

Regional Health Status Indicators Northeast Massachusetts



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TABLE OF CONTENTS

NOTE TO READERS	11
INTRODUCTION	13
Goals for holding Regional Dialogues.....	15
Goals of New DPH Leadership	15
Timetable	16
SOCIODEMOGRAPHIC INDICATORS.....	17
Executive Office of health and Human Services Regions	19
Comments about the Limitations of this presentation.....	19
Population in Communities, Northeast Region: 2005.....	20
Race and Ethnic Breakdown of Population, Northeast Region and Massachusetts: 2005.....	20
Race and Ethnic Breakdown of Population, Lowell, Lawrence, and Lynn: 2005.....	21
Population by Age Group, Northeast Region and Massachusetts: 2005.....	21
Language Spoken at Home, Northeast Region and Massachusetts: 2000.....	22
Spanish Spoken at Home, Northeast Region: 2000.....	22
Socio-Demographic Indicators Northeast Region and Massachusetts: 2000.....	23
Socio-Demographic Indicators Northeast Region and Massachusetts: 2000.....	23
Highest and Lowest per Capita Income Communities in Northeast Region: 2000.....	24
HEALTH CARE ACCESS	25
Adults who Have No Health Insurance by EOHHS Region, Massachusetts: 2005.....	27
Adults who Have No Health Insurance by Race and Ethnicity, Northeast Region and Massachusetts: 2005	27
Health Insurance Access, Northeast Region and Massachusetts: 2005.....	28
Summary Indicators for Health Insurance by EOHHS Regions, Massachusetts: 2005.....	28
BIRTH INDICATORS.....	29
Infant Mortality Rate (IMR) Northeast Region and Massachusetts: 1990-2005.....	31
Infant Mortality Rate by EOHHS Region and Massachusetts: 2002-2005.....	31
Infant Mortality Rates by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005.....	32
Low Birthweight by EOHHS Region, Massachusetts: 2005.....	32
Breastfeeding by EOHHS Region, Massachusetts: 2005.....	33
Teen Birth Rates, Northeast Region and Massachusetts: 1990-2005.....	33
Teen Birth Rates by EOHHS Regions, Massachusetts: 2005.....	34
Teen Birth Rates by EOHHS Region, Massachusetts: 2005.....	34
Teen Birth Rates by City/Town, Northeast Region: 2005.....	35
Teen Birth Rates by Race and Ethnicity, Northeast Region and Massachusetts: 2005.....	35
Adequate Prenatal Care by EOHHS Regions, Massachusetts: 2005.....	36
Adequate Prenatal Care by City/Towns Regions, Massachusetts: 2005.....	36
Public Source of Payment for Prenatal Care, Northeast Region and Massachusetts: 1990- 2005.....	37
Public Source of Payment for Prenatal Care, Northeast Region and Massachusetts: 2005.....	37
Smoking During Pregnancy, Northeast Region and Massachusetts: 1990-2005.....	38
Smoking During Pregnancy by EOHHS Regions, Massachusetts: 2005.....	38
Percentage of Mothers Smoking During Pregnancy for Largest Communities, Northeast Region: 2005.....	39

Smoking During Pregnancy by Race and Ethnicity, Northeast Region and Massachusetts: 2005.....	39
Infants Delivered by C-Section, Northeast Region and Massachusetts: 1990-2005	40
Infants Delivered by C-Section by EOHHS Regions, Massachusetts: 2005	40
Percentage of Cesarean Births by EOHHS Regions, Massachusetts Births 2005	41
Percent of Cesarean Deliveries by City/Town, Northeast Region: 2005	41
Summary of Birth Indicators by EOHHS Regions, Massachusetts: 2005	42
Summary of Birth Indicators by EOHHS Regions.....	42
LEADING CAUSES OF DEATH	43
Leading Causes of Death, Northeast Region and Massachusetts: 2005	45
CHRONIC DISEASE OUTCOMES AND OVERWEIGHT/OBESITY.....	47
Thresholds for Defining Overweight and Obesity.....	49
Adults who are Overweight by EOHHS Region, Massachusetts: 1995 & 2005	49
Adults who are Obese by EOHHS Region, Massachusetts : 1995 & 2005	50
Obesity by Race and Ethnicity, Northeast Region and Massachusetts: 2005.....	50
Adults who Participate in Regular Physical Activity by EOHHS Region, Massachusetts: 2005.....	51
Adults who have 5+ Servings of Fruit or Vegetables by EOHHS Region, Massachusetts : 2005.....	51
Adults who had their Cholesterol Checked in Past 5 Years by EOHHS Region, Massachusetts: 2005	52
Adults who were Told by Health Care Provider that they had High Cholesterol, by EOHHS Region, Massachusetts: 2005	52
Adults who were Told by a Health Care Provider they have High Blood Pressure, by EOHHS Region, Massachusetts: 2005.....	53
Adults who take Medicine for High Blood Pressure, by EOHHS Region, Massachusetts : 2005.....	53
Hypertension Hospital Discharges by EOHHS Region, Massachusetts: 2003-2005	54
Hypertension Hospital Discharge Rates by Race/Ethnicity, Northeast Region, Massachusetts: 2003-2005.....	54
Heart Disease Mortality Rates by EOHHS Region, Massachusetts: 2003-2005	55
Heart Disease Death Rates by Race/Ethnicity, Northeast Region and Massachusetts : 2003-2005.....	55
Prevalence of Diabetes, Massachusetts: 1994-2005.....	56
Diabetes Hospital Discharge Rates by EOHHS Region, Massachusetts: 2003-2005	56
Diabetes Hospital Discharge Rates by Race/Ethnicity, Northeast Region, Massachusetts: 2003-2005.....	57
Diabetes Mortality Rates by EOHHS Region, Massachusetts: 2003-2005.....	57
Diabetes Mortality Rates by Race/Ethnicity, Northeast Region and Massachusetts : 2003-2005.....	58
Summary Indicators for Overweight/Obesity, by EOHHS Regions, Massachusetts : 2005	58
Summary Indicators for Chronic Disease Outcomes for Overweight/Obesity by EOHHS Regions.....	59
CANCER.....	61
Adults Ages 50+ who have had a Sigmoidoscopy or Colonoscopy in Past 5 Years by EOHHS Regions, Massachusetts: 2005.....	63
Incidence Rates for Invasive Colorectal Cancer by EOHHS Region, Massachusetts: 1990-2003	63

Incidence Rates for Early Stage Colorectal Cancer, Males, by EOHHS Region, Massachusetts: 1999-2003	64
Incidence Rates for Early Stage Colorectal Cancer, Females, by EOHHS Region, Massachusetts: 1999-2003	64
Men Ages 50+ who had a Prostate-Specific Antigen Test in the Past 2 years by EOHHS Region, Massachusetts: 2004	65
Men Ages 50+ who had a Digital Rectal Exam in the Past Two Years by EOHHS Region, Massachusetts: 2004	65
Adults Ages 50+ who had a Blood Stool Test in the Past Two Years by EOHHS Region, Massachusetts: 2005	66
Incidence Rates for Invasive Prostate Cancer by EOHHS Region, Massachusetts: 1999-2003	66
Incidence Rates for Early Stage Prostate Cancer by EOHHS Region, Massachusetts: 1999-2003	67
Prostate Cancer Mortality Rates by EOHHS Region, Massachusetts: 2005	67
Women Ages 40+ who had a Clinical Breast Exam in the Past Two Years by EOHHS Region, Massachusetts: 2004	68
Women who had a Clinical Breast Exam in the Past Two Years by Race and Ethnicity, Northeast Region and Massachusetts : 2004	68
Women Ages 40+ who have had a Mammography in Past 2 Years by EOHHS Region, Massachusetts: 2005	69
Incidence Rates for Invasive Female Breast Cancer by EOHHS Region, Massachusetts: 1999-2003	69
Incidence Rates for Early Stage Female Breast Cancer by EOHHS Region, Massachusetts : 1999-2003	70
Incidence Rates for Invasive Lung Cancer by EOHHS Region, Massachusetts : 1999-2003	70
Incidence Rates for Early Stage Lung Cancer, Males, by EOHHS Region, Massachusetts : 1999-2003	71
Incidence Rates for Early Stage Lung Cancer, Females, by EOHHS Region, Massachusetts: 1999-2003	71
Lung Cancer Incidence Rates by Race and Ethnicity, Northeast Region, Massachusetts : 2003-2005	72
Lung Cancer Mortality Rates by EOHHS Region, Massachusetts : 2005	72
Lung Cancer Mortality Rates by Race and Ethnicity, Northeast Region, Massachusetts : 2003-2005	73
Adults who Currently Smoke by EOHHS Regions, Massachusetts: 2005	73
Summary Indicators for Cancer Screening by EOHHS Regions, Massachusetts: 2005	74
Summary Cancer Indicators (Early Stage) by EOHHS Regions, Massachusetts: 1999-2003	74
Summary Cancer Indicators (Late Stage) by EOHHS Regions, Massachusetts: 1999-2003	75
Summary Invasive Cancer Incidence Rates by EOHHS Regions, Massachusetts: 1999 - 2003	75
Summary Cancer Mortality Indicators by EOHHS Regions, Massachusetts: 2005	76
SUBSTANCE ABUSE	77
Alcohol Use in Past Month, Persons Aged 12 to 20 Years, by EOHHS Region, Massachusetts : 2002-2004	79
Binge Drinking in Past Month, Persons Aged 12 to 20 Years, by EOHHS Region, Massachusetts : 2002-2004	79

Any Illicit Drug Use in Past Month, Persons Aged 12+ Years, by EOHHS Region, Massachusetts: 2002-2004	80
Any Illicit Drug Use Other Than Marijuana use in Past Month, Persons Aged 12+ Years, by EOHHS Region, Massachusetts: 2002-2004	80
Alcohol Dependence or Abuse in Past Year, Persons Aged 12+ Years, by EOHHS Region, Massachusetts : 2002-2004	81
Dependence or Abuse of Any Illicit Drug or Alcohol in Past Year, Persons Aged 12+ Years by EOHHS Region, Massachusetts : 2002-2004	81
Adults who Binge Drink, by EOHHS Region, Massachusetts : 2005.....	82
Adults who Used Illicit Drugs in Past Month by EOHHS Region, Massachusetts : 2005.....	82
Current Smoker by Race and Ethnicity, Western Region and Massachusetts : 2005	83
Substance Abuse Treatment Program Admissions by EOHHS Region, Massachusetts : 2005.....	83
Substance Abuse Treatment Program Admissions, Alcohol Primary Substance, by EOHHS Region, Massachusetts : 2005.....	84
Substance Abuse Treatment Program Admissions, Cocaine Primary Substance, by EOHHS Region, Massachusetts : 2005.....	84
Substance Abuse Treatment Program Admissions, Heroin Primary Substance, by EOHHS Region, Massachusetts : 2005.....	85
Opioid-related Emergency Visit Rates by EOHHS Region, Massachusetts : 2003-2005	85
Opioid-related Emergency Visit Rates by Race and Ethnicity by EOHHS Region, Massachusetts : 2003-2005.....	86
Opioid-related Emergency Department Visit Rate by Race/Ethnicity, Northeast Region and Massachusetts : 2003-2005	86
Massachusetts City and Town FY03-05, Total Number of Opioid Overdose Related Deaths.....	87
Massachusetts City and Town FY03-05, Total Number of Opioid Overdose Related Deaths.....	87
Opioid-Related Fatal Overdoses by EOHHS Region, Massachusetts : 2003-2005.....	88
Opioid-Related Fatal Overdoses City/Town, Northeast Region and Massachusetts : 2003-2005.....	88
Opioid-Related Fatal Overdoses by Race/Ethnicity, Northeast Region and Massachusetts : 2003-2005.....	89
Opioid-Related Emergency Department Visit Rates, Lawrence, Lowell, and Lynn vs. Northeast Region and Massachusetts : 2003-2005	89
Massachusetts City and Town FY03-05, Total Number of Poly-Drug Overdose related Events.....	90
Massachusetts City and Town FY03-05, Total Number of Poly-Drug Overdose related Deaths.....	90
Summary Substance Abuse Indicators Percentages by EOHHS Regions.....	91
Summary Substance Abuse Indicators by EOHHS Region, Massachusetts: 2005.....	91
Summary Opioid Indicators by EOHHS Regions, Massachusetts: 2003-2005	92
INJURY, VIOLENCE, AND OCCUPATIONAL HEALTH	93
Causes of Injury Deaths, Northeast Region and Massachusetts: 2005.....	95
Injury-Related Hospital Discharge Rates by EOHHS Region, Massachusetts: 2003-2005.....	95
Injury-Related Hospital Discharge Rates by Race and Ethnicity, Northeast Region and Massachusetts: 2003-2005.....	96
Emergency Department Visit Rates for Injuries and Poisonings by EOHHS Region, Massachusetts : 2003-2005.....	96

Emergency Department Visit Rates for Injuries & Poisonings by Race/Ethnicity, Northeast Region and Massachusetts : 2003-2005	97
Hospital Discharge Rates for Traumatic Brain Injuries by EOHHS Region, Massachusetts : 2003-2005.....	97
Hospital Discharge Rates for Traumatic Brain Injury by Race/Ethnicity, Northeast Region and Massachusetts : 2003-2005	98
Emergency Department Visit Rates for Traumatic Brain Injury, by EOHHS Region, Massachusetts : 2003-2005	98
Emergency Department Visit Rates for Traumatic Brain Injury by Race/Ethnicity, Northeast Region and Massachusetts : 2003-2005	99
Injury Death Rates by EOHHS Region, Massachusetts : 2003-2005.....	99
Hospital Discharge Rates for Assaults by EOHHS Region, Massachusetts : 2003-2005.....	100
Hospital Discharge Rates for Assaults by Race/Ethnicity, Northeast Region and Massachusetts : 2003-2005	100
Homicides by EOHHS Region, Massachusetts : 2003-2005.....	101
Homicide Rates by Race/Ethnicity, Northeast Region and Massachusetts : 2003-2005	101
Hospital Discharge Rates for Self-Inflicted Injury, by EOHHS Region, Massachusetts : 2003-2005.....	102
Hospital Discharge Rates for Self-Inflicted Injuries by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005.....	102
Suicide by EOHHS Region, Massachusetts: 2003-2005.....	103
Suicide Rates by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005	103
Hospital Discharge Rates for Motor Vehicle-Related Injuries by EOHHS Region and Massachusetts : 2003-2005	104
Hospital Discharge Rates for Motor Vehicle-Related Injuries by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005.....	104
Motor Vehicle-related Mortality Rates by EOHHS Region, Massachusetts : 2003-2005	105
Motor Vehicle-related Death Rates by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005.....	105
Emergency Department Visit Rates for Firearm Injuries, by EOHHS Region, Massachusetts: 2003-2005.....	106
Emergency Department Visit Rates for Firearm Injuries by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005.....	106
Firearm Death Rates by EOHHS Region, Massachusetts: 2003-2005.....	107
Firearm Death Rates by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005	107
Hospitalization Rates for Fall-Related Injuries, by EOHHS Region, Massachusetts : 2003-2005.....	108
Hospital Discharge Rates for Fall-Related Injuries, by EOHHS Region, Massachusetts : 2003-2005.....	108
Hospital Rates for Fall-Related Injuries by Race/Ethnicity, Northeast Region and Massachusetts : 2005	109
Hospital Discharge Rates for Fall-Related Injuries, Ages 65+, by EOHHS Region, Massachusetts : 2003-2005	109
Emergency Department Visit Rates for Fall-Related Injuries, by EOHHS Region, Massachusetts : 2003-2005.....	110
Emergency Department Visit Rates for Fall-Related Injuries by Race/Ethnicity, Northeast Region and Massachusetts : 2003-2005	110
Fall-Related Injury Mortality Rates by EOHHS Region, Massachusetts : 2003-2005	111
Fall-Related Injury Mortality Rates by Race/Ethnicity, Northeast Region and Massachusetts : 2003-2005.....	111

Fall-related Injury Mortality Rates, Persons 65+ years, by EOHHS Region, Massachusetts : 2003-2005.....	112
Work-related Injuries, Emergency Department Visits per 100 Full Time Equivalents, Massachusetts Counties: 2004-2005.....	112
Work-related Injuries among Teens, Emergency Department Visits per 100 Full Time Equivalents, Massachusetts Counties: 2004-2005.....	113
Work-related Burn Injuries, Emergency Department Visits per 10,000 Full Time Equivalents, Massachusetts Counties: 2004-2005.....	113
Work-related Amputations, Emergency Department Visits per 10,000 Full Time Equivalents, Massachusetts: 2004-2005.....	114
Work-related Injuries, Hospitalizations per 10,000 Full Time Equivalents, Massachusetts Counties: 2004-2005.....	114
Number and Rate of Fatal Occupational Injuries by year, Massachusetts: 1991- 2005	115
Summary Injury/Violence Hospitalization Indicators by EOHHS Regions, Massachusetts : 2003-2005.....	115
Summary Injury/Violence Emergency Department Indicators by EOHHS Regions, Massachusetts : 2003-2005.....	116
Summary Injury/Violence Mortality Indicators by EOHHS Regions, Massachusetts : 2003-2005.....	116
HIV/AIDS	117
Persons Living with HIV, by EOHHS Region, Massachusetts: 2005.....	119
HIV Incidence, by EOHHS Region, Massachusetts: 2005.....	119
AIDS Incidence, by EOHHS Region, Massachusetts: 2005.....	120
Persons Living with AIDS, by EOHHS Region, Massachusetts : 2005.....	120
HIV/AIDS Mortality Rates, by EOHHS Region, Massachusetts : 2003-2005.....	121
HIV/AIDS Death Rates by Race/Ethnicity, Northeast Regions vs. Massachusetts: 2003 - 2005.....	121
Summary HIV/AIDS Indicators by EOHHS Regions.....	122
INFECTIOUS DISEASES.....	123
Chlamydia Incidence, Northeast Region and Massachusetts : 1989-2005.....	125
Chlamydia Incidence by EOHHS Region, Massachusetts: 2005.....	125
Chlamydia Incidence Rate by Emergency Preparation Region, 2006.....	126
Gonorrhea Incidence by EOHHS Region, Massachusetts : 2005.....	126
Syphilis Incidence, Northeast Region and Massachusetts : 1989-2005.....	127
Syphilis Incidence, by EOHHS Region, Massachusetts : 2005.....	127
Tuberculosis Incidence, by EOHHS Region, Massachusetts : 2004.....	128
Tuberculosis Incidence, by EOHHS Region, Massachusetts : 2006.....	128
Confirmed Tuberculosis Cases by Race/Ethnicity and EOHHS Region, Massachusetts: 2006.....	129
Percent Confirmed Tuberculosis Cases by EOHHS Region, Massachusetts : 2006.....	129
Percent of Confirmed Tuberculosis Cases by Race/Ethnicity and EOHHS Region, Massachusetts : 2006.....	130
Tuberculosis Cases by EOHHS Region, Massachusetts : 1993-2006.....	130
Percent of Confirmed Tuberculosis Cases by Race/Ethnicity and EOHHS Region, Massachusetts : 2006.....	131
Hepatitis C Average Incidence Rates, by EOHHS Region, Massachusetts: 1992-2006.....	131
Massachusetts Hepatitis C Infection Average per Year, by Town, 1992-2006.....	132
Hepatitis C Incidence Rates, by EOHHS Region, Massachusetts : 2006.....	132
Massachusetts Hepatitis C Infection Average per Year, by Town, 2006.....	133

Massachusetts Hepatitis C Infection Average per Year, by Town (Youth less than 26 years, 2002-2006.....	133
Lyme Disease Incidence by EOHHS Region, Massachusetts: 2004.....	134
Massachusetts Lyme Disease Case Rates, by Town, 2005.....	134
Pneumonia and Influenza Hospital Discharges by EOHHS Region, Massachusetts: 2005.....	135
Summary Infectious Disease Indicators, by EOHHS Regions.....	135
ASTHMA.....	137
Asthma Hospital Discharges by EOHHS Region, Massachusetts: 2005.....	139
Asthma Emergency Department Visits, by EOHHS Region, Massachusetts: 2005.....	139
Emergency Department Visit Rates for Asthma by Race/Ethnicity, Northeast Region and Massachusetts: 2005.....	140
Adults who Currently have Asthma by EOHHS Region, Massachusetts: 2005.....	140
Asthma ER Visits, Children Ages 0-4, by EOHHS Region, Massachusetts : 2005.....	141
Asthma ER Visits, Children Ages 5-9, by EOHHS Region, Massachusetts : 2005.....	141
Asthma ER Visits, Children Ages 10-14, by EOHHS Region, Massachusetts : 2005.....	142
Asthma ER Visits, Children Ages 0-14, by EOHHS Region, Massachusetts : 2005.....	142
Asthma Emergency Department Visit Rates, Children ages 0-14, Northeast Region and Massachusetts : 2005.....	143
Pediatric Asthma Prevalence Among School Children, Grades K-8, by EOHHS Region, Massachusetts : 2005-2006.....	143
Pediatric Asthma Emergency Visit Rates by Towns, Among Children Ages <5, Northeast Region, Massachusetts: 2004-2005.....	144
Pediatric Asthma Hospitalization Rates by Towns, Among Children Ages <5, Northeast Region, Massachusetts: 2004-2005.....	144
Summary Asthma Indicators, by EOHHS Regions, Massachusetts : 2005.....	145
Summary Asthma Indicators, by EOHHS Regions, Massachusetts : 2005.....	145
OTHER HEALTH INDICATORS	147
Total Cases of Elevated Blood Lead Levels ($\geq 15 \mu\text{G/DL}$), by EOHHS Region, Massachusetts: 2005.....	149
Lead Poisoning Prevalence Rates ($\text{BLL} \geq 25 \mu\text{G/DL}$), Children 9-48 Months, by EOHHS Region, Massachusetts: 2006.....	149
Adults who Report Experiencing Intimate Partner Violence by Gender and EOHHS Region, Massachusetts: 2005.....	150
Adults who Report Having a Disability by EOHHS Region, Massachusetts : 2005.....	150
Adults who Report Having a Disability and needing help with activities, by EOHHS Region, Massachusetts : 2005.....	151
Adults with Fair or Poor Health, by EOHHS Region, Massachusetts : 2005.....	151
Adults who Reported Fair or Poor Health by Race and Ethnicity, Northeast Region and Massachusetts : 2005.....	152
Adults who Visited a Dentist in Past Year, by EOHHS Region, Massachusetts : 2004.....	152
Adults who have lost 6 or More Teeth to Decay or Disease, by EOHHS Region, Massachusetts : 2004.....	153
Adults with Poor Mental Health for 15+ Days in Past Month, by EOHHS Region, Massachusetts : 2005.....	153
Summary Other Health Indicators, by EOHHS Regions.....	154
Summary Other Health Indicators, by EOHHS Regions.....	154
Refugee Arrivals : Northeast Region, Fiscal year 2002-2006.....	155
Refugee Health Concerns : Northeast Region, Fiscal year 2002-2006.....	155
Summary Refugees by EOHHS Regions, Massachusetts : 2002-2006.....	156

Premature Mortality Rate (PMR)	156
Premature Mortality Rates (PMR) by Region, Massachusetts : 2005	157
PRM – Northeast Region by City/Town, Massachusetts : 2005.....	157
Median Household Income and PMR by EOHHS Region, Massachusetts: 2005	158
Premature Mortality Rate (PMR) by EOHHS Regions: 2005	158
SUMMARY	159
Summary	161
Health Disparities	161
Key Health Observations in Northeastern Massachusetts	162
APPENDIX.....	163
Regions and Towns	165
Data Sources	173

NOTE TO READERS

Background

This report presents important health indicators for your region, which were developed as background material for the Regional Health Dialogues being held across the Commonwealth in May and June 2007. These dialogues offer an opportunity for you to have a conversation with the Commissioner of Public Health, learn the latest health information for your region, identify your resources and areas of need, and together, with the Massachusetts Department of Public Health, shape a public health partnership.

Contents

This report provides information about the socio-demographics, health care access, births, deaths, major chronic and infectious disease rates, substance abuse, and injury and violence for your region. Your region's indicators are compared with those of other regions and to the state as a whole in order to provide you with a sense of the relative health of your region. Many indicators for your region are stratified by race, Hispanic ethnicity, and age in order help determine specific population groups that may require targeted health interventions. We have also provided information about the health status of one or more large communities in your region, which may be influencing your regional outcomes. We hope that this collection of important and diverse health indicators will stimulate discussions of local health priorities, as well as serving as a resource for health information and a reference for data that are available from the Massachusetts Department of Public Health. Please contact us with your comments and suggestions.

INTRODUCTION

Goals for holding Regional Dialogues

- Introduce new DPH leadership
- Present latest health data on your particular region
- Talk with residents and providers about data and identify areas of need
- Gather feedback to inform process of setting DPH priorities

Goals of New DPH leadership

- Use data and community input to set new priorities & reshape the Department
- Rely on science and evidence-based process to guide the work
- Strengthen ties with and support for local health and local agencies
- Increase resources to and visibility of public health in Massachusetts

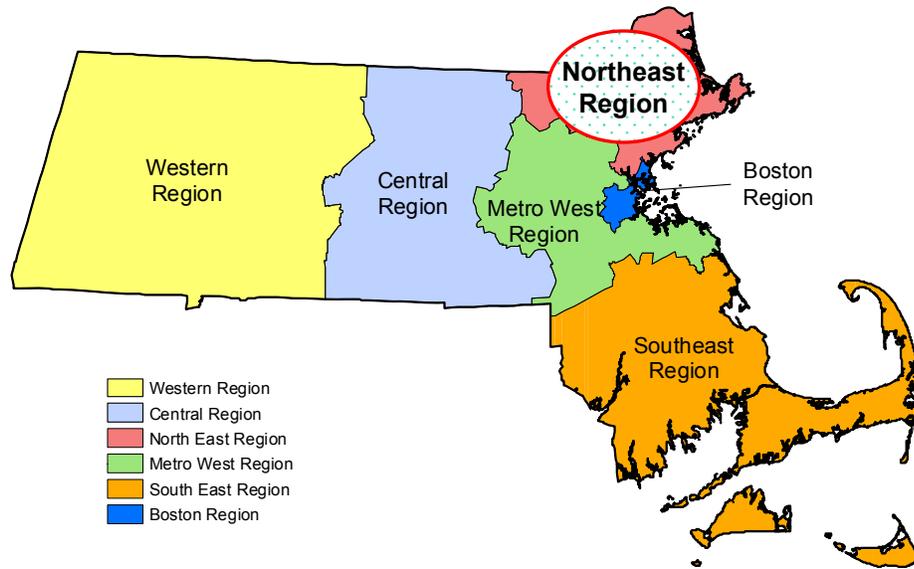
Timetable

- Hold 8 regional dialogues with comprehensive data review and identification of key health concerns (by July)
- Identify short list of top priorities by end of August
- Hold second round of community dialogues to discuss action plans/results by end of calendar year

SOCIODEMOGRAPHIC INDICATORS

Executive Office of Health and Human Services Regions

1

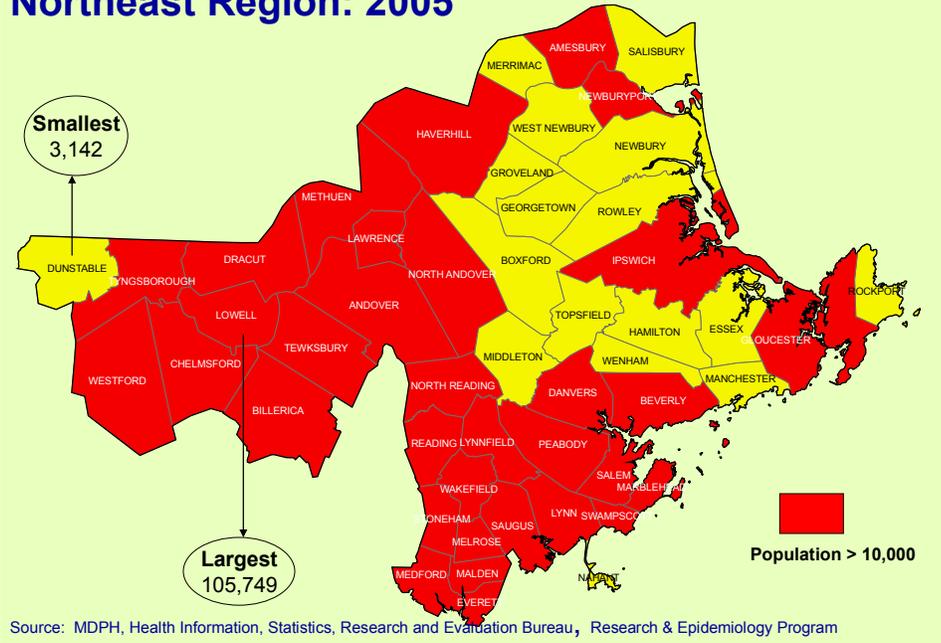


A few comments about the limitations of this presentation

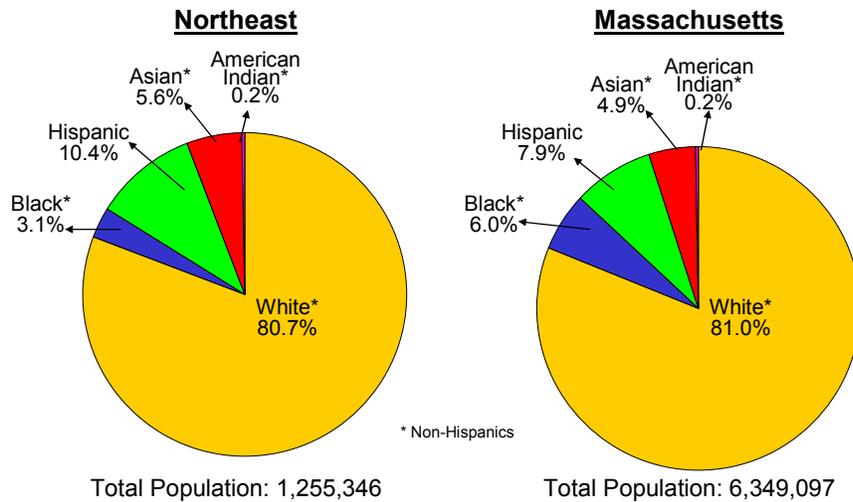
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- A regional analysis has its drawbacks
- Variability within a region – urban vs. rural/suburban (i.e. Lawrence vs. the rest of the region)
- Variability by sub-population – race matters, poverty matters
- Our data don't reflect all the important health indicators

Population in Communities Northeast Region: 2005

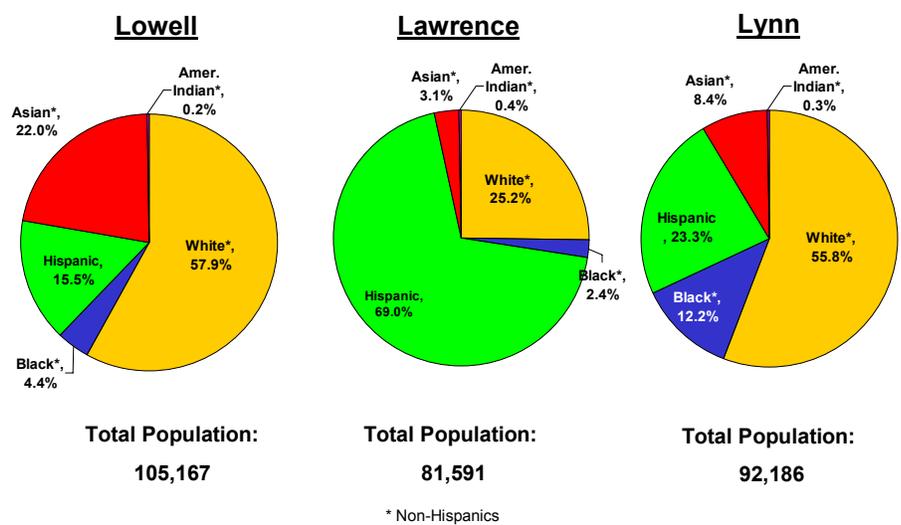


Race and Ethnic Breakdown of Population Northeast Region and Massachusetts: 2005



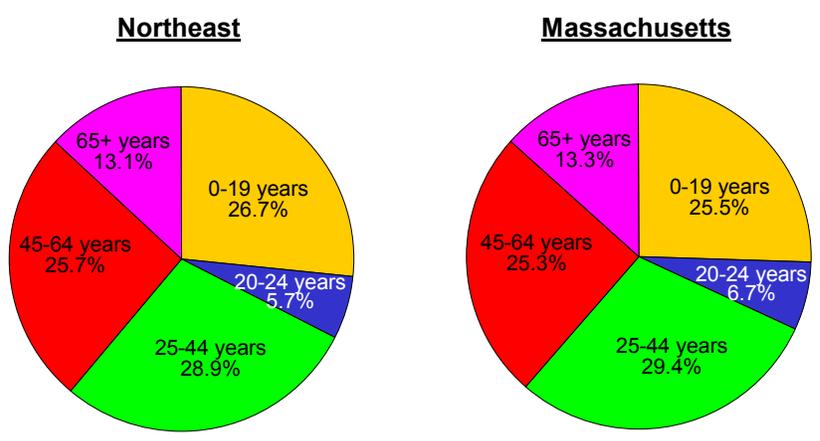
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Race and Ethnic Breakdown of Population Lowell, Lawrence, and Lynn : 2005



Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Population by Age Group Northeast Region and Massachusetts: 2005



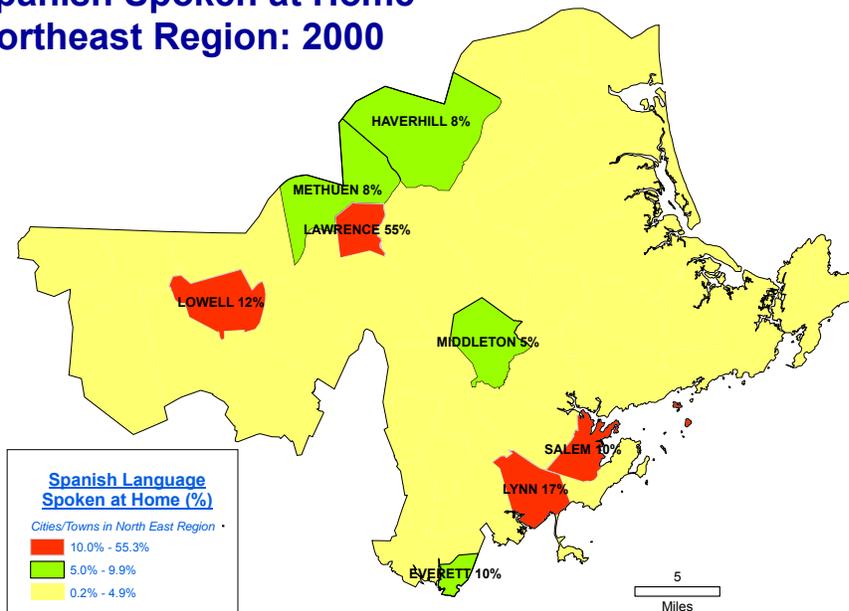
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Language Spoken at Home, Northeast Region and Massachusetts: 2000

	Lawrence	Lowell	North East Region	Massachusetts
Only English	35.6%	59.3%	80.1%	81.3%
Spanish or Spanish Creole	55.3%	12.4%	7.9%	6.2%
Portuguese or Portuguese Creole	1.0%	5.4%	1.6%	2.7%
Italian	1.0%	0.2%	1.5%	1.0%
French (Incl. Patois, Cajun)	2.3%	3.2%	1.5%	1.4%
Mon Khmer, Cambodian	0.8%	9.6%	1.3%	0.4%
Chinese	0.7%	0.7%	0.9%	1.2%
Greek	0.0%	1.4%	0.8%	0.5%
Vietnamese	1.0%	1.3%	0.6%	0.5%
Russian	0.0%	0.1%	0.5%	0.5%

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Spanish Spoken at Home Northeast Region: 2000



Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Socio-Demographic Indicators Northeast Region and Massachusetts: 2000

9

	Northeast Region	Massachusetts Overall	US Overall
Per Capita Income	\$	\$25,952	\$21,587
Those living below 100% poverty	8.3%	9.3%	12.4%
Children < 18 living below 100% poverty	11.2%	12.0%	16.1%
Less than a High School Education	15.7%	15.2%	19.6%
Speak language other than English at home	19.9%	18.7%	17.9%
Foreign born	12.6%	12.2%	11.1%
Unemployed	6.6%	5.3%	5.5%

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

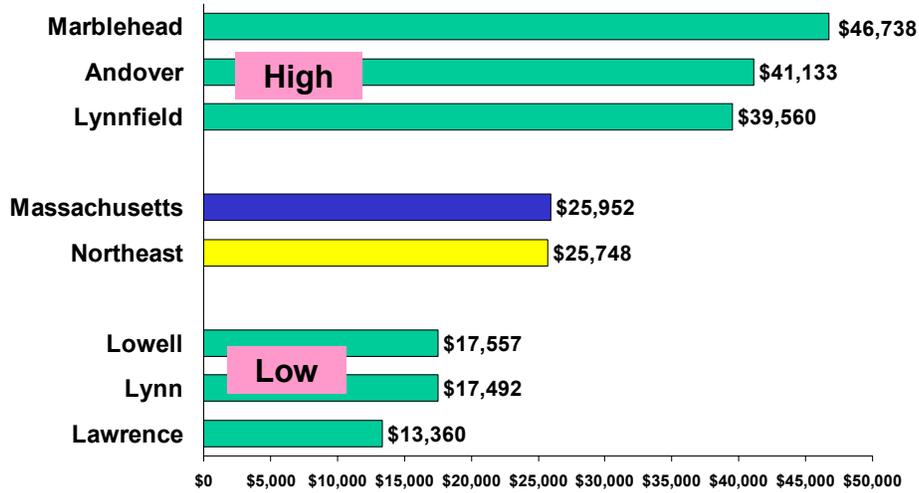
Socio-Demographic Indicators Northeast Region and Massachusetts: 2000

10

	Lawrence	Lowell	Lynn	Northeast Region
Per Capita Income	\$13,360	\$17,557	\$17,492	\$29,599
Those living below 100% poverty	24.3%	16.8%	16.5%	8.3%
Children < 18 living below 100% poverty	31.7%	23.2%	22.9%	11.2%
Less than a High School Education	19.8%	12.9%	10.1%	15.7%
Speak language other than English at home	64.4%	40.7%	34.2%	19.9%
Foreign born	30.6%	22.1%	22.8%	12.6%
Unemployed	11.3%	6.9%	6.5%	6.6%

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

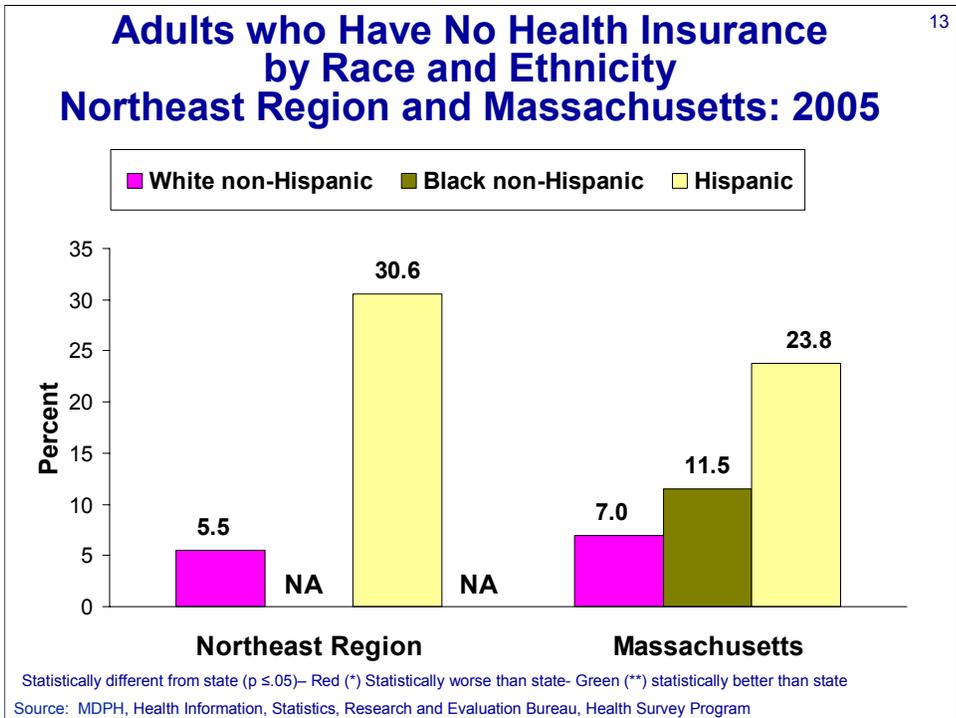
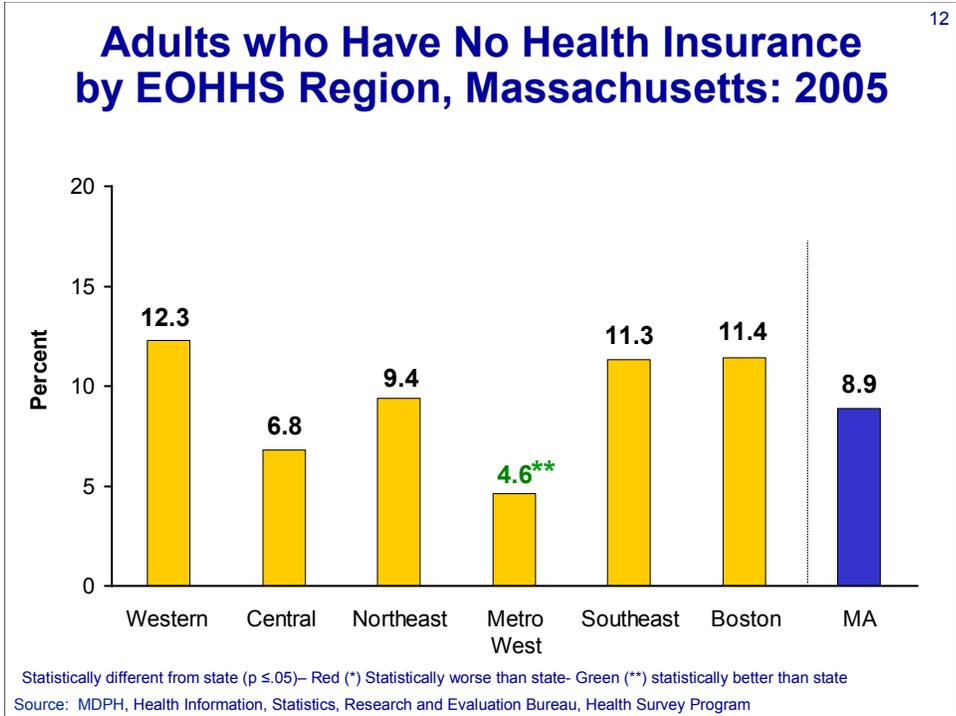
Highest and Lowest Per Capita Income by Community¹ in Northeast Region: 2000



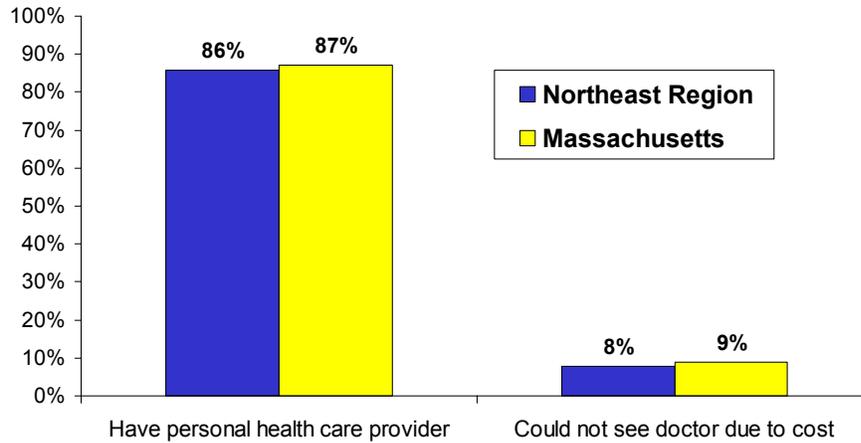
¹ Selected among communities with at least 10,000 population

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

HEALTH CARE ACCESS



Health Insurance Access Northeast Region and Massachusetts: 2005



Statistically different from state (p ≤ .05)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Summary Indicators for Health Insurance by EOHS Regions, Massachusetts: 2005

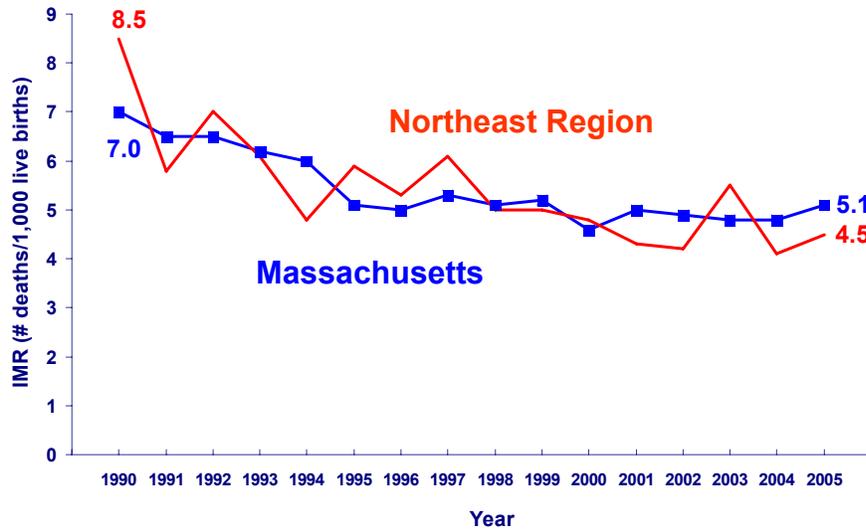
Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
% Adults with no health insurance	8.9	12.3	6.8	9.4	4.6	11.3	11.4
% Adults who have a personal health care provider	87.1	85.3	90.0	85.8	90.3	88.2	78.3
% Adults who were unable to see a doctor due to cost	8.8	10.4	10.4	7.8	7.0	9.2	9.4

■ Better Outcome (significantly different from state) ■ Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

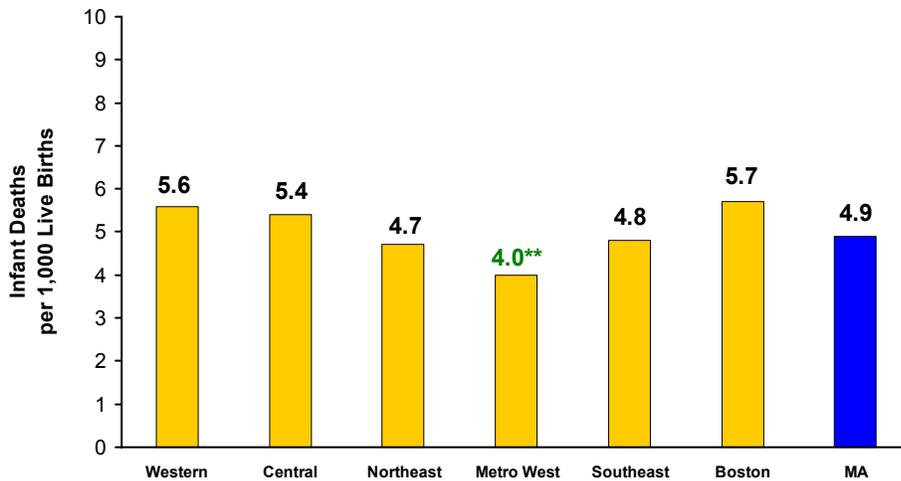
BIRTH INDICATORS

Infant Mortality Rate (IMR) Northeast Region and Massachusetts: 1990-2005



Infant Mortality Rate: deaths of infants less than one year of age per 1000 live births
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

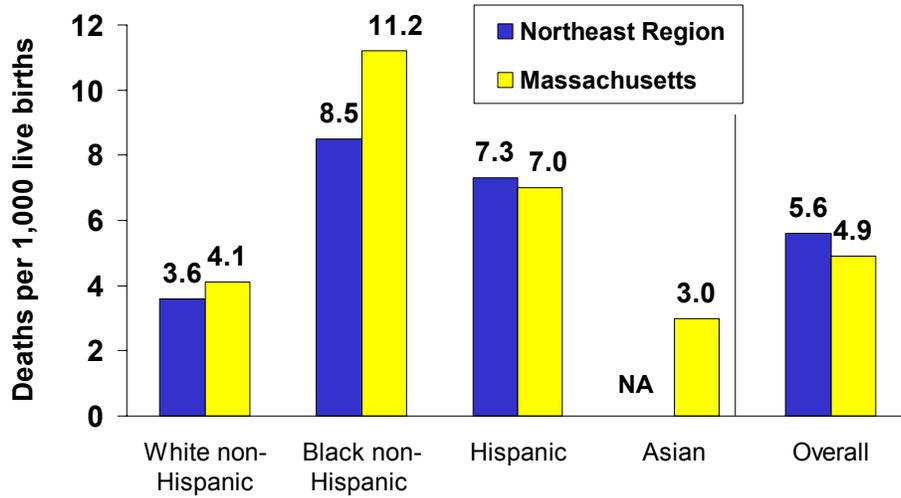
Infant Mortality Rates by EOHHS Region Massachusetts: 2002-2005



Statistically different from State ($p \leq .05$) Red (*) = Statistically worse; Green (**) = Statistically better
Infant Mortality Rate: deaths of infants less than one year of age per 1000 live births
Source: MDPH, Health Information, Statistics, Research & Evaluation Bureau, Research & Epidemiology Program

Infant Mortality Rates by Race/Ethnicity Northeast Region and Massachusetts: 2003-2005

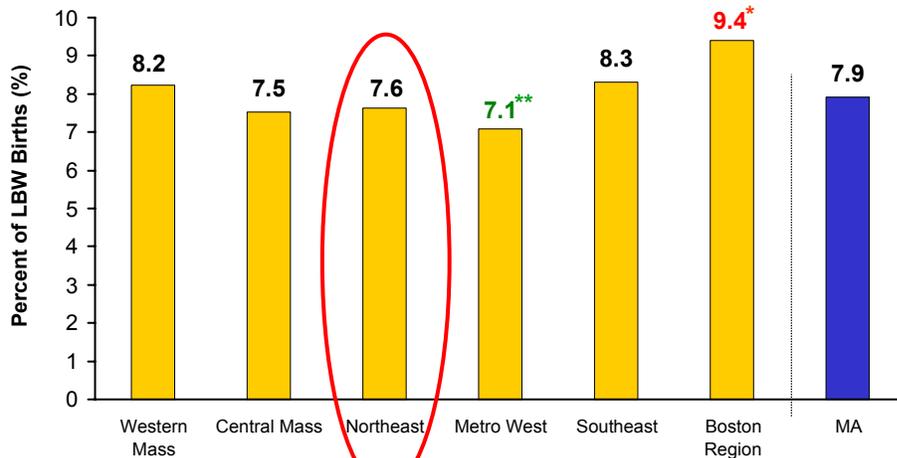
18



* Statistically Significant different from state ($p \leq .05$) NA= Calculations based on less than 5 events are excluded
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Low Birthweight by EOHHs Region Massachusetts: 2005

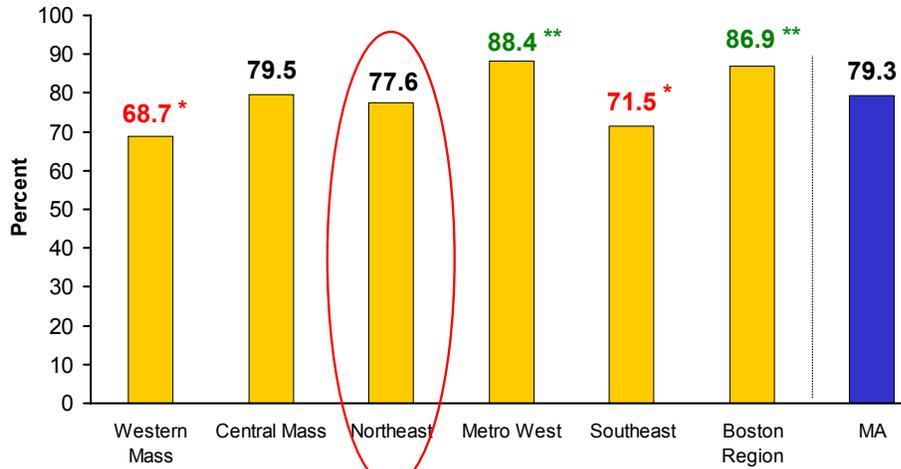
19



Statistically different from state ($p \leq .05$) – Red (*) Statistically worse than state- Green (**) statistically better than state

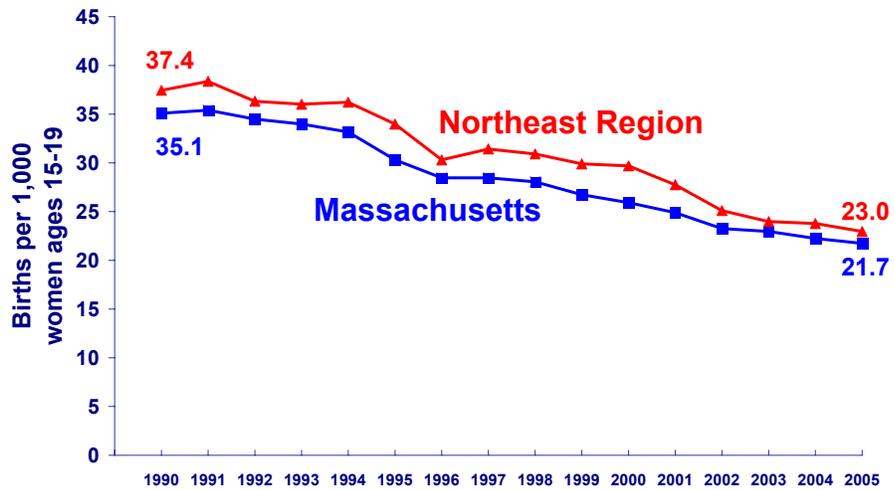
Low birthweight: less than 2,500 grams or 5.5 pounds
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Breastfeeding by EOHHS Region Massachusetts: 2005



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Mother was breastfeeding or intending to breastfeed at the time the birth certificate was completed.
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

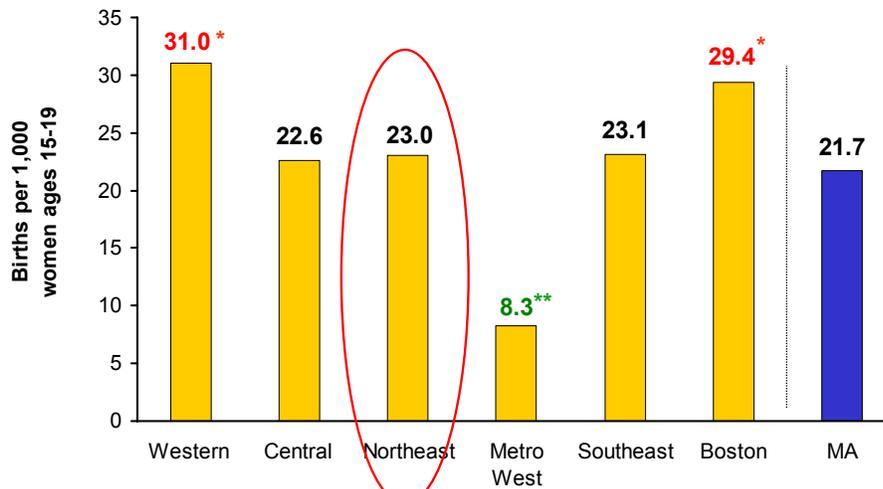
Teen Birth Rate Northeast Region and Massachusetts: 1990-2005



Teen birth rates are number of births to women ages 15-19 per 1000 females ages 15-19.
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Teen Birth Rates¹ by EOHHS Regions Massachusetts: 2005

22



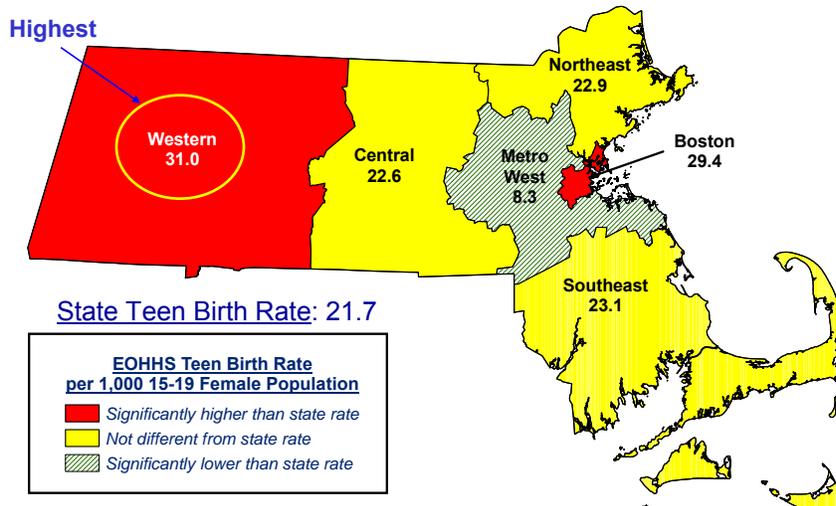
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state– Green (**) statistically better than state

¹Teen birth rates are number of births to women ages 15-19 per 1000 females ages 15-19.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Teen Birth Rates by EOHHS Region Massachusetts: 2005

23

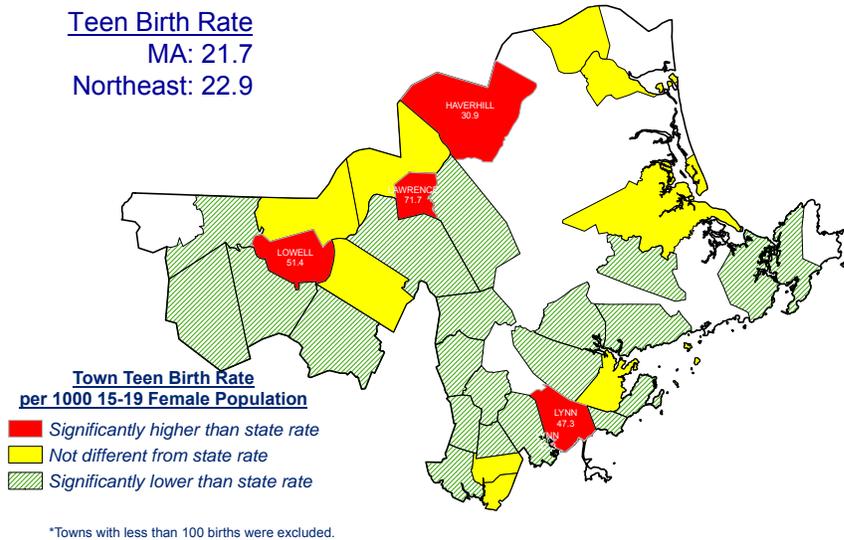


Teen birth rates are number of births to women ages 15-19 per 1000 females ages 15-19.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

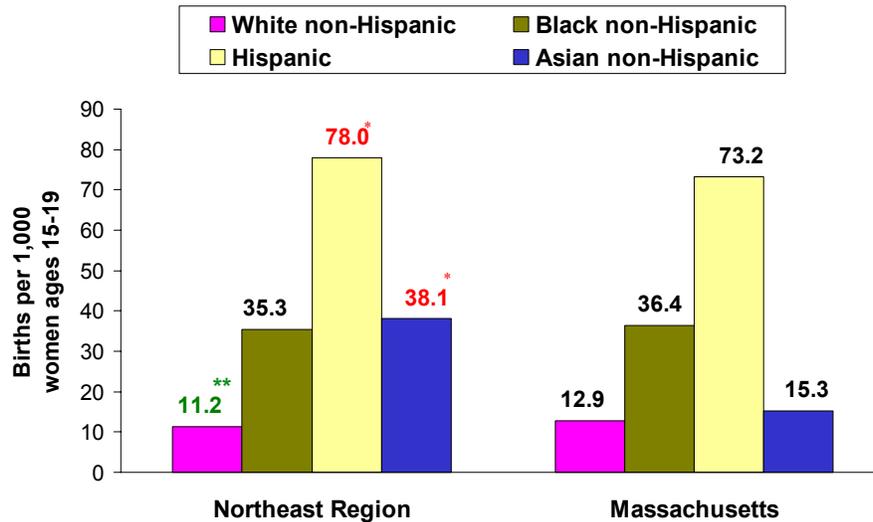
Teen Birth Rates by City/Town Northeast Region: 2005

Teen Birth Rate
MA: 21.7
Northeast: 22.9



Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Teen Birth Rates by Race and Ethnicity Northeast Region and Massachusetts: 2005

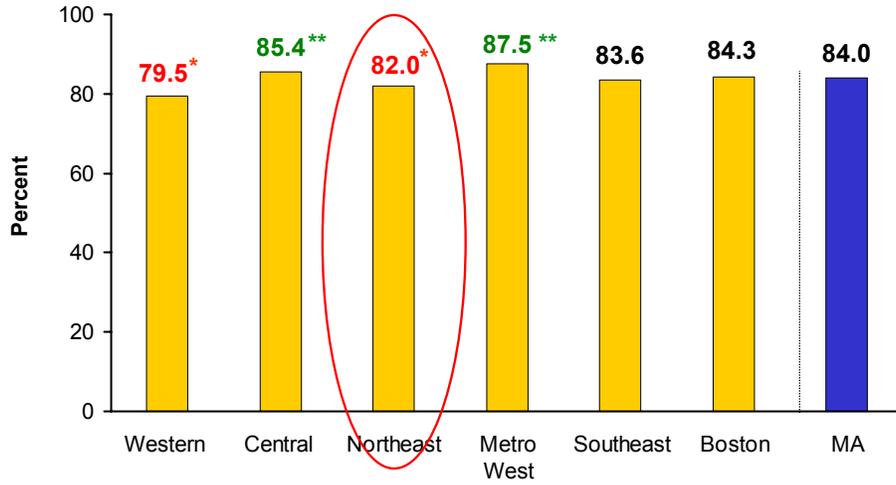


Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state
Teen birth rates are number of births to women ages 15-19 per 1000 females ages 15-19.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Adequate Prenatal Care by EOHHS Regions Massachusetts: 2005

26



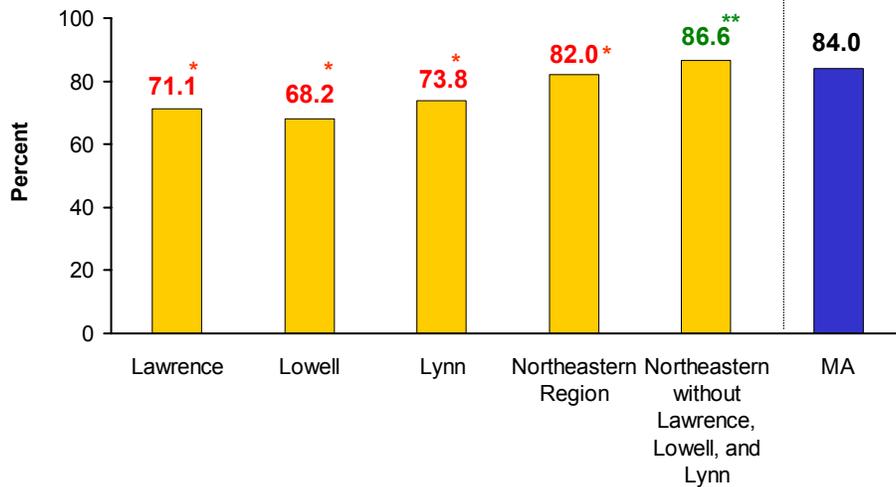
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Based on Adequacy of Prenatal Care Utilization (APNCU) Index.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Adequate Prenatal Care by City/Town Regions Massachusetts: 2005

27

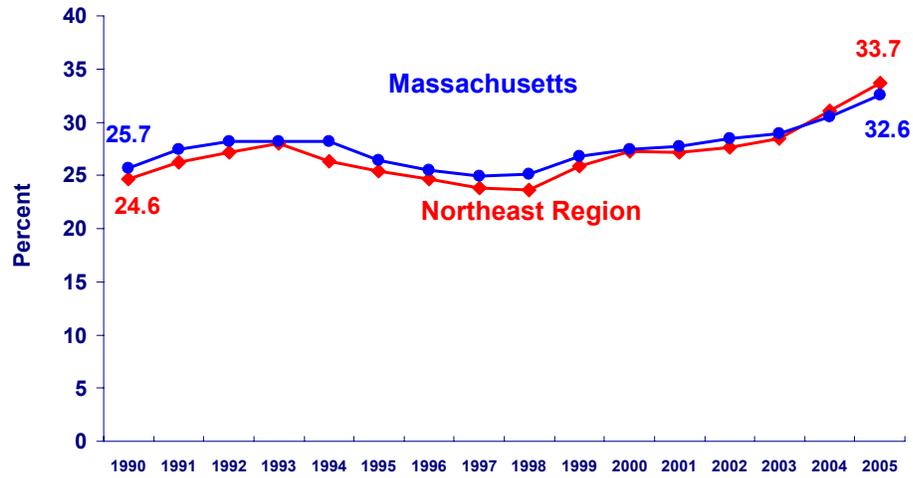


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Based on Adequacy of Prenatal Care Utilization (APNCU) Index.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

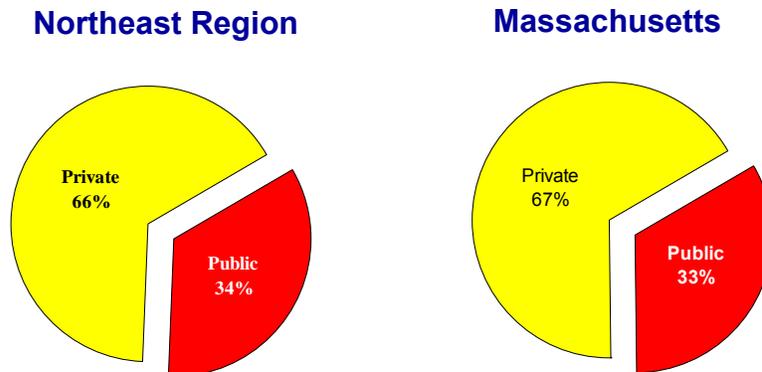
Public Source¹ of Payment for Prenatal Care Northeast Region and Massachusetts: 1990-2005 ²⁸



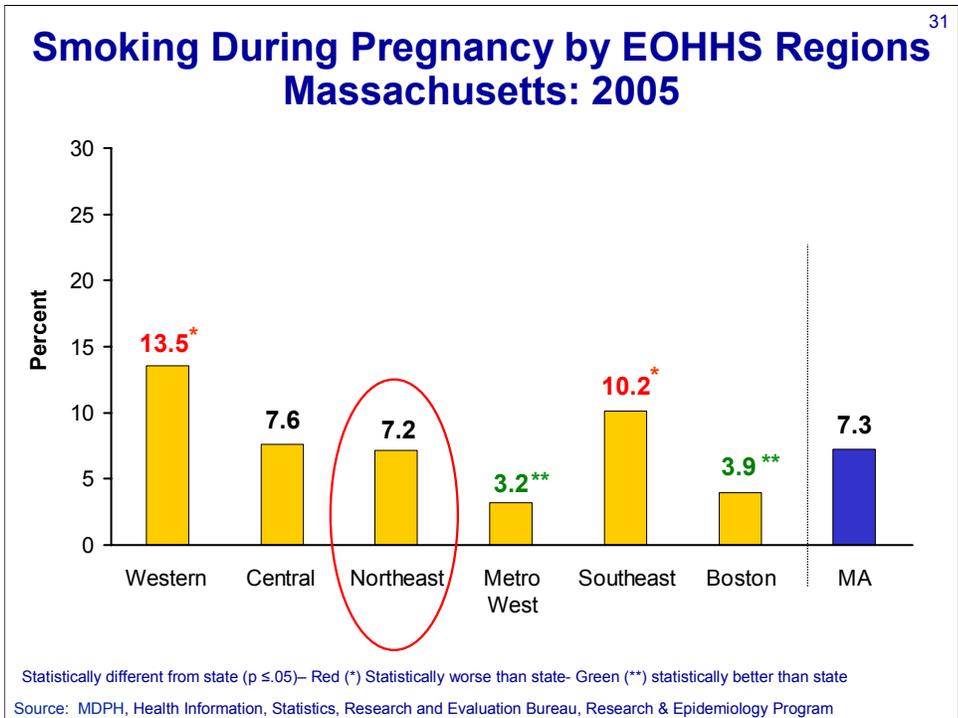
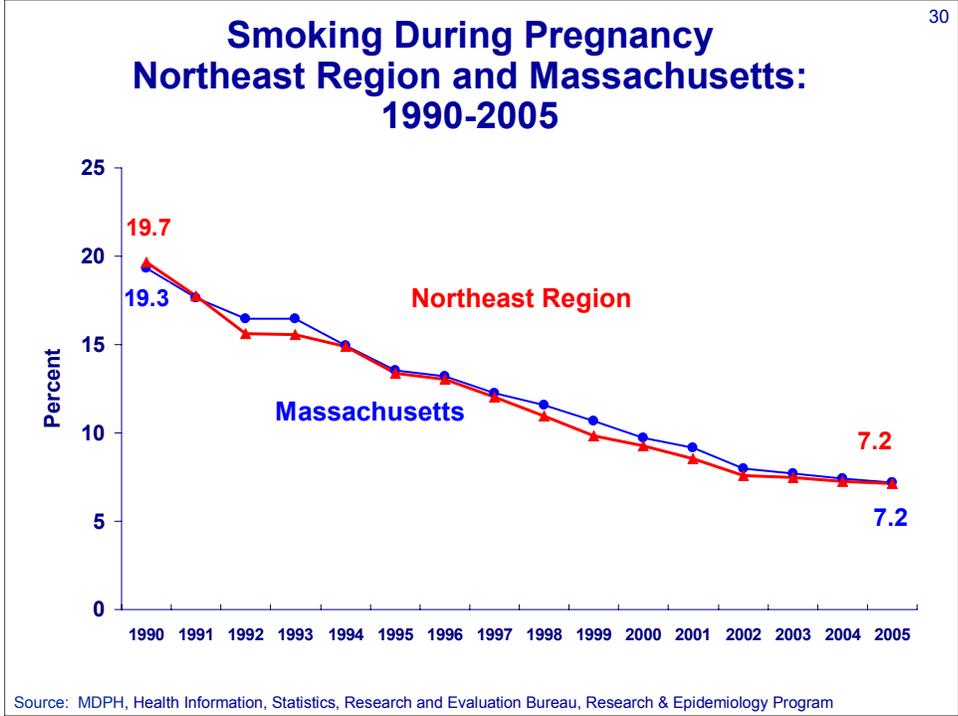
¹Public: Government programs including Commonhealth, Healthy Start, Medicaid/MassHealth, or free care. Private: Commercial indemnity plan, commercial Managed care (HMO, PPO, IPP, IPA and other) or other private insurance.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Public Source of Payment for Prenatal Care Northeast Region and Massachusetts: 2005 ²⁹



Source: Births 1999-2002

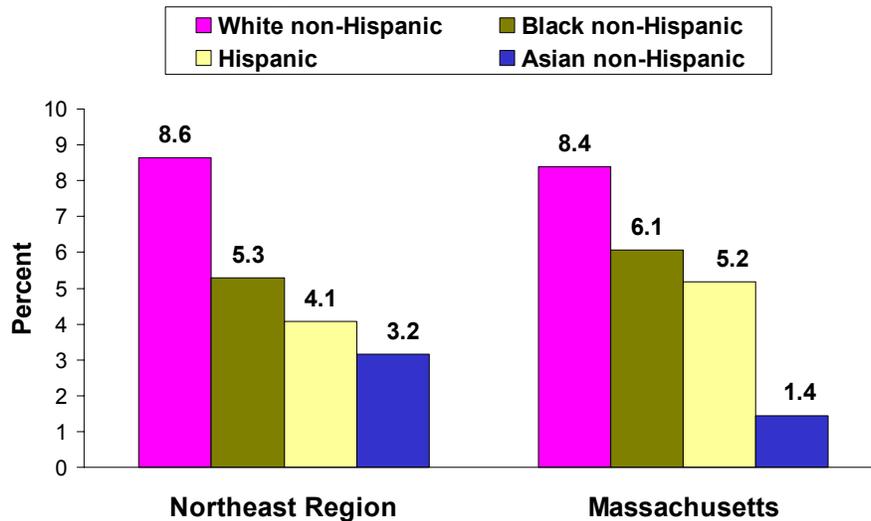


Percent of Mothers Smoking During Pregnancy for Largest Communities Northeast Region: 2005

	<u>%</u>	<u>Smokers</u>	<u>Births</u>
Massachusetts	7.2%	5,555	76,653
Northeast Region	7.2%	1,140	15,924
<u>Lowest</u>			
Melrose	3.2%**	9	285
North Andover	2.8%**	9	324
Andover	2.0%**	6	292
<u>Highest</u>			
Gloucester	12.5%*	34	272
Dracut	11.8%*	44	372
Lowell	11.4%*	190	1,667

Statistically different from state (p ≤.05)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

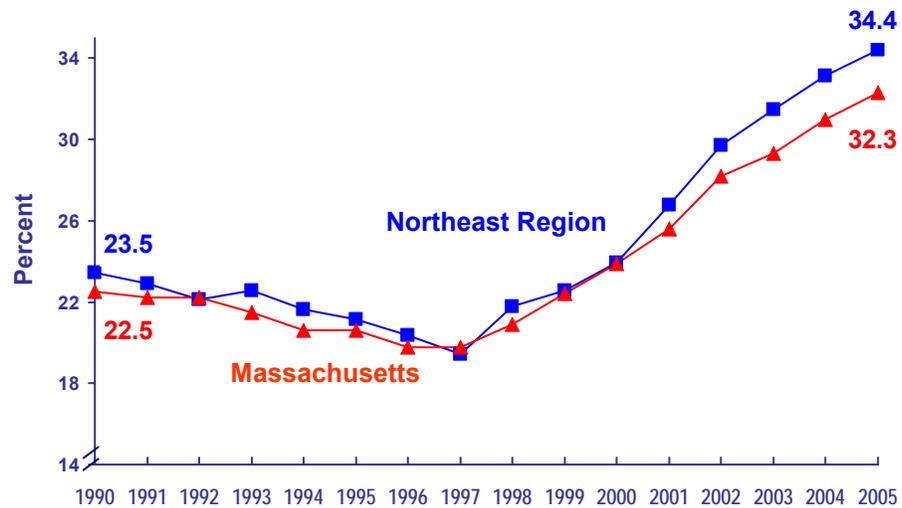
Smoking During Pregnancy by Race and Ethnicity Northeast Region and Massachusetts: 2005



Statistically different from state (p ≤.05)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Infants Delivered by C-Section Northeast Region and Massachusetts: 1990-2005

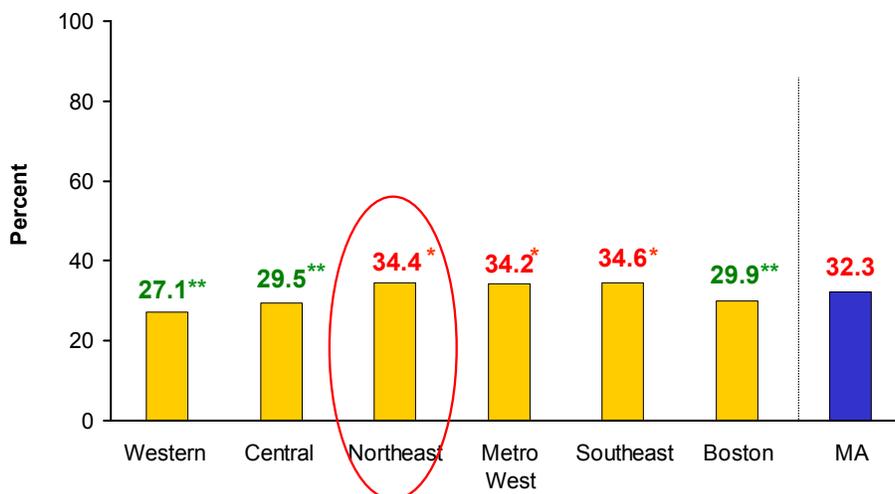
34



Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Infants Delivered by C-Section by EOHHS Regions Massachusetts: 2005

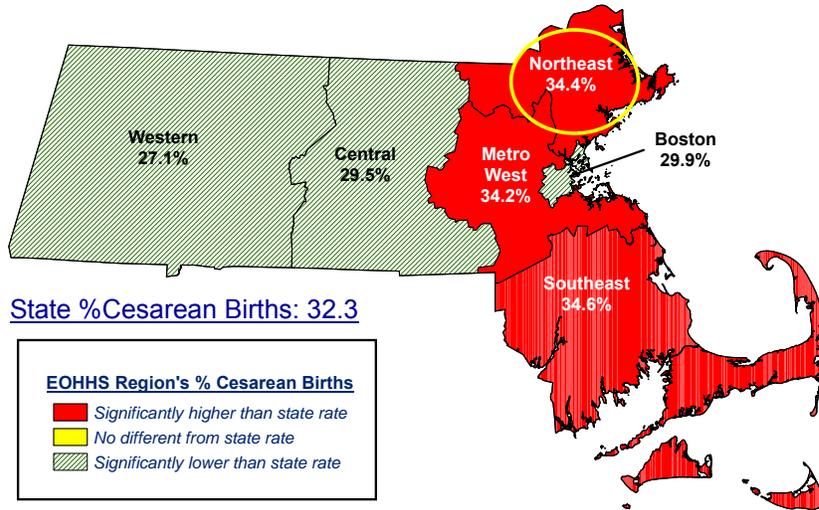
35



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state– Green (**) statistically better than state

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Percentage of Cesarean Births by Executive Office of Health and Human Service (EOHHS) Regions, Massachusetts Births 2005



Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Percent of Cesarean Deliveries by City/Town Northeast Region: 2005

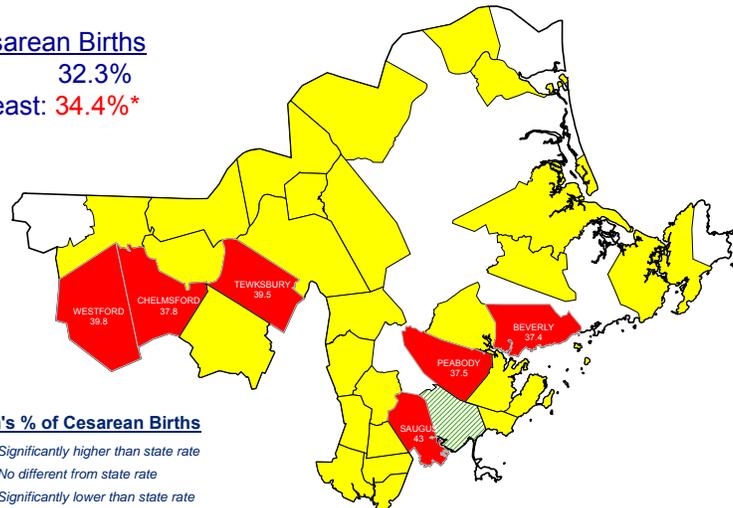
% Cesarean Births

State: 32.3%

Northeast: 34.4%*

Town's % of Cesarean Births

- Significantly higher than state rate
- No different from state rate
- Significantly lower than state rate



*Towns with less than 100 births were excluded.

Summary Birth Indicators by EOHHS Regions, Massachusetts:2005

38

Indicator (as % of race group births)	MA Total (n=76,824)	Western (n=8,935)	Central (n=10,532)	Northeast (n=15,939)	Metro West (n=17,093)	South East (n=14,681)	Boston (n=9,644)
Adequate Prenatal Care (Kotelchuck index)	84.0	79.5	85.4	82.0	87.5	83.6	84.3
C-section deliveries	32.3	27.1	29.5	34.4	34.2	34.6	29.9
Low Birth weight (<5.5 lb)	7.9	8.2	7.5	7.6	7.1	8.3	9.4
Breastfeeding	79.3	68.7	79.5	77.6	88.4	71.5	86.9
Public Pay for Prenatal Care	32.6	47.4	27.9	33.7	17.2	34.7	46.4
Smoking during pregnancy	7.1	13.5	7.6	7.2	3.2	10.2	3.9

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Summary Birth Indicators by EOHHS Regions

39

Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Infant Mortality Rate (2002-2005) (infant deaths per 1000 live births)	4.9	5.6	5.4	4.7	4.0	4.8	5.7
Teen birth rate (2005) (births to women ages 15-19 per 1000 women ages 15-19)	21.7	31.0	22.9	23.0	8.3	23.1	29.4

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

LEADING CAUSES OF DEATH

Leading Causes of Death Northeast Region and Massachusetts:2005

<u>Northeast Region</u> N=10,485			<u>Massachusetts</u> N=53,776		
Cancer	2,701	25.8%	Heart Disease	13,248	24.6%
Heart Disease	2,592	24.7%	Cancer	13,159	24.5%
Stroke	542	5.2%	Stroke	2,979	5.5%
All Injuries	538	5.1%	All Injuries	2,657	4.9%
Chronic Lower Respiratory Disease	493	4.7%	Chronic Lower Respiratory Disease	2,643	4.9%
Influenza and pneumonia	355	3.4%	Influenza and pneumonia	1,932	3.6%
Alzheimer's	345	3.3%	Alzheimer's	1,635	3.0%
Nephritis	270	2.6%	Nephritis	1,403	2.6%
Diabetes	223	2.1%	Diabetes	1,271	2.4%
Septicemia	170	1.6%	Septicemia	982	1.8%

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

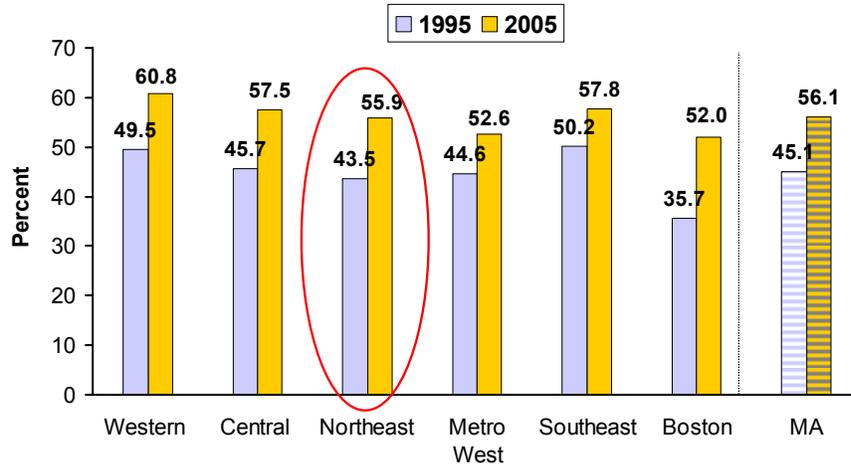
CHRONIC DISEASE OUTCOMES AND OVERWEIGHT/OBESITY

Thresholds for Defining Overweight and Obesity

<u>Height</u>	<u>Overweight</u> BMI 25.0-29.9	<u>Obesity</u> BMI > 30
5'	128 lbs.	153 lbs.
5'2"	136	164
5'4"	145	174
5'6"	155	186
5'8"	164	197
6'	184	221
6'2"	195	234

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

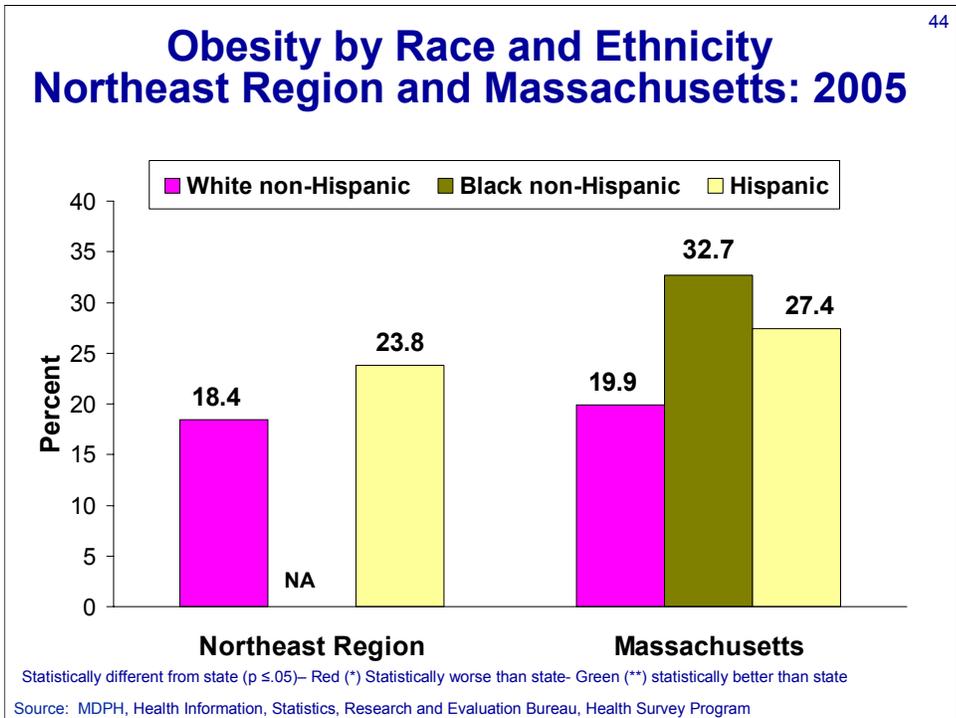
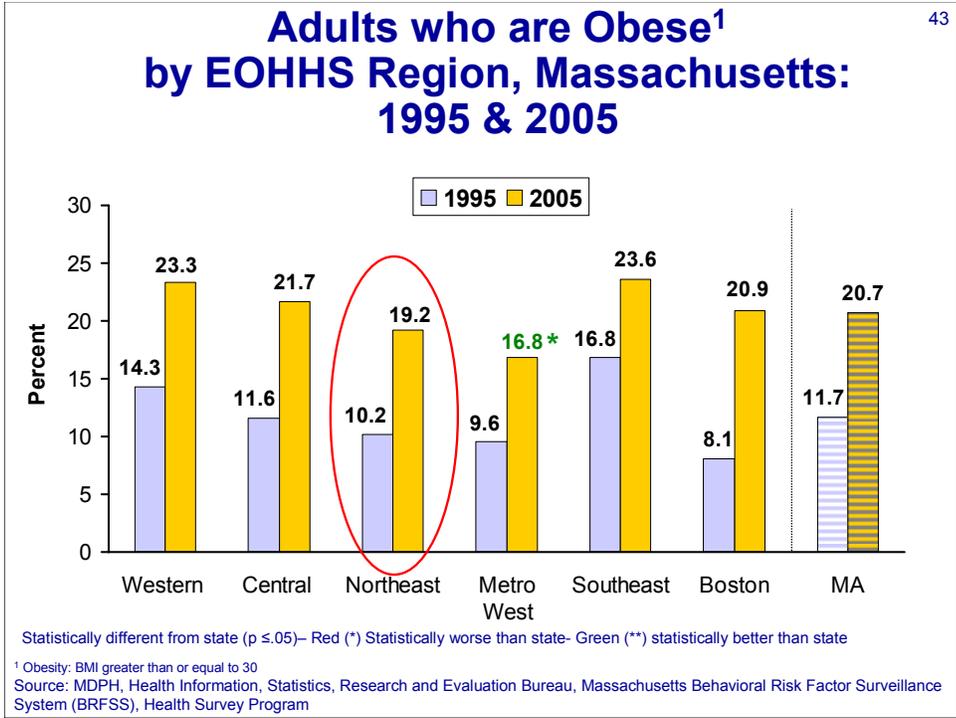
Adults who are Overweight¹ by EOHHS Region, Massachusetts: 1995 & 2005



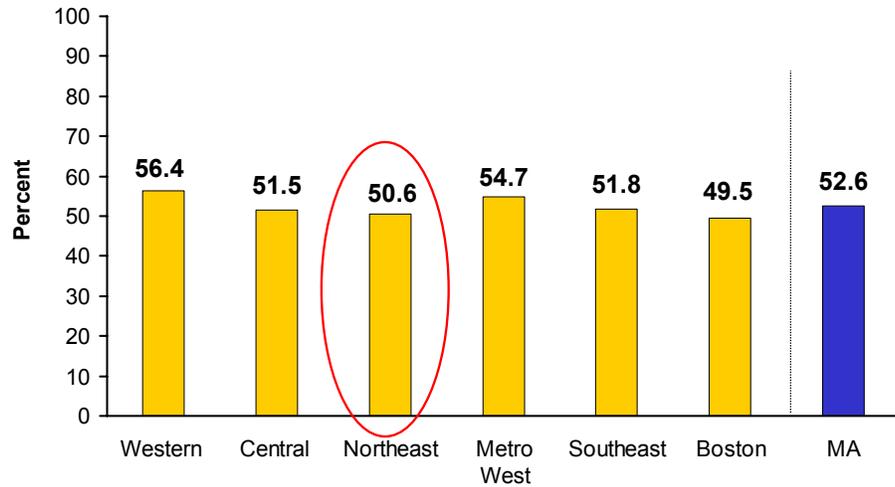
Statistically different from state ($p \leq .05$) – Red (*) Statistically worse than state- Green (**) statistically better than state

¹ Obesity: BMI greater than or equal to 25

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), Health Survey Program

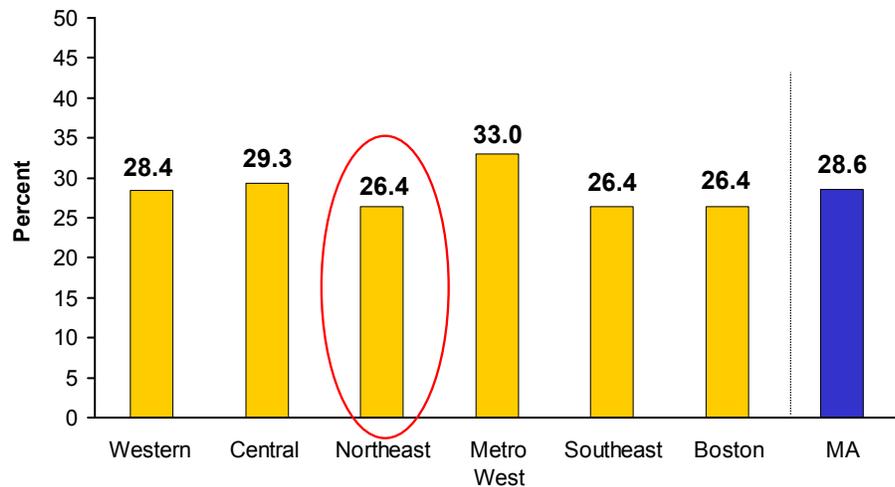


Adults who Participate in Regular Physical Activity by EOHHS Region, Massachusetts: 2005 45



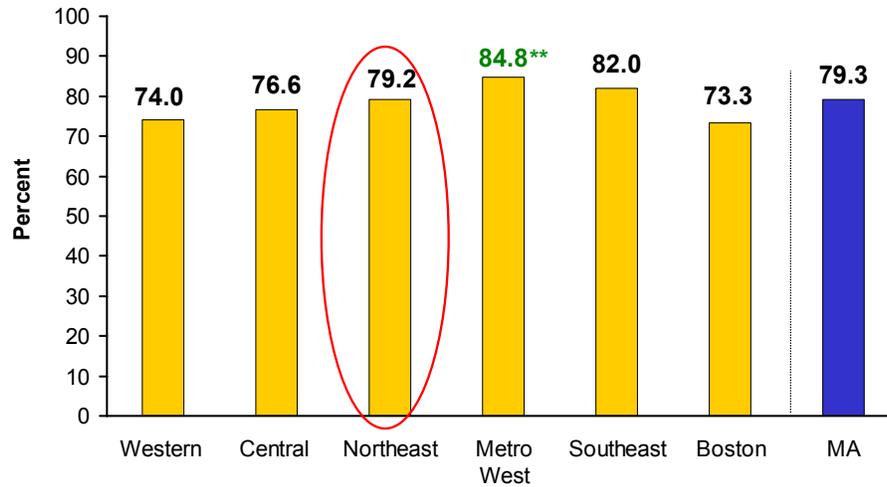
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Adults who have 5+ Servings of Fruit or Vegetables by EOHHS Region, Massachusetts: 2005 46



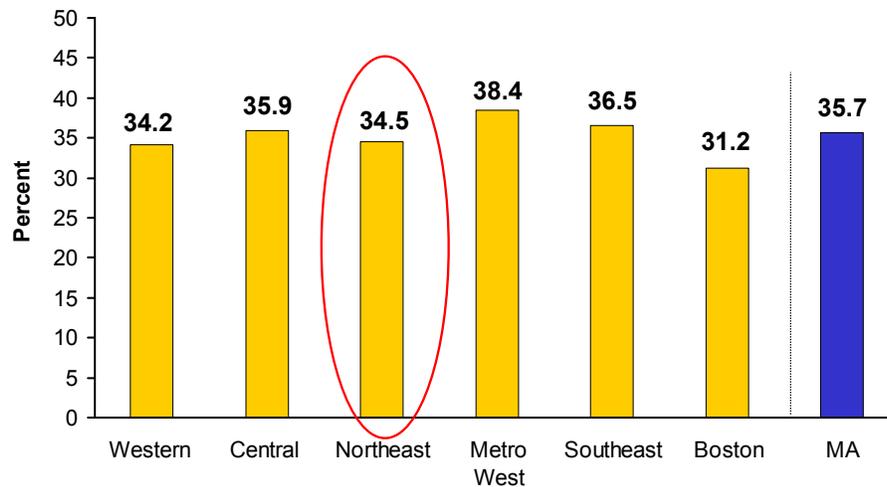
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

47
Adults who had their cholesterol checked in Past 5 Years by EOHHS Region Massachusetts: 2005



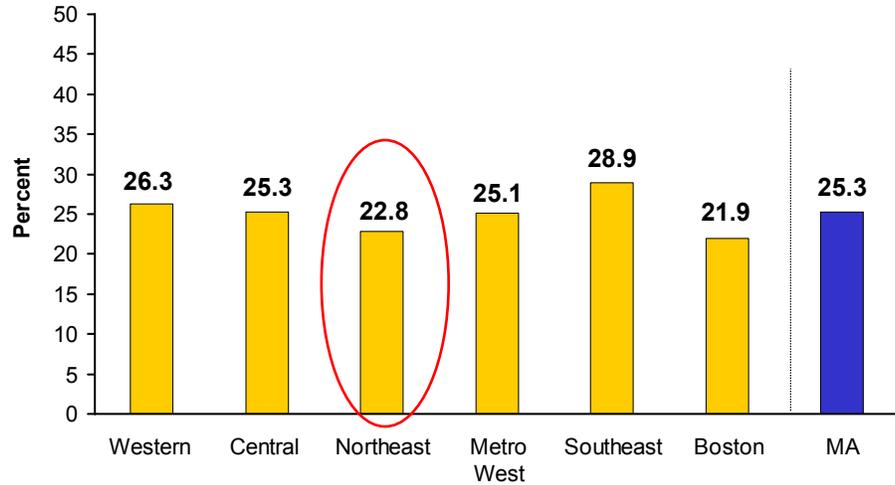
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

48
Adults who were told by a health care provider that they have high cholesterol¹ by EOHHS Region Massachusetts: 2005



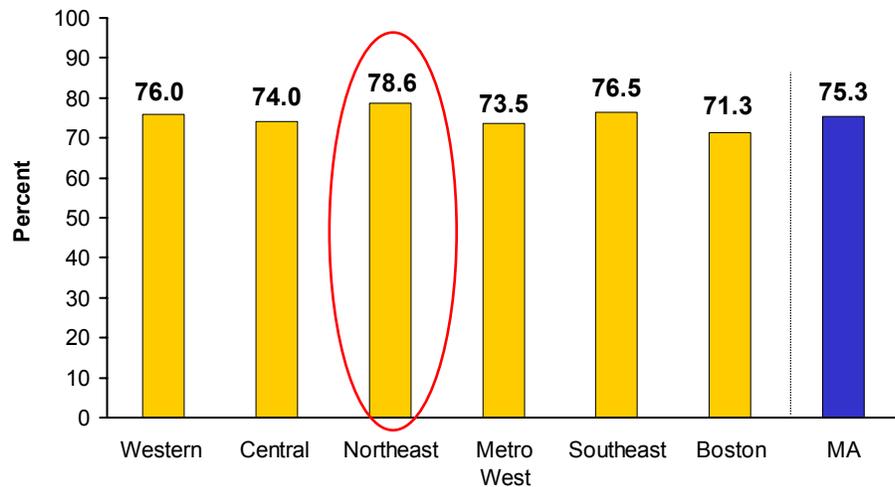
* Statistically Significant different from state ($p \leq .05$) ¹ Among those who reported having their cholesterol checked
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Adults who were told by a health care provider to have high blood pressure by EOHHS Region Massachusetts: 2005 ⁴⁹



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

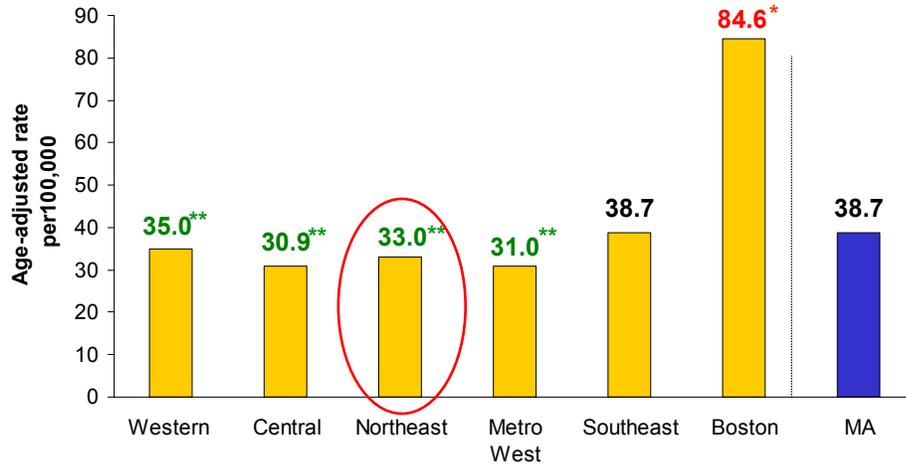
Adults who take Medicine for High Blood Pressure by EOHHS Region Massachusetts: 2005 ⁵⁰



* Statistically Significant different from state ($p \leq .05$) ¹ Among those who reported having high blood pressure
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Hypertension Hospital Discharges by EOHHS Region, Massachusetts: 2003-2005

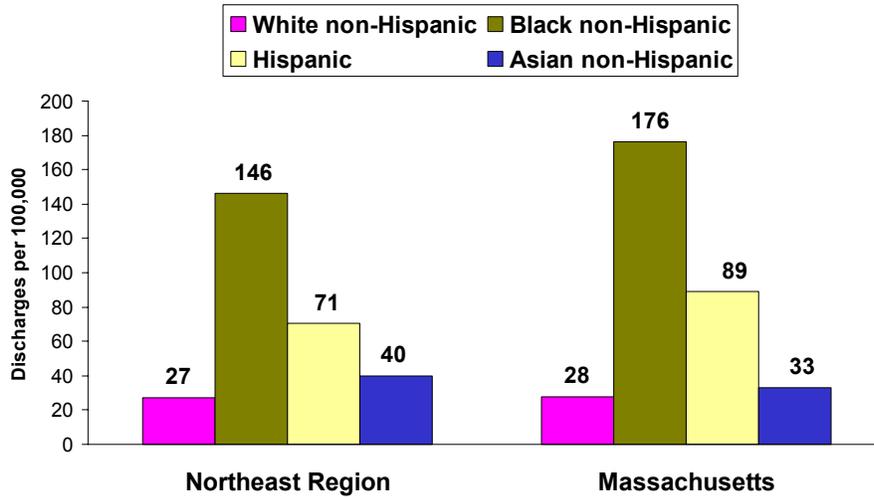
51



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: Division of Health Care Finance and Policy. Calendar Year 2003-2005. Inpatient Hospital Discharge Database

Hypertension Hospital Discharge Rate by Race/Ethnicity Northeast Region Massachusetts: 2003-2005

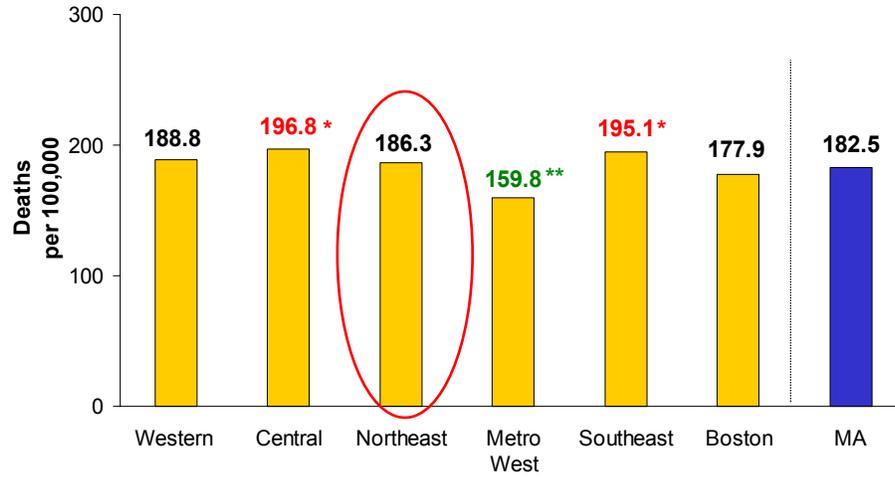
52



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: Division of Health Care Finance and Policy. Calendar Year 2003-2005. Inpatient Hospital Discharge Database

Heart Disease Mortality Rates by EOHHS Region Massachusetts: 2003-2005

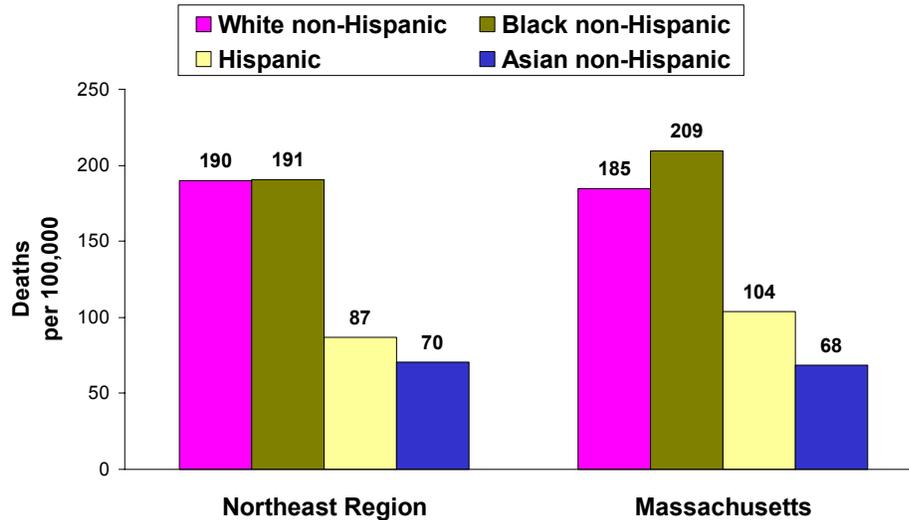
53



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Heart Disease Death Rate by Race/Ethnicity Northeast Region and Massachusetts: 2003-2005

54



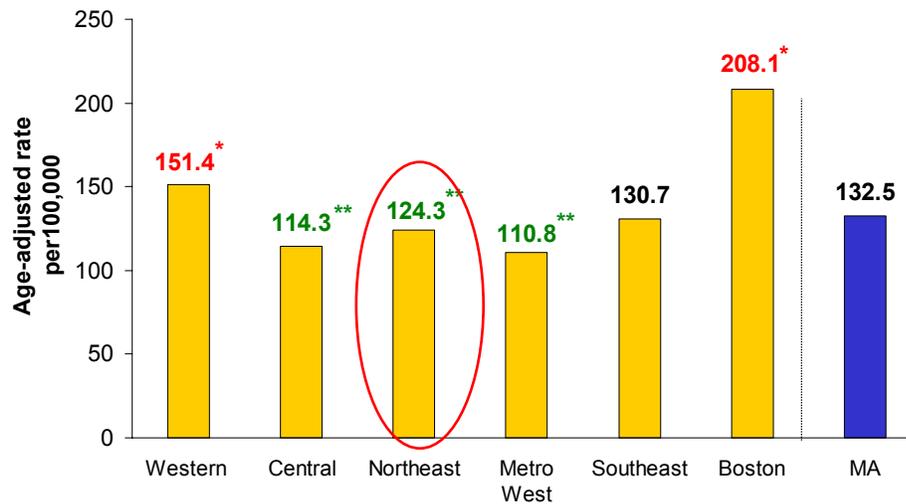
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Prevalence of Diabetes Massachusetts: 1994-2005



Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), Health Survey Program

Diabetes Hospital Discharges by EOHHS Region, Massachusetts: 2003-2005

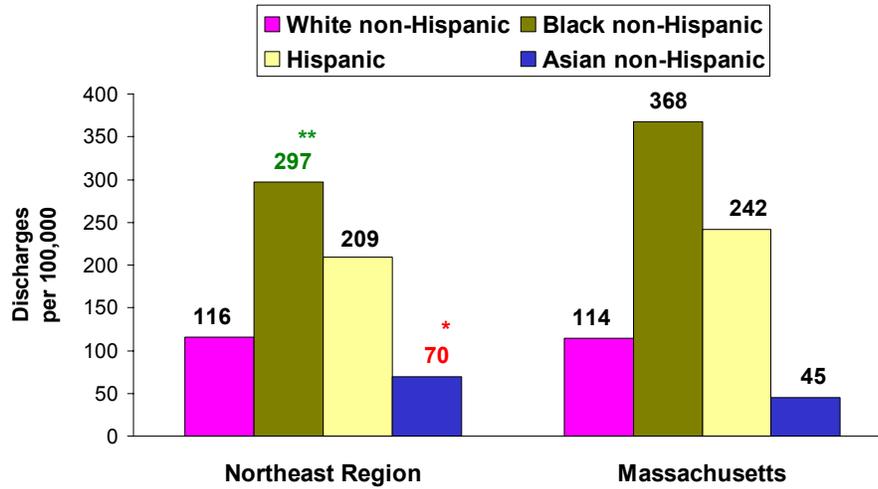


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2003-2005. Inpatient Hospital Discharge Database

Diabetes Hospital Discharge Rate by Race/Ethnicity Northeast Region Massachusetts: 2003-2005

57

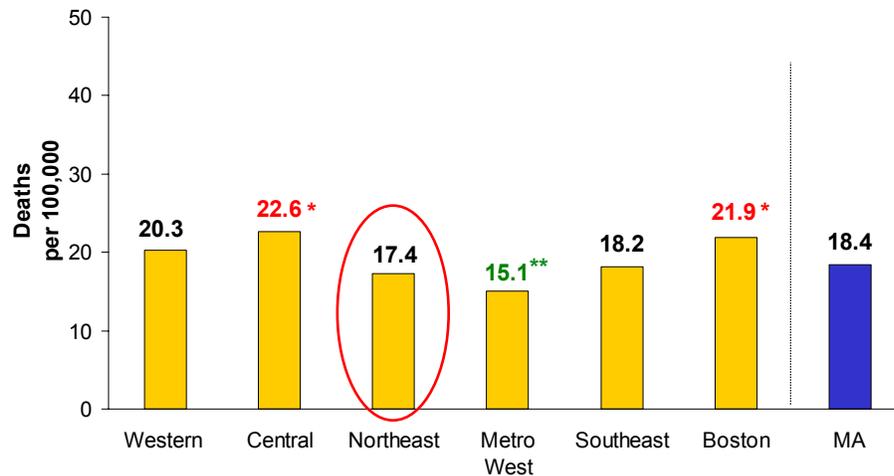


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2003-2005. Inpatient Hospital Discharge Database

Diabetes Mortality Rates by EOHS Region Massachusetts: 2003-2005

58

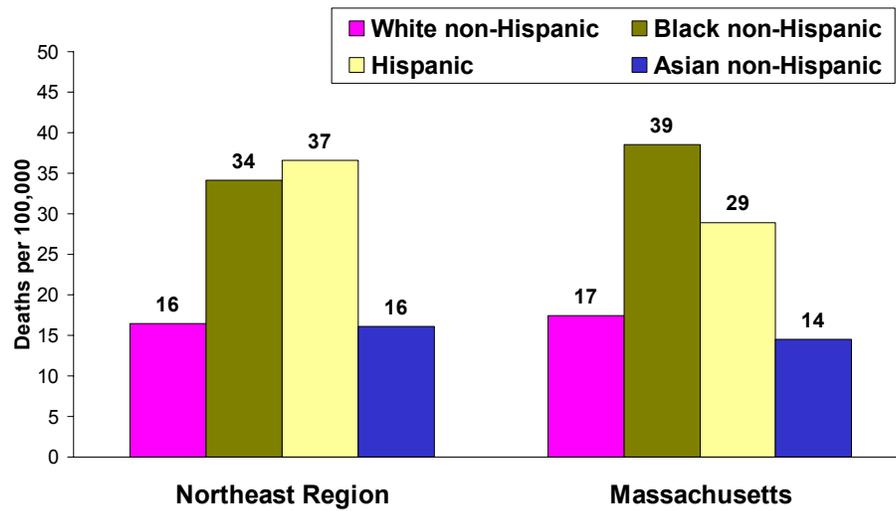


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Diabetes Mortality Rate by Race/Ethnicity Northeast Region and Massachusetts: 2003-2005

59



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Summary Indicators for Overweight/Obesity by EOHHS Regions, Massachusetts:2005

60

Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
% Obese Adults	20.7	23.3	21.7	19.2	16.8	23.6	20.9
% Adults Participation in regular PA	52.6	56.4	51.5	50.6	54.7	51.8	49.5
% Adults with 5+ servings fruits/vegetables	28.6	28.4	29.3	26.4	33.0	26.4	26.4
% Adults who had cholesterol checked	79.3	74.0	76.6	79.2	84.8	82.0	73.3
% Adults with high cholesterol	35.7	34.2	35.9	34.5	38.4	36.5	31.2

Better Outcome (significantly different from state) Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

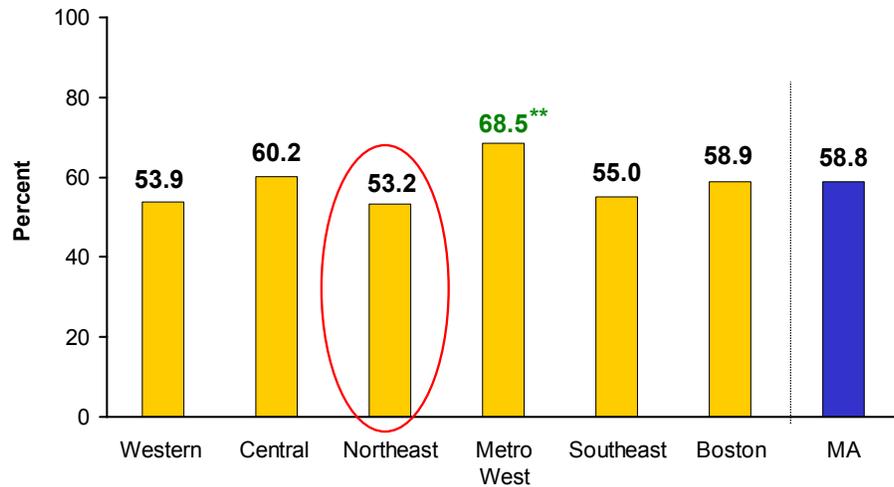
Summary Indicators for Chronic Disease Outcomes for Overweight/Obesity by EOHHS Regions

Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
% Adults with HBP	25.3	26.3	25.3	22.8	25.1	28.9	21.9
% Adults take HBP medications	75.3	76.0	74.0	78.6	73.5	76.5	71.3
Hypertension Hospital Discharges (2003-2005)	38.7	35.0	30.9	32.9	31.0	38.7	84.6
Heart Disease Death Rate (2003-2005)	182.5	188.8	196.8	186.3	159.8	195.1	177.9
Diabetes Hospital Discharges (2003-2005)	132.5	151.4	114.3	124.3	110.8	130.7	208.1
Diabetes Death Rate (2003-2005)	18.4	20.3	22.6	17.3	15.1	18.2	21.9

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

CANCER

Adults Ages 50+ who have had a Sigmoidoscopy⁶² or Colonoscopy in Past 5 Years by EOHS Region Massachusetts: 2005

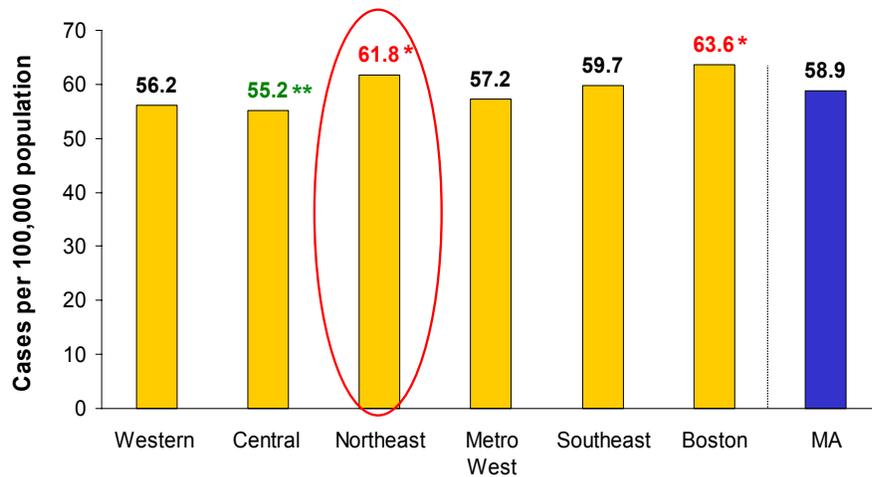


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Incidence Rates for Invasive Colorectal Cancer by EOHS Region, Massachusetts: 1999-2003

63

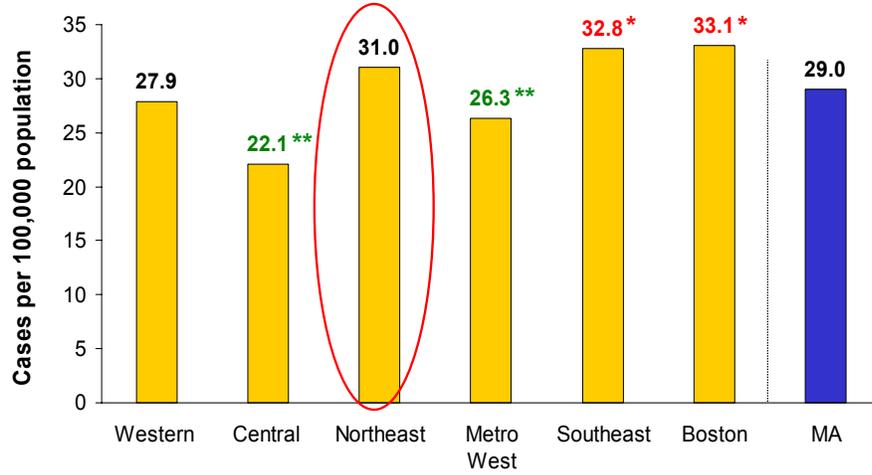


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Age-adjusted to the 2000 US standard population.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Incidence Rates for Early Stage Colorectal Cancer ⁶⁴ **MALES** by EOHHS Region, Massachusetts: 1999-2003

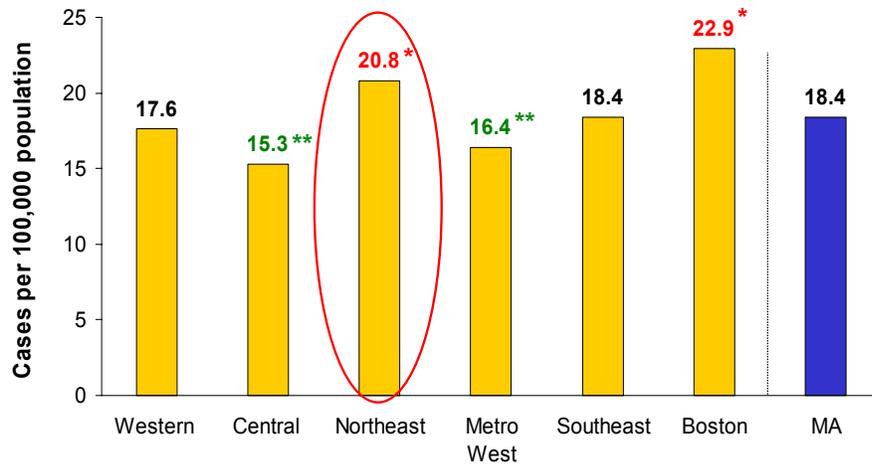


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Age-adjusted to the 2000 US standard population.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Incidence Rates for Early Stage Colorectal Cancer ⁶⁵ **FEMALES** by EOHHS Region, Massachusetts: 1999-2003

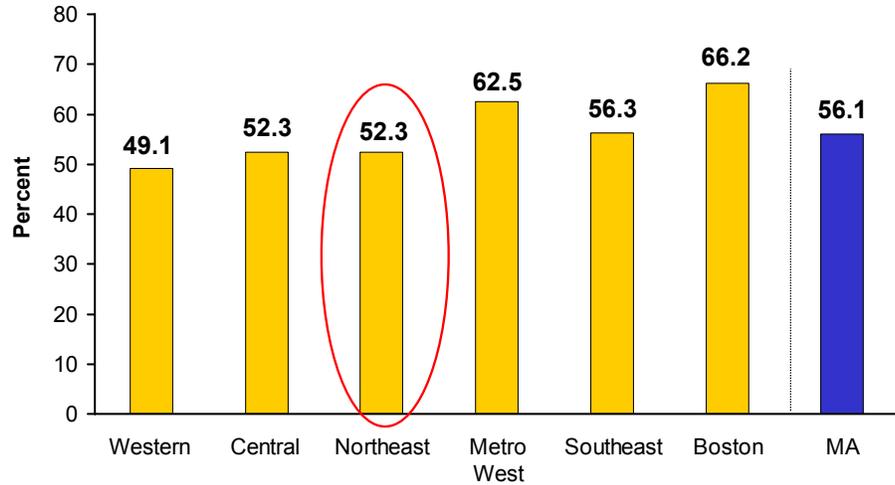


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Age-adjusted to the 2000 US standard population.

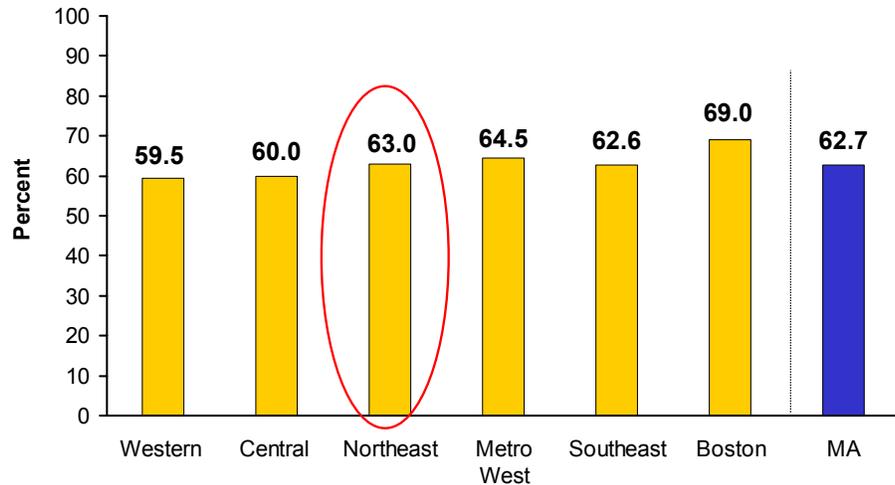
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Men Ages 50 and Older who had a Prostate-Specific Antigen Test in the Past Two Years by EOHHS Region, Massachusetts: 2004 ⁶⁶



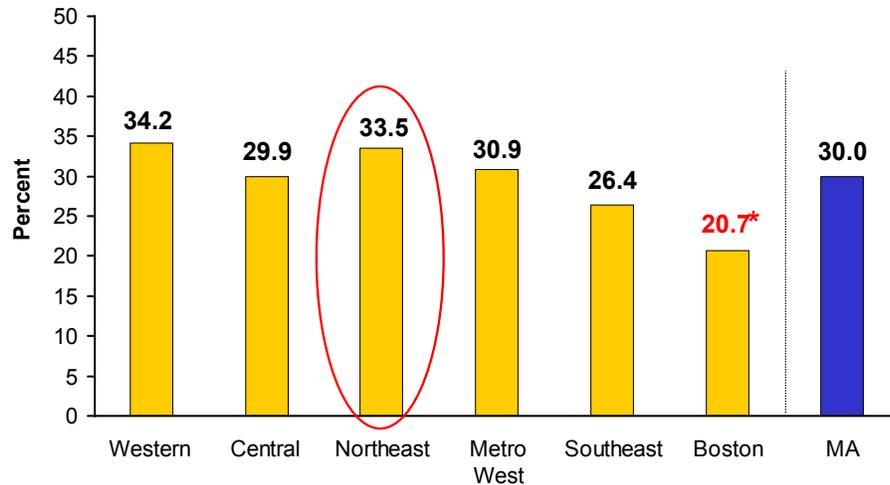
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Men Ages 50 and Older who had a Digital Rectal Exam in the Past Two Years by EOHHS Region Massachusetts: 2004 ⁶⁷



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Adults Ages 50 and Older who had a Blood Stool Test in the Past Two Years by EOHHS Region Massachusetts: 2005

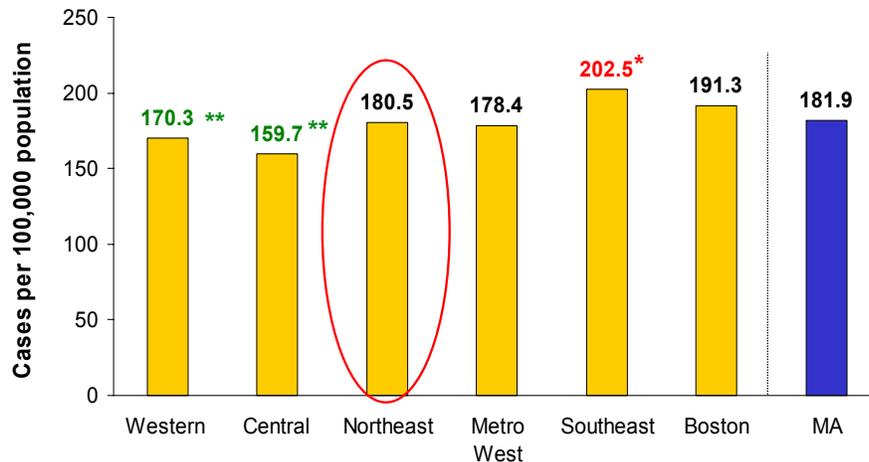


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Incidence Rates for Invasive Prostate Cancer by EOHHS Region, Massachusetts: 1999-2003

69

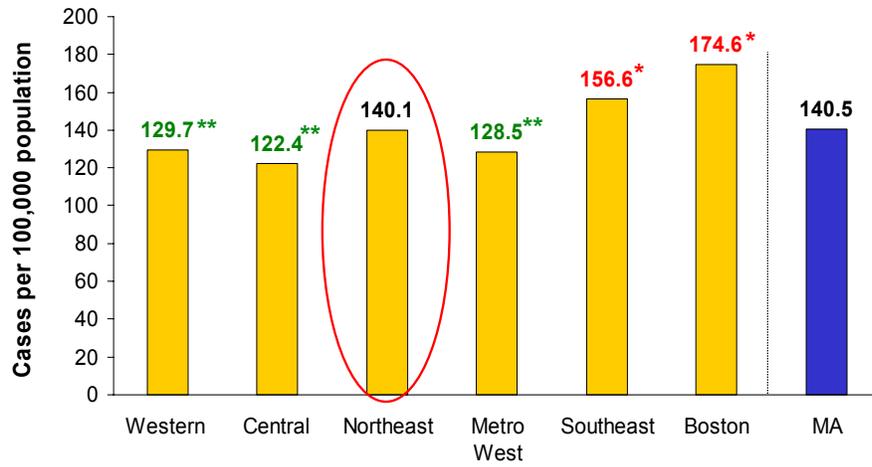


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Age-adjusted to the 2000 US standard population.

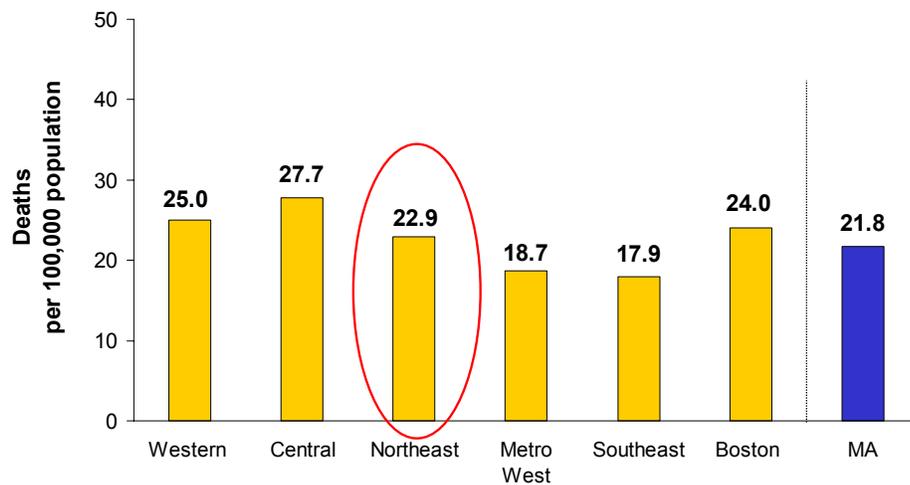
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Incidence Rates for Early Stage Prostate Cancer⁷⁰ by EOHS Region, Massachusetts: 1999-2003



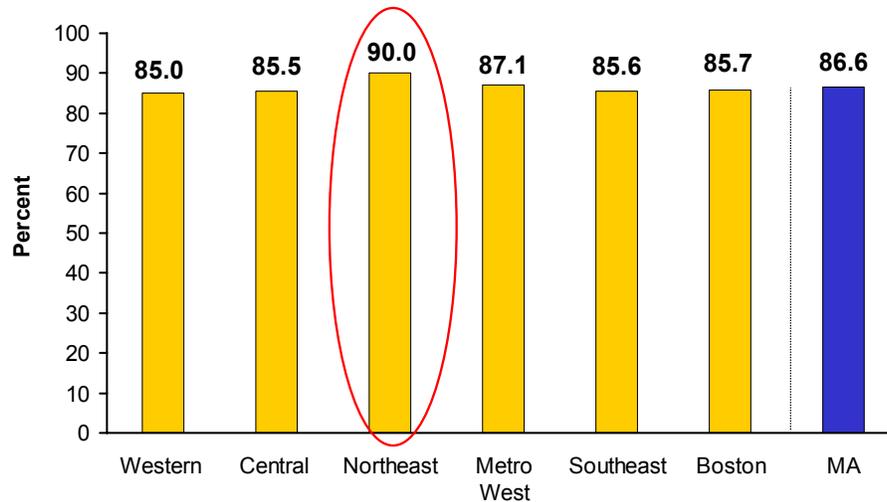
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Prostate Cancer Mortality Rates by EOHS Region, Massachusetts: 2005⁷¹



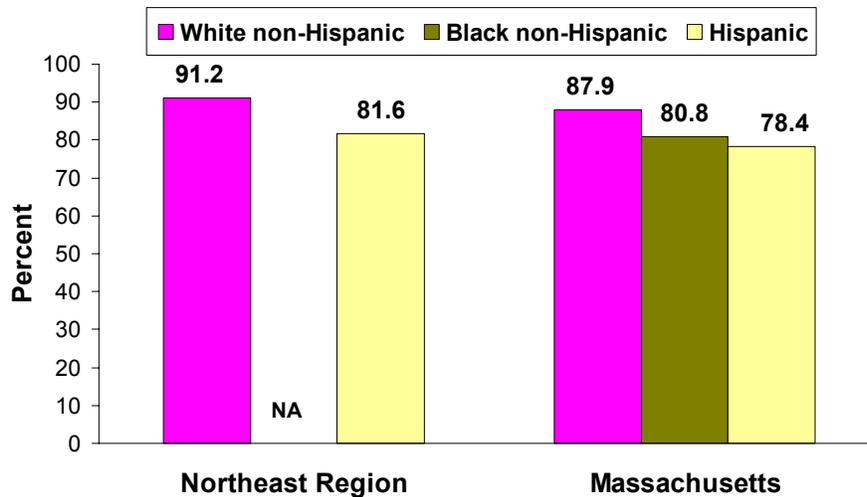
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Women Ages 40 and Older who had a Clinical Breast Exam in the Past Two Years by EOHHHS Region, Massachusetts: 2004 ⁷²



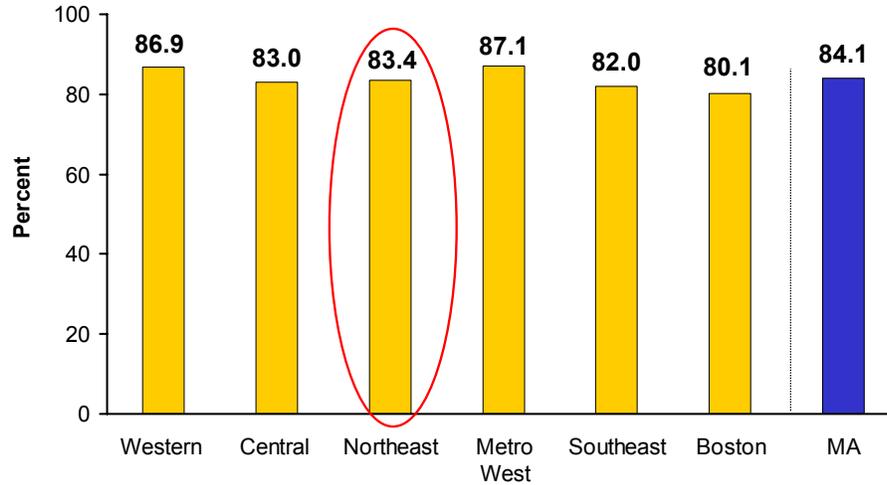
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Women who had a Clinical Breast Exam in the Past Two Years by Race and Ethnicity Northeast Region and Massachusetts: 2004 ⁷³



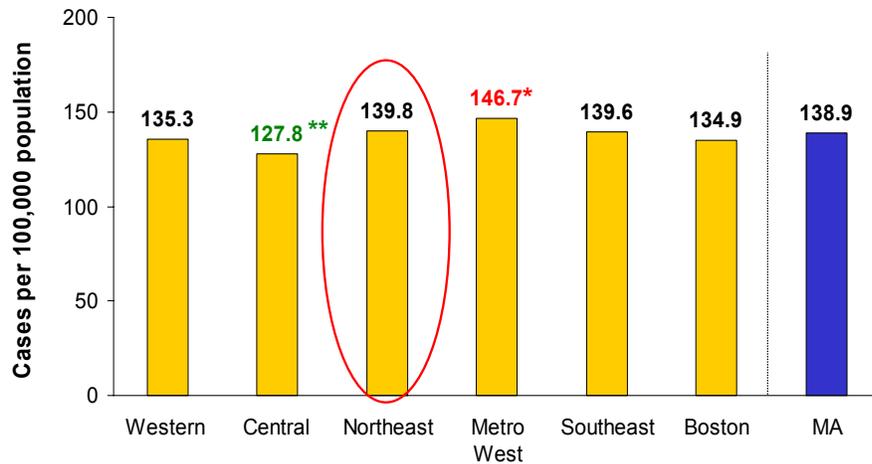
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Women Ages 40+ who have had a mammography⁷⁴ in Past 2 Years by EOHS Region Massachusetts: 2005



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

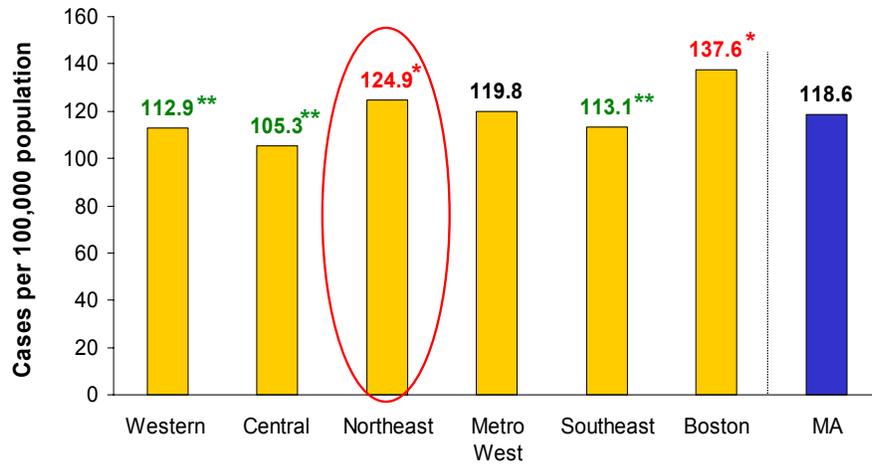
Incidence Rates for Invasive Female Breast Cancer⁷⁵ by EOHS Region, Massachusetts: 1999-2003



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

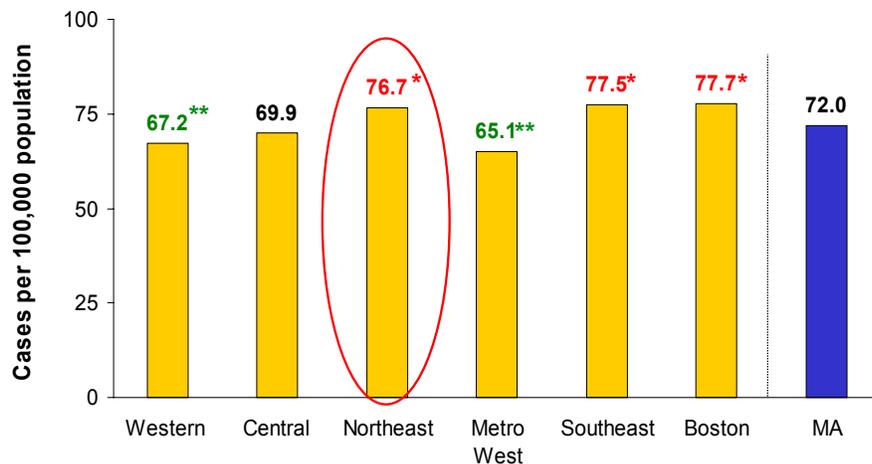
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Incidence Rates for Early Stage Female Breast Cancer⁷⁶ by EOHHS Region, Massachusetts: 1999-2003



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

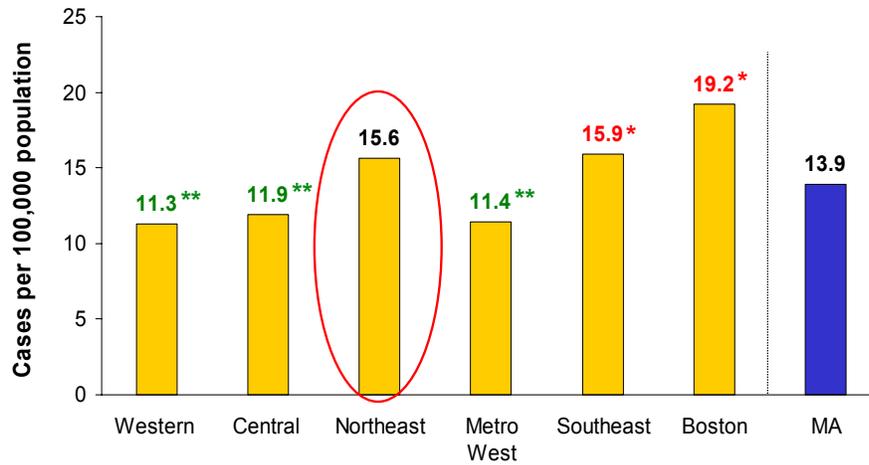
Incidence Rates for Invasive Lung Cancer⁷⁷ by EOHHS Region, Massachusetts: 1999-2003



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Incidence Rates for Early Stage Lung Cancer MALES by EOHHS Region, Massachusetts: 1999-2003

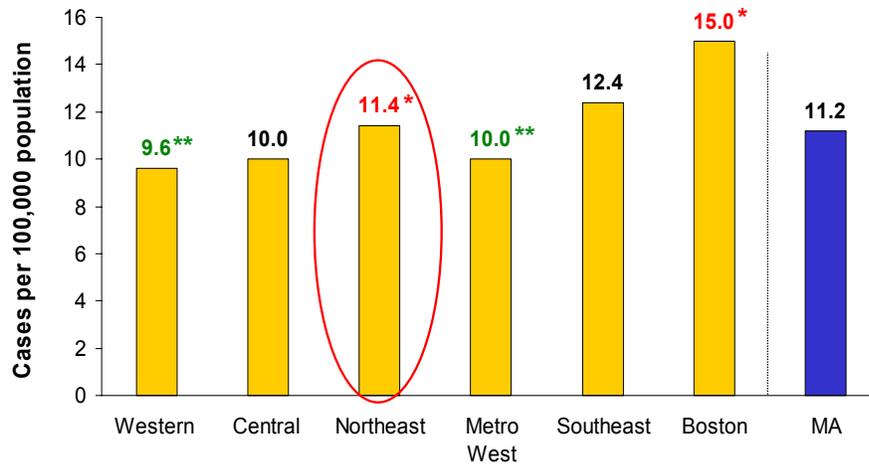
78



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Incidence Rates for Early Stage Lung Cancer FEMALES by EOHHS Region, Massachusetts: 1999-2003

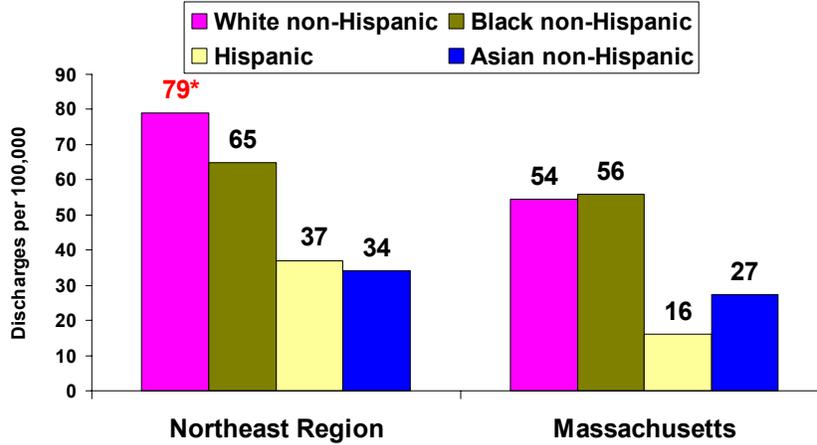
79



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Lung Cancer Incidence Rates by Race and Ethnicity, Northeast Region & Massachusetts: 2003-2005

80

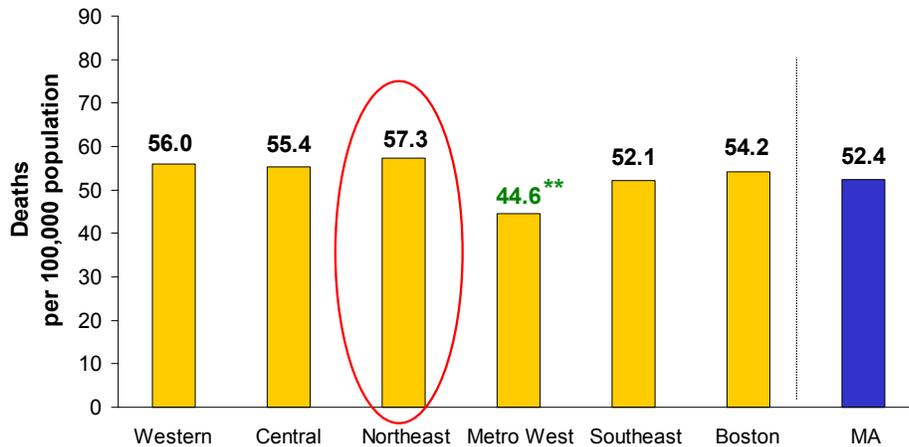


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2003- 2005. Hospital Discharges

Lung Cancer Mortality Rates by EOHHS Region, Massachusetts: 2005

81

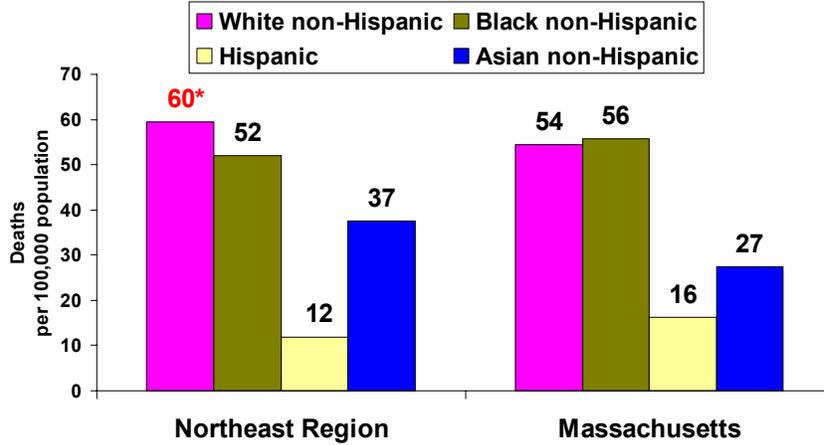


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Lung Cancer Mortality Rates by Race and Ethnicity, Northeast Region & Massachusetts: 2003-2005

82

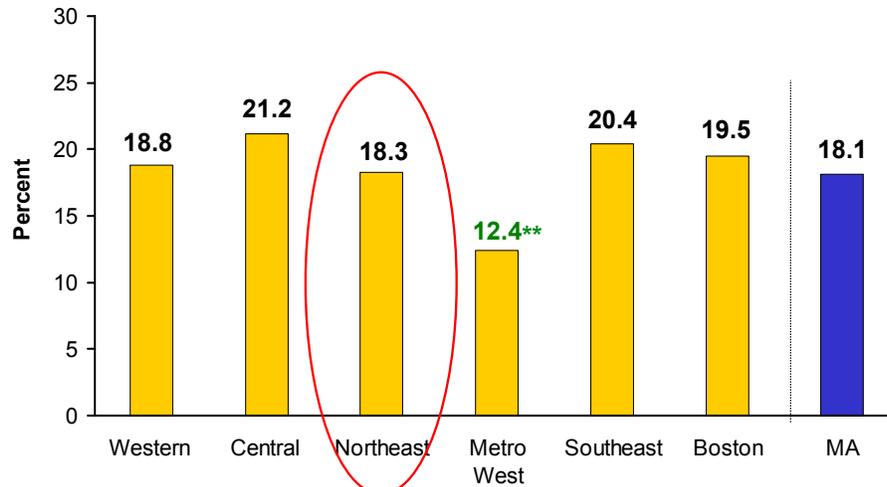


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2003- 2005. Hospital Discharges

Adults who Currently Smoke by EOHS Region, Massachusetts: 2005

83



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Summary Indicators for Cancer Screening by EOHHS Regions, Massachusetts: 2005

Indicator	MA Total	Western	Central	North East	Metro West	South East	Boston
% Men† PSA (2004)	56.1	49.1	52.3	52.3	62.5	56.3	66.2
% Men† DRE (2004)	62.7	59.5	60.0	63.0	64.5	62.6	69.0
% Blood Stool Test †	30.0	34.2	29.9	33.5	30.9	26.4	20.7
% Adults Sigmoidoscopy or Colonoscopy†	58.8	53.9	60.2	53.2	68.5	55	58.9
% Women Clinical Breast Exam (2004)	86.6	85.0	85.5	90.0	87.1	85.6	85.7
% Women* Mammography	84.1	86.9	83.0	83.4	87.1	82.0	80.1

*40 years and older, † 50 years and older



Better Outcome (significantly different from state)



Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research & Evaluation Bureau, Health Survey Program

Summary Cancer Indicators (Early Stage) by EOHHS Regions, Massachusetts: 1999-2003

Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Prostate Cancer Incidence	140.5	129.7	122.4	140.1	128.5	156.6	174.6
Female Breast Cancer Incidence	118.6	112.9	105.3	124.9	119.8	113.1	137.6
Colorectal Cancer Incidence	26.9	25.9	21.3	29.5	24.3	28.7	32.0
Lung Cancer Incidence	14.4	12.0	12.7	15.3	12.4	16.1	19.6



Better Outcome (significantly different from state)



Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Summary Cancer Indicators (Late Stage) by EOHS Regions, Massachusetts: 1999-2003

86

Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Prostate Cancer Incidence	5.5	4.9	5.2	5.9	3.9	6.2	8.7
Female Breast Cancer Incidence	37.8	37.9	31.7	37.0	36.8	38.4	47.3
Colorectal Cancer Incidence	33.8	30.6	32.9	35.2	30.6	34.4	42.7
Lung Cancer Incidence	50.3	45.8	48.6	54.1	41.4	55.1	63.2

■ Better Outcome (significantly different from state) ■ Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Summary Invasive Cancer Incidence Rates by EOHS Regions, Massachusetts: 1999-2003

87

Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Prostate Cancer Incidence	181.9	170.3	159.7	180.5	178.4	202.5	191.3
Female Breast Cancer Incidence	138.9	135.3	127.8	139.8	146.7	139.6	134.9
Colorectal Cancer Incidence	58.9	56.2	55.2	61.8	57.2	59.7	63.6
Lung Cancer Incidence	72.0	67.2	69.9	76.7	65.1	77.5	77.7

■ Better Outcome (significantly different from state) ■ Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Cancer Registry

Summary Cancer Mortality Indicators by EOHHS⁸⁸ Regions, Massachusetts: 2005

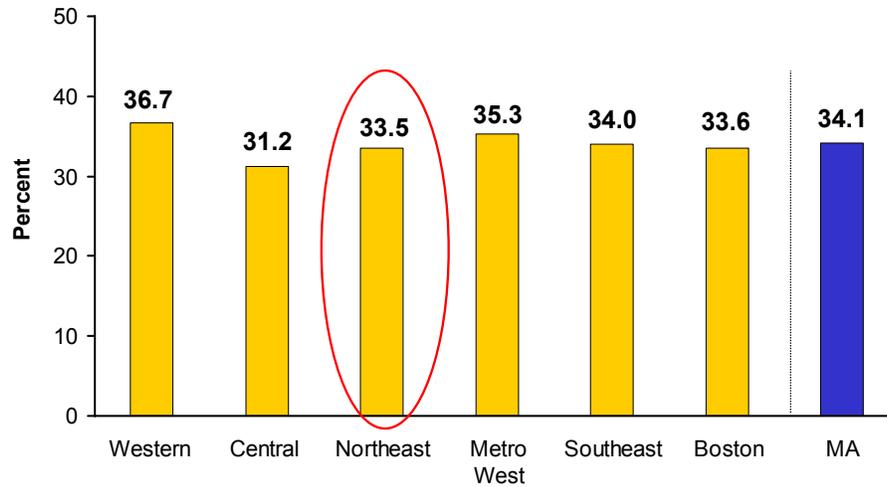
Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Prostate Cancer Death Rate	21.8	25.0	27.7	22.9	18.7	17.9	24.0
Colorectal Cancer Death Rate	17.4	18.2	18.3	17.5	16.4	17.2	18.4
Female Breast Cancer Death Rate	23.0	25.5	23.1	23.1	20.9	22.5	24.6
Lung Cancer Death Rate	52.4	56.0	55.4	57.3	44.6	52.1	54.2

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

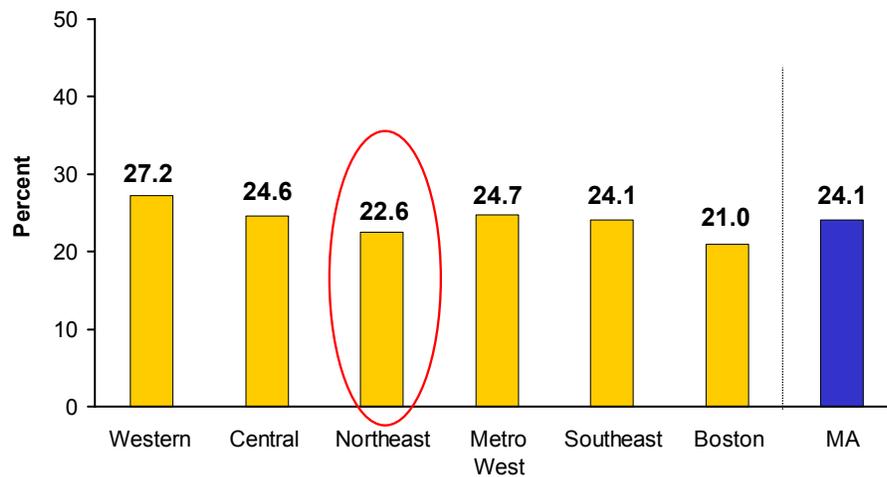
SUBSTANCE ABUSE

Alcohol Use in Past Month Persons Aged 12 to 20⁸⁹ by EOHS Region, Massachusetts: 2002, 2003, 2004



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Binge Drinking¹ in Past Month Persons Aged 12 to 20⁹⁰ by EOHS Region, Massachusetts: 2002, 2003, 2004

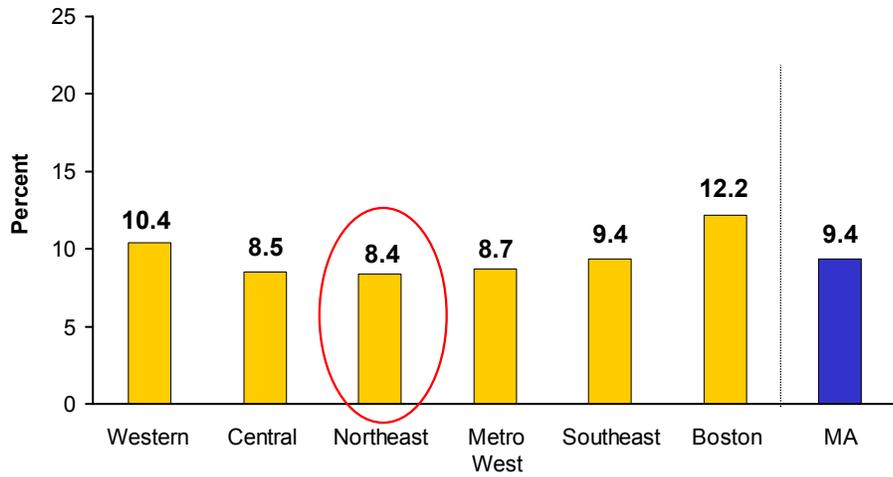


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

¹ Binge Alcohol use is defined as drinking 5+ drinks on the same occasion on at least 1 day in the past 30 days

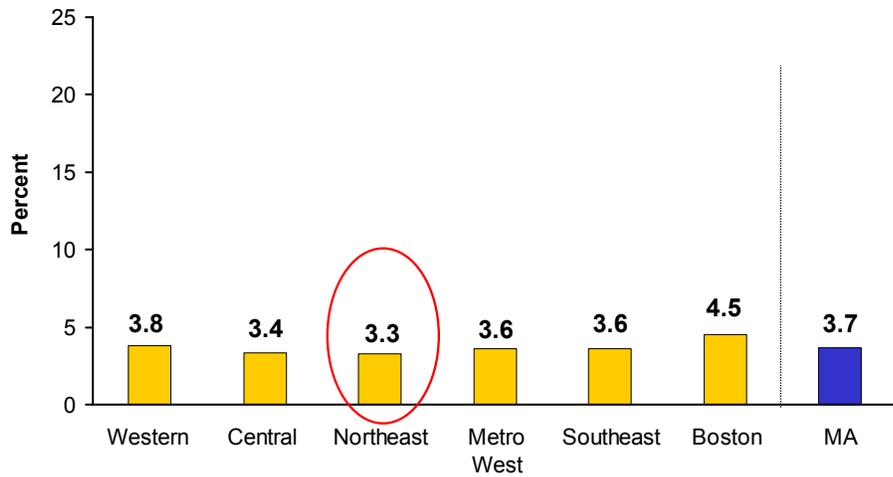
Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Any Illicit Drug Use in Past Month Persons Aged 12+ by EOHHS Region, Massachusetts: 2002, 2003, 2004 91



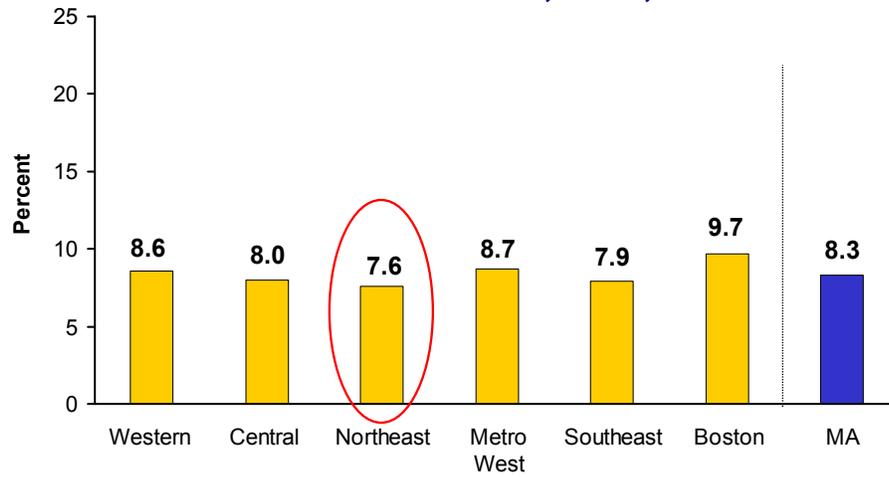
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Any Illicit Drug Use Other than Marijuana in Past Month Persons Aged 12+ by EOHHS Region Massachusetts: 2002, 2003, 2004 92



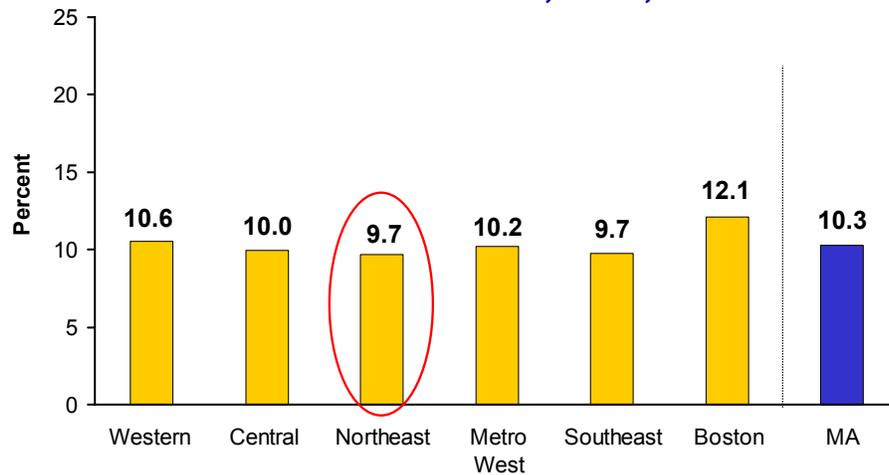
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Alcohol Dependence or Abuse in Past Year Persons Aged 12+ by EOHHS Region Massachusetts: 2002, 2003, 2004

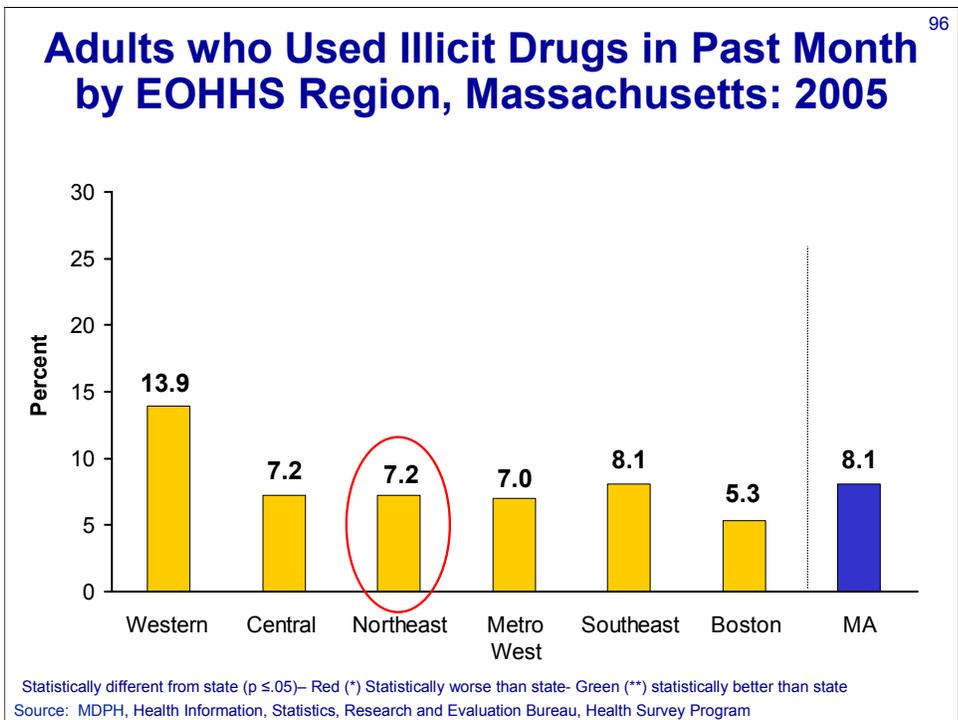
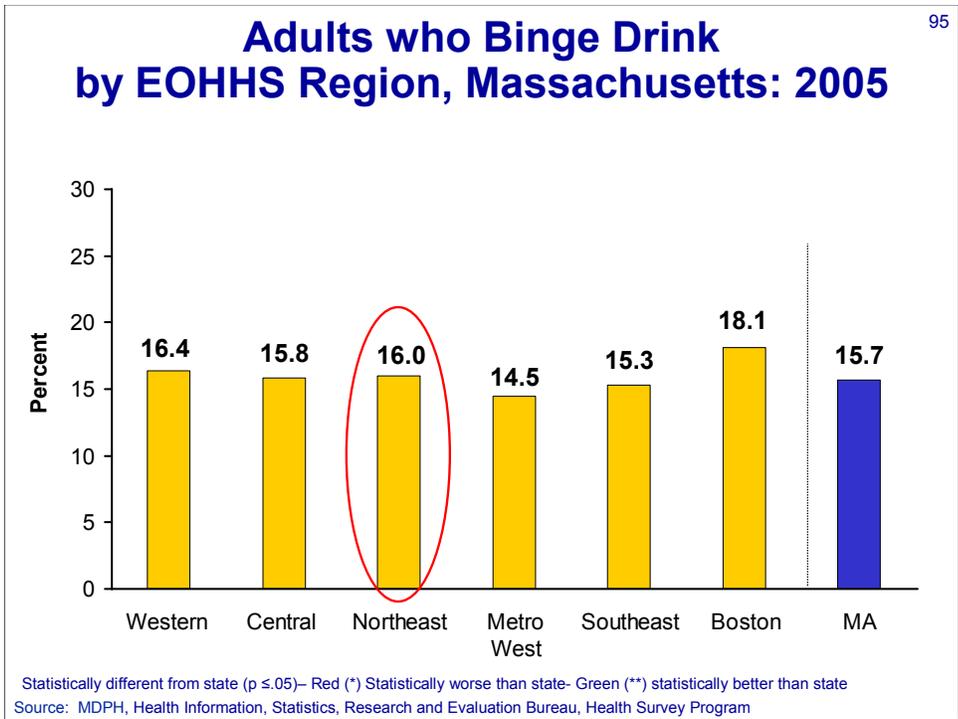


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Dependence or Abuse of Any Illicit Drug or Alcohol in Past Year Persons Aged 12+ by EOHHS Region Massachusetts: 2002, 2003, 2004

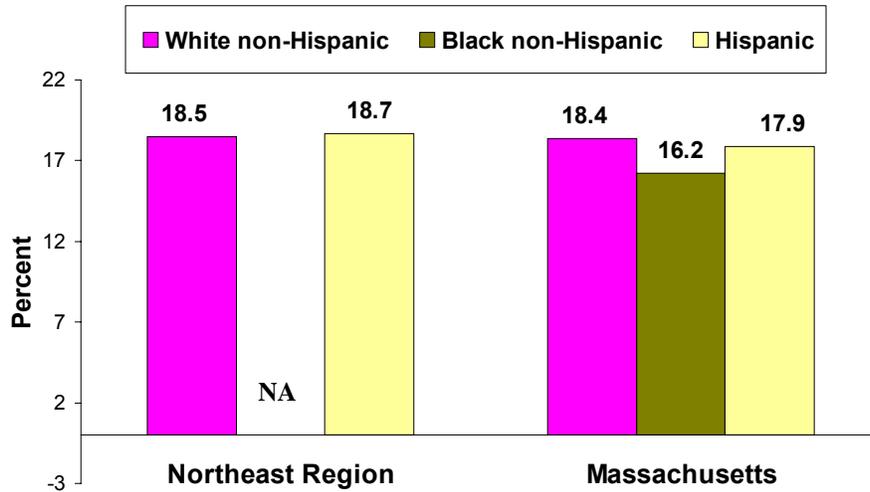


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.



Current Smoker by Race and Ethnicity Northeast Region and Massachusetts: 2005

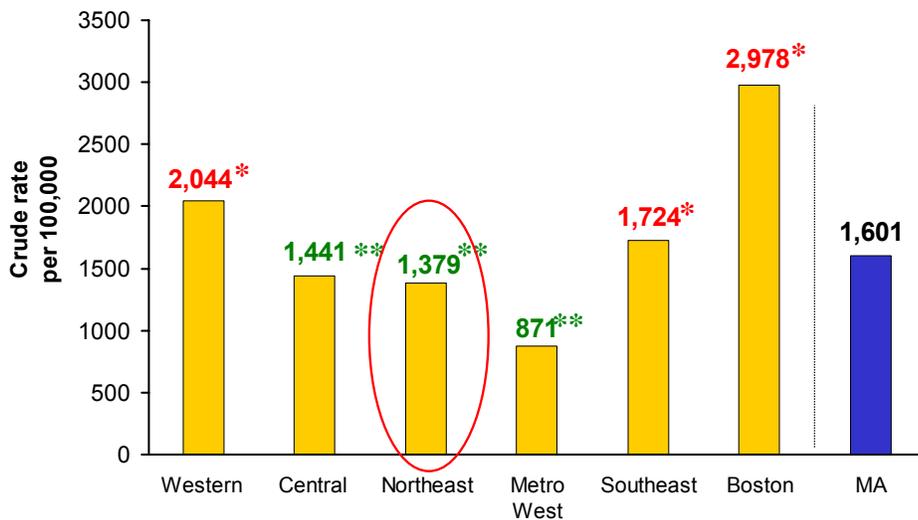
97



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Substance Abuse Admissions by EOHHS Region Massachusetts: 2005

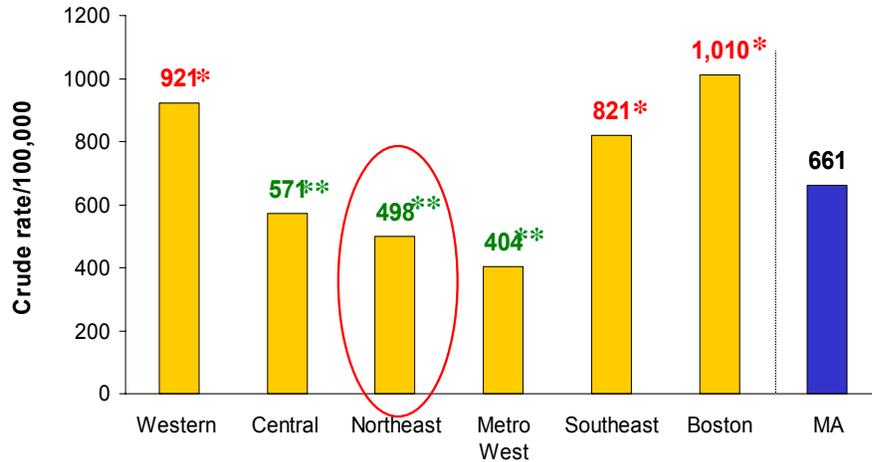
98



Statistically different from state ($p \leq .05$)– Red (*) Statistically higher than state- Green (**) statistically lower than state
Source: Massachusetts Department of Public Health. BSAS Substance Abuse Treatment Programs 2005.

Substance Abuse Admissions- Alcohol Primary Substance by EOHHS Region, Massachusetts: 2005

99

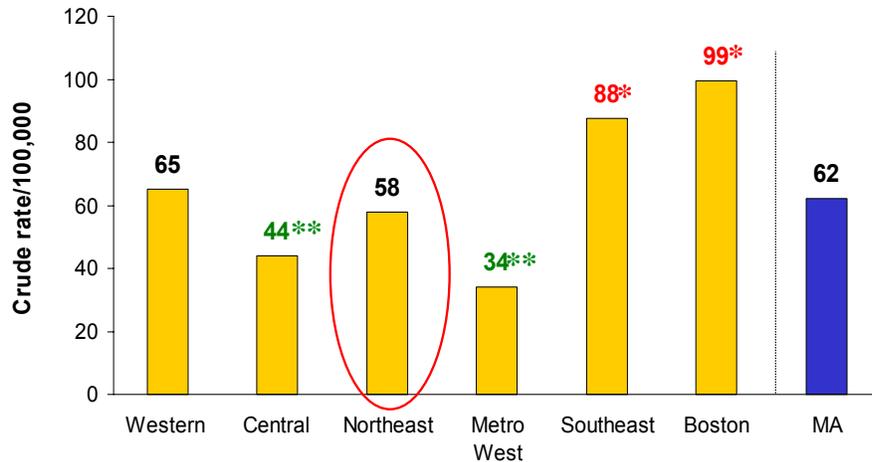


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Source: Massachusetts Department of Public Health. BSAS Substance Abuse Treatment Programs 2005.

Substance Abuse Admissions- Cocaine Primary Substance by EOHHS Region, Massachusetts: 2005

100

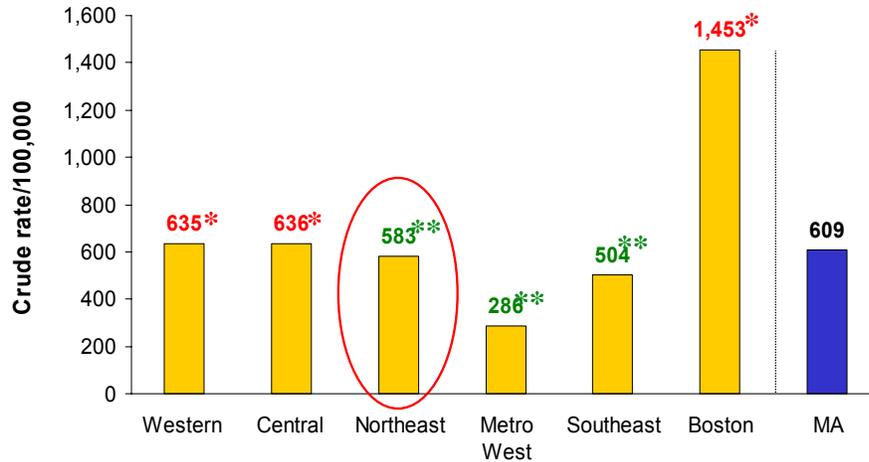


Statistically different from state ($p \leq .05$)– Red (*) Statistically higher than state- Green (**) statistically lower than state

Source: Massachusetts Department of Public Health. BSAS Substance Abuse Treatment Programs 2005.

Substance Abuse Admissions- Heroin Primary Substance by EOHHS Region, Massachusetts: 2005

101

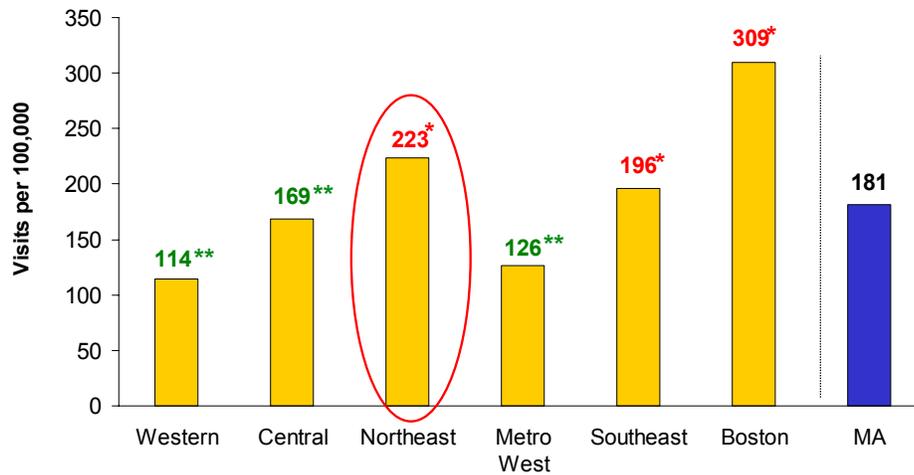


Statistically different from state ($p \leq .05$)– Red (*) Statistically higher than state- Green (**) statistically lower than state

Source: Massachusetts Department of Public Health. BSAS Substance Abuse Treatment Programs 2005.

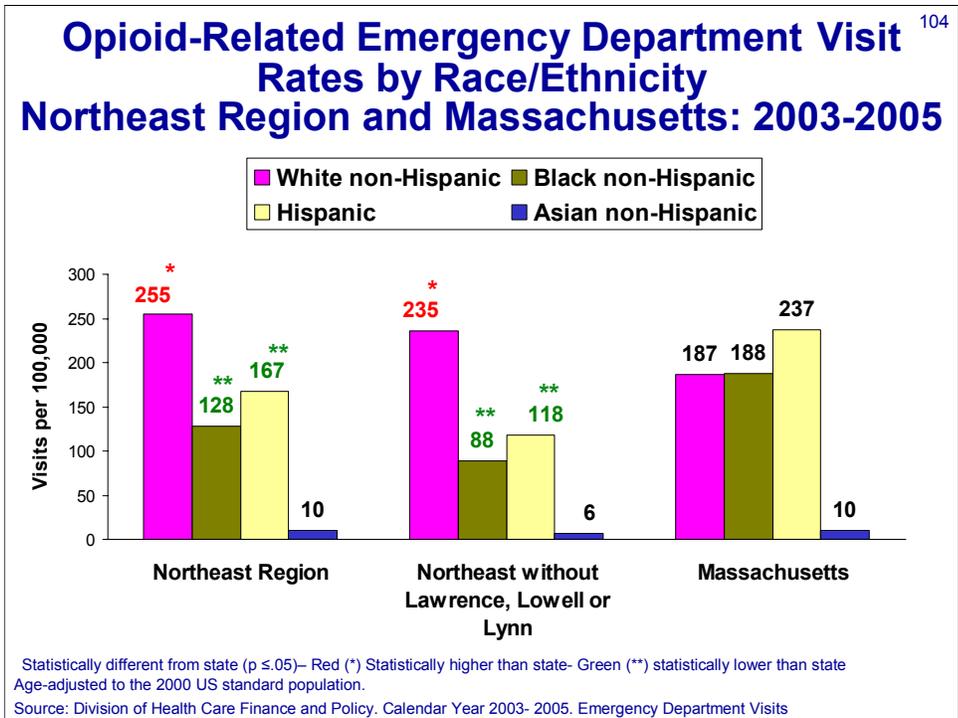
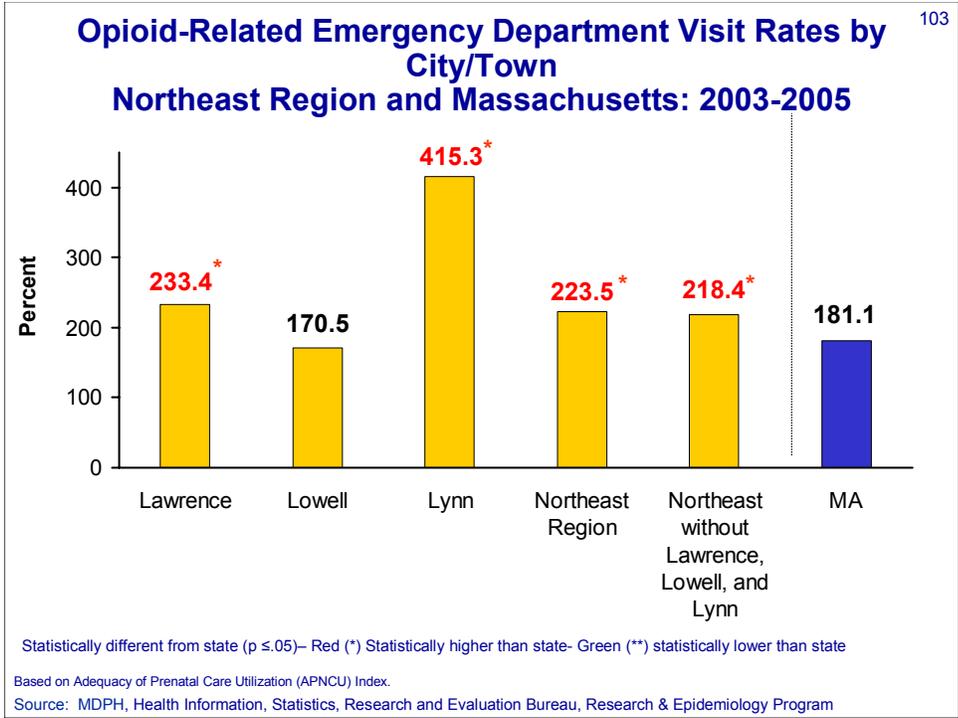
Opioid-Related Emergency Department Visit Rates by EOHHS Region Massachusetts: 2003-2005

102



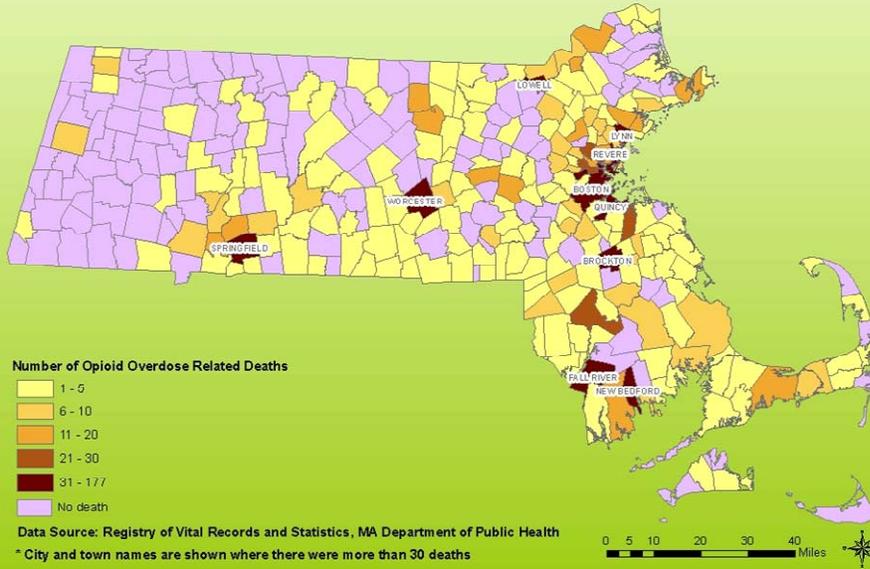
Statistically different from state ($p \leq .05$)– Red (*) Statistically higher than state- Green (**) statistically lower than state
Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2003- 2005. Emergency Department Visits

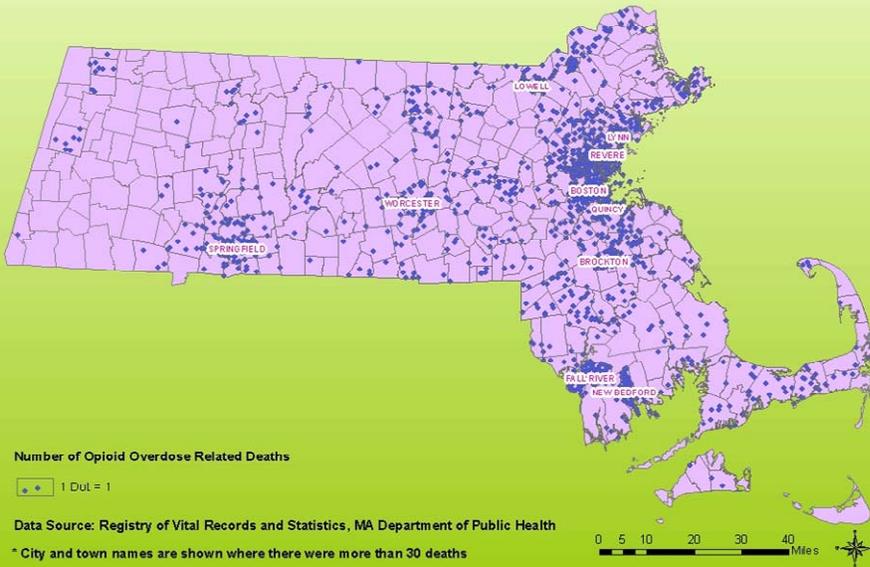




Massachusetts City and Town FY03-05 Total Number Of Opioid Overdose Related Deaths

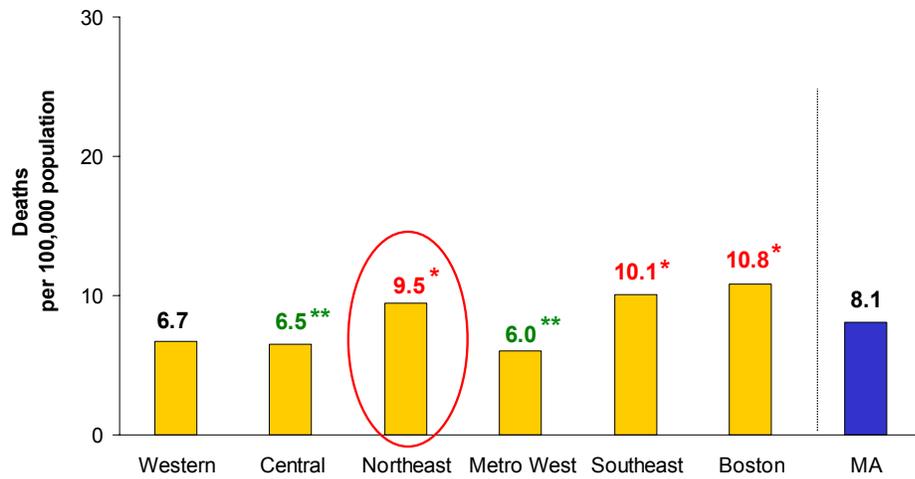


Massachusetts City and Town FY03-05 Total Number Of Opioid Overdose Related Deaths



Opioid-Related Fatal Overdoses by EOHHS Region, Massachusetts: 2003-2005

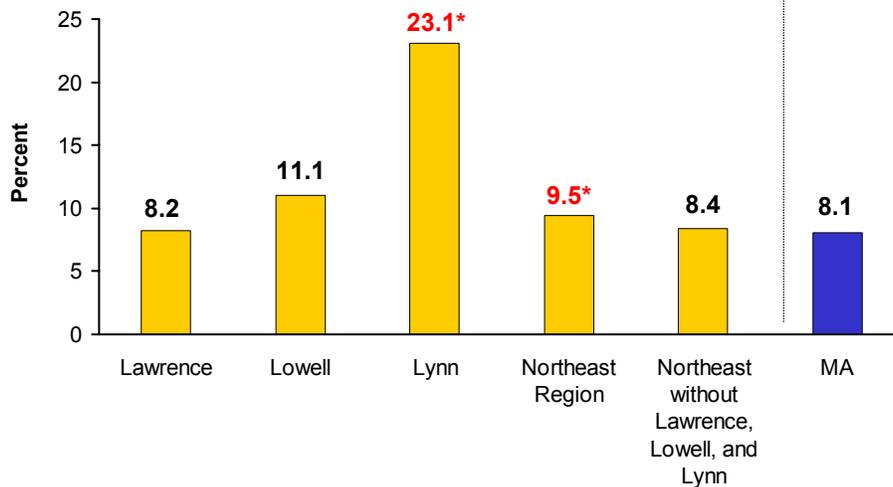
107



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Opioid-Related Fatal Overdoses by Race/Ethnicity Northeast Region and Massachusetts: 2003-2005

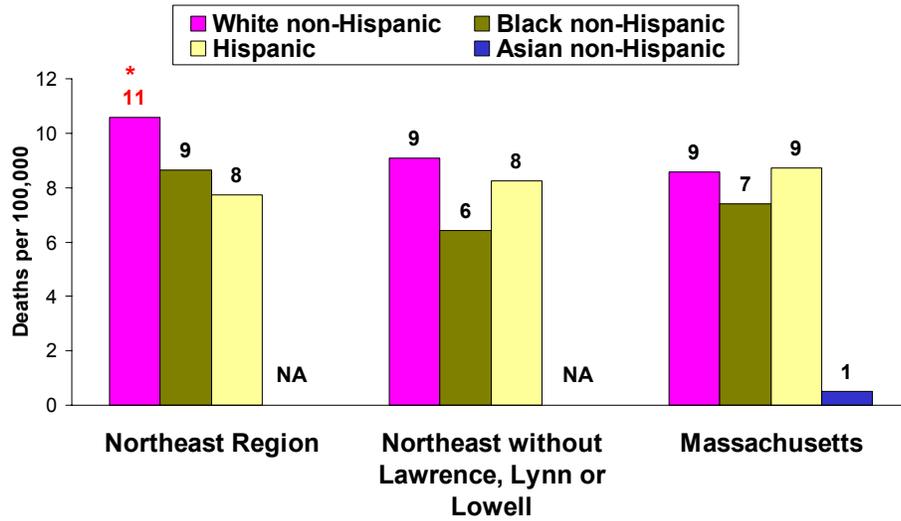
108



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Based on Adequacy of Prenatal Care Utilization (APNCU) Index.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

109

Opioid-Related Fatal Overdoses by Race/Ethnicity Northeast Region and Massachusetts: 2003-2005



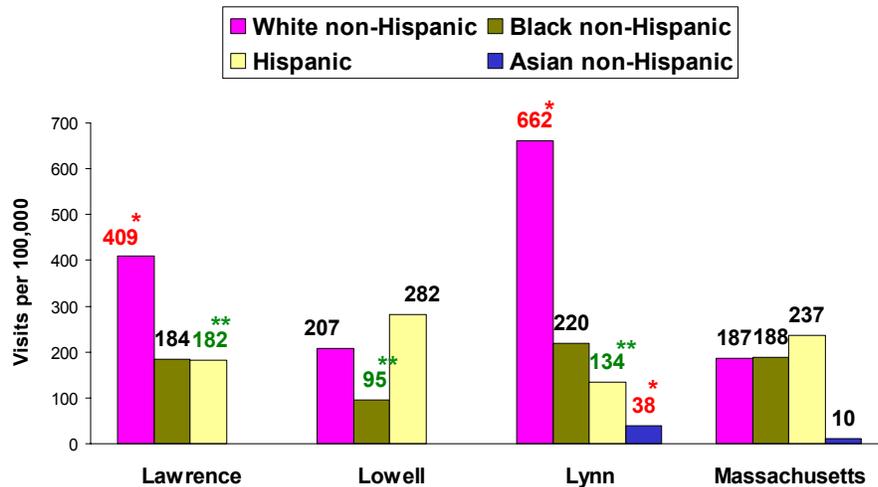
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Age-adjusted to the 2000 US standard population.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

110

Opioid-Related Emergency Department Visit Rates by Race/Ethnicity Lawrence, Lowell, and Lynn vs. Massachusetts: 2003-2005



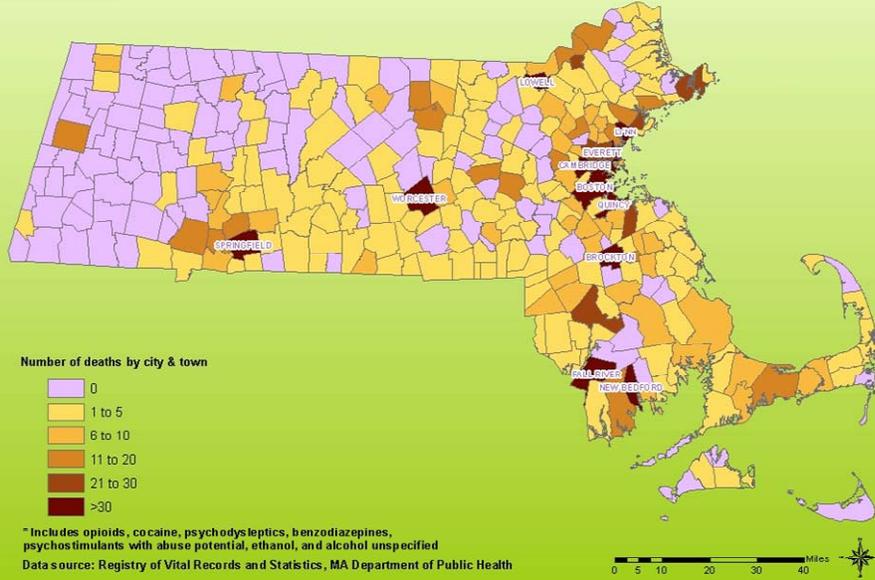
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Age-adjusted to the 2000 US standard population.

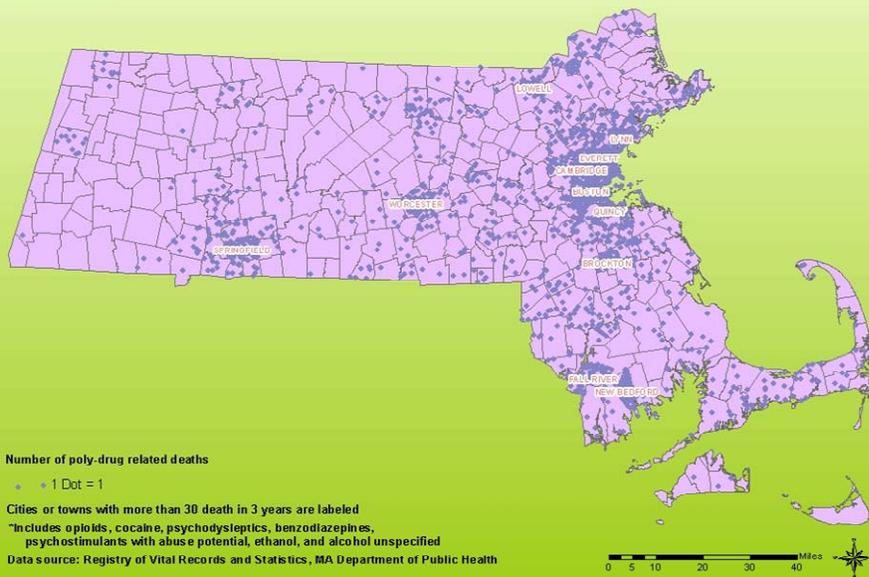
Source: Division of Health Care Finance and Policy. Calendar Year 2003- 2005. Emergency Department Visits



Massachusetts City and Town FY03-05 Total Number of Poly-Drug* Overdose related Deaths



Massachusetts City and Town FY03-05 Total Number of Poly-Drug* Overdose related Deaths



Summary Substance Abuse Indicators Percentages by EOHHS Region

113

Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Past Month Alcohol 12-20 years	34.1	36.7	31.2	33.5	35.3	34.0	33.6
Past Month Binge Drinking- 12-20 years	24.1	27.2	24.6	22.6	24.7	24.1	21.0
Any Illicit Drug Use Past Month, Ages 12+	9.4	10.4	8.5	8.4	8.7	9.4	12.2
Any Illicit Drug Use Other than Marijuana Past Month, Ages 12+	3.7	3.8	3.4	3.3	3.6	3.6	4.5
Alcohol Dependence or Abuse past Year, Ages 12+	8.3	8.6	8.0	7.6	8.7	7.9	9.7
Dependence or Abuse of Alcohol or Any Illicit Drug, Ages 12+	10.3	10.6	10.0	9.7	10.2	9.7	12.1

■ Better Outcome (significantly different from state) ■ Worse Outcome (significantly different from state)

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Summary Substance Abuse Indicators by EOHHS Region, Massachusetts:2005

114

Indicator	MA Total	Western	Central	North east	Metro West	South East	Boston
% Adults Binge Drinking	15.7	16.4	15.8	16.0	14.5	15.3	18.1
% Adults Smoking	18.1	18.8	21.2	18.3	12.4	20.4	19.5
% Adults using illicit drugs	8.1	13.9	7.2	7.2	7.0	8.1	5.3
Substance Abuse Treatment Program Admissions Rate	1,601	2,044	1,441	1,379	871	1,724	2,978
Substance Abuse Treatment Program Admissions Rate-- Alcohol	661	921	571	498	404	821	1,010
Substance Abuse Treatment Program Admissions Rate-- Cocaine	62	65	44	58	34	88	99
Substance Abuse Treatment Program Admissions Rate-- Heroin	609	635	636	583	286	504	1,453

■ Better Outcome (significantly different from state) ■ Worse Outcome (significantly different from state)

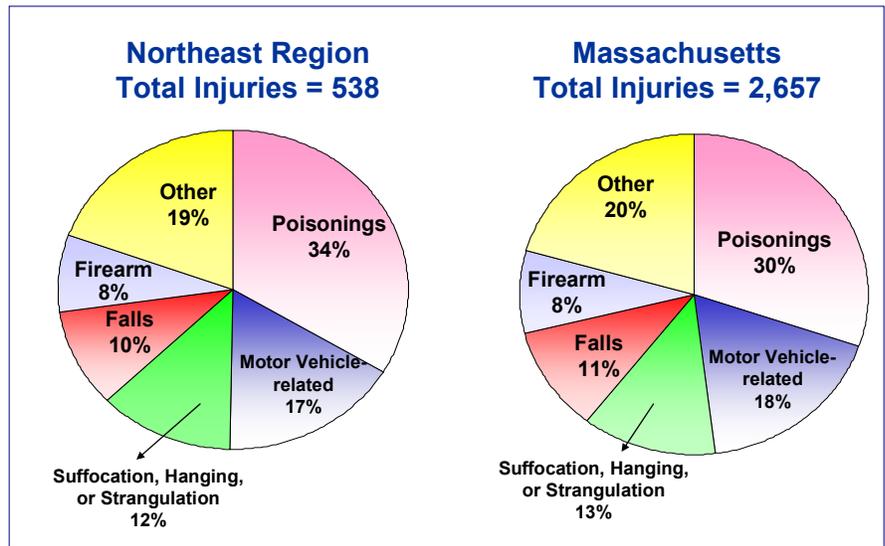
Summary Opioid Indicators by EOHHS Regions Massachusetts: 2003-2005

Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Opioid-related Emergency Department Visit Rate	181	114	169	223	126	196	309
Opioid-related fatal overdose rate	8.1	6.7	6.5	9.5	6.0	10.1	10.8

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

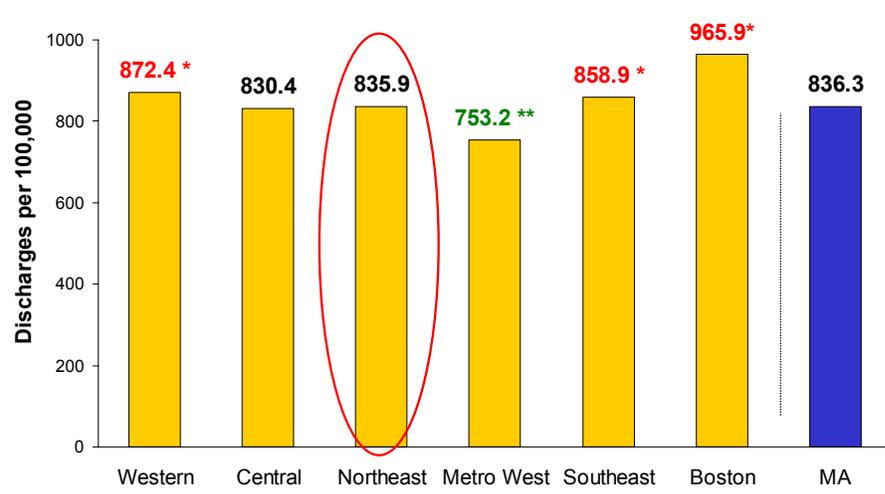
INJURY, VIOLENCE, AND OCCUPATIONAL HEALTH

Causes of Injury Deaths Northeast Region and Massachusetts: 2005



Source: Massachusetts Department of Public Health, Center for Health Information, Statistics, Research, and Evaluation

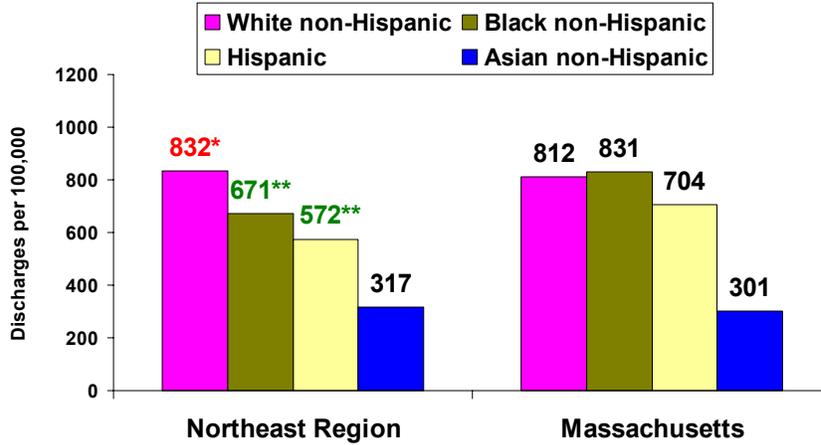
Injury-Related Hospital Discharge Rates by EOHHS Region Massachusetts: 2003-2005



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: Division of Health Care Finance and Policy. Calendar Year 2003- 2005. Hospital Discharges

Injury-Related Hospital Discharge Rates by Race/Ethnicity, Northeast Region & Massachusetts: 2003-2005

118

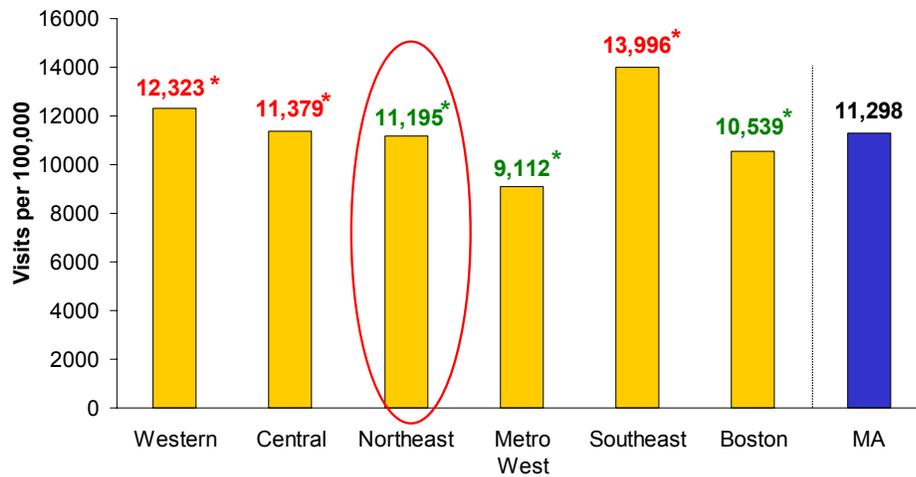


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2003- 2005. Hospital Discharges

Emergency Department Visit Rates for Injuries & Poisonings by EOHHS Region Massachusetts: 2003-2005

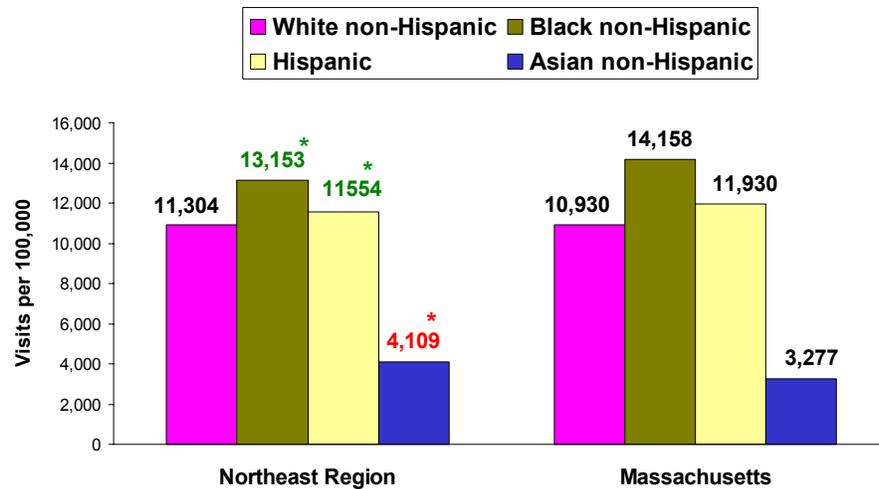
119



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2003- 2005. Emergency Department Visits

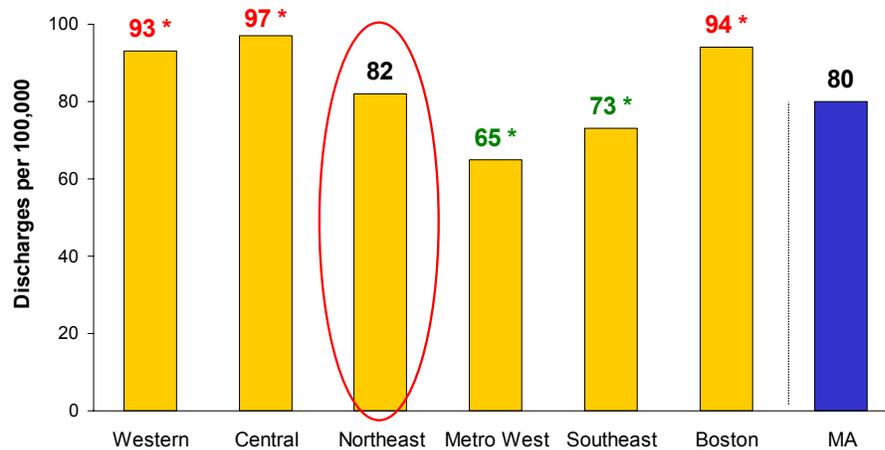
Emergency Department Visit Rates for Injuries & Poisonings by Race/Ethnicity Northeast Region and Massachusetts: 2003-2005 ¹²⁰



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2003- 2005. Emergency Department Visits

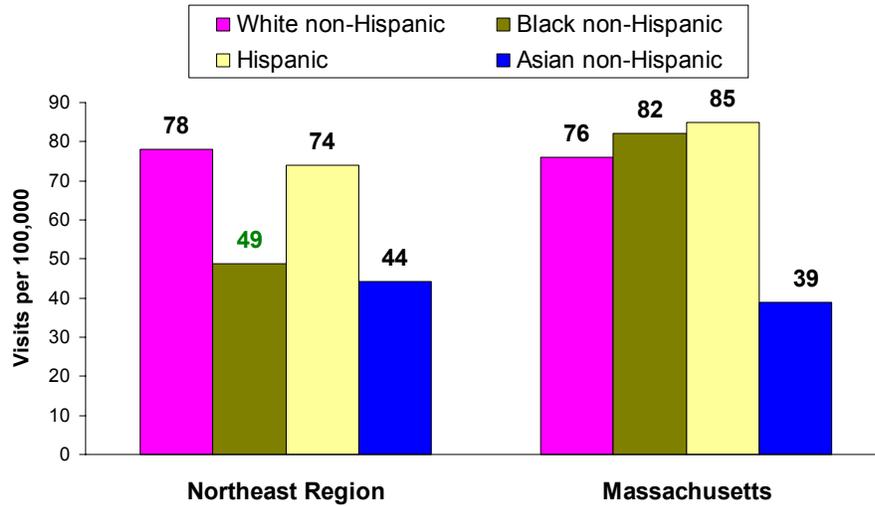
Hospital Discharge Rates for Traumatic Brain Injuries by EOHHS Region Massachusetts: 2003-2005 ¹²¹



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.

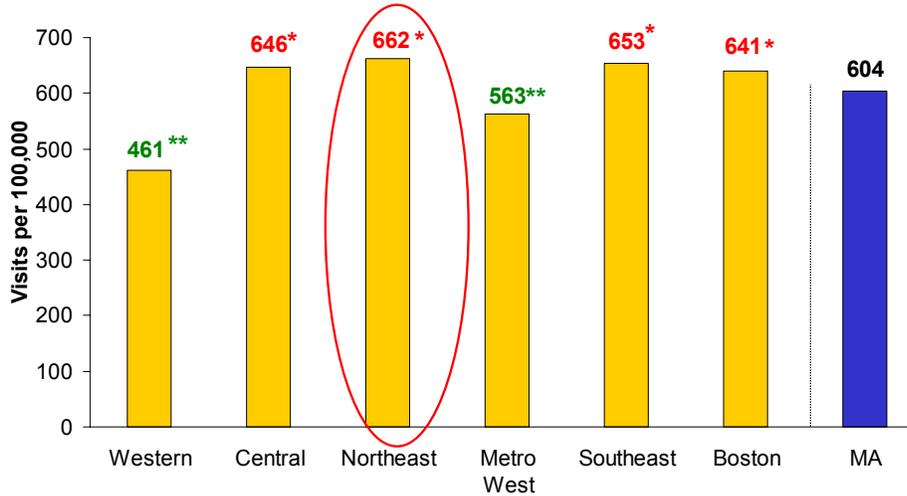
Source: Division of Health Care Finance and Policy. Calendar Year 2003- 2005. Hospital Discharges

Hospital Discharge Rates for Traumatic Brain Injury by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005 ¹²²



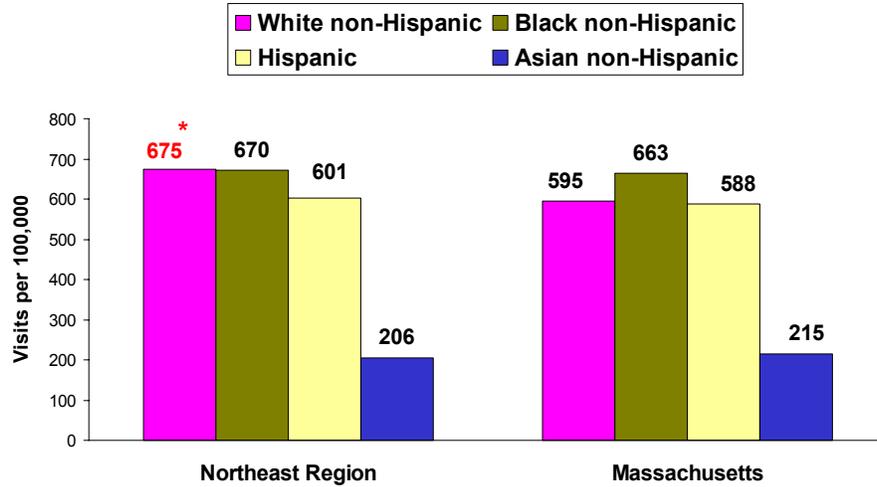
Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: Division of Health Care Finance and Policy. Calendar Year 2003- 2005. Hospital Discharges

Emergency Department Visit Rates for Traumatic Brain Injury by EOHHS Region Massachusetts: 2003-2005 ¹²³



Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: Division of Health Care Finance and Policy. Calendar Year 2005. Emergency Visits

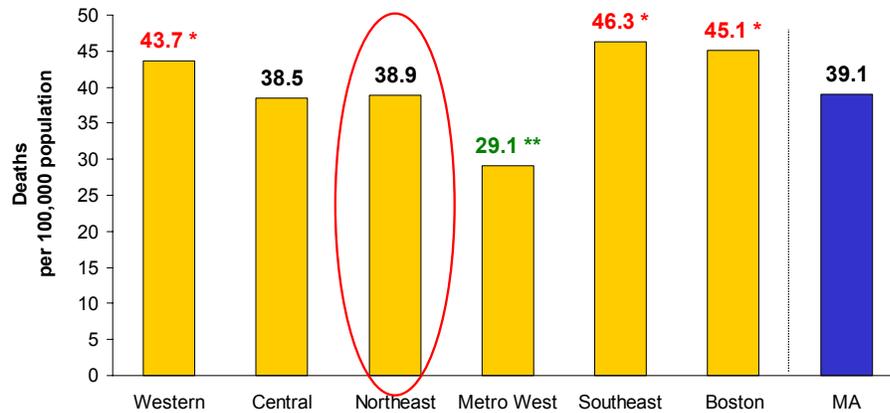
Emergency Department Visit Rates for Traumatic¹²⁴ Brain Injury by Race/Ethnicity Northeast Region and Massachusetts: 2003-2005



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: Division of Health Care Finance and Policy. Calendar Year 2005. Emergency Visits

Injury Death Rates by EOHHS Region Massachusetts: 2003-2005

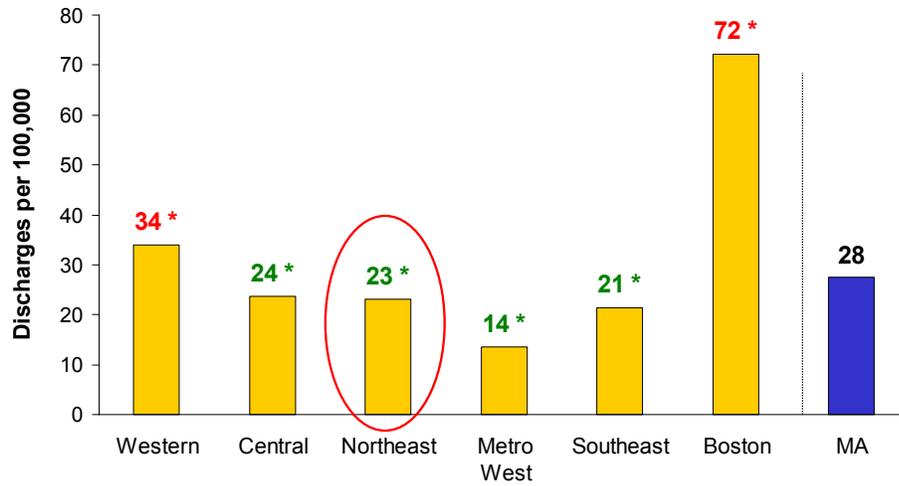
125



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Hospital Discharge Rates for Assaults by EOHHS Region Massachusetts: 2003-2005

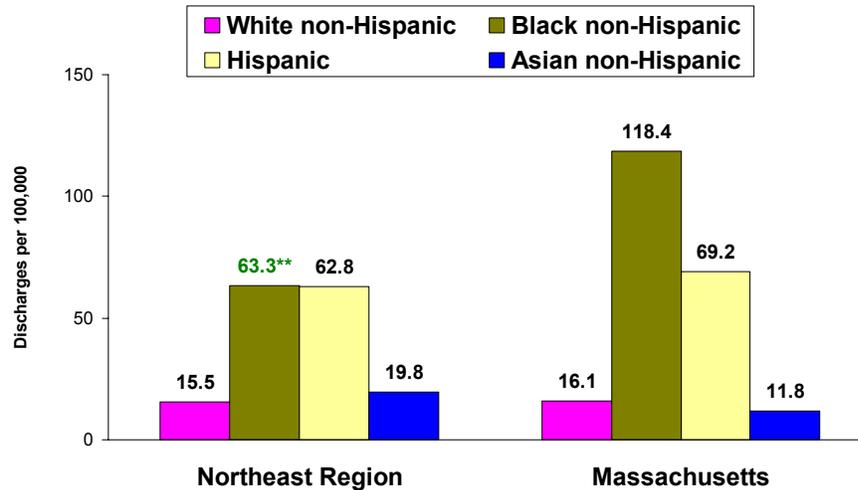
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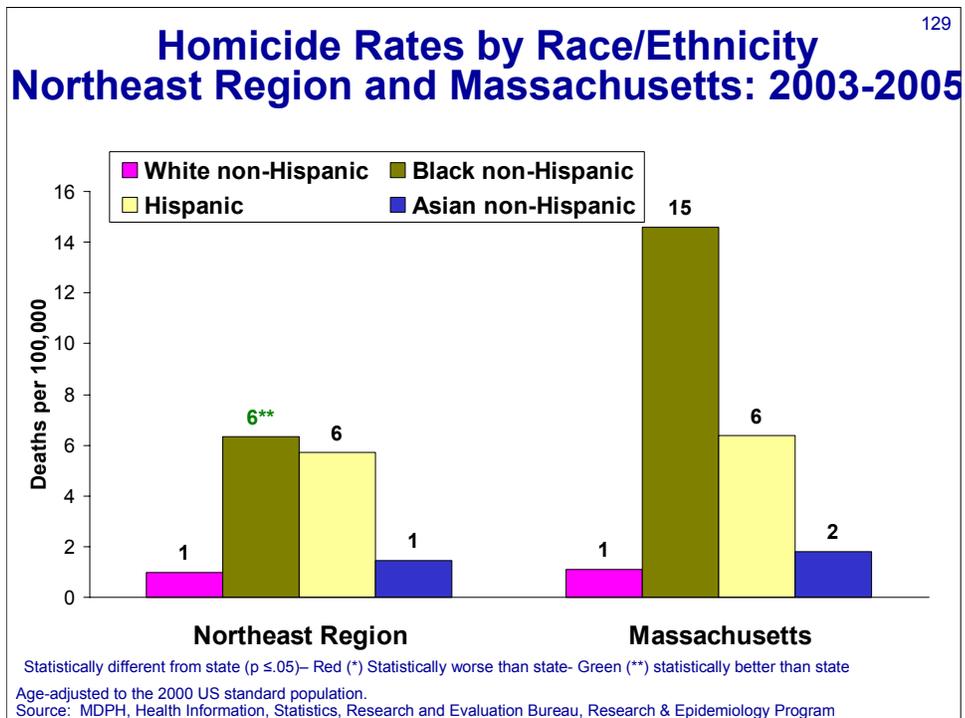
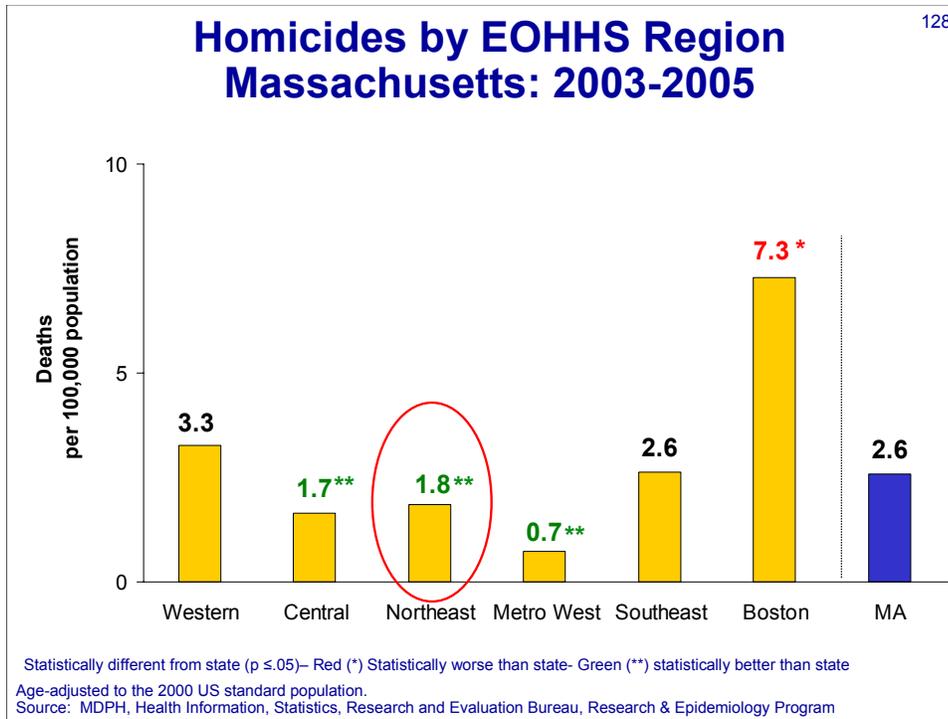
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Hospital Discharge Rates for Assaults by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005

127

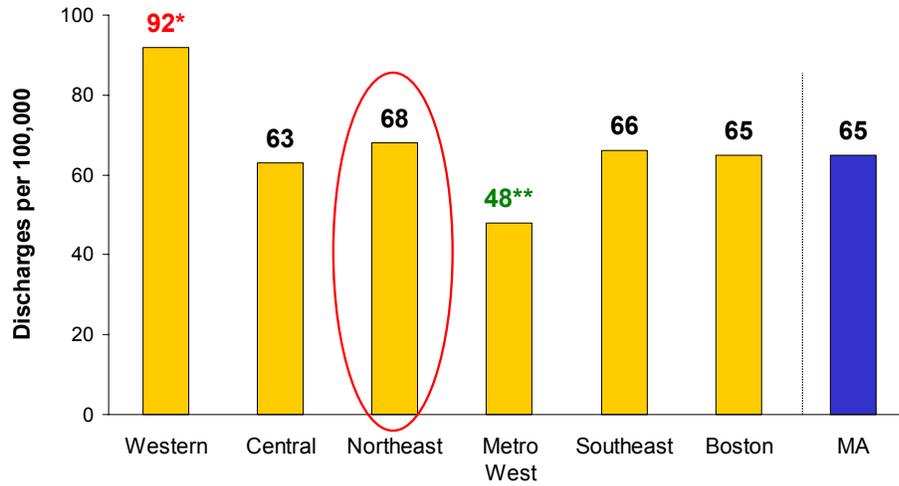


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program



Hospital Discharge Rates for Self-Inflicted Injury by EOHHS Region Massachusetts: 2003-2005

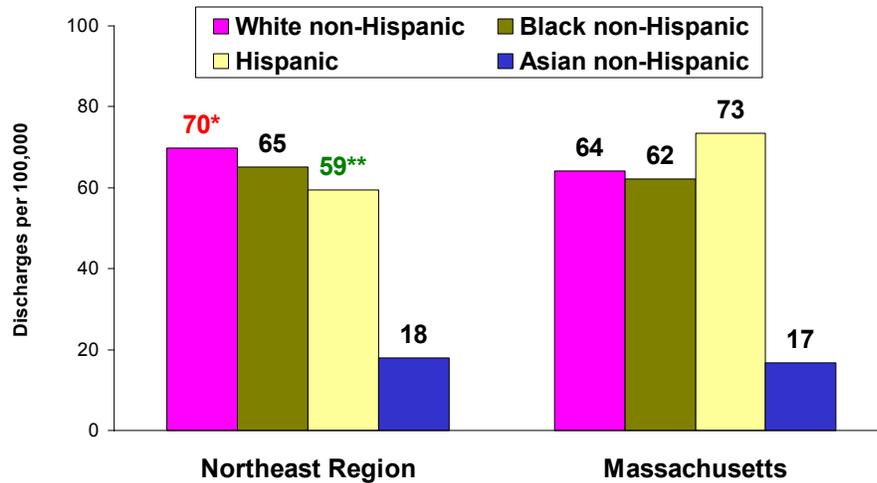
130



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

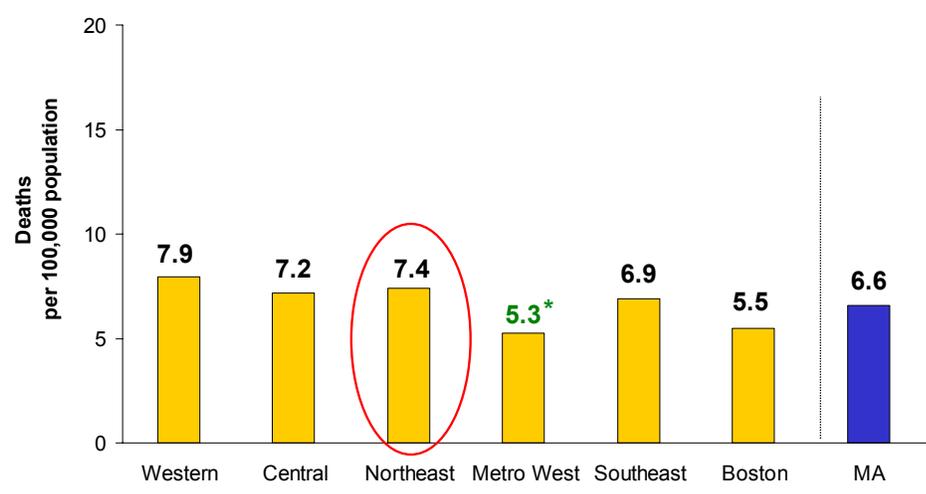
Hospital Discharge Rates for Self-Inflicted Injuries by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005

131



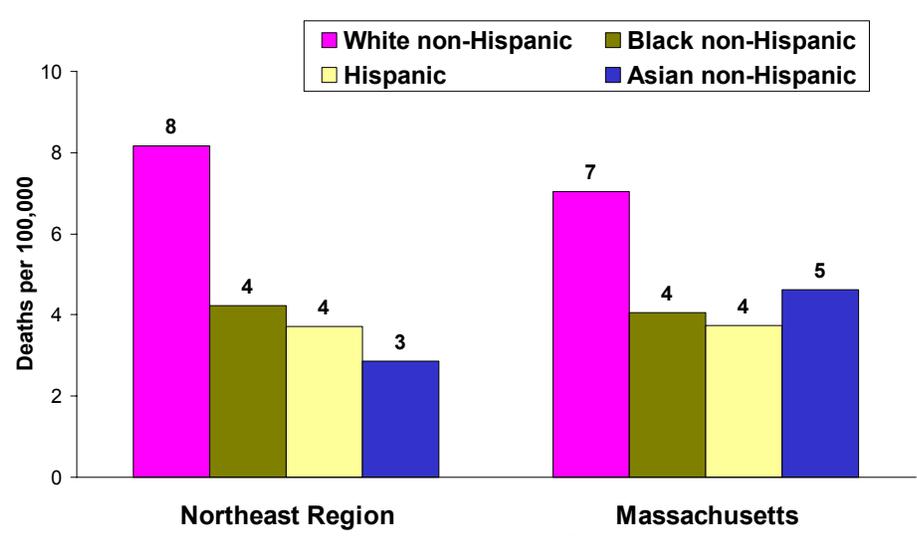
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Suicides by EOHHS Region Massachusetts: 2003-2005



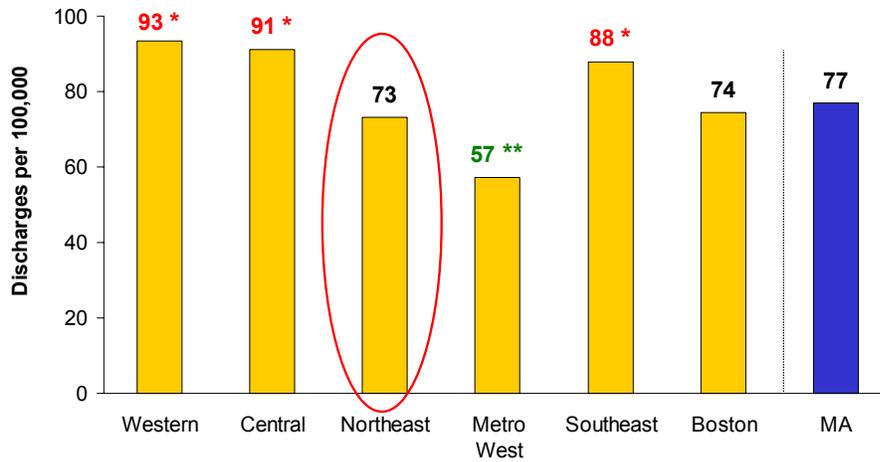
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Suicide Rates by Race/Ethnicity Northeast Region and Massachusetts: 2003-2005



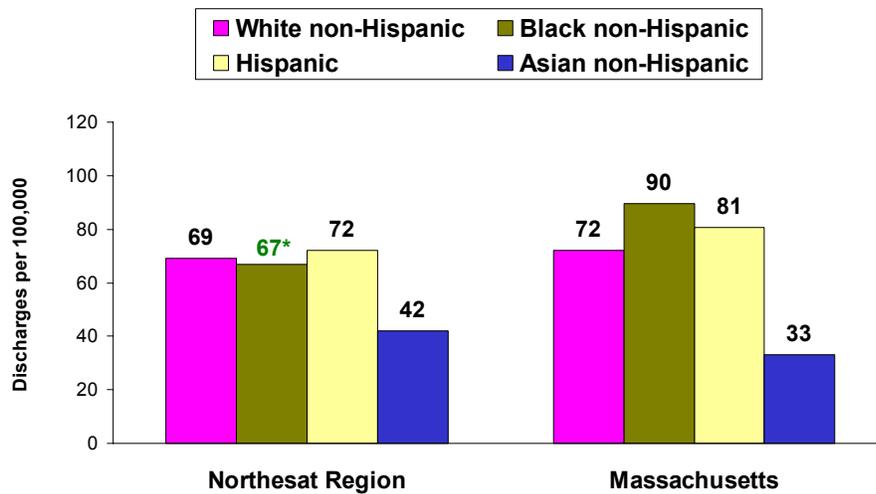
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Hospital Discharge Rates for Motor Vehicle-related Injuries by EOHHS Region Massachusetts: 2003-2005 134

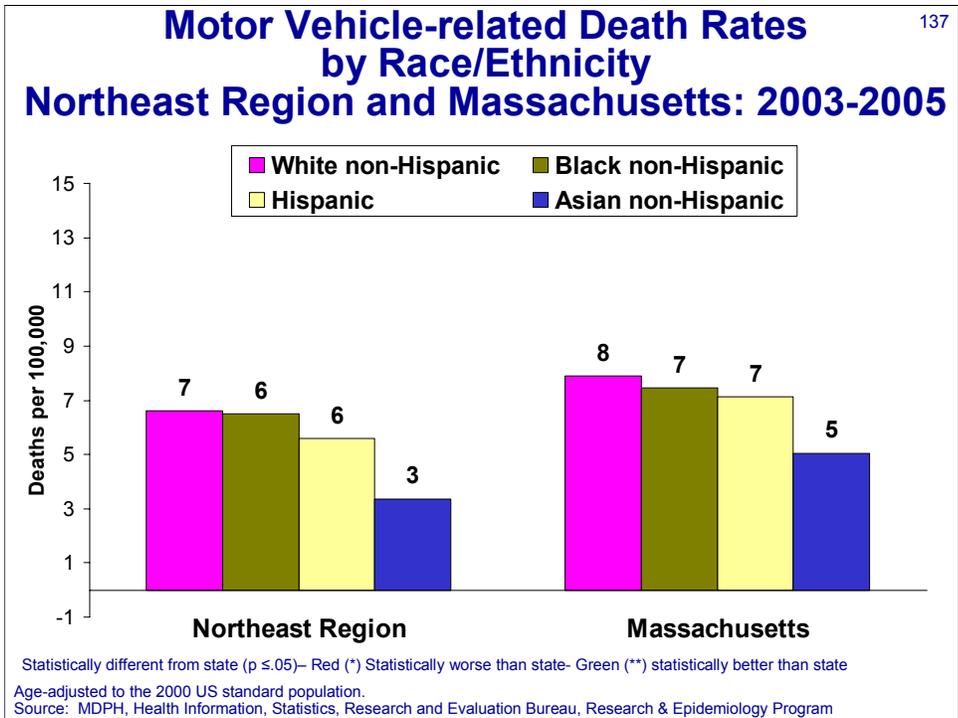
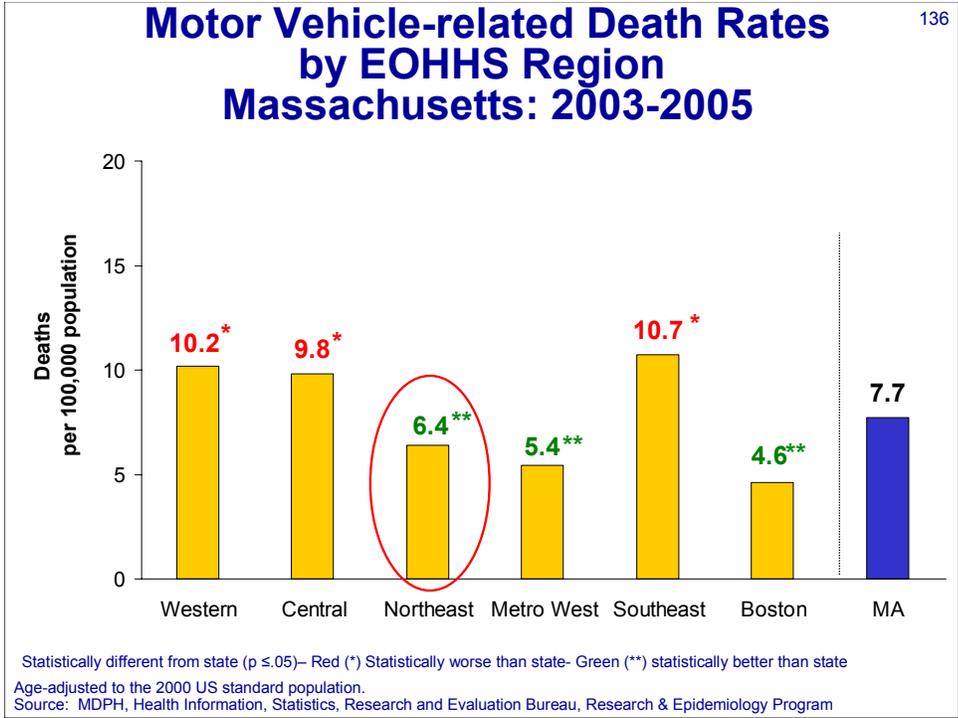


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Hospital Discharge Rates for Motor Vehicle-related Injuries by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005 135

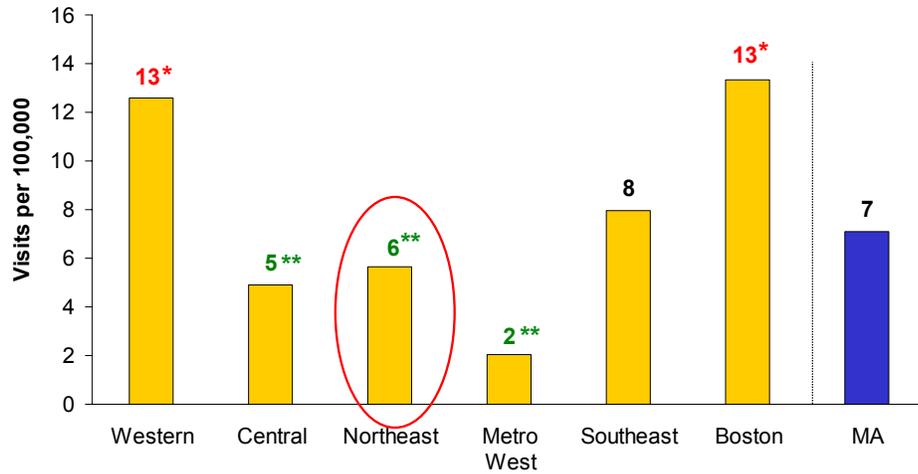


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program



Emergency Department Visit Rates for Firearm Injuries by EOHHS Region Massachusetts: 2003-2005

138



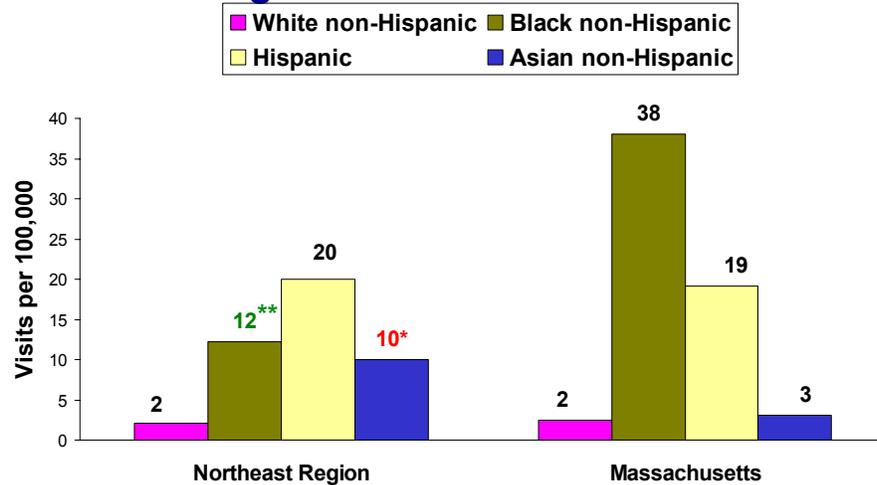
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2003-2005. Emergency Visits

Emergency Department Visit Rates for Firearm Injuries by Race/Ethnicity Northeast Region and Massachusetts: 2003-2005

139



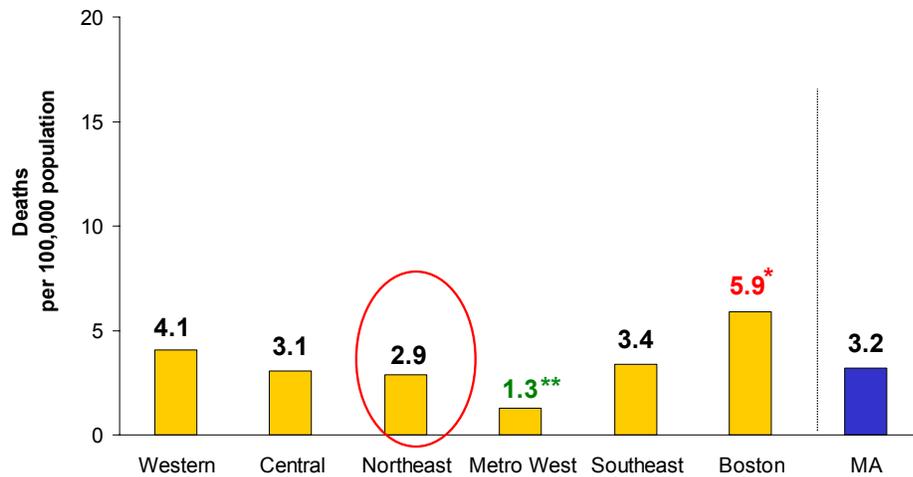
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2003-2005. Emergency Visits

Firearm Death Rates by EOHHS Region Massachusetts: 2003-2005

140



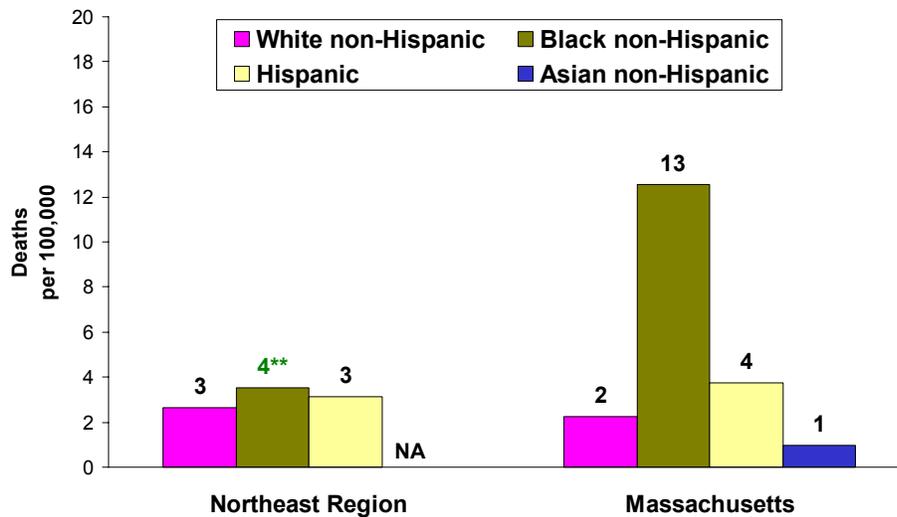
Statistically different from state ($p \leq .05$) – Red (*) Statistically worse than state- Green (**) statistically better than state

Age-adjusted to the 2000 US standard population.

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Firearm Death Rates by Race/Ethnicity Northeast Region and Massachusetts: 2003-2005

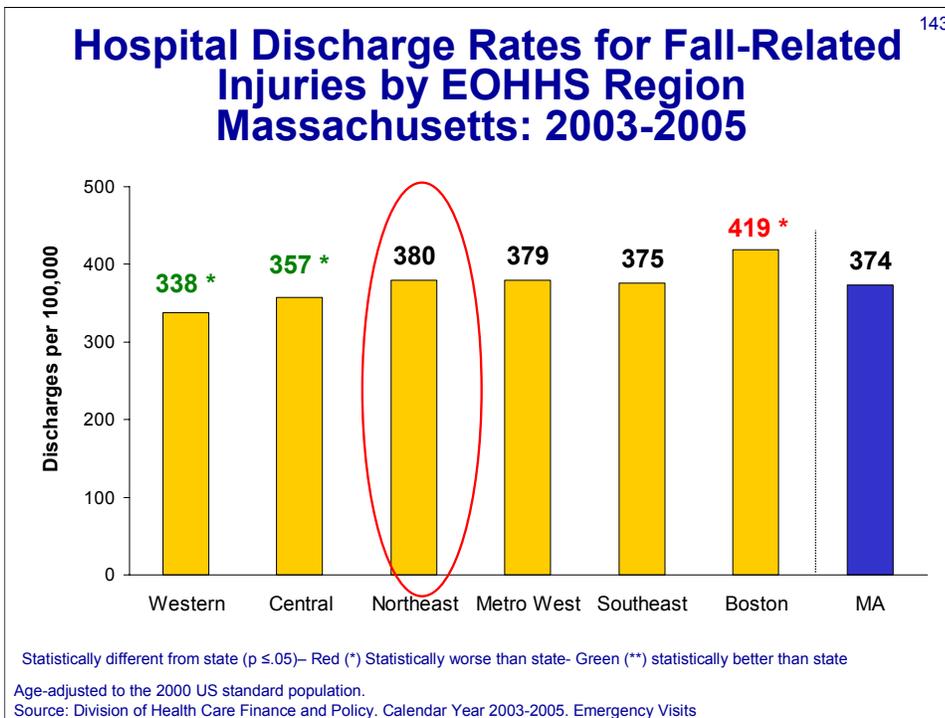
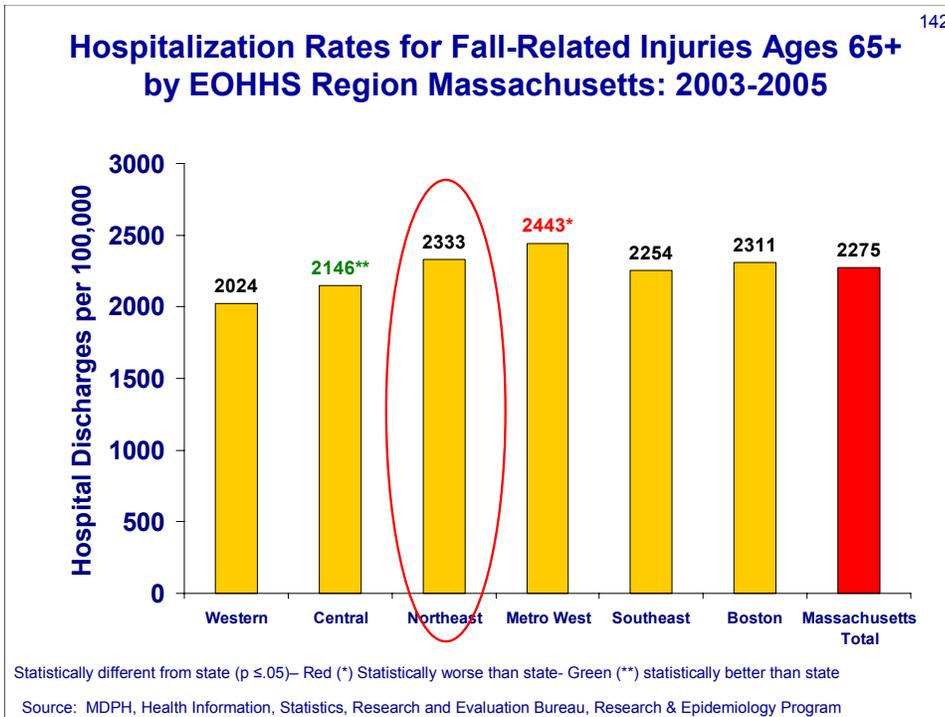
141



Age-adjusted to the 2000 US standard population.

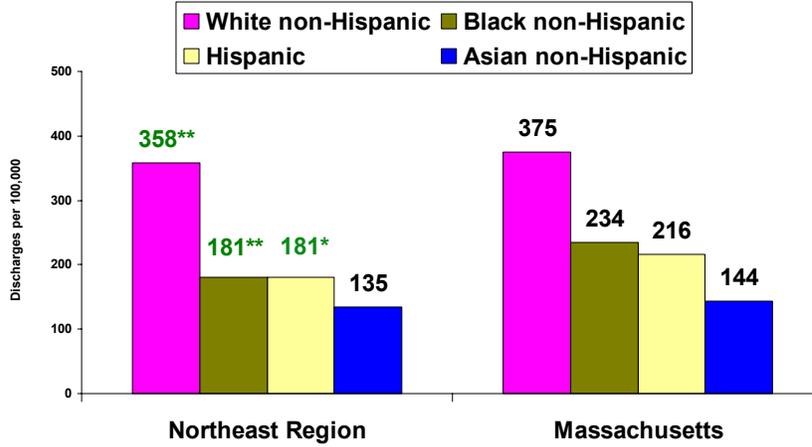
* Statistically Significant different from state ($p \leq .05$)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program



Hospital Discharge Rates for Fall-Related Injuries by Race/Ethnicity, Northeast Region and Massachusetts: 2003-2005

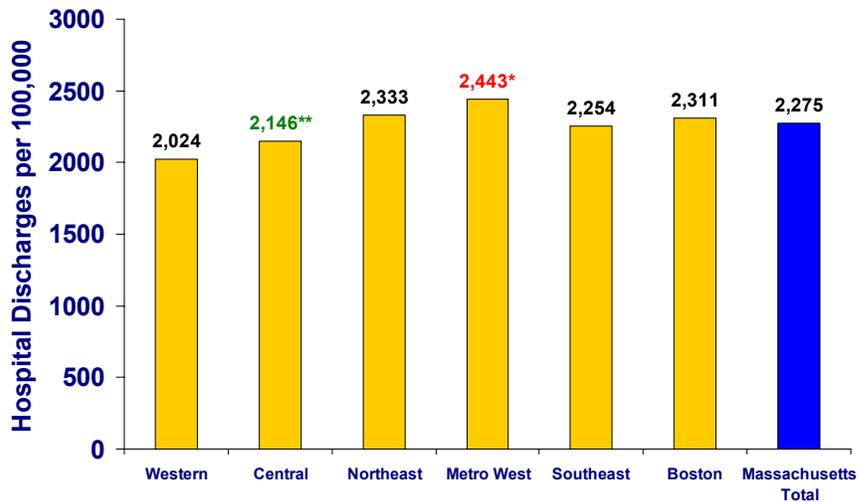
144



Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state
 Age-adjusted to the 2000 US standard population.
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

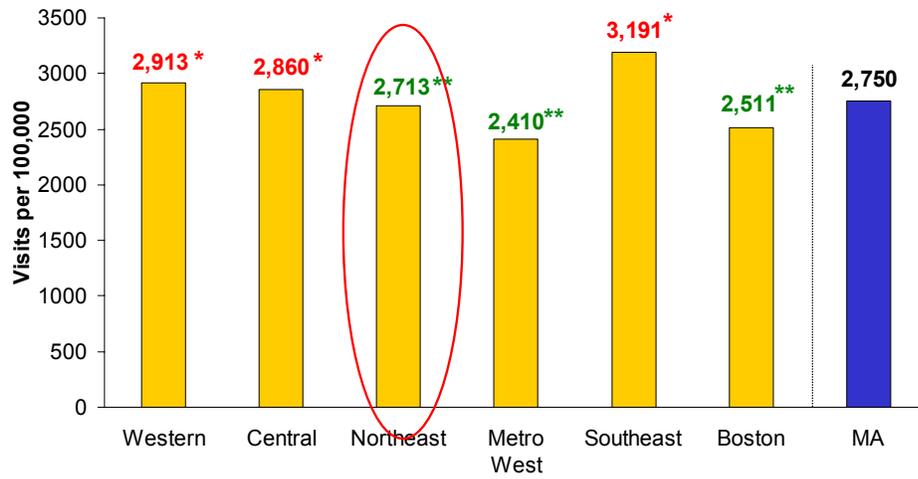
Hospitalization Rates for Fall-Related Injuries Ages 65+ by EOHHS Region Massachusetts: 2003-2005

145



Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Emergency Department Visit Rates for Fall-¹⁴⁶ Related Injuries by EOHHS Region Massachusetts: 2003-2005

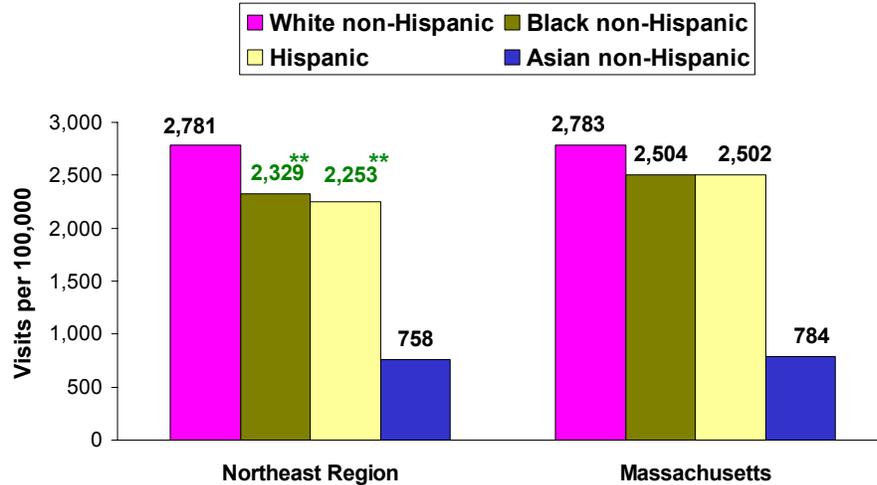


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2005. Emergency Visits

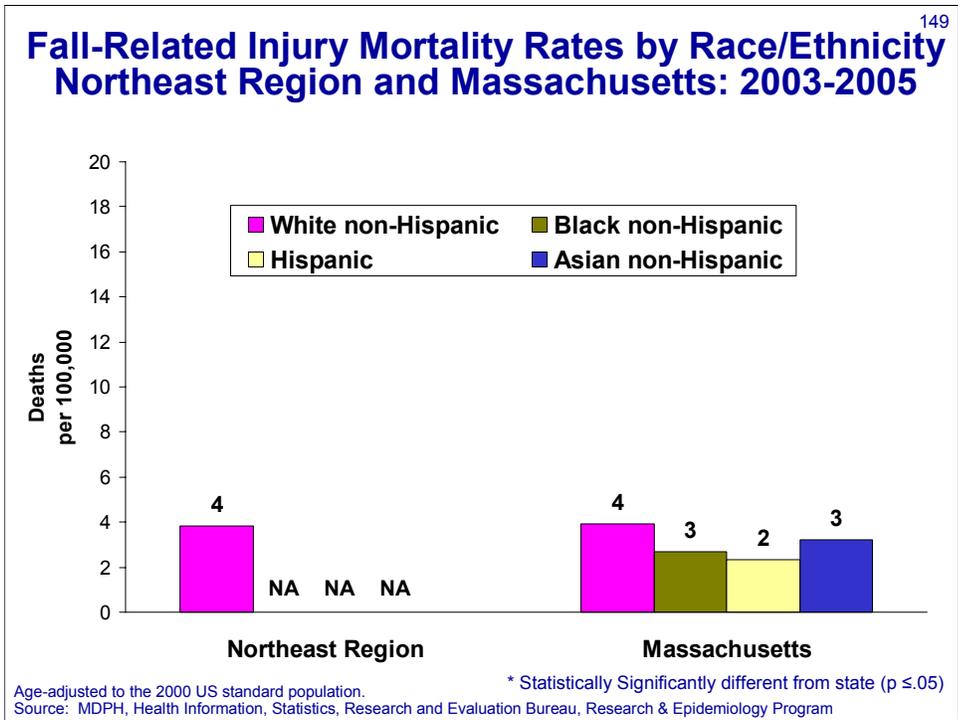
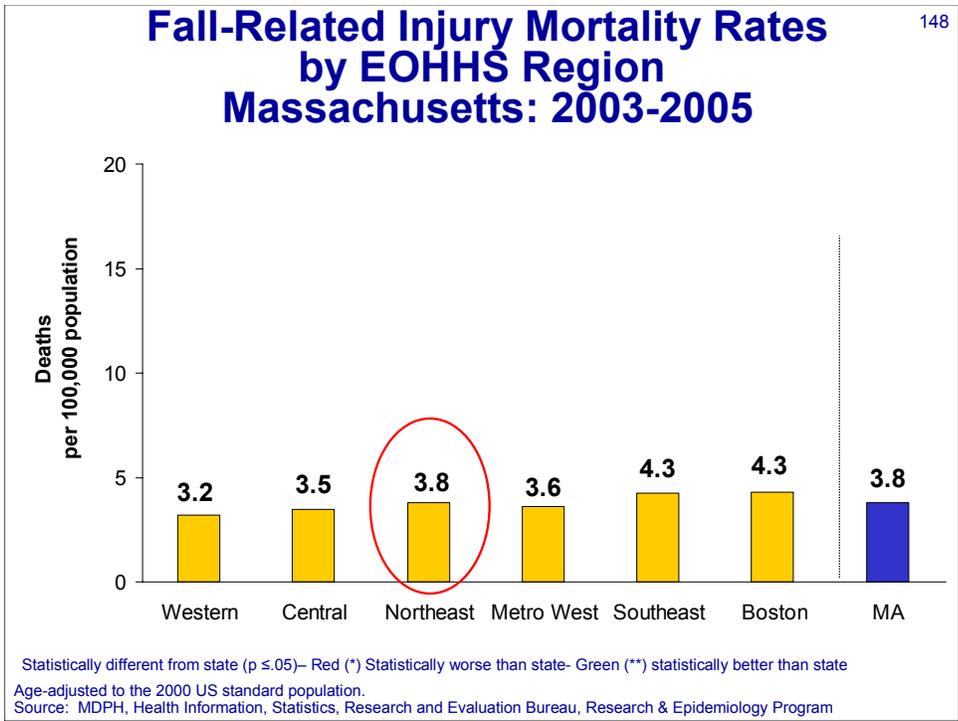
Emergency Department Visit Rates for Fall-¹⁴⁷ Related Injuries by Race/Ethnicity Northeast Region and Massachusetts: 2003-2005



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

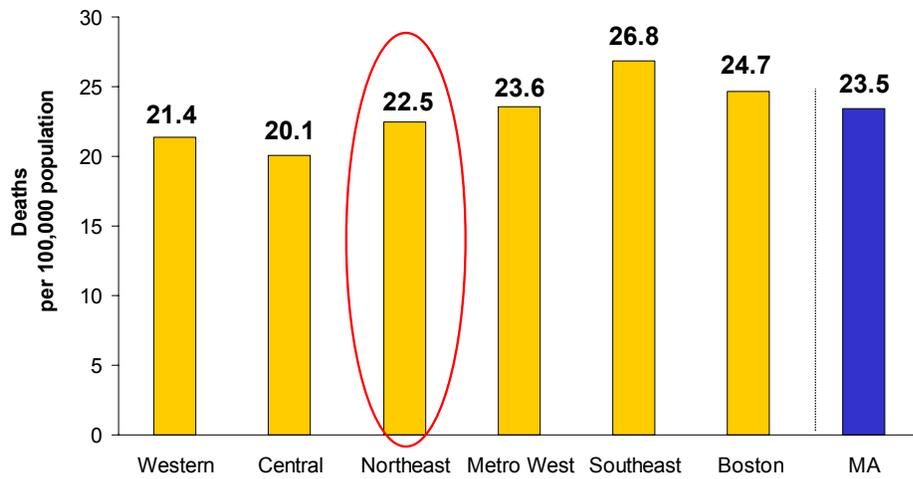
Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2005. Emergency Visits



Fall-related Injury Death Rates Persons 65+ Years by EOHHS Region Massachusetts: 2003-2005

150

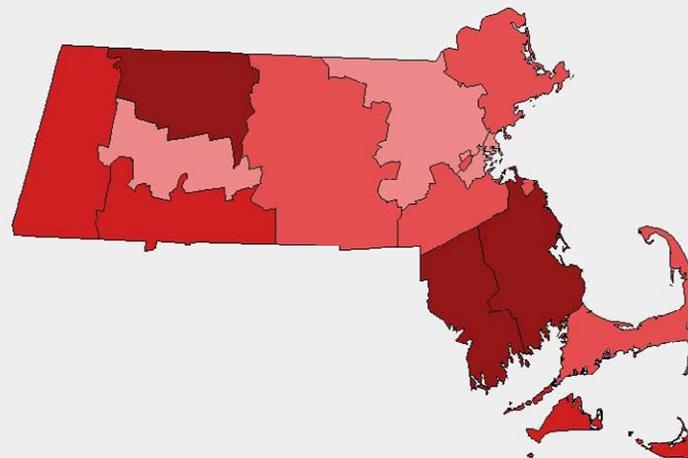


Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state
Age-adjusted to the 2000 US standard population.
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

Work—related Injuries

151

Emergency Department Visits per 100 Full Time Equivalents.
Massachusetts Counties, 2004—2005

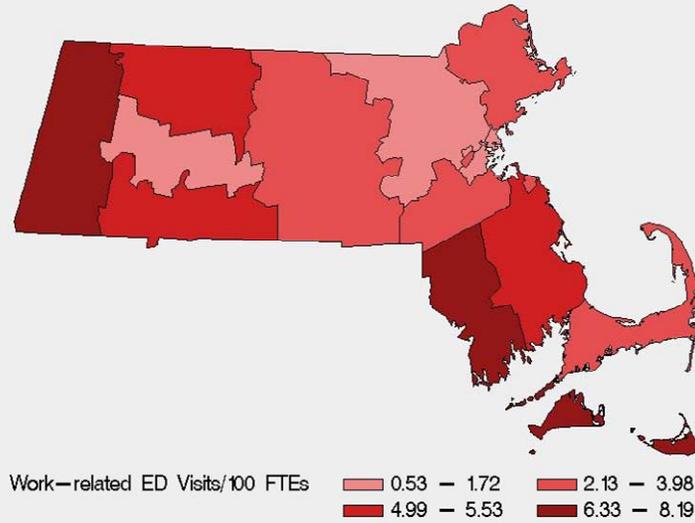


Work—related ED Visits/100 FTEs

100 — 1.45	1.64 — 2.87
2.89 — 3.11	3.51 — 3.93

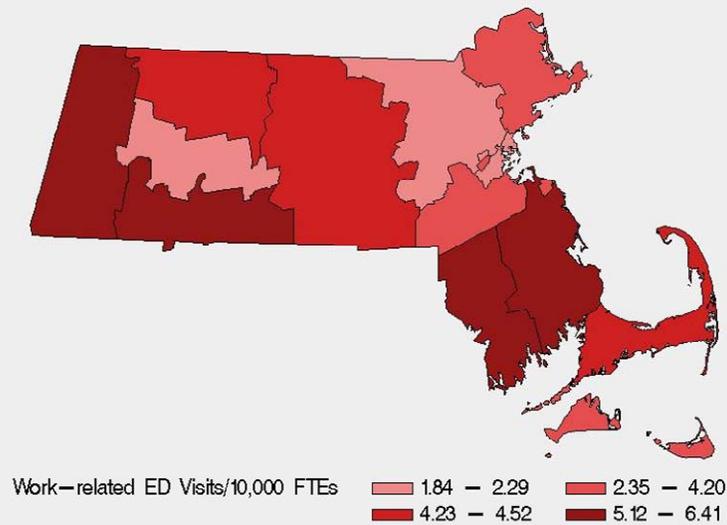
Work—related Injuries among Teens

Emergency Department Visits per 100 Full Time Equivalents
Massachusetts Counties, 2004—2005



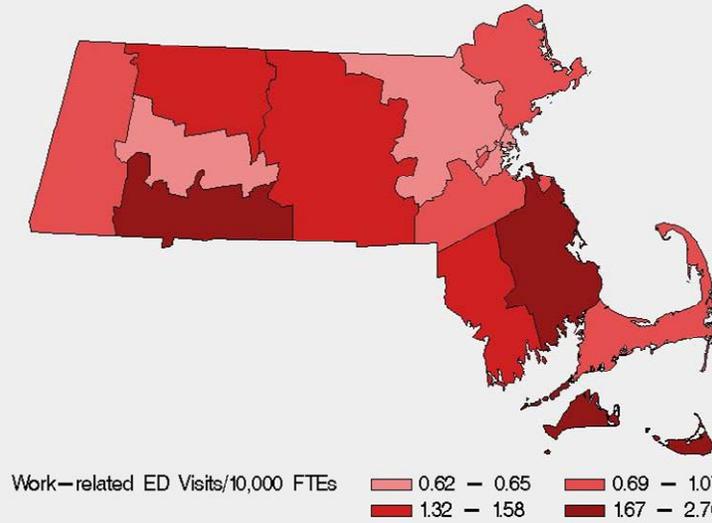
Work—related Burn Injuries

Emergency Department Visits per 10,000 Full Time Equivalents
Massachusetts Counties, 2004—2005



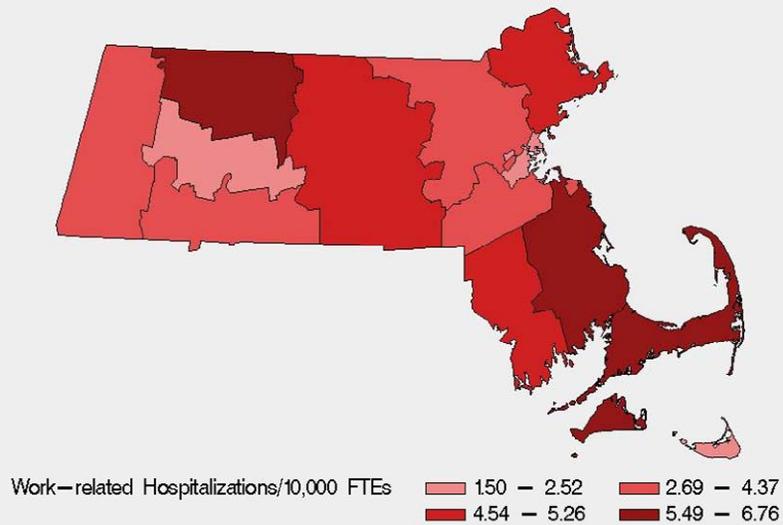
Work-related Amputations

Emergency Department Visits per 10,000 Full Time Equivalents
Massachusetts Counties, 2004–2005

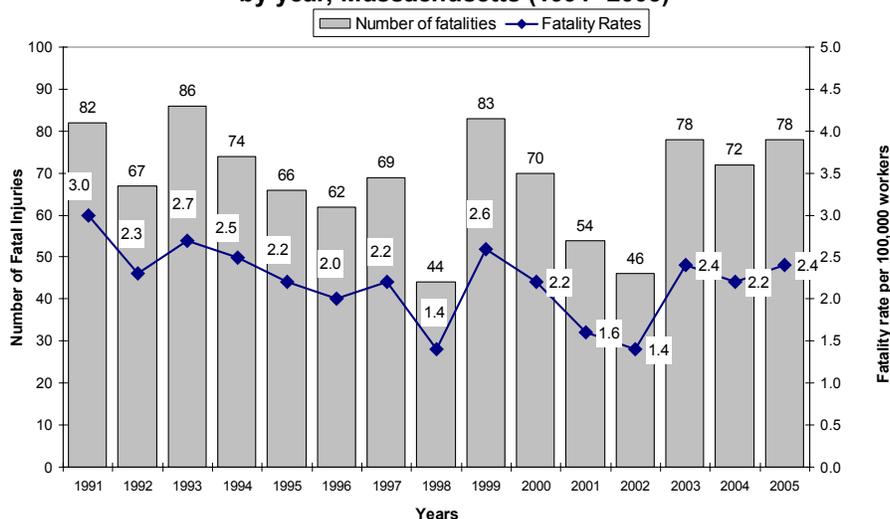


Work-related Injuries

Hospitalizations per 10,000 Full Time Equivalents.
Massachusetts Counties, 2004–2005



Number and Rate of Fatal Occupational Injuries by year, Massachusetts (1991- 2005)



Data Source: Census of Fatal Occupational Injuries (CFOI) 1991-2005, Occupational Health Surveillance Program, MA Dept. of Public Health. MA employment data from BLS Current Population Survey (1991 - 2005) was used to calculate rates.

Summary Injury/Violence Hospitalization Indicators by EOHHS Regions, Massachusetts: 2003-2005

Hospital Discharge Indicator Rates (age-adjusted)	MA Total	Western	Central	Northeast	Metro West	South East	Boston
All Injuries	836	872	830	836	753	859	966
Fall-related injury hospitalizations	374	338	357	380	379	375	419
Traumatic Brain Injuries	80	93	97	82	65	73	94
Motor vehicle-related	77	93	91	73	57	88	74
Self-Inflicted	65	92	63	68	48	66	65
Assault	28	34	24	23	14	21	72

Better Outcome (significantly different from state) Worse Outcome (significantly different from state)

Age-adjusted to the 2000 US standard population.
Source: Division of Health Care Finance and Policy. Calendar Year 2003-2005. Hospital Discharges

Summary Injury/Violence Emergency Department Indicators by EOHHS Regions, Massachusetts: 2003-2005

158

Indicator Age-adjusted Rate per 100,00	MA Total	Western	Central	Northeast	Metro West	South East	Boston
ER Visit Rate for all Injuries	11,298	12,323	11,379	11,195	9,112	13,996	10,539
ER Visit Rate for Traumatic Brain Injury	604	461	646	662	563	653	640
ER Visit Rate for Firearm	7	13	5	6	2	8	13
ER Visit Rate for Fall-related injuries	2,750	2,913	2,860	2,713	2,410	3,191	2,511

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

Source: Division of Health Care Finance and Policy, Calendar Year 2003-2005. Emergency Department Visits

Summary Injury/Violence Mortality Indicators by EOHHS Regions, Massachusetts: 2003-2005

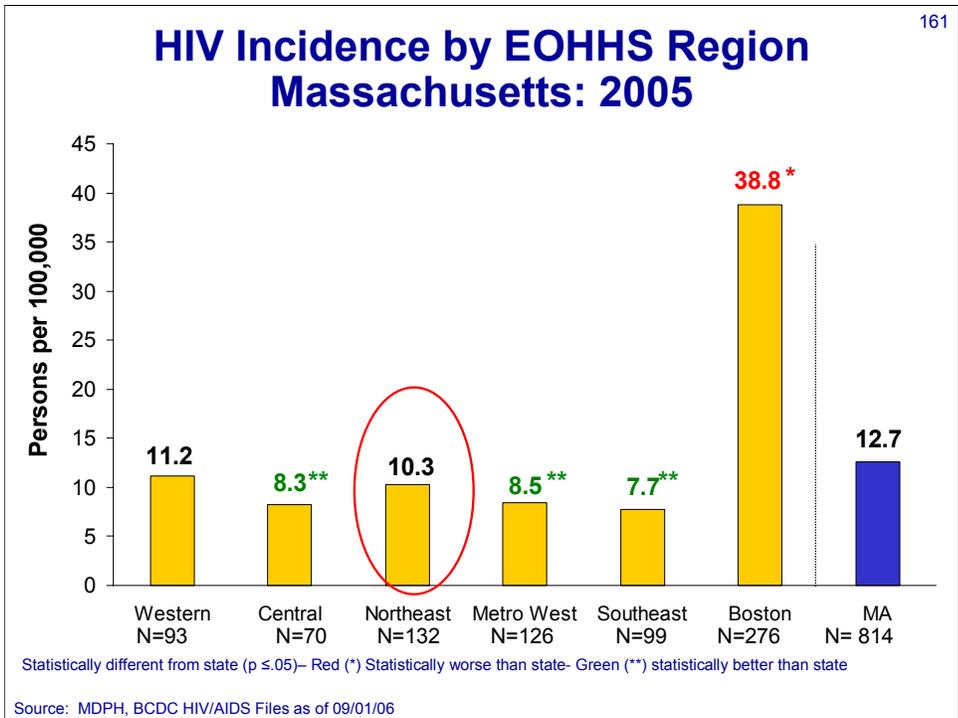
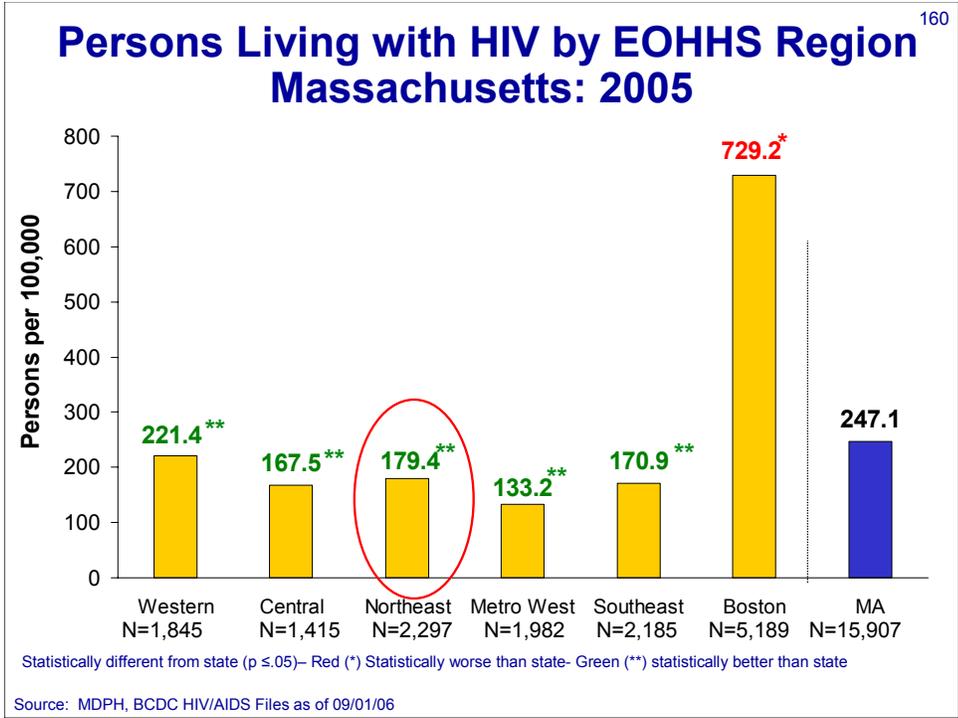
159

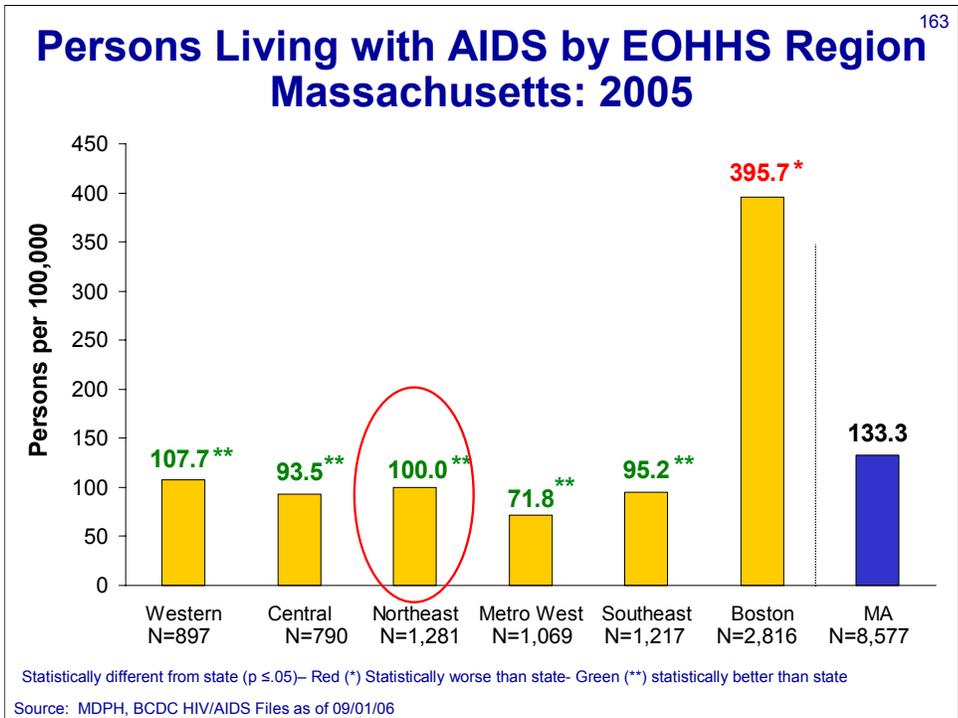
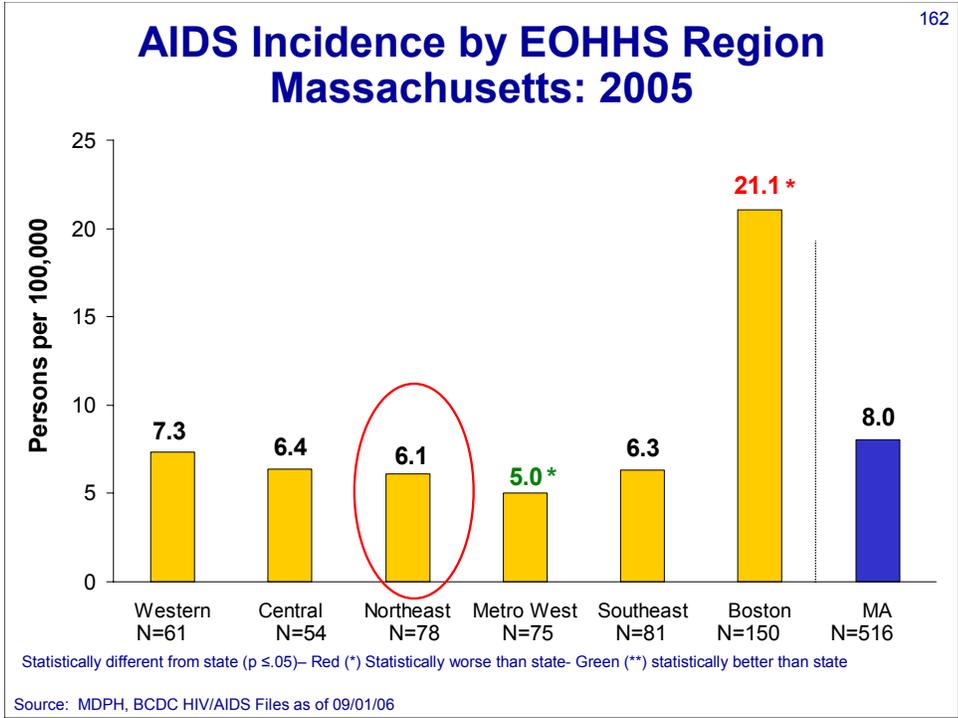
Mortality Indicator Age-adjusted Rate per 100,000	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Homicide Death Rate	2.6	3.3	1.7	1.8	0.7	2.6	7.3
Suicide Death Rate	6.6	7.9	7.2	7.4	5.3	6.9	5.5
Motor Vehicle- related Death Rate	7.7	10.2	9.8	6.4	5.4	10.7	4.6
Firearm Death Rate	3.2	4.1	3.1	2.9	1.3	3.4	5.9
Fall-related Injury Death Rate	3.8	3.2	3.5	3.8	3.6	4.3	4.3

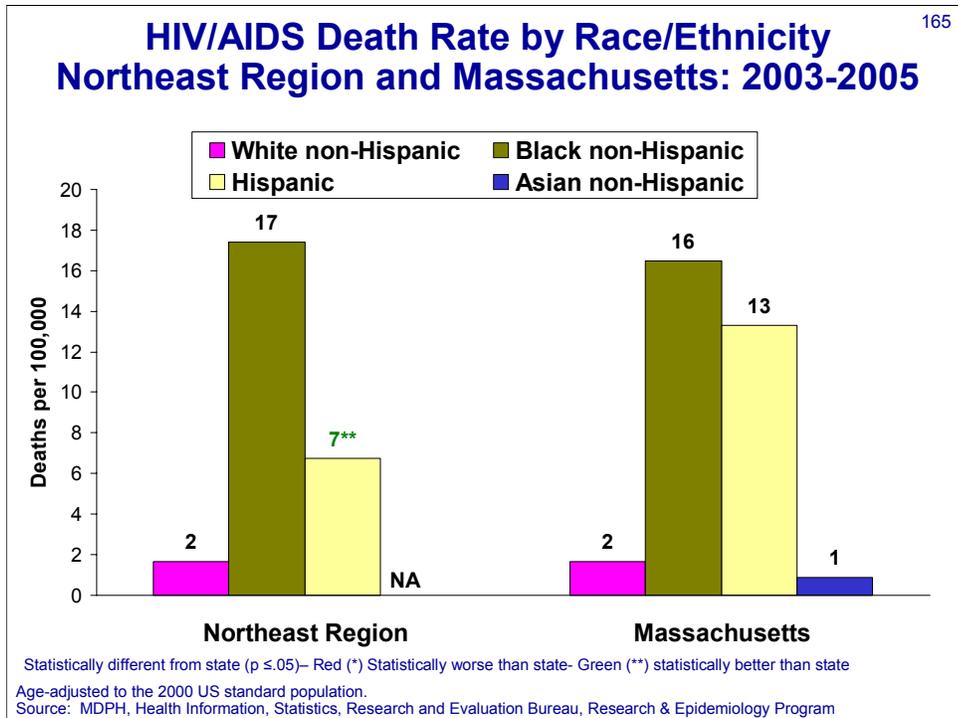
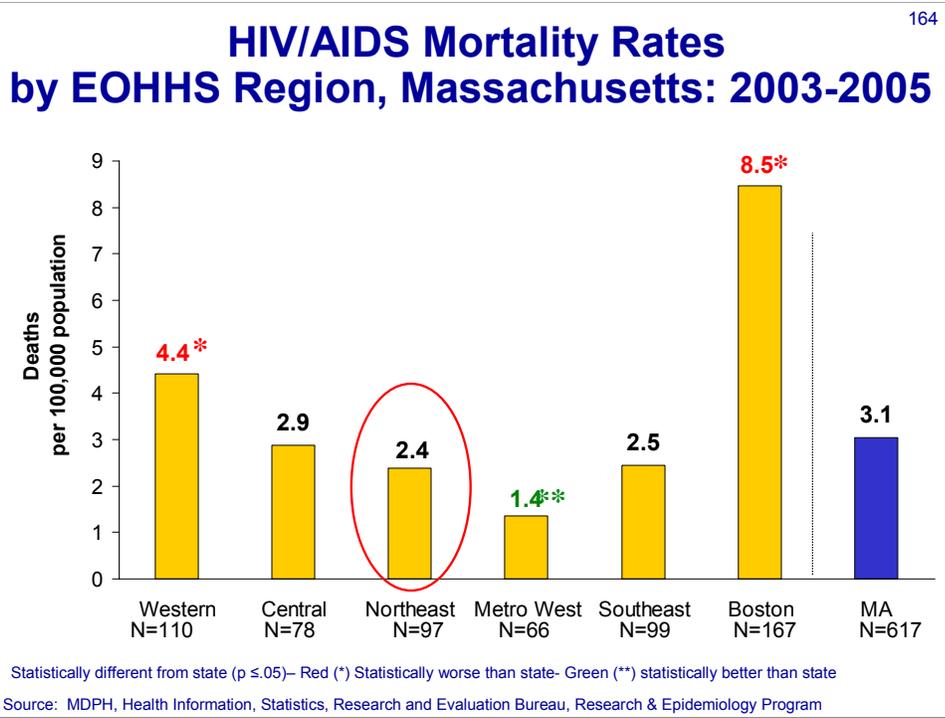
■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

HIV/AIDS







Summary HIV/AIDS Indicators by EOHHS Regions

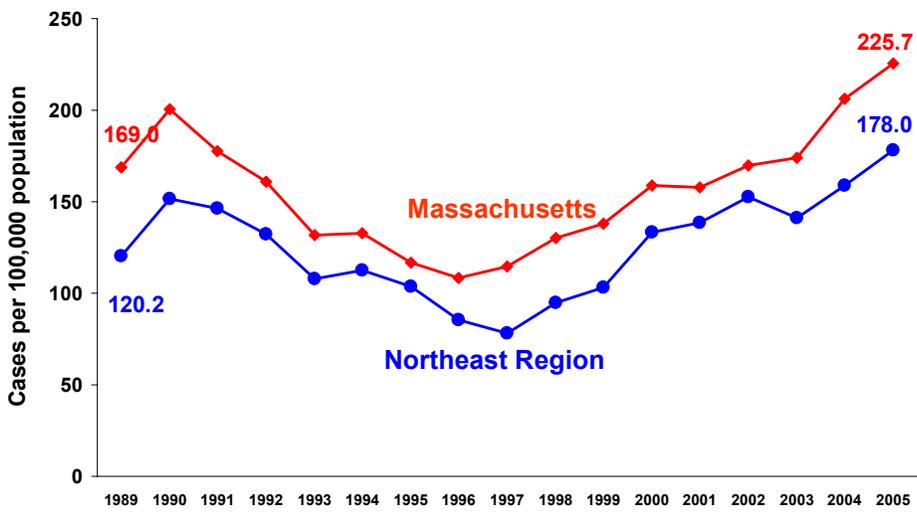
Indicator Crude rate, per 100,000	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Persons living with HIV (2005)	247.1	221.4	167.5	179.4	133.1	170.9	729.2
HIV Incidence(2005)	12.6	11.2	8.3	10.3	8.5	7.7	38.8
Persons living with AIDS (2005)	133.2	107.7	93.5	100.0	71.8	95.2	395.7
AIDS Incidence (2005)	8.0	7.3	6.4	6.1	5.0	6.3	21.1
HIV/AIDS Mortality (2003-2005)	3.1	4.4	2.9	2.4	1.4	2.5	8.5

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

INFECTIOUS DISEASES

Chlamydia Incidence Northeast Region and Massachusetts: 1989-2005

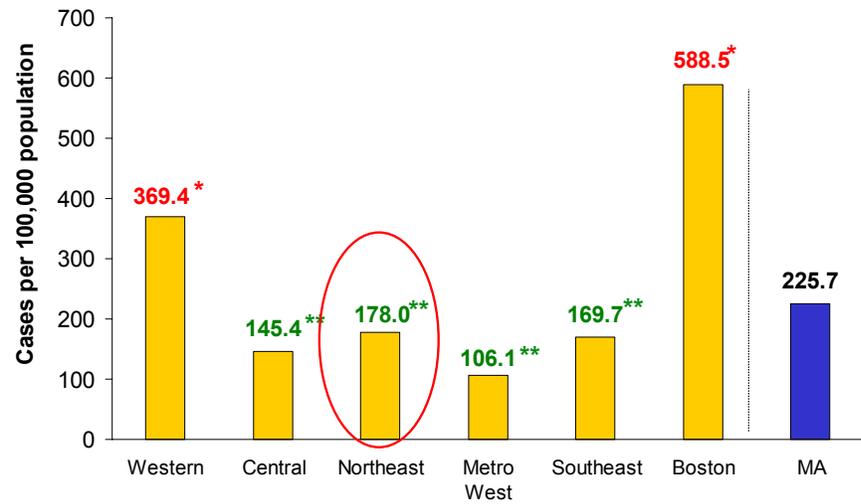
167



Source: MDPH, BCDC STD Files

Chlamydia Incidence by EOHHS Region Massachusetts: 2005

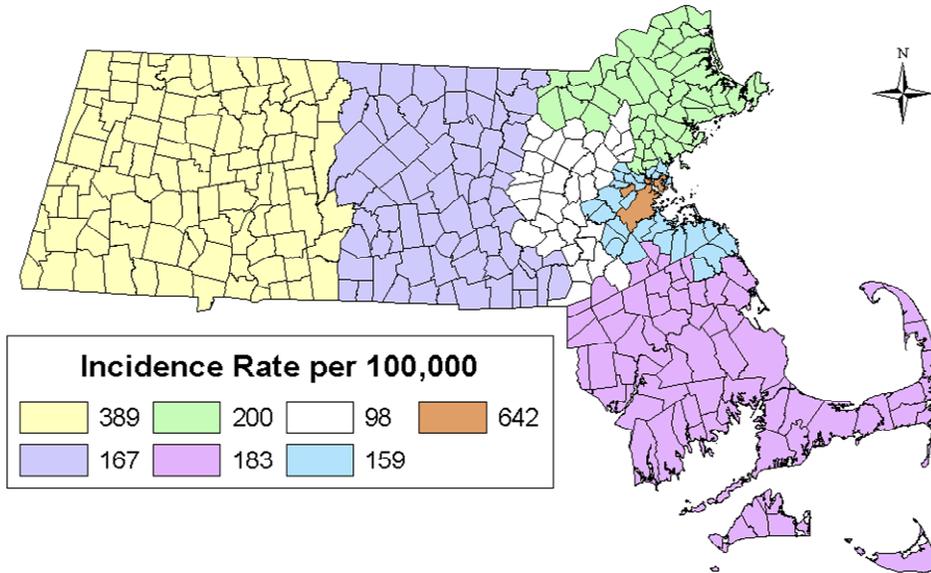
168



Statistically different from state (p ≤ .05)– Red (*) Statistically worse than state- Green (**) statistically better than state

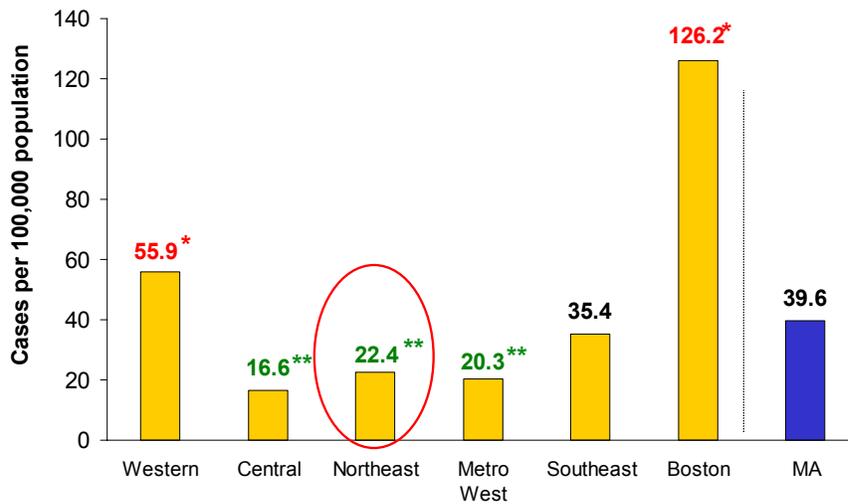
Source: MDPH, BCDC STD Files

Chlamydia Incidence Rate by Emergency Preparation Region, 2006



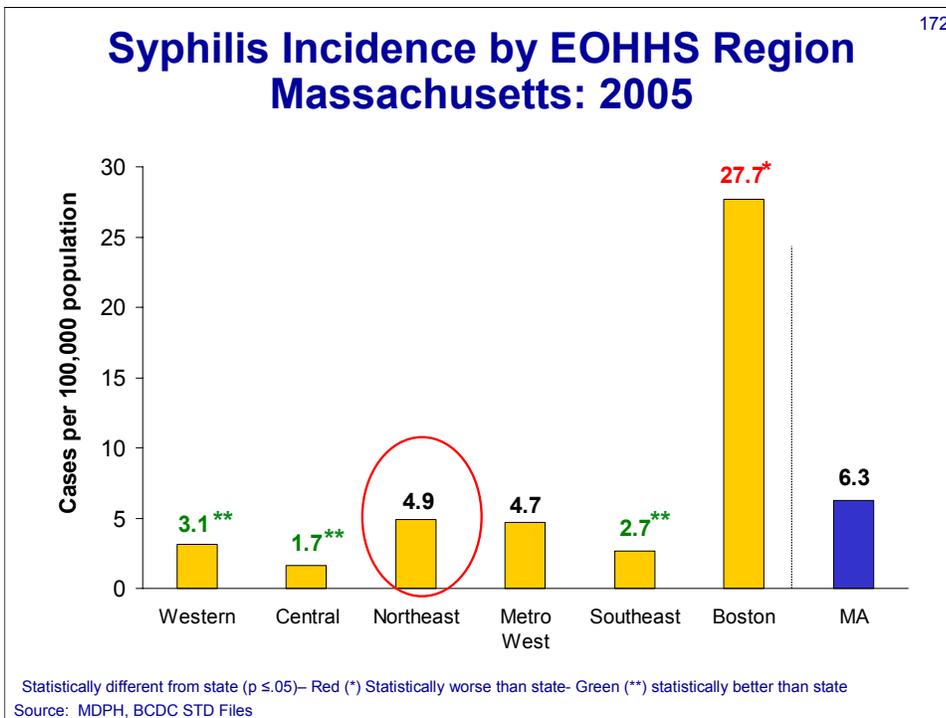
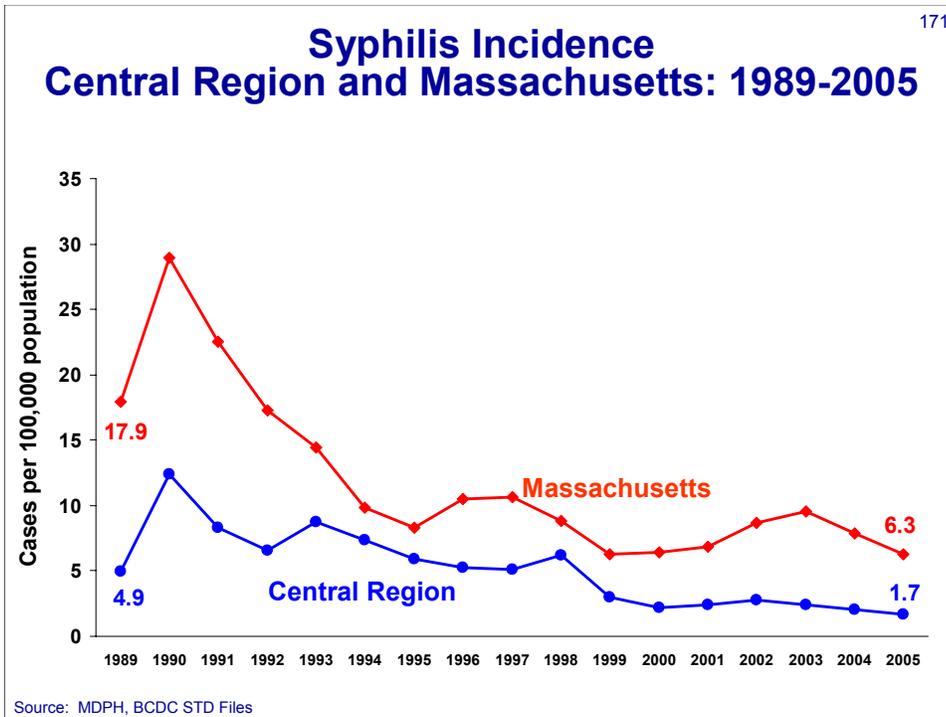
Gonorrhea Incidence by EOHHS Region Massachusetts: 2005

170



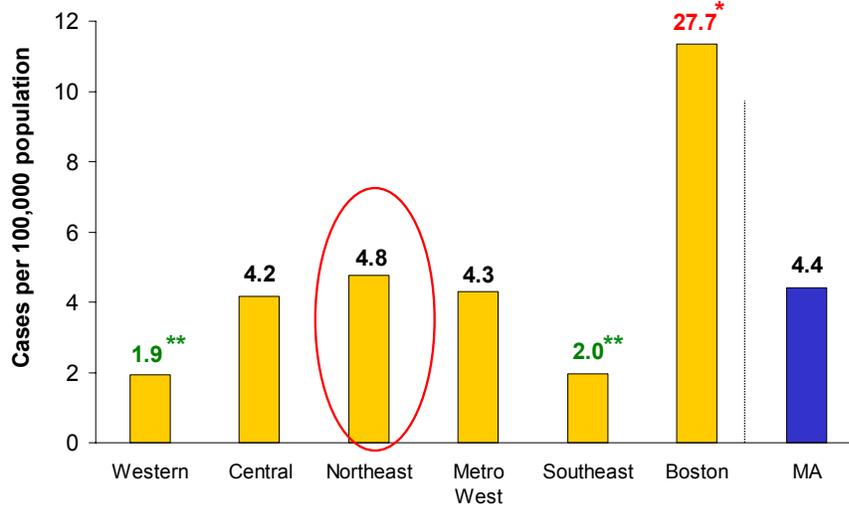
Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state

Source: MDPH, BCDC STD Files



Tuberculosis Incidence by EOHHS Region Massachusetts: 2004

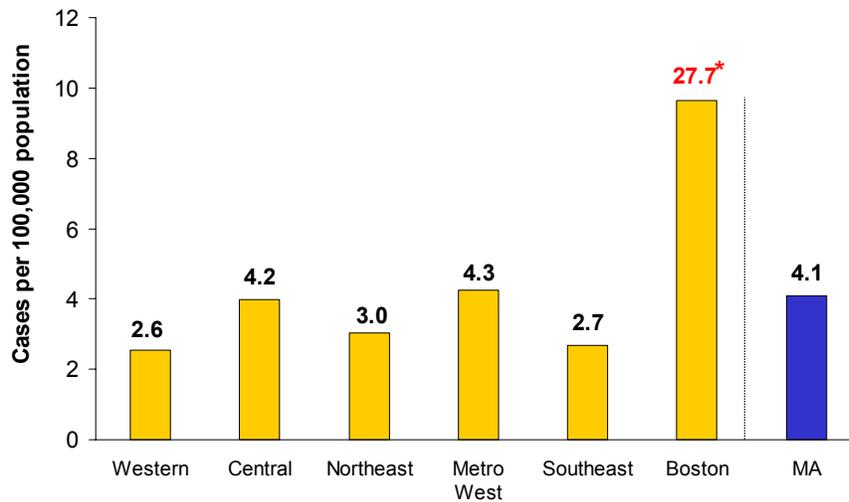
173



Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state
Source: MDPH Bureau of Communicable Disease Control, ISIS

Tuberculosis Incidence by EOHHS Region Massachusetts: 2006

174



Statistically different from State ($p \leq .05$) Red (*) = Statistically worse; Green (**) = Statistically better

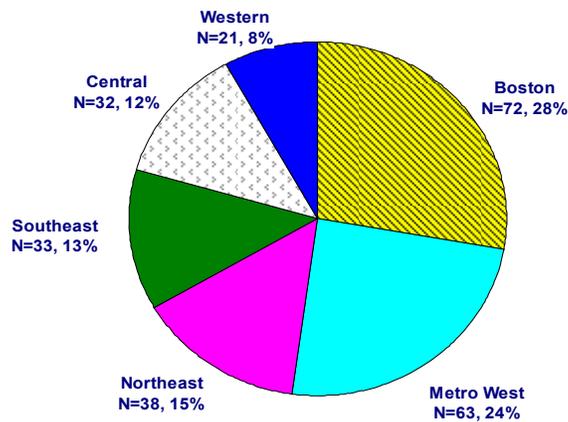
Source: MDPH Bureau of Communicable Disease Control, ISIS

Confirmed Tuberculosis Cases by Race/Ethnicity and EOHHS Region Massachusetts: 2006

EOHHS Region	White non-Hispanic	Black non-Hispanic	Asian/Pacific Islander	Hispanic
West	<5	<5	8	<5
Central	<5	6	14	10
Northeast	5	6	19	6
Metro Boston	21	20	21	13
Boston	8	26	19	8
Southeast	14	9	<5	8

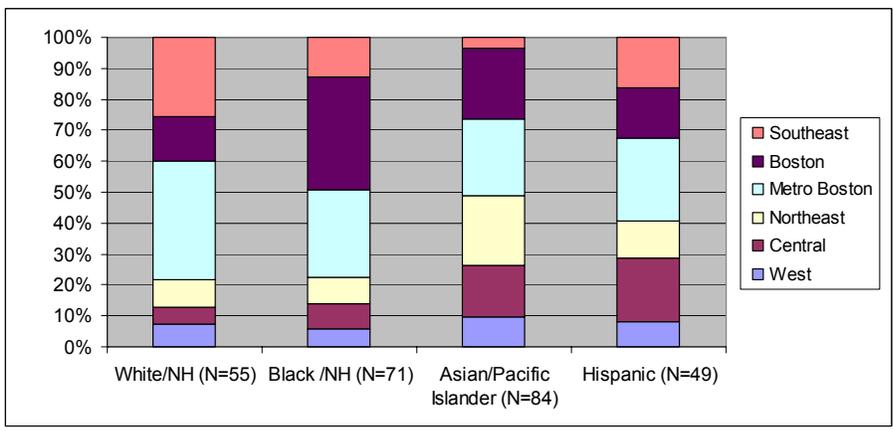
Source: MDPH Bureau of Communicable Disease Control, ISIS

Percent of Confirmed Tuberculosis Cases by EOHHS Region Massachusetts: 2006 (N = 259)



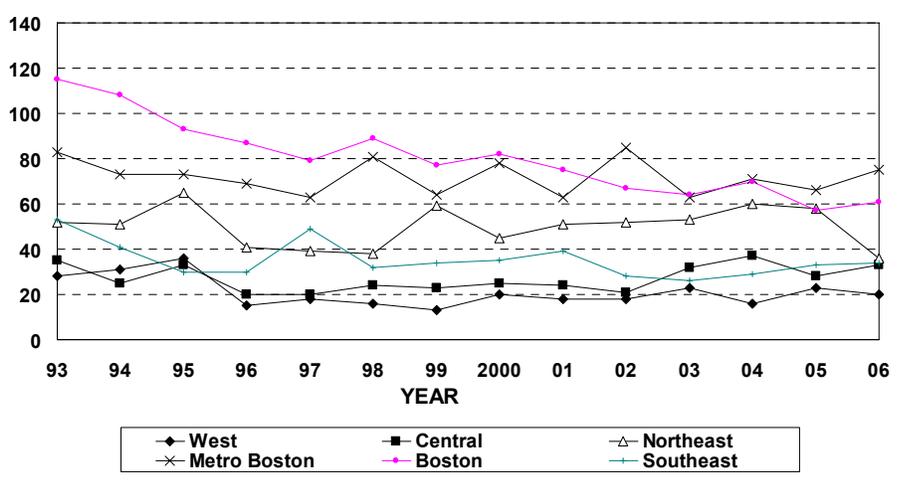
Source: MDPH Bureau of Communicable Disease Control, ISIS

Percent of Confirmed Tuberculosis Cases by Race/Ethnicity and EOHHS Region Massachusetts: 2006



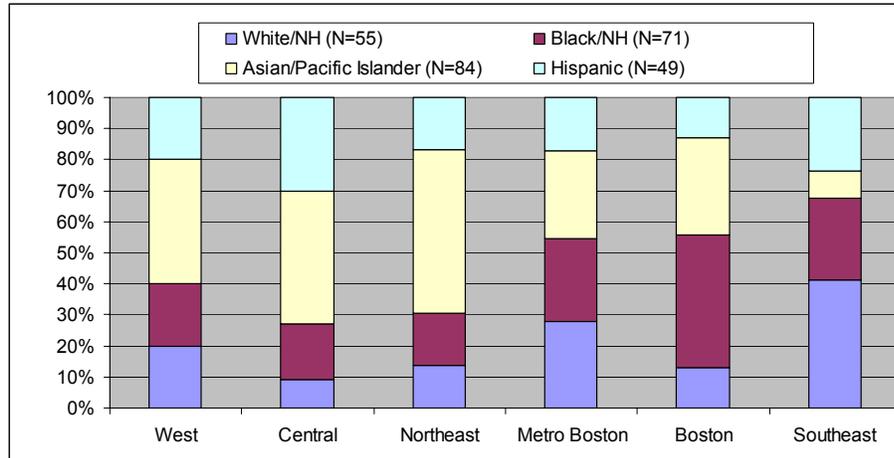
Source: MDPH Bureau of Communicable Disease Control, ISIS

Tuberculosis Cases by EOHHS Region Massachusetts: 1993-2006



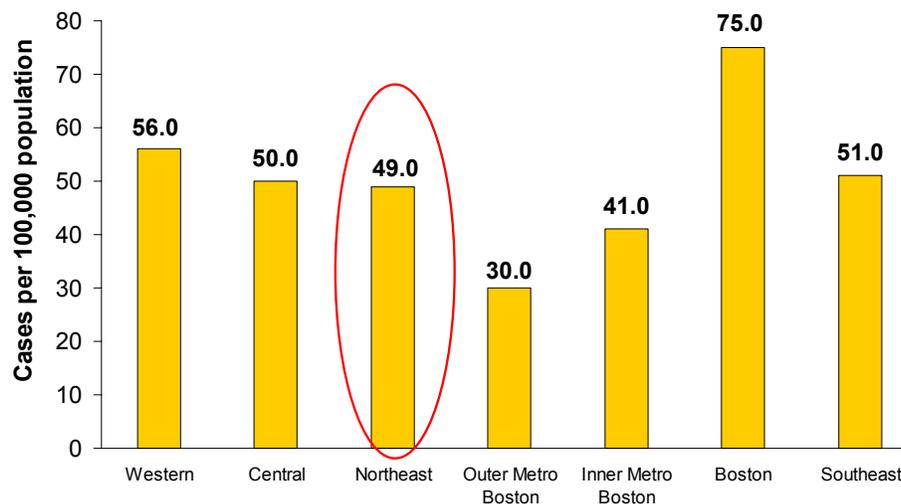
Source: MDPH Bureau of Communicable Disease Control, ISIS

Percent of Confirmed Tuberculosis Cases by Race/Ethnicity and EOHS Region Massachusetts: 2006



Source: MDPH Bureau of Communicable Disease Control, ISIS

Hepatitis C Average Incidence Rates by EOHS Region, Massachusetts: 1992-2006¹

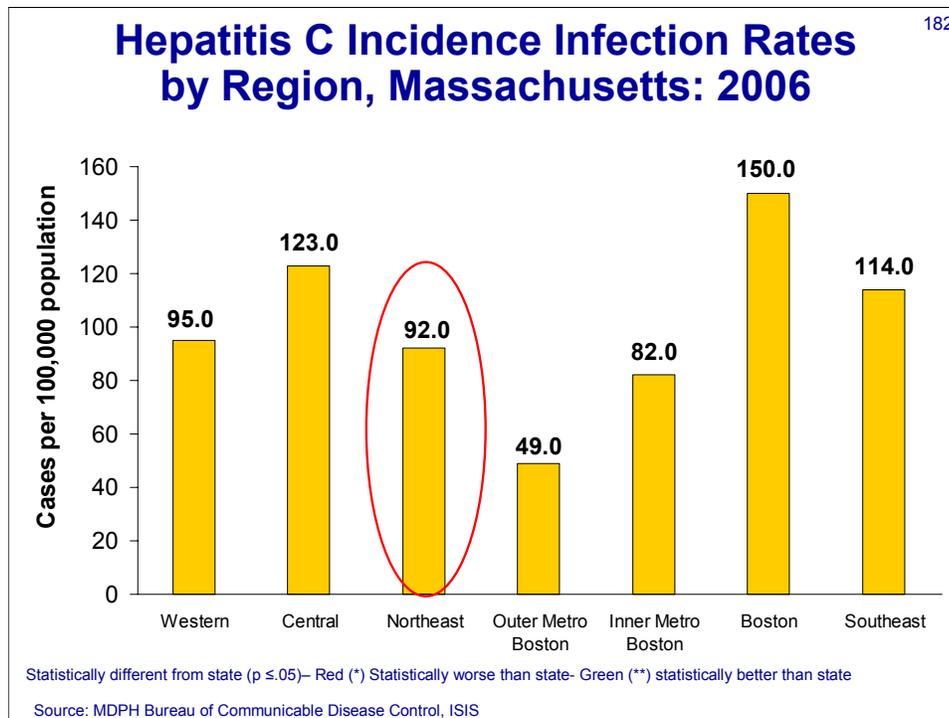
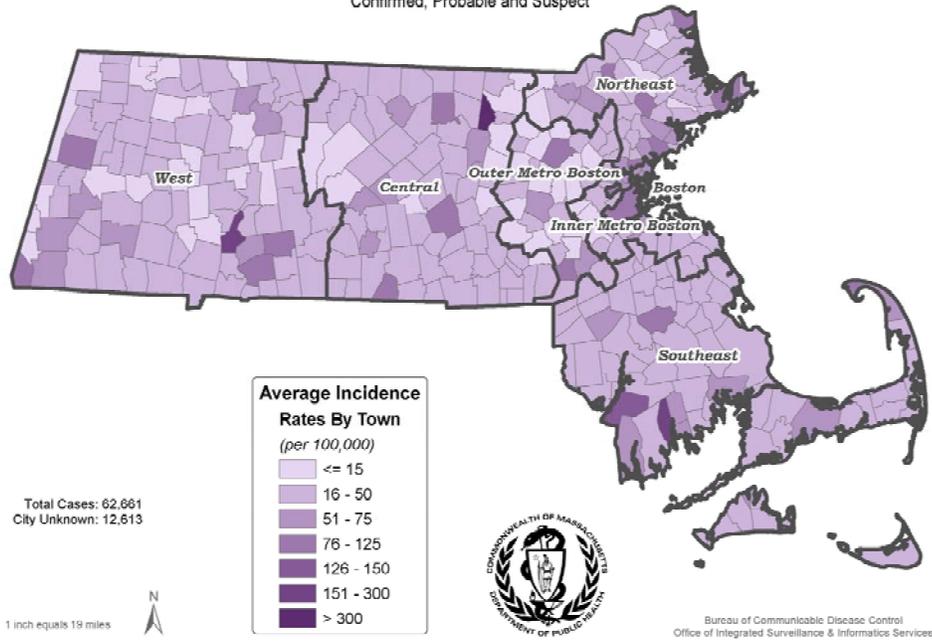


¹ Data as of March 17, 2007

Statistically different from state (p ≤ .05)– Red (*) Statistically worse than state- Green (**) statistically better than state

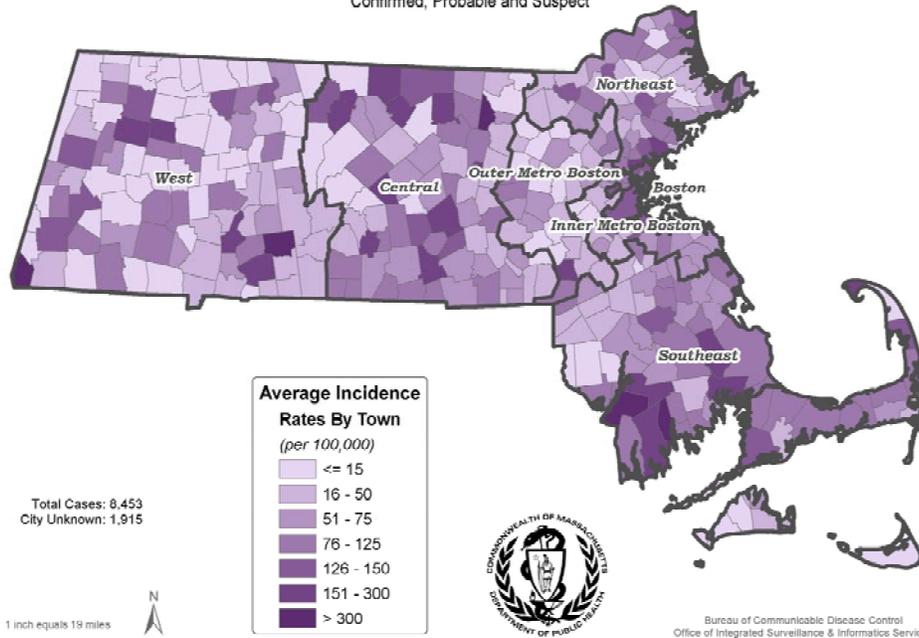
Source: MDPH Bureau of Communicable Disease Control, ISIS

Massachusetts Hepatitis C Infection Average Incidence Rates
By Town (1992-2006)
Confirmed, Probable and Suspect



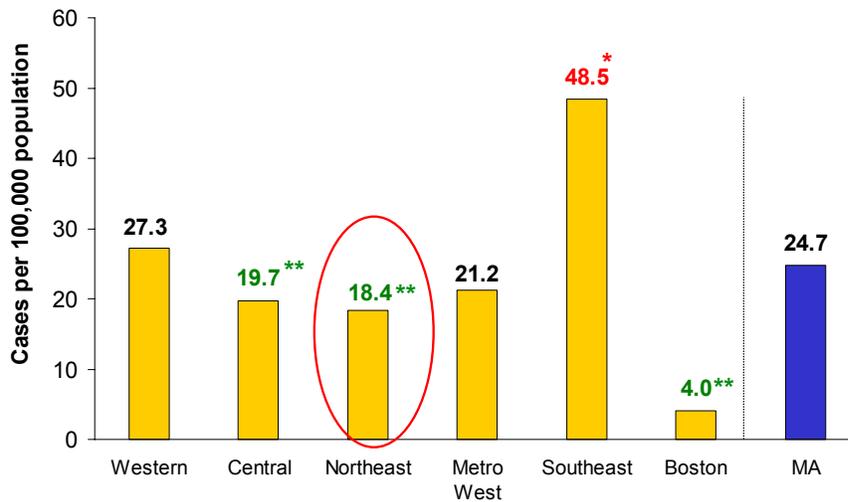
Massachusetts Hepatitis C Infection Average Incidence Rates By Town (2006)

Confirmed, Probable and Suspect



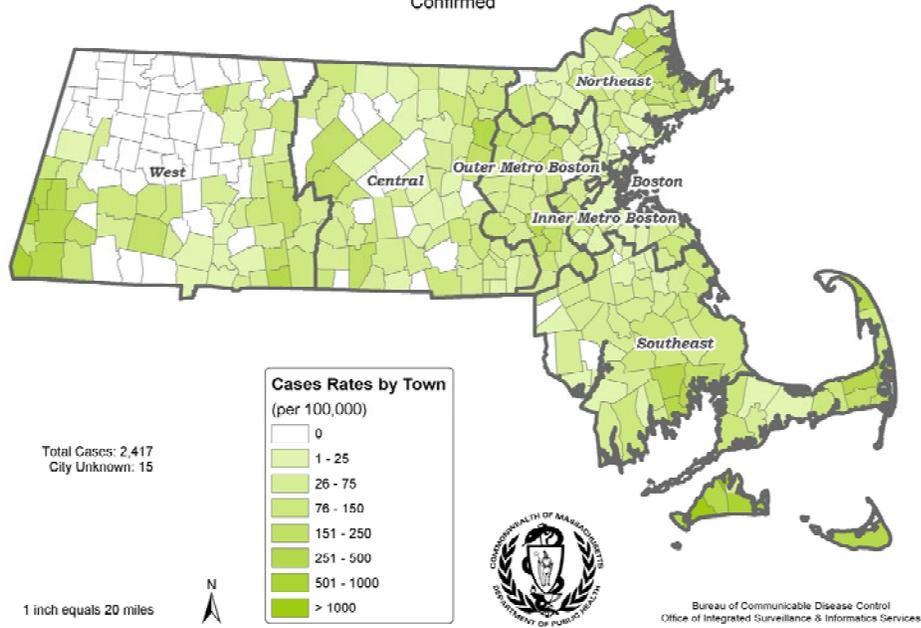
Lyme Disease Incidence by EOHHS Region Massachusetts: 2004

184

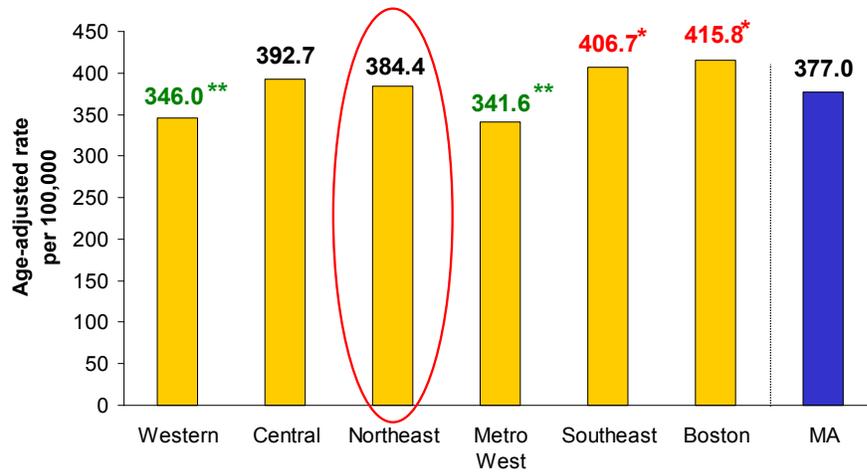


Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state
Source: MDPH Bureau of Communicable Disease Control, ISIS

Massachusetts Lyme Disease Case Rates By Town (2005) Confirmed



Pneumonia/Influenza Hospital Discharges by EOHHS Region Massachusetts: 2005 ¹⁸⁶



Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state

Source: Division of Health Care Finance and Policy. Calendar Year 2005. Inpatient Hospital Discharge Database

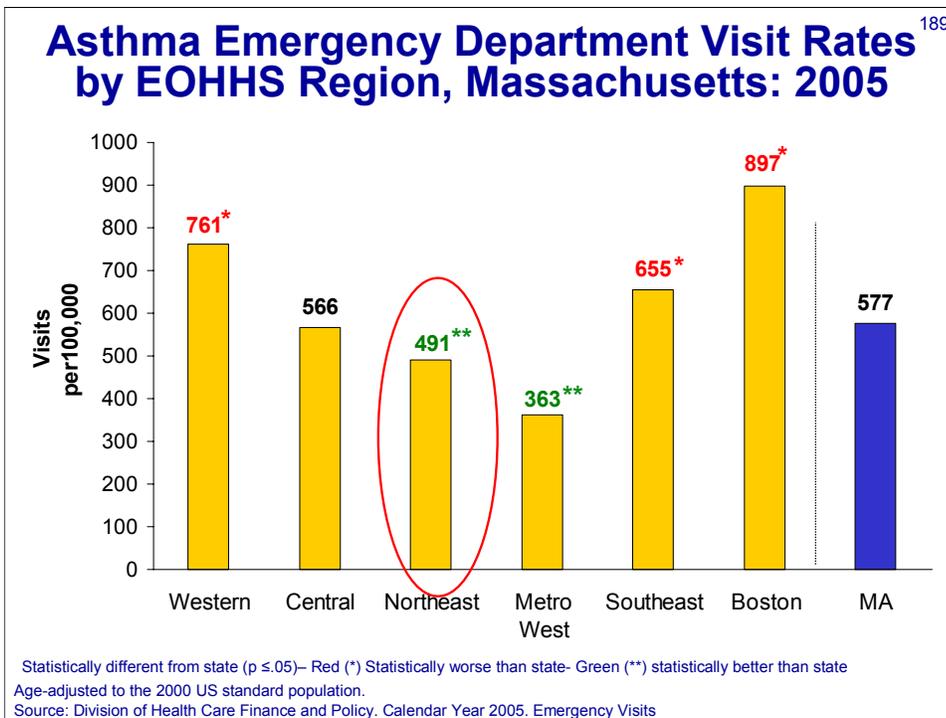
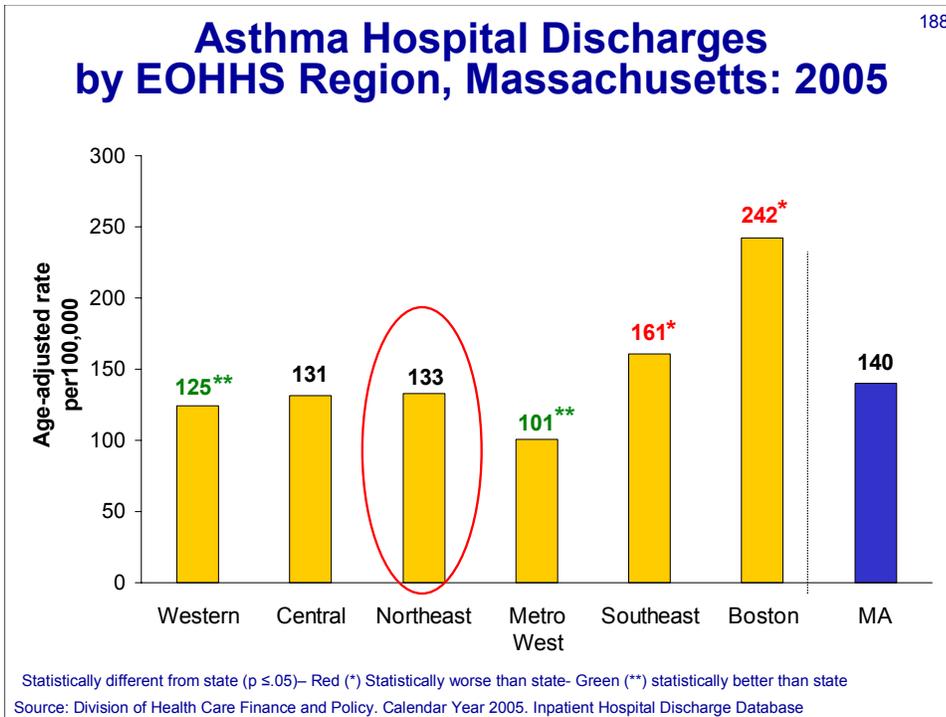
Summary Infectious Disease Indicators by EOHHS Regions

187

Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Chlamydia Incidence (crude rates, 2005)	225.7	369.4	145.4	178.0	106.1	169.7	588.5
Gonorrhea Incidence (crude rates, 2005)	39.6	55.9	16.6	22.4	20.3	35.4	126.2
Syphilis Incidence (crude rates, 2005)	6.3	3.1	1.7	4.9	4.7	2.7	22.7
Tuberculosis Incidence (crude rates, 2004)	4.4	1.9	4.2	4.8	4.3	2.0	11.4
Lyme Disease Incidence (crude rates, 2004)	24.7	27.3	19.7	18.4	21.2	48.4	4.0
Pneumonia/ Influenza Hospital Discharges (age-adjusted, 2005)	377.0	346.0	392.7	384.4	341.5	406.7	415.8

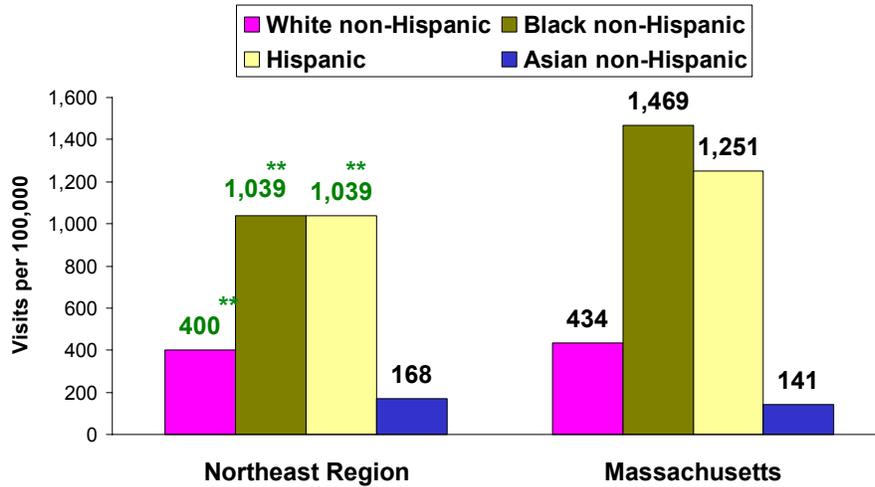
■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

ASTHMA



Emergency Department Visit Rates for Asthma by Race/Ethnicity Northeast Region and Massachusetts: 2005

190



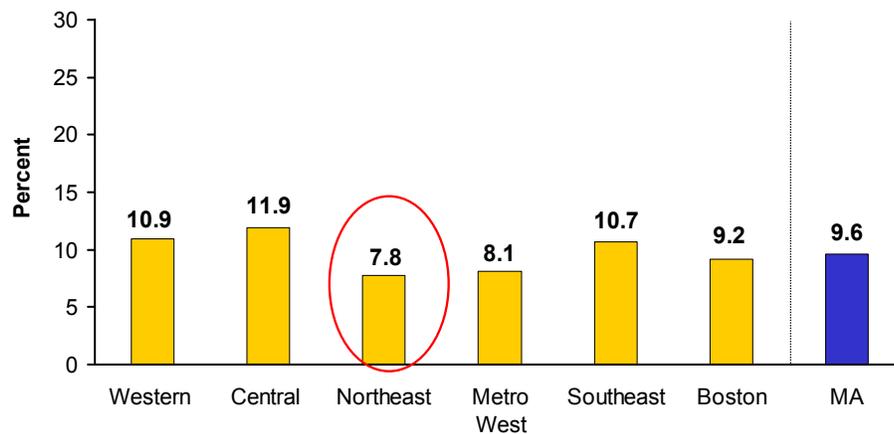
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Age-adjusted to the 2000 US standard population.

Source: Division of Health Care Finance and Policy. Calendar Year 2005. Emergency Visits

Adults who Currently have Asthma by EOHHS Region, Massachusetts: 2005

191

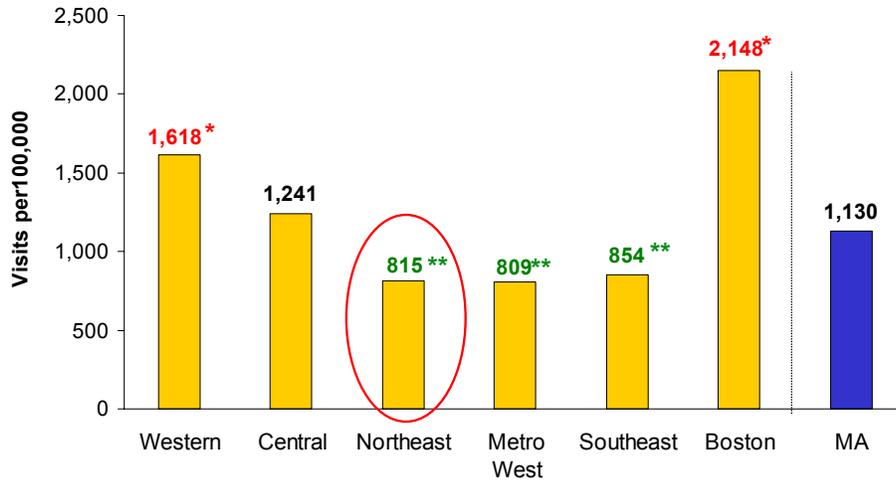


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Asthma ER Visits, Children Ages 0-4 by EOHHS Region, Massachusetts: 2005

192

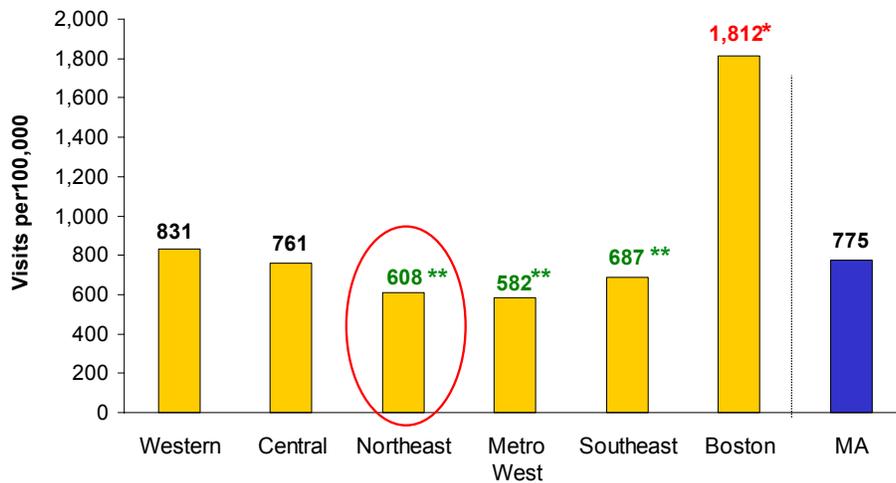


Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state

Source: Division of Health Care Finance and Policy. Calendar Year 2005. Emergency Visits

Asthma ER Visits, Children Ages 5-9 by EOHHS Region, Massachusetts: 2005

193

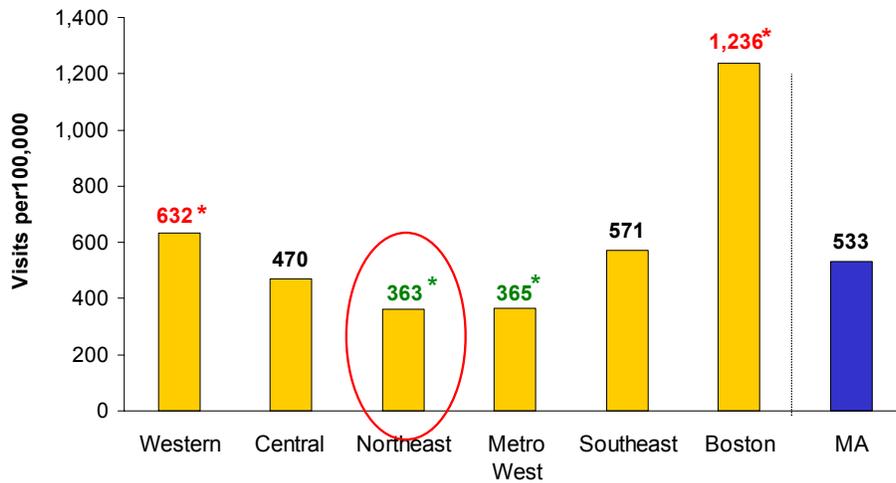


Statistically different from state ($p \leq .05$)— Red (*) Statistically worse than state- Green (**) statistically better than state

Source: Division of Health Care Finance and Policy. Calendar Year 2005. Emergency Visits

Asthma ER Visits, Children Ages 10-14 by EOHHS Region, Massachusetts: 2005

194

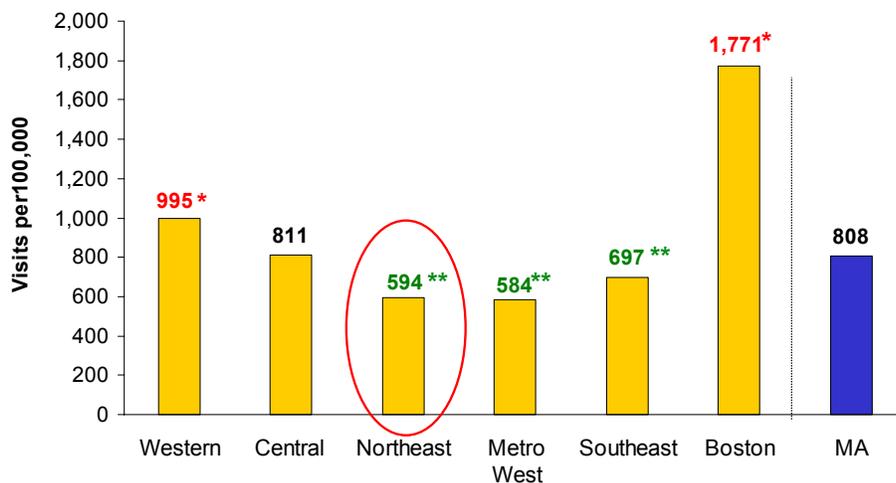


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Source: Division of Health Care Finance and Policy. Calendar Year 2005. Emergency Visits

Asthma ER Visits, Children Ages 0-14 by EOHHS Region, Massachusetts: 2005

195

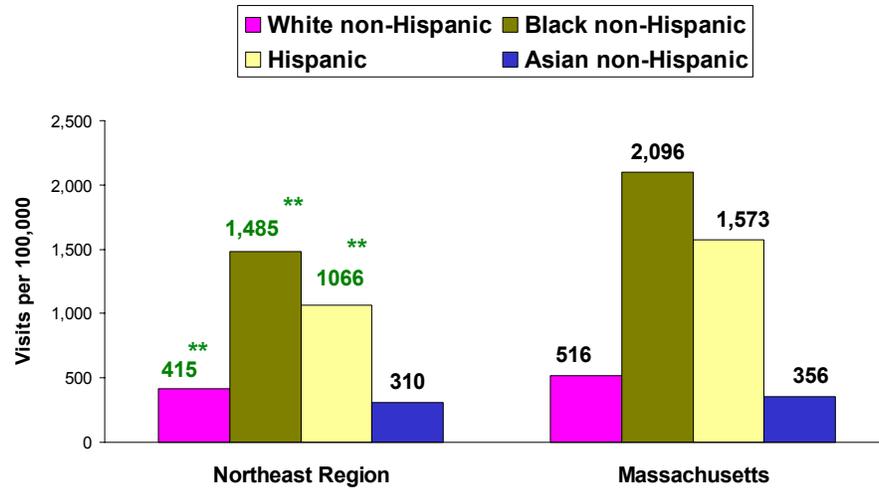


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Source: Division of Health Care Finance and Policy. Calendar Year 2005. Emergency Visits

Asthma Emergency Department Visit Rates Children Ages 0-14 Northeast Region and Massachusetts: 2005

196

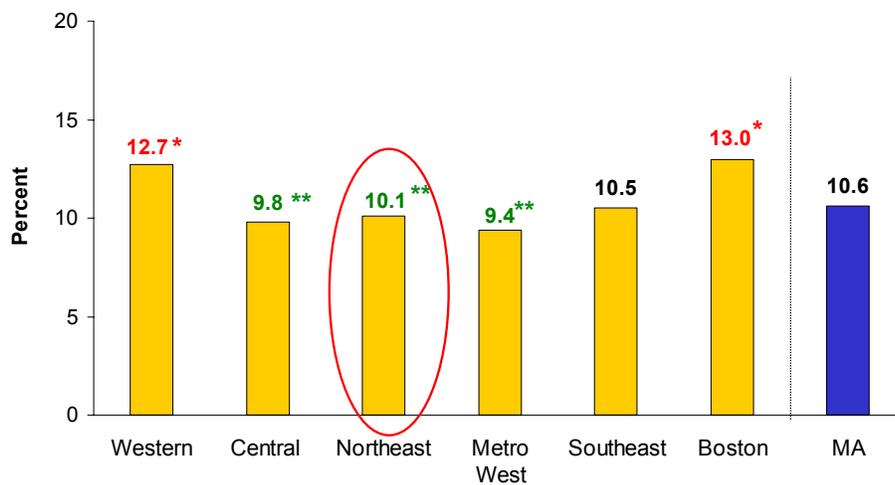


Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

Source: Division of Health Care Finance and Policy. Calendar Year 2005. Emergency Visits

Pediatric Asthma Prevalence Among School Children, Grades K-8 by EOHHS Region Massachusetts: 2005-2006

197



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state

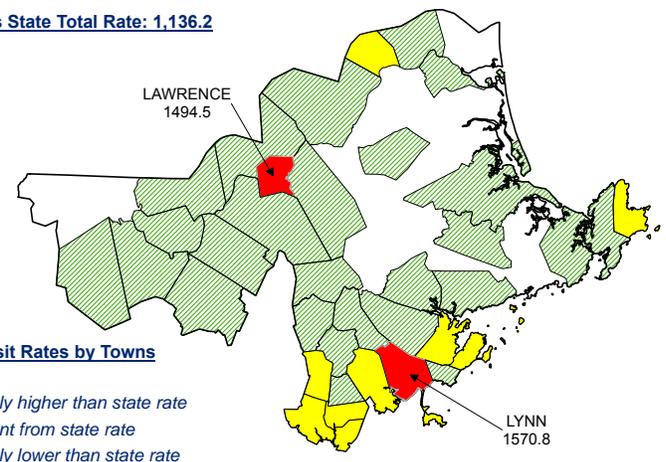
Source: MDPH, Center for Environmental Health, Pediatric Asthma Surveillance (2005-2006)

Pediatric Asthma Emergency Visit Rates by Towns* Among Children Ages <5 Northeast Region – Massachusetts 2004-2005

Massachusetts State Total Rate: 1,136.2

Emergency Visit Rates by Towns per 100,000

- Significantly higher than state rate
- Not different from state rate
- Significantly lower than state rate



*Towns with less than 5 cases in the period were excluded.

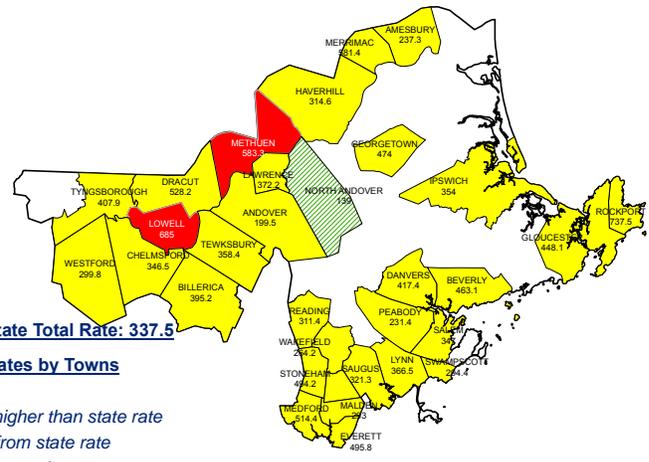
Source: Division of Health Care Finance and Policy. Calendar Year 2005. Emergency Visits

Pediatric Asthma Hospitalization Rates by Towns* Among Children Ages <5 Northeast Region – Massachusetts 2004-2005

Massachusetts State Total Rate: 337.5

Hospitalization Rates by Towns per 100,000

- Significantly higher than state rate
- Not different from state rate
- Significantly lower than state rate



*Towns with less than 5 cases in the period were excluded.

Source: Division of Health Care Finance and Policy. Calendar Year 2005. Hospital Discharges

Summary Asthma Indicators by EOHHS Regions, Massachusetts: 2005

200

Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Asthma Hospital Discharges (age-adjusted per100,000)	140.1	125.0	131.5	132.7	100.9	160.9	241.9
Asthma ER Visits (age-adjusted per100,000)	576.9	760.9	565.9	491.4	363.0	654.5	897.1
% Adults who currently have asthma (2005)	9.6	10.9	11.9	7.8	8.1	10.7	9.2
Asthma ER Visits Ages 0-14 (age-adjusted per100,000)	808	995	811	594	584	697	1,771

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

Summary Asthma Indicators by EOHHS Regions, Massachusetts: 2005

201

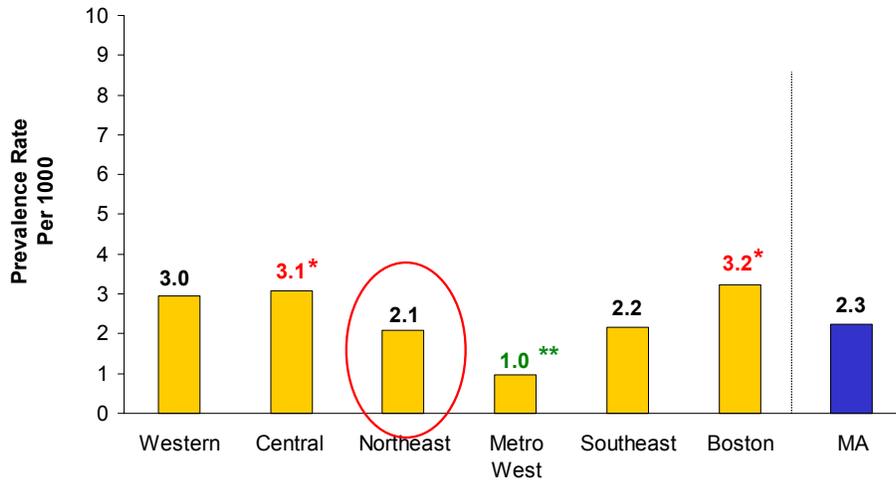
Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
Asthma ER Visits Ages 0-4 (age adjusted per100,000)	1,130	1,618	1,241	815	809	854	2,148
Asthma ER Visits Ages 5-9 (age adjusted per100,000)	775	831	761	608	582	687	1,812
Asthma ER Visits Ages 10-14 (age adjusted per100,000)	533	632	470	363	365	571	1,236
Pediatric Asthma Prevalence (2005-2006)	10.6	12.7	9.8	10.1	9.4	10.5	13.0

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

OTHER HEALTH INDICATORS

Total Cases of Elevated Blood Lead Levels ($\geq 15 \mu\text{g/dL}$) by EOHHS Region Massachusetts: 2005

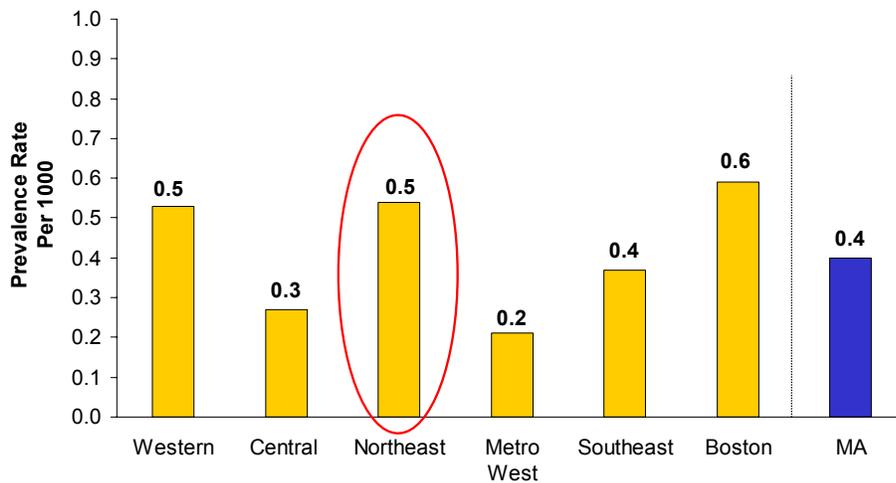
202



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Source: MDPH, Childhood Lead Poisoning Prevention Program (CLPPP)

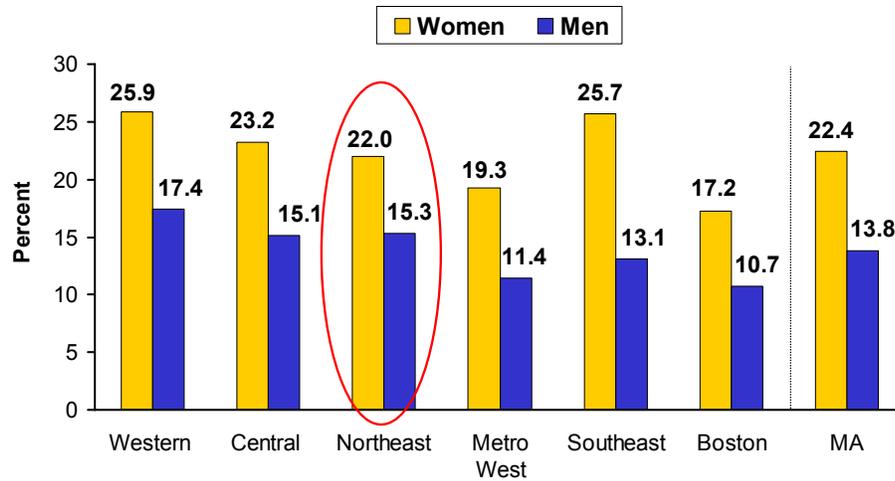
Lead Poisoning Prevalence Rates ($\text{ BLL } \geq 25 \mu\text{g/dL}$) Children 9-48 Months by EOHHS Region, Massachusetts: 2006

203



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Source: MDPH, Childhood Lead Poisoning Prevention Program (CLPPP)

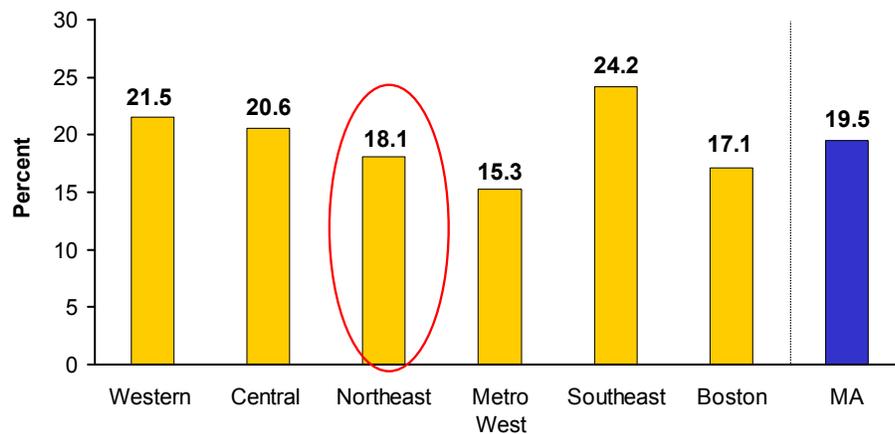
Adults who Report Experiencing Intimate Partner Violence by EOHHS Region and Gender Massachusetts: 2005



Statistically different from state ($p \leq .05$) – Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Adults who Report Having a Disability by EOHHS Region, Massachusetts: 2005

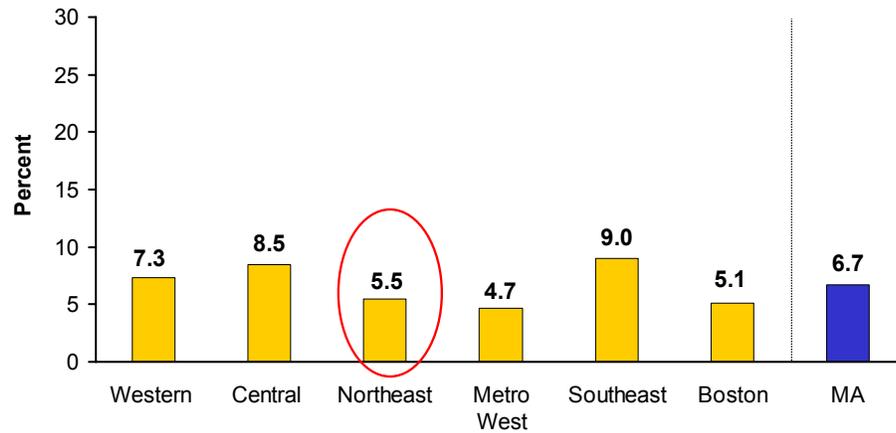
205



Statistically different from state ($p \leq .05$) – Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Adults who Report Having a Disability and needing help with activities EOHHS Region, Massachusetts: 2005

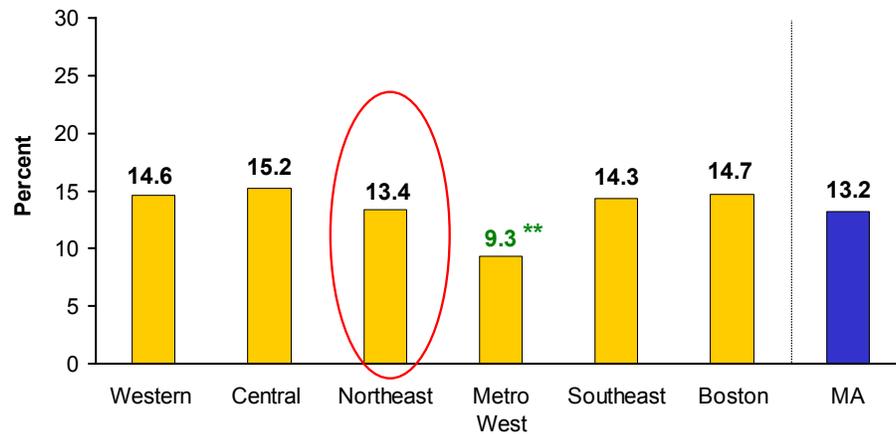
206



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Adults with Fair or Poor Health by EOHHS Region, Massachusetts: 2005

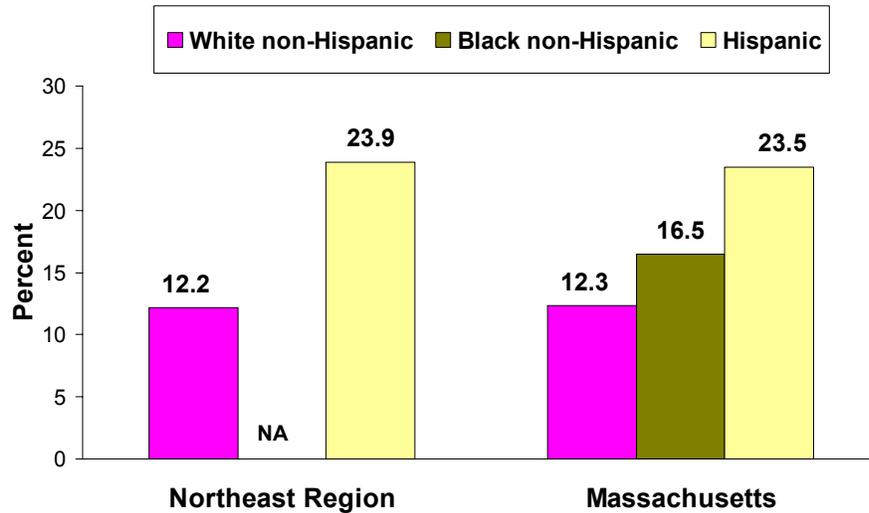
207



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Adults who Reported Fair or Poor Health by Race and Ethnicity Northeast Region and Massachusetts: 2005

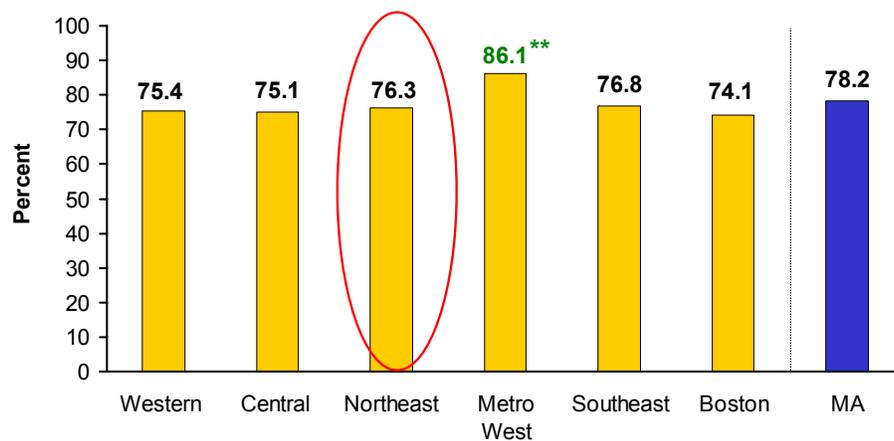
208



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

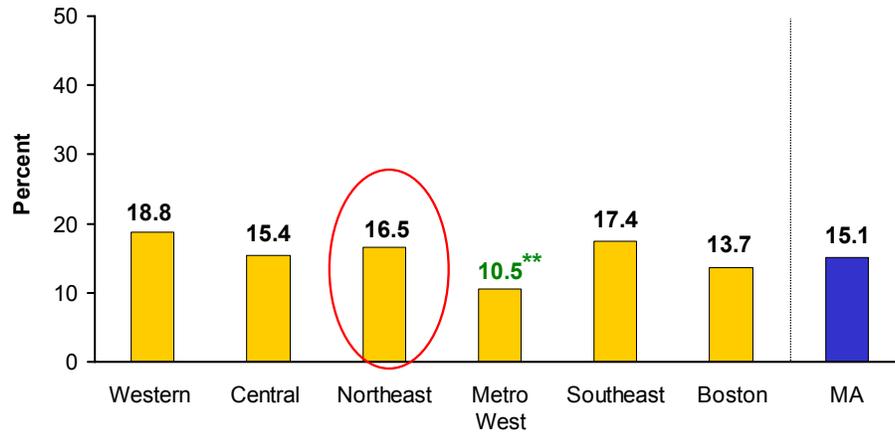
Adults who Visit a Dentist in Past Year by EOHS Region, Massachusetts: 2004

209



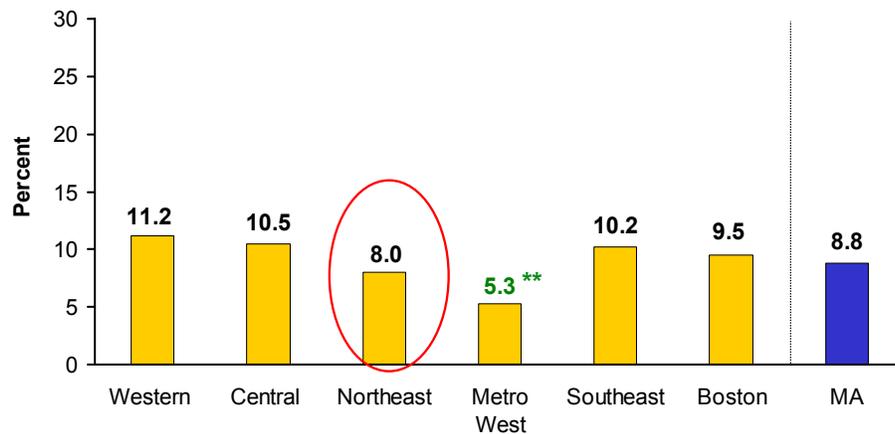
Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Adults who have lost 6 or more teeth to decay or disease by EOHHS Region, Massachusetts: 2004 ²¹⁰



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Adults with Poor Mental Health for 15 or more days in Past Month by EOHHS Region Massachusetts: 2005 ²¹¹



Statistically different from state ($p \leq .05$)– Red (*) Statistically worse than state- Green (**) statistically better than state
 Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Summary Other Health Indicators by EOHHS Regions

212

Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
% Fair or Poor Health (2005)	13.2	14.6	15.2	13.4	9.3	14.3	14.7
Cases of Elevated Blood Lead levels (Percent of All Children Screened Per 1000, 2005)	2.3	2.9	3.1	2.1	1.0	2.2	3.2
% Visited Dentist Past Year (2004)	78.2	75.4	75.1	76.3	86.1	76.8	74.1
% 6+ Teeth Missing (2004)	15.1	18.8	15.4	16.5	10.5	17.4	13.7
% Poor Mental Health for 15 or more days in Past Month (2005)	8.8	11.2	10.5	8.0	5.3	10.2	9.5

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

Summary Other Health Indicators by EOHHS Regions

213

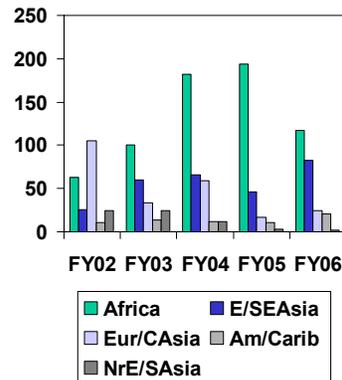
Indicator	MA Total	Western	Central	Northeast	Metro West	South East	Boston
% Adults reporting having a disability (2005)	19.5	21.5	20.6	18.1	15.3	24.2	17.1
% Adults reporting having a disability and needing help with activities (2005)	6.7	7.3	8.5	5.5	4.7	9.0	5.1

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Health Survey Program

Refugee Arrivals: Northeast Region Fiscal Year 2002-2006

- 1,312 refugees resettled over 5 years
- Increasing diversity in population
- 45% age ≤ 19 at arrival
- Cities/Towns with largest number of arrivals: Lowell, Lynn, Malden



Source: MDPH, Refugee and Immigrant Health Program and the Bureau of Communicable Disease Control office of Integrated Surveillance and Informatics

Refugee Health Concerns: Northeast Region Fiscal Year 2002-2006

- High rates of latent TB infection (LTBI)
 - 1,237 refugees tested: 44% positive
 - Intensive follow-up in partnership with TB clinics, local health and DPH to assure testing, evaluation and treatment
 - Rapid assessment identifies active disease early to prevent spread
- Risk of lead poisoning among refugee children
 - 37 refugee children identified with elevated blood lead levels at arrival
 - Poor nutritional status puts children at risk of increased absorption of lead post-resettlement
- Need for bilingual, bicultural services to promote access to care

Source: MDPH, Refugee and Immigrant Health Program and the Bureau of Communicable Disease Control office of Integrated Surveillance and Informatics

Summary Refugees by EOHHS Regions Massachusetts: 2002-2006

216

Indicator	Western	Central	Northeast	Metro West and Boston Regions
Refugee Arrivals	2,204	858	1,312	2,843
Largest Group	European and Central Asian	African	African and South East Asian	African
% refugees 19 years or less	44%	51%	45%	39%
Largest Cities	Greenfield, Springfield, West Springfield, Westfield	Worcester	Lowell, Lynn, Malden	Boston, Cambridge, Chelsea, Everett, Quincy, Revere, Somerville, Waltham
%TB Positive	41%	33%	44%	47%

Source: MDPH, Refugee and Immigrant Health Program and the Bureau of Communicable Disease Control office of Integrated Surveillance and Informatics

Premature Mortality Rate (PMR)¹

217

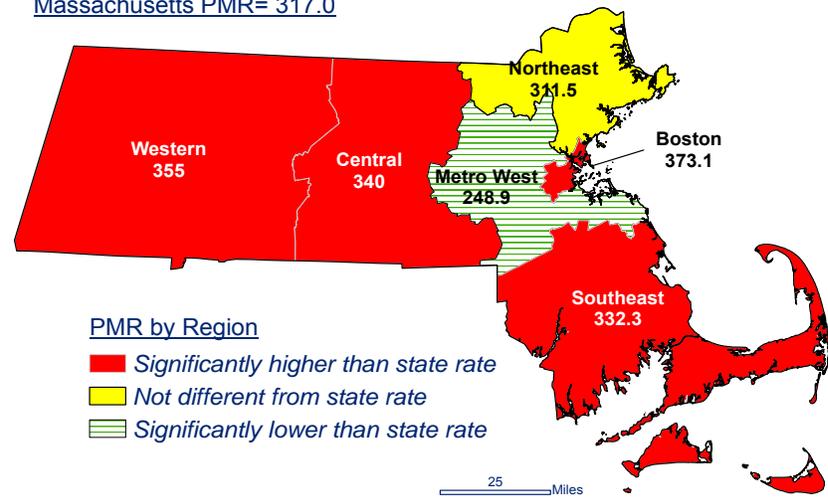
- **Definition**
 - deaths before age 75
- **Rationale**
 - two-thirds of deaths to persons ages 75+
 - vast majority of deaths to persons age 75+ are due to chronic conditions associated with aging
 - Focusing on deaths to persons less than 75 years may be more preventable
- **Summary health statistic**
 - excellent measure to reflect the health status of a population
 - used as a health status indicator that can be used to focus prevention initiatives and target programs

¹ Rates are per 100,000 population. Age-adjusted to the 2000 US standard population under 75 years of age.

Source: Massachusetts Department of Public Health, Center for Health Information, Statistics, Research, and Evaluation

Premature Mortality Rates (PMR) by Region Massachusetts: 2005

Massachusetts PMR= 317.0

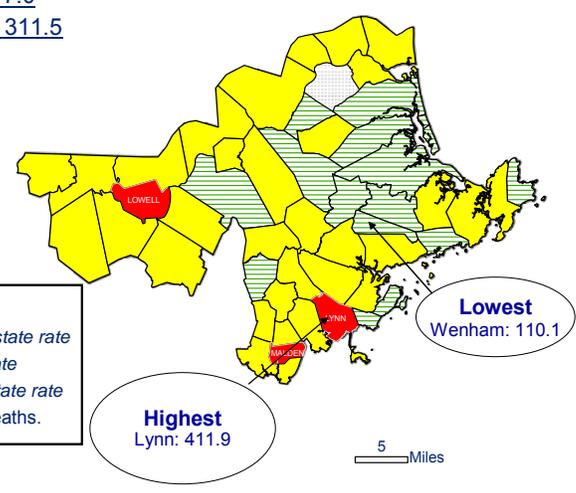


Rates are per 100,000 persons under 75 years of age, age-adjusted to the 2000 US standard population under 75 years of age.

Source: Massachusetts Department of Public Health, Center for Health Information, Statistics, Research, and Evaluation

PMR- Northeast Region by City/Town Massachusetts: 2005

Massachusetts PMR= 317.0
Northeast Region PMR= 311.5

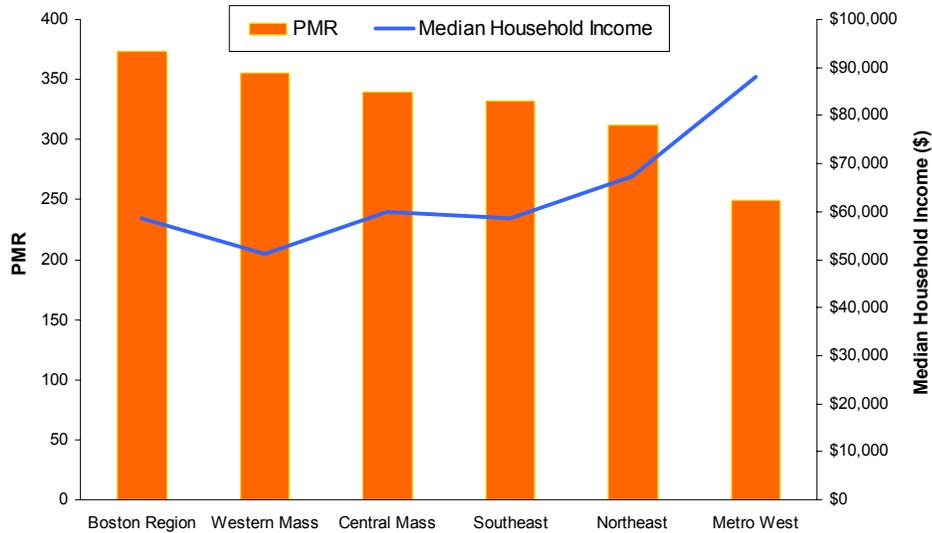


Rates are per 100,000 persons under 75 years of age, age-adjusted to the 2000 US standard population under 75 years of age.

Source: Massachusetts Department of Public Health, Center for Health Information, Statistics, Research, and Evaluation

Median Household Income and PMR by EOHHS Regions, Massachusetts: 2005

220



Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program
 State Median Household Income: \$66,365

Premature Mortality Rate (PMR) by EOHHS Regions: 2005

221

	PMR
Massachusetts	317.0
Western Region	355.0
Central Region	340.0
Northeast Region	311.5
Metro West Region	248.9
South East Region	332.3
Boston Region	373.1

■ Better Outcome (significantly different from state)
 ■ Worse Outcome (significantly different from state)

Source: MDPH, Health Information, Statistics, Research and Evaluation Bureau, Research & Epidemiology Program

SUMMARY

Summary

- **Excluding the larger communities, the Northeast region is a relatively healthy place to live:**
 - Hypertension and diabetes hospitalizations are lower than the State
 - Homicides, STDs, HIV/AIDS, and pediatric asthma are lower than the State
 - Injuries related to motor vehicles, firearms, and falls have lower rates than the State
- **Residents of larger communities are disproportionately affected by:**
 - Lack of access to adequate prenatal care, especially in Lawrence, Lowell, and Lynn
 - Infant mortality
 - Colorectal and lung cancer
 - Opioid related ER visits and fatal overdoses

Health Disparities

- Asians: IMR; access to prenatal care; teen birth rate
- Blacks: IMR; HIV/AIDS mortality rates; diabetes mortality; asthma
- Latinos: IMR; teen birth rate; HIV/AIDS mortality rates; diabetes mortality; asthma; opioid-related ER visits
- Refugees: high TB rates; increased lead poisoning among children

Key health observations in Northeastern Massachusetts

- Racial and ethnic disparities are major factors: Blacks, Latinos and Asians experience health disparities across several indicators
- Overweight/obesity is an increasing health risk - contributes to rising diabetes incidence
- Lowell, Lynn, and Malden have the highest number of refugee arrivals who need bilingual and bicultural access to care
- We need to examine local variation and subgroups in the population to get a more complete picture of the health of the Northeast region

APPENDIX

REGIONS AND TOWNS

REGION	TOWN	COUNTY	CHNA
BOSTON	BOSTON	SUFFOLK	Alliance for Community Health
	BROOKLINE	NORFOLK	Alliance for Community Health
	CHELSEA	SUFFOLK	Alliance for Community Health
	REVERE	SUFFOLK	Alliance for Community Health
	WINTHROP	SUFFOLK	Alliance for Community Health
CENTRAL	ASHBURNHAM	WORCESTER	Fitchburg/Gardner CHN
	ASHBY	MIDDLESEX	Fitchburg/Gardner CHN
	AUBURN	WORCESTER	Community Wellness Coalition
	AYER	MIDDLESEX	Fitchburg/Gardner CHN
	BARRE	WORCESTER	Fitchburg/Gardner CHN
	BELLINGHAM	NORFOLK	Community Partners for Health
	BERLIN	WORCESTER	Fitchburg/Gardner CHN
	BLACKSTONE	WORCESTER	Community Partners for Health
	BOLTON	WORCESTER	Fitchburg/Gardner CHN
	BOYLSTON	WORCESTER	Community Wellness Coalition
	BRIMFIELD	HAMPDEN	CHN of Southern Worcester County
	BROOKFIELD	WORCESTER	CHN of Southern Worcester County
	CHARLTON	WORCESTER	CHN of Southern Worcester County
	CLINTON	WORCESTER	Fitchburg/Gardner CHN
	DOUGLAS	WORCESTER	Community Partners for Health
	DUDLEY	WORCESTER	CHN of Southern Worcester County
	EAST BROOKFIELD	WORCESTER	CHN of Southern Worcester County
	FITCHBURG	WORCESTER	Fitchburg/Gardner CHN
	FRANKLIN	NORFOLK	Community Partners for Health
	GARDNER	WORCESTER	Fitchburg/Gardner CHN
	GRAFTON	WORCESTER	Community Wellness Coalition
	GROTON	MIDDLESEX	Fitchburg/Gardner CHN
	HARDWICK	WORCESTER	Fitchburg/Gardner CHN
	HARVARD	WORCESTER	Fitchburg/Gardner CHN
	HOLDEN	WORCESTER	Community Wellness Coalition
	HOLLAND	HAMPDEN	CHN of Southern Worcester County
	HOPEDALE	WORCESTER	Community Partners for Health
	HUBBARDSTON	WORCESTER	Fitchburg/Gardner CHN
	LANCASTER	WORCESTER	Fitchburg/Gardner CHN
	LEICESTER	WORCESTER	Community Wellness Coalition
	LEOMINSTER	WORCESTER	Fitchburg/Gardner CHN
	LUNENBURG	WORCESTER	Fitchburg/Gardner CHN
	MEDWAY	NORFOLK	Community Partners for Health
	MENDON	WORCESTER	Community Partners for Health
	MILFORD	WORCESTER	Community Partners for Health
MILLBURY	WORCESTER	Community Wellness Coalition	
MILLVILLE	WORCESTER	Community Partners for Health	
NEW BRAINTREE	WORCESTER	Fitchburg/Gardner CHN	
NORTH BROOKFIELD	WORCESTER	CHN of Southern Worcester County	
NORTHBRIDGE	WORCESTER	Community Partners for Health	
OAKHAM	WORCESTER	Fitchburg/Gardner CHN	
OXFORD	WORCESTER	CHN of Southern Worcester County	

	PAXTON PEPPERELL PRINCETON RUTLAND SHIRLEY SHREWSBURY SOUTHBRIDGE SPENCER STERLING STURBRIDGE SUTTON TEMPLETON TOWNSEND UPTON UXBRIDGE WALES WARREN WEBSTER WEST BOYLSTON WEST BROOKFIELD WESTMINSTER WINCHENDON WORCESTER	WORCESTER MIDDLESEX WORCESTER WORCESTER MIDDLESEX WORCESTER WORCESTER WORCESTER WORCESTER WORCESTER WORCESTER WORCESTER MIDDLESEX WORCESTER WORCESTER HAMPDEN WORCESTER WORCESTER WORCESTER WORCESTER WORCESTER WORCESTER WORCESTER WORCESTER	Community Wellness Coalition Fitchburg/Gardner CHN Fitchburg/Gardner CHN Fitchburg/Gardner CHN Fitchburg/Gardner CHN Community Wellness Coalition CHN of Southern Worcester County CHN of Southern Worcester County Fitchburg/Gardner CHN CHN of Southern Worcester County Community Partners for Health Fitchburg/Gardner CHN Fitchburg/Gardner CHN Community Partners for Health Community Partners for Health CHN of Southern Worcester County CHN of Southern Worcester County CHN of Southern Worcester County Community Wellness Coalition CHN of Southern Worcester County Fitchburg/Gardner CHN Fitchburg/Gardner CHN Community Wellness Coalition
METRO WEST	ACTON ARLINGTON ASHLAND BEDFORD BELMONT BOXBOROUGH BRAINTREE BURLINGTON CAMBRIDGE CANTON CARLISLE COHASSET CONCORD DEDHAM DOVER FOXBOROUGH FRAMINGHAM HINGHAM HOLLISTON HOPKINTON HUDSON HULL LEXINGTON LINCOLN LITTLETON MARLBOROUGH MAYNARD	MIDDLESEX MIDDLESEX MIDDLESEX MIDDLESEX MIDDLESEX MIDDLESEX NORFOLK MIDDLESEX MIDDLESEX NORFOLK MIDDLESEX NORFOLK NORFOLK NORFOLK MIDDLESEX NORFOLK NORFOLK NORFOLK NORFOLK MIDDLESEX PLYMOUTH MIDDLESEX MIDDLESEX MIDDLESEX PLYMOUTH MIDDLESEX MIDDLESEX MIDDLESEX MIDDLESEX MIDDLESEX	Greater Woburn/Concord/Littleton CHN Greater Cambridge/Somerville CHN CHN of Greater Metro West Greater Woburn/Concord/Littleton CHN Greater Cambridge/Somerville CHN Greater Woburn/Concord/Littleton CHN Blue Hills Community Health Alliance Greater Woburn/Concord/Littleton CHN Greater Cambridge/Somerville CHN Blue Hills Community Health Alliance Greater Woburn/Concord/Littleton CHN Blue Hills Community Health Alliance Greater Woburn/Concord/Littleton CHN West Suburban Health Network West Suburban Health Network CHN of Greater Metro West CHN of Greater Metro West Blue Hills Community Health Alliance CHN of Greater Metro West CHN of Greater Metro West CHN of Greater Metro West Blue Hills Community Health Alliance Greater Woburn/Concord/Littleton CHN Greater Woburn/Concord/Littleton CHN Greater Woburn/Concord/Littleton CHN CHN of Greater Metro West CHN of Greater Metro West

	MEDFIELD MILLIS MILTON NATICK NEEDHAM NEWTON NORFOLK NORTHBOROUGH NORWELL NORWOOD PLAINVILLE QUINCY RANDOLPH SCITUATE SHARON SHERBORN SOMERVILLE SOUTHBOROUGH STOW SUDBURY WALPOLE WALTHAM WATERTOWN WAYLAND WELLESLEY WESTBOROUGH WESTON WESTWOOD WEYMOUTH WILMINGTON WINCHESTER WOBURN WRENTHAM	NORFOLK NORFOLK NORFOLK MIDDLESEX NORFOLK MIDDLESEX NORFOLK NORFOLK WORCESTER PLYMOUTH NORFOLK NORFOLK NORFOLK PLYMOUTH NORFOLK NORFOLK MIDDLESEX MIDDLESEX WORCESTER MIDDLESEX MIDDLESEX NORFOLK MIDDLESEX MIDDLESEX NORFOLK MIDDLESEX MIDDLESEX NORFOLK WORCESTER MIDDLESEX NORFOLK NORFOLK MIDDLESEX MIDDLESEX MIDDLESEX NORFOLK	CHN of Greater Metro West CHN of Greater Metro West Blue Hills Community Health Alliance CHN of Greater Metro West West Suburban Health Network West Suburban Health Network CHN of Greater Metro West CHN of Greater Metro West Blue Hills Community Health Alliance Blue Hills Community Health Alliance CHN of Greater Metro West Blue Hills Community Health Alliance Blue Hills Community Health Alliance Blue Hills Community Health Alliance Blue Hills Community Health Alliance CHN of Greater Metro West Greater Cambridge/Somerville CHN CHN of Greater Metro West CHN of Greater Metro West CHN of Greater Metro West CHN of Greater Metro West West Suburban Health Network Greater Cambridge/Somerville CHN CHN of Greater Metro West West Suburban Health Network CHN of Greater Metro West West Suburban Health Network Blue Hills Community Health Alliance Greater Woburn/Concord/Littleton CHN Greater Woburn/Concord/Littleton CHN Greater Woburn/Concord/Littleton CHN CHN of Greater Metro West
NORTHEAST	AMESBURY ANDOVER BEVERLY BILLERICA BOXFORD CHELMSFORD DANVERS DRACUT DUNSTABLE ESSEX EVERETT GEORGETOWN GLOUCESTER GROVELAND HAMILTON HAVERHILL IPSWICH	ESSEX ESSEX ESSEX MIDDLESEX ESSEX MIDDLESEX ESSEX MIDDLESEX MIDDLESEX ESSEX MIDDLESEX ESSEX ESSEX ESSEX ESSEX ESSEX ESSEX ESSEX ESSEX	Greater Haverhill CHN Greater Lawrence CHN Community Health Network North Greater Lowell CHN Greater Haverhill CHN Greater Lowell CHN North Shore CHN Greater Lowell CHN Greater Lowell CHN Community Health Network North North Suburban Health Alliance Greater Haverhill CHN Community Health Network North Greater Haverhill CHN Community Health Network North Greater Haverhill CHN Community Health Network North

	LAWRENCE LOWELL LYNN LYNNFIELD MALDEN MANCHESTER MARBLEHEAD MEDFORD MELROSE MERRIMAC METHUEN MIDDLETON NAHANT NEWBURY NEWBURYPORT NORTH ANDOVER NORTH READING PEABODY READING ROCKPORT ROWLEY SALEM SALISBURY SAUGUS STONEHAM SWAMPSCOTT TEWKSBURY TOPSFIELD TYNGSBOROUGH WAKEFIELD WENHAM WEST NEWBURY WESTFORD	ESSEX MIDDLESEX ESSEX ESSEX MIDDLESEX ESSEX ESSEX MIDDLESEX MIDDLESEX ESSEX ESSEX ESSEX ESSEX ESSEX ESSEX MIDDLESEX ESSEX MIDDLESEX ESSEX ESSEX ESSEX MIDDLESEX ESSEX MIDDLESEX MIDDLESEX MIDDLESEX MIDDLESEX ESSEX MIDDLESEX MIDDLESEX MIDDLESEX	Greater Lawrence CHN Greater Lowell CHN North Shore CHN North Shore CHN North Suburban Health Alliance Community Health Network North North Shore CHN North Suburban Health Alliance North Suburban Health Alliance Greater Haverhill CHN Greater Lawrence CHN Greater Lawrence CHN North Shore CHN Greater Haverhill CHN Greater Haverhill CHN Greater Lawrence CHN North Suburban Health Alliance North Shore CHN North Suburban Health Alliance Community Health Network North Greater Haverhill CHN North Shore CHN Greater Haverhill CHN North Shore CHN North Suburban Health Alliance North Shore CHN Greater Lowell CHN Community Health Network North Greater Lowell CHN North Suburban Health Alliance Community Health Network North Greater Haverhill CHN Greater Lowell CHN
SOUTHEAST	ABINGTON ACUSHNET ATTLEBORO AVON BARNSTABLE BERKLEY BOURNE BREWSTER BRIDGEWATER BROCKTON CARVER CHATHAM CHILMARK DARTMOUTH DENNIS DIGHTON DUXBURY	PLYMOUTH BRISTOL BRISTOL NORFOLK BARNSTABLE BRISTOL BARNSTABLE BARNSTABLE PLYMOUTH PLYMOUTH PLYMOUTH BARNSTABLE DUKES BRISTOL BARNSTABLE BRISTOL PLYMOUTH	Greater Brockton CHN Greater New Bedford CHN Health & Education Response Greater Brockton CHN Cape and Islands CHN Health & Education Response Cape and Islands CHN Cape and Islands CHN Greater Brockton CHN Greater Brockton CHN South Shore Community Partners in Prevention Cape and Islands CHN Cape and Islands CHN Greater New Bedford CHN Cape and Islands CHN Health & Education Response South Shore Community Partners in Prevention

EAST BRIDGEWATER	PLYMOUTH	Greater Brockton CHN
EASTHAM	BARNSTABLE	Cape and Islands CHN
EASTON	BRISTOL	Greater Brockton CHN
EDGARTOWN	DUKES	Cape and Islands CHN
FAIRHAVEN	BRISTOL	Greater New Bedford CHN
FALL RIVER	BRISTOL	Partners for a Healthier Community
FALMOUTH	BARNSTABLE	Cape and Islands CHN
FREETOWN	BRISTOL	Greater New Bedford CHN
GAY HEAD	DUKES	Cape and Islands CHN
GOSNOLD	DUKES	Cape and Islands CHN
HALIFAX	PLYMOUTH	South Shore Community Partners in Prevention
HANOVER	PLYMOUTH	South Shore Community Partners in Prevention
HANSON	PLYMOUTH	South Shore Community Partners in Prevention
HARWICH	BARNSTABLE	Cape and Islands CHN
HOLBROOK	NORFOLK	Greater Brockton CHN
KINGSTON	PLYMOUTH	South Shore Community Partners in Prevention
LAKEVILLE	PLYMOUTH	Health & Education Response
MANSFIELD	BRISTOL	Health & Education Response
MARION	PLYMOUTH	Greater New Bedford CHN
MARSHFIELD	PLYMOUTH	South Shore Community Partners in Prevention
MASHPEE	BARNSTABLE	Cape and Islands CHN
MATTAPOISETT	PLYMOUTH	Greater New Bedford CHN
MIDDLEBOROUGH	PLYMOUTH	Health & Education Response
NANTUCKET	NANTUCKET	Cape and Islands CHN
NEW BEDFORD	BRISTOL	Greater New Bedford CHN
NORTH ATTLEBORO	BRISTOL	Health & Education Response
NORTON	BRISTOL	Health & Education Response
OAK BLUFFS	DUKES	Cape and Islands CHN
ORLEANS	BARNSTABLE	Cape and Islands CHN
PEMBROKE	PLYMOUTH	South Shore Community Partners in Prevention
PLYMOUTH	PLYMOUTH	South Shore Community Partners in Prevention
PLYMPTON	PLYMOUTH	South Shore Community Partners in Prevention
PROVINCETOWN	BARNSTABLE	Cape and Islands CHN
RAYNHAM	BRISTOL	Health & Education Response
REHOBOTH	BRISTOL	Health & Education Response
ROCHESTER	PLYMOUTH	Greater New Bedford CHN
ROCKLAND	PLYMOUTH	South Shore Community Partners in Prevention
SANDWICH	BARNSTABLE	Cape and Islands CHN
SEEKONK	BRISTOL	Health & Education Response
SOMERSET	BRISTOL	Partners for a Healthier Community
STOUGHTON	NORFOLK	Greater Brockton CHN
SWANSEA	BRISTOL	Partners for a Healthier Community
TAUNTON	BRISTOL	Health & Education Response
TISBURY	DUKES	Cape and Islands CHN
TRURO	BARNSTABLE	Cape and Islands CHN
WAREHAM	PLYMOUTH	Greater New Bedford CHN
WELLFLEET	BARNSTABLE	Cape and Islands CHN
WEST BRIDGEWATER	PLYMOUTH	Greater Brockton CHN
WEST TISBURY	DUKES	Cape and Islands CHN
WESTPORT	BRISTOL	Partners for a Healthier Community

	WHITMAN YARMOUTH	PLYMOUTH BARNSTABLE	Greater Brockton CHN Cape and Islands CHN
WESTERN	ADAMS	BERKSHIRE	CHN of Berkshire
	AGAWAM	HAMPDEN	The Community Health Connection
	ALFORD	BERKSHIRE	CHN of Berkshire
	AMHERST	HAMPSHIRE	Partnership for Health in Hampshire County
	ASHFIELD	FRANKLIN	Upper Valley Health Web
	ATHOL	WORCESTER	Upper Valley Health Web
	BECKET	BERKSHIRE	CHN of Berkshire
	BELCHERTOWN	HAMPSHIRE	Partnership for Health in Hampshire County
	BERNARDSTON	FRANKLIN	Upper Valley Health Web
	BLANDFORD	HAMPDEN	The Community Health Connection
	BUCKLAND	FRANKLIN	Upper Valley Health Web
	CHARLEMONT	FRANKLIN	Upper Valley Health Web
	CHESHIRE	BERKSHIRE	CHN of Berkshire
	CHESTER	HAMPDEN	Four (For) Communities
	CHESTERFIELD	HAMPSHIRE	Partnership for Health in Hampshire County
	CHICOPEE	HAMPDEN	Four (For) Communities
	CLARKSBURG	BERKSHIRE	CHN of Berkshire
	COLRAIN	FRANKLIN	Upper Valley Health Web
	CONWAY	FRANKLIN	Upper Valley Health Web
	CUMMINGTON	HAMPSHIRE	Partnership for Health in Hampshire County
	DALTON	BERKSHIRE	CHN of Berkshire
	DEERFIELD	FRANKLIN	Upper Valley Health Web
	EAST LONGMEADOW	HAMPDEN	The Community Health Connection
	EASTHAMPTON	HAMPSHIRE	Partnership for Health in Hampshire County
	EGREMONT	BERKSHIRE	CHN of Berkshire
	ERVING	FRANKLIN	Upper Valley Health Web
	FLORIDA	BERKSHIRE	CHN of Berkshire
	GILL	FRANKLIN	Upper Valley Health Web
	GOSHEN	HAMPSHIRE	Partnership for Health in Hampshire County
	GRANBY	HAMPSHIRE	Partnership for Health in Hampshire County
	GRANVILLE	HAMPDEN	The Community Health Connection
	GREAT BARRINGTON	BERKSHIRE	CHN of Berkshire
	GREENFIELD	FRANKLIN	Upper Valley Health Web
	HADLEY	HAMPSHIRE	Partnership for Health in Hampshire County
	HAMPDEN	HAMPDEN	The Community Health Connection
	HANCOCK	BERKSHIRE	CHN of Berkshire
	HATFIELD	HAMPSHIRE	Partnership for Health in Hampshire County
	HAWLEY	FRANKLIN	Upper Valley Health Web
	HEATH	FRANKLIN	Upper Valley Health Web
	HINSDALE	BERKSHIRE	CHN of Berkshire
	HOLYOKE	HAMPDEN	Four (For) Communities
	HUNTINGTON	HAMPSHIRE	Four (For) Communities
	LANESBOROUGH	BERKSHIRE	CHN of Berkshire
	LEE	BERKSHIRE	CHN of Berkshire
	LENOX	BERKSHIRE	CHN of Berkshire
	LEVERETT	FRANKLIN	Upper Valley Health Web
	LEYDEN	FRANKLIN	Upper Valley Health Web
	LONGMEADOW	HAMPDEN	The Community Health Connection

LUDLOW	HAMPDEN	Four (For) Communities
MIDDLEFIELD	HAMPSHIRE	Partnership for Health in Hampshire County
MONROE	FRANKLIN	Upper Valley Health Web
MONSON	HAMPDEN	The Community Health Connection
MONTAGUE	FRANKLIN	Upper Valley Health Web
MONTEREY	BERKSHIRE	CHN of Berkshire
MONTGOMERY	HAMPDEN	The Community Health Connection
MOUNT WASHINGTON	BERKSHIRE	CHN of Berkshire
NEW ASHFORD	BERKSHIRE	CHN of Berkshire
NEW MARLBOROUGH	BERKSHIRE	CHN of Berkshire
NEW SALEM	FRANKLIN	Upper Valley Health Web
NORTH ADAMS	BERKSHIRE	CHN of Berkshire
NORTHAMPTON	HAMPSHIRE	Partnership for Health in Hampshire County
NORTHFIELD	FRANKLIN	Upper Valley Health Web
ORANGE	FRANKLIN	Upper Valley Health Web
OTIS	BERKSHIRE	CHN of Berkshire
PALMER	HAMPDEN	The Community Health Connection
PELHAM	HAMPSHIRE	Partnership for Health in Hampshire County
PERU	BERKSHIRE	CHN of Berkshire
PETERSHAM	WORCESTER	Upper Valley Health Web
PHILLIPSTON	WORCESTER	Upper Valley Health Web
PITTSFIELD	BERKSHIRE	CHN of Berkshire
PLAINFIELD	HAMPSHIRE	Partnership for Health in Hampshire County
RICHMOND	BERKSHIRE	CHN of Berkshire
ROWE	FRANKLIN	Upper Valley Health Web
ROYALSTON	WORCESTER	Upper Valley Health Web
RUSSELL	HAMPDEN	The Community Health Connection
SANDISFIELD	BERKSHIRE	CHN of Berkshire
SAVOY	BERKSHIRE	CHN of Berkshire
SHEFFIELD	BERKSHIRE	CHN of Berkshire
SHELBURNE	FRANKLIN	Upper Valley Health Web
SHUTESBURY	FRANKLIN	Upper Valley Health Web
SOUTH HADLEY	HAMPSHIRE	Partnership for Health in Hampshire County
SOUTHAMPTON	HAMPSHIRE	Partnership for Health in Hampshire County
SOUTHWICK	HAMPDEN	The Community Health Connection
SPRINGFIELD	HAMPDEN	The Community Health Connection
STOCKBRIDGE	BERKSHIRE	CHN of Berkshire
SUNDERLAND	FRANKLIN	Upper Valley Health Web
TOLLAND	HAMPDEN	The Community Health Connection
TYRINGHAM	BERKSHIRE	CHN of Berkshire
WARE	HAMPSHIRE	Partnership for Health in Hampshire County
WARWICK	FRANKLIN	Upper Valley Health Web
WASHINGTON	BERKSHIRE	CHN of Berkshire
WENDELL	FRANKLIN	Upper Valley Health Web
WEST SPRINGFIELD	HAMPDEN	The Community Health Connection
WEST STOCKBRIDGE	BERKSHIRE	CHN of Berkshire
WESTFIELD	HAMPDEN	Four (For) Communities
WESTHAMPTON	HAMPSHIRE	Partnership for Health in Hampshire County
WHATELY	FRANKLIN	Upper Valley Health Web
WILBRAHAM	HAMPDEN	The Community Health Connection

	WILLIAMSBURG WILLIAMSTOWN WINDSOR WORTHINGTON	HAMPSHIRE BERKSHIRE BERKSHIRE HAMPSHIRE	Partnership for Health in Hampshire County CHN of Berkshire CHN of Berkshire Partnership for Health in Hampshire County
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DATA SOURCES

Massachusetts Division of Health Care Finance and Policy

MDPH, Bureau of Communicable Disease Control

MDPH, Bureau of Substance Abuse Services

MDPH, Environmental Health Bureau

MDPH, Health Information, Statistics, Research & Evaluation Bureau

SAMHSA, Office of Applied Studies