Creating the Healthiest Community in Wisconsin

- **Fort HealthCare**
- **Service Area**
  - Cambridge
  - Fort Atkinson
  - Jefferson
  - Johnson Creek
  - Lake Mills
  - Palmyra
  - Whitewater
Population Health Model

Health Outcomes

Health Factors

Programs and Policies
Health Outcomes

- Mortality (length of life): 50%
- Morbidity (quality of life): 50%

Health Factors

- Health behaviors (30%)
  - Tobacco use
  - Diet & exercise
  - Alcohol use
  - Unsafe sex
- Clinical care (20%)
  - Access to care
  - Quality of care
- Social & economic factors (40%)
  - Education
  - Employment
  - Income
  - Family & social support
  - Community safety
- Physical environment (10%)
  - Environmental quality
  - Built environment

Programs and Policies

County Health Rankings model © 2010 UPHI
DATA—Setting the Stage

- CDC—National
- Jefferson County
- Fort HealthCare Service Area
- Fort HealthCare Employees
- Fort HealthCare patients

- Data drives the priorities
<table>
<thead>
<tr>
<th></th>
<th>Jefferson County</th>
<th>Error Margin</th>
<th>National Benchmark*</th>
<th>Wisconsin</th>
<th>Rank (of 72)</th>
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<tbody>
<tr>
<td><strong>Health Outcomes</strong></td>
<td></td>
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<tr>
<td>Mortality</td>
<td></td>
<td></td>
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<tr>
<td>Premature death</td>
<td>5,959</td>
<td>5,375-6,542</td>
<td>5,466</td>
<td>6,124</td>
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<tr>
<td>Mortality</td>
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<tr>
<td>Poor or fair health</td>
<td>13%</td>
<td>10-18%</td>
<td>10%</td>
<td>12%</td>
<td>31</td>
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<tr>
<td>Poor physical health days</td>
<td>3.2</td>
<td>2.3-4.0</td>
<td>2.6</td>
<td>3.3</td>
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<td>Poor mental health days</td>
<td>3.7</td>
<td>2.6-4.8</td>
<td>2.3</td>
<td>3.0</td>
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<tr>
<td>Low birthweight</td>
<td>5.7%</td>
<td>5.2-6.3%</td>
<td>6.0%</td>
<td>6.9%</td>
<td></td>
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<tr>
<td><strong>Health Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Health Behaviors</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Adult smoking</td>
<td>20%</td>
<td>16-25%</td>
<td>14%</td>
<td>26%</td>
<td>44</td>
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<tr>
<td>Adult obesity</td>
<td>32%</td>
<td>27-38%</td>
<td>25%</td>
<td>29%</td>
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<tr>
<td>Physical inactivity</td>
<td>22%</td>
<td>17-29%</td>
<td>21%</td>
<td>23%</td>
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<tr>
<td>Excessive drinking</td>
<td>22%</td>
<td>18-28%</td>
<td>8%</td>
<td>24%</td>
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<tr>
<td>Motor vehicle crash death rate</td>
<td>18</td>
<td>14-21%</td>
<td>12</td>
<td>15</td>
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<tr>
<td>Sexually transmitted infections</td>
<td>128</td>
<td>84-372</td>
<td>84</td>
<td>372</td>
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<tr>
<td>Teen birth rate</td>
<td>18</td>
<td>20-24%</td>
<td>22</td>
<td>31</td>
<td></td>
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<tr>
<td>Clinical Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uninsured</td>
<td>11%</td>
<td>10-12%</td>
<td>11%</td>
<td>11%</td>
<td>35</td>
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<tr>
<td>Primary care physicians</td>
<td>1,414:1</td>
<td>631:1</td>
<td>744:1</td>
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<tr>
<td>Preventive hospital stays</td>
<td>56</td>
<td>51-61</td>
<td>49</td>
<td>59</td>
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<tr>
<td>Diabetic screening</td>
<td>90%</td>
<td>83-97%</td>
<td>89%</td>
<td>89%</td>
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<tr>
<td>Mammography screening</td>
<td>73%</td>
<td>66-80%</td>
<td>74%</td>
<td>73%</td>
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</tr>
<tr>
<td><strong>Social &amp; Economic Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school graduation</td>
<td>90%</td>
<td></td>
<td></td>
<td>86%</td>
<td>30</td>
</tr>
<tr>
<td>Some college</td>
<td>59%</td>
<td>56-62%</td>
<td>68%</td>
<td>63%</td>
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</tr>
<tr>
<td>Unemployment</td>
<td>9.2%</td>
<td></td>
<td></td>
<td>5.4%</td>
<td>8.3%</td>
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<tr>
<td>Children in poverty</td>
<td>15%</td>
<td>12-18%</td>
<td>13%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Inadequate social support</td>
<td>16%</td>
<td>12-20%</td>
<td>14%</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>Children in single-parent households</td>
<td>23%</td>
<td>20-27%</td>
<td>20%</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Violent crime rate</td>
<td>17%</td>
<td></td>
<td></td>
<td>27%</td>
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<tr>
<td><strong>Physical Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Air pollution-particulate matter days</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Air pollution-ozone days</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
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<tr>
<td>Access to recreational facilities</td>
<td>16</td>
<td>16</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited access to healthy foods</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
<td></td>
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<tr>
<td>Fast food restaurants</td>
<td>41%</td>
<td></td>
<td></td>
<td>25%</td>
<td>41%</td>
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</tbody>
</table>

* 90th percentile, i.e., only 10% are better

Note: Blank values reflect unreliable or missing data
DATA—Setting the Stage

- CDC—National
- Jefferson County
- Fort HealthCare Service Area
- Fort HealthCare Employees
- Fort HealthCare patients

- Data drives the priorities
Most & 2nd Most Important Issues

Care for Elderly  Quality of Care/Doctors
Affordable Care/Cost  Tobacco Use
Emergency Care (ER)  Cancer
Preventative Care Screenings  Heart
Doctor-Patient Time & Communication

Obesity/Weight Issues

Alcohol Use  Easy to Get Appointments
Access to Care/Convenience  Emotional/Mental Health
Physical Activity  Specialty Doctors
Uninsured Access to Care
Drug Use  Nutrition/Diet
Health Education/Communication  Diabetes
Data Drives Priorities

- Obesity
  - Nutrition
  - Physical Activity
72 million U.S. Adults are obese (worldwide, 1.46 billion overweight and 502 million obese–199 countries)

No state has an obesity rate less than 15% of the national goal of 20%.

Non–Hispanic black women and Hispanics have the highest rates of obesity 41.9% and 30.7%

Considered a national epidemic

7 out of 10 deaths among Americans each year are from chronic disease.
Percent of Obese (BMI ≥ 30) in U.S. Adults

Source: Centers for Disease Control and Prevention
Percent of Obese (BMI ≥ 30) in U.S. Adults
Percent of Obese (BMI $\geq 30$) in U.S. Adults
Percent of Obese (BMI ≥ 30) in U.S. Adults

2005

Map of the United States with states shaded to represent the percentage of obese individuals.

Legend:
- No Data
- <10%
- 10%-14%
- 15%-19%
- 20%-24%
- 25%-29%
- ≥30%
Percent of Obese (BMI ≥ 30) in U.S. Adults
Why an Epidemic?

- Eat too much, too little physical activity
- Some Americans have less access to stores that provide healthy, affordable food
- Too much sugar in our diet. Six out of ten adults drink at least one sugary drink per day.
- Easier and cheaper to get less healthy foods and beverages
- Foods high in sugar, fat and salt are frequently marketed and advertised
  - Societal and community changes
Consequences of Obesity

- 7 out of 10 deaths among Americans each year are from chronic disease including type 2 diabetes, hypertension, heart disease, stroke and some cancers.

- Every additional 5 kg/m(2) in BMI increases a man’s risk of oesophageal cancer by 52% and colon cancer by 24% and for women endometrial cancer by 59%, gall bladder cancer by 59% and postmenopausal breast cancer by 12%. (The Lancet Vol 378 August 27, 2011)

- 1 in 3 adults is obese and almost 1 in 5 youths between the ages of 6 and 19 is obese

- More than one-third of all adults do not meet recommendations for aerobic physical activity

- In 2005, more than 1/3 of Americans did not consume the recommended daily fruits and vegetables
The health cost of obesity in the US is $147 billion annually (10% of the national medical budget).

Estimates show an additional increase of $28 billion in cost to obesity related chronic conditions by 2020 and $66 billion by 2030 (The Lancet, Vol 378 August 27, 2011)–Top contributors are arthritis, coronary heart disease and diabetes.

The proportion of all annual medical costs that are due to obesity increased from 6.5% in 1998 to 9.1% in 2006.

Overall, persons who are obese spent $1,429 (42%) more for medical care in 2006 than did normal weight people. These estimates were compiled using national data that compare medical expenses for normal weight and obese people.
The Cost of Obesity

- In 2000, health care costs associated with physical inactivity topped $76 billion. IF 10% of adults began a regular walking program $5.6 billion in heart disease costs could be saved.

- A sustained 10% weight loss will reduce an overweight person’s lifetime medical costs by $2,200 – $5,300 by lowering costs associated with hypertension, type 2 diabetes, heart disease, stroke and high cholesterol
“Obesity is a risk for a number of chronic disease, including diabetes, cardiovascular disease and some cancers” states William H. Dietz, MD, PhD, director of CDC’s Division of Nutrition, Physical Activity and Obesity.

“Reversing this epidemic requires a multifaceted and coordinated approach that uses policy and environmental change to transform communities into places that support and promote healthy lifestyle choices for all people.”
Social Ecological Model

- Local, state, and national laws and politics
- Natural and built environment; community resources
- Formal and informal rules in institutional settings
- Social support and social networks
- Knowledge, beliefs, attitudes, skills, self-concept

Intervention Examples: Obesity Prevention

Public Policy national, state, local laws and regulations

Community relationships between organizations

Organizational organizations, social institutions

Interpersonal families, friends, social networks

Individual knowledge, attitudes, skills

Biking clubs, parent-student exercise program

Nutrition education, cooking demonstrations

Gym memberships, healthy foods at meetings

Zoning ordinances, nutrition and physical activity legislation, economic development and education policies

Improvement to parks, media campaigns, farmers’ markets
The Health Impact Pyramid

Increasing Population Impact

Counseling and Education
- dietary counseling

Clinical Interventions
- treatment of hypertension

Long-Lasting Protective Interventions
- immunizations

Changing the Context to Make Individuals' Default Decisions Healthy
- fluoridated water

Socioeconomic Factors
NYS Tobacco Control Program
Health Impact Pyramid

Prevention and cessation education.

Health provider SA, EHR that document tobacco screening and interventions.

Mass media campaigns.

Smoke-free policies, high prices for tobacco, restricting tobacco marketing, establishing and reinforcing tobacco-free social norms.

Tobacco industry targeting of low-SES, racial/ethnic minorities, LGBT. Tobacco use to self-medicate for depression/stress caused by social disadvantage. Family and social networks supportive of tobacco use.