Health of Worcester 2012

Who we are, what our health status is and what the Division of Public Health’s priorities are

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Current as of March, 2012
Under the direction of City Manager Michael O’Brien your Division of Public Health is proud to present the 2012 Worcester Community Indicators Report created in partnership with the University of Massachusetts Medical School, the UMass Memorial Medical Center, St. Vincent Hospital, Common Pathways and Worcester residents and organizations who attended the April 28, 2011 Community Indicators Forum.

This report provides a “snapshot” of the City of Worcester’s health. These indicators are focused specifically on the areas in which we need the most improvement and it is intended as a first step.

We invite residents, businesses and organizations to use this data and join forces with us to work together to improve those factors that most affect our health and quality of life.
Community members who have provided input:

- **Common Pathways:** Clara Savage, EdD
- **Boys & Girls Club:** Judy Kirk
- **Diocese Of Worcester Schools:** Delma Josephson, EdD
- **Food & Active Living Policy Council**
- **Greater Worcester Research Bureau:** Roberta Schaffer, PhD
- **Health Foundation of Central Mass:** Janice Yost, EdD, Elaine C. Cinelli, MPA
- **Hector Reyes House:** Matilda Castiel, MD
- **Hunger Free & Healthy:** Liz Sheehan-Castro
- **Latino Advisory:** Benito Vegas
- **Mass Senate:** Hon. Harriet Chandler, PhD
- **Mosaic:** Brenda Jenkins
- **Pioneering Healthier Communities**
- **Regional Advisory Council for Children**
- **Regional Environmental Council:** Steve Fischer
- **Spectrum Heath:** Chuck Feris
- **Umass Medical School/Commonwealth Medicine:** Abigail Averbach, MSc; Christopher Boyd, MPA, Kola Akindele, JD; Susan Cashman, ScD; Lee Hargraves, PhD; Catarina Kiefe, MD/PhD; James Leary, JD; Stephanie Lemon, PhD; Marianne Felice, MD
- **UMass Memorial Medical Center:** John O’Brien, MBA; Monica Lowell, BA; Gary Lapidas, BS; Cheryl Lapriore, MBA
- **United Way of Central MA:** Tim Garvin
- **Vanguard-St. Vincent Hospital:** Dennis Irish
- **Worcester Public Schools:** Melinda Boone, EdD
What’s New in this report since June 2011?

• Population Profiles, Deaths, Admissions, ER Visits, Infection incidence & Disease prevalence have been updated to the extent possible
• Citywide Youth Survey 2011
• Profile of Black Community
• Survey for Report users to give us feedback
Accessing this report:

This report is the public face of your Department of Public Health’s information system for monitoring the health of our community and setting priorities. It is updated continuously.

In addition to the base report, you will see links throughout the report that will bring you to more detail on a subject. There are over a dozen enhancements available as well as web links to more information on a topic.
Your Division of Public Health
Assess, Develop Policies & Procedures, Assure Effects

The goal of this report is to help everyone to focus, prioritize and improve the health of our community
Structure of this Report

- Profile of Worcester Residents
- Socioeconomic Indicators
- Habits that place us at risk for poor health
- Prevalence of disease
- Use of health services
- Causes of death
- Priorities for the Department of Public Health
- Actions to improve health
Worcester’s Population has grown and become more diverse

Source: U.S. Census
Worcester is home to groups with many different heritages. This data from the US census does not reflect the many countries in sub-Saharan Africa that are now represented in our city.

More about Worcester Blacks

Self-Reported Ancestry of Worcester Residents 2009

Source: U.S. Census
Source: U.S. Census Bureau, 2010 American Community Survey
Although the unemployment rate for Worcester in 2010 was 8.9% of the labor force, about 35% of the population is not in the labor force. Of the employed, 45% are in health care, education & social services.

Sources: U.S. Census Bureau, 2010 American Community Survey Sector Employment: MA Dept Workforce Development
Overall, about 1 in 7 families are in poverty, however, about 50% of single mothers live in poverty.

Source: U.S. Census Bureau, 2010 American Community Survey
Over half of the housing in Worcester is renter occupied. Nearly 40% of the residents have been in their current home for less than 5 years.

Source: U.S. Census Bureau, 2010 American Community Survey
Social Determinants

A number of individual characteristics affect health. Years of life can be gained by addressing the following risk factors:

- **Education**- the more the better
- **Single parenthood**- greater risks for poverty & infant mortality
- **Poverty**- sets up a cascade that is never fully corrected & leads to more disease & worse survival
- **Unsafe environment**- stress, injury, premature death
- **Substance abuse**: smoking, alcohol & drugs all decrease health and lifespans
Graduation from Worcester High Schools, by Race and Ethnicity

Over the past 5 years, Latino students were less likely to graduate than students from other backgrounds; Students from Asian heritage were most likely to graduate.

Source: Massachusetts Dept. of Elementary & Secondary Education

Learn more about Worcester students
Habits that place us at risk
Smoking Prevalence (Age 18+): Worcester & MA

Source: Massachusetts Behavioral Risk Factor Surveillance System
Habits that place us at risk:
Substance abuse by high school students

Source: Worcester Regional Youth Survey 2011

More on Adolescent Substance Abuse
Habits that place us at risk
Adult Binge drinking

Source: MA BRFSS 2010
Binge Drinking: 5 or more drinks at a time within the past month
Habits that place us at risk
Substance abuse: opioids*

- Rehab admissions\(^1\): 4821 (2374 opioid) (2010)
- Overdose 911 calls\(^2\): 94 (2011)
- ER visits\(^1\): 448 (2008)
- Hospitalizations\(^1\): 652 (2008)
- Deaths from opioid overdoses\(^1\): 29 (2008)

Sources: 1. MassCHIP 2. Worcester Police department * all numbers estimates
Habits that place us at risk
Obesity among children
2011

Obesity in Worcester Public Schools

<table>
<thead>
<tr>
<th>Race</th>
<th>1st Grade</th>
<th>11th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>18%</td>
<td>8%</td>
</tr>
<tr>
<td>Black</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>27%</td>
<td>22%</td>
</tr>
<tr>
<td>White</td>
<td>18%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Habits that place us at risk
Obesity among adults

Source: MassCHIP 2009 & CDC
Crime rate

Violent Crime Rate per 100,000 people

Source: Crime Reporting Unit, Mass State Police
Preliminary Data 2011

More about crime
Infant mortality is not only a sign of the health of infants but also of how well the mother, the family and the community function in caring for their most vulnerable. The rate is affected by medical and obstetric conditions, smoking and other substances, housing, diet, stress, environment and genetics. It is also affected by education, poverty & marital status. The rate is measured as the number of deaths before 1 year of age per 1,000 live births.
Infant Mortality

Particularly high Infant Mortality rates have affected two populations in Worcester: Blacks and Latinos.

**Black** Infant Mortality relates to West African immigration where the rates can be over 50 in the country of origin. There are many stresses associated with immigration for this population and research is being done to better understand the causes.

**Latinos** have a number of socioeconomic risk factors including less education, more poverty, more teen pregnancies and more single mothers.

More on infant mortality
Source: MassCHIP
Hepatitis C is often the result of IV drug abuse and its incidence points to the significance of drug abuse in Worcester. Source: WDPH MAVEN reporting system
Chlamydia is the most common sexually transmitted infection reported. Fewer than 2 dozen new cases of HIV are reported per year. There are now nearly 1,000 individuals living with HIV in Worcester. HIV has become a chronic disease with which people live long lives.

Source: MDPH
Chronic Disease
Worcester Adults
2010

Source: MassCHIP 2010
*2009 data

<table>
<thead>
<tr>
<th>Condition</th>
<th>MA</th>
<th>Worcester</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Cholesterol*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fair to Poor Health</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: MassCHIP 2010
*2009 data
Top 5 Cancers in Worcester 2007
not significantly different from MA or US

Source: Mass DPH

More detail on cancer incidence
Use of health care services
Acute illness- top 5 reasons for Emergency Room visits- Worcester 2008

Primarily due to accidents & falls, upper respiratory infections and gastroenteritis

Source: Mass DPH
Use of Health Care Services
Hospitalization

Worcester Hospitalizations 2009

Circulatory System, Pregnancy, Respiratory System, Mental Disorders, Digestive system and Injuries & Overdoses top the list

Source: Mass DPH
Overall Causes of Death: Worcester 2008

Top 3: Circulatory System, Cancer, Respiratory: all are related to smoking

Source: Mass DPH
Premature Death (under age 75), is responsible for nearly 1/3 of Worcester Deaths. Nearly all of these should be able to be delayed

**Causes of Premature Death: Worcester 2008**

- Top 3: Cancer, Circulatory System, Injuries & Poisoning

Source: Mass DPH
What cancers do we die prematurely of? (2008)

Source: Mass DPH

Learn more about cancer deaths
Injuries & Poisoning Premature Deaths- Worcester 2008

Opioid Overdoses

Source: Mass DPH
Setting Priorities

Priorities were set by assessing the top causes of premature death as well as aligning them with available resources both within the Division of Public Health & within the community.

The priorities also align with the National Prevention Strategy.
Researchers have related the cause of death in the U.S. to habits. Worcester has more of an opioid problem than the nation as a whole.

For Worcester, illicit drugs would rank number 3 rather than alcohol as is the case in the rest of the country.
Setting Priorities

In setting priorities we are addressing the habits and conditions that are responsible for the 3 top causes of premature death. The determinants underlying these conditions actually affect much more than these 3 conditions and will have a very broad impact.

Causes of Premature Deaths - Worcester 2008

- Most common is lung, related to smoking
- Related to weight & smoking
- Related to opiate overdoses

Source: Mass DPH
Priorities of the Division of Public Health for 2011-2015:

- **Unhealthy Weight**: leads to diabetes, renal failure, hypertension, elevated cholesterol, stroke, heart attack as well as increases in some cancers, joint deterioration, sleep apnea, gallstones & premature death due to the above.

- **Smoking**: ~90% of lung cancer are caused by smoking (~10% due to passive smoking), as well as cancers of the lip, pharynx, larynx, pancreas, bladder, cervix. Risks for premature death due to stroke or heart attack are increased by 3-5X.

- **Substance Abuse (especially opioids)**: addiction leads to unemployment, crime, infection, organ damage and destabilizes families and leads to deaths due to overdose.
Unhealthy Weight
Goal: decrease obesity & overweight by 5% in 5 years

• Extent of problem for Worcester:
  – 27% of adults are obese and another ~ 35% are overweight.
  – Nationally the number of children entering school obese has doubled over the past 3 decades to 10%\(^1\). In Worcester this number exceeds 18%.
  – Children who are obese at age 8 have an >90% chance of being overweight or obese adults\(^2\).
  – Approximately 1/5 high school students are obese (Worcester), this is even higher among Hispanics and the poor.
  – 9% of Worcester adults are diabetic, 26% hypertensive and 35% have an elevated cholesterol.
  – Cardiovascular disease is the #2 cause of premature death in Worcester

1. [http://www.cdc.gov/nchs/data/hestat/obesity_child_07_08/obesity_child_07_08.htm](http://www.cdc.gov/nchs/data/hestat/obesity_child_07_08/obesity_child_07_08.htm)
2. [http://www.ajcn.org/content/76/3/653/T2.expansion.html](http://www.ajcn.org/content/76/3/653/T2.expansion.html)
Smoking
Goal: decrease smoking rate by 5% in 5 years

• Extent of problem for Worcester:
  – Worcester’s rate (2010) is 19% among adults- MA is 14%, Worcester is where MA was 10 years ago
  – 2/3 of smokers begin before age 18\(^1\)
  – Cancer is the #1 cause of premature death in Worcester
  – Lung cancer is responsible for 40% of premature deaths due to cancer in Worcester. 90% of lung cancer deaths are related to smoking.
  – Deaths due to circulatory problems (heart attack & stroke) are the #2 cause of premature death in Worcester- risk increase 3-5X for smokers\(^2\)

2. Surgeon General’s Report on the Effects of Smoking 2010, Page 356, Figure 1
Substance Abuse- especially Opiates
Goal: lower deaths from overdoses, prevalence of opiate abuse and recidivism rate

Extent of problem for Worcester:
- ~1-2% of adults are addicted to opiates in Worcester
- ~1/1000 overdose per year
- ~1/10,000 die of an overdose per year
- >1/3 of inmates at Worcester County jail have a substance abuse problem (this number may be as high as 80%)
- 100% of inmates released from MA state prisons have had previous incarcerations, in Worcester County jail 2/3 have previously been incarcerated, only 1/3 are released to parole supervision, others are supervised through probation. Much of this recidivism is felt to be related to unresolved addiction.
- Large percentage of sex workers have substance abuse problems. This is also a source of STDs including HIV, Chlamydia, gonorrhea and syphilis.
- A significant number of the homeless have substance abuse problems
- Hepatitis C (usually spread through sharing needles) is #2 reportable infection second only to Chlamydia
- Deaths from Opioid overdose exceeds deaths from auto accidents
Any serious effort to address these priorities must focus more on youth

- **Tobacco:** up to 4/5 smokers begin before 18
- **Overweight:** obese at age 8: >90% chance of being overweight adult
- **Substance abuse:** >90% of addicted to illicit or prescription drugs begin before 18*
- **Education:** a college degree is associated with far better health and years of life

* Source: National Center for Drug Abuse at Columbia Univ

Our community needs to wrap around efforts in the schools
Driving down smoking in Worcester

- HOPE Coalition
- Massachusetts Tobacco Cessation & Prevention Program
- Worcester City Council
  - Ban on selling tobacco products at pharmacies & schools
  - Signage ban visible from public roads & parks*
  - Blunt wrap ban*
  - Buffer zone around municipal buildings & healthcare institutions
- Worcester Regional Tobacco Control Collaborative

* stay pending litigation
Eat Better

- Grow your own
  - School Gardens
  - Community Gardens
- Shop better
  - Farmers’ Markets
  - Healthier Supermarkets
- Cook better
- Eat better in school

WooFood
- Eat out better
- *Order SMALL!!*

A healthy change respecting choice & tradition
Move More

• Move more in your neighborhood
• Move more in the City  MassInMotion
• Move more in school
• Move more after school
• Move more at work  Pioneering Healthier Communities
• Do something now!

Healthy Worcester
Decreasing Opiate use & deaths in Worcester

• **Decrease starting with drugs among youth**
  - Dispose of unused prescription drugs
    – 6% of High School Students in MA have taken another’s prescription in the past 30 days

• **Increase enrollment** in withdrawal programs
  – Case management for prisoners after release

• **Decrease overdoses of opiates**

• **Decrease deaths from opiate overdoses**

• **Decrease hepatitis C infection**

1. 2009 National Survey on Drug Use; HHS Substance abuse & mental health services admin
2. MYRBS 2009

Learn more about decreasing substance abuse
Results: Overweight & Obesity

Grade 1 overweight & obese
Goal: 36%

Adult overweight & obesity
Goal: 57%
Results: Smoking

Adolescent Smokers
Goal: 13%

2010: 18

Adult Smokers
Goal: 13.9%

2010: 18.9
Results: Substance abuse among youth

- Binge Drinking
- Ridden with intoxicated driver (past 30 dys)
- Offered, sold, given drugs at school (past yr)
Results: Opiate use/morbidity/mortality

ODs

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>2010</td>
<td>220</td>
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</table>

OD Deaths

<table>
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<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>32</td>
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</table>
Public Health begins with you!

- If your **Body Mass Index** (BMI) is ≥ 25 or you have a medical condition that may improve with weight loss:
  - Eat less!
  - **Move more**!
- If you smoke:
  - **Cut down & stop smoking**
- If you use drugs:
  - **get counseling**
Public Health begins with you!

- Other organizations are encouraged to focus on these priorities. Many concerns are intertwined with the priorities selected by the Division of Public Health, such as substance abuse and mental health.

- **Data by their very nature are dynamic**, always changing and always needing to be updated. While the report aims to be comprehensive, it was not possible to access data for all conditions of interest or every subgroup that we might have wanted to examine in detail.

- We invite residents, businesses and organizations to use this data and **join forces to better our community**. We also encourage you to share your findings back with the Division of Public Health and other community partners.

- You are welcome **to request more data** from the Division: email us with your request.
Survey

1) What information in the report did you find most useful?
2) Was there any specific information you were looking for that you did not find?
3) Do you have any suggestions for information that you would like to see included in future releases of the report?
4) Do you have any suggestions for improvements to the way the information is presented? (For example, do you prefer a certain kind of graph or chart, would you prefer to see more information presented in tables, would you like to see more narrative interpretation of the data?)
5) How did you hear about the report?
6) Do you have any other feedback?

Thank you for your input.

We are interested in learning more about you. Please feel free to provide the following information (optional):

1) Name
2) Organization
3) Phone number
4) Email address

Please submit all responses via email to health@worcesterma.gov.