Leading Causes of Death
Philadelphia, 2009

- Cardiovascular: 32%
- Cancer: 24%
- Other: 16%

Source: PDPH, Vital Statistics Reports, 2009
The Challenge to Public Health: Disparity in Life Expectancy in Philadelphia


Difference of 22.48 years
Public Health Priorities

1. Heart disease and cancer prevention
2. Reproductive health for youth
3. Healthy start to life
Leading Causes of Death
Philadelphia, 2009

Cardiovascular and cancer deaths account for 56% of all mortality

Source: PDPH, Vital Statistics Reports, 2009
Adult Hypertension
Philadelphia

Source: PHMC Household Health Survey, 2000-2012
Cancer Mortality
Philadelphia vs. Other Major Cities

Cancer mortality rates, 2004

Source: NCHS VSRS 2004
Cancer Mortality
Compared to Poverty Rates

NCHS Vital Statistics Reporting System, 2004
Women’s Cancer Screening

Source: PHMC Household Health Survey, 2000-2010
Adult Smoking
Philadelphia

Source: PHMC Household Health Survey, 2000-2012

- Clean indoor air law fully implemented
- Federal excise tax increase of $0.62
- Get Healthy Philly


Source: PHMC Household Health Survey, 2000-2012
Adult Smoking Prevalence
10 Largest U.S. Cities, 2007

Source: Behavioral Risk Factor Surveillance System, 2007; City-specific public health data
Adult Obesity
Philadelphia

Source: PHMC Household Health Survey, 2000-2010
Childhood Obesity

Percentage of Children (6-17y) who are Overweight or Obese (BMI >= 85th percentile for age and gender), 2008

Citywide average = 56.5%

LEGEND
- Planning analysis sections
- Non-residential
- Overweight or obese
  - 28.7 - 29.4
  - 29.5 - 40.8
  - 40.9 - 51.0
  - 51.1 - 69.3

Giridhar Mallya, MD, MSHP
Department of Public Health
Giridhar.Mallya@phila.gov
5/5/09

Source: PHMC Household Health Survey
### Cesarean Section Rates

By Maternal Weight

#### Percentage of Philadelphia Resident Women Giving Birth Via Cesarean Section by BMI Category, 2003-2008*

<table>
<thead>
<tr>
<th></th>
<th>Underweight</th>
<th>Healthy</th>
<th>Overweight</th>
<th>Obese</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>13.2%</td>
<td>21.7%</td>
<td>27.7%</td>
<td>35.6%</td>
</tr>
<tr>
<td>2004</td>
<td>16.2%</td>
<td>22.4%</td>
<td>28.6%</td>
<td>35.8%</td>
</tr>
<tr>
<td>2005</td>
<td>18.7%</td>
<td>23.7%</td>
<td>29.1%</td>
<td>38.5%</td>
</tr>
<tr>
<td>2006</td>
<td>17.9%</td>
<td>24.8%</td>
<td>30.3%</td>
<td>39.0%</td>
</tr>
<tr>
<td>2007</td>
<td>21.0%</td>
<td>25.1%</td>
<td>30.4%</td>
<td>39.2%</td>
</tr>
<tr>
<td>2008**</td>
<td>17.6%</td>
<td>25.3%</td>
<td>31.2%</td>
<td>39.9%</td>
</tr>
</tbody>
</table>

*2008 data are preliminary and have not been finalized by the state.

**Data were obtained from the birth record. Approximately 7% of all records are missing BMI information.

Data Source: Vital Records data. Analysis was completed by the Division of Maternal, Child and Family Health, Philadelphia Department of Public Health.
Adult Diabetes
Philadelphia

Source: PHMC Household Health Survey, 2000-2012
Real Price of Carbonated Beverages
vs. Other Foodstuffs

Source: Brownell and Frieden, NEJM 2009
Screen Time Among High Schoolers
Philadelphia, 2011

<table>
<thead>
<tr>
<th>(Percent reporting)</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used computer 3 or more hours per day, not for school work</td>
<td>35.8</td>
<td>40.5</td>
<td>36.2</td>
</tr>
</tbody>
</table>

Source: Centers for Disease Control, Youth Risk Behavior Surveillance Survey
### Screen Time Among High Schoolers
Philadelphia, 2011

<table>
<thead>
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<th>White</th>
<th>Black</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used computer 3 or more hours per day, not for school work</td>
<td>35.8</td>
<td>40.5</td>
<td>36.2</td>
</tr>
<tr>
<td>Watched TV 3 or more hours per school day</td>
<td>35.0</td>
<td>51.8</td>
<td>38.7</td>
</tr>
</tbody>
</table>

Source: Centers for Disease Control, Youth Risk Behavior Surveillance Survey
Health Impact Pyramid for Heart Disease

Examples

Weight Watchers, Smoke Enders

Rx for high blood pressure, high cholesterol, diabetes; bypass surgery

Statin use, exercise programs, bariatric surgery, DASH diet

0g trans fat, safe streets, play spaces, smoke-free laws, tobacco tax

Poverty, education, housing, inequality

Socioeconomic Factors

Changing the Context to make individuals’ default decisions healthy

Long-lasting Protective Interventions

Clinical Interventions

Counseling & Education

Smallest Impact

Largest Impact

Frieden T, AJPH 2009
How can we make it easier for Philadelphians to engage in healthy behaviors?

- Built environment
- Workplaces
- Educational institutions
- Media
- Community retail environment, restaurants
- Legislation and regulation
- Insurers and health care providers
Built Environment
Safer Walking and Biking

- 2 new north-south bike lanes and an education & enforcement campaign for an area with a day-time population of 250,000
- Over 28,000 2\textsuperscript{nd} and 5\textsuperscript{th} graders provided pedestrian and bicycle safety lessons
Built Environment
Smoke-free Rec Centers, Playgrounds, Pools

• 183 smoke-free recreation centers, playgrounds, and pools, affecting over 2 million annual visits
• 850 new smoke-free acres!
Built Environment
Planning and Zoning

- Encouraging the incorporation of fresh food markets into commercial and mixed-use developments by offering density bonuses that don’t count the square footage of those markets against the maximum buildable area (14-603(7))

- Requiring the provision of secure bicycle parking in developments above a certain size, and allowing the removal of 1 automobile space in exchange for the provision of 5 bicycle parking spaces (14-804)
Schools
School Wellness Councils

School Wellness Council Interventions, 2010-2012
Number of Schools Selecting Wellness Goals

- Healthy classroom rewards: 134
- Healthy fundraisers: 129
- Socialized Recess: 89
- Classroom movement breaks: 48
- Healthy school stores: 5

Afterschool Programs
Food and Fitness Policies

• Food and fitness standards developed for over 207 afterschool programs serving 20,000 low-income children

• Structured physical activity opportunities in 94 recreation center afterschool programs

• Healthier, more complete meals in 50+ recreation center afterschool programs
High Poverty and Low to No Walkable Access to Healthy Food

PLANNING DISTRICT - LOWER NORTH

- Tobacco Retailers
- Healthy Corner Stores - Level I (Score = 2)
- Healthy Corner Stores - Level III (Score = 4)
- Supermarkets (Score = 100)
- Chain Convenience Stores (Score = 4)
- Midized Supermarkets (Score = 20)
- Farmer Markets (Score = 2)
- Produce Carts (Score = 2)
- Health Centers
- Schools

Legend:
- Planning Districts
- Non Residential Area
- High Poverty and Low To No Access
- Rec Centers
- Playgrounds

High Poverty - Areas where 60% or more of the households live in poverty as defined by household income ≤ 200% of the federal poverty level. (Source: 2009 Census, American Community Survey)
Low to No Access - Areas with a walkable access to healthy food score of 9 or lower.
Created by Jonathan Sinker on 4/27/2011

Source:
Supermarkets, Midized Supermarkets and Chain Convenience Stores - Infogroup USA
Farmer's Markets and Healthy Corner Stores - The Food Trust
Produce Carts - Environmental Health Services, Philadelphia Department of Public Health
Schools and Planning Districts - Philadelphia City Planning Commission
Recreation Centers and Playgrounds - Philadelphia Department of Parks and Recreation
Tobacco Retailers - Pennsylvania Department of Revenue
Retail Environment
Philly Food Bucks & Healthy Corner Stores

10 new farmers’ markets in low-income neighborhoods
  • $2 of free fruits and vegetables for every $5 of SNAP benefits
  • 335% increase in SNAP redemption at farmers’ markets

Over 630 corner stores selling healthier products
  • Over 100 mini conversions completed
  • On average, each store introduced 20+ new products as a result of a conversion
Healthy Corner Stores

As of January 18, 2012

Legend
- Green circles: Conversion Stores
- Purple circles: Enrolled Corner Stores
- Black lines: Zip Codes
- Gray areas: Non-Residential

<table>
<thead>
<tr>
<th>Zip Code</th>
<th>Corner Stores</th>
<th>Zip Code</th>
<th>Corner Stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>19144</td>
<td>20</td>
<td>19146</td>
<td>28</td>
</tr>
<tr>
<td>19124</td>
<td>28</td>
<td>19147</td>
<td>17</td>
</tr>
<tr>
<td>19135</td>
<td>6</td>
<td>19142</td>
<td>24</td>
</tr>
<tr>
<td>19127</td>
<td>0</td>
<td>19145</td>
<td>18</td>
</tr>
<tr>
<td>19140</td>
<td>43</td>
<td>19112</td>
<td>0</td>
</tr>
<tr>
<td>19129</td>
<td>5</td>
<td>19148</td>
<td>32</td>
</tr>
<tr>
<td>19137</td>
<td>1</td>
<td>19153</td>
<td>0</td>
</tr>
<tr>
<td>19131</td>
<td>16</td>
<td>19116</td>
<td>0</td>
</tr>
<tr>
<td>19134</td>
<td>67</td>
<td>19154</td>
<td>0</td>
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<tr>
<td>19132</td>
<td>43</td>
<td>19115</td>
<td>1</td>
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<tr>
<td>19133</td>
<td>32</td>
<td>19114</td>
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<td>19125</td>
<td>9</td>
<td>19111</td>
<td>6</td>
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<td>19121</td>
<td>30</td>
<td>19150</td>
<td>0</td>
</tr>
<tr>
<td>19151</td>
<td>13</td>
<td>19138</td>
<td>6</td>
</tr>
<tr>
<td>19122</td>
<td>16</td>
<td>19126</td>
<td>6</td>
</tr>
<tr>
<td>19104</td>
<td>7</td>
<td>19118</td>
<td>0</td>
</tr>
<tr>
<td>19130</td>
<td>10</td>
<td>19128</td>
<td>5</td>
</tr>
<tr>
<td>19123</td>
<td>10</td>
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<td>2</td>
</tr>
<tr>
<td>19139</td>
<td>21</td>
<td>19119</td>
<td>0</td>
</tr>
<tr>
<td>19103</td>
<td>0</td>
<td>19136</td>
<td>7</td>
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<td>19102</td>
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<td>19120</td>
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<td>19107</td>
<td>0</td>
<td>19149</td>
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<td>19106</td>
<td>0</td>
<td>19141</td>
<td>7</td>
</tr>
<tr>
<td>19143</td>
<td>45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Retail Environment

Preventing Youth Tobacco Sales & Use

20% decrease in illegal tobacco sales to minors

- Penalties raised for merchants that sell tobacco to minors
- Over 2,700 tobacco merchants educated about youth sales prevention
- New tobacco retailer permitting requirement
- The public can report retailers by calling 1-888-99-SMOKE or online

![Image showing youth tobacco access laws and how to know if a person is over 18]
Workplaces

• One of the city’s largest employers implementing a system-wide healthy snack and beverage vending policy

• City of Philadelphia is developing a comprehensive snack vending policy, a farm-to-employee program, and a process for reviewing food procurement contracts
Workplaces

Outside of Philadelphia
City Council chambers

HERE’S TO YOUR HEALTH!

This vending machine now offers more healthy choices – thanks to a new partnership between the City of Philadelphia and its vending partners. That means more water, 100% fruit juice, and zero-calorie beverages for when you need a drink on the go, and smarter sizes of sugar-sweetened drinks.

This machine also saves energy – trimming the City’s energy bills.

Questions about the changes? Email HealthVending@phila.gov

For more information on how to make healthy, green choices, check out:
www.foodfitphilly.org &
www.phila.gov/green!
Workplaces – Healthy Vending

Employers that have developed or implemented healthy beverage vending standards, June 2011

- HUP: 31,000
- City of Philadelphia: 25,000
- Einstein: 7,200
- PA Hospital: 2,700
- Horizon House: 1,115
- KPMG: 857
- Fox Rothschild: 497
- SRSY: 445
- Congreso: 300

Total Employees Impacted: 69,114
Insurers and Health Care Providers
Promoting and Supporting Quit Attempts

• 4 of the 5 Medicaid Managed Care Organizations in Philadelphia agreed to provide coverage for 5 (or more) of the 7 FDA-approved smoking cessation medications, expanding access for approximately 80,000 low-income Philadelphia smokers

• Nearly 10-fold increase in Quitline use by Philadelphia smokers
Media Campaigns

• *Do you know what your kids are drinking?*
  – Raising awareness about the negative health effects of sugary drinks and encouraging people to cut back
  – ~24 million impressions

• *Quit with help. Quit for good.*
  – Motivating smokers to quit with assistance, like counseling or medications.
  – ~50 million impressions
Buses, Subway, Corner Stores

YOU SAID YOU WERE QUITTING.

1-800-QUIT-NOW
SmokeFreePhilly.org

QUIT WITH HELP. QUIT FOR GOOD.
Buses and Subway

“I was making my son’s asthma worse. It was time to get help to quit smoking.”

Quit with help, quit for good. Talk to a doctor and consider a quit aid like the patch or medication. 1 (800) QUIT-NOW SmokeFreePhilly.org
Buses and Subways

A large soda has as much sugar as how many candy bars?

To find out, text “FACT4” to 30364.

Message and data rates may apply. Text STOP to end. Text HELP for help.
Recall of Get Healthy Philly Media Campaigns, 2010 - 2012

The Annenberg Public Policy Center and School of Communications, University of Pennsylvania
Talked about the ad  Sought info on quitting

Percent

No recall  < 4x wk recall  ≥ 4x wk recall

Hornik et al, Annenberg School of Communications
Legislation and Regulation: Menu Labeling

- Philadelphia adopted its menu labeling ordinance (080167-A) on November 19, 2008.
- The menu labeling requirements became effective January 1, 2010.

<table>
<thead>
<tr>
<th>Menu boards</th>
<th>Menus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories must be displayed directly on the menu board next to each food or beverage item.</td>
<td>Calories, sodium, saturated fat, trans fat, and carbohydrates must be displayed directly on the menu next to each food or beverage item.</td>
</tr>
<tr>
<td>Additional nutrition information must be available upon request.</td>
<td></td>
</tr>
</tbody>
</table>
Improving Public Health Infrastructure

• Developing data monitoring systems for three issues:
  – Hypertension management
  – Adult immunization
  – Cancer screening

• Working with health care partners on policy change

• Providing the public with better information on the quality of services
Public Health Priorities

1. Heart disease and cancer prevention
2. Reproductive health for youth
3. Healthy start to life
Leading Causes of Death
Philadelphia, 2009

- Cancer: 24%
- Cardiovascular: 32%
- Other: 16%
- HIV: 1%
- Septicemia: 3%
- Kidney Disease: 3%
- Accidents: 4%
- Respiratory: 7%
- Influenza and Pneumonia: 2%
- Diabetes: 2%
- Assault: 2%
- Newborn: 1%
- Liver Disease: 1%
- Alzheimer's: 1%
- Suicide: 1%
- Newborn: 1%
- Other: 1%

Source: PDPH, Vital Statistics Reports, 2009
HIV/AIDS Cases
by Date of Diagnosis

Number of Cases

AIDS
HIV

Year


0 200 400 600 800 1000 1200 1400

1308 1178 1177 1001 898 1200 894 895 907 861 821 1279 892 949 911 469 216
Philadelphia High School Students
Youth Sexual Behavior

Source: CDC. Youth Risk Behavior Survey (YRBS) 2009
Philadelphia High School Students
Youth Sexual Behavior

Source: CDC. Youth Risk Behavior Survey (YRBS) 2009
Philadelphia High School Students
Youth Dating/Sexual Violence

Source: CDC. Youth Risk Behavior Survey (YRBS) 2009
Nearly All Philadelphia HIV Cases in Youth are Sexually Transmitted

In the City’s STD clinic 47% of youth found to have HIV had a previous history of gonorrhea, *Chlamydia* and/or syphilis.

Philadelphia High School Students
Youth Sexual Behavior

Source: CDC. Youth Risk Behavior Survey (YRBS) 2009
City-wide Screening and PID Hospitalizations, 1996-2006

Source: PA Health Care Cost Containment Council
What Can We Do as a City?

- Institute broad education for young people about reproductive health.

- Promote wide availability of condoms, in health care sites, schools, recreation centers, and in private establishments like video arcades, laundromats, barber shops, hair salons, etc.

- Change our approach to partner testing and treatment to include a broader social network.
Improve Youth Safer Sex Practices

- First Philadelphia condom contest
- Making condoms available in more locations
- Using alternative media to market condom use to youth
- TakeControlPhilly.org
- Work with key partners to availability
Public Health Priorities

1. Heart disease and cancer prevention
2. Reproductive health for youth
3. Healthy start to life
Return on Investment
Public Sector Human Capital Programs

The MOM Program

Primary Prevention for Young Children Through Universal Home Visitation
MOM Program

Goal

The MOM program helps parents assure that their children are ready to learn. Not just some children, but all our children.
MOM Program
Intervention

Home visits before well child visits:
6 weeks, 4, 6, 9, 12, 15, 18, 24, 30, 36, 42, 48, 54, and 60 months of age

Phone calls to confirm and check-in regularly:
Before home visits, to confirm well child appointments and visits, to reinforce developmental follow-up
MOM Program Pilot
Early Intervention Services Receipt

Notes: 1) * = p<0.05; ** = p<0.01
2) N for each data point varies slightly
Early Intervention Services Receipt
Maternal IQ > 80

Notes: 1) * = p<0.05; ** = p<0.01
2) N for each data point varies slightly
3) Maternal IQ measured with WASI
Early Intervention Services Receipt
Maternal IQ < 80

Notes: 1) * = p<0.05; ** = p<0.01
2) N for each data point varies slightly
3) Maternal IQ measured with WASI
## MOM Program Evaluation

60 Months (N=254)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Intervention</th>
<th>Control</th>
<th>Percent Change</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Intervention Referral Ever</td>
<td>28.9%</td>
<td>18.4%</td>
<td>57%</td>
<td>0.055</td>
</tr>
<tr>
<td>Early Head Start</td>
<td>11%</td>
<td>1.6%</td>
<td>588%</td>
<td>0.003</td>
</tr>
<tr>
<td>Day Care Ever</td>
<td>49.2%</td>
<td>62.7%</td>
<td>-21%</td>
<td>0.033</td>
</tr>
<tr>
<td>Head Start</td>
<td>44.1%</td>
<td>23.0%</td>
<td>92%</td>
<td>0.000</td>
</tr>
</tbody>
</table>
MOM Program Evaluation
60 Months (N=254)

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<tr>
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<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Externalizing (CBCL&gt; 63)</td>
<td>2.4%</td>
<td>11.1%</td>
<td>-78%</td>
<td>0.006</td>
</tr>
<tr>
<td>Physical Aggression (CBCL&gt; 68)</td>
<td>1.6%</td>
<td>7.1%</td>
<td>-77%</td>
<td>0.034</td>
</tr>
<tr>
<td>Child Ever Hospitalized</td>
<td>19.1%</td>
<td>27.3%</td>
<td>-30%</td>
<td>0.102</td>
</tr>
<tr>
<td>Child Ever Injured</td>
<td>22.4%</td>
<td>32.0%</td>
<td>-30%</td>
<td>0.070</td>
</tr>
<tr>
<td>Parent Injured, Last 5 Years</td>
<td>15.1%</td>
<td>22.7%</td>
<td>-33%</td>
<td>0.107</td>
</tr>
</tbody>
</table>
Model Feasibility

- Inexpensive on per-child basis
- Linked directly to infant hospital discharge for well babies (about 18,000/year)
- Based on universal Head Start data, savings would be great life-long
- Creates job opportunities in communities
Implementation

• Three Zip Codes selected so far with high rates of DHS involvement
• Enrolling all eligible infants from two hospital delivery rooms
• Workers based in target community
• After pilot, expand to more Zip Codes and more hospitals to reach at least 1,000 new births per year. Expand to reach 8-10,000 births per year
Websites

- Foodfitphilly.org
- Smokefreephilly.org
- Takecontrolphilly.org
- Phila.gov/health