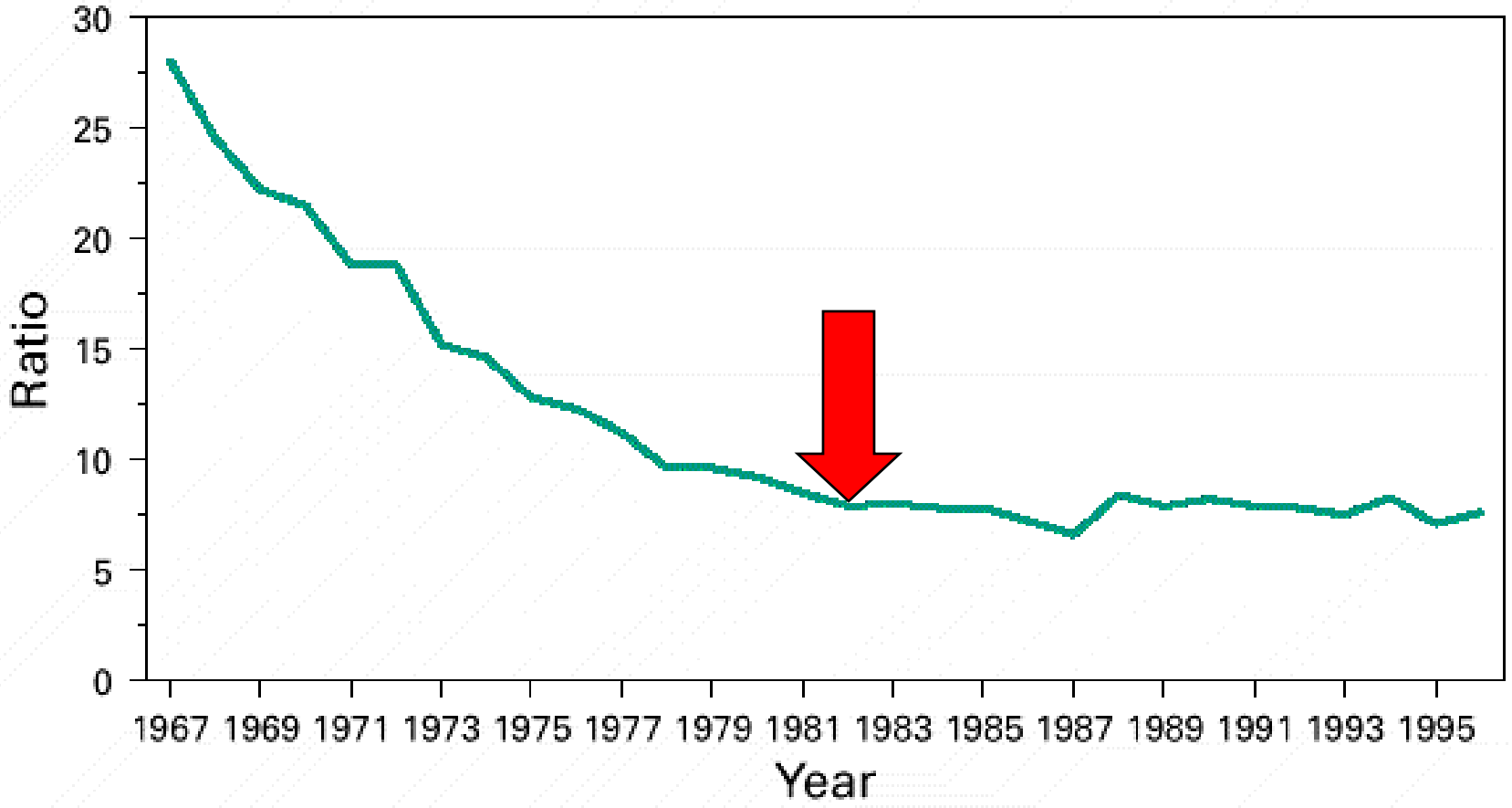
Maternal Mortality: Nationally and in New York State



US Healthy People 2010 Goal:

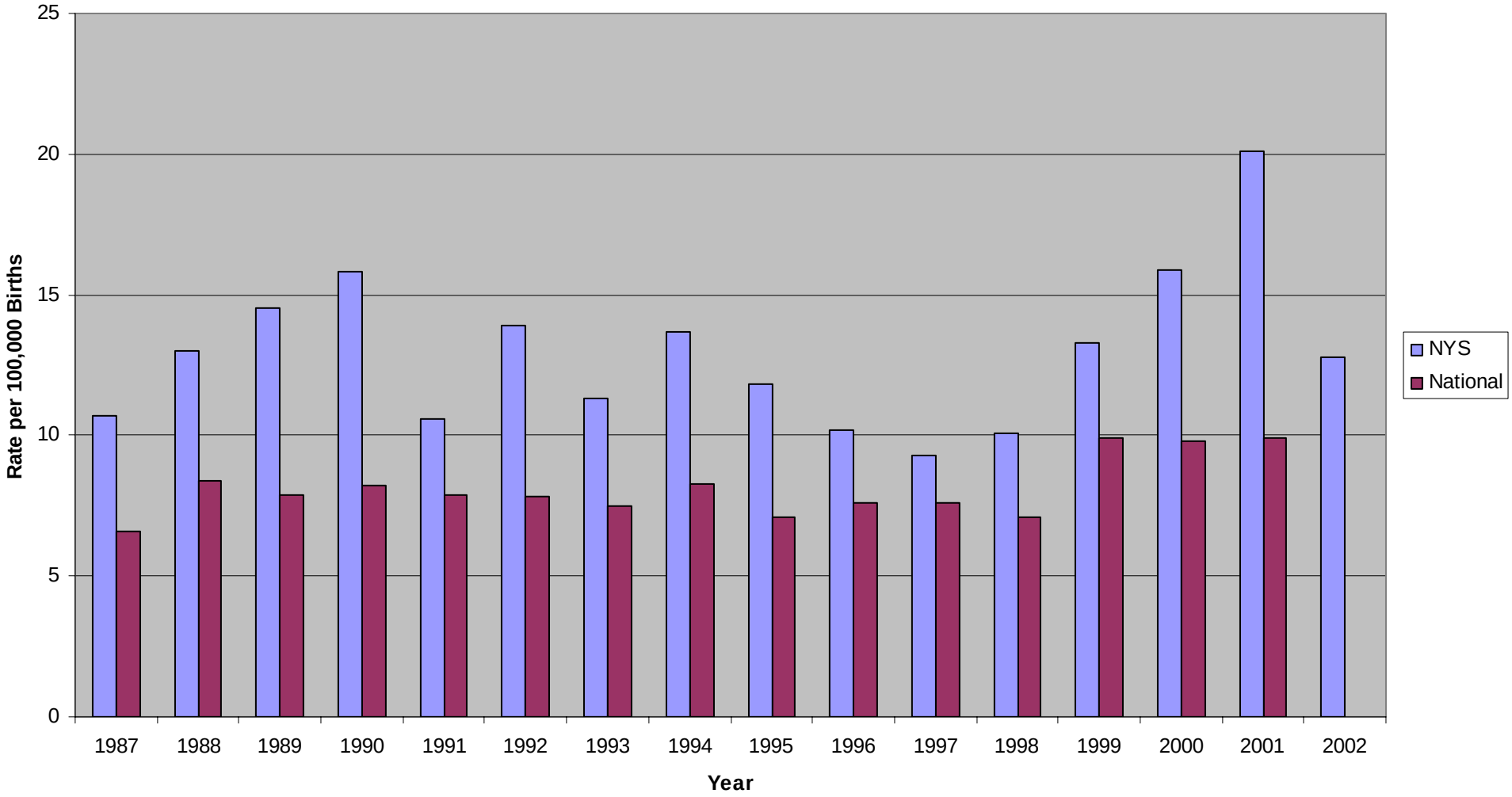
3.3 Per 100,000 livebirths

FIGURE 1. Maternal mortality ratio*, by year — United States, 1967–1996

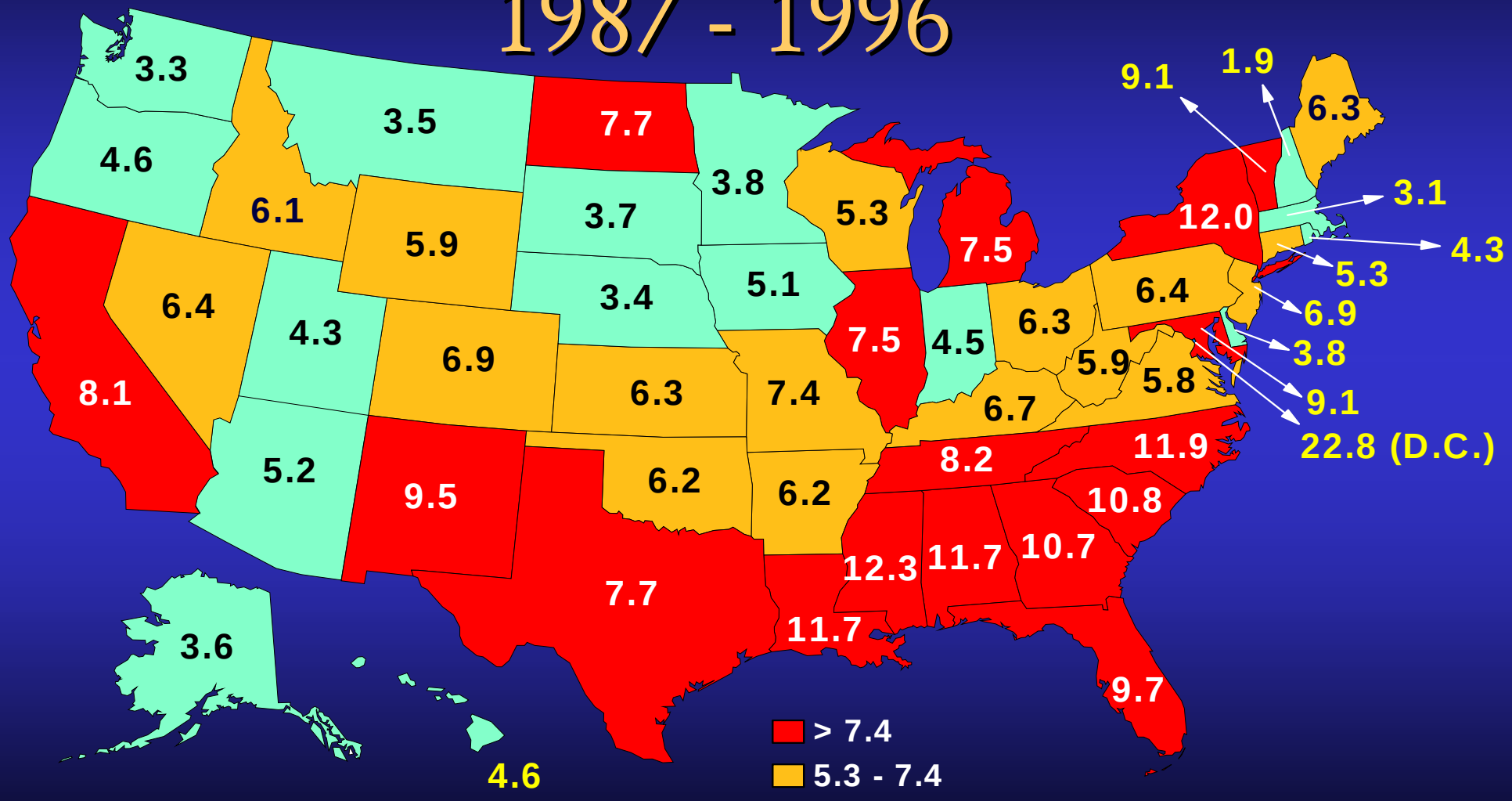


*Number of maternal deaths per 100,000 live births The term "ratio" is used instead of rate because the numerator includes some maternal deaths that were not related to live births and thus were not included in the denominator.

Maternal Mortality: NYS vs. Nation
1987 - 2001



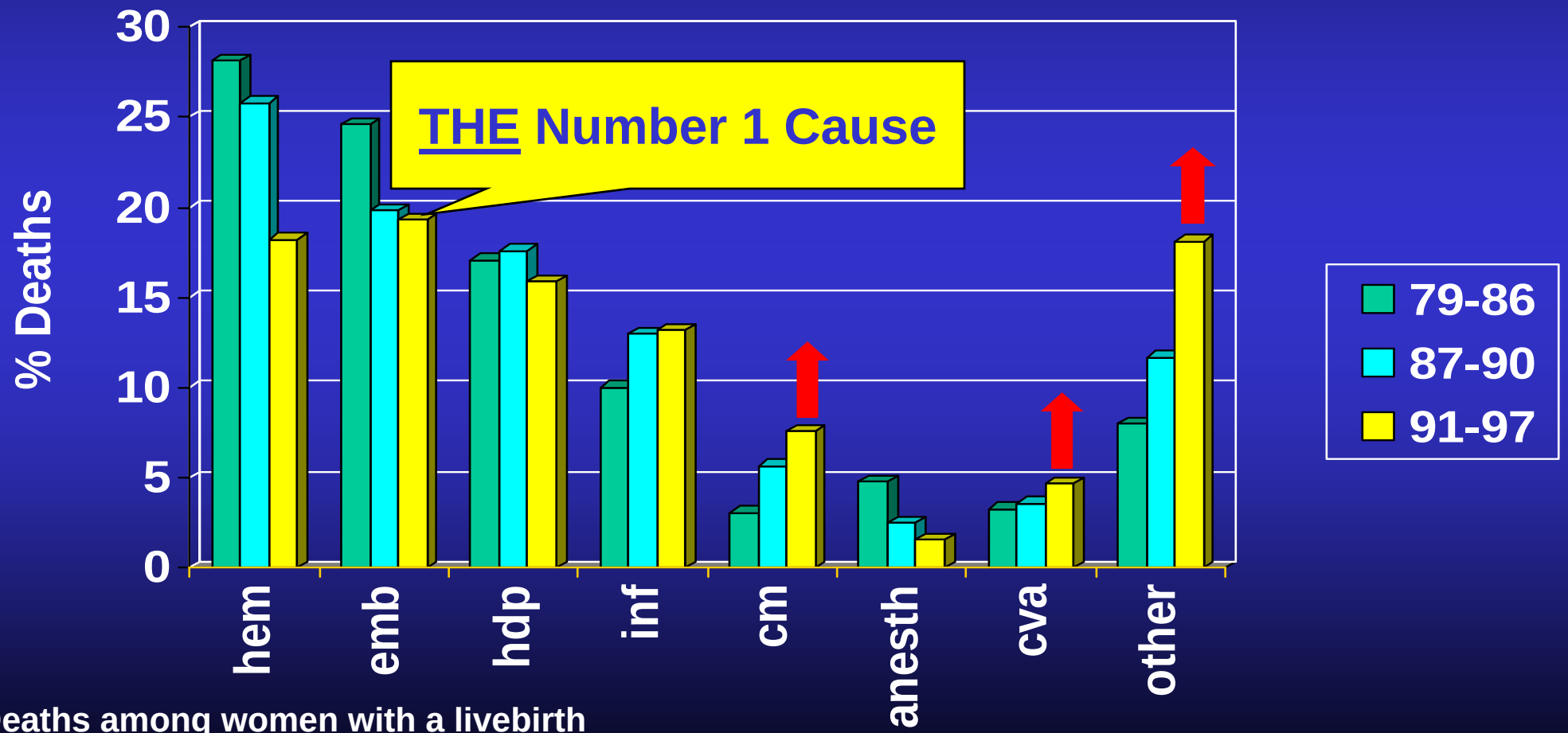
Maternal Mortality Ratios 1987 - 1996



Source: NCHS, Vital statistics

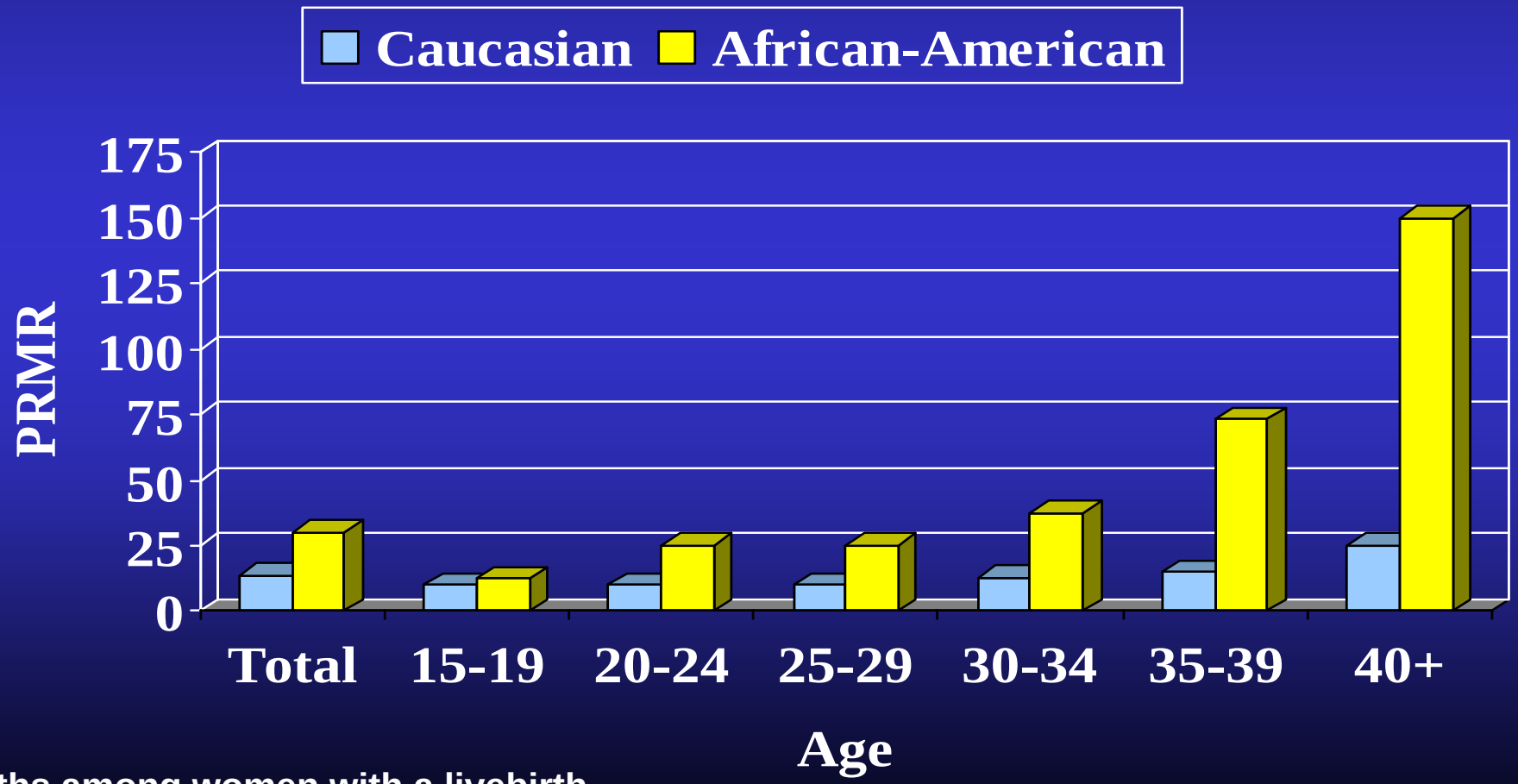
National: 7.7 / 100,000 (1987-1996)

US Trend in Cause of Pregnancy-Related Death* by Year



* Deaths among women with a livebirth

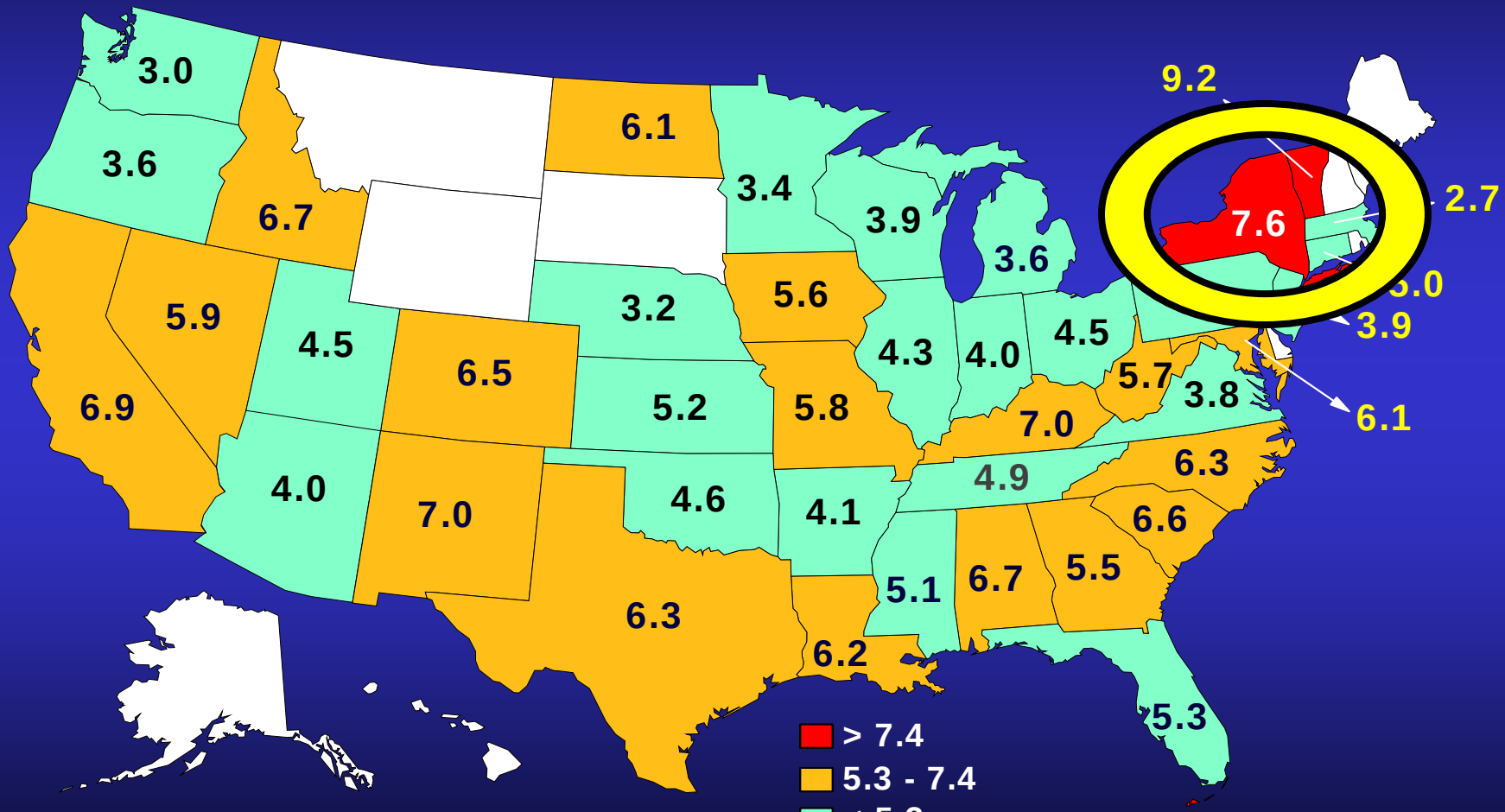
Pregnancy-Related Mortality Ratio (PRMR)* by Race & Age US, 1991 - 1997



* Deaths among women with a livebirth

Source: CDC, 2002.

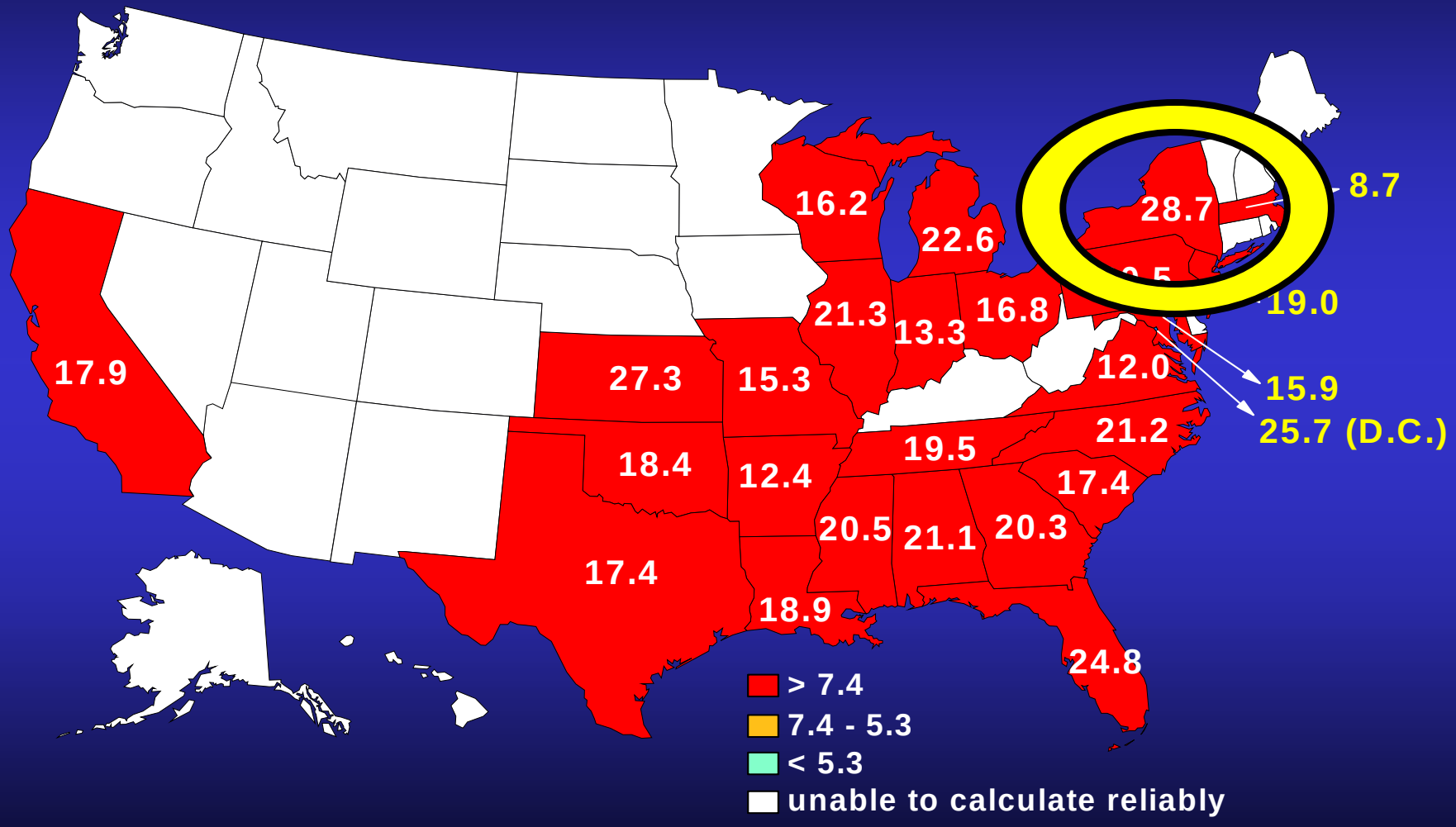
Maternal Mortality Ratios for Caucasian Women:1987-1996



Source: NCHS, Vital statistics

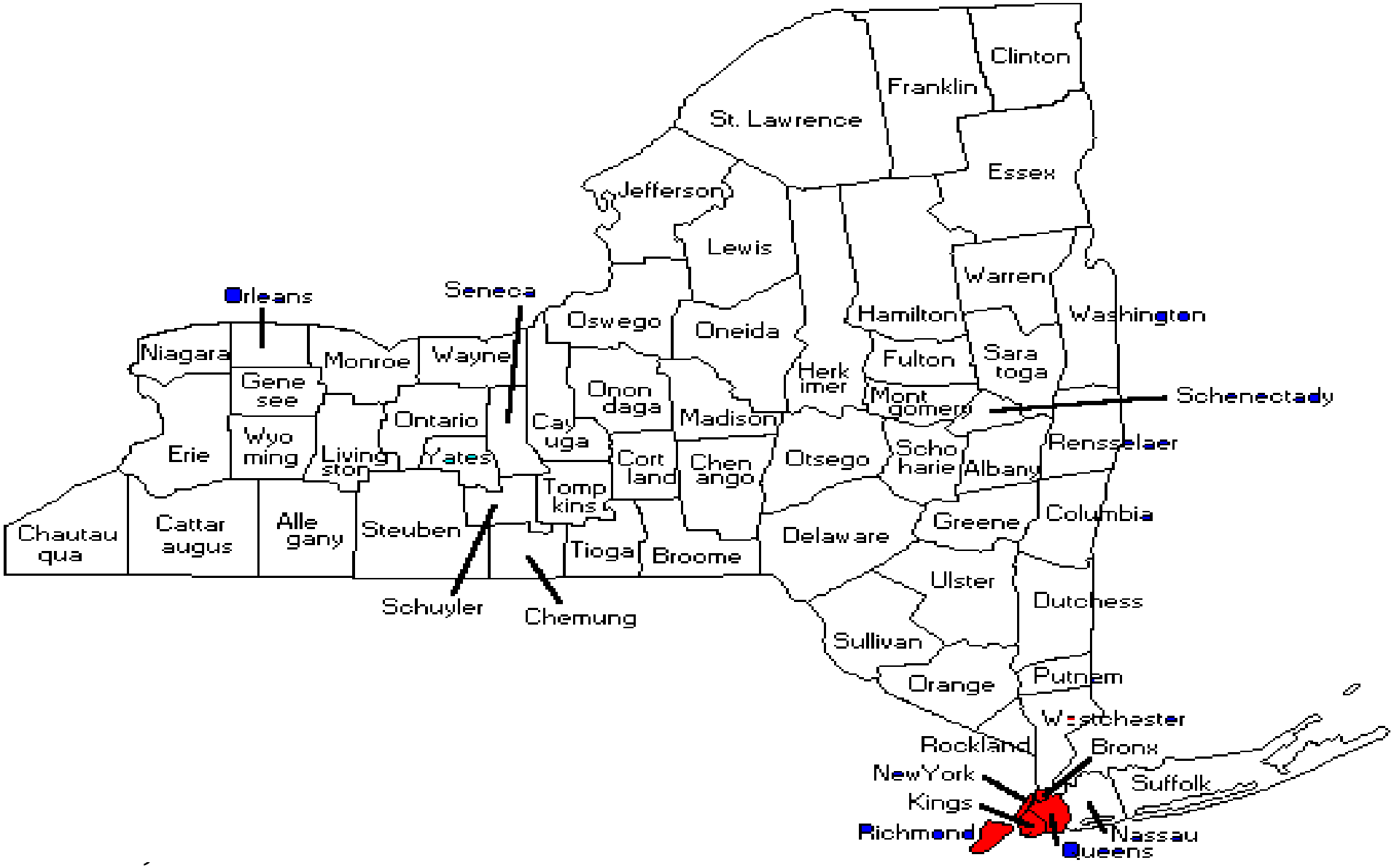
Note: The colors on these maps show the states divided into three terciles based on their MMR.

Maternal Mortality Ratios for African-American Women 1987-1996



Source: NCHS, Vital statistics

2000 NYS Maternal Mortality Ratios



New York City Maternal Deaths

Direct & Indirect 1998 - 2000

119 cases out of 169 Total

1.	**Hemorrhage**	**32%**
2.	Hypertension	10%
3.	Cardiomyopathy	8%
4.	Embolism	7%
5.	Infection/Sepsis	7%
6.	Anesthesia	7%

Courtesy of Dr. Gina Brown, NYCDOH, BMIRH

NYC Maternal Deaths

Borough of Residence	% of NYC Births	% of Maternal Deaths	MMR
Brooklyn	32	37	52.4
Bronx	17	19	51.2
Manhattan	16	16	46.1
Queens	23	14	28.2
Staten Island	5	1	
Other	8	?	37.2
Missing	0	?	n/a

Courtesy of Dr. Gina Brown, NYCDOH, BMIRH

Location and Timing of Death

- 70 % Died in the hospital
- 45% Died within 24 hours of birth

Courtesy of Dr. Gina Brown, NYCDOH, BMIRH

Hemorrhage Deaths

Related Causes N = 39

HELLP	5%	AFE	10%
Previa	5%	Abruptio	3%
Atony/PP Hem	15%	Ectopic	5%
A/Per/Increta	5%	Other placenta	3%
Coagulopathy	13%	Unspec/Unknown	36%

Courtesy of Dr. Gina Brown, NYCDOH, BMIRH

Approximately one-half of all maternal deaths are considered to be preventable!!

NYS Safe Motherhood Project

- Proposal drafted by Dr. John Choate
- Patterned after the Confidential Enquiry
- Developed with NYS/District II
- Funded by Commissioner's Priority Pool
- Protected by PHL 206 (1)(j)
- ACOG Partners with RPCs – Quality expectation
- On-site death review teams

Issues to Review: Quality and Content of Medical Care

- Preventive services - chronic illnesses
- Community and patient education
- Nutrition, substance abuse, social services
- Preconception counseling
- Prenatal care access
- Labor and delivery care – Consulting Services
- Postpartum care and follow-up

Source: CDC, 2002.

Issues to Review: Systems and Social Causes of Death

- Intendedness of pregnancy
- Woman and her family's knowledge and decision making ability
- Timeliness of woman's actions to seek care
- Accessibility and acceptability of care

Source: CDC, 2002.

Methods to Identify Deaths

- **Death Certificates: Primary source**
- **Linkage to and Searches of other databases**
- **Reports from providers, hospitals, clinics, medical examiners, ED physicians, media**
- **Review of autopsy and medical records**
- **Computer linkage of vital records**

CONFIDENTIAL — INSTRUCTION SHEET FOR COMPLETING CAUSE OF DEATH — CONFIDENTIAL

CAUSE OF DEATH

DEATH WAS CAUSED BY: (ENTER ONLY ONE CAUSE PER LINE FOR (A), (B), AND (C)

APPROXIMATE INTERVAL BETWEEN ONSET AND DEATH

PART I. IMMEDIATE CAUSE:

(A)

DUE TO OR AS A CONSEQUENCE OF:

(B)

DUE TO OR AS A CONSEQUENCE OF:

(C)

PART II OTHER SIGNIFICANT CONDITIONS CONTRIBUTING TO DEATH BUT NOT RELATED TO CAUSE GIVEN IN PART I (A):

31A. IF INJURY DATE: MONTH / DAY / YEAR	HOUR: m	31B. LOCALITY: *(City or town and county and state)*	31C. DESCRIBE HOW INJURY OCCURRED

31D. PLACE OF INJURY	32. WAS DECEDENT HOSPITALIZED IN LAST TWO MONTHS? NO 0 / YES 1	33A. IF FEMALE WAS DECEDENT PREGNANT IN LAST 6 MONTHS? NO 0 / YES 1	33B. DATE OF DELIVERY: MONTH / DAY / YEAR

Safe Motherhood Initiative

The American College of Ob-Gyn
District II/ NY

Chair: Jeffrey C. King, MD, FACOG
Project Director: Cathy Chazen Stone, MS
Neisha M. Torres, RN, MS
Executive Director: Donna Montalto Williams, MPP

Contracted by the Women's Health Bureau, NYS Department of Health

The Safe Motherhood Initiative uses…

- NYS Regional Perinatal Network expects the **RPCs** to conduct quality assurance and quality improvement activities ***with their affiliate hospitals***.

… review of all maternal deaths is part of that role.

Maternal Mortality Review Team

- Maternal-Fetal Medicine/RPC
- Labor & Delivery nurse/RPC
  or
  Nurse coordinator/RPC
- General Ob-Gyn/ACOG
- Project Director/ACOG
- Sub-specialist/RPC (as needed)

Recommendations

Question	Coding Instructions
90.Written recommendations for improvement of care in the areas reviewed. *(e.g., system modifications, revision of protocol(s), staffing modifications, policy change(s) etc.*	None

SMI – Project Summary

- Death notifications = 21, Review = 15, Pending = 2
- Cause of Death
  - Sepsis 4
  - Embolism 3
  - Hypertensive Disease 5
  - Hemorrhage 1
  - Congenital Cardiac Disease 1
  - Unknown 1

SMI – Project Summary

Ethnicity

- White 30%
- Asian 8%
- Haitian 8%
- Black 46%
- Hispanic 8%

Age

- < 20 11%
- 20 – 30 39%
- 30 – 40 39%
- > 40 11%

Issues Identified

- Medical Care – recognition and transfer
- Blood bank procedure
- EMS protocols & ED process
- Availability of Diagnostic studies
- Translation Services
- Grief Counseling for Family and Staff
- Consulting issues – willingness and adequacy

What Can You Do?

- Review your institutional Policy and Procedures
- Encourage Emergency Drills
- Confront Cultural Competency
- Admit Your Limitations

Remember:

It’s The Patient That Really Matters!!!

For more information contact

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Project Director, Safe Motherhood Initiative

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Learning Objectives

- Comprehend the worldwide impact
- List the issues in New York State and NYC
- Understand the District II-SMI Project
- Discuss the medical and systems issues
- Appreciate the need for local “action”
- Recognize the opportunity for involvement

My Thanks to All Who Have
Supported and Contributed
To the Success of This Project

Jeffrey C. King, MD, FACOG
Chair, Safe Motherhood Initiative
NYS/ACOG
Professor and Chair
New York Medical College

Thanks to All Supporting This Project !!