



The Impact of Detroit on the State Infant Mortality Rate and the Causes and Manners of Deaths for Wayne County Infants

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Objectives

- ◆ Illustrate the comparison of MI infant mortality rate to US mortality rate
- ◆ Illustrate the comparison of the Wayne County mortality rate to rest of MI
- ◆ Illustrate the Detroit mortality rate and its impact on Wayne County and MI Mortality rates



Sources of Data

- ◆ 1989 - 2009 Michigan Resident Birth and Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health.
- ◆ National Vital Statistics Reports (NVSR), "Births, Marriages, Divorces and Deaths: Provisional Data for 2009". August 27, 2010. Vol 58, No 25.6; NVSR.
- ◆ "Deaths: Preliminary Data for 2008". December 9, 2010, Vol 59, No 2; NVSR. "Deaths: Final Data for 2007". NVSR Volume 58, Number 19. 73. May 20, 2010.
- ◆ "Deaths: Final Data for 2006", Vol 57, No. 14, April 2009; and National Center for Health Statistics, historical data.
- ◆ Wayne County Medical Examiner Office



Terminology Clarification

- ◆ “Rates” are per 1,000 live births
- ◆ “Infant” refers to children less than one year old



Governor Snyder's Goal

- ◆ Infant Mortality is one of Governor Snyder's "dashboard" items.
- ◆ **Why it Matters:** Infant mortality is a critical indicator of the overall health and welfare of Michigan and the quality and accessibility of prenatal care for women.



Status of Michigan

- ◆ For every 1,000 Michigan live births, approximately eight infants die before reaching their first birthday
- ◆ In 2009, 881 infants under the age of one year died, resulting in an infant mortality rate of 7.5 per 1,000 live births

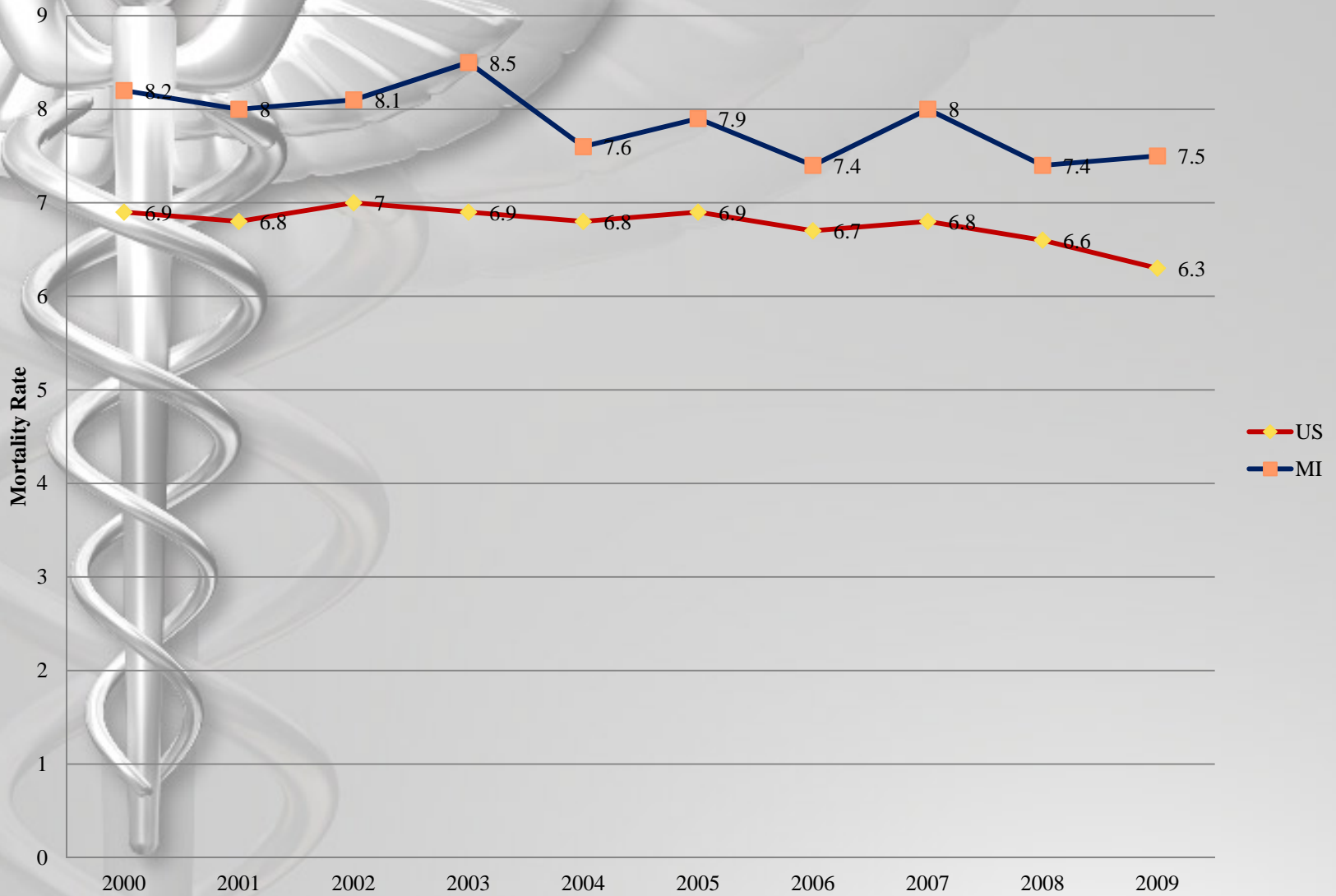
Characteristics of Mother & Impact on IMR

Characteristics of Mother	Infant Deaths	Live Births	Infant Death Rate
Age of Mother	881	117,309	7.5 ±0.5
< 20	116	11,841	9.8 ±1.8
20 - 29	484	62,957	7.7 ±0.7
30 - 39	251	39,723	6.3 ±0.8
40 +	30	2,786	10.8 ±3.8
Marital Status	881	117,309	7.5 ±0.5
Married	371	68,654	5.4 ±0.5
Unmarried	510	48,655	10.5 ±0.9
Level of Prenatal Care	881	117,309	7.5 ±0.5
Adequate	453	79,754	5.7 ±0.5
Intermediate	224	25,112	8.9 ±1.2
Inadequate	161	9,347	17.2 ±2.6

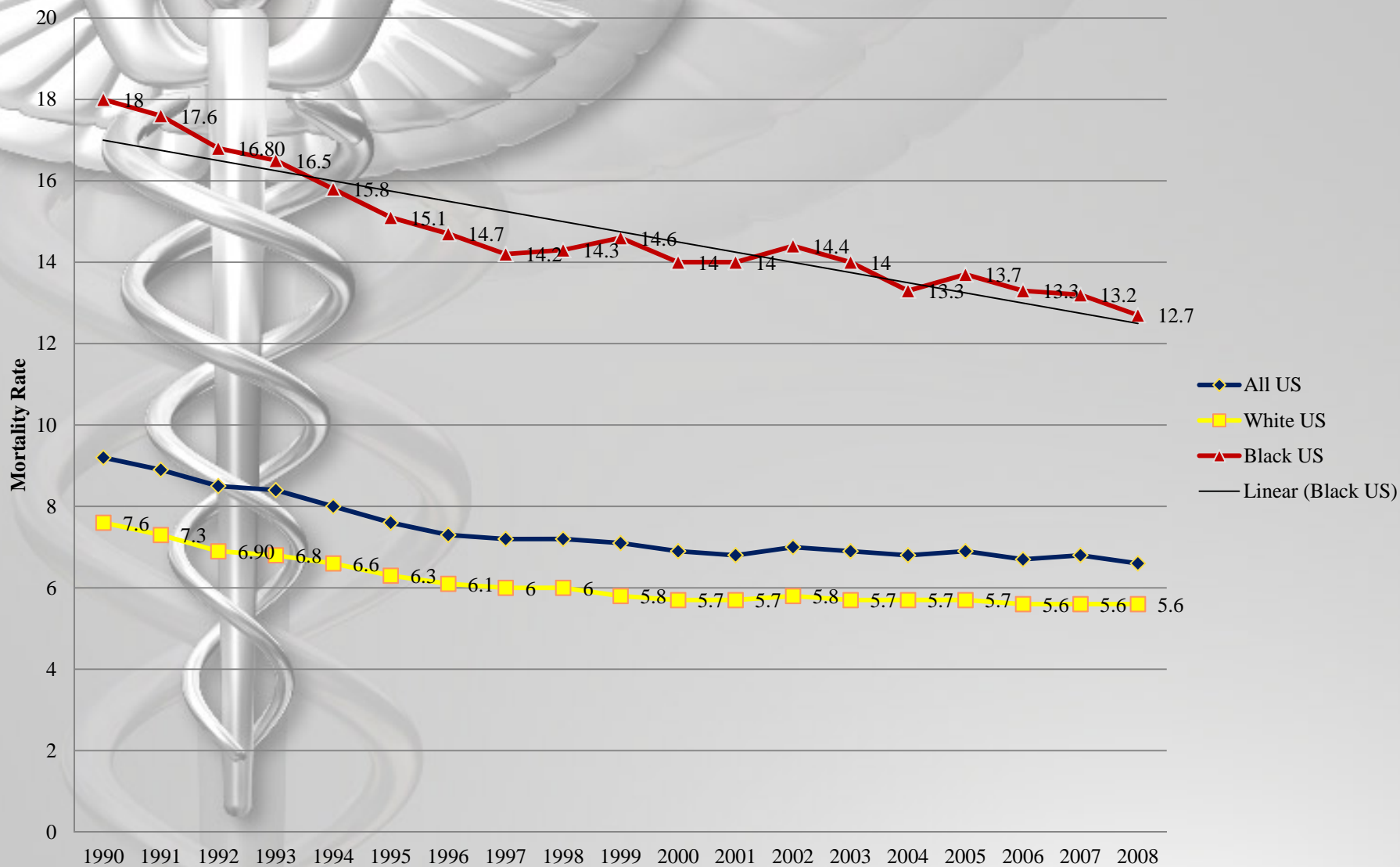
Impact of Smoking on IMR

Exposure to Tobacco	Infant Deaths	Live Births	Infant Death Rate
Smoked During Pregnancy	881	117,309	7.5 ±0.5
No	701	95,982	7.3 ±0.5
Yes	180	21,327	8.4 ±1.2
Secondhand Smoke			
During Pregnancy	881	117,309	7.5 ±0.5
No	600	91,169	6.6 ±0.5
Yes	177	19,694	9.0 ±1.3
Smoked or Secondhand Smoke			
During Pregnancy	881	117,309	7.5 ±0.5
No	544	82,583	6.6 ±0.6
Yes	254	29,319	8.7 ±1.1
History of smoking	881	117,309	7.5 ±0.5
No	619	91,868	6.7 ±0.5
Yes	228	24,169	9.4 ±1.2

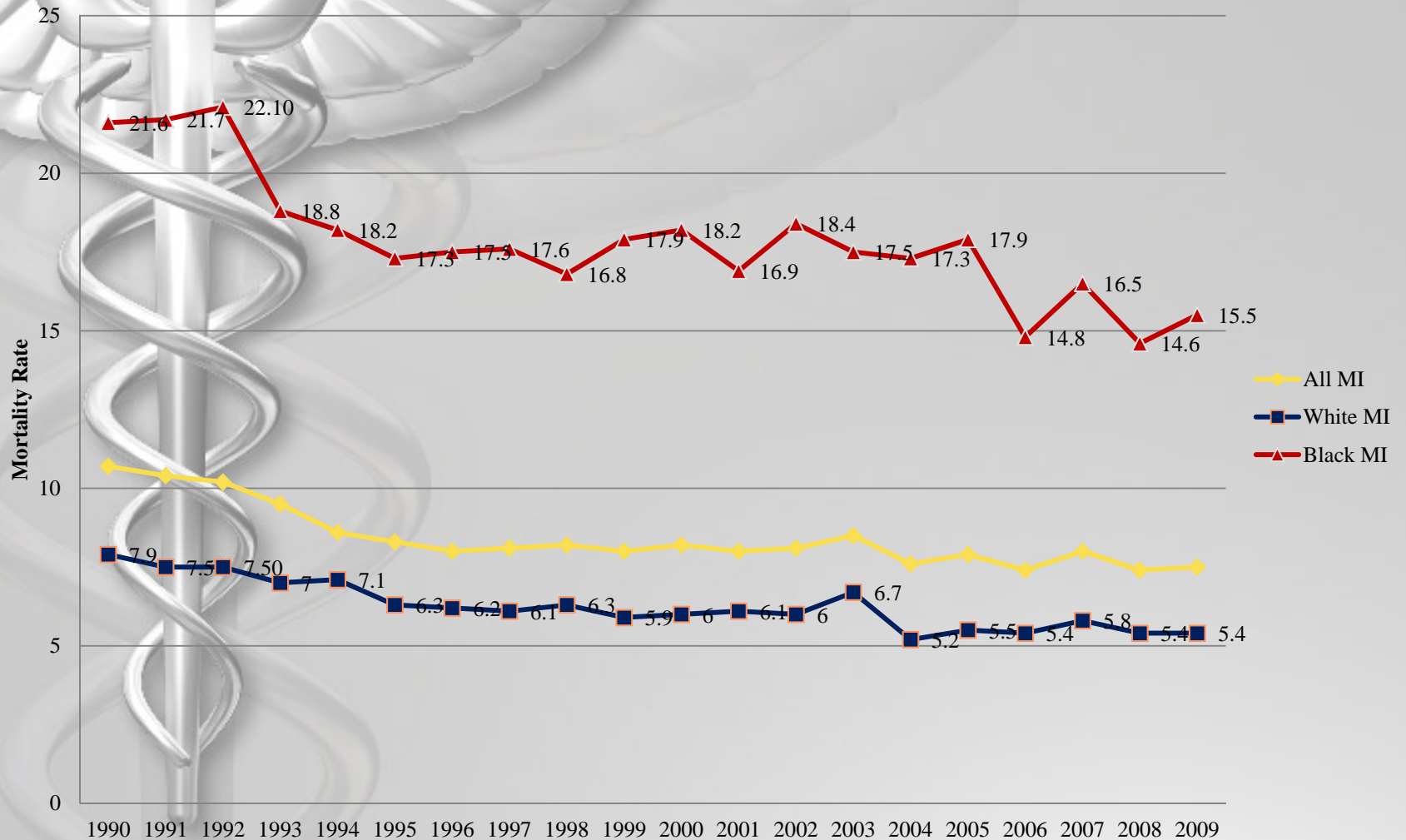
Michigan and US Infant Mortality Rate Comparison 2000 - 2009



National Comparison of Infant Mortality Rates for Whites and Blacks 1990 - 2008



Michigan Comparison of Infant Mortality Rates for Whites and Blacks 1990 - 2009

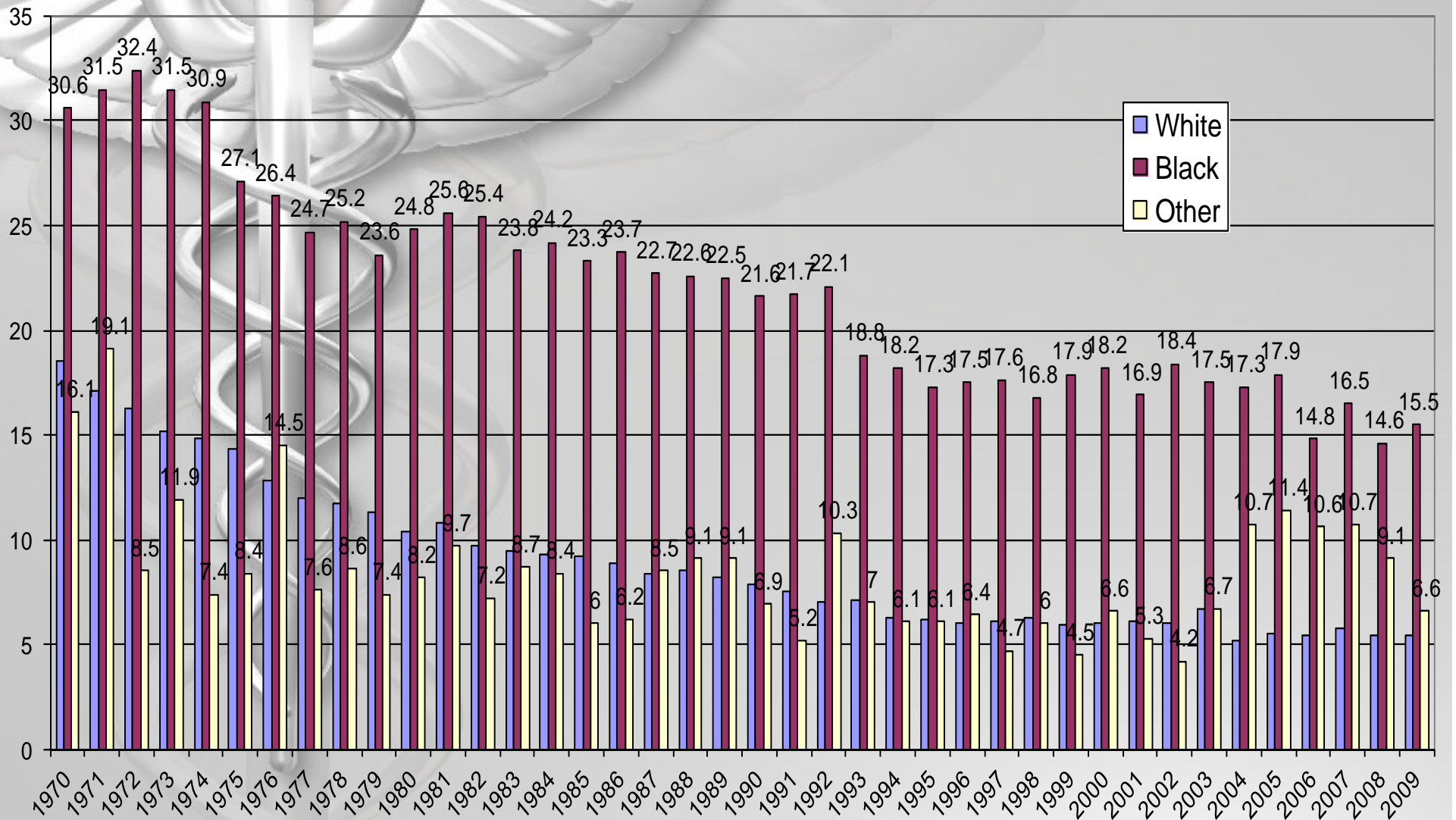


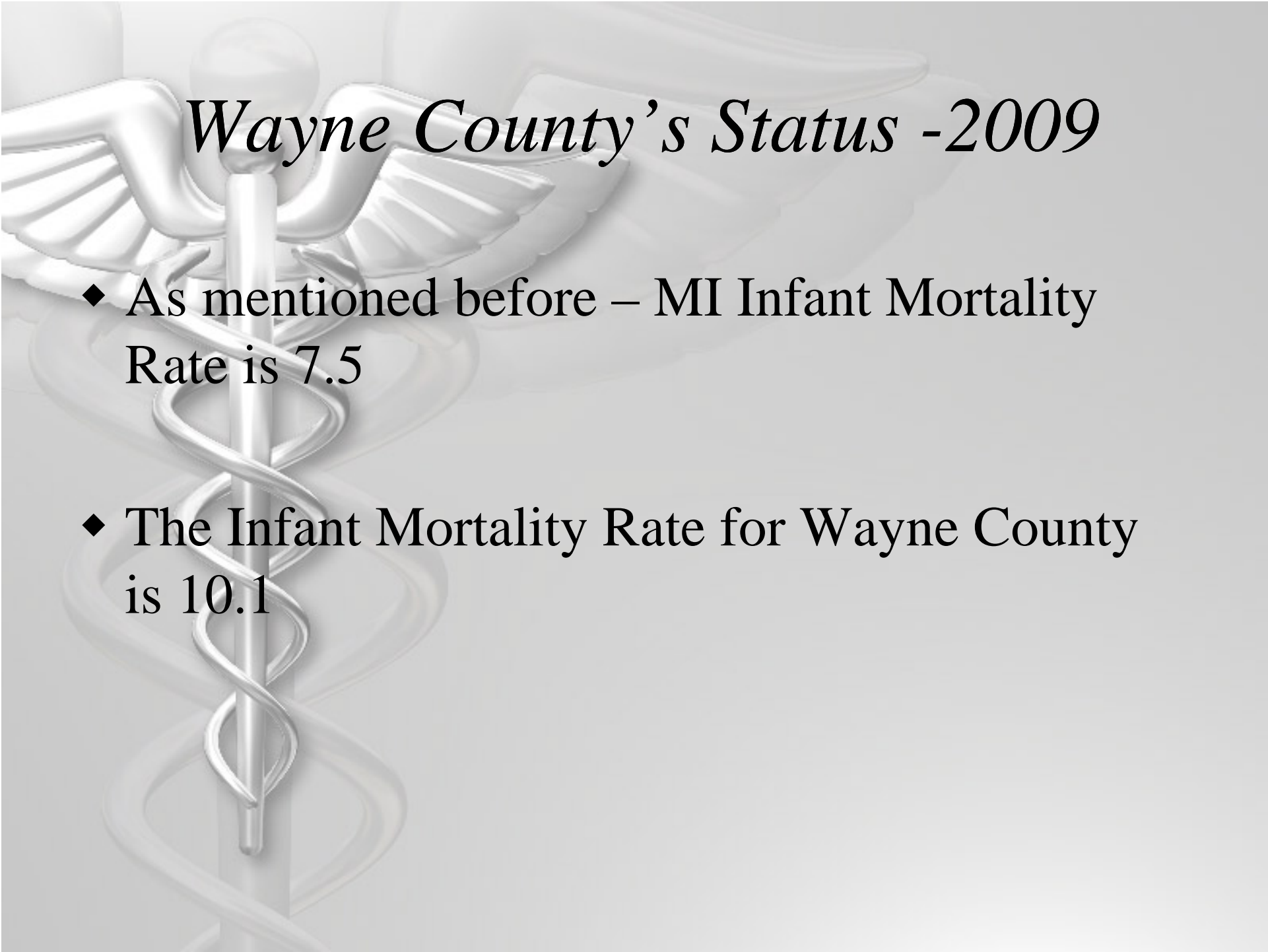


Race Disparities in the Infant Mortality Rate in Michigan for 2009

- ◆ Infant Mortality Rate for Whites in MI is 5.4
- ◆ Infant Mortality Rate for Blacks in MI is 15.5
- ◆ Infant Mortality Rate for other races in MI is 6.6

Michigan Comparison of Infant Mortality by Race 1970 - 2009

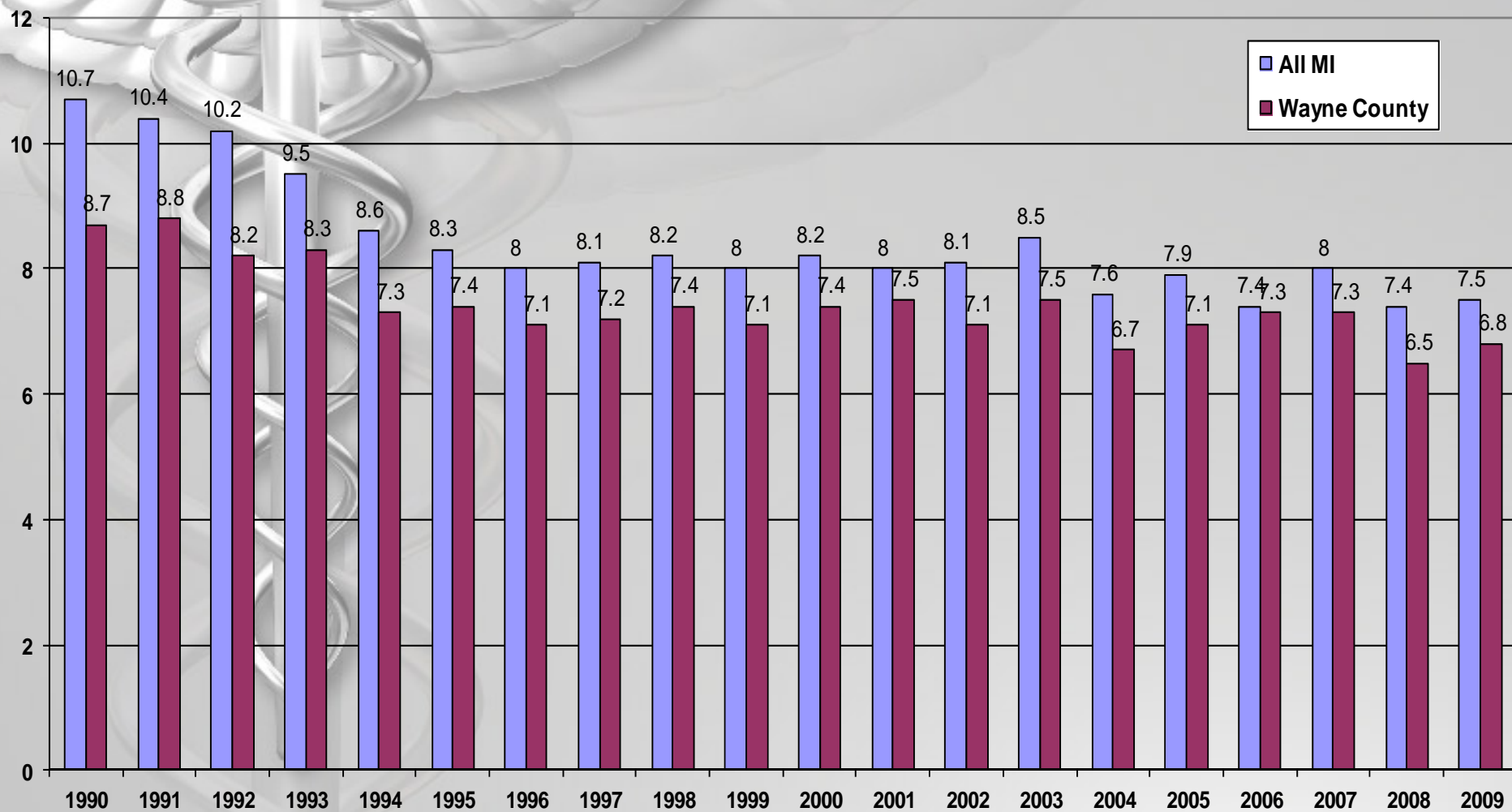




Wayne County's Status -2009

- ◆ As mentioned before – MI Infant Mortality Rate is 7.5
- ◆ The Infant Mortality Rate for Wayne County is 10.1

Wayne County (Excluding Detroit) & MI Infant Mortality Rate Comparison 1990 - 2009

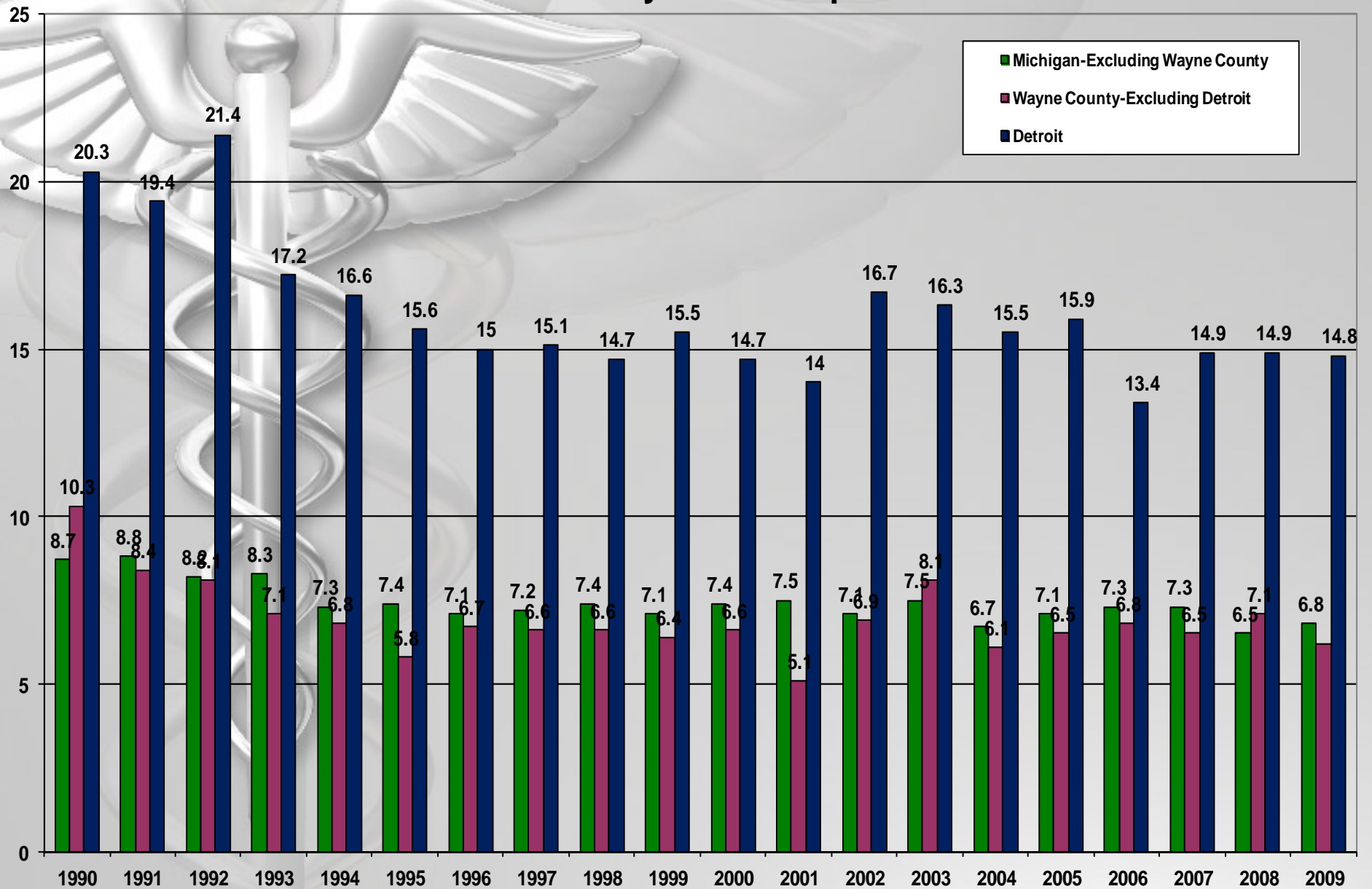




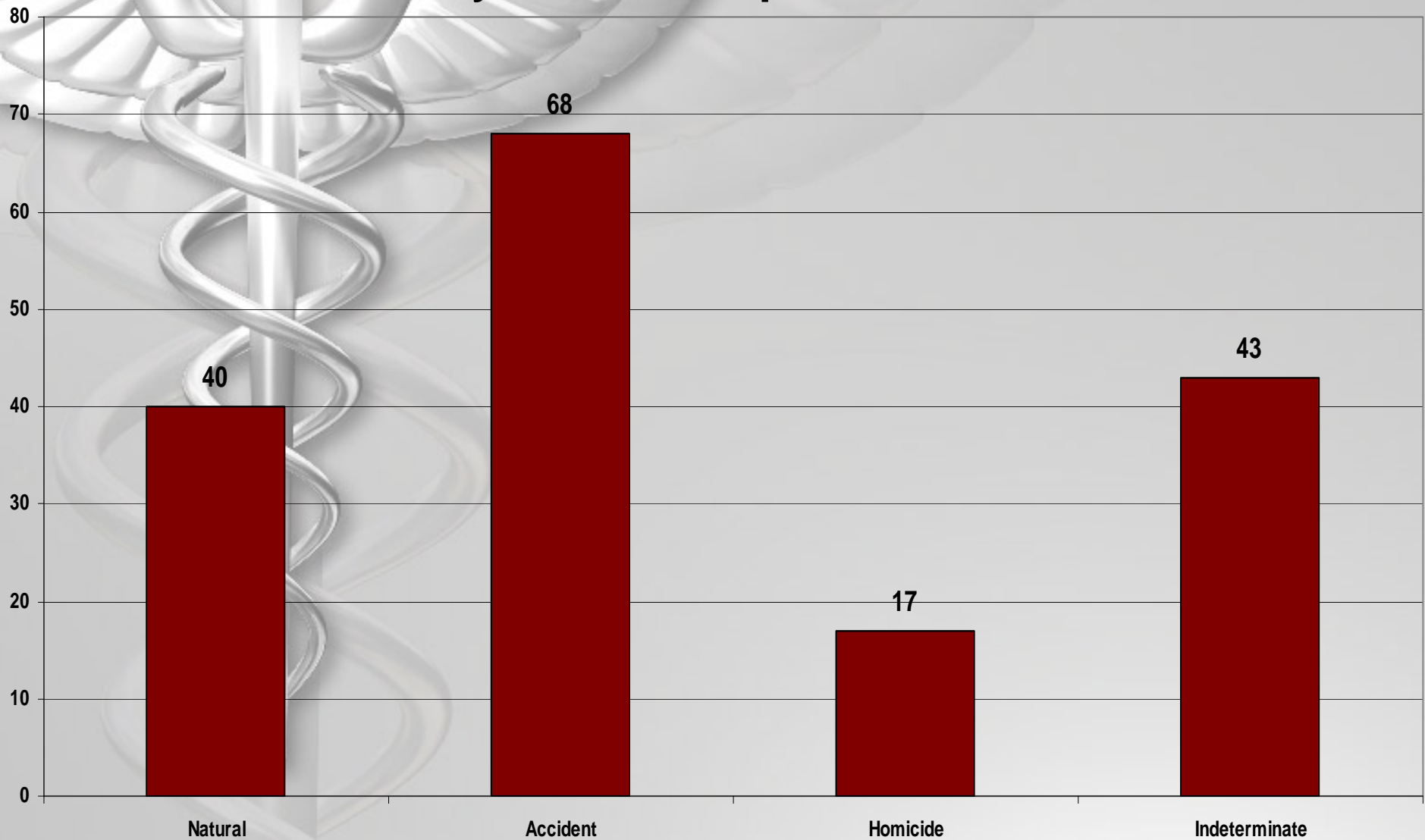
Michigan, Wayne County and Detroit IMR Comparison - 2009

- ◆ MI IMR is 6.8 when Wayne County is removed from statistics (much closer to the national IMR of 6.3)
- ◆ Wayne County IMR is 6.2 when Detroit is removed from statistics
- ◆ Detroit IMR is 14.8

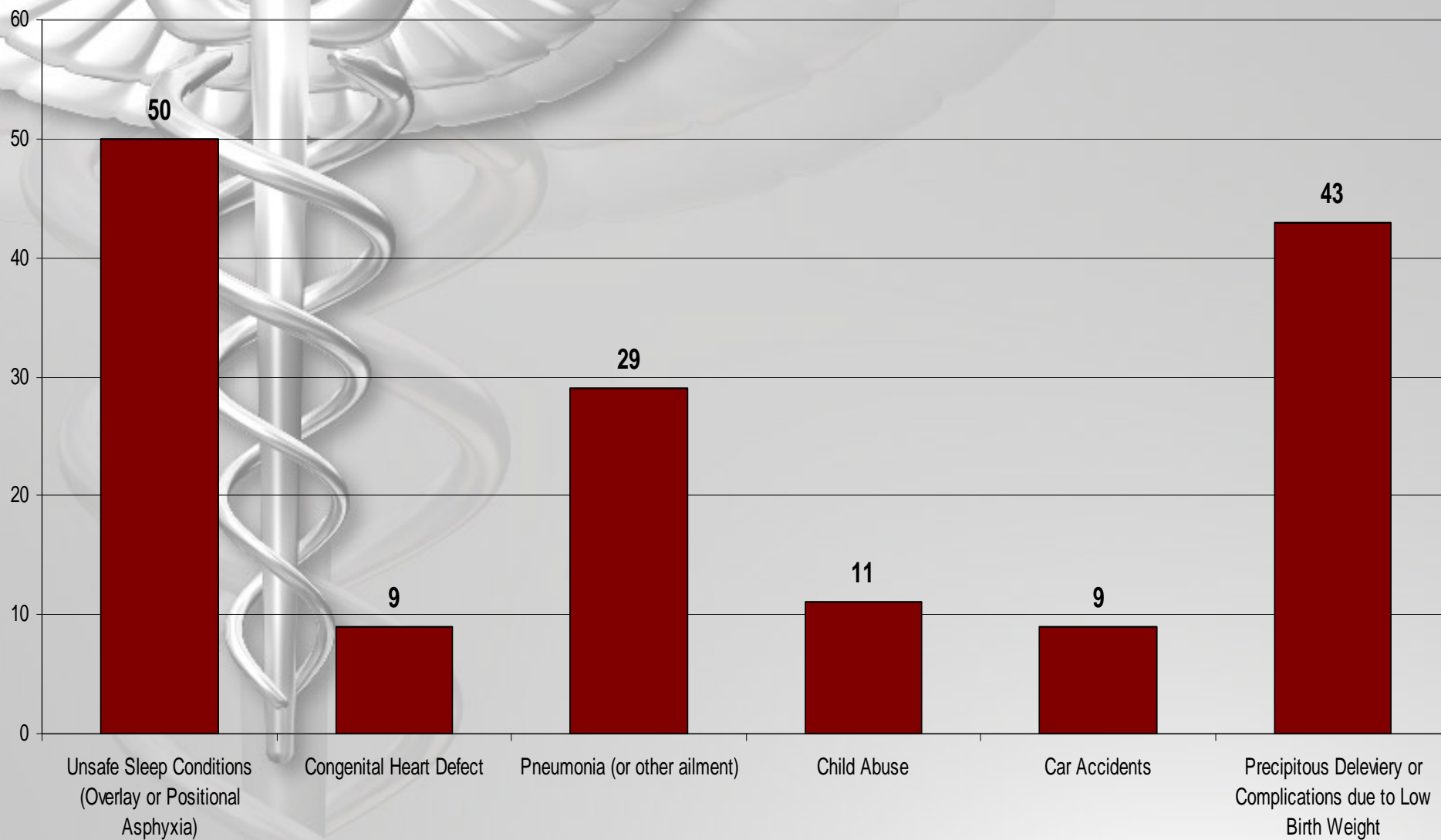
MI (Excluding Wayne County) , Wayne County (Excluding Detroit), and Detroit Infant Mortality Rate Comparison 1990 - 2009



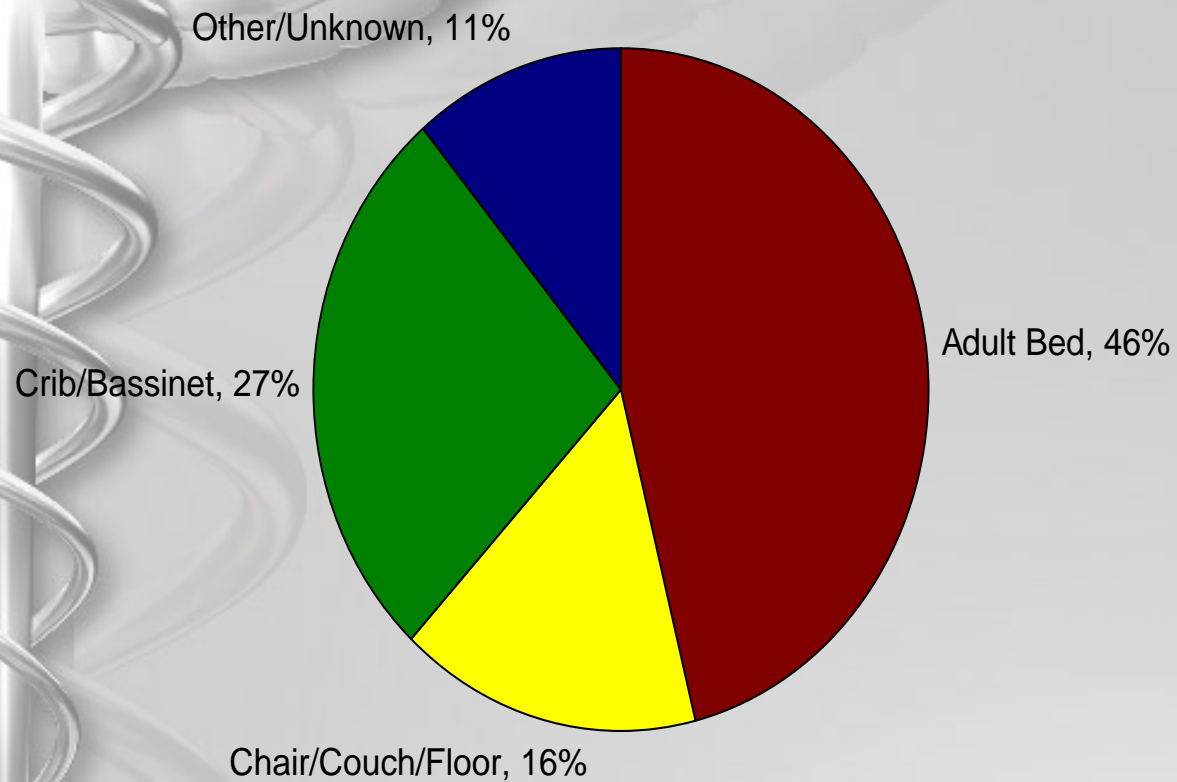
Manner of Death Comparisons for Wayne County January 1, 2009 - September 30, 2011



Major Causes of Death for Wayne County Infants for 2009 N=151



Location of Sleep-Related Infant Deaths Reviewed 2007-2010, by Location (N=561)*



*Source: Child Death Review. Data is based on cases reviewed for all of Michigan.

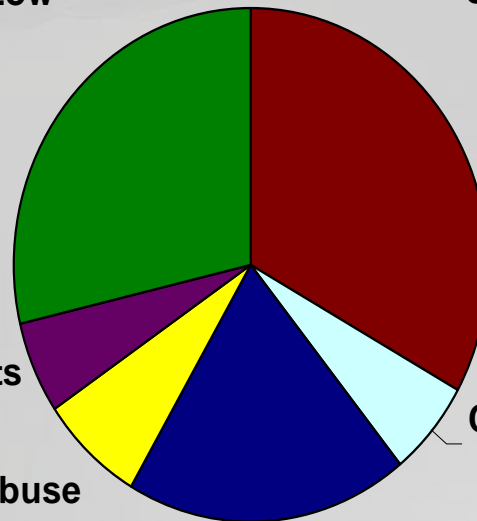
A Comparison of the Major Causes of Infant Deaths for Wayne County 2007 - 2010

**Precipitous Deleviery or
Complications due to Low
Birth Weight**
28%

**Unsafe Sleep Conditions
(Overlay or Positional
Asphyxia)**
34%

Car Accidents
6%

Child Abuse
7%



Congenital Heart Defect
6%

**Pneumonia (or other
ailment)**
19%



Conclusion

- ◆ Detroit IMR has a big impact on the State IMR
- ◆ The two leading causes of deaths in Wayne County are natural deaths, and unsafe sleep conditions
- ◆ Targeted efforts to reduce infant deaths due to unsafe sleep have greatest chance to move Governor Snyder's IMR "dashboard" item in the right direction
- ◆ Infant mortality (children under two years of age) is still a significant public health problem in Wayne County and especially in Detroit.
- ◆ The vast majority of infant deaths seen at the Medical Examiner Office have identifiable environmental risk factors (e.g. co-sleeping, unsafe sleep surfaces, objects in crib, etc...). Many of these risk-factors can be ameliorated by stepped-up prevention efforts.
- ◆ Excluding Detroit, the infant mortality rate (number of deaths per 1,000 live births) in Wayne County is similar to that of Michigan's and the National infant mortality rate.



Questions & Contact Info

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