

# Benton County Community Health Improvement Plan

2013 – 2018



Benton County Health Department

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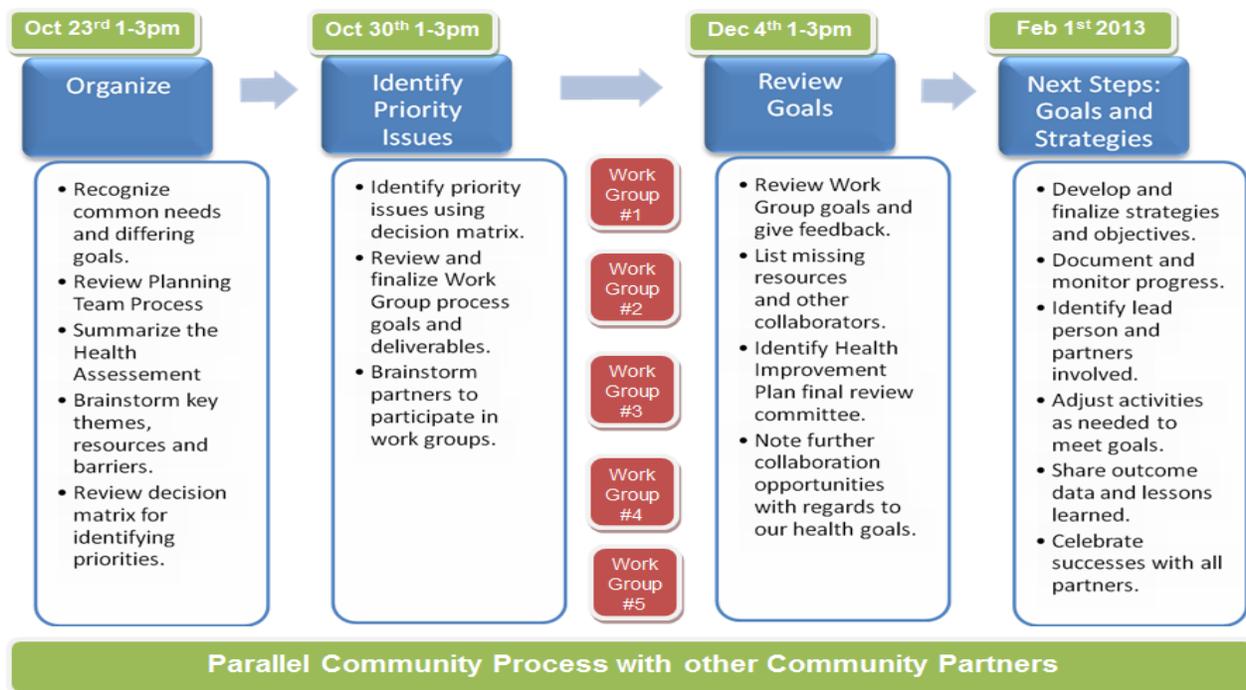
## Introduction

In 2012, Benton County initiated a participatory community planning process to develop and implement a Community Health Assessment (CHA) and Community Health Improvement Plan (CHIP). Completed in October 2012, the CHA synthesizes nine months of assessment and data collection conducted by Benton County Health Department (BCHD) in collaboration with numerous community leaders and other agency and organizational partners.

Benton County Health Department (BCHD) staff presented the CHA to elected officials, community-based organizations, and numerous local community interest groups to solicit their input and participation in the process. Electronic copies of the CHA are accessible on the Benton County Health Services website at [www.co.benton.or.us/health/public\\_health/documents/community\\_health\\_assessment.pdf](http://www.co.benton.or.us/health/public_health/documents/community_health_assessment.pdf)

Following completion of the CHA, community partners and stakeholders reconvened to develop the CHIP. The CHIP process was intended to result in a multi-disciplinary health planning document that could inform as many local activities as possible. CHIP participants used the CHA to identify priority health-related issues and create a five-year plan to improve the health of everyone who lives, works, learns, plays, and prays in Benton County.

### Benton County Community Health Improvement Planning Process





Staff from every BCHD program and over 200 community partners contributed their time and expertise to ensure the CHIP reflects the needs, interests, perspectives, and knowledge of diverse communities throughout the county.

On April 9, 2013, the Benton County Board of Commissioners, convening as the Board of Health, formally adopted the 2013-2018 Benton County Community Health Improvement Plan and adopted a “call-to-action” resolution for collective county-wide efforts to implement and achieve the plan’s goals.



## EXECUTIVE SUMMARY

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After review and consideration of the CHA, CHIP participants identified five priority health issues in Benton County:

**1) Food security:** Oregon perennially ranks as one of the most food insecure states in the U.S. Over 14 percent (12,480) of Benton County residents live in households that meet the definition of being food insecure, representing 21.7 percent of Benton County's children.

Two overarching goals were identified in this sector:

- Improve access to fresh and healthy food; and
- Improve utilization of food assistance programs.

**2) Obesity:** In Benton County, 35 percent of adults are overweight and another 21 percent are obese.<sup>1</sup> Among eighth graders, approximately 12 percent are overweight and 7 percent are obese. Three overarching goals were identified in this sector:

- Decrease the prevalence of overweight and obesity across the lifespan;
- Encourage physically active lifestyles; and
- Reduce consumption of soda and other sugar-sweetened beverages among youth.

**3) Housing and Transportation:** Approximately 35 percent of homeowners with a mortgage and 62 percent of renters spent more than 30 percent of their income on housing costs in Benton County (2008-2011). Five overarching goals were identified in this sector:

- Improve housing quality for all residents;
- Improve home safety for young children and older adults;
- Improve utilization of alternative transportation;
- Improve safety for pedestrians and bicyclists on public roads; and
- Expand trails, bike lanes and connections among all communities.

**4) Mental / Behavioral Health:** In Benton County, approximately 2,186 persons between the ages of 16 and 64 are living with an identified mental health disability.<sup>2</sup> In Benton County the suicide rate among adults, ages 25 to 44 (18.5 percent) is slightly higher than the state suicide rate of 17.9 percent.<sup>3</sup> A total of 9.3 percent of 11<sup>th</sup> graders in Benton County have considered suicide, and 7.2 percent have attempted suicide. Two overarching goals were identified in this sector:

- Improve mental health and wellbeing among middle-school and high-school youth; and
- Improve mental health and wellbeing among adults aged 18 and older.



**5) Health Care / Community Health:** Almost 12 percent of 18-64 year olds 6 percent of youth under the age of 18 are uninsured.<sup>4</sup> Differences in the rate of insured persons persist by race/ethnicity, employment status and income. Research clearly demonstrates that the conditions in which people live and work have more than five times the effect on personal health than the medical care they receive.<sup>5</sup> Three overarching goals were identified in this sector:

- Promote overall health and wellbeing;
- Increase access to health services; and
- Improve the health and wellbeing of women, infants, children and families.



In addition to the five focus areas, CHIP participants identified four “guiding principles” that they felt should be applied to inform planning activities in each of the five priority areas.

**1) Coordination and Navigation:** Promote a system of information, referral, and care coordination that ensures persons get the help they need when they need it. Maximize opportunities for organizations to work collaboratively across sectors and with various stakeholders, including community members, to decrease duplication and improve communication and coordination of services.

**2) Prevention and Wellness:** Promote health in the broadest way possible by fostering healthy, resilient neighborhoods and communities. Retain strong services to treat illness and respond to crises, but without losing focus on health promoting environments, services and supports so that community wellbeing is reinforced, injury, illness and chronic disease are prevented and managed.

**3) Access and Affordability:** Recognize that income, transportation, language, and literacy, among other social determinants of health, are barriers for many residents in receiving needed services and advocating for the needs of their family and community. Overcome these barriers and design flexible, person/family centered systems and services.

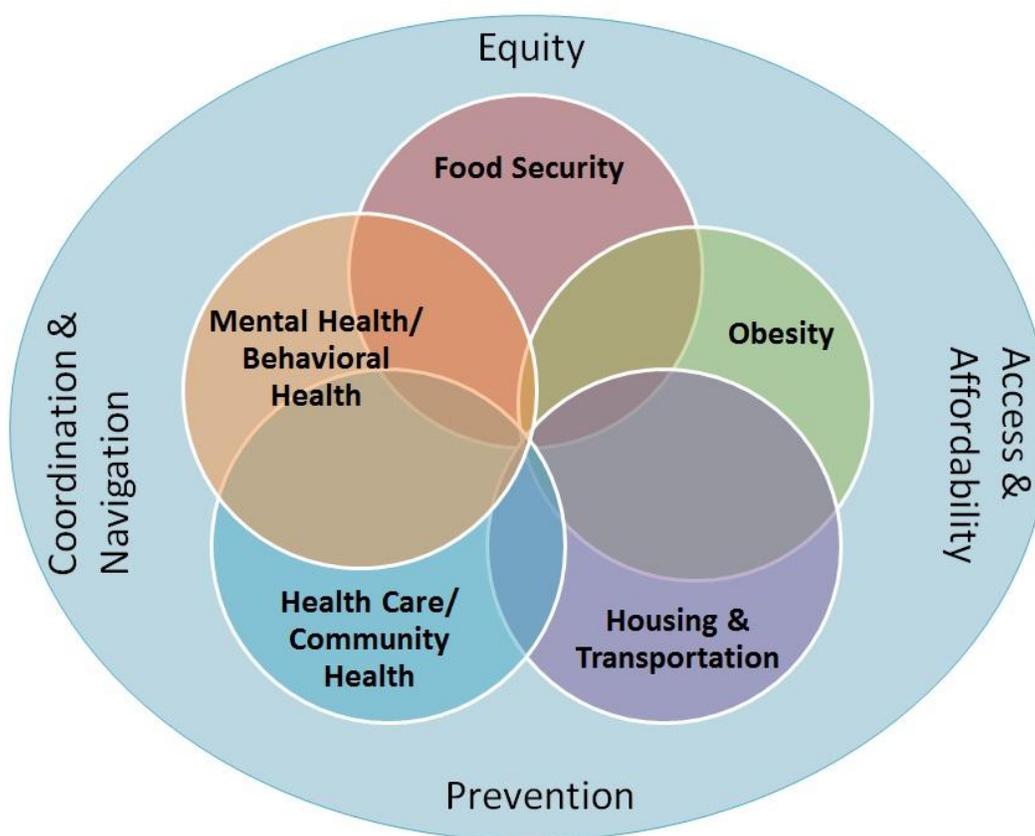
**4) Health Equity:** Understand that policies and decisions about education, employment, housing, transportation, land use, economic development, and public safety impact health and wellbeing of our residents and communities. Respect and promote the assets and strengths of diverse cultural, linguistic, and geographic communities and partner with them in designing, implementing and evaluating services and systems.



Following identification of the five priority issues and overall guiding principles, BCHD convened five workgroups – one dedicated to each of the five priority topics. BCHD charged each workgroup to further analyze the CHA data using a Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis.

Subsequently, each group selected interventions to address problems identified as high priorities in the CHA and recommended activities, strategies, and resources needed to implement the interventions.

### Graphical Representation of the Five Priority Areas and Four Guiding Principles



At the conclusion of the community process, staff from BCHD organized each workgroup’s products into a unified format, informing the development of the 2013-2018 Benton County Community Health Improvement Plan you are now reading.



## NEXT STEPS

Both the Benton County CHA and CHIP are envisioned as a “living documents” that will help sustain, enhance and expand cross-sector partnerships, provide the foundation for ongoing public health planning and evaluation, help monitor progress toward identified objectives, and establish new goals and priorities as needs and resources change.

In the summer of 2013, BCHD in collaboration with other community partners will reconvene the five CHIP workgroups. Those groups will develop annual work plans and provide ongoing input and monitoring of progress toward addressing identified CHIP needs. BCHD staff will serve a facilitative role to assist with data collection and analysis and to engage partners in dialogue about what the results mean and implications for adjustment of CHIP initiatives.

As part of the Health Department’s vision to work with community partners to have a collective impact on population health, the CHA and CHIP will undergo annual review with health data being updated as available and progress toward goals documented. Updated health data will be included in revised versions of the CHA as well as in the County’s on-line Health Status Report at [www.co.benton.or.us/health/health\\_status/index.php](http://www.co.benton.or.us/health/health_status/index.php). BCHD will note progress toward improvement goals, changes in priorities, opportunities and barriers in updates to the CHIP.

All processes will remain open and transparent, and BCHD will reach out to new partners and stakeholders and incorporated them into ongoing planning efforts.

Benton County anticipates that over time, local public health assessment and planning efforts will align with health improvement efforts occurring throughout the region, improve coordination and leveraging of resources, and increase health equity.

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<sup>1</sup> Benton County Health Status Report, 2012

<sup>2</sup> U.S. Census Bureau, 2008-2010 American Community Survey

<sup>3</sup> Suicides in Oregon: Trends and Risk Factors, Oregon Violent Death Reporting System, Injury and Violence Prevention Program, Office of Disease Prevention and Epidemiology, 2010

<sup>4</sup> U.S. Census Bureau, American Community Survey, 2008-2012

<sup>5</sup> Frieden, T.R. (2010). The Health Impact Pyramid, *American Journal of Public Health*, 100(4), 590-595



## Priority Health Issue: Food Security

### Situational Analysis: Why is this a concern?

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One out of five residents in Benton County live below the Federal Poverty Level (FPL) (defined as \$23,000 per year for a family of four) and one out of three lives below 185 percent of the FPL. These income levels qualify persons for federal nutrition programs such as the Women, Infant and Children's Program (WIC) and Supplemental Nutrition Assistance Program (SNAP). Over 14 percent (12,480) of Benton County residents live in households that meet the definition of being food insecure, representing 21.7 percent of Benton County's children.

During 2010-2011, 37.4 percent of students in Benton County schools were eligible for free or reduced lunch with the highest percentage in the Alsea School District 7J (75.9 percent) and the lowest in the Corvallis School District 509J (34.9 percent). In Corvallis, the percentage of students eligible for free or reduced lunch varies significantly from school to school. Mountain View (49.7 percent), Wilson (51.8 percent), Lincoln (68.2 percent) and Garfield (75.1 percent) have rates higher than the district average.

Access to healthy, nutritious food is a major community asset for combatting obesity. The U.S. Department of Agriculture (USDA) defines limited food access as residing more than a mile from the nearest grocery store. Nine percent of low-income Benton County residents live in areas that meet this definition. Forty-three percent have difficulty accessing healthy food as measured by the percent of residential zip codes in the county with a healthy food outlet.

Price and type of food sold locally may also present challenges to low income, rural and minority residents. For example, residents in north, south and west Benton County may travel thirty minutes or more to buy groceries at lower-priced grocery stores. Rural stores throughout the county report barriers that limit their ability to stock healthy foods. These include administrative barriers that make it difficult to become an authorized vender for SNAP and WIC programs and financial barriers to offering fresh fruits, vegetables, meat, dairy and other refrigerated foods due to costs of storage and refrigeration.

Food insecurity contributes to obesity and subsequent long-term health problems such as diabetes, heart disease<sup>1</sup> and cancer.<sup>2</sup> Fetal malnutrition can result in poorer overall school achievement and compromised health throughout a child's life.<sup>3</sup> Childhood food insecurity can contribute to behavioral problems and depression among school-aged children.<sup>4</sup> Parents of food insecure families report higher levels of stress<sup>5</sup> and depression.<sup>6</sup> Undernourished seniors can exhibit symptoms of dementia and are more prone to injuries from falls.<sup>7</sup>



## Best Practices

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The Oregon Hunger Task Force (OHTF) highlights the need for substantial changes to social and economic systems in order to end hunger before it begins. OHTF identifies three goals that can contribute to immediate and long lasting improvements:<sup>8</sup>

- Increase overall economic stability for people, communities, and the state.
- Cultivate a strong regional food system in Oregon.
- Improve regional food assistance safety nets.

## Opportunities for Health

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### **Goal 1: Improve access to fresh and healthy food in Benton County.**

#### *Outcome Objectives/Indicators*

- Reduce food insecurity among Benton County households from 14.8 percent to 13.3 percent by 2018.<sup>9</sup>
- Reduce food insecurity among Benton County households with children from 21.7 percent to 19.5 percent.<sup>10</sup>
- Increase participation in the Supplemental Nutrition Assistance Program among seniors (65+) from 25 percent to 27.5 percent by Fall 2018.
- Increase consumption of at least 5 servings of fruits and vegetables per day by Fall 2018:
  - Among 8<sup>th</sup> graders from 31.7 percent to 34.9 percent.<sup>11</sup>
  - Among 11<sup>th</sup> graders, from 25.8 percent to 28.4 percent.<sup>12</sup>
  - Among adults 18 and older, from 34.8 percent to 38.3 percent.<sup>13</sup>

### **Goal 2: Improve utilization of food assistance programs among eligible people in Benton County.**

#### *Outcome Objective/Indicators*

- Increase participation in free and reduced meal program among eligible students by 10 percent.
- Increase participation in the Supplemental Nutrition Assistance Program (SNAP) among eligible households from 42 percent to 46 percent by 2018.<sup>14</sup>

## Action Steps for Community Health

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### **Assessment**

- Using GIS technology and other mapping software, describe points of food access for all communities.
- Assess impact of limited healthy food access on community health and the local economy.



### Outreach and Education

- Offer universal breakfast/lunch programs in schools for all eligible participants.
- Include entire families in community meal activities.
- Address cultural and linguistic barriers that impede access to food programs.
- Improve market access to fresh food in low-income neighborhoods and rural areas of the county.
- Develop new models for redistributing extra food to local pantries, programs, and families.
- Educate policymakers on the research that correlates healthy food access and nutrition.

### Participation in Policy and Planning Processes

- Continue planning efforts related to development of a Community Food Center in South Corvallis.
- Establish a Benton County Food Policy Council/Network to promote coordination among partners and advance policy initiatives related to healthy food access.
- Support full implementation of the City of Corvallis' Community Garden Master plan.

### Potential Partners

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#### Public Agencies

- Planning departments
- Economic/community development departments
- Local elected officials
- U.S. Department of Agriculture
- State and local WIC agency
- School Districts

#### Community Partners

- Parent-Teacher Associations
- OSU Cooperative Extension
- Hunger coalitions
- Farms and agricultural organizations
- Non-profit groups
- Grocers and Farmer's Market
- Multicultural groups

### Additional Resources

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- **Oregon Hunger Task Force** was created by the State Legislature in 1989 (ORS 458.532) to collaborate with state agencies, businesses, non-profits, public officials and local communities to end hunger in Oregon. [www.oregonhunger.org](http://www.oregonhunger.org)
- **Oregon Food Bank** works with a cooperative, statewide network of partner agencies to distribute emergency food to hungry families. This organization fights hunger's root causes through public policy advocacy, nutrition and garden education and works to strengthen community food systems. [www.oregonfoodbank.org](http://www.oregonfoodbank.org)
- **Healthy Eating Research** is a national program of the Robert Wood Johnson Foundation (RWJF). The program supports research on environmental and policy strategies with strong potential to promote healthy eating among children to prevent childhood obesity, especially among lower-income and racial and ethnic populations at highest risk for obesity. [www.healthyeatingresearch.org](http://www.healthyeatingresearch.org)



- **ChangeLab Solutions** works with neighborhoods, cities, and states to transform communities with laws and policies that create lasting change.  
[www.changelabsolutions.org](http://www.changelabsolutions.org)

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- <sup>1</sup> Seligman, H.K., Laraia, B.A., & M.B. Kushel. (2011). Food insecurity is associated with Chronic Disease among low-income NHANES participants. *Journal of Nutrition*, 141,542
- <sup>2</sup> Townsend, M.S., Peerson, J., Love, B., Achterberg, C. Murphy, S.P. (2001). Food Insecurity is Positively Related to Overweight in Women. *Journal of Nutrition*, 131, 1738-1745.
- <sup>3</sup> Cook, J.T., Frank, D.A., Levenson, S.M., Neault, N., Heeren, T.C., Black, M.M., et al. (2006). Child food insecurity increases risks posed by household food insecurity to young children's health. *Journal of Nutrition*, 136, 1073-1076.
- <sup>4</sup> Murphy, C., Ettinger de Cuba, S., Cook, J., Cooper, R., & Weill, J.D. (2008). Reading, writing and hungry: The consequences of food insecurity on children and our nation's economic success (p. 6p.)
- <sup>5</sup> Siefert, K., Heflin, C.M., Corcoran, M.E., & Williams, D.R. (2001). Food Insufficiency and the Physical and Mental Health of Low-Income Women. *Women & Health*, 32, 159-177
- <sup>6</sup> Margheim, J., & Leachman, M. (2007). Empty cupboards, empty feelings: Food insecurity, depression and suicide are intertwined. Silverton, OR: Oregon Center for Public Policy
- <sup>7</sup> Vozoris, N.T., & V.S. Tarasuk. (2003). Household Food Insecurity is Associated with Poorer Health. *Journal of Nutrition*, 133, 120-126.
- <sup>8</sup> Oregon Hunger Task Force (2010). Ending Hunger Before it Begins: Oregon's Call to Action 2010-2015. Retrieved from [www.oregonhunger.org](http://www.oregonhunger.org)
- <sup>9</sup> Map the Meal Gap, 2012
- <sup>10</sup> Map the Meal Gap, 2012
- <sup>11</sup> Oregon Healthy Teens, 2007-2008
- <sup>12</sup> Oregon Healthy Teens, 2007-2008
- <sup>13</sup> Behavioral Risk Factor Surveillance System Survey, 2006-2009
- <sup>14</sup> Department of Human Services, 2012



## Priority Health Issue: Obesity

### Situational Analysis: Why is this a concern?

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Obesity increases the risk of a number of health conditions including hypertension, adverse lipid concentrations, certain cancers, and type 2 diabetes, among other conditions.<sup>1</sup> In 2009-2010, on average 35 percent of U.S. adults were obese;<sup>2</sup> however rates were higher among sub-populations such as women ages 60 and over, non-Hispanic Black women and Mexican American men and women.<sup>3</sup> In Benton County, over one-third (35 percent) of adults are overweight and another 21 percent are obese.<sup>4</sup>

Obesity in childhood can lead to early onset of chronic illnesses formerly seen in older adults. Research has shown that obese children are more likely to be overweight or obese as adults. In 2010, more than one-third of children and adolescents were overweight or obese in the United States.<sup>5</sup> Information collected in 2007-2008 among eighth graders in Benton County suggests that 12 percent were overweight, while 7 percent were obese. Rates were slightly higher for eleventh graders, 13 percent were overweight and 8 percent were obese.<sup>6</sup>

Access to healthy, nutritious food including fresh fruits and vegetables is a major community asset for combatting obesity. The U.S. Department of Agriculture (USDA) defines limited food access as residing more than a mile from the nearest grocery store. Nine percent of low-income Benton County residents live in areas that meet this definition. Forty-three percent of Benton County residents have difficulty accessing healthy food as measured by the percent of residential zip codes in the county with a healthy food outlet.

Research confirms a wide range of health benefits that derive from regular physical activity. Aerobic, muscle- and bone-strengthening physical activity of at least a moderately-intense level can slow the loss of bone density that comes with age. Being physically active lowers the risk for both colon and breast cancer. Moderate physical activity such as walking or bicycling can reduce the risk for heart disease and stroke. Physical activity that leads to weight loss can also significantly reduce the risk for type 2 diabetes and other metabolic disorders.

### Best Practices

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Preventing and reducing obesity requires comprehensive efforts to improve access to healthy food and make it easier to engage in physical activity. In 2012, the Institute of Medicine published *Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation* which outlines five strategies for addressing the obesity epidemic.

- Make physical activity an integral and routine part of life.
- Create food and beverage environments that make healthy food and beverage options a routine, easy choice.
- Transform messages about physical activity and nutrition.
- Expand the roles of health care providers, insurers, and employers.
- Make schools a focal point.

## Opportunities for Health

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### **Goal 1: Decrease the prevalence of overweight and obesity across the lifespan.<sup>7</sup>**

#### *Outcome Objectives/Indicators*

- Decrease the proportion of 8<sup>th</sup> graders in Benton County who are obese from 6.6 percent to 5.9 percent by 2018.<sup>8</sup>
- Decrease the proportion of 8<sup>th</sup> graders in Benton County who are overweight from 11.7 percent to 10.5 percent by 2018.<sup>9</sup>
- Decrease the proportion of 11<sup>th</sup> graders in Benton County who are obese from 8.0 percent to 7.2 percent by 2018.<sup>10</sup>
- Decrease the proportion of 11<sup>th</sup> graders in Benton County who are overweight from 12.6 percent to 11.3 percent by 2018.<sup>11</sup>
- Decrease the proportion of adults ages 18 and older in Benton County who are obese from 19.5 percent to 17.5 percent by 2018.<sup>12</sup>
- Decrease the proportion of adults ages 18 and older in Benton County who are overweight from 35.4 percent to 31.9 percent by 2018.<sup>13</sup>

### **Goal 2: Encourage physically active lifestyles in Benton County.<sup>14</sup>**

#### *Outcome Objectives/Indicators*

- Determine and increase the proportion of children ages 3 to 5 who engage daily in at least 60 minutes of physical activity (determine by June 2014 and increase by 2018).
- Determine and increase the proportion of school children ages 6-11 years who engage daily in at least 60 minutes of physical activity (determine by June 2014 and increase by 2018).
- Increase the proportion of 8<sup>th</sup> graders who are physically active for 60 minutes a day at least 5 days a week from 54.0 percent to 59.4 percent by 2018.<sup>15</sup>
- Increase the proportion of 11<sup>th</sup> graders who are physically active for 60 minutes a day at least 5 days a week from 43.7 percent to 48.1 percent by 2018.<sup>16</sup>
- Increase the proportion of adults ages 18 and older who are physically active 30 minutes a day at least 5 days a week from 63.4 percent to 69.7 percent by 2018.<sup>17</sup>

### **Goal 3: Reduce the consumption of soda and other sugar sweetened beverages among youth.<sup>18</sup>**

#### *Outcome Objectives/Indicators*

- Determine and reduce the proportion of children ages 12 to 36 months who consume sugar-sweetened beverages (determine by September 2014 and reduce by 2018).
- Determine and reduce the proportion of preschoolers (ages 3 to 5 years) who consume sugar-sweetened beverages (determine by September 2014 and reduce by 2018).
- Decrease the proportion of 8<sup>th</sup> graders who report drinking 7 or more sodas/sugar-sweetened beverages per week from 13.3 percent to 12.0 percent by 2018.<sup>19</sup>
- Decrease the proportion of 11<sup>th</sup> graders who report drinking 7 or more sodas/sugar-sweetened beverages per week from 14.1 percent to 12.7 percent by 2018.<sup>20</sup>



## Action Steps for Community Health

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### Assessment

- Using GIS technology and other mapping software, describe walkable routes and transportation options to schools and parks.
- Research and compile evidence base linking public transit use to health outcomes.

### Outreach and Education

- Disseminate information regarding policy and built environment impacts on health.
- Increase availability of culturally and linguistically appropriate obesity prevention programs and planning strategies.
- Implement social media messages to promote healthy eating, active living, and the importance of making healthy choices.

### Community Collaboration and Mobilization

- Identify opportunities for collaborative and coordinated planning to maximize obesity prevention initiatives across diverse sectors.
- Explore integrated funding approaches among key institutional partners to maximize resources and reduce duplication.
- Foster policy, systems, and environmental changes that promote physical activity, healthy eating and positive wellbeing.

### Participation in Policy and Planning Processes

- Promote participation of public health experts in planning processes.
- Promote the use of Health Impact Assessments to inform food and built environment-related decisions and help avoid unintentional obesity risks.

## Potential Partners

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#### Public Agencies

- Planning departments
- Economic/community development departments
- Local elected officials
- Local/regional transportation agencies
- School Districts
- Parks, Open-Spaces and Recreation Departments
- Senior Centers

#### Community Partners

- Parent-Teacher Associations
- Neighborhood groups
- OSU Cooperative Extension
- Non-profit groups
- Community benefit organizations
- Medical Providers
- Grocers and Farmer's Markets
- Farms and agriculture organizations
- Recreation and sports clubs
- Multicultural groups

## Additional Resources

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- **Let's Move Active Schools.** In collaboration with the First Lady's *Let's Move!* Initiative, several national organizations have united to boost physical activity in schools. [www.letsmoveschools.org](http://www.letsmoveschools.org)
- **Robert Wood Johnson Foundation: Childhood Obesity** supports research on environmental and policy strategies that have the greatest potential to promote healthy eating and physical activity among children, and focuses on six policy priorities that will have the greatest and longest-lasting impact on children. <http://www.rwjf.org/en/about-rwjf/program-areas/childhood-obesity>
- **ChangeLab Solutions: Childhood Obesity** works with neighborhoods, cities, and states to transform communities with laws and policies that create lasting change. <http://changelabsolutions.org/childhood-obesity>
- **Health in All Policies (HiAP)** is a project of the National Association of County & City Health Officials. The project is an innovative, systems change approach to the processes through which policies are created and implemented. [www.naccho.org](http://www.naccho.org)

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- <sup>1</sup> National Institutes of Health. (1998). Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults- The evidence report. *Obesity Research*, 6(Suppl2); 51S-209S
- <sup>2</sup> Ogden, C.L., Carroll, M.D, Kit, B.K., Flegal, K.M (January 2012). Prevalence of Obesity in the United States, 2009-2010. NCHS Data Brief, No. 82. 8 pages
- <sup>3</sup> Ogden C.L, Lamb M. Carrol MD, Flegal KM (December 2010). Obesity and Socioeconomic Status in Adults: United States, 2005-2008. NCHS Brief. No, 50. 8 pages
- <sup>4</sup> Benton County Health Status Report, 2012
- <sup>5</sup> Ogden CL, Carroll MD, Kit BK, Flegal KM. (2012).Prevalence of obesity and trends in body mass index among U.S. children and adolescents, 1999-2010. *Journal of the American Medical Association*, 307(5): 483-490
- <sup>6</sup> Benton County Health Status Report, 2012
- <sup>7</sup> Healthy People 2020 and Oregon Community Health Improvement Plan, 2011-2020
- <sup>8</sup> Oregon Health Authority, 2007-2008
- <sup>9</sup> Oregon Health Authority, 2007-2008
- <sup>10</sup> Oregon Health Authority, 2007-2008
- <sup>11</sup> Oregon Health Authority, 2007-2008
- <sup>12</sup> Behavioral Risk Factor Surveillance System Survey, 2006-2009
- <sup>13</sup> Behavioral Risk Factor Surveillance System Survey, 2006-2009
- <sup>14</sup> Healthy People 2020 and Oregon Community Health Improvement Plan, 2011-2020
- <sup>15</sup> Oregon Health Authority, 2007-2008
- <sup>16</sup> Oregon Health Authority, 2007-2008
- <sup>17</sup> Behavioral Risk Factor Surveillance System Survey, 2006-2009
- <sup>18</sup> Oregon Health Improvement Plan, 2011-2020
- <sup>19</sup> Oregon Health Authority, 2007-2008
- <sup>20</sup> Oregon Health Authority, 2007-2008



## Priority Health Issue: Housing and Transportation

### Situational Analysis: Why is this a concern?

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The scientific evidence demonstrating the positive correlation between housing and health has grown substantially in recent decades. That data is now guiding policies and preventive health measures for housing construction, renovation, use and maintenance which have been demonstrated to result in better overall health for families and communities.

Examples of housing-related health risks include respiratory and cardiovascular diseases resulting from indoor air pollution, illness and death resulting from temperature extremes, transmission of communicable diseases resulting from poor or crowded living conditions, and unintentional injuries resulting from poor maintenance and structural conditions.

In 2009, approximately 154 total individuals accessing shelter services in Benton County were homeless. This does not include individuals living with families and friends; sleeping in vehicles, campgrounds or the woods. It also likely does not include those who have exhausted looking for housing services or have never attempted to access them.

Households that spend too large a proportion of their income on housing often find themselves without sufficient funds for other necessities such as food, health care, transportation, child care, and clothing. In general, housing expenses are considered excessive when they exceed 30 percent or more of household income. In Benton County, approximately 35 percent of homeowners with a mortgage and 62 percent of renters spent more than 30 percent of their income on housing costs (2008-2011).

Transportation policies influence land use and how communities and neighborhoods are designed and built, which in turn impact health outcomes.<sup>1</sup> A growing body of evidence shows that dependence on automobiles and roadways has profound adverse effects on human health, including decreased opportunities for physical activity, increased exposure to air pollution, higher number of traffic crashes, and corresponding premature deaths.

### Best Practices

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The National Prevention Strategy and Action Plan (June 2011)<sup>2</sup> is working to boost Americans' health in part through encouraging development of healthy and safe community environments. Recommendations to address healthy and safe community environments include:

- design and promote affordable, accessible, safe and healthy housing
- Integrate health criteria into decision making, where appropriate, across multiple sectors
- Provide affordable, accessible transportation options including, bike lanes, and other healthy transit options
- Enhance cross-sector collaboration in community planning and design to promote health and safety. [www.healthcare.gov/center/councils/nphpphc](http://www.healthcare.gov/center/councils/nphpphc)

## Opportunities for Health

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### **Goal 1: Improve housing quality for all residents in Benton County.**

#### *Outcome Objectives/Indicators*

- Identify housing assessment criteria and methods to assess and reduce the number of housing units in Benton County with moderate or severe physical and other structural problems.
- Collaborate with key housing partners to conduct a rental survey by 2015.

### **Goal 2: Improve home safety for young children and older adults.**

#### *Outcome Objectives/Indicators*

- Reduce the rate of hospitalization due to falls among children ages 1 to 4 years from 65.8 to 59.2 by 2018.<sup>3</sup>
- Reduce the rate of hospitalization due to falls among adults ages 75 to 84 from 1115.7 to 1004.13 by 2018.<sup>4</sup>

### **Goal 3: Improve utilization of alternative modes of transportation in Benton County.**

#### *Outcome Objectives/Indicators*

- Increase the proportion of commuters who use active transportation (i.e. walk and bicycle) to travel to work and school<sup>5</sup> from 18 percent to 23 percent by 2018.<sup>6</sup>
- Increase the proportion of commuters who use public transit to travel to work and school<sup>7</sup> from 3 percent to 7 percent by 2018.<sup>8</sup>

### **Goal 4: Improve safety for pedestrians and bicyclists on public roads in Benton County.<sup>9</sup>**

#### *Outcome Objectives/Indicators*

- Decrease the number of pedestrian injuries from the 2008-2011 calendar base year average of 13.5 to 12.2 by 2018.
- Decrease the number of bicyclist injuries from the 2008-2011 calendar base year average of 34 to 30 by 2018.<sup>10</sup>

### **Goal 5: Expand trails, bicycle lanes and connections among all communities within Benton County.**

#### *Outcome Objectives/Indicators*

- Assess and increase the ratio of bike lane/path miles to road miles.
- Assess and increase the percentage of the population that lives within a quarter-mile radius of a multi-use path.



## Action Steps for Community Health

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### Assessment

- Conduct assessments of dwellings and identify health and safety hazards.
- Determine the scope of housing needs in Benton County including an inventory and conditions of housing stock.

### Outreach and Education

- Assemble and disseminate evidence of the relationships between housing conditions and health.
- Increase public awareness of effective strategies for reducing asthma trigger exposures in homes.
- Mobilize community support for Walk to School and Safe Routes to Schools (and Parks) programs.
- Educate policymakers and housing providers on the benefits of green building practices.

### Community Collaboration and Mobilization

- Develop neighborhood demonstration projects that explore the benefits of safe, active, and healthy transportation to local families.
- Develop programs to assist with remediation of structural defects in existing dwellings.
- Expand trails, bicycle lanes and multi-modal connections among all communities within Benton County.<sup>11</sup>

### Participation in Policy and Planning Processes

- Promote participation of public health experts in housing and transportation planning processes.
- Encourage the use of Health Impact Assessments to help decision makers recognize the correlation between housing and health.
- Expand options for safe, healthy, affordable housing for lowest income families and individuals.

## Potential Partners

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### Public Agencies

- Local housing authorities
- Oregon Environmental Protection Agency
- Planning departments
- Economic/community development departments
- Redevelopment agencies
- Code enforcement agencies and housing and building inspectors
- Law enforcement agencies
- School Districts
- Corvallis Transit System
- Citizen's Advisory Commission on Transit

### Community Partners

- Corvallis Homeless Shelter Coalition
- Tenants' rights groups
- Private and non-profit housing developers
- Healthy planning coalitions
- Affordable housing membership organizations
- Community advocates, non-profits and faith communities
- Corvallis Bicycle Transportation Alliance

## Additional Resources

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- Robert Wood Johnson Foundation, Commission to Build a Healthier America. (April 2009). **Beyond Health Care: New Directions to a Healthier America**, Chapter 5: Create Healthy Homes and Communities. [www.commissiononhealth.org/Publications](http://www.commissiononhealth.org/Publications)
- Robert Wood Johnson Foundation. (May 2009). **Action Strategies Toolkit: A Guide for Local and State Leaders Working to Create Healthy Communities and Prevent Childhood Obesity**. [www.leadershipforhealthycommunities.org](http://www.leadershipforhealthycommunities.org)
- **National Center for Bicycling and Walking (NCBW)** provides information about the NCBW, a program of the Bicycle Federation of America Inc. NCBW provides community-based workshops consulting services, training programs for public and transportation agencies, and economic development and tourism planning analysis. [www.bikewalk.org](http://www.bikewalk.org)

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<sup>1</sup> American Public Health Association, *The Hidden Health Costs of Transportation*, 2010

<sup>2</sup> National Prevention Council, *National Prevention Strategy*, Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2011.

<sup>3</sup> Oregon Health Authority, *Hospitalization due to Injury, 2004-2006*

<sup>4</sup> Oregon Health Authority, *Hospitalization due to Injury, 2004-2006*

<sup>5</sup> National Prevention Strategy Indicator, U.S. Census Bureau's ACS

<sup>6</sup> American Community Survey, 2008-2010

<sup>7</sup> National Prevention Strategy Indicator, U.S. Census Bureau's ACS

<sup>8</sup> American Community Survey, 2008-2010

<sup>9</sup> Robert Wood Johnson Foundation (May 2009). *Action Strategies Toolkit: A Guide for Local and State Leaders Working to Create Healthy Communities and Prevent Childhood Obesity*

<sup>10</sup> Oregon Department of Transportation, 2008-2011

<sup>11</sup> Robert Wood Johnson Foundation (May 2009). *Action Strategies Toolkit: A Guide for Local and State Leaders Working to Create Healthy Communities and Prevent Childhood Obesity*



## Priority Health Issue: Mental and Behavioral Health

### Situational Analysis: Why is this a concern?

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An estimated 26 percent of Americans age 18 years and older live with a mental health disorder in any given year, and 46 percent experience a mental health disorder during their lifetime. In Benton County approximately 2,186 persons between the ages of 16 and 64 are living with an identified mental health disability. Of these, 31.5 percent are unemployed and 17.6 percent live below the federal poverty level.<sup>1</sup>

On average, people with serious and persistent mental illness die 25 years earlier than the general population due largely to higher rates of chronic illnesses. Tobacco use is almost twice that of the general population. Other associations include high rates of cardiovascular disease, diabetes, obesity, asthma, arthritis, epilepsy, and cancer. Rates for both intentional and unintentional injuries are 26 times higher among people with a history of mental illness than for the general population.<sup>2</sup>

In Oregon, 36 percent of low income women and 16 percent of high income women experience maternal depression. By ethnicity, 31 percent of Hispanic women experience maternal depression in contrast with 17 percent of white women. Benton County's child abuse rate of 6 children per 1,000 is lower than the state average.<sup>3</sup>

Latino students in Benton County miss school at a higher rate than their non-Latino peers (6<sup>th</sup> grade, 12.5 percent vs. 6.3 percent; 11<sup>th</sup> grade, 10 percent vs. 3.9 percent).<sup>4</sup> Almost ten percent of Benton County 11<sup>th</sup> graders report experiencing harassment because someone thought they were gay, lesbian, bisexual or transgender compared to 8 percent of 11<sup>th</sup> graders in Oregon.<sup>5</sup>

In Benton County the suicide rate among adults, ages 25 to 44 (18.5 percent) is slightly higher than the state suicide rate of 17.9 percent.<sup>6</sup> Fifteen percent of 8<sup>th</sup> graders and 16.8 percent of 11<sup>th</sup> graders in Benton County have exhibited signs of depression. A total of 9.3 percent of 11<sup>th</sup> graders in Benton County have considered suicide, and 7.2 percent have attempted suicide. In 2010, 14 percent of 11<sup>th</sup> graders in Benton County reported alcohol binge drinking.<sup>7</sup>

### Best Practices

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The Substance Abuse and Mental Health Services Administration (SAMHSA), the Centers for Disease Control and Prevention (CDC), and the World Health Organization (WHO) all emphasize the importance of preventive strategies that promote positive mental health and wellbeing. These efforts can reduce the need for more costly treatment services. WHO further recommends that mental health promotion be implemented in a variety of venues including schools, housing, transportation, and health care to foster social cohesion and community wellness and identify opportunities for prevention, screening, and early intervention.



## Opportunities for Health

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### **Goal 1: Improve mental health and wellbeing among middle-school and high-school youth in Benton County.**

#### *Outcome Objectives/Indicators*

- Reduce the proportion of adolescents who report seriously considering suicide<sup>8</sup> by 2018:<sup>9</sup>
  - Among 8<sup>th</sup> graders, from 9.3 percent to 8.4 percent.
  - Among 11<sup>th</sup> graders, from 11.3 percent to 10.2 percent.
- Reduce suicide attempts by adolescents from 4.7 percent to 4.2 percent by 2018.<sup>10</sup>
- Reduce the proportion of adolescents who report experiencing harassment in the past 30 days by 2018:<sup>11</sup>
  - Among 8<sup>th</sup> graders from 49.2 percent to 44.3 percent.
  - Among 11<sup>th</sup> graders from 37.3 percent to 33.7 percent.

### **Goal 2: Improve mental health and wellbeing among adults, ages 18 and older, in Benton County.**

#### *Outcome Objectives/Indicators*

- Assess and increase the proportion of primary care physicians who screen adults<sup>12</sup> for depression in Benton County.
- Decrease the number of poor mental health days reported by Benton County residents from 2.9 in the last 30 days to 2.6 in the last 30 days by 2018.<sup>13</sup>

## Action Steps for Community Health

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### **Assessment**

- Review evidence of links between social isolation and poor physical health, particularly for rural, linguistically isolated, and older adult populations.
- Map public gathering spaces and proximity of community amenities and social service agencies.
- Strengthen data collection and analysis of pre/post-partum maternal depression at the county level.
- Support efforts by the regional CCO and partners to use Electronic Health Records to promote better coordination of care and use data for population health improvement planning efforts.

### **Outreach and Education**

- Promote positive early childhood development, including positive parenting and violence free homes.
- Increase outreach and training on bullying prevention and reporting for parents, students, school staff, recreational staff, and other adults.
- Strengthen and fully implement Benton County's 211 telephone information system, to ensure an accessible clearinghouse of all social services. Ensure accessibility by all populations in Benton County, regardless of language, culture or literacy levels.



### **Outreach and Education (continued)**

- Improve processes for referrals and linkage to high quality mental health services.
- Increase participation of persons with mental health challenges in evidence-based chronic disease self-management programs.

### **Community Collaboration and Mobilization**

- Support implementation of Oregon’s primary care medical home model with a focus on integrating mental, physical, and oral health services.
- Promote better communication and coordination among agencies using wrap-around mental health service models that deploy community/mental health outreach workers.
- Investigate best practice models shown to be successful in helping older adults age well in their homes and neighborhoods.

### **Participation in Policy and Planning Process**

- Explore and develop resources for establishing detox services regionally.
- Explore and develop resources for establishing children’s acute care services regionally.
- Explore promising practices related to co-location of services, telemedicine, and use of non-traditional community health workers.
- Expand the capacity of the mental health service system to respond to increased referrals.

### **Potential Partners**

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#### **Public Agencies**

- Local housing authority
- Redevelopment agency
- Planning departments
- Local/regional transportation agencies
- School Districts
- County Mental Health Services
- Community Coordinated Care Organizations

#### **Community Partners**

- Mental Health professionals
- Primary Care physicians
- Obstetric/Family/Internal Medicine providers
- Organizations working to prevent violence and substance abuse
- Multicultural groups
- Neighborhood groups

## Additional Resources

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- U.S. Department of Health and Human Services. (1999). **Mental Health: A Report of the Surgeon General**. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health. <http://profiles.nlm.nih.gov/ps/retrieve/ResourceMetadata/NNBBHS>
- National Prevention Council. (2011). **National Prevention Strategy: America's Plan for Better Health and Wellness, Mental and Emotional Well-Being**. Washington DC: U.S. Department of Health and Human Services, Office of the Surgeon General <http://www.surgeongeneral.gov/initiatives/prevention/strategy/report.pdf>
- National Research Council and Institute of Medicine. (2009). **Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities**. Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth, and Young Adults: Research Advances and Promising Interventions. Mary Ellen O'Connell, Thomas Boat, and Kenneth E. Warner, Editors. Board on Children, Youth, and Families, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press. <http://www.iom.edu/Reports/2009/Preventing-Mental-Emotional-and-Behavioral-Disorders-Among-Young-People-Progress-and-Possibilities>
- Eaton, W.W. (2012). **Public Mental Health**. New York, New York: Oxford University Press, Inc.

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<sup>1</sup> U.S. Census Bureau, 2008-2010 American Community Survey

<sup>2</sup> National Association of State Mental Health Program Directors Medical Directors Council. (2006). Morbidity and Mortality in People with Serious Mental Illness. Retrieved from [http://www.dsamh.utah.gov/docs/mortality-morbidity\\_nasmhpd.pdf](http://www.dsamh.utah.gov/docs/mortality-morbidity_nasmhpd.pdf)

<sup>3</sup> Benton County Health Status Report, 2012

<sup>4</sup> Oregon Student Wellness Survey, 2007-2009

<sup>5</sup> Oregon Department of Human Services Addictions and Mental Health Division, 2012

<sup>6</sup> Suicides in Oregon: Trends and Risk Factors, Oregon Violent Death Reporting System, Injury and Violence Prevention Program, Office of Disease Prevention and Epidemiology, 2010

<sup>7</sup> Benton County Health Status Report, 2012

<sup>8</sup> National Prevention Council. National Prevention Strategy: America's Plan for Better Health and Wellness, Mental and Emotional Well-Being. <http://www.iom.edu/Reports/2009/Preventing-Mental-Emotional-and-Behavioral-Disorders-Among-Young-People-Progress-and-Possibilities.aspx>

<sup>9</sup> Oregon Student Wellness Survey, 2012

<sup>10</sup> Oregon Student Wellness Survey, 2012

<sup>11</sup> Oregon Student Wellness Survey, 2012

<sup>12</sup> National Prevention Council. (June 2011)

<sup>13</sup> Oregon Behavioral Risk Factor Surveillance System, 2005-2011



## Priority Health Issue: Health Care and Community Health

### Situational Analysis: Why is this a concern?

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Access to comprehensive, quality health care is a major determinant of health. People without health insurance (inclusive of both medical and dental) are more likely to skip routine medical care due to the associated costs, increasing their risk for serious and progressively disabling health conditions.

Benton County residents identify lack of health insurance and the cost of medical care as the two most important barriers limiting their access to health care. In Benton County, almost 12 percent of 18–64 year olds are uninsured. Among youth under the age of 18, almost 6 percent are uninsured.<sup>1</sup> Differences in the rate of insured persons persist by race/ethnicity, employment status and income. Respondents to the 2012 Benton County Public Health Assessment survey were also concerned about improving access to medical care for undocumented residents and persons with disabilities.<sup>2</sup>

Benton County has ranked at the top of Oregon counties in the annual County Health Rankings Report (#1 in 2010, 2011, 2012 and #2 in 2013).<sup>3</sup> Benton County's overall positive health indicators are a demonstration of the health influences of its community circumstances including low unemployment, high insurance coverage, high average educational achievement and high average household income.

A growing body of public health research clearly demonstrates that the conditions in which people live and work have more than five times the effect on personal health than the medical care they receive.<sup>4</sup> Good health begins in homes, schools and places of employment, long before the need for medical care.<sup>5</sup> All Benton County residents should have opportunities to make healthy choices.

### Best Practices

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In 2008, the World Health Organization published *Closing the Gap in a Generation: Health equity through action on the social determinants of health to guide international health planning efforts*. The U.S. Department of Health and Human Service's *Healthy People 2020* emphasizes the importance of addressing common causes of poor health by "creating social and physical environments that promote good health for all." Other U.S. health initiatives such as the National Partnership for Action to End Health Disparities and the National Prevention and Health Promotion Strategy also share this vision.<sup>6</sup>

Strategies to address causes of poor health include:

- Improving the performance of the health care system:<sup>7</sup>
  - Focus on comprehensive primary health care
  - Employ decision making processes that involve local communities
  - Implement planning, including allocation of resources, based on the needs of populations within a social determinants of health framework
- Working with other sectors to improve health for all:
  - Enhance training and education of professionals (including planners, teachers and architects) on the importance of the social determinants of health
  - Use Health Impact Assessments to review needed, proposed, and existing social policies for possibly unanticipated impacts on health; and
  - Apply “health in all policies” strategies, which emphasizes improved health for all and closing health gaps as shared goals across all areas of government

Oregon is at the forefront of national health transformation efforts, creating unprecedented opportunities to improve the health of the population by containing costs, improving quality and increasing access to health care (the “Triple Aim” of health system reform). The Oregon Health Authority with local, public, private, and non-profit partners is working to improve services for Oregon Health Plan (Medicaid) members, and fundamentally improve systems for medical care delivery and compensation.

Benton County’s diverse public health collaborations work to maximize opportunities for health and increase the focus on prevention and early intervention given poor health is only partially due to lack of medical care.

## Opportunities for Health

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### **Goal 1: Promote overall health and wellbeing in Benton County.**

#### *Outcome Objectives/Indicators*

- Reduce premature death<sup>8</sup> among Benton County residents ages 0 to 75 years old from 4650 years of potential life lost to 4185 by 2018.
- Decrease the number of physically unhealthy days<sup>9</sup> reported in the past 30 days from 3.3 to 3.0 days by 2018.<sup>10</sup>
- Increase the proportion of adolescents and adults who report good or excellent physical health status by 2018.<sup>11</sup>
  - Among 8<sup>th</sup> graders from 91.7 percent to 95.0 percent.<sup>12</sup>
  - Among 11<sup>th</sup> graders from 91.5 percent to 95.0 percent.<sup>13</sup>
  - Among adults 18 years of age and older from 89.8 percent to 98.7 percent.<sup>14</sup>



## **Goal 2: Increase access to health services in Benton County.**

### *Outcome Objectives/Indicators*

- Decrease the proportion of persons without health insurance from 12.1 to 10.3 by 2018.<sup>15</sup>
- Increase the proportion of adults with a primary care provider from 79 percent to 87 percent by 2018.<sup>16</sup>

Decrease the number of adults who access emergency department for dental pain from the 2007-2012 calendar base year average of 204 to 184 by 2018

## **Goal 3: Improve the health and wellbeing of women, infants, children and families.**

### *Outcome Objective/Indicators*

- Reduce the proportion of live births that are low birth weight from 5.5 percent to 4.9 percent by 2018.<sup>17</sup>
- Increase the proportion of pregnant women who receive early and adequate prenatal care from 80 percent to 85 percent by 2018.<sup>18</sup>

## **Action Steps for Community Health**

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### **Outreach and Education**

- Establish community health workers in neighborhoods and schools to improve access to health services, improve health knowledge and behaviors, and navigate complex health and social service systems.
- Strengthen and fully implement Benton County's 211 telephone information system, to ensure an accessible clearinghouse of all social services. Ensure 211 is fully accessible to all populations in Benton County, regardless of language, culture or literacy levels.

### **Community Collaboration and Mobilization**

- Convene partners to plan, implement and evaluate a neighborhood/school-based Community Health Navigator initiative including disseminating results and making recommendations for potential expansion.
- Support community capacity building and mobilizing of low-income, disabled, minority, rural and other groups to assure meaningful input into CCO, public health, and other health transformation efforts.

### **Participation in Policy and Planning Process**

- Explore collaborative planning approaches among community partners to identify common areas of interest and coordinate funding opportunities for new prevention initiatives, address gaps in health and social services, and increase access and affordability.
- Promote Health Impact Assessments to help assure that policy decisions do not inadvertently harm built or social health environments.



## Potential Partners

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### Public Agencies

- Local Health Department
- Federally Qualified Health Center
- Economic/community development departments
- Local elected officials
- Local/regional transportation agencies
- U.S. Department of Agriculture
- State and local WIC agency
- School Districts

### Community Partners

- Parent-Teacher Associations
- Health Care advocacy groups
- OSU Cooperative Extension
- United Way
- Non-profit care providers
- Hospitals

## Additional Resources

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- **The Guide to Community Preventive Services** is a free resource to help you choose programs and policies to improve health and prevent disease in local communities. Systematic reviews answer these questions: Are there effective interventions that are right for my community? What might effective interventions cost; what is the likely return on investment? [www.thecommunityguide.org](http://www.thecommunityguide.org)
- Marmot, M. (2006). **Health in an unequal world**. *Lancet*, 356: 2081-2094. [www.who.int/social\\_determinants/publications/health\\_in\\_an\\_unequal\\_world\\_marmott\\_lancet.pdf](http://www.who.int/social_determinants/publications/health_in_an_unequal_world_marmott_lancet.pdf)
- **Commission to Build a Healthier America**. The Robert Wood Johnson Foundation (RWJF) formed the Commission to Build a Healthier America to investigate why Americans aren't as healthy as they could be and to look outside the health care system for ways to improve health for all. From February 2008 to December 2009, the Commission studied prevention, wellness and the broader factors that influence good health – conducting site visits, hearing testimony from experts, and issuing 10 recommendations to dramatically improve health for all Americans. [www.commissiononhealth.org](http://www.commissiononhealth.org)

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<sup>1</sup> U.S. Census Bureau, American Community Survey, 2008-2012

<sup>2</sup> The Health of Benton County: 2012 Community Health Assessment

<sup>3</sup> Robert Wood Johnson Foundation (2013). County Health Rankings & Roadmaps. Retrieved from [www.countyhealthrankings.org](http://www.countyhealthrankings.org)

<sup>4</sup> Frieden, T.R. (2010). The Health Impact Pyramid, *American Journal of Public Health*, 100(4), 590-595

<sup>5</sup> Baum, F.E., Begin, M., Houweling, T.A.J., Taylor, S. (2009). Changes not for the fainthearted: Reorienting health care systems toward health equity through action on the social determinants of health. *American Journal of Public Health*, 99: 1967-1974

<sup>6</sup> <http://healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=39>

<sup>7</sup> Baum et al. (2009). Changes not for the fainthearted: Reorienting health care systems toward health equity through action on the social determinants of health. *AJPH*, 99(11), 1967-1974

<sup>8</sup> County Health Rankings & Roadmap

<sup>9</sup> County Health Rankings & Roadmap

<sup>10</sup> Behavioral Risk Factor Surveillance System Survey, 2005-2011

<sup>11</sup> Oregon Health Improvement Plan, December 2010

<sup>12</sup> Oregon Healthy Teens



- <sup>13</sup> Oregon Health Teens
- <sup>14</sup> Behavioral Risk Factor Surveillance System Survey
- <sup>15</sup> Behavioral Risk Factor Surveillance System Survey, 2006-2009
- <sup>16</sup> Behavioral Risk Factor Surveillance System Survey, 2006-2009
- <sup>17</sup> Healthy People 2020 and County Health Rankings and Roadmaps
- <sup>18</sup> Healthy People 2020



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## Acknowledgements

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The 2013-2018 Benton County Community Health Improvement Plan is a collaborative effort of the many organizations and providers in the community with a commitment to improve the health of everyone who lives, works, learns, plays, and prays in Benton County. Listed below are the organizations represented by individuals who worked on the Improvement Plan either as a member of the Steering Committee and/or as a member of one or more of the subcommittees which developed the components of the plan. Much of the data upon which the plan is based comes from the 2012 Benton County Community Health Assessment.

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Accountable Behavioral Health Alliance	Corvallis Environmental Center
Alpine Community Center	Corvallis Farmers Market
Alsea Rural Clinic	Corvallis School District
Benton County	Corvallis Sustainability Coalition
Benton County Board of Commissioners	Dial-A-Bus
Benton County Foundation	Emanuel Iglesia
Benton County Oral Health Coalition	Grace Center
Benton Hospice	Head Start
Boys & Girls Club of Corvallis	Health Equity Alliance
Casa Latinos Unidos de Benton County	ICHN/CCO
Cascade West Council of Governments	Jackson Street Youth Shelter
Center Against Rape and Domestic Violence	Linn-Benton Community College
City of Adair Village	Linn Benton Food Share
City of Corvallis	Linn-Benton Housing Authority
City of Monroe	Linn County Department of Human Services
City of Philomath	Linus Pauling Institute – Healthy Youth Program
Coast to Cascades Community Wellness Network	Love, Inc.
Community Health Centers of Benton and Linn Counties	Mental Health, Addictions, Developmental Disabilities Advisory Committee
Community Outreach, Inc.	Mid-Valley Bike Advocates
Community Services Consortium	Mid-Valley Health Care Advocates
Corvallis Area Metropolitan Planning Organization	Milestones Family Recovery
	Multi-Cultural Resource Center



## Acknowledgements (continued)

National Alliance on Mental Illness Mid-Valley/Benton

Old Mill Center

Oregon Family Support Network

Oregon Food Bank

Oregon State University

Oregon State University Extension Services

Philomath School District

Philomath Youth Activities Club

Public Health Planning and Advisory Committee

Samaritan Health Services

Shangri-La

St. Mary's Church/Stone Soup

Strengthening Rural Families

Ten Rivers Food Web

The Corvallis Clinic

Trillium Family Services

The Arc

United Way of Benton & Lincoln Counties

Western Oregon University

Willamette Neighborhood Housing Services

Special acknowledgement to individual community members who contributed to the Improvement Plan.