

Highlights Massachusetts Births 2007

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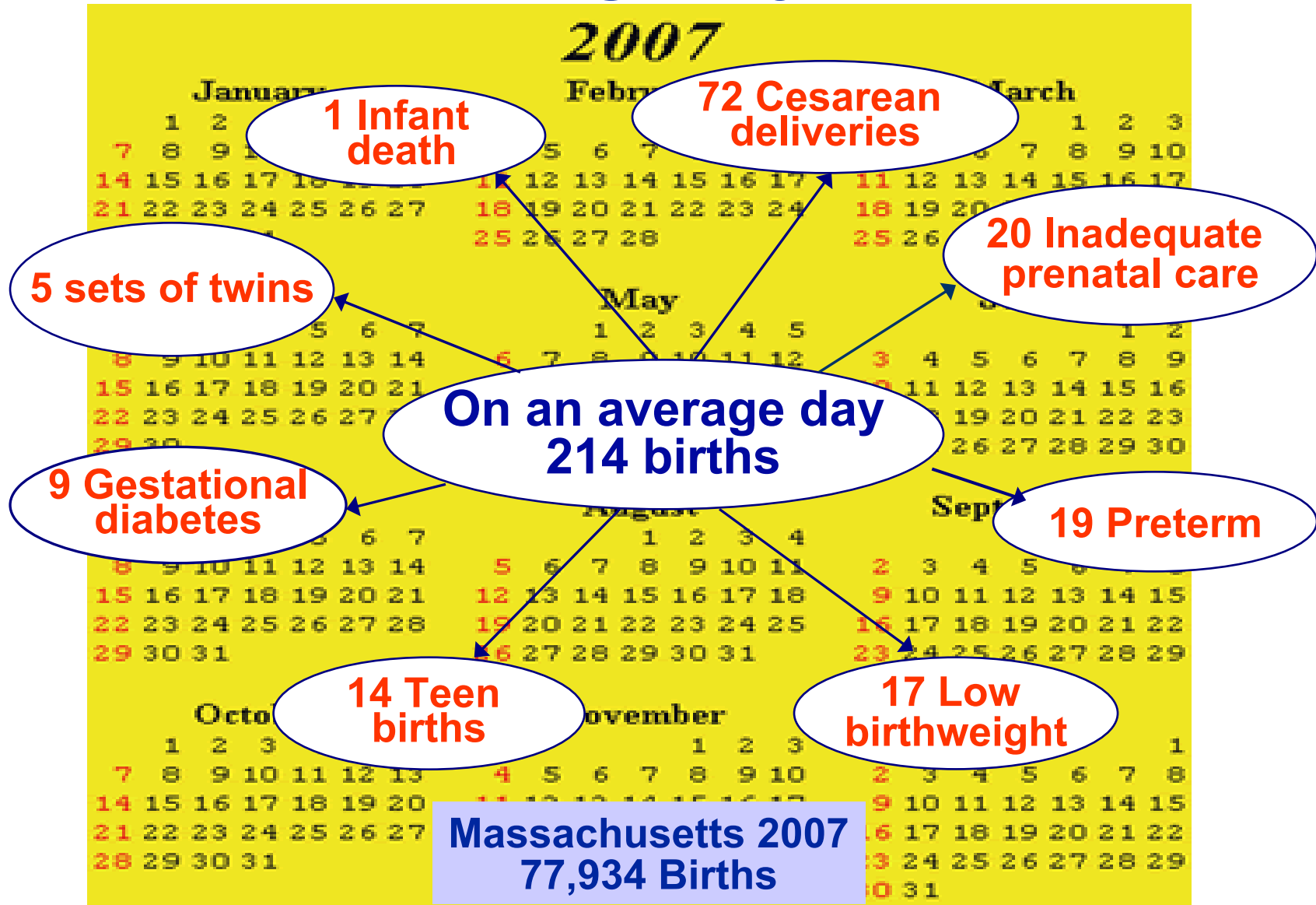


Outline

- I. Overview and Trends**
- II. Changing Demographics**
- III. Diversity and Disparities**
- IV. Selected Topics:**
 - A. Preterm infants**
 - B. Smoking during pregnancy**
 - C. Gestational Diabetes**
 - D. Cesarean Deliveries**
- V. Summary**

Overview and Trends

On an Average Day in 2007...



Massachusetts Birth Indicators 2000 and 2007

Indicator	2000	2007	% Change
Number of Births	81,582	77,934	-5%*
% Foreign Born Mothers	20.8	27.2	+31%*
% Multiple Births	4.3	4.4	+2%
Teen Birth Rate (births/1000 women ages 15-19 years)	25.9	22.0	-15%*
Infant Mortality Rate (IMR) (deaths per 1,000 live births)	4.6	4.9	+6%
% Preterm (<37 weeks)	8.3	9.0	+8%*
% Low Birthweight (<2,500 g, 5.5 lbs)	7.1	7.9	+11%*
% Smoking During Pregnancy	9.7	7.5	-23%*
% Gestational Diabetes	2.8	4.2	+50%*
% Cesarean Deliveries	23.4	33.7	+44%*

* Statistically Significant ($p \leq .05$)

A Comparison of 2007 Massachusetts Birth Indicators with Recent U.S.¹ Data

	<u>MA</u>	<u>US</u>
Fertility Rate (births /1000 females ages 15-44 yrs)	57.0*	68.5
Teen Birth Rate (births/1000 females ages 15-19 yrs)	22.0*	41.9
% Low Birthweight (< 2,500 g, 5.5 lbs)	7.9*	8.3
% Smoking during pregnancy	7.5*	13.2²
% Cesarean deliveries	33.7*	31.1
Infant Mortality Rate (IMR)	4.9*	6.6³

1. National Vital Statistics Report, Births *Final Data for 2006*. Released on January 7, 2009. Data for 2007 have not yet been released.

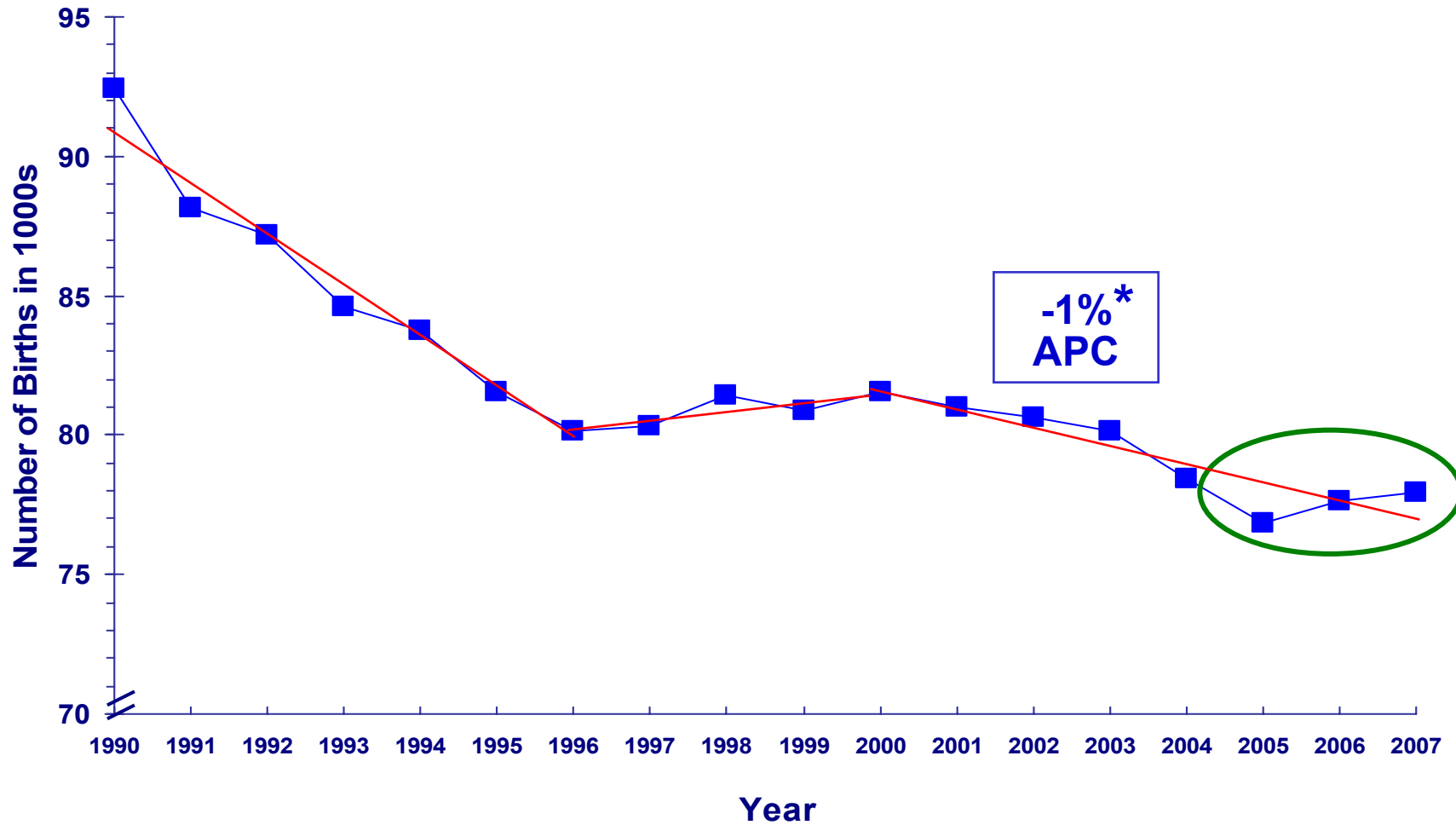
2. 2006 data for 17 states for which revised information on tobacco use is available for 2006.

3. Provisional estimates for 2007 US NCHS- NVRS Vol 56 , Number 21, July 14, 2008

*Statistically Significant (p ≤ .05)

Changing Demographics

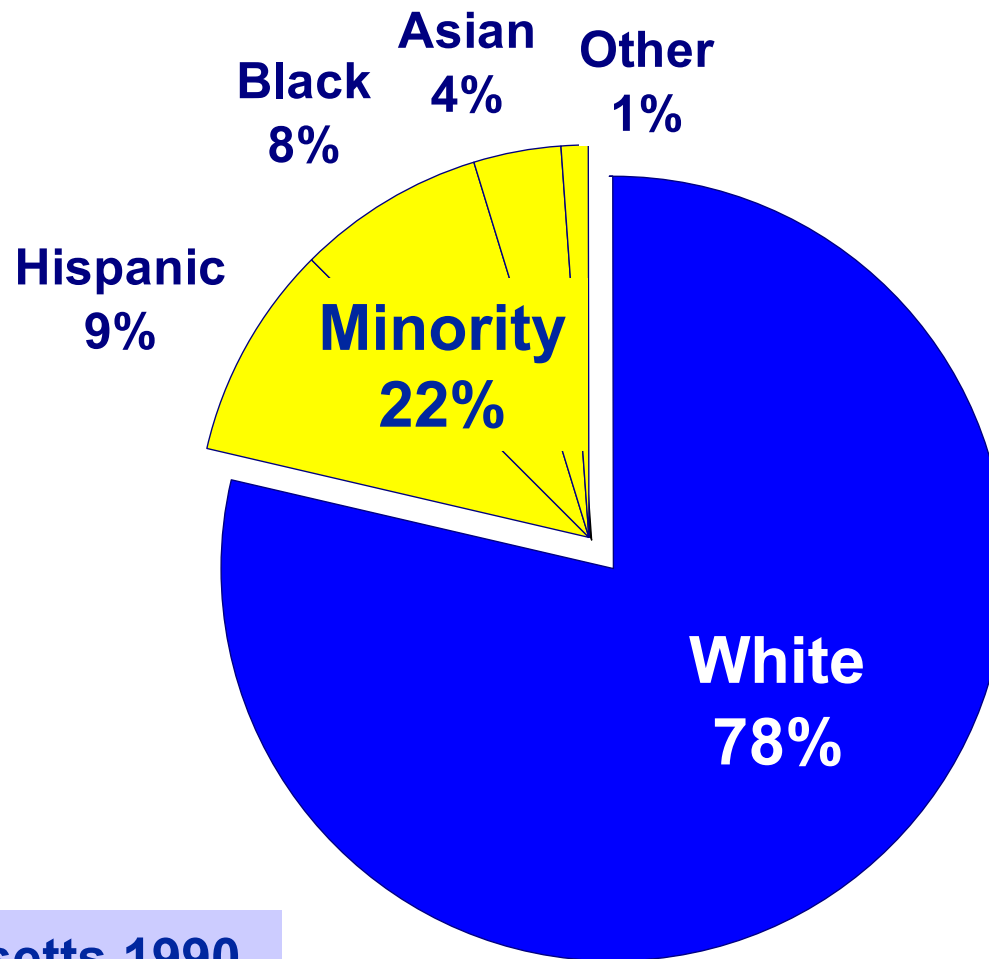
Trend in the Number of Births Massachusetts: 1990-2007



* Statistically Significant ($p \leq .05$)

APC = Annual Percentage Change

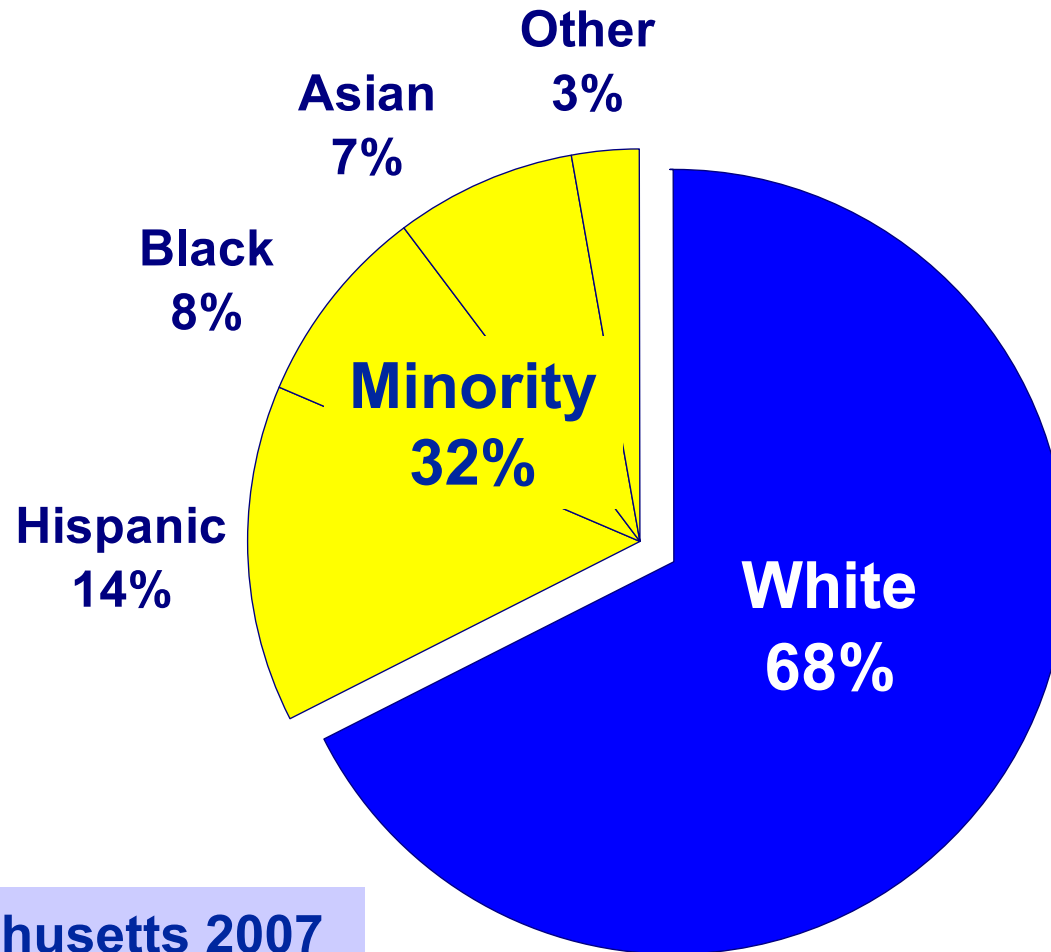
Massachusetts Births by Race and Hispanic Ethnicity: 1990



**Massachusetts 1990
92,461 Births**

White, Black, Asian,
and Other are Non-
Hispanic

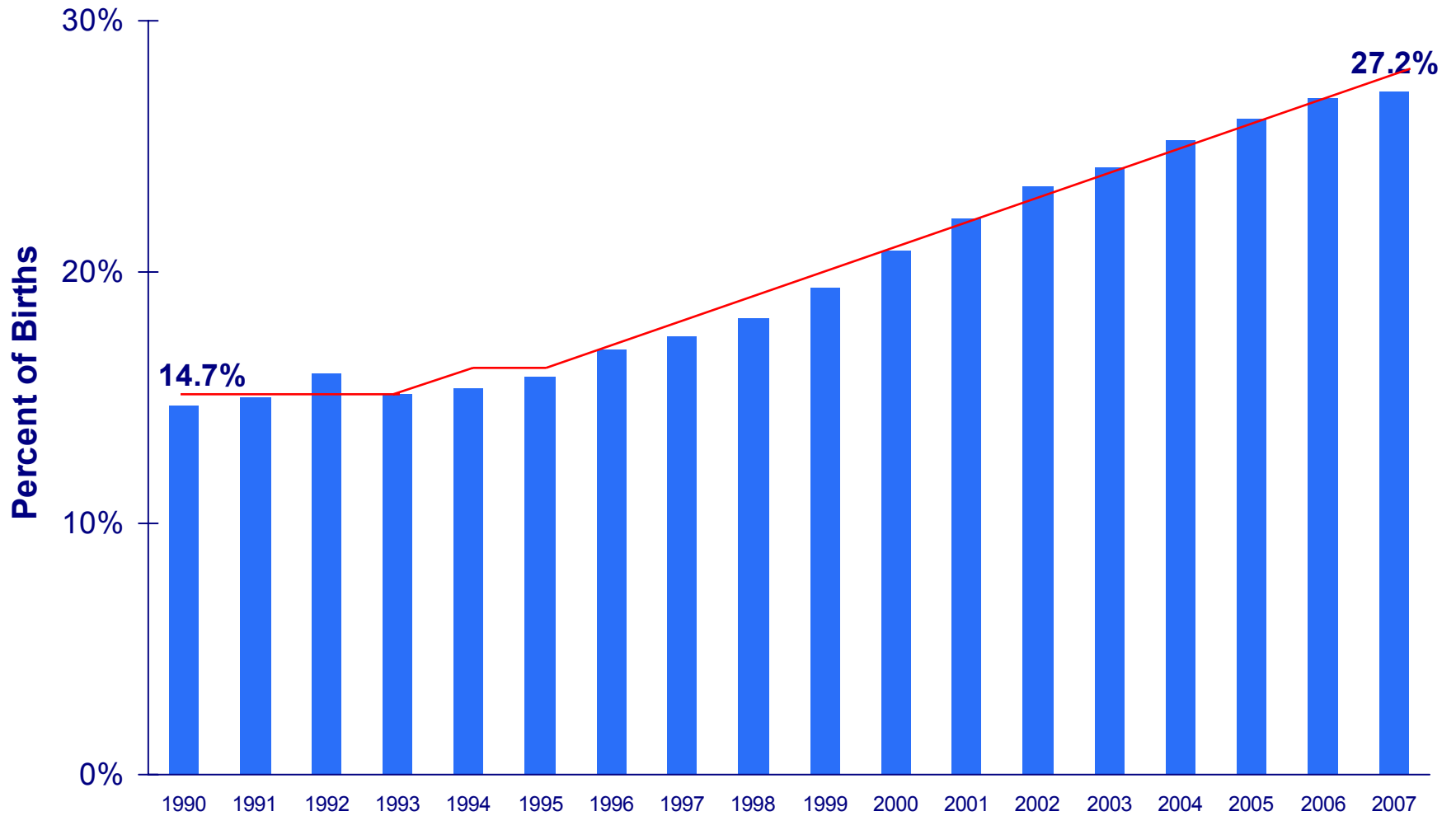
Massachusetts Births by Race and Hispanic Ethnicity: 2007



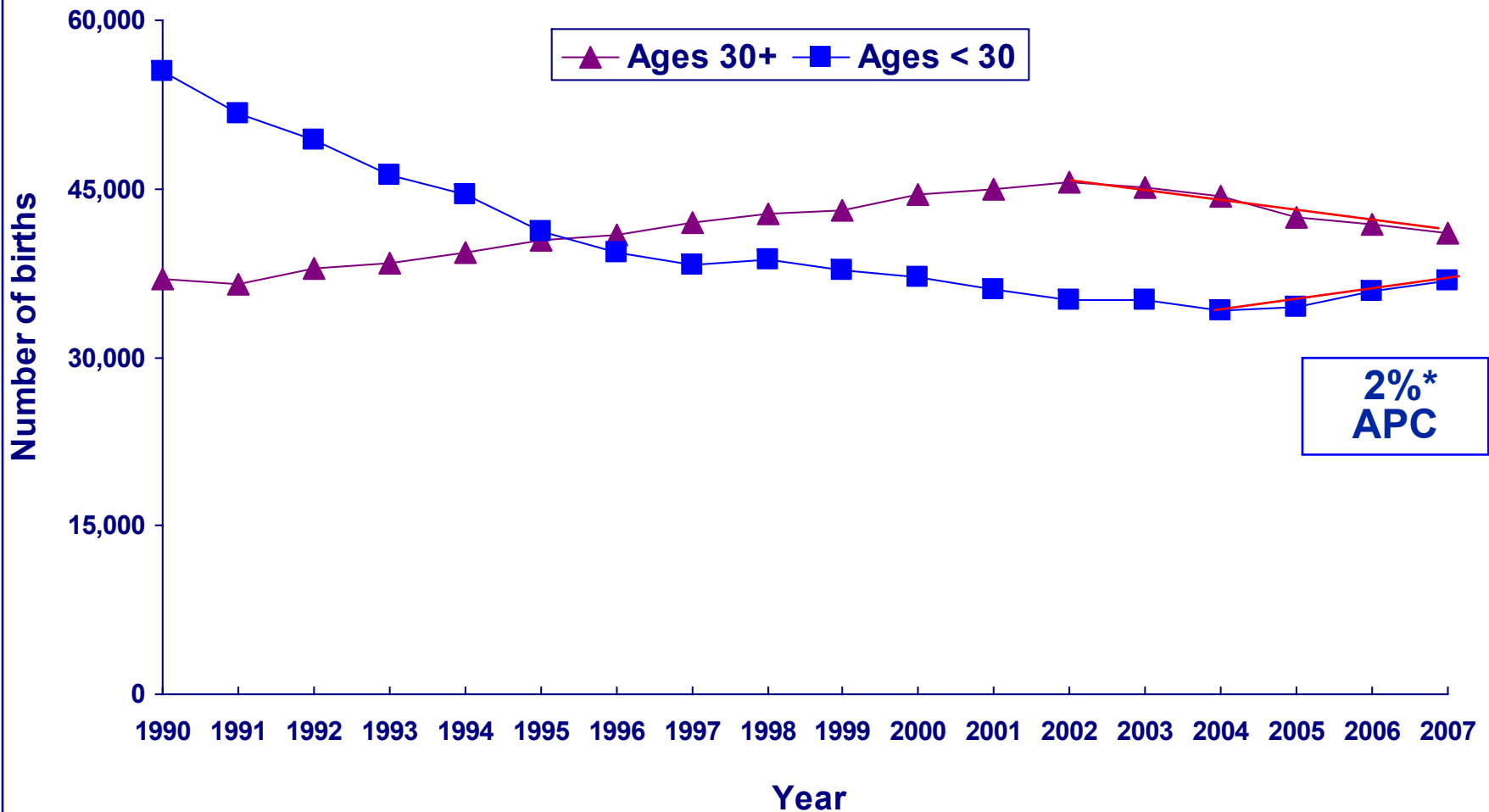
Massachusetts 2007
77,934 Births

White, Black, Asian,
and Other are Non-
Hispanic

Percent Non-U.S. Born Mothers Massachusetts: 1990-2007



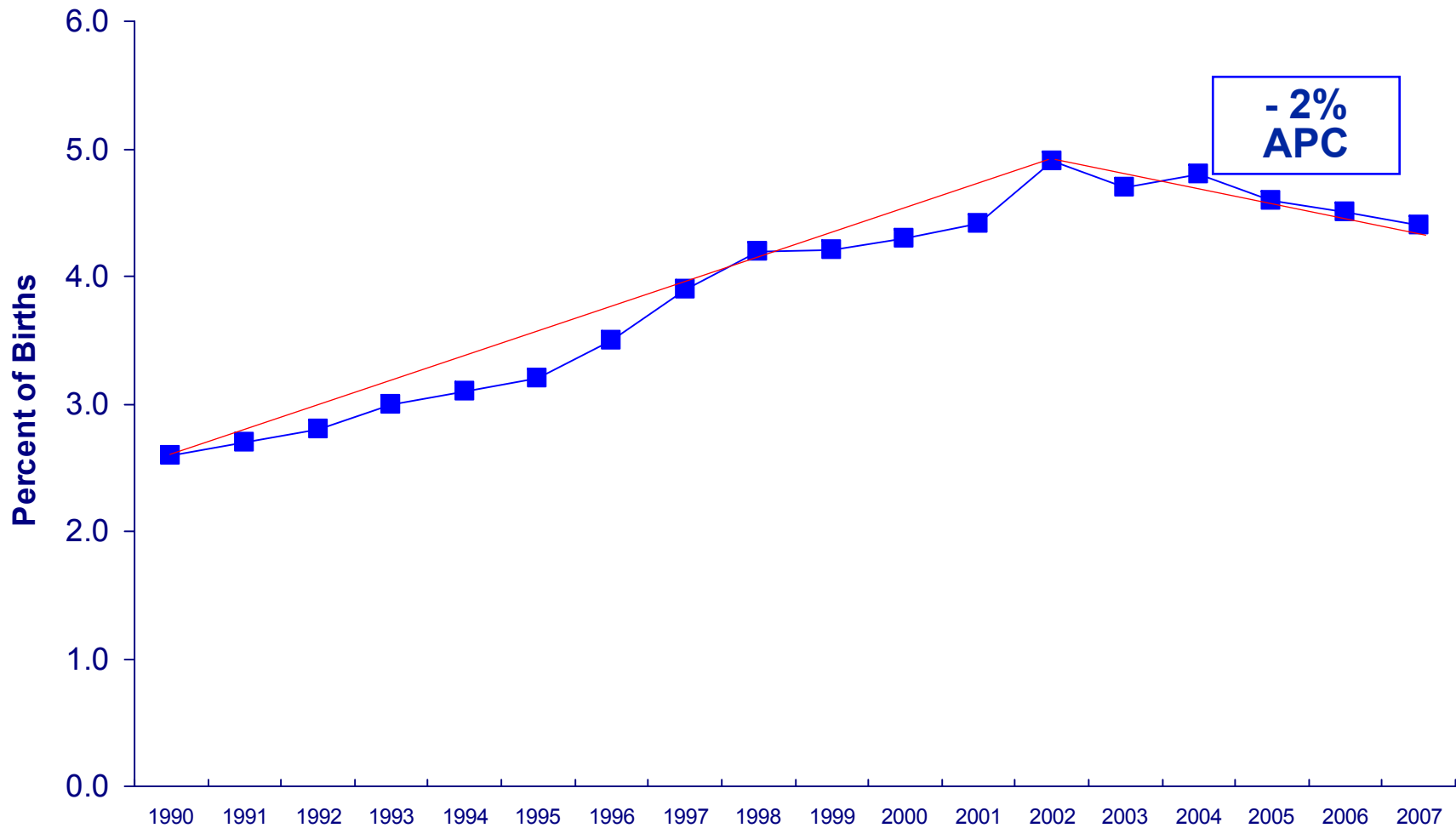
Number of Births by Mother's Age Massachusetts: 1990-2007



*Statistically Significant ($p \leq .05$)

APC = Annual Percentage Change

Percent Multiple Births Massachusetts: 1990-2007

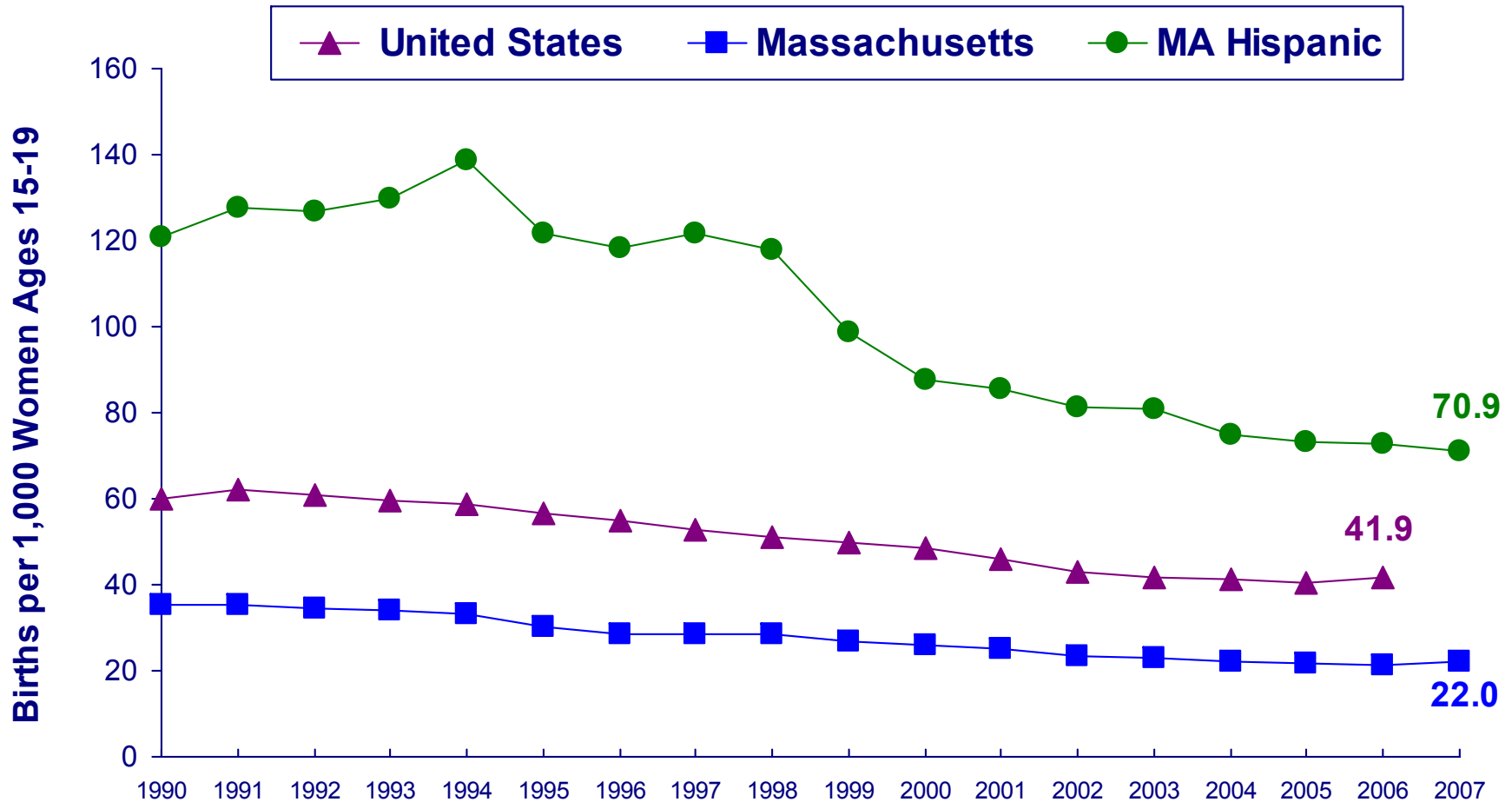


*Statistically Significant ($p \leq .05$)

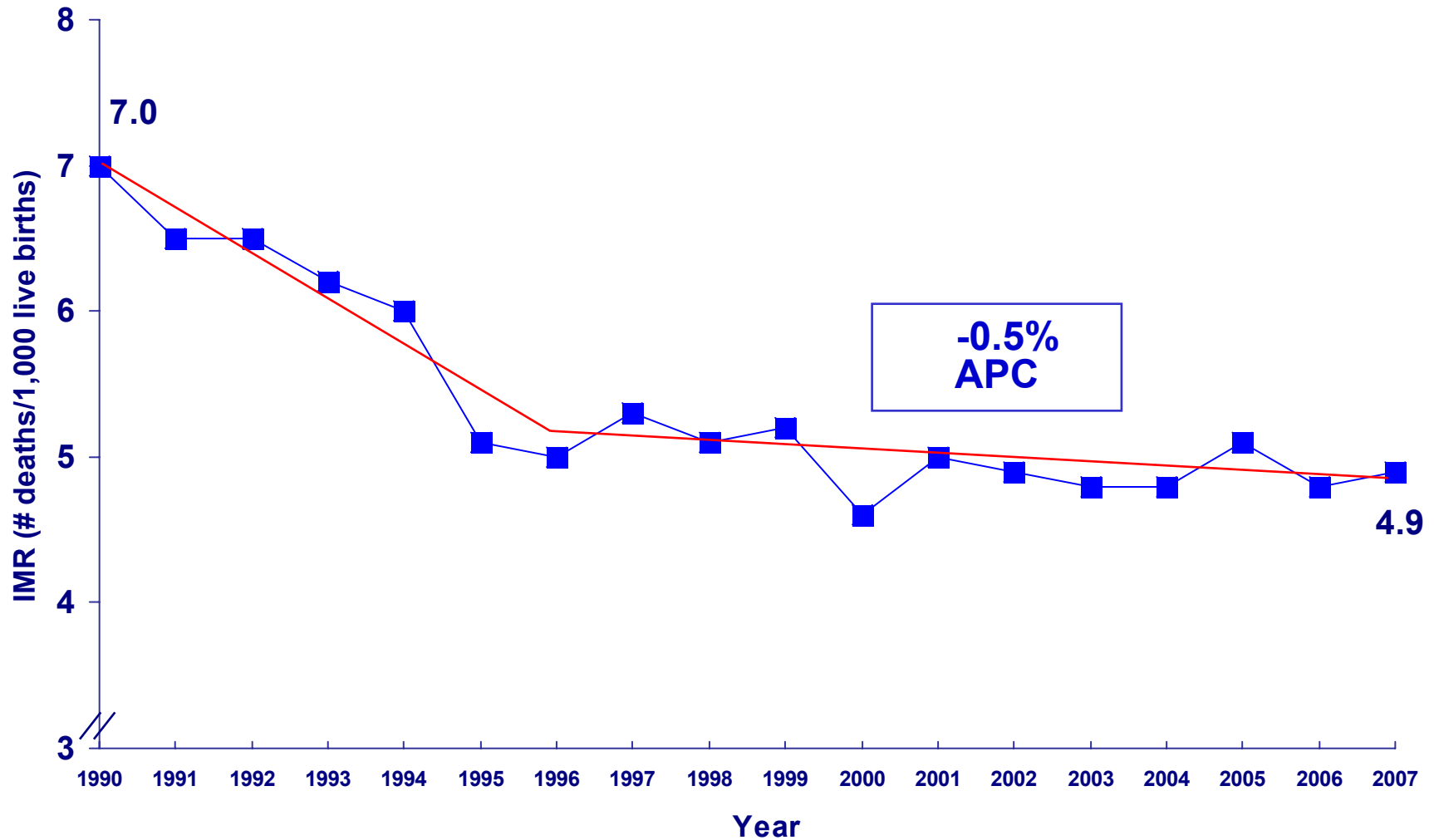
APC = Annual Percentage Change

Diversity and Disparities

Teen Birth Rates Massachusetts and U.S. : 1990-2007



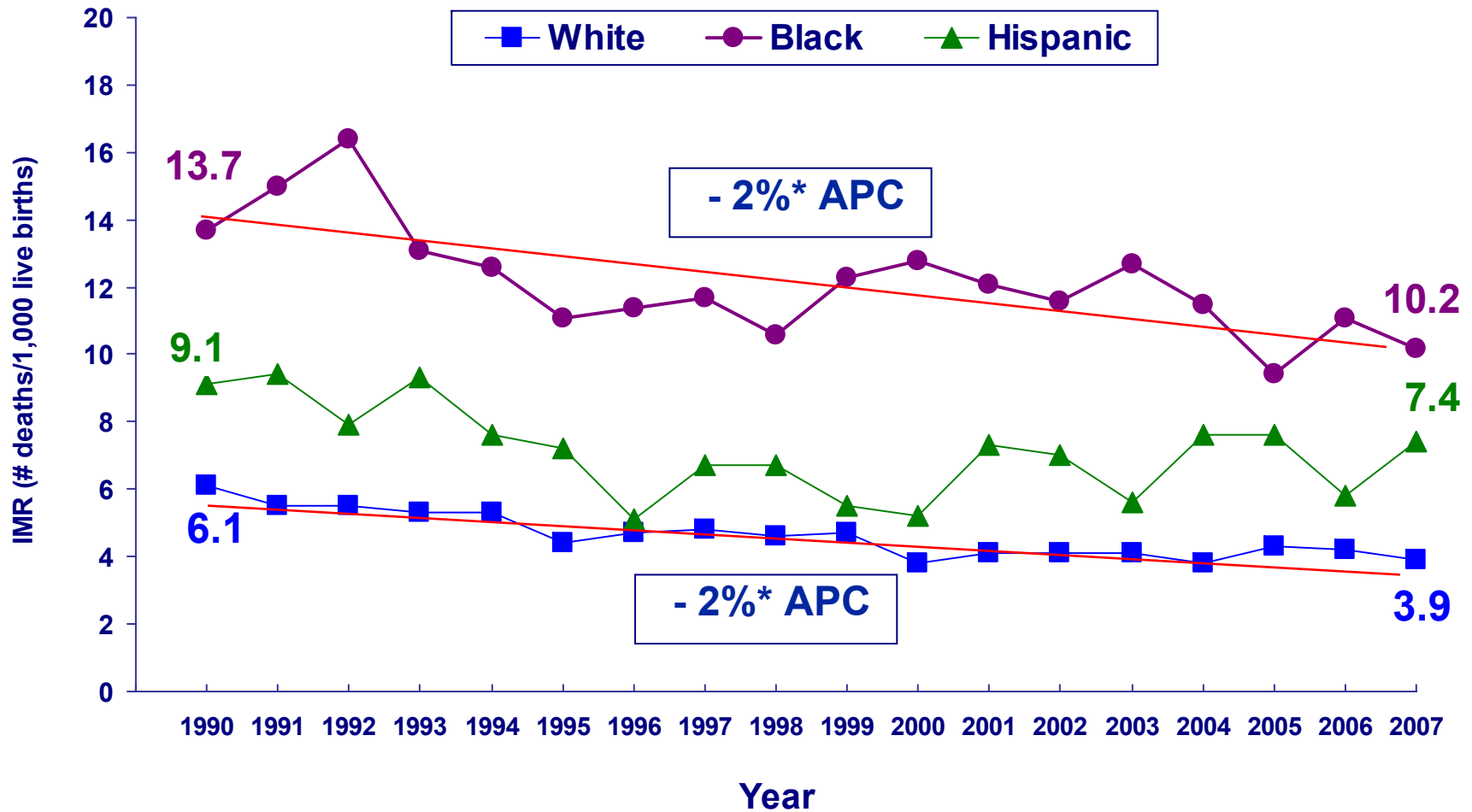
Infant Mortality Rate (IMR) Massachusetts: 1990-2007



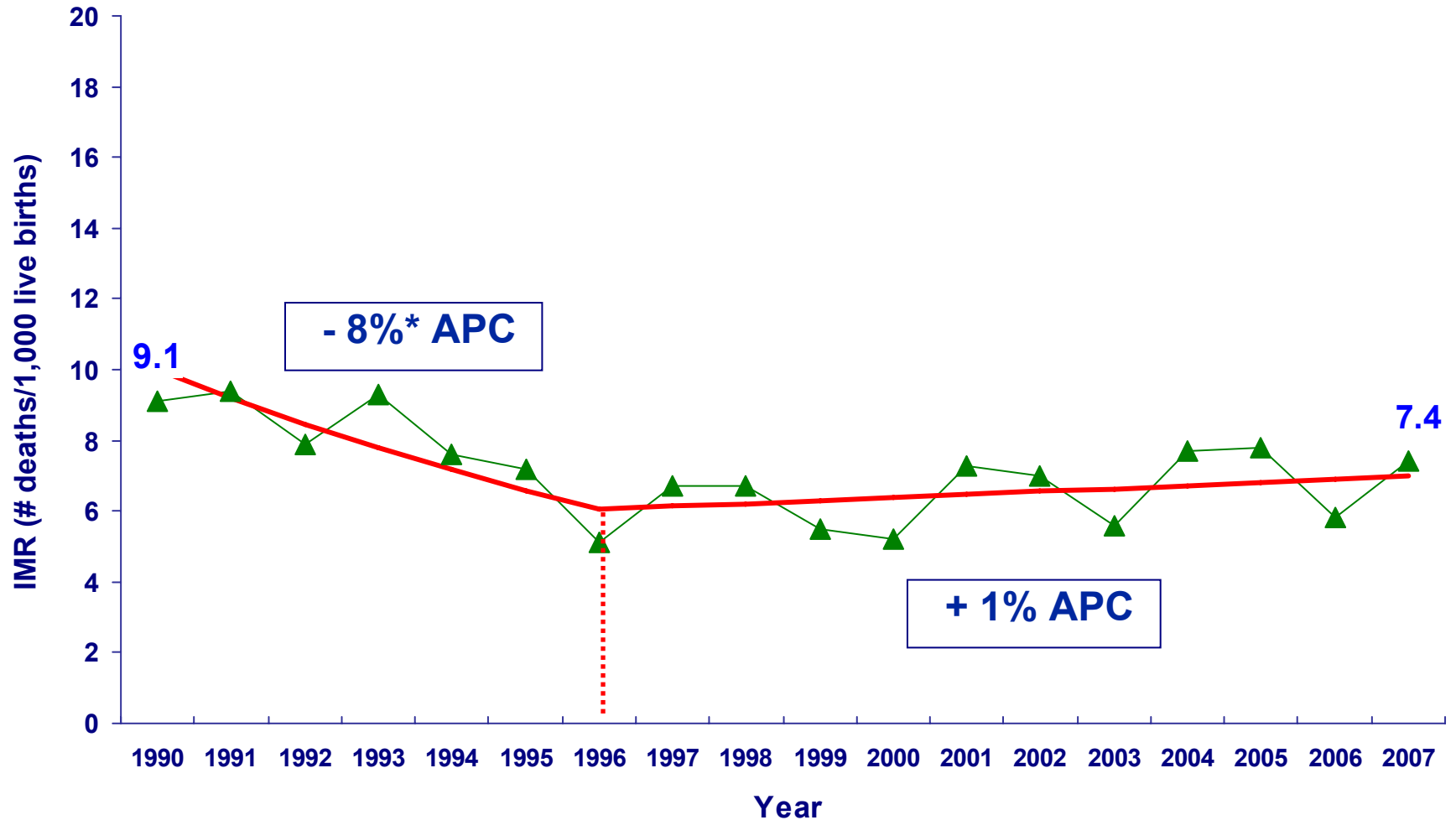
* Statistically Significant ($p \leq .05$)

APC = Annual Percentage Change

IMR by Race & Hispanic Ethnicity Massachusetts: 1990-2007



Hispanic IMR Massachusetts: 1990-2007



* Statistically Significant ($p \leq .05$)

APC = Annual Percentage Change

Highest Infant Mortality Rates Among the 30 Largest Communities in Massachusetts: 2007

	2007
Fall River	13.1* (n=16)
Revere	8.9 (n=7)
New Bedford	8.7 (n=12)
Somerville	8.3 (n=8)
Worcester	8.2 (n=21)
Springfield	7.9 (n=20)
MA Overall	4.9 (n=380)

* Statistically Significantly higher from state rate ($p \leq .05$)

Rate = infant deaths per 1,000 live births

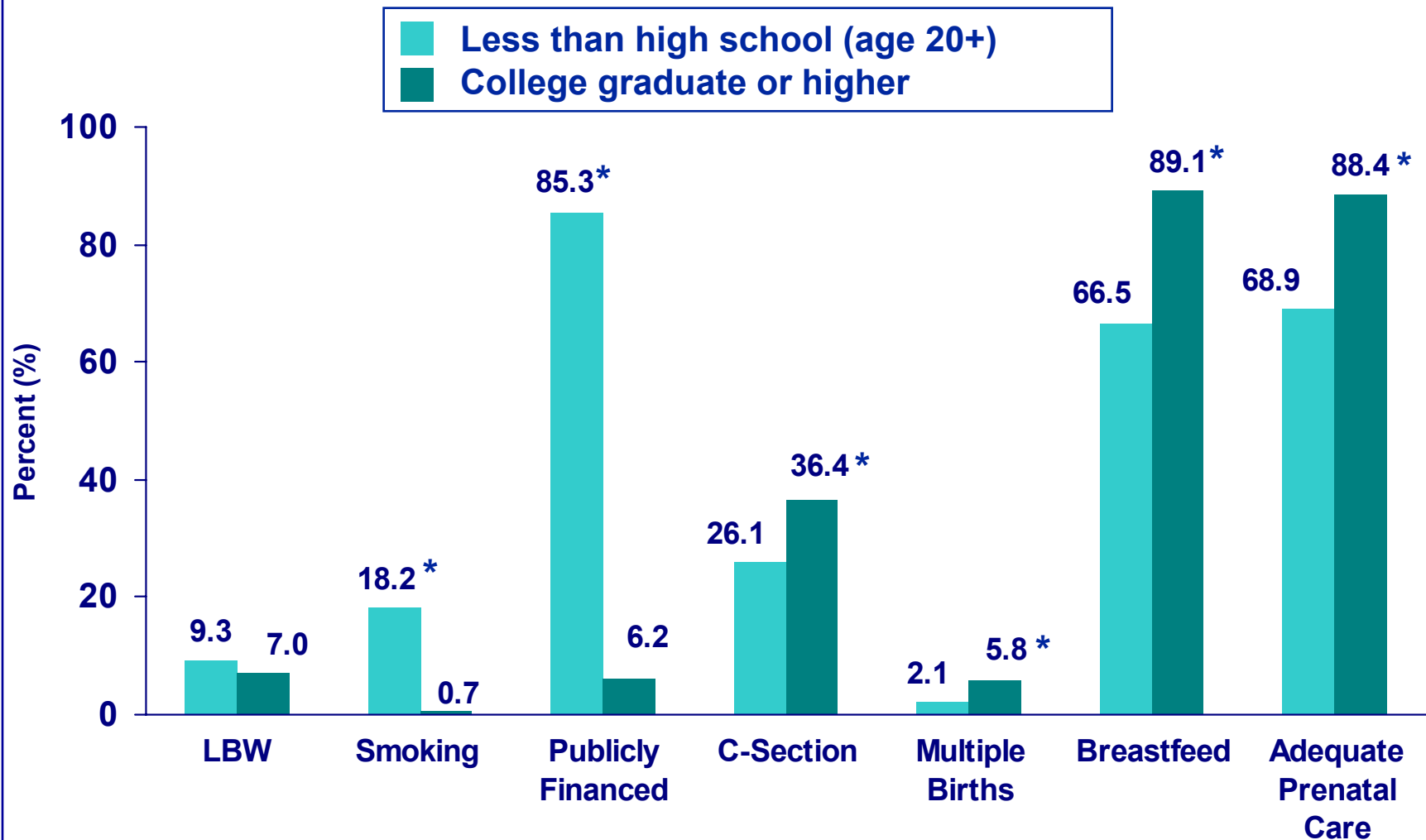
Highest Infant Mortality Rates Among the 30 Largest Communities in Massachusetts: 2005-2007

	2005-2007
Revere	10.4* (n=22)
Springfield	9.2* (n=68)
Worcester	9.0* (n=70)
New Bedford	8.7* (n=37)
Fall River	8.5* (n=31)
MA Overall	4.9 (n=1,152)

* Statistically Significantly higher from state rate ($p \leq .05$)

Rate = infant deaths per 1,000 live births

Birth Characteristics by Maternal Education Massachusetts: 2007

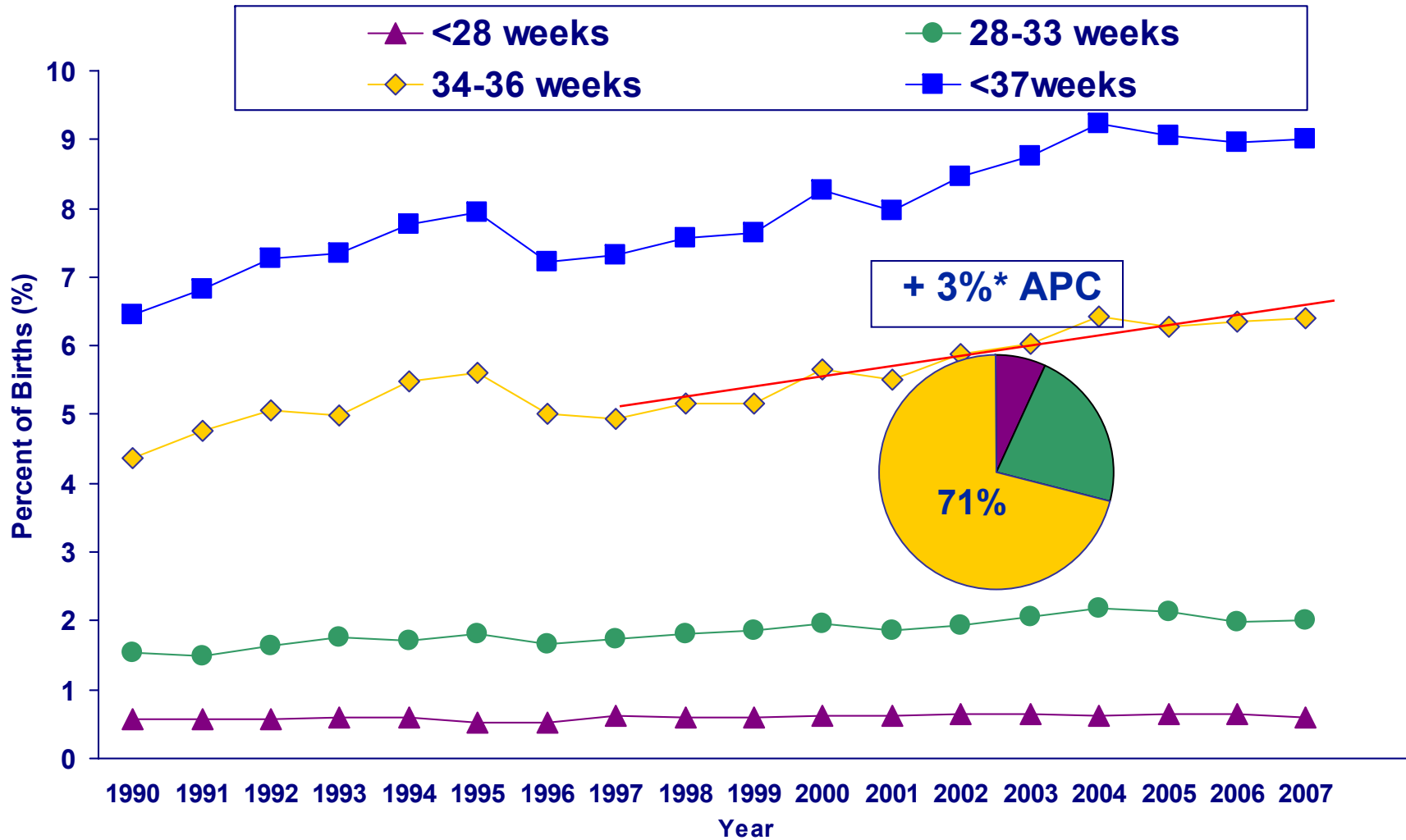


* Statistically Significant (p ≤ .05)

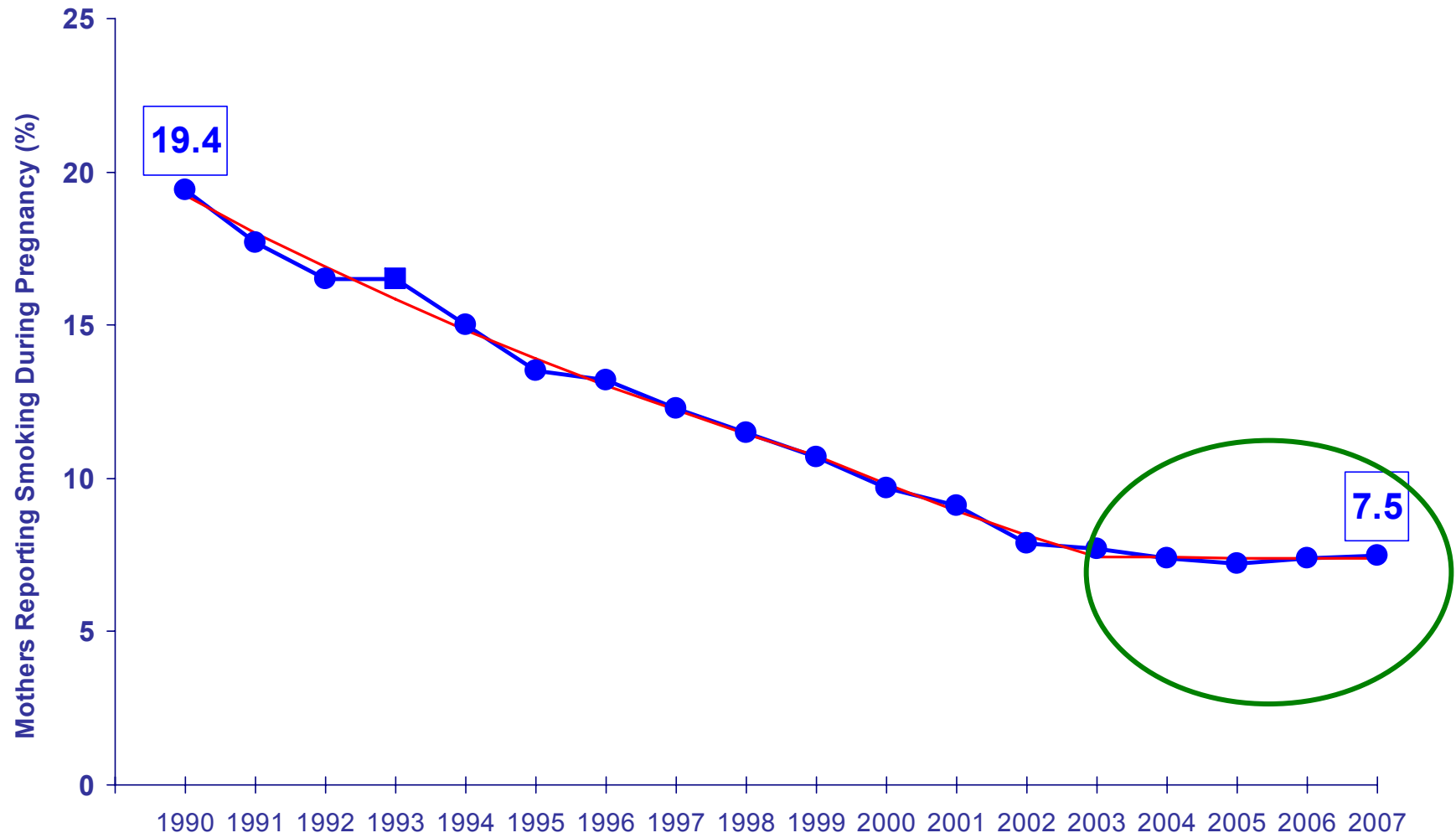
Selected Topics:

- A. Preterm**
- B. Smoking during pregnancy**
- C. Gestational Diabetes**
- D. Cesarean Deliveries**

Preterm Deliveries by Gestational Age Massachusetts: 1990-2007



Women Who Smoked During Pregnancy Massachusetts: 1990-2007



* Statistically Significant ($p \leq .05$)

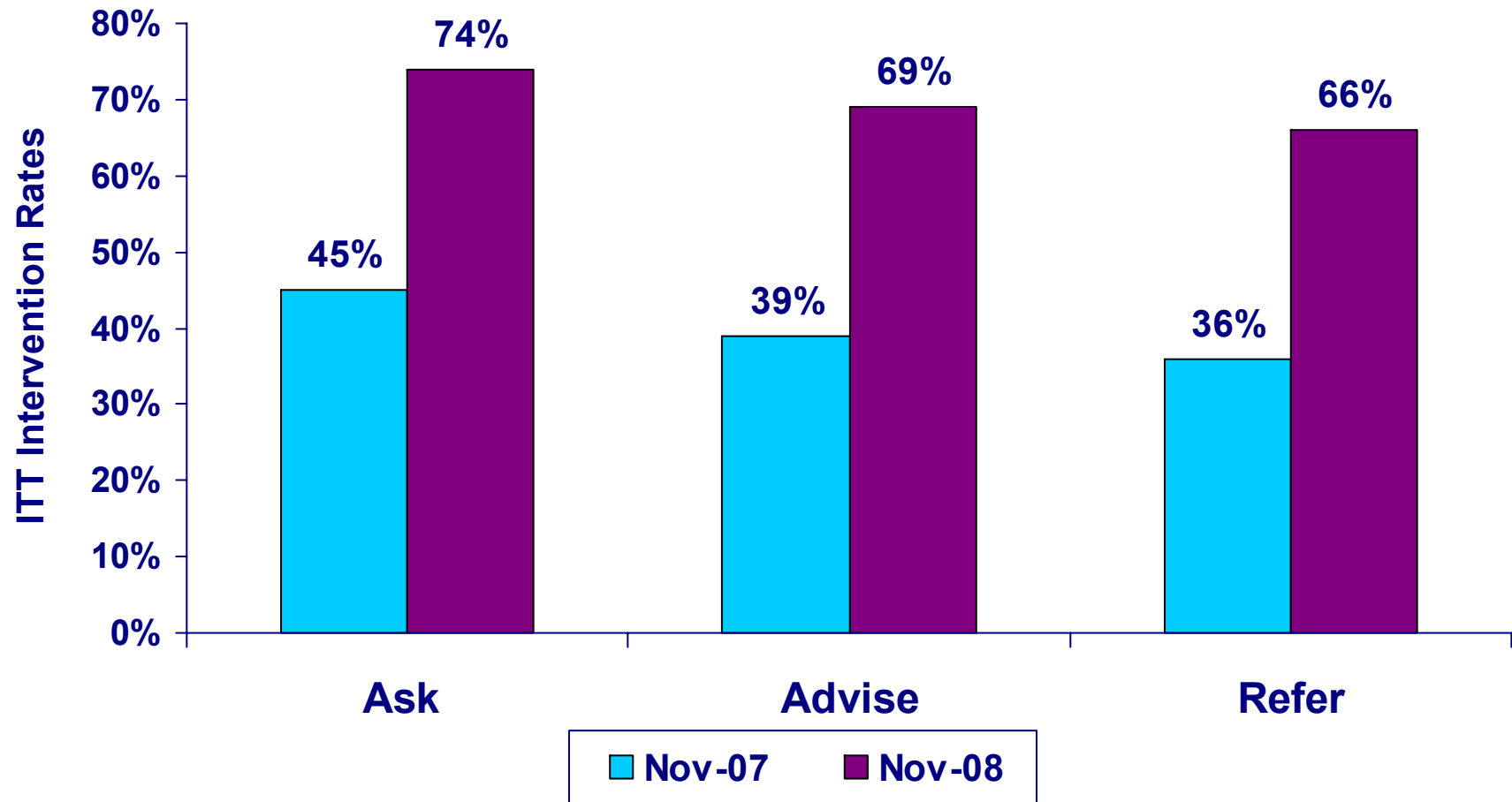
APC = Annual Percentage Change

Tobacco Control Program

Rural Birth Hospital – Pilot Program

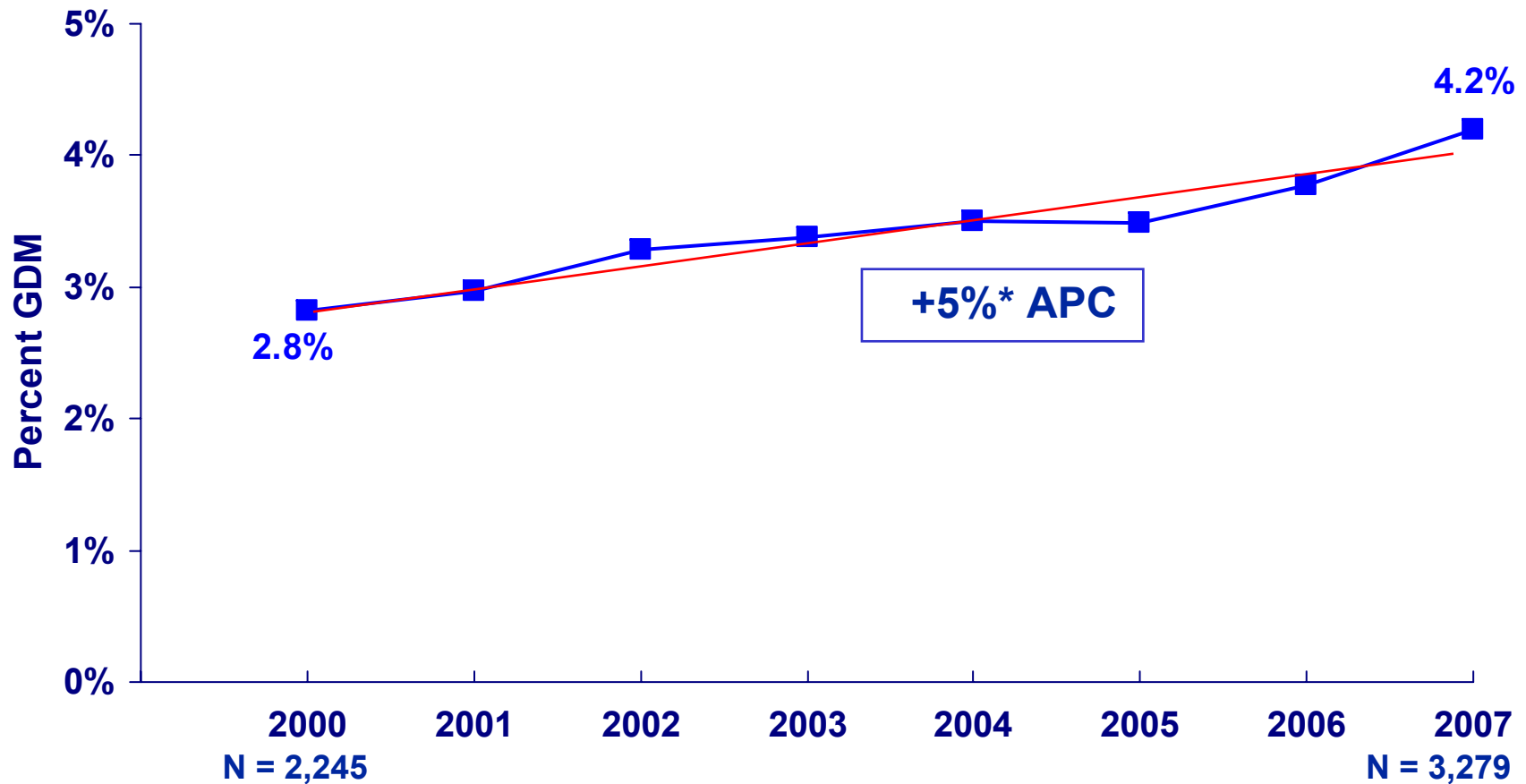
- Areas with above average rates of smoking during pregnancy
- 3 Hospitals selected:
 - Berkshire Medical Center (Pittsfield)
 - North Adams Regional Hospital (North Adams)
 - Heywood Hospital (Gardner)
- Implement program of brief interventions (AARP model: Ask, Advice, Refer, Prescribe)
- Electronic tracking of interventions

Tobacco Control Program Intervention Rates North Adams Regional Hospital



Percentages are based on Intent To Treat model (ITT). Prescription data is not currently recorded.

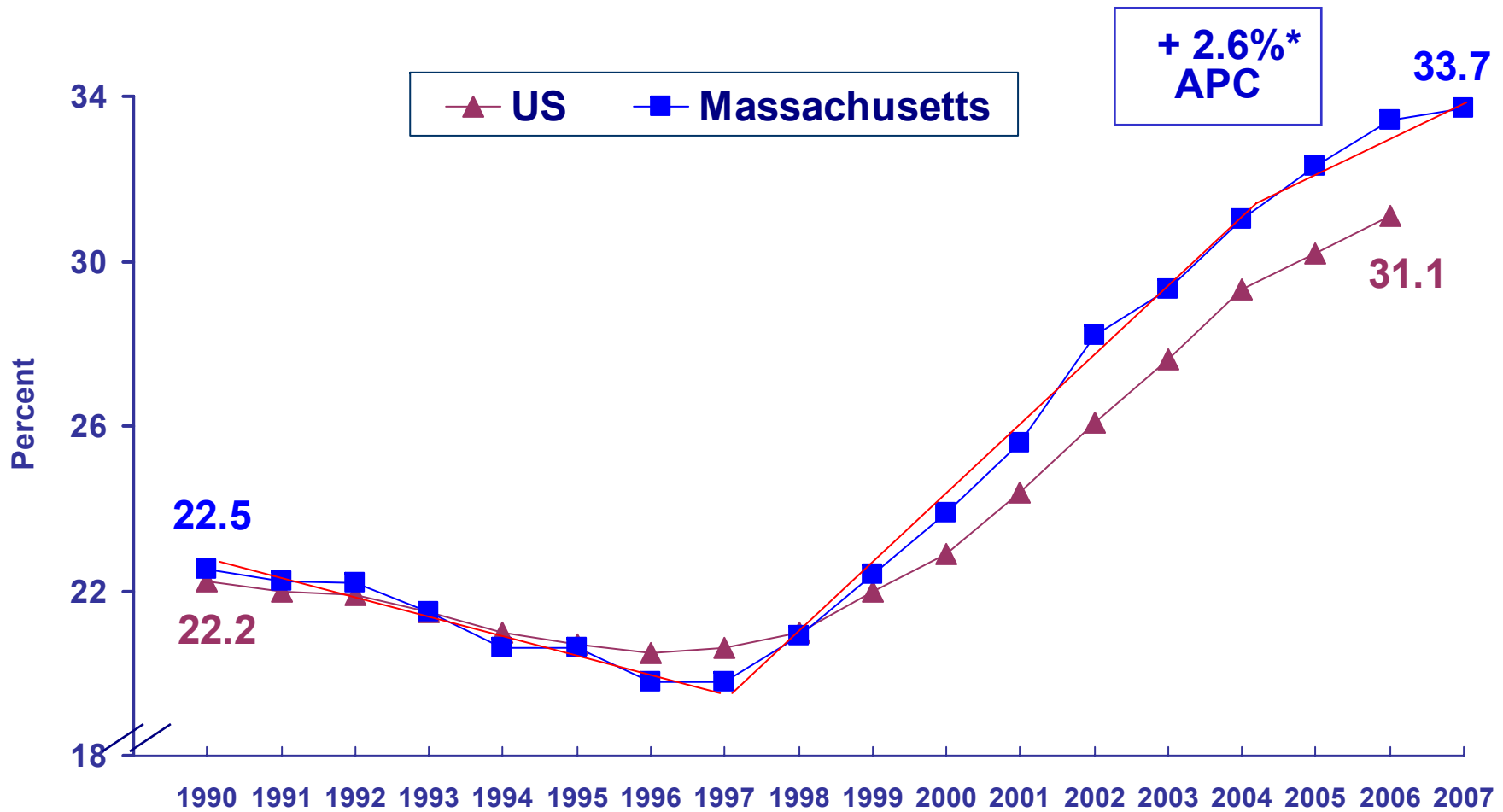
Gestational Diabetes Mellitus (GDM) Massachusetts: 2000-2007



* Statistically Significant ($p \leq .05$)

APC = Annual Percentage Change

Cesarean Deliveries Massachusetts and the US: 1990-2007



* Statistically Significant ($p \leq .05$)

APC = Annual Percentage Change

Summary

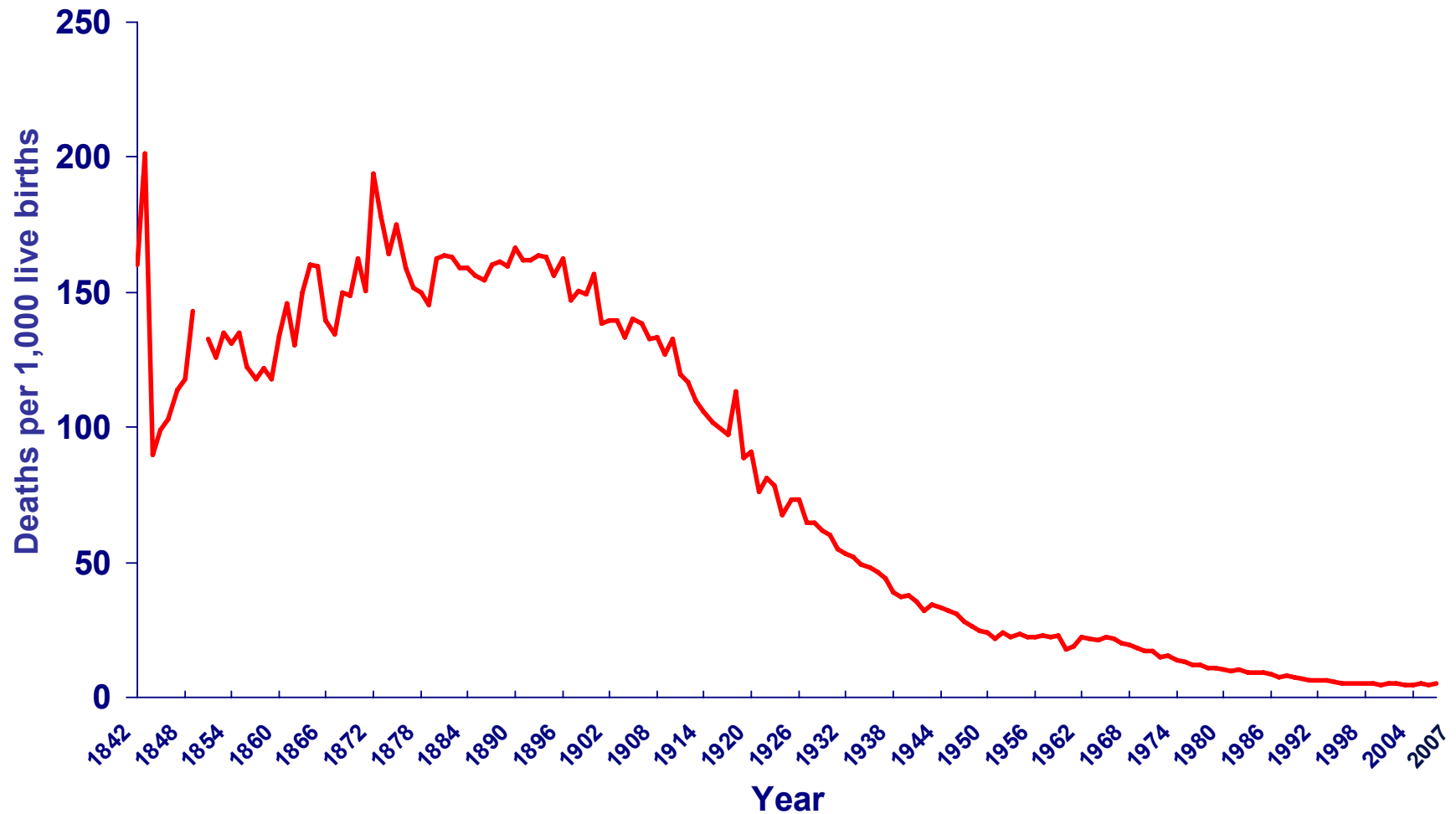
Summary

- **Massachusetts perinatal health indicators are better than those of the U.S.**
- **One-third of all births are to non-white mothers**
- **Teen birth rates have continued to decline by about 3% per year since 1990**
- **Gestational diabetes has increased by 5% per year since 2000**
- **One-third of all births are delivered by Cesarean**
- **Continued increase in LBW and late preterm infants**
- **Smoking during pregnancy had been declining but has leveled off in recent years**

Disparities Persist by Race, Ethnicity Geography, and SES

- Black IMR is more than twice as high as the White IMR
- Hispanic teen birth rate is almost 6 times that of Whites
- The percent of mothers who smoked during pregnancy varied by communities: from less than 1% to 28%
- Less educated mothers have poorer birth indicators than more educated mothers

Infant Mortality Rate Massachusetts: 1842-2007



How to Access the Births Report and Data

To access the 2007 *Report*:

- Hard Copies: (617) 740-2670
- TDD/TTY: (617) 624-6001
- DPH Website:

[http:// mass.gov/dph/bhsre/resep/resep.htm#birth](http://mass.gov/dph/bhsre/resep/resep.htm#birth)

- To access Birth *data* via MassCHIP (DPH's Internet-based public health information service):

- Website: <http://masschip.state.ma.us>
- Telephone: 1-888-MASCHIP (Mass only)
(617) 624-5629

Thank You