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Greater Worcester Region Community Health Improvement Plan

2013 Amendment & Annual Report

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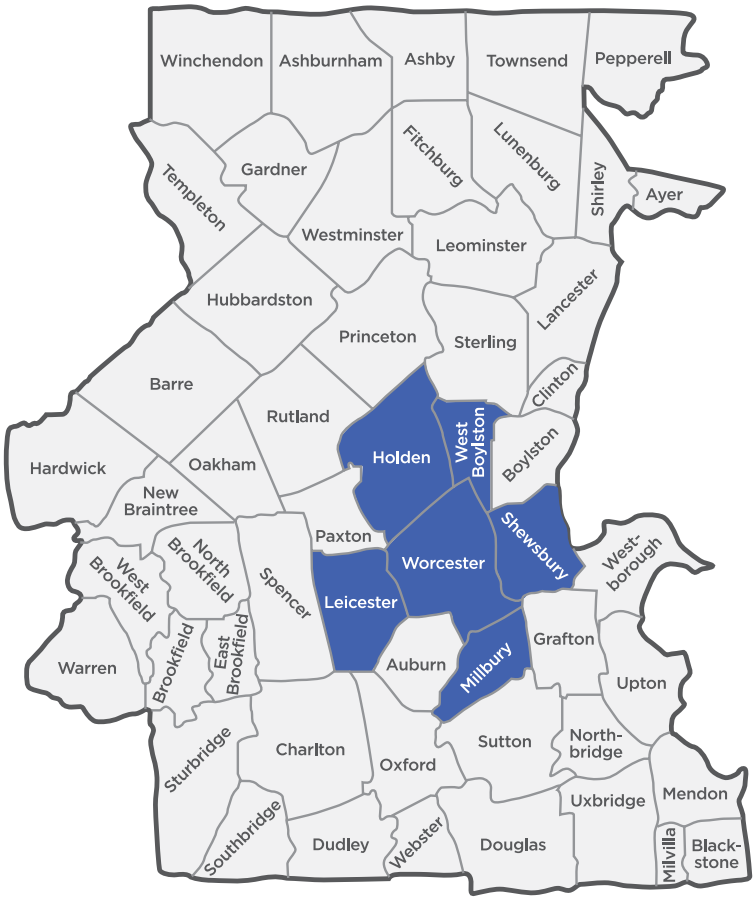
Common Pathways
working together toward a healthier community



This CHIP focuses on the municipalities of the Central Massachusetts Regional Public Health Alliance (CMRPHA), which includes the six communities of Holden, Leicester, Millbury, Shrewsbury, West Boylston, and Worcester.

GREATER WORCESTER REGION COMMUNITY HEALTH IMPROVEMENT PLAN

VISION:

Worcester will be the healthiest city and CMRPHA the healthiest region in New England by 2020.

The Community Health Needs Assessment and this Community Health Improvement Plan and ongoing initiative is made possible by the generous contributions of the Hoche-Scofield Foundation and all of our community partners. Our community thanks you.

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Acknowledgements

We would like to thank all of our community partners who have been actively engaged in the development of a Community Health Assessment (CHA) and Community Health Improvement Plan (CHIP) and implementation. The CHIP is designed to complement and build upon other plans, initiatives, and coalition work already in place to improve population health. Your coordinated, collective action will lead to significant improvements in the health status of all residents in the Greater Worcester region!

Over an eight month period from May to December 2012, the City of Worcester Division of Public Health, UMass Memorial Medical Center, and Common Pathways convened a process to develop a Community Health Assessment and Community Health Improvement Plan for the Greater Worcester region. More than 150 individuals representing diverse institutions and community organizations from across the region worked together to establish a roadmap for the future health of the region.

We are pleased to present this report, a year one update on the strategic framework for identifying and linking community assets, leveraging expertise and resources, and enhancing initiatives already underway to create a healthy, prosperous, and sustainable region. In this document you will read how the processes for assessment and planning were conducted, discover key recommendations for action and partnership, and identify ways you and/or your organization can collaborate in efforts to improve the health and quality of life for those who live, learn, work, and play in the Greater Worcester region. We urge you to examine the goals, objectives, and strategies outlined in this plan to determine how you can enhance initiatives in your business, school, organization, faith community, and/or neighborhood to support this effort. Together, we will build a healthier region!

Michael Hirsh, M.D.
Commissioner
City of Worcester Division of Public Health

Derek Brindisi
Director
City of Worcester Division of Public Health

Monica Escobar Lowell
Vice President, Department of Community Relations
UMass Memorial Health Care, Inc.

Clara Savage, EdD
Executive Director
Common Pathways

Executive Summary

Improving the health of a community is critical for not only enhancing residents' quality of life but also for supporting their future prosperity.

To this end, the City of Worcester Division of Public Health (lead agency of the Central Massachusetts Regional Public Health Alliance), UMass Memorial Medical Center, and Common Pathways, a Healthy Communities coalition, led a comprehensive community health planning effort to measurably improve the health of Greater Worcester region residents including the communities of Holden, Leicester, Millbury, Shrewsbury, West Boylston, and Worcester. Our focus on these five towns and the City of Worcester is primarily due to regionalization of public health services with the aforementioned communities, which are collectively known as the Central Massachusetts Regional Public Health Alliance. The Central Massachusetts Regional Public Health Alliance (CMRPHA) serves a total population of 265,899 residents. Additionally, the largest populations that are the primary target areas of CMRPHA are vulnerable, low-income, and immigrant communities.

Partnering with area healthcare providers, academic institutions, community based organizations, and municipalities is key to not only improving upon the services provided to residents, but also strengthening the public health system in Central Massachusetts as a whole.

The Community Health Improvement Planning process includes two major components:

1. A Community Health Assessment (CHA) to identify the health-related needs and strengths of the Greater Worcester region; and

2. A Community Health Improvement Plan (CHIP) to determine major health priorities, overarching goals, specific objectives, and strategies that can be implemented in a coordinated way across the region.

The CHIP is not intended to be a static report; rather, it is intended to focus and guide a continuous health improvement process that will monitor and evaluate health priorities and systems changes in an ongoing manner. The Greater Worcester Region CHIP provides an approach that is structured and specific enough to guide decisions, and flexible enough to respond to new health challenges. Its inclusive process represents a common framework for all stakeholders to use when implementing strategies for improving population health.

This full report presents the amended CHIP, which was developed using the key findings from the CHA and a detailed literature review to inform discussions and select the following data-driven priority health issues, goals, objectives, and strategies, and an annual report that details the progress made to date.

DOMAIN AREA 1. HEALTHY EATING & ACTIVE LIVING

Goal	Objective
1. Create an environment and community that support people's ability to make healthy eating and active living choices that promote health and well-being.	1.1 Increase availability of and access to affordable fresh and local fruits and vegetables for low-income residents by 10% by 2015, as measured by walking distance.
	1.2 Identify, prioritize, and implement improvements to increase residents' access to physical activity resources by 10% by 2015 as measured by walking distance.
	1.3 Increase the percentage of children in grade 1 who are a healthy weight by 3% by 2015.

DOMAIN AREA 2. BEHAVIORAL HEALTH

Goal	Objective
2. Foster an accepting community that supports positive mental health; and reduce substance abuse in a comprehensive and holistic way for all who live, learn, work, and play in the Greater Worcester region.	2.1 Reduce the proportion of high school students using tobacco products to below state rates between 2013 and 2020.
	2.2 Reduce the proportion of high school students using alcohol tobelow state rates between 2013 and 2020.
	2.3 Reduce the proportion of high school students misusing and abusing prescription drugs to below state rates between 2013 and 2020.
	2.4 Prevent an increase in the rate of prescription drug and opiate overdoses between 2013 and 2020.
	2.5 Increase 500 key community members' understanding of mental health issues and improve gatekeepers/systems reaction to common problems by 2015.
	2.6 Improve the assessment of regional mental health needs in order to increase continuity of care among vulnerable populations by 2020.

DOMAIN AREA 3. PRIMARY CARE & WELLNESS

Goal	Objective
3. Create a respectful and culturally responsive environment that encourages prevention of chronic disease, reduction of infant mortality, and access to quality comprehensive care for all.	3.1 Reduce non-urgent or preventable use of the emergency department by 8% by 2015.
	3.2 Reduce the rate of STIs in residents age 15-24 years by 10% by 2015.
	3.3 Reduce the rate of dental caries in residents age 4-19 by 3% by 2015.

DOMAIN AREA 4. VIOLENCE & INJURY PREVENTION

Goal	Objective
4. Improve safety, reduce violence and injury, and inform public perceptions by educating and mobilizing the community around effective, targeted prevention, and intervention strategies.	4.1 Reduce fall-related injuries in children age 10 and under by 5% and in adults age 65 and over by 8% by 2015.
	4.2 Increase public safety by 3% by 2015 as measured by crime rates and perceptions of safety.
	4.3 Reduce the rate of motor vehicle-related pedestrian, cyclist, and occupant injuries by 10% by 2015.

DOMAIN AREA 5. HEALTH EQUITY & HEALTH DISPARITIES

Goal	Objective
5. Improve population health by systematically eliminating institutional racism and the pathology of oppression and discrimination by promoting equitable access to, and use of, health promoting resources in the community, and significantly reducing the structural and environmental factors that contribute to health disparities.	5.1 By 2015, modify or implement two key, city-level public health policies that have the greatest impact on the systems that contribute to health disparities (e.g., zoning changes, housing policies, general education policies, etc.).
	5.2 By 2015, increase the capacity of over 100 grassroots adult and youth leaders (people who have lived experience in communities with disparities) to effectively influence the development of policies that address health disparities.
	5.3 By 2015, develop the capacity and will of 20 cross-sector institutions to address and eliminate institutional oppression in their own organizations.
	5.4 Ensure that each public health priority area in the CHIP identifies strategies to address oppression and the social determinants of health.

GREATER WORCESTER REGION
COMMUNITY HEALTH IMPROVEMENT PLAN

I. Introduction and Background

Improving the health of a community is critical for enhancing residents' quality of life and supporting their future prosperity. To this end, the City of Worcester Division of Public Health (lead agency of the Central Massachusetts Regional Public Health Alliance), UMass Memorial Medical Center, and Common Pathways are leading a comprehensive community health planning effort to measurably improve the health of residents in the Greater Worcester region.

The Community Health Improvement Planning process includes two major components:

- A CHA to identify the health-related needs and strengths of the Greater Worcester region; and
- A CHIP to determine major health priorities, overarching goals, and specific objectives and strategies that can be implemented in a coordinated way across the region.

This report presents the 2013 CHIP Amendment and Annual Report.

MOVING FROM ASSESSMENT TO PLANNING

Similar to the process for the CHA, the CHIP utilized a participatory, community-driven approach guided by the Mobilizing for Action through Planning and Partnerships (MAPP)process.[1] MAPP, a comprehensive planning process for improving health, is a strategic framework that local public health departments across the country have utilized to help direct their strategic planning efforts *(see Figure 1)*. MAPP is comprised of four distinct assessments that are the foundation of the planning process and includes the identification of strategic issues and goal/strategy formulation as prerequisites for action. Since health needs of a community change and evolve, the cyclical nature of the MAPP process allows for the periodic identification of new priorities and the realignment of activities and resources to address them. Advanced by the National Association of County and City Health Officials (NACCHO), MAPP's vision is for communities to achieve improved health and quality of life by mobilizing partnerships and taking strategic action. This framework, which is facilitated by community leaders, helps communities to apply strategic thinking to prioritize public health issues and identify resources to address them.

[1] More information on MAPP can be found at: http://www.naccho.org/topics/infrastructure/mapp/

FIGURE 1. MOBILIZING FOR ACTION THROUGH PLANNING AND PARTNERSHIPS (MAPP)

The assessment and planning (CHA-CHIP) process for the Greater Worcester region aimed to serve multiple purposes:

1. Provide a CHA for the basis of regional planning for the District Incentive Grant (DIG) funding provided by the Massachusetts Department of Public Health; and
2. Engage the community in a collaborative health planning process to identify shared priorities, goals, objectives, and strategies for moving forward in a coordinated way; and
3. Provide, engage, serve as the CHA for UMass Memorial Medical Center's Schedule H/Form 990 IRS mandate; and
4. Achieve compliance with Public Health Accreditation Board (PHAB) Standards 1.1 and 5.2 for WDPH and the CMRPHA.

In order to develop a shared vision and plan for improved community health, and help sustain implementation efforts, the Greater Worcester region assessment and planning process engaged multi-sector organizations, community members, and partners through various avenues:

- In March 2012, the City of Worcester Division of Public Health (lead agency of the Central Massachusetts Regional Public Health Alliance) partnered with UMass Memorial Health Care, Common Pathways, and other community partners to form the CHIP Leadership Team. In May 2012, the team hired Health Resources in Action (HRiA), a non-profit public health organization located in Boston, MA, as a research partner to provide strategic guidance and facilitation of the CHA-CHIP process, to collect and analyze data, and to develop report deliverables.

- A CHIP Advisory Committee was established in May 2012 to guide and offer feedback on the CHA and CHIP processes. The Advisory Committee includes a diverse group of agencies and organizations from across the region. The primary role of the Advisory Committee was to provide input and feedback on the study methodology and data collection instruments and to participate in the two-day strategic planning process. A list of CHIP Advisory Committee members is provided in Appendix A.

During the assessment process, HRiA worked with the Leadership Team and the Advisory Committee and other community partners to collect primary data. Community members were engaged through key informant interviews, focus groups, community dialogues, community festivals, and a region-wide community survey. These various data collection techniques provided an opportunity for diverse community members to provide their input and feedback on community health-related strengths, needs, and a vision for the future. Information was collected from over 1,700 individuals. This process ensured that the Greater Worcester region was represented in all its diverse aspects including business, civic groups, communications, cultural and linguistic groups, education, faith communities, government, healthcare, immigrant/refugee populations, law enforcement, social services, media, transportation, vulnerable populations (disabled, seniors, etc.), youth, and other organizations and specialized areas. A copy of the community survey is provided in Appendix C.

HRiA also reviewed existing secondary data available for Worcester, Holden, Leicester, Millbury, Shrewsbury, and West Boylston, focusing on all social, economic, health, and health care-related data provided by the City of Worcester Division of Public Health, Massachusetts Department of Public Health UMass Memorial Medical Center, Edward M. Kennedy Community Health Center, Family Health Center of Worcester and Common Pathways, CHNA 8. HRiA also gathered additional data on these six communities to fill any gaps and to ensure the data reflected the information needed to discuss these issues within a social determinants of health framework and with a health equity lens (e.g., ensuring data comprise a range of social and economic indicators as well as are presented for specific population groups). The results of the assessment were synthesized in a CHA report and shared via a presentation to over 125 community stakeholders to provide a comprehensive portrait of the region and set the foundation for the CHIP. The CHA report is available online at *www.worcesterma.gov/ocm/public-health* or by contacting the Worcester Division of Public Health or UMass Memorial Health Care Department of Community Relations.

II. Overview of the Community Health Improvement Plan

WHAT IS A COMMUNITY HEALTH IMPROVEMENT PLAN (CHIP)?

A CHIP is a long-term, systematic effort to address public health issues on the basis of community health assessment results and the community health improvement planning process. A CHIP is created through a community-wide planning process that engages residents and partners. The plan is then used by health departments, government agencies, hospitals, schools, higher education institutions, human service providers, businesses, and other community partners, to set priorities and coordinate and target resources.

Building upon the key findings and themes identified in the Community Health Assessment (CHA), the CHIP aims to:

- Identify priority issues for action to improve community health;
- Develop and implement a health improvement plan with performance measures for evaluation; and
- Guide future community decision-making and resource allocation to improve population health.

HOW TO USE A CHIP

A CHIP is developed to provide guidance to the health department, city government, hospitals, community health centers, philanthropists, third-party payers, social and community-based organizations, coalitions, and other stakeholders, in improving the health of the population. The plan is critical to developing policies and defining actions to target efforts that promote health. Government agencies, including those related to health, human services, and education, as well as hospitals, can use the CHIP in collaboration with community partners to set priorities and coordinate and target resources.[2]

A CHIP is designed to be a broad, strategic framework for improving community health, and should be modified and adjusted as conditions, resources, and external environmental factors change. It is developed and written in a way that engages multiple perspectives so that all community groups and sectors — private and nonprofit organizations, government agencies, academic institutions, community- and faith-based organizations, and community residents — can unite to improve the health and quality of life for all people who live, learn, work, and play in the region.

[2] Public Health Accreditation Board (PHAB) Standards and Measures, Version 1.0: Standard 5.2.2. p. 127

III. Development of the Community Health Improvement Plan (CHIP)

COMMUNITY ENGAGEMENT

The City of Worcester Division of Public Health (lead agency of the Central Massachusetts Regional Public Health Alliance) and UMass Memorial Health Care oversaw all aspects of the CHIP development. Common Pathways supported planning efforts by coordinating logistics and recruitment for the two CHIP sessions held on October 4 and 19, 2012. Over 125 community leaders participated in these two planning sessions. Planning session agendas can be found in Appendix D and a list of participants can be accessed through the City of Worcester Division of Public Health.

DEVELOPMENT OF DATA-DRIVEN, COMMUNITY IDENTIFIED HEALTH PRIORITIES

A summary of the CHA findings was presented to a large group of community stakeholders at a four-hour planning session on October 4, 2012. Participants were asked to reflect and offer input on the themes identified from the CHA.

The following themes emerged most frequently from review of the available data and were considered in the selection of the CHIP health priorities:

- Obesity, active living, physical activity
- Mental health
- Substance abuse
- Smoking
- Chronic disease (diabetes, heart disease, cancer)
- Asthma
- Oral health
- Sexual health/teen pregnancy
- Health care access
- Health equity/disparities
- Transportation/built environment
- Public safety/violence
- Focus on priority populations: elderly, youth, immigrants/refugees

The group was invited to offer feedback on the priorities listed above. These items are noted in *italics* in Table 1. In addition, during this discussion, participants added additional priority areas and agreed that several themes were more appropriate as cross-cutting strategies *(see Table 2)*.

TABLE 1. THEMES FROM THE COMMUNITY HEALTH ASSESSMENT CHA

Themes:	
• Obesity, active living, physical activity	• Sexual health/teen pregnancy
• Mental health *and post-traumatic stress disorder (PTSD)*	• Health care access
• Substance abuse: *harm reduction and overdose*	• Health equity/disparities
• Smoking	• Transportation/built environment
• Chronic disease (diabetes, heart disease, cancer)	• Public safety/violence/*domestic violence*
• Asthma	• Focus on priority populations: elderly, youth, immigrants/refugees
• Oral health	*(italics = items added by participants)*

TABLE 2. THEMES ADDED BY PARTICIPANTS

Themes:	
• Priority population: elderly	• Environment
• Priority population: youth	• Community involvement**
• Priority population: immigrants, refugees, people of color	• Stages of development
• Recreation	• Workplace wellness**
• Racism	• Pneumonia
• Infant mortality/maternal health/pre-maternity/birth defects	• Immunization
• Nutrition/food insecurity	• Collaboration**
• Primary care	• West Nile/Triple E
• Health education/promotion	• Ability/disability
• Housing	• Health care costs
• Education	• Green space
• Financial security: under and unemployment/ livable wage/home economics	• Health literacy
• Stress	• Cultural differences
• Classism	• Employment discrimination
• Gambling	• Housing discrimination
	• Media influences and perceptions
	*(** = Denotes cross-cutting strategy)*

Facilitators used a voting process to identify priority public health issues for the Greater Worcester region from the list of major themes identified from the CHA. Each participant identified their top four public health priorities, after reviewing, discussing, and agreeing upon a common set of selection criteria. These included:

- Community need (based on data)
- Achievable short term wins
- Measurable outcomes
- Impact
- Available resources
- Political will exists to support change

The results of the voting process are listed in Table 3:

TABLE 3. PRIORITIES: COMBINED THEMES

Combined Themes:	# of Votes
Behavioral health, mental health, PTSD, substance abuse, tobacco, stress, alcohol, gambling, stages of development, cultural competency	50
Obesity, active living, physical activity, nutrition, green space, workplace wellness, built environment, home economics, recreation, food insecurity, access, public safety	45
Public safety, violence, domestic violence, unemployment	37
Primary care, oral health, health education, preventive medicine, immunization, sexual health, teen pregnancy, access, maternal health, pre-maternity, infant mortality, early pregnancy, birth defects, housing security	33
Chronic disease (diabetes, heart, cancer, asthma, HIV/AIDS), pneumonia, stages of development, environment	24
Financial security ,unemployment, under-employment, livable wage, employment discrimination, access to vocational/technical	19
Housing, housing discrimination, homelessness, healthy homes, affordability, housing security	17
Education, language barriers	16
Environment, West Nile, Triple E, air quality	5
Health equity, health disparity, racism, classism, cultural competence, ability/disability, education, language barriers	*

** Determined by CHIP participants to be a standalone Priority Area rather than a cross-cutting theme. See next page.*

Based on a group discussion, planning participants combined, organized, and ultimately agreed upon five health priority areas for the CHIP *(see Table 4)*.

The group also suggested several cross-cutting strategies for each of the CHIP priorities, as appropriate *(see Table 5)*:

TABLE 4. FINAL PRIORITY AREAS

Priority Areas	# of Votes
Behavioral Health	50
Obesity/Active Living	45
Public Safety/Violence	37
Primary Care/Oral Health	33
Healthy Equity/Racism	Chosen as additional priority following voting exercise due to its importance

DEVELOPMENT OF THE CHIP STRATEGIC COMPONENTS

During the two, half-day planning sessions held on October 4 and October 19, 2012, a team from HRiA facilitated priority area working groups to develop draft goals, objectives, strategies, and Outcome Measures.

During this process, sample evidence-based strategies and outcome measures were provided that were identified from the *Guide to Community Preventive Services, County Health Rankings, Healthy People 2020*, and the *National Prevention Strategy* prior to and during the strategy setting session.

TABLE 5. CROSS-CUTTING STRATEGIES

Strategies
Priority populations • Elderly • Youth • Immigrants/refugees • People of color • GLBTQ • Child-bearing women • People with disabilities
Community involvement
Collaboration
Media influences and perceptions
Policy and systems change
Transportation
Health equity, health disparity, racism, classism, cultural competence and differences, ability/disability, education, language barriers
Health literacy
Health education/promotion
Health care costs

The Advisory Committee and HRiA reviewed the draft output from the planning sessions and edited material for clarity, consistency, and inclusion of evidence-based strategies. Following the planning sessions, workgroup participants were invited to provide feedback on draft plan components via email and a region-wide survey. Sixteen workgroup participants provided additional input. Their feedback on strategies, Outcome Measures, and potential partners was incorporated into the final versions of the CHIP *(see Appendix E for CHIP Feedback Survey)*.

After one year of implementation, CHIP partners reviewed each goal, objective, and strategy to assess feasibility, coalesce data, and better focus the work. As a result, several of the initially identified objectives and strategies were edited. Results of a literature review were added for reference to support implementation.

RELATIONSHIP BETWEEN THE CHIP AND OTHER GUIDING DOCUMENTS AND INITIATIVES

The CHIP was designed to complement and build upon other guiding documents, plans, initiatives, and coalition work already in place to improve the public health of the Greater Worcester region. Rather than conflicting with or duplicating the recommendations and actions of existing frameworks and coalitions, CHIP participants identified potential partners and resources wherever possible.

In addition to guiding future services, programs, policies, and potential resource allocation for participating agencies and the area overall, the CHIP meets the requirements for hospitals as per the section 501(r)(3)(B) of the Internal Revenue Code[3], and fulfills the required prerequisites for local public health departments to earn accreditation, which indicates that the agency is meeting national Public Health Accreditation Board (PHAB)[4] standards. Following the guidelines of the National Association of County and City Health Officials (NACCHO)[5], the community health improvement process was designed to integrate and enhance the activities of many organizations' contributions to community health improvement, building on current assets, enhancing existing programs and initiatives, and leveraging resources for greater efficiency and impact.

[3] Public Health Accreditation Board (PHAB) Standards and Measures, Version 1.0: Standard 5.2.2. p. 127 Hospitals-Under-the-Affordable-Care-Act

[4] http://www.phaboard.org/accreditation-process/public-health-department-standards-and-measures/

[5] http://www.naccho.org/topics/infrastructure/CHAIP/accreditation-preparation.cfm

IV. Regional Demographic and Health Profile

Tables 6 and 7 and Figure 2 provide context for implementing the goals of the CHIP in the communities of the Greater Worcester region.

TABLE 6. DEMOGRAPHIC QUALITIES OF ALLIANCE COMMUNITIES

	CMRPHA total	Holden	Leicester	Millbury	Shrewsbury	West Boylston	Worcester	Massachusetts
Population	265,889	17,346	10,970	13,261	35,608	7,669	181,045	6,547,629
Median Household income	$57,464	$85,095	$72,843	$68,046	$85,016	$71,172	$47,415	$65,981
% below poverty	13.8%	3.5%	4.8%	2.9%	3.9%	3.6%	19%	11%
Median age	36.1	41.4	39.7	41.8	38.8	40.4	34.3	38.9
% unemployed	5.6%	5.6%	6.9%	5.6%	4.1%	3.6%	6%	6%

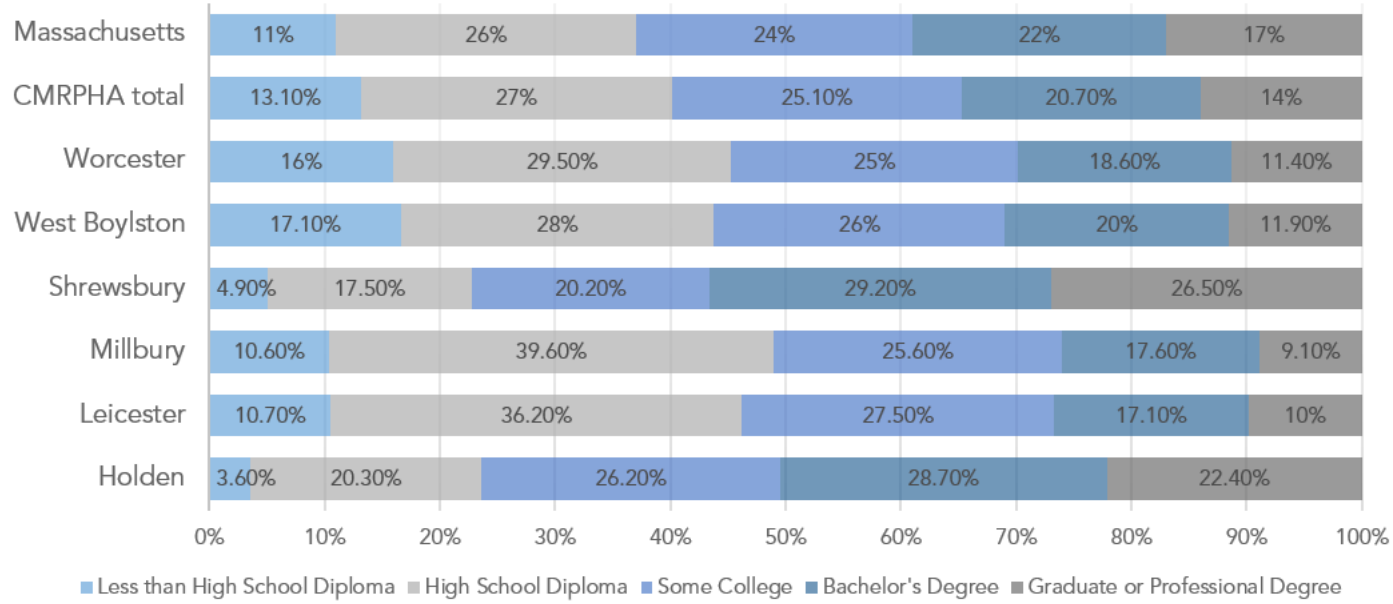
Source: US Census Bureau, American Community Survey (2007-2011)

TABLE 7. RACIAL AND ETHNIC BACKGROUND OF ALLIANCE COMMUNITIES

	CMRPHA total	Holden	Leicester	Millbury	Shrewsbury	West Boylston	Worcester	Massachusetts
White, Not Hispanic	70.4%	92.7%	90.8%	92.8%	77.3%	88.9%	59.6%	76.1%
Black or African-American, Not Hispanic	7.1%	0.9%	1.0%	1.2%	2.0%	4.2%	10.2%	6.0%
Hispanic or Latino	14.1%	2.2%	3.8%	2.3%	2.7%	5.3%	20.9%	9.6%
Asian	6.3%	3.0%	1.6%	1.0%	15.3%	0.7%	6.0%	5.3%
Some Other Race	0.5%	0.2%	0.6%	0.5%	1.0%	0.4%	0.9%	11.0%
Two or More Races	1.6%	1.0%	1.3%	1.3%	1.6%	0.6%	2.3%	1.9%

Source: US Census Bureau, American Community Survey (2007-2011)

FIGURE 2. EDUCATIONAL ATTAINMENT OF ALLIANCE COMMUNITIES



Source: US Census Bureau, American Community Survey (2007-2011)

Health Profile

According to data from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS) (Table 8), Worcester adults are more likely to report poorer general health and mental health and higher rates of overweight/obesity, asthma and diabetes than are Massachusetts residents overall. They are more likely to report smoking and to report lower rates of consumption of fruits and vegetables and regular physical activity. Based on Worcester's demographic information and the literature, it is reasonable to expect poorer general health and mental health status, as well as worse chronic disease and health behavior rates as compared to the state.

TABLE 8. STATE BRFSS DATA FOR WORCESTER, MASSACHUSETTS

	Worcester	Massachusetts
General		
Prevalence of fair or poor health	15.7%	11.9%
Number of days in past 30 days physical health not good	10.1 days	8.5 days
Prevalence of having a disability and needing help	8.4%	5.4%
Physical / Disease-related		
Prevalence of coronary heart disease	6.0%	5.9%
Prevalence of ever diagnosed with Stroke among adults (35+)	1.8%	2.0%
Prevalence of asthma	12.7%	10.3%
Prevalence of diabetes	8.6%	7.5%
Prevalence of obesity	25.1%	23.0%
Prevalence of overweight/obesity	61.4%	58.9%
Mental		
Number of days in past 30 days mental health not good*	12.1 days	8.9 days
Prevalence of symptoms of depression in past two weeks	11.0%	7.4%
Behavioral		
Prevalence of consumption of 5 or more fruits and vegetables per day	24.3%	27.4%
Prevalence of regular physical activity**	46.6%	52.2%
Prevalence of current smoker***	23.1%	15.9%

Source: Massachusetts Department of Public Health, Behavioral Risk Factor Surveillance System CY 2008-2011. *CY 2007-2011. **CY 2001, 2003, 2005, 2007, 2009. ***CY 2006-2010.

V. Strategic Elements of the CHIP & Progress Reports

GOALS, OBJECTIVES, STRATEGIES, AND OUTCOME MEASURES

Real, lasting community change stems from critical assessment of current conditions, an aspirational framing of the desired future, and a clear evaluation of whether efforts are making a difference. Outcome measures tell the story about where a community is in relation to its vision, as articulated by its related goals, objectives, and strategies. The following pages outline the goals, objectives, strategies, outcome measures, partners and progress for the five health priority areas outlined in the CHIP *(see Appendix B for a glossary of CHIP terms)*.

The five identified priority areas are referred to in the following tables as "Domain Areas" to reflect their equal importance.

2013 AMENDMENT AND ANNUAL REPORT

Although the CHIP contains concrete strategies for improving health in the five priority health domains, more information was needed in order to assign outcome measures for work and identify key health indicators to reflect progress in health improvements. Year one of implementation has largely focused on data collection, capacity building and planning, though several strategies have been fully or partially implemented.

Goals, objectives, and strategies were divided among partners into new or existing coalitions and efforts referred to as "workgroups."

In addition, as the Worcester Division of Public Health/Central Massachusetts Regional Public Health Alliance prepares for national accreditation, additions to the CHIP were required to achieve compliance with the Public Health Accreditation Board's (PHAB) standards and measures. These include: a discussion of the alignment of the local priorities with those of state and national agencies, specific time framed targets, and organizations responsible for implementing specific strategies.

This report summarizes the work during year one of CHIP implementation and achieves PHAB compliance. The following information is provided for each CHIP objective and/or strategy:

- Community context
- Strategic rationale including the link to national public health guidelines (e.g. Healthy People 2020, National Prevention Strategy, Guide to Community Preventive Services) and results of a literature review to guide partners in implementing strategies
- Changes (if any) to original CHIP goals, objectives, or strategies
- Lead and partner agencies involved in implementation
- Achievements to date
- Work plan for the year 2014

Also new to this report is a description of specific considerations of health equity in each domain area. During the CHIP planning process, participants felt strongly that health disparities in access to services and health outcomes is a major issue for the region, and they included health equity as a stand-alone priority area, Domain 5. Within the objectives of Domain 5 is Objective 5.4: Ensure that each public health priority area in the CHIP identifies strategies to address oppression and the social determinants of health. In order to achieve this, domain workgroups consistently discussed how the strategies they are charged with implementing can affect health equity. The main themes of these efforts are reported for Domains 1-4.

Domain Area 1: Healthy Eating & Active Living

Concerns regarding obesity and behaviors associated with obesity, such as nutrition and physical activity, are important health concerns cited by respondents in all communities in the Greater Worcester area. The data supports considering these conditions critical given that heart disease and diabetes are among the leading causes of morbidity and mortality. Of particular concern is limited access to healthy foods and environments that support active living for vulnerable populations and immigrant communities. Concerns in relation to access and high costs of healthy foods, inadequate public transportation, fees for use of recreational facilities and activities, neighborhood safety in parks and outdoor spaces, accessible walkable spaces, time constraints, and the stress of living on the edge were raised as challenges related to healthy eating and active living. Therefore, ensuring equitable resources for active living and healthy eating requires a comprehensive approach, given that multiple sectors – including health care, education, public works, transportation, local government, and the business community – need to collaborate to improve current conditions.

Similar to patterns nationwide, the issue of obesity – including healthy eating and physical activity – are important health concerns in the region associated with prevalent chronic diseases such as heart disease and diabetes. Statistics indicate that only 25.6% of residents in Worcester County reported consuming the recommended 5 or more fruits and vegetables daily and 76.2% of residents in Worcester County indicated getting any leisure time physical activity in the past month, according to the Behavioral Risk Factor Surveillance Survey (BRFSS). [1]

According to BRFSS 2008-2011 estimates, approximately 61% of adults in the city of Worcester were overweight or obese, compared to 59% of Massachusetts adults.[1] 2010 data demonstrate a clear trend among lowest income residents in Worcester County, as having the highest prevalence of overweight (72%) and obesity (33%).[2] Non-Hispanic Blacks in Worcester County have a higher prevalence of obesity and overweight (77.2%) than Non-Hispanic Blacks in the State (66.4%) and Non-Hispanic Whites in Worcester County (61.2%) in 2010.[3] In 2011, Hispanic youth had the highest prevalence of obesity (27%) compared to their peers in Worcester.[4]

[1] Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2008.

[2] MDPH, MassCHIP, BRFSS 2010.

[3] MDPH, MassCHIP, BRFSS 2010.

[4] MDPH, Essential School Health Service (ESHS) data Reports for Worcester and Massachusetts.

GOAL 1. Create an environment and community that support people's ability to make healthy eating and active living choices that promote health and well-being.

2013 revisions. As of this report, Objective 1.4 has been removed from the CHIP, and the strategies within the objective reassigned or removed. Strategy 1.4.1 has been reassigned to Objective 1.1 and Strategy 1.4.2 has been placed under Objective 1.2. These changes create a more cohesive set of strategies for each objective. The Domain 1 workgroup has removed Strategy 1.4.3 from the CHIP due to the a lack of supporting evidence based on the Community Health Assessment; the workgroup recognized that although eating disorders are an issue of public health concern, it is not currently a priority in the region.

Health equity considerations. The Domain 1 workgroup strives to ensure that all work is conducted through the lens of the social determinants of health model and that the group strongly considers potential impacts of the work on health equity. Several strategies within Domain 1 are considered best practices for reducing health disparities such as the healthy markets initiative and joint use agreements. The Regional Environmental Council's (REC) mobile farmers' market offers a 50% match to SNAP/WIC dollars used to purchase produce which renders produce from the market affordable for most families. The Worcester Food and Active Living Policy Council (FALPC) prioritized SNAP policy and awareness of the SNAP program in 2013, recognizing that proposed changes to the program would disproportionately affect recipients of color. During 2013, the group identified a need for additional training in this area to guide future work. Members of the workgroup will participate in a Cultural InSight training early in 2014 to improve cultural competency.

Table 9. Prevalence of Health Behaviors/Status in Adults

	Worcester	Massachusetts
Overweight/obesity	61.38%	58.85%
≥5 daily fruit & vegetable consumption*	24.29%	27.43%
Physical activity**	52.22%	46.64%

Source: Massachusetts Department of Public Health, Behavioral Risk Factor Surveillance System CY 2008-2011. *CY 2001, 2003, 2005, 2007, 2009. **CY 2006-2010.

Table 10. Overweight & Obesity Prevalence in Area High Schools

	Wachusett**	Leicester	Millbury	Shrewsbury	Worcester*	Massachusetts
Overweight	13.3%	22.3%	18.0%	17.1%	18.9%	16.7%
Obese	9.3%	17.4%	21.4%	11.0%	20.9%	15.7%
Overweight or Obese	22.6%	39.7%	39.3%	28.2%	39.8%	32.3%
Grade 1 Overweight or Obese	16.0%	33.1%	31.6%	26.8%	35.2%	28.4%

Source: Massachusetts Department of Public Health, School Health Unit, "The Status of Childhood Weight in Massachusetts, 2011." *Worcester data do not include Grade 10, which may lower overall rate. **Wachusett School District includes Town of Holden.

1.1 Objective	Strategies
1.1 Increase availability of and access to affordable fresh and local fruits and vegetables for low-income residents by 10% by 2015, as measured by walking distance.	1.1.1 Strengthen, grow and coordinate existing strategies prioritized by the Regional Environmental Council of Central Massachusetts and the Food and Active Living Policy Council such as farmers' markets, urban agriculture, Cooking Matters, and Farm to School programs.
	1.1.2 Enhance and expand the Mobile Farmers' Market in seven low income/food desert communities and on college campuses in Worcester.
	1.1.3 Coordinate and lead the Mass in Motion Corner Store initiative.
	1.1.4 Advance the policy priorities of the Worcester Food and Active Living Policy Council, such as zoning regulations to promote community gardens, urban agriculture, and policies to increase physical activity.
	1.1.5 Enhance Community Gardens educational programs in alignment with a minimum of 70 community-based garden efforts.
	1.1.6 Advertise and promote the availability of food resources to low income individuals in targeted neighborhoods.

1.2 Objective	Strategies
1.2 Identify, prioritize, and implement improvements to increase residents' access to physical activity resources by 10% by 2015 as measured by walking distance.	1.2.1 Increase consideration of pedestrian and bicycle accommodation in routine decision making through adoption of Complete Streets transportation policy throughout the region.
	1.2.2 Establish four joint use agreements with schools in low-income neighborhoods to allow the use of both indoor and outdoor facilities by the public during non-school hours on a regular basis.
	1.2.3 Establish a district-wide Safe Routes to School task force for ongoing identification and implementation of systems, policies, and school-level changes to support increased walking and biking to school.
	1.2.4 Assess and identify priorities for improving access to existing parks and open spaces, including public works improvements and public safety enhancements as well as facilities improvements or amenities; prioritize needs based on access criteria and deliverables identified in Worcester's Open Space and Recreation Plan.
	1.2.5 Conduct a social norms campaign to define and change perceptions of violence and community safety and thereby increase utilization of community resources. (see 4.2.2)

1.3 Objective	Strategies
1.3 Increase the percentage of children in grade 1 who are a healthy weight by 3% by 2015.	1.3.1 Implement professional development/education program for teachers and early childhood care providers related to physical activity to increase their awareness of its connection with learning.
	1.3.2 Advocate for policies to increase food/nutrition standards for snacks/meals at public and private preschools and kindergarten classes.
	1.3.3 Assess and explore adoption of other evidence-based obesity reduction programs such as I am Moving, I am Learning, Hip Hop to Health, and others.
	1.3.4 Advocate for recommended hours of physical education in schools.
	1.3.5 Conduct and coordinate communication, public awareness, outreach, and mass media campaign.

GOAL 1. Create an environment and community that support people's ability to make healthy eating and active living choices that promote health and well-being.

1.1 Strengthen, grow and coordinate existing strategies prioritized by the Regional Environmental Council of Central Massachusetts and the Food and Active Living Policy Council such as farmers' markets, urban agriculture, Cooking Matters, and Farm to School programs.

2013 Update. After one year of implementation, the Domain 1 workgroup determined that enough data has been collected to assign a goal of 10% for increasing access to healthy food resources. This value was derived from projections based on current availability to low-income residents in Worcester, as measured by survey and GIS mapping. Access to fresh fruits and vegetables is defined as living within 1/4 mile walking distance from a retail outlet or farmers market that sells fresh or frozen produce, low fat milk, and whole wheat bread.

New in this report is the addition of Strategy 1.1.5 (formerly 1.4.1) to Objective 1.1. This change was made simply to streamline processes, since Strategies 1.1.1 and 1.1.4 are related to the community garden efforts contained in Strategy 1.1.5. The former Strategy 1.1.5 has become Strategy 1.1.6.

Lead Agency: Worcester Food and Active Living Policy Council

Current Partners: Regional Environmental Council, Mass in Motion, Worcester Division of Public Health, Mass Farm to School, Cooking Matters, Greater Worcester County Food Bank, Fallon Health

1.1.1 Strengthen, grow and coordinate existing strategies prioritized by the Regional Environmental Council of Central Massachusetts and the Food and Active Living Policy Council such as farmers' markets, urban agriculture, Cooking Matters, and Farm to School programs.

Rationale. Healthy People 2020 prioritizes increasing access to fruits/vegetables locally, as well as increasing the incorporation of fruits and vegetables into individuals' diets by increasing the proportion of calories that come from these foods. Strategies for achieving these objectives contained in Healthy People include strengthening local food policy councils.

Research shows that a variety of environmental factors can influence the size of food deserts. While physical distance to a food retailer is a factor, access to transportation and public safety also influence food desert locations. The current programs of REC, such as mobile farmers' markets, can reduce the effects of these barriers and improve access.

Policies that support urban agriculture have been shown to increase food security, physical and psychological well-being, social cohesion, and even physical activity.

Current status. The Domain 1 workgroup was able make significant progress on Strategy 1.1.1 in 2013. Three farmers markets were open during the summer months; REC managed one at the Main South YMCA and the other at Beaver Brook Park. Both REC markets accept EBT, WIC, and Senior Coupons and offer a 50% match for those programs for most of the summer. A third market was opened by Crompton Collective in Kelley Square. The number of community gardens in the city of Worcester grew to 42 total, 18 of which are part of the School Garden network. Seventeen gardening workshops were offered to the public to promote healthy eating.

The group also made progress on policy advocacy, with the Urban Agriculture subcommittee promoting a city-wide policy to expand opportunities for growing in Worcester. A one-page fact sheet has been developed explaining the potential benefits of the policy.

2014 Plans. During 2014, the REC will provide a summary report of the summer farmers' market statistics to the domain workgroup. The report will include both successes and challenges and make recommendations for the 2014 markets. The group will also continue to promote gardening workshops. The group will meet with City of Worcester elected officials to gauge interest, baseline knowledge, and priorities moving forward regarding urban agriculture policy initiatives.

Outcome Measures. Number of Community Gardens per 1000; Number of Farmers' Markets per 1000

1.1.2 Enhance and expand the mobile farmers' market in seven low income/food desert communities and on college campuses in Worcester.

Rationale. Healthy People 2020 prioritizes increasing access to fruits/vegetables locally, as well as increasing the incorporation of fruits and vegetables into individuals' diets by increasing the proportion of calories that come from these foods. Additional goals include increasing access to retail outlets that sell foods recommended by the Dietary Guidelines for Americans. Increasing access to healthy foods is also a recommendation of the National Prevention Strategy.

Increasing the number of food retailers, including temporary food establishments such as mobile grocers, has been shown to increase food security in traditional food insecure locations. In the summer months, when these options are most abundant, food deserts can shrink and in some cases disappear temporarily. CDC recommends expanding farmers' market coverage as a strategy for increasing access to healthy foods and reducing the local burden of chronic disease.

Current Status. In 2013, the mobile farmers' market was able to successfully expand its services. During the summer, the market was able to make 16 stops per week to Worcester's low-income neighborhoods. The market accepts WIC, EBT, and Senior Coupons at all locations and offers a 50% match through most of the summer.

2014 Plans. REC will summarize and report the statistics of the Mobile Farmers' Markets to the Domain 1 workgroup. The group will utilize this information to improve and expand the markets during summer 2014, prioritizing neighborhoods with limited access to healthy foods. In order to promote the market, REC will work with Mass in Motion (MIM) to advertise schedule and locations through largest employers in Worcester and through a summer CHIP media campaign. REC will meet with all host sites prior to the season to develop plans for improved collaboration.

Outcome Measures. Number of farmers' markets per 1000

1.1.3 Coordinate and lead the Mass in Motion Corner Store initiative.

Rationale. Healthy People 2020 prioritizes increasing access to fruits/vegetables locally, as well as increasing the incorporation of fruits and vegetables into individuals' diets by increasing the proportion of calories that come from these foods. Additional goals include increasing access to retail outlets that sell foods recommended by the Dietary Guidelines for Americans.

Corner store initiatives have been shown to increase both supply and demand for fresh fruits and vegetables in low income neighborhoods and neighborhoods with high proportion of racial and ethnic minorities. Additional research has shown that customers purchasing the majority of their foods from small corner stores would be interested in increasing the variety and availability of produce in these outlets. Business incentives would encourage retailers to make these foods available.

Mass in Motion is a priority program funded by the Massachusetts Department of Public Health of which Worcester is a grantee. MIM works to improve the policies, systems, and environments that influence individuals' abilities to eat well and be physically active.

Current status. The Corner Store Initiative was very successful in 2013. Over 240 stores in the region were assessed for proximity to other food resources, proximity to schools, and participation in SNAP and WIC. From that pool, 40 stores were selected for more intensive assessment of feasibility, interest in participating, and current store conditions. Three stores are currently participating fully, two in Worcester and one in Millbury. Full participation requires stores to stock four new types of produce. MIM has partnered with the REC to assist store owners in sourcing local produce. GIS mapping was completed to assess the reach and proximity of current food resources and to prioritize stores and neighborhoods for focus in 2014.

2014 Plans. Currently, there are four more stores interested in achieving full participation by summer 2014, and an additional five being targeted for fall 2014. The goal is to have 12 stores fully participating by September 2014, with current stores selling higher volumes of healthy options.

Outcome Measures. Average walking distance to a store that sells healthy foods, average price of competitive foods

1.1.4 Advance the policy priorities of the Worcester Food and Active Living Policy Council, such as zoning regulations to promote community gardens, urban agriculture, and policies to increase physical activity.

Rationale. Healthy People 2020 prioritizes increasing access to fruits/vegetables locally, as well as increasing the incorporation of fruits and vegetables into individuals' diets by increasing the proportion of calories that come from these foods. Strategies for these objectives include strengthening local food policy councils.

Policies that support urban agriculture have been shown to increase food security, physical and psychological well-being, social cohesion, and even physical activity. Policies that support community gardens and urban farming have been shown to potentially increase consumption of healthy food and are seen as best-practices for a number of other public health concerns such as neighborhood safety and physical activity.

Current status. FALPC has focused efforts in year one on strengthening administrative processes. For example, the SNAP working group has been developing a long-term communications plan, and the Urban Agriculture subcommittee has developed a one-page policy brief.

2014 Plans. The Urban Agriculture subcommittee will refine their policy strategy for 2014 and will meet with city officials to inform the process. The group also aims to submit, at minimum, three stories to print media and participate in two radio/tv interviews.

Outcome Measures. Number of policies introduced and implemented

As of this report, the language of this strategy has been edited for clarity. The intent of the strategy and implementation plans have not changed.

1.1.5 Enhance Community Gardens educational programs in alignment with a minimum of 70 community-based garden efforts.

Rationale. While neither the National Prevention Strategy nor Healthy People 2020 specifically refer to the improving healthy food access and decreasing obesity rates through community garden expansion, both highlight the importance of increasing people's intake of fruits and vegetables and controlling body weight.

A review of the literature revealed an association between the presence of community gardens and increased fruit and vegetable intake. One review article recommends that local communities expand access to community gardens by bringing together city administrators (planners, health departments, etc.) and community groups to identify appropriate locations and pool resources. This model is reflected in the approach to implementation for this strategy which is achieved through collaboration facilitated by FALPC.

Current Status. The number of community gardens in the city of Worcester grew to 42 total, 18 of which are part of the School Garden network. REC offered 17 gardening workshops to the public and community garden sponsors to promote healthy eating.

2014 Plans. In 2014, REC will work to expand participation in their community garden educational programming, as well as expand funding for community garden programming. As new school and community gardens enter the network, REC will work with those organizations to provide support in establishing and maintaining those gardens.

Outcome Measures. Number of community gardens per 1000

This strategy (formerly contained in Objective 1.4) has been placed within Objective 1.1 as of this report. This change was made to increase coordination of efforts within the objective as a whole. Because Strategies 1.1.1 and 1.1.4 are aimed at supporting and promoting efforts, including community gardens, it is appropriate to group these strategies together.

1.1.6 Advertise and promote the availability of food resources to low income individuals in targeted neighborhoods.

Rationale. Improving access to healthy foods is addressed within the Healthy People objective that aims to increase the proportion of retail food outlet that offer fresh fruits and vegetables. Similarly, the National Prevention Strategy recommends increasing local access to healthy foods as a method to promote healthy eating.

Literature review has revealed that the availability of healthy foods in low-income areas can increase through the expansion of farmers' markets, corner store produce sales, etc. Therefore, in order to maximize the benefits of such projects, it is necessary to conduct marketing campaigns and outreach to ensure that the community can take full advantage of the opportunities.

Current status. The Domain 1 workgroup has made significant investments in expanding marketing and communications efforts during 2013. Efforts for both the mobile market and stationary farmers' markets include advertising through posters, flyers, mini-flyer handouts, social media, website, and radio.

2014 Plans. Implementation of the current FALPC marketing plan will continue through 2014. A multi-component CHIP communications campaign will advertise and promote the availability of food and physical activity resources throughout summer 2014. The Worcester Division of Public Health also plans to promote food resources through interactive mapping on their website in 2014.

Outcome Measures. Number of individuals reached per media campaign or outreach initiative

The language of the strategy has been edited to broaden the scope of the work. The original strategy limited the promotion of the work group's efforts to work relating to Strategies 1.1.1 and 1.1.3. The new language allows the workgroup the freedom to promote any of the progress made toward achieving Objective 1.1.

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1.2 Identify, prioritize, and implement improvements to increase residents' access to physical activity resources by 10% by 2015 as measured by walking distance.

2013 Update. After one year of implementation, the Domain 1 workgroup has chosen to edit Objective 1.2. After reviewing additional data, the group recognized that increasing the absolute number of opportunities for physical activity is not the best indicator of increased overall physical activity of residents, especially if these opportunities are not conveniently located. Therefore, the group decided to change the objective to reflect the overall level of access to opportunities for physical activity. The target value of 10% was obtained by reviewing Healthy People 2020 objectives and projections for increased access due to the strategies contained below (joint use agreements, complete streets policy, etc.). The work group considers this value a feasible, yet challenging goal that will achieve meaningful improvements in health.

Lead Agencies: WalkBike Worcester, Mass in Motion, Worcester Division of Public Health

Current Partners: Central MA Regional Planning Commission, WPI, Fallong Health

1.2.1 Increase consideration of pedestrian and bicycle accommodation in routine decision making through adoption of Complete Streets transportation policy throughout the region.

Rationale. Increasing physical activity is a priority of national health agencies. Healthy People 2020 includes 15 objectives relating to increasing physical activity across age groups, as well as increasing access to opportunities for physical activity. The Guide to Community Preventive Services recommends street-scale urban design and land use policies for increasing physical activity in the community.

Observational research found traffic speed and volume to be among the neighborhood environment features with the greatest association with youth physical activity. People living in areas with lower traffic speeds reported using parks more frequently. In a study of African American public housing residents, lower traffic speed was linked to more walking for men and women. A literature review demonstrated the positive impacts that infrastructure changes, like the improving sidewalks or adding bike lanes can have on physical activity. Not only do such changes increase physical activity in the community, but also improve attitudes toward active transportation, for example, people reported that they feel safer while walking after infrastructure improvements are made.

Current status. During 2013, the workgroup made large strides in promoting Complete Streets, with WalkBike Worcester holding a training for key stakeholders co-sponsored by the Worcester City Council Public Works and Transportation Subcommittee and Traffic and Parking Subcommittee. WDPH also hosted a Complete Streets training for the Office of Human Rights and Disabilities. WalkBike Worcester participated in several road safety audits, as well as preliminary design hearings for road projects in the city. Worcester City Council formally supported the MA Active Streets bill co-sponsored by Sen. Chandler (An Act Relative to Active Streets and Healthy Communities). WalkBike Worcester worked with City of Worcester Department of Public Works (DPW) and Worcester Polytechnic Institute (WPI) to identify "low-hanging fruit" for striping bike lanes on recently resurfaced roads and roads to be resurfaced during the FY15 construction season.

2014 Plans. In 2014, the group plans to build stakeholder support through education and outreach, conduct targeted assessments of health impact of Complete Streets in three neighborhoods of the city, create materials for use by city officials and partner organizations to educate others about Complete Streets, provide opportunities for education regarding healthy community design to city boards, commissions, and departments, work with DPW to craft an approach to bicyclist and pedestrian accommodations, and build WDPH capacity for input on community design.

Outcome Measures. Number of municipalities implementing a complete streets policy; Number of people walking and biking to work per 1000; Number of children walking and biking to school per 1000; Miles of bike lanes

1.2.2 Establish four joint use agreements with schools in low-income neighborhoods to allow the use of both indoor and outdoor facilities by the public during non-school hours on a regular basis.

Rationale. Within the objectives relating to increasing physical activity, Healthy People 2020 includes a goal of increasing the percentage of schools that provide access to facilities for physical activity during non-school hours by 10%. The National Prevention Strategy similarly recommends encouraging community design and development to facilitate access to safe, accessible, and affordable places for physical activity.

Studies have found that playgrounds are a critical resource for physical activity, especially in urban environments. Increased access to facilities and recreational opportunities increases physical activity in children. This strategy was chosen based on the strong evidence base and its potential benefits to the community.

Current status. The Domain 1 workgroup has invested significant time and energy to implementing Strategy 1.2.2 in 2013. WDPH, in partnership with the Worcester Public Schools (WPS), submitted a grant application to KaBOOM!, a non-profit that supports expanded playground resources for children. Extensive assessment of current playground access was completed over the summer in advance of the grant application.

2014 Plans. Activities planned for 2014 are contingent upon grant funding. If awarded, the KaBOOM! grant will support the implementation of a district-wide joint use agreement with WPS. The grant will fund educational trainings for city administrators on the benefit of joint use agreements, legal counsel, and infrastructure improvements for school facilities such as new signage, lighting, etc. The workgroup has developed a timeline for implementation that it would like to see adopted by city administrators in early 2014.

Outcome Measures. Number of joint-use agreements implemented; Number of residents with access to physical activity resources, as measured by walking distance

This strategy has been edited as of this report to reflect the possibility of establishing joint use agreements throughout the alliance communities, as the previous language suggested the strategy was limited to Worcester.

1.2.3 Establish a district-wide Safe Routes to School task force for ongoing identification and implementation of systems, policies, and school-level changes to support increased walking and biking to school.

Rationale. Increasing the proportion of trips less than one mile that are made by walking for both children and adults is an objective of Healthy People 2020. Safe Routes to School is a nationally promoted program that aims to improve health by increasing physical activity, reducing air pollution, and improving safety for pedestrians. Safe Routes to School policies that consider bussing distances, traffic patterns surrounding schools, speed limits etc. can increase the proportion of students that walk to school.

Current status. Parents at six elementary schools were surveyed for participation in a SRTS pilot program in 2013. Three pilot programs were established at schools with high potential for travel-mode shift. A SRTS committee was established, safety audits of the surrounding streets have been conducted at one school, and meetings to engage parents and administrators were held at all three schools.

2014 Plans. In 2014, the SRTS Task Force will convene SRTS committees at the remaining two pilot schools, will continue conducting walk audits at all three schools, including mapping of existing conditions and recommended walking routes. A SRTS newsletter will be distributed to partner schools and interested parties. School specific education and encouragement activities will be created and 2nd grade pedestrian safety training will be conducted. An evaluation and final report will be written about the three pilot schools, and the next round of schools will be solicited. Recommendations to the district will be reported.

Outcome Measures. Number of children walking and biking to school per 1000

This strategy has been edited as of this report to better reflect the work of the group. The language of the original strategy suggested that the local Safe Routes to School efforts are equivalent to the practices and impact of the state-wide program of the same name.

1.2.4 Assess and identify priorities for improving access to existing parks and open spaces, including public works improvements and public safety enhancements as well as facilities improvements or amenities; prioritize needs based on access criteria and deliverables identified in Worcester's Open Space and Recreation Plan.

Rationale. Increasing physical activity is a priority of national health agencies. Healthy People 2020 includes 15 objectives relating to increasing physical activity across age groups, as well as increasing access to opportunities for physical activity. The Guide to Community Preventive Services recommends street-scale urban design and land use policies for increasing physical activity in the community.

In addition, studies have found that the most frequently cited enablers of physical activity among adults is the availability of open space for exercise. Increasing access to safe public parks can increase physical activity in the community.

Current status. Mapping of active environments throughout Worcester has begun; all city-owned parks, playgrounds, and bike lanes have been mapped by WDPH.

2014 Plans. When the Worcester Open Space and Recreation Plan is finalized, additional GIS layers will be made available for mapping. Additionally, features from the Greater Worcester Land Trust and Broadmeadow Brook will be mapped. Once finalized, this map will be made available to the public via the city's website.

Outcome Measures. Number of people with access to physical activity resources, as measured by walking distance

1.2.5 Conduct a social norms campaign to define and change perceptions of violence and community safety and thereby increase utilization of community resources. *(see 4.2.2)*

Rationale. The Guide to Community Preventive Services recommends community-wide campaigns with support across various sectors (government, schools, healthcare etc.) as a method to promote physical activity. Although neither the Community Guide, or the National Prevention Strategy address perceptions of violence as barriers to physical activity, there is still a strong evidence base to support selection of this strategy.

Data collected during the Community Health Assessment process suggest that a one barrier to physical activity is safety concerns of neighborhood residents. However, the true safety threat is often lower than it is perceived, and violence and crime rates may be lower than individuals believe. This trend is also cited in the literature and supports the inclusion of this strategy in the CHIP.

Current status. Progress has yet to be established for this strategy.

2014 Plans. In early 2014, members of the Domain 1 workgroup will meet with members of the Domain 4 violence prevention subcommittee to discuss a plan of action for this strategy.

Outcome Measures. Results from perceptions surveys

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1.3 Increase the percentage of children in grade 1 who are a healthy weight by 3% by 2015.

2013 Update. Objective 1.3 has been edited in this report for two reasons: to promote a more positive approach to healthy eating/active living by aiming to increase the percentage of children at a healthy weight vs. reducing the obesity rates, and the inclusion of a 3% target value for this improvement. The value of 3% was selected to reflect a trend in active Mass in Motion communities over the last five years.

The original Strategy 1.3.3 (develop a community/primary care collaborative program model) has been removed as of this report due to lack of feasibility.

Lead Agency: Food and Active Living Policy Council-Early Childhood Obesity Working Group

Current Partners: Edward Street Child Services, Cooking Matters, WIC, UMass Memorial, Guild of St. Agnes, Early Education and Care, Worcester Comprehensive Child Care, Pernet Family Health, Mass in Motion, Guild of St. Agnes, Head Start, Worcester Fitness, Elm Park Center for Early Childhood Education, Edward M. Kennedy Health Center, Family Health Center of Worcester, Rainbow Child Development, Worcester Community Connections Coalition, Family Health Center of Worcester, Fallon Health

1.3.1 Implement professional development/education program for teachers and early childhood care providers related to physical activity to increase their awareness of its connection with learning.

Rationale. Increased physical activity during the school day is an objective of Healthy People 2020. Included in the objective is increasing scheduled recess and physical education classes, as well as increasing the number of states that have licensing programs for child care facilities to ensure children participate in physical activities of equal quality. Educating teachers and child care providers is an important step toward ensuring high quality physical education programming for students in the region.

Increased physical activity and health education in schools can positively impact the health of children. Obesity prevention efforts in schools have been more effective when they integrate increased activity, education, and support for teachers trying to implement health promotion into the curricula.

Current status. Through the Early Childhood Obesity Working Group, several models of physical activity/obesity prevention programming for preschools and childcare centers were examined and discussed. Through other efforts such as Safe Routes to School, the connection between exercise and learning has been promoted to educators and administration.

2014 Plans. In 2014, the group will continue to review best practices and discuss possibilities for implementing programs in preschools and child care settings. SRTS Task Force and the Joint Use Agreement Task Force (*see 1.2.2*) will continue promoting the connection between physical activity and learning.

Outcome Measures. Number of teachers/childcare providers trained

1.3.2 Advocate for policies to increase food/nutrition standards for snacks/meals at public and private preschools and kindergarten classes.

Rationale. Improving nutrition for children in school and childcare facilities is related to several objectives in Healthy People 2020. For example, improving nutrition in schools beyond school lunch programs, making fruits and vegetables available whenever food is sold, and limiting sugary drinks available to students are objectives. In addition, increasing the number of states with established nutrition standards for preschools and day care centers is also an objective.

Policies that aim to improve nutrition standards in schools and child-care have been shown to be effective at improving the food environment and dietary intake. Policies that are part of a larger obesity-prevention effort have had measurable impacts on BMI.

Current status. The Childhood Obesity Working group of the FALPC is developing a set of recommendations for childcare centers that promotes nutrition by eliminating sugar-rich foods and beverages. Centers were encouraged to swap out fruit juices for water or low-fat milk and a piece of fruit, which many of them agreed to.

2014 Plans. In 2014, the group will continue to develop recommendations to prevent childhood obesity and advocate for the implementation of those recommendations.

Outcome Measures. Number of schools and childcare centers with new or revised nutrition policies

1.3.3 Assess and explore adoption of other evidence-based obesity reduction programs such as I am Moving, I am Learning, Hip Hop to Health, and others.

Rationale. Healthy People 2020 objectives include increasing the proportion of students that are physically active during the school-day by increasing the proportion of schools requiring regular physical activity and that have regularly scheduled recess. Although the Guide to Community Preventive Services has found insufficient evidence to support school-based obesity intervention programs due to a lack of comparable outcome measures, a review has not been conducted since 2003 and much additional research has become available since that time.

A literature review conducted regarding this strategy concluded that there is evidence to support the potential benefit of school-based exercise and obesity reduction programs. One review noted that school-based exercise interventions generally lead to an increase in the proportion of children engaged in moderate to vigorous physical activity during the day. The number of studies reporting benefits of school-based interventions suggest that similar interventions would be both feasible and appropriate for the central Massachusetts region.

Current status. Through the Early Childhood Obesity Working Group, several models of physical activity and obesity prevention programming for preschools and childcare centers were examined and discussed. The Worcester Public Schools Health Advisory Council has also vetted several models of obesity prevention programs that increase day-to-day physical activity, though school resources and funding are a significant barrier.

2014 Plans. In 2014, the group will continue to review best practices and discuss possibilities for implementing programs in preschools and child care settings. SRTS Task Force and the Joint Use Agreement Task Force (*see 1.2.2*) will continue promoting the connection between physical activity and learning.

Outcome Measures. Number of schools and childcare centers with new or revised programs

1.3.4 Advocate for recommended hours of physical education in schools.

Rationale. Healthy People 2020 objectives include increasing the proportion of students that are physically active during the school-day by increasing the proportion of schools requiring regular physical activity and that have regularly scheduled recess.

A review of the literature shows that most schools throughout the country do not offer enough physical education for their pupils to make a significant impact on health. Increasing hours of physical activity in schools has been shown to supplement out-of-school activity and prevent an increase in BMI.

Current Status. During the first year of CHIP implementation, FALPC identified current state-level policy issues to support, specifically the ActFRESH campaign run by the MA Public Health Association. A public hearing was held with the state legislature in September 2013 and FALPC submitted written testimony.

2014 Plans. As opportunities arise for advocating for recommended hours of physical activity in schools, FALPC will respond appropriately. Members of FALPC will remain active on the Worcester School Health Advisory Council, where they can interact with school and city administration as well as elected officials. In the alliance communities, WDPH will continue working to establish wellness committees or reinvigorate school health committees where this type of advocacy is appropriate.

Outcome Measures. Proportion of children receiving recommended hours of physical education during the school day

1.3.5 Conduct and coordinate communication, public awareness, outreach, and mass media campaign.

Rationale. This strategy (formerly 1.4.2) has been placed into Objective 1.3 as of this report. This decision was made to increase the cohesiveness of the domain. Because the Objective 1.3 looks to promote healthy weight in children, it is appropriate to include a strategy relating to public education and outreach within the objective, especially promoting the policy initiatives (Strategies 1.3.2, 1.3.3, 1.3.4).

Current status. In 2013, two members of FALPC's Childhood Obesity working group, Dianne Bruce and Patty Flanagan, appeared on WCCA-TV to discuss the work of the CHIP and the issue of childhood obesity in the community. In addition, the group continued to expand its social media presence with the launching of a FALPC blog and increases in the numbers of followers on both Twitter and Facebook.

2014 Plans. During 2014, the group will initiate a "5-2-1-0" public education campaign, including televised public service announcements as part of a broader CHIP media campaign to promote the availability of food and physical activity resources in the community.

Outcome Measures. Number of individuals reached by each education campaign or outreach effort

Key Sources

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Domain Area Two: Behavioral Health

Substance use and mental health were considered interrelated and growing concerns for which current prevention and treatment services do not sufficiently address community needs. While current treatments exist, respondents reported that the demand exceeds the current capacity of the system with a limited number of providers and beds currently available. Holistic and wrap-around care are particular needs. Stigma surrounding substance use, addiction, and mental health treatment were cited as contributing factors to these issues.

Substance use and abuse, including drugs and alcohol, was noted as a concern across all communities in the greater Worcester area. Respondents cited youth substance use, particularly related to opioids, prescription drugs, and alcohol as particular concerns. Quantitative data show that use of opioids and prescription drugs among high school students is prevalent. In 2011, opioid use in the Worcester region ranged from 4.9% among 9th grade students to 7.8% among 12th grade students and lifetime prescription drug use ranged from 10.5% among 9th grade students to 18.6% among 12th grade students.[1] Statistics also confirm concerns regarding the prevalence of substance use among adults in the greater Worcester area. In 2010, binge drinking rates among adults in Worcester County (21%) exceeded the rate for the State (18%) according to the Behavioral Risk Factor Surveillance Survey.[2] Several interview participants mentioned tobacco use as a health concern for residents of the Greater Worcester area. Smoking rates for adults in Worcester County are higher than that for the State.[3] In Worcester, 23.7% of adults reported smoking, as compared to 16.1% for the State.[4] In 2010, the majority of substance abuse admissions were for alcohol abuse (4,363 admissions) and heroin use (4,230 admissions).[5] Several respondents cited a need for more substance abuse treatment services and greater wrap-around/holistic care.

Mental health emerged as a dominant concern among key informants/focus groups. Stigma regarding seeking help for mental health issues emerged as another concern. While some respondents described mental health as an issue that affected all populations, others noted some populations are more vulnerable, including youth and immigrant populations. Indicators of poorer mental health are disproportionately concentrated among residents of lower socioeconomic status. In Worcester County, 17% of residents with a high school degree reported at least 15 poor mental health days in the past month, followed by 12% of persons with some college education, and 8% of residents with a college education or more, according to the BRFSS.[6] The prevalence of poor mental health days among residents with a high school degree in Worcester County (17%) exceeds that for the State (11%).[7] Further, the number of emergency mental health visits has increased from 2002 (5,620) to 2010 (6,662).[8]

[1] Worcester Regional Youth Survey/YRBS, 2011.
[2] MDPH, "A Profile of Health Among Massachusetts Adults", 2010 – BRFSS.
[3] MDPH, MassCHIP Smoking Report for Worcester County.
[4] Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2008.
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[6] MDPH, "A Profile of Health Among Massachusetts Adults", 2010" – BRFSS.
[7] MDPH, "A Profile of Health Among Massachusetts Adults", 2010" – BRFSS.
[8] Emergency Mental Health Services, UMMMC.

GOAL 2. Foster an accepting community that supports positive mental health; and reduce substance abuse in a comprehensive and holistic way for all who live, learn, work, and play in the Greater Worcester region.

Health equity considerations. Domain 2 partners work to ensure the implementation of the included strategies are promoting equality in access to services and reducing disparities of health outcomes. Because year one of implementation has heavily focused on data collection, the group has been mindful of community demographics to ensure accurate representation of all racial and ethnic groups.

Table 11. FY 2012 Admissions to MA Bureau of Substance Abuse Services Contracted Programs

	Admissions per 1000	<21 Admissions per 1000	% Admissions per substance		
			Alcohol	Heroin	Other opiates
Holden	4.3*	1.3*	65%	30%	21%
Leicester	12.1	1.9	64%	41%	28%
Millbury	14.2	0.4*	49%	52%	14%
Shrewsbury	6.8	0.9	55%	45%	27%
West Boylston	9.8*	1.8*	51%	47%	21%
Worcester	23.8	1.0	46%	54%	13%
Massachusetts	16.1	1.1	55%	46%	13%

Source: MA Department of Public Health, Bureau of Substance Abuse Services, FY2012. *These values are estimates due to low admissions

Table 12. Non-Medical Use of Substances by High-School Students

	Prevalence of Lifetime Use	
	CMRPHA	Massachusetts
Alcohol	64%	68%
Cigarettes	39%	39%
Marijuana	38%	43%
Prescription Drugs	14%	15%
Ecstasy	8%	6%
Cocaine	8%	5%
Methamphetamines	6%	3%
Steroids	5%	3%
Heroin	5%	2%
	Prevalence of Use in Past 30 Days	
	CMRPHA	Massachusetts
Opioids	6%	n/a
Tobacco	21%	14%

Source: Worcester Youth Survey 2011, Massachusetts Department of Public Health, YRBSS 2011

2.1 Objective	Strategies
2.1 Reduce the proportion of high school students using tobacco products to below state rates between 2013 and 2020.	2.1.1 Conduct a youth health assessment, such as the Worcester Regional Youth Survey, in schools in the region. 2.1.2 Implement social norms campaign to address mis-perceptions of local youth tobacco use. 2.1.3 Integrate youth tobacco cessation resources into new settings, such as schools and health centers, to enhance intervention options. 2.1.4 Promote policy changes around smoke-free housing and smoke-free college campuses. 2.1.5 Enforce laws against selling tobacco products to underage individuals. 2.1.6 Explore media literacy education options to address media glamorization of tobacco use.

2.2 Objective	Strategies
2.2 Reduce the proportion of high school students using alcohol to below state rates between 2013 and 2020.	2.2.1 Conduct a youth health assessment, such as the Worcester Regional Youth Survey, in schools in the region. 2.2.2 Implement social norms campaign to address misperceptions of local youth alcohol use. 2.2.3 Enforce laws against selling alcohol to underage individuals. 2.2.4 Explore media literacy education options to address media glamorization of alcohol use.

2.3 Objective	Strategies
2.3 Reduce the proportion of high school students misusing and abusing prescription drugs to below state rates between 2013 and 2020.	2.3.1. Develop and implement a Safe Disposal Program for prescription drugs. 2.3.2. Increase community awareness of safe use, storage, and disposal of prescription drugs through mass media campaign. 2.3.3. Provide training to medical and dental providers on safe prescribing practices and provide them with patient education materials for distribution at their practices. 2.3.4. Educate adolescents about normative peer use and the risks of misusing and abusing prescription drugs.

2.4 Objective	Strategies
2.4 Prevent an increase in the rate of prescription drug and other opiate overdoses between 2013 and 2020.	2.4.1. Provide training to medical and dental providers on safe prescribing practices and provide them with patient education materials for distribution at their practices. 2.4.2. Educate adolescents about normative peer use and the risks of misusing and abusing prescription drugs.

2.5 Objective	Strategies
2.5 Increase 500 key community members' understanding of mental health issues and improve gatekeepers/ systems reaction to common problems by 2015.	2.5.1. Explore models for integrating mental health education into existing curricula with public and private educational institutions. 2.5.2. Enhance and expand training for healthcare providers (medical care providers and mental health providers) regarding emerging issues in healthcare reform and new best practices, especially regarding cooperative, integrated care approaches and alternative strategies (e.g., peer support groups) for addressing limited clinical care options. 2.5.3. Increase connections to mental health services for vulnerable populations. 2.5.4. Conduct a community awareness campaign and host a community summit to promote understanding of public mental health among healthcare providers and the community at large. 2.5.5. Develop a mechanism for enhancing collaboration among healthcare providers and other related service providers regarding mental health emergency services and crisis intervention. 2.5.6. Develop a mechanism for enhancing collaboration among the Worcester Courts, Worcester County House of Corrections, and community stakeholders to increase awareness and utilization of mental health services and community continuity resources for those who are incarcerated or have been incarcerated. 2.5.7. Train front line workers in mental health crisis response to increase the capacity of front-line agencies (e.g., schools, law enforcement, emergency responder, clergy, refugee groups, youth agencies, health care providers) to identify and handle emergency mental health issues.

2.6 Objective	Strategies
2.6 Conduct a regional assessment of mental health needs, especially among vulnerable populations.	2.6.1. Conduct a regional assessment of mental health needs, especially among vulnerable populations.

GOAL 2. Foster an accepting community that supports positive mental health; and reduce substance abuse in a comprehensive and holistic way for all who live, learn, work, and play in the Greater Worcester region.

2.1 Reduce the proportion of high school students using tobacco products to below state rates between 2013 and 2020.

2013 Update. This objective has been edited as of this report to reflect a more aggressive target reduction. Because the CHIP is intended to establish the region as the healthiest in New England, the committee determined that reducing the tobacco usage rates to below state levels was a more appropriate goal.

There are no other major changes within this objective at this time.

Lead Agency: Worcester Division of Public Health, HOPE Coalition

Current Partners: Worcester Anti-Tobacco Task Force, Worcester Youth Substance Abuse Prevention Task Force, Worcester Regional Tobacco Control Collaborative, Worcester Police Department, Worcester Public Schools, Fallon Health

2.1.1 Conduct a youth health assessment, such as the Worcester Regional Youth Health Survey, in schools in the region.

Rationale. In order to measure progress and inform local health campaigns and strategies, it is necessary to monitor and track local data on youth health behaviors. No other sufficient data collection and reporting initiatives at the state or federal level exist at this time to supply the community with the necessary data. It was therefore decided that local collection of youth health behavior data be included as a strategy. The research indicates that the Youth Risk Behavior Survey, and similar types of surveys, give reliable and comparable data on risky behaviors youth engage in.

Current status. Worcester Division of Public Health (WDPH) contracted with UMass Medical School to develop, print, collate, and analyze data from area schools that participated in the survey. The group combined two validated survey instruments to track changes in youth health behavior over time and measure the success in changing community norms. The Youth Risk Behavior Survey (YRBS) and the Communities that Care (CTC) surveys are proven to provide reliable estimates of the health behaviors and influencers of adolescents. Questions were chosen from the YRBS to measure current and past behaviors, while questions from the CTC were chosen to measure perceptions and attitudes. Grades 9 through 12 from the Worcester Public Schools (WPS), Worcester Diocese, Leicester Public Schools, Millbury Public Schools, and Shrewsbury Public Schools participated in fall of 2013. The data is currently being cleaned by UMass Medical School and will be available in spring 2014.

2014 Plans. WDPH will work with UMass Medical School to analyze data and present it to participating school administration in the spring of 2014. WDPH will continue to meet with West Boylston and Wachusett school districts to discuss future survey participation.

Outcome Measure. Number of students in the region participating in the Youth Health Survey; Completed data analysis report

2.1.2 Implement social norms campaign to address misperceptions of local youth tobacco use

Rationale. Healthy People 2020 objectives aim to increase the proportion of adolescents who disapprove of substance abuse. This is being accomplished by implementing the "I'm About This Life" social norms campaign, based on the Montana Model. This is a perception vs. reality campaign that promotes positive behaviors and choices through messaging and activities and increases the proportion of youth with an accurate perception of substance use by peers.

The literature supports using social norms campaigns to change the perception and approval of health-related risky behaviors. Social norms campaigns are proven to change attitudes and can lead to behavior change. This is measured through pre and post surveys of participants. Social norms campaigns have been shown to be most effective when targeting specific groups with a repeated exposure of messaging.

Current status. WDPH contracted with HOPE Coalition to assist with the "I'm About This Life" social norms campaign at YouthNet in the summer of 2013. YouthNet is a citywide youth program in Worcester, and over 900 youth were exposed to the campaign message through the program. Plans are underway to expand on this campaign through a traveling art exhibit in various and strategic locations across the City of Worcester in 2014.

2014 Plans. During 2014, Domain 2 partners will continue to expand the campaign by identifying additional opportunities and locations to promote the campaign. This process will be informed by data from the 2013 Youth Health Survey to enhance the campaign messages in 2014. The group will also work to expand the campaign into the other Central MA Regional Public Health Alliance (CMRPHA) municipalities.

Outcome Measures. Number of students participating in the campaign; Results of perceptions survey results

2.1.3 Integrate youth tobacco cessation resources into new settings, such as schools and health centers, to enhance intervention options.

Rationale. Healthy People 2020 objectives aim to increase smoking cessation attempts by adolescent smokers. The Community Guide has not yet completed a review of the effectiveness of integrated cessation resources for youth. However, the guide does recommend interventions to reduce out of pocket expenses for adult cessation programming.

Although current research surrounding youth cessation interventions is sparse, interventions aimed at increasing access to cessation services are consistently shown to be effective for adults. The CHIP planning committee determined that this strategy is worth pursuing as there is a current lack of youth cessation services in the community, and locally collected data suggest that youth are interested in accessing cessation services.

Current status. WDPH has identified and secured funding to contract with UMass Medical School to conduct a "train the trainer" course for WPS nurses and health education teachers. Nurses and teachers who complete the course will be certified to provide cessation support services for students. The model is a sustainable approach to the provision of services because certified individuals will be able to train new staff.

2014 Plans. WDPH will facilitate and coordinate an October 2014 cessation training for appropriate WPS staff during a professional development day.

Outcome Measures. Number of schools and health centers providing cessation resources; Number of students and residents accessing cessation resources

2.1.4 Promote policy changes around smoke-free housing and smoke-free college campuses.

Rationale. Healthy People 2020 and the National Prevention Strategy recommend increasing the number of smoke-free homes and schools. Healthy People 2020 objectives also aim to establish smoke-free indoor air laws that prohibit smoking in multiunit housing. Healthy People 2020 objectives prioritize establishing a smoke-free indoor air law prohibiting smoking on college and university campuses. Research shows there is no safe level of secondhand smoke exposure.

Research also shows that smoke-free and tobacco-free policies improve indoor air quality, reduce negative health outcomes among nonsmokers, decrease cigarette consumption, and encourage smokers to quit. The National Prevention Strategy recommends comprehensive policies that prohibit smoking or all forms of tobacco use be adopted by multiple settings such as workplaces, health care educational facilities, and multi-unit housing.

Current status. WDPH, through the Worcester Regional Tobacco Control Collaborative (WRTCC), provides technical assistance to Boards of Health, Housing Authorities, private landlords and tenants around smoke-free housing. Three smoke-free housing presentations were held in 2013. Landlords and tenants are also referred to the MA Department of Public Health's statewide Smoke-Free Housing Project for further information on the legality of going smoke-free and tenant's rights to healthy living environments. WDPH co-sponsored a statewide symposium on smoke-free college campuses in November 2013, coordinated by Tobacco-Free Mass where over 60 representatives of institutions of higher learning were represented.

2014 Plans. WDPH will continue to conduct presentations and/or provide technical assistance to those landlords, housing authorities or college campuses that are considering adopting smoke-free policies.

Outcome Measures. Number of housing units and college campuses adopting smoke-free policies

2.1.5 Enforce laws against selling tobacco products to underage individuals

Rationale. The Community Guide recommends regulations and enforcement of laws to reduce the use of tobacco by minors. Healthy People 2020 objectives include the reduction of illegal sales rate to minors through enforcement of laws prohibiting the sale of tobacco products to minors.

Evidence shows that enforcement of laws that prevent sales to minors reduces access to tobacco and also reduces harmful consequences of youth substance abuse.

Current status. WDPH, through WRTCC, is providing enforcement of both Massachusetts laws and local regulations and ordinances relative to selling tobacco products to a minor. Each retailer in the collaborative receives periodic, unannounced youth compliance checks, as well as retailer education visits.

2014 Plans. WDPH will continue to educate parents and adults about new, emerging, tobacco and nicotine delivery products being marketed toward our youth. WDPH will also continue to provide retailer education as needed.

Outcome Measures. Number of retailers participating in training; Proportion of retailers passing youth compliance checks and retail checks

2.1.6 Support media literacy education in schools to address media glamorization of tobacco use.

Rationale. Increased exposure to tobacco advertising increases adolescent use of tobacco products. One of the most effective anti-tobacco campaigns has been the "truth" campaign. A large part of the campaign has been to educate people about the tactics the tobacco industry uses to increase their sales of cigarettes. Education for youth about how advertising is targeting them and how to think critically about the advertising they see can help mitigate its effects. In the absence of sustained funding for counter-marketing campaigns, which is suggested by the National Prevention Strategy, media literacy education has been selected as a local strategy. Evidence exists that this is an effective strategy when used to support other smoking prevention measures.

Current status. Research conducted by the HOPE Coalition revealed that there is excessive exposure to tobacco advertising to those who frequented convenience stores that are located close to schools and in densely populated neighborhoods. WDPH met with Mass Media Literacy Consortium throughout 2013 to explore potential partnerships with the schools, recruit a pilot site, and create a media literacy curriculum that includes a critical exploration of tobacco advertising exposure.

2014 Plans. Media Media Literacy Consortium is currently looking for additional funding sources to pilot this curriculum in a high school in Worcester.

Outcome Measures. Number of students participating in media literacy curriculum

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2.2 Reduce the proportion of high school students using alcohol to below state rates between 2013 and 2020.

2013 Update. This objective has been edited as of this report to reflect a more aggressive target reduction. Because the CHIP is intended to establish the region as the healthiest in New England, the committee determined that reducing the alcohol usage rates to below state levels was a more appropriate goal.

There are no other major changes within this objective at this time.

Lead Agencies: Worcester Division of Public Health, HOPE Coalition

Current Partners: Worcester Youth Substance Abuse Prevention Task Force, Worcester Police Department, Worcester Public Schools, Fallon Health

2.2.1 Conduct a youth health assessment, such as the Worcester Regional Youth Health Survey, in schools in the region

(see 2.1.1)

2.2.2 Implement social norms campaign to address misperceptions of local youth alcohol use.

Rationale. Healthy People 2020 objectives aim to increase the proportion of adolescents who disapprove of substance abuse. This is being accomplished by implementing the "I'm About This Life" social norms campaign, based on the Montana Model. This is a perception vs. reality campaign that promotes positive behaviors and choices through messaging and activities. Increases the knowledge of youth that most of their peers do not engage in alcohol, drug or tobacco use.

The literature supports using social norms campaigns to change the perception and approval of health related risky behaviors. Social norms campaigns are proven to change attitudes and can lead to behavior change. This is measured through pre and post surveys of participants. Social norms campaigns have been shown to be most effective when targeting specific groups with a repeated exposure of messaging.

Current status. WDPH contracted with HOPE Coalition to assist with the "I'm About This Life" social norms campaign at YouthNet in the summer of 2013. YouthNet is a citywide youth program, and over 900 youth were exposed to the campaign message through the program. Plans are underway to expand on this campaign through a traveling art exhibit in various and strategic locations across the City of Worcester in 2014.

2014 Plans. During 2014, Domain 2 partners will continue to expand the campaign by identifying additional opportunities and locations to promote the campaign. This process will be informed by data from the 2013 Youth Health Survey to enhance the campaign messages in 2014. The group will also work to expand the campaign into the other CMRPHA municipalities.

Outcome Measure. Number of students participating in the campaign; Results of perceptions survey

2.2.3 Enforce laws against selling alcohol to underage individuals.

Rationale. The Community Guide recommends regulations and enforcement of laws to reduce the consumption of alcohol by minors.

Evidence shows that enforcement of laws that prevent sales to minors reduces access to alcohol and reduces harmful consequences of youth substance abuse.

Current status. WDPH, in coordination with the Worcester Police Department Alcohol Enforcement Unit, is conducting alcohol compliance checks and shoulder taps that inform vendors of non-compliance with relevant polices. WDPH and youth from the HOPE Coalition implement sticker shock campaigns that aim to inform consumers of repercussions of violating alcohol-related laws.

2014 Plans. WDPH will continue to educate parents and adults about emerging alcohol products being marketed toward youth. WDPH also provide additional retailer education as needed.

Outcome Measures. Percentage of retailers achieving full compliance with state and local regulations

2.2.4 Support media literacy education in schools to address media glamorization of alcohol.

Rationale. Increased exposure to alcohol advertising increases adolescent use of alcohol products. Education for youth about how advertising is targeting them and how to think critically about the advertising they see can help mitigate its effects. As this strategy has been effective for tobacco, it can be adapted for anti-alcohol campaigns. In the absence of sustained funding for counter-marketing campaigns, which is suggested by the National Prevention Strategy, media literacy education has been selected as a local strategy.

Current status. Research conducted by the HOPE Coalition revealed that there is excessive exposure to alcohol advertising. WDPH met with Mass Media Literacy Consortium throughout 2013 to explore potential partnerships with the schools, recruit a pilot site, and create a media literacy curriculum that includes a critical exploration of alcohol advertising exposure.

2014 Plans. Mass Media Literacy Consortium is currently looking for additional funding sources to pilot this curriculum in a large Worcester public high school.

Outcome Measures. Number of students participating in media literacy curriculum

Key Sources

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2.3 Reduce the proportion of high school students misusing and abusing prescription drugs to below state rates between 2013 and 2020.

2013 Update. This objective has been edited as of this report to reflect a more aggressive target reduction. Because the CHIP is intended to establish the region as the healthiest in New England, the committee determined that reducing prescription drug abuse rates to below state levels was a more appropriate goal.

There are no other major changes within this objective at this time.

Lead Agency: Worcester Division of Public Health

Current Partners: HOPE Coalition, Worcester Youth Substance Abuse Prevention Task Force, Massachusetts Opioid Abuse Prevention Collaborative, Police Departments and Boards of Health in the CMRPHA, Worcester Public Schools, Worcester District Medical Society, Drug Enforcement Administration, Nashua River Watershed Association, Fallon Health

2.3.1 Develop and implement a Safe Disposal Program for prescription drugs.

Rationale. The literature suggests that increased access to opiates has the potential to increase misuse, abuse, and overdose of opioid substances. One point of access is through unused medicine in homes. A residential disposal program is one way to remove these drugs from the home. The National Prevention Strategy suggests facilitating the use of controlled drug disposal programs.

Current status. WDPH, in tandem with the Worcester Youth Substance Abuse Prevention Task Force, CMRPHA Boards of Health, and Police Departments, coordinated and promoted two prescription take back events in April and October of 2013. Four of the six CMRPHA Police Departments have installed permanent drug disposal kiosks.

2014 Plans. WDPH will coordinate at least two take back events in 2014 as well as advocate for, promote, and support all CMRPHA communities in providing access to permanent prescription drug disposal kiosks in their local police departments.

Outcome Measures. Number of permanent drug disposal kiosks in the region; Pounds of drugs collected annually

2.3.2 Increase community awareness of safe use, storage, and disposal of prescription drugs through mass media campaign.

Rationale. The National Prevention Strategy suggests increasing awareness of the proper storage and disposal of prescription medications. Research has shown that most youth who misuse and abuse prescription drugs have gotten access to them through a family member who was legally prescribed the medication.

Current status. WDPH is preparing to launch a parent-focused media campaign in March 2014 that will: emphasize the prescription drug epidemic in our country, promote resources for talking with youth, explain how to safely dispose of unused, unwanted, or expired prescription and over-the-counter medications.

2014 Plans. In 2014, WDPH will identify media venues and develop and launch a campaign prior to the April 2014 Prescription Take Back Day. WDPH will collaborate with the MA College of Pharmacy and Health Sciences to engage students in the project and work more closely with local pharmacies to promote prescription drug collection and/or provide safe disposal information.

Outcome Measures. Number of individuals reached by each public education campaign and outreach effort

2.3.3 Provide training to medical and dental providers on safe prescribing practices and provide them with patient education materials for distribution at their practices.

Rationale. The National Prevention Strategy suggests training prescribers on safe opioid prescription practices and instituting accountability mechanisms to ensure compliance. Research has shown that most adults who misuse and abuse prescription drugs have gotten access to them through a legal prescription from a single prescriber.

Current status. WDPH is exploring bringing physician training on safe opioid prescribing to Worcester, through the SCOPE of Pain project of Boston University. WDPH is also working with the Worcester District Medical Society to promote other options for prescriber training.

2014 Plans. Domain 2 partners are looking into the feasibility of holding one large, regional training with continuing education credits available to those who attend. The group is also exploring the option of holding small trainings at local medical facilities, which is more cost effective but may not provide credits for participating providers.

Outcome Measures. Number of healthcare providers trained

2.3.4 Educate adolescents about normative peer use and the risks of misusing and abusing prescription drugs.

Rationale. The National Prevention Strategy suggests implementing programs for reducing drug abuse and educating youth about the risks of drug abuse (including prescription misuse).

Research shows that education about the proper use of prescription drugs and the potential for addiction reduces abuse among adolescents and young adults.

Current status. An October 2013 meeting was held with WDPH and WPS staff to discuss a prescription drug curriculum for both health teachers and athletic coaches to use with students.

2014 Plans. The workgroup will identify an evidence-based curriculum and resources for WPS staff to utilize with students and athletes prior to sport seasons. A meeting will be facilitated with WPS staff to review and accept the curriculum. Staff will then receive appropriate training.

Outcome Measures. Perception survey results, Number of staff trained, Number of curricula edited/ adopted, Number of students participating

Key Sources

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2.3.4 King KA, Vidourek RA, Merianos AL. Sex and Grade Level Differences in Prescription Drug Use Among Youth. Journal of Primary Prevention. 2013 Aug; 34(4):237-49.

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2.4 Prevent an increase in the rate of prescription drug and other opiate overdoses between 2013 and 2020.

2013 Update. This objective has been edited as of this report to reflect a more feasible aim. Because the rate of overdoses has been increasing steadily for the past 10 years and is expected to continue to rise, maintaining current rates would represent a success.

There are no other major changes within this objective at this time.

Lead Agency: Worcester Division of Public Health

Current Partners: HOPE Coalition, Worcester Youth Substance Abuse Prevention Task Force, Massachusetts Opioid Abuse Prevention Collaborative, Police Departments and Boards of Health in the CMRPHA, Worcester Public Schools, Worcester District Medical Society, Drug Enforcement Administration, Nashua River Watershed Association, Fallon Health

2.4.1 Provide training to medical and dental providers on safe prescribing practices and provide them with patient education materials for distribution at their practices.

(see 2.3.3)

2.4.2 Educate adolescents about normative peer use and the risks of misusing and abusing prescription drugs.

(see 2.3.4)

Because reducing prescription drug abuse has been shown to reduce opioid-related overdoses, the literature review for Objective 2.3 applies for the strategies in Objective 2.4.

2.5 Increase 500 key community members' understanding of mental health issues and improve gatekeepers/systems reaction to common problems by 2015.

2013 Update. There are no major changes within this objective at this time.

Lead Agency: Common Pathways, Worcester Division of Public Health

Current Partners: Clark University, Harvard School of Public Health, Fallon Community Health Plan, Worcester Sheriff's Office, Advocates Inc., NaviCare, ElderCare, Cancer Action Work Network, Worcester County House of Corrections, UMass Medical School Department of Family Medicine, SHINE Initiative, Central Mass Recovery Learning Community, Seven Hills, Community Healthlink, Spectrum Healthcare, Reliant Medical Group, Edward M. Kennedy Community Health Center, Family Health Center, South Bay Mental Health, UMass Medical School Department of Psychiatry, Fallon Health

2.5.1 Explore models for integrating mental health education into existing curricula with public and private educational institutions

Rationale. The National Prevention Strategy suggests three strategies for early learning centers, schools, colleges, and universities to employ to promote positive mental health: 1) implement programs and policies to prevent abuse, bullying, violence, and social exclusion, build social connectedness, and promote positive mental and emotional health, 2) implement programs to identify risks and early indicators of mental, emotional, and behavioral problems among youth and ensure that youth with such problems are referred to appropriate services, 3) ensure students have access to comprehensive health services, including mental health and counseling services.

A literature review revealed a lack of literature examining the impacts of mental health education. A number of studies have shown that access to mental health services in the school setting can be beneficial, but more research is needed to determine how best to integrate mental health education and services in the school setting. However, several studies suggest that mental health education can increase health literacy, knowledge of mental health conditions, and how to seek help.

Current status. WDPH and Common Pathways met with WPS health education and school adjustment counseling staff to discuss the current student mental health support systems that are in place. We found extensive services and referral networks across the system that are already providing high quality linkages and services.

2014 Plans. WPS will offer Mental Health First Aid training for staff in 2014. WDPH will promote additional training opportunities for school personnel.

Outcome Measures. Completed report outlining opportunities for integrating mental health education with policy recommendations

2.5.2 Enhance and expand training for medical care providers and mental health providers regarding opportunities and challenges in healthcare reform and emerging best practices such as cooperative, integrated-care approaches and alternative strategies

Rationale. The National Prevention Strategy suggests health care institutions screen for mental health needs among children and adults, especially those with disabilities and chronic conditions. The National Prevention Strategy also suggests referral to treatment and community resources as needed and developing integrated care programs to address mental health, substance abuse, and other needs within primary care settings.

Studies have demonstrated that as awareness of mental health conditions has expanded over the past several years, an increasing number of patients are being treated by primary care providers. The needs of mental health patients are often not met in this setting due to lack of education and preparation for providers. Previous interventions have shown educational programs for providers can increase knowledge and skill in treating mental health conditions.

Current status. Progress has yet to be established for this strategy.

2014 Plans. Common Pathways will continue to explore future opportunities for implementing this strategy with healthcare partners.

Outcome Measures. Number of trainings offered; Number of healthcare providers trained

2.5.3 Increase connections to mental health services for vulnerable populations.

Rationale. The National Prevention Strategy suggests that those in need, especially potentially vulnerable groups, should be identified and referred to mental health services.

Studies have revealed a wide range of issues regarding access and utilization of mental health services among minority and low-income populations. There is a need to expand access and tailor services to meet the specific needs of the community in order to improve mental health outcomes.

Current status. In the summer of 2013, Common Pathways compiled feedback from 36 small group neighborhood conversations surrounding mental health issues and resources. This information was summarized into a report and disseminated at the annual fall Common Pathways leadership meeting. A legislative breakfast was held in December 2013 to educate policymakers on the latest research from local academic institutions about the mental health status of the community.

2014 Plans. The Domain 2 behavioral health workgroup plans to continue dissemination of the results of the small group conversations with different stakeholder groups, including researchers and legislators to spur policy change initiatives and future research into local mental health issues relevant to minority groups in the area.

Outcome Measures. Number of community partners offering referrals to mental health services

2.5.4 Conduct a community awareness campaign and host a community summit to promote understanding of public mental health among healthcare providers and the community at large.

Rationale. The National Prevention Strategy suggests training key community members (e.g., adults who work with the elderly, youth, and armed services personnel) to identify the signs of depression and suicide and refer people to appropriate resources.

Mental health stigma has been identified by WHO as one of the major reasons that people do not seek treatment. Raising awareness of mental health as a public health issue is focused on reducing stigma and increasing access to treatment.

Current status. In May 2013, the Domain 2 behavioral health workgroup held a mental health summit at Clark University. Eighty-six participants representing health, education, and social services, including UMass Medical School, the Health Foundation of Central Massachusetts, Catholic Charities, WDPH, MA Department of Public Health, a variety of mental health service providers, and others attended.

2014 Plans. The workgroup will continue to increase awareness and decrease stigma associated with mental illness. A community-wide anti-stigma campaign is planned for 2014, as well as a second mental health summit.

Outcome Measures. Number of individuals reached by public education campaign; Number of community partners participating in mental health summit

2.5.5 Develop a mechanism for enhancing collaboration among healthcare providers and other related service providers regarding mental health emergency services and crisis intervention.

Rationale. The National Prevention Strategy suggests piloting and evaluating models of integrated mental and physical health in primary care, with particular attention to underserved populations. Enhanced communication and data sharing, with social services networks can better identify and treat those in need of mental health services.

Current status. The UMass Department of Psychiatry is currently providing free trainings to youth service providers on trauma-informed mental health care.

2014 Plans. Common Pathways will explore future options for expanding this training with key stakeholders.

Outcome Measures. Number of community partners participating in mental health care trainings

2.5.6 Develop a mechanism for enhancing collaboration among the Worcester Courts, Worcester County House of Corrections, and community stakeholders to increase awareness and utilization of mental health services and community continuity resources for the currently or previously incarcerated.

Rationale. The National Prevention strategy suggests increasing access to high-quality mental health services by facilitating integration of mental health services into a range of clinical and community settings (e.g., Federally Qualified Health Centers, Bureau of Prisons, Department of Defense and Veterans Affairs facilities). Research shows that many incarcerated individuals are in need of mental health treatment and have untreated or undiagnosed behavioral health conditions. Previous incarceration can be a barrier to accessing services.

Current status. WDPH has been partnering with Worcester Police Department's Critical Incident Team (CIT) to identify individuals who are at high risk for substance abuse, mental health conditions, or suicide. CIT coordinates with Community Healthlink to connect these individuals to the services they need.

2014 Plans. WDPH is using data supplied by Worcester Police Department to track progress on linking individuals with acute mental health needs with the proper services. WDPH is also working with Worcester Initiative for Supported Re-entry to support recently released individuals with appropriate services to reduce recidivism rates.

Outcome Measures. Written results of a gap-analysis with policy recommendations

2.5.7 Train front line workers in mental health crisis response to increase the capacity of frontline agencies (e.g., schools, law enforcement, emergency responder, clergy, resettlement groups, youth agencies, health care providers) to identify and appropriately respond to emergency mental health issues.

Rationale. The National Prevention Strategy suggests training key community members (e.g., adults who work with the elderly, youth, and armed services personnel) to identify the signs of depression and suicide and refer these individuals to resources. After reviewing different approaches to increase capacity to respond to mental health crises, mental health first aid, also known as psychological first aid, was chosen as the most promising and viable strategy for the region by the CHIP planning committee.

Current status. In September of 2013, 60 community members and organizations participated in a Mental Health First Aid training held by the Worcester Police Department and the Worcester Division of Public Health to increase the capacity of residents and community based organizations to better respond to a mental health emergency.

2014 Plans. Work planned for 2014 includes integrating mental health first aid into the 2014 Common Pathways neighborhood discussions. The group is also exploring options for mental health first aid training as an in-service for all Worcester Police Department officers.

Outcome Measures. Number of individuals and organizations participating in Mental Health First Aid training

Key Sources

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2.6 Improve the assessment of regional mental health needs in order to increase continuity of care among vulnerable populations by 2020.

2013 Update. There are no major changes within this objective at this time.

Lead Agency: Worcester Division of Public Health

Current Partners: Common Pathways, Fallon Health

2.6.1 Conduct a regional assessment of mental health needs, especially among vulnerable populations.

Rationale. The National Prevention Strategy suggests enhancing data collection systems to better identify and address mental and emotional health needs. Enhancing medical communication and data sharing, with patient consent, with social services networks to identify and treat those in need of mental health services is also suggested.

The Substance Abuse and Mental Health Services Administration (SAMHSA) is investing in and advocating for increased accessibility to data reports that demonstrate improvements in access to services and physical and behavioral health outcomes within and across populations. These efforts are consistent with the Government Performance and Results Act (GPRA) Modernization Act of 2010 that amends the GPRA of 1993 and endorses improved accountability by making data readily available to the public. One of SAMHSA's goals is to improve the quality and accessibility of surveillance, outcome and performance, and evaluation information for staff, stakeholders, funders, and policymakers.

Current status. Significant progress has yet to be established for this strategy due to a lack of data collection or sharing mechanisms in the region. Common Pathways has been advocating for health care institutions and other key partners to come together to share data to inform local policy decisions. WDPH has met with UMass Medical School to explore their leading the effort to collect and coalesce the local data.

2014 Plans. A partner organization with the capacity to conduct the assessment and a funding mechanism for this strategy will be identified.

Outcome Measures. Completed assessment report outlining current status of mental health resources and gaps in the region; Materials for presentations to key stakeholders

Key Sources

2.6.1 Substance Abuse and Mental Health Services Administration, Leading Change: A Plan for SAMHSA's Roles and Actions 2011-2014. HHS Publication No. (SMA) 11-4629. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2011.

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Domain Area Three: Primary Care & Wellness

During the Community Health Assessment (CHA) process, many interview participants cited chronic diseases, including cardiovascular disease, diabetes, and oral health as major health concerns for the region. Other participants noted that asthma and chronic lung disease were also of particular concern. It was also a concern among respondents at these conditions are disproportionately concentrated among low-income residents, racial and ethnic minorities, and immigrant communities. Quantitative data indicate that the chronic diseases cited by respondents are prevalent in the Greater Worcester area. According to the BRFSS, in 2009, 36% of persons aged 18 and older in Worcester County have been diagnosed with high cholesterol in their lifetime, and 25% have been diagnosed with hypertension in their lifetime.[1] Approximately 11% of persons aged 18 and older have asthma and 8% have diabetes.[2] In Worcester County, Hispanics (23% of the population) have the highest prevalence of asthma, followed by non-Hispanic Whites (14% of the total population) and non-Hispanic Blacks (11% of the population).[5] Prevalence of asthma for Hispanics in Worcester County is greater than that for Hispanics in the State.[6]

Infant mortality, inadequate prenatal care and teenage pregnancy among vulnerable populations, particularly populations of color, emerged as concerns pertaining to reproductive and maternal health. Chlamydia and gonorrhea were the two most common communicable diseases among residents of Worcester County from 2008 to 2010.[7] Respondents to the Community Health Assessment Survey expressed mixed satisfaction for birth control and sexual health services for youth. Approximately 22.4% of respondents indicated that they are very satisfied with services, but 28.6% expressed that they are not at all satisfied with the availability of these services for youth.

Oral health and access to oral health services emerged as a concern among respondents, particularly because several participants noted that the water in the greater Worcester region is not fluoridated. The proportion of persons in Worcester County who have seen a dentist in the past year and who have lost six or more teeth due to tooth decay is patterned by socioeconomic status. Only 57% of residents of Worcester County who have less than a high school education have seen a dentist in the past year, followed by 69% of residents with a high school education, 81% of persons with some college education, and 86% of residents with a college education or higher.[8] Approximately 46% of Worcester County residents with less than a high school education have lost six or more teeth due to tooth decay, followed by residents with a high school education (21%), those with some college education (15%), and residents with a college education or higher (5%).[9] The proportion of children in Worcester County with tooth caries exceeds that for the State. Approximately 39% of children in kindergarten in Worcester County have tooth caries, while only 28% of children in Massachusetts have tooth carries.[10]

Interviews with respondents indicated a perception that health care services in the area are of excellent quality and high in number. However, several challenges related to access for more vulnerable populations emerged as a key theme. Challenges discussed include; transportation limitations, long waiting lists to get an appointment, long wait times when at the health facility, complexities navigating

the health system, cultural competency of providers and office staff, and a lack of coordination of care for low-income residents.

Respondents also described several structural factors that contributed to these challenges in accessing health care services. A lack of providers practicing primary care, conflicts between business hours during which health facilities are open and the work schedules of vulnerable populations seeking care, and inadequate public transportation were described by respondents as barriers to obtaining and attending appointments for low-income residents. In addition, several respondents noted a need for assistance in navigating complex and fragmented health systems. An indicator of barriers to accessing health care is the use of hospital emergency departments for non-emergent issues. The leading cause of visiting the emergency department in Worcester was due to diseases of the respiratory system. Rates for this condition were particularly high among children in the City of Worcester (58.0 per 1000).[11] A few participants explained that limited access to necessary health care contributed to use of emergency departments for management of chronic illnesses.

Given this qualitative and quantitative evidence, reducing the prevalence of chronic diseases, improving oral health, improving sexual health, decreasing emergency room utilization, reducing infant mortality, and reducing preventable hospitalizations and readmissions emerged as key issues to address in an effort to promote wellness and improve access to quality care in the greater Worcester area.

[1] MDPH, BRFSS, 2009.

[2] MDPH, BRFSS, 2009.

[3] MDPH, "A Profile of Health Among Massachusetts Adults" 2010.

[4] MDPH MassCHIP Massachusetts Community Health Information Profile – BRFSS.

[5] Asthma Reports for Worcester County, BRFSS 2003-2008.

[6] Asthma Reports for Worcester County, BRFSS 2003-2008.

[7] MDPH, Health Status Indicators Report for Worcester County, 2008-2010.

[8] MDPH, "A Profile of Health Among Massachusetts Adults", 2010 – BRFSS.

[9] MDPH, "A Profile of Health Among Massachusetts Adults", 2010 – BRFSS.

[10] The Catalyst Institute, "The Oral Health of Massachusetts' Children" January 2008 report.

[11] UMASS data for Worcester Community Health Assessment, Emergency Department data, 2011.

GOAL 3. Create a respectful and culturally responsive environment which encourages prevention of chronic disease, reduction in infant mortality, and access to quality comprehensive care for all.

2013 Update. Goal 3 has been edited to better reflect the aims of the partners who have prioritized reducing infant mortality and chronic disease burden through implementation of the strategies contained herein.

Health equity considerations. The work of Domain 3 centers around the prevention of chronic disease by increasing access to quality care and preventive services. While this work inherently requires a consideration of the social determinants of health, the workgroup continues to prioritize health equality in its implementation. For example, the asthma control pilot program has prioritized high risk asthmatics because this group is often children that are from low income families, or face language/cultural barriers.

3.1 Objective	Strategies
3.1 Reduce non-urgent or preventable use of the emergency department by 8% by 2015.	3.1.1 Facilitate linkages between health care systems to encourage individuals to seek a source for on-going care.
	3.1.2 Increase the number of navigators, advocates, and community health workers as a mechanism to improve culturally competent access to care.
	3.1.3 Support providers and health centers in addressing reported barriers to care such as cross-cultural barriers, transportation, office hours, etc.

3.2 Objective	Strategies
3.2 Reduce the rate of Sexually Transmitted Infections (STI's) in residents age 15-24 years by 10% by 2015	3.2.1 Develop and implement a mass media education campaign to increase knowledge about risky sexual behaviors, HIV and HIV testing, and STI's, including advertising of available resources in the community.
	3.2.2 Introduce amendments to current school policy to enable school-based health providers to offer, with parental consent, reproductive health education and STI education, screening and treatment.

3.3 Objective	Strategies
3.3 Reduce the rate of dental caries in residents age 4-19 by 3% by 2015.	3.3.1 Introduce and pass policy requiring school-based dental programs to provide a minimum of one screening per child per year, pre–K through 12th grade.
	3.3.2 Develop and implement a comprehensive public education campaign on the benefits of good oral health practices.
	3.3.3 Advocate for policies that decrease consumption of sugary drinks in schools, after-school programs, and youth programs.

GOAL 3. Create a respectful and culturally responsive environment which encourages prevention of chronic disease, reduction in infant mortality, and access to quality comprehensive care for all.

3.1 Reduce non-urgent or preventable use of the emergency department by 8% by 2015.

2013 Update. Over the past year, the workgroup has focused on the strategies supporting Objective 3.1. However, a review of data collected led to the decision to refocus the objective on reducing emergency department visits for preventable conditions, such as acute asthma attacks, and non-urgent conditions that could be treated by a primary care physician. This decision is supported by locally collected data that reveals frequent use of the free clinic system and emergency departments by residents that have both insurance and a primary care physician. The new objective will more accurately capture information reflecting the improvements achieved through the implementation of the strategies below.

In addition, the original Strategy 3.1.3 has been removed. While the goal to improve informed decision making is valuable, the group determined that there is not yet enough evidence in this area to guide the implementation of an effective program for the region.

Lead Agency: UMass Memorial Healthcare

Current Partners: Worcester Division of Public Health, Edward M. Kennedy Community Health Center, Family Health Center, Worcester Free Clinics System, Fallon Health

3.1.1 Facilitate linkages between health care systems to encourage individuals to seek a source for on-going care.

Rationale. Improving access to high quality care is an overarching goal of Healthy People 2020. Specific objectives include increasing the proportion of the population who have a source for on-going primary care by 10% and increasing the proportions of persons with a usual primary care physician by 10%. In addition, the National Prevention Strategy highlights the lack of access to health services and the high proportion of adults that are not receiving routine prevention services such as vaccinations and cancer screenings. The strategy recommends several interventions in this regard: 1) support implementation of community-based preventive services and enhance linkages with clinical care 2) reduce barriers to accessing clinical and community preventive services, especially among populations at greatest risk 3) enhance coordination and integration of clinical, behavioral, and complementary health strategies.

A literature review revealed that the evidence for the strategy of linking clinical services to community organizations to increase access to preventive services is not conclusive. However, research in this area is limited, as it is a newly emerged field of interest. Available evidence strongly suggests that linkages between clinical and community services can be particularly effective in the management of chronic conditions.

Current Status. Strategy 3.1.1 has been rewritten in this report to better reflect the goals of the Domain working group and the needs of the community, based on data that was not previously available. However, some related work has been completed. First, a "point in time" report was completed by the Worcester Free Clinic Coalition to identify who is accessing the system and why. In addition, an ongoing media outreach project is being conducted to raise local awareness of access to health care issues in the region.

2014 Plans. The media outreach project will identify and secure funding in 2014. The workgroup will come together to discuss and create an implementation plan for the strategy.

Outcome Measures. Proportion of individuals reporting that they have a source of on-going care

Changes to the language of this strategy were made to create a more feasible plan for partners to implement as Domain 3 partners recognized that barriers to access to care such as cost would be difficult to change. The strategy as written in this report allows partners to make specific changes to increase access to care by more efficiently connecting existing resources.

3.1.2 Increase the number of navigators, advocates, and community health workers as a mechanism to improve culturally competent access to care.

Rationale. The National Prevention Strategy promotes the use of community health workers to support clinical care outside of traditional health care settings. Community health workers can provide a link between clinical and community services and increase access to care by helping patients overcome barriers such as difficulty navigating the healthcare system. The MA Department of Public Health has also recognized the value of community health workers and has demonstrated support through capacity building projects and other programmatic supports.

Literature review has revealed strong evidence that community health workers can reduce non-financial barriers to care by increasing linkages between clinical providers and the community. Community health workers also contribute to higher quality of care by improving continuity of care, providing health education, and easing navigation of the healthcare system for patients.

Current status. Significant progress has been made on Strategy 3.1.2 over the past year. Pediatric asthma has been identified as priority area and an intervention has been initiated utilizing community health workers to provide support and education to high risk asthma patients and their families. An asthma task force is being organized, and a pilot project of the community health worker home-visit intervention will launch in December 2013 in the Bell Hill and Plumley Village neighborhoods of Worcester. Finally, the group has submitted an application for the MA Prevention and Wellness Trust Fund. If awarded, the grant would fund community health worker interventions for hypertension and pediatric asthma.

The MA Prevention and Wellness Trust Fund, a $60 million endowment, represents significant investment in and prioritization of the prevention of four health conditions: tobacco use, hypertension, falls, and asthma. Managed by the MA Department of Public Health, the Fund seeks reduce health care spending and the burden of disease.

2014 Plans. Plans for the upcoming year include expansion of the pediatric asthma intervention, contingent on the availability of grant funding. The asthma task force will meet in January 2014 and work to further engage local community health workers and other stakeholders.

Outcome Measures. Number of patients served by navigators, advocates, community health workers

This strategy has been edited to establish a more actionable plan for partners to implement by changing the focus from policy advocacy to implementation.

3.1.3 Support providers and health centers in addressing reported barriers to care such as cross-cultural barriers, transportation, office hours, etc.

Rationale. The Healthy People objectives relating to access to care are mainly focused around increasing health insurance coverage and the number of people who have a primary care physician. However, due to the passing of "An Act Providing Access to Affordable, Quality, Accountable Health Care" in Massachusetts, in 2006, almost all residents of the state have health insurance coverage. Therefore, the CHIP planning participants focused on other barriers to accessing care.

Current status. During year one of implementation the Domain 3 workgroup has focused their work surrounding access to care on maternal and child health for vulnerable populations. Worcester consistently reports infant mortality rates higher than the state average, particularly among minority groups. The workgroup has collaborated closely with the March of Dimes, UMass Medical School, and Clark University. A grant application is in process for funds to address access to care issues relating to maternal and child health. In addition, the group has been working to reach out to the Ghanaian community in Worcester, a large community in the area that has been identified as being at an increased risk for infant mortality. The group is identifying barriers to care in this population by conducting focus groups to collect additional data and inform intervention planning. In addition, Dr. Sarkis of Clark University will be hosting a discussion group with African, Vietnamese, and Latino women to continue to identify barriers to care, focusing on prenatal care. Finally, a member of the workgroup, Dr. Sheils, held a meeting with the Infant Mortality Subcommittee of Worcester's city council and will also meet with other elected officials.

2014 Plans. Over the next year, the group will be focusing on the design of an intervention to improve access to prenatal care for high risk groups.

Outcome Measures. Completed policy brief educating providers on potential impacts of organizational changes

This strategy has been edited for clarity. The original language required partner organizations to identify barriers to care in the region. However, the workgroup recognizes that the bulk of this information is outlined in the CHA. The new objective allows partners to act on available data and make concrete changes to improve access.

Key Sources

3.1.1 Porterfield DS, Hinnant LW, Kane H, Horne J, McAleer K, Roussel A. Linkages between clinical practices and community organizations for prevention: a literature review and environmental scan. American Journal of Preventive Medicine. 2012 Jun;42(6 Suppl 2):S163-71.

3.1.2 Witmer A, Seifer SD, Finocchio L, Leslie J, O'Neil EH. Community health workers: integral members of the health care work force. American journal of public health. 1995 Aug;85(8 Pt 1):1055-8.

3.2 Reduce the rate of STIs in residents age 15-24 years by 10% by 2015.

2013 Update. Objective 3.2 has been edited after year one of implementation to better reflect the goals of the strategies supporting it and to conform to the structure of the other domains. The 10% value was chosen based on a review of Healthy People 2020 goals and objectives and the age range chosen based on the high STI rates in this age group and the target population of the strategies.

In addition, the original Strategy 3.2.1 has been removed. It was determined that a health literacy effort specific to STI prevention was not necessary because the objective also includes a public education campaign strategy and because Domain 2 includes a health literacy strategy. It was also decided that improving health literacy may not relate directly to the prevention of STI infections.

Lead Agency: Planned Parenthood

Current Partners: Worcester Division of Public Health, Worcester Public Schools, Edward M. Kennedy Community Health Center, Family Health Center of Worcester, Worcester Free Clinics Coalition, UMass Memorial Healthcare, Fallon Health

3.2.1 Develop and implement an education campaign to increase knowledge about risky sexual behaviors, HIV, and STIs, including advertising of available resources in the community.

Rationale. Healthy People 2020 objectives aim to reduce STI infection rates, specifically, gonorrhea, syphilis, and HPV by 10% The goals also include increasing the proportion of women that receive routine screenings and decreasing the prevalence of pelvic inflammatory disease resulting from undiagnosed STIs. The National Prevention Strategy similarly supports these goals and recommends expansion of sexual health education.

Studies have demonstrated that mass media campaigns can support positive sexual decision making among youth. Reported outcomes include increased contraceptive usage and increased condom usage between casual partners.

Current status. Year one of implementation did not focus a lot of effort on the Strategy 3.2.1 (formerly 3.2.2). However, the group did identify AIDS Project Worcester as a key stakeholder in the implementation of this strategy.

2014 Plans. Year two work on Strategy 3.2.1 will include recruiting AIDS Project Worcester to help the domain workgroup support and implement the strategy.

Outcome Measures. Number of individuals reached by a public education campaign or outreach initiative

3.2.2 Introduce amendments to current school policy to enable school-based health providers to offer students reproductive health education and STI education, screening, and treatment.

Rationale. The Healthy People 2020 goals relating to reducing STI infections also aim to increase access to screening and treatment services. The National Prevention Strategy recommends expanding access to screening and treatment services. In addition, the Guide to Community Preventive Services recommends comprehensive sexual health education in schools as a way to reduce STI transmission.

A review of the literature supports the implementation of school-based education, screening, and treatment for STIs. Studies have shown that the comprehensive education and school based screening do not increase sexual activity among youth and can reduce the prevalence of STIs.

Current status. Over the past year, the Domain 3 workgroup has focused on conducting an assessment of what work has been done in this area by other groups in the area such as the public schools and Planned Parenthood.

2014 Plans. The goal for the upcoming year is to formulate a plan for introducing a screening and treatment program within the 12 established school-based health centers in Worcester.

Outcome Measures. Number of students educated about, screened for, or treated for STIs

Key Sources

3.2.1 Keller SN, Brown JD. Media interventions to promote responsible sexual behavior. Journal of sex research. 2002 Feb;39(1):67-72. PubMed PMID: 12476260.

3.2.2 Kirb D. The impact of schools and school programs upon adolescent sexual behavior, Journal of Sex Research. 2002;39:1, 27-33.

3.3 Reduce the rate of dental caries in residents age 4-19 by 3% by 2015.

2013 Update. The decision to edit Objective 3.3 after year one of implementation is intended to better reflect the goals of the group and conform to the format of the other CHIP domains. The original objective was not a measure capable of incorporating the results of the implementation of the strategies below. The current objective represents a unified goal for the strategies. The decision to define the target population age was made because this age range not only has the highest rate of dental caries, but also because the strategies are focused on improving oral health via interventions in the school systems. The target goal of 3% was chosen after a review of Healthy People 2020.

In addition, the original Strategy 3.3.3 has been removed. The group agreed that the strategy was too broad to be implemented and hinged the responsibility for successful implementation on the political will of the state and local legislatures. It has been replaced by a more practical strategy with a stronger evidence base: reducing children's intake of sugary drinks.

Lead Agencies: Central MA Oral Health Initiative

Current Partners: Worcester Division of Public Health, Edward M. Kennedy Community Health Center, Family Health Center, Worcester Free Clinic Coalition, UMass Memorial Healthcare, Fallon Health

3.3.1 Introduce and pass policy requiring school-based dental programs to provide a minimum of one screening per child per year, pre-K through 12th grade.

Rationale. Healthy People 2020 places oral health into an independent goal with multiple objectives. These include increasing the proportion of people who have accessed oral health services in the past year by 10% and reducing the prevalence of dental caries across all ages by 10%. The Guide to Community Preventive Services also recommends school based oral health programs as an effective strategy for reducing dental caries among children and youth.

Review of the literature supports the implementation of a school-based screening program. These programs are particularly effective when school-based programs are also providing preventive services, such as sealants.

Current status. During year one of implementation, the workgroup began discussions with the Worcester Public Schools to ensure that access to oral health services is available through the schools to all students. This has lead to the design of a potential pilot program for the 2014-2015 school year, which will begin in one Worcester public school. The program will require all students in the school to receive a dental health screening. If implemented, there would be an opt-out policy available for parents that do not want their children to participate. The Central Massachusetts Oral Health Initiative, a group of dental providers working with Worcester Public Schools, has taken on the leadership role in this work.

2014 Plans. In the upcoming year, the Domain workgroup plans to complete the implementation of the Worcester Public Schools pilot program. This will also include establishing data collection and evaluation plans.

Outcome Measures. Number of students in the region receiving an annual oral health screening through school-based providers

3.3.2 Develop and implement a comprehensive public education campaign on the benefits of good oral health practices.

Rationale. The Healthy People 2020 oral health objectives focus on increasing access to oral health services. Because the 2012 Greater Worcester Community Health Assessment informants frequently cited lack of access to oral health services, rather than lack of availability of services, it is logical to implement a strategy that encourages residents to engage in good oral health practices, including seeking preventive dental services.

Current status. The Central Massachusetts Oral Health Initiative has taken a leadership role in the implementation of this strategy. While year one did not see extensive work in this area, the group has determined that additional stakeholders need to be recruited and funding secured in order to implement the strategy.

2014 Plans. Year two of implementation will focus on convening stakeholders to design a plan for the launch of an education campaign. This will minimally include: material to be included in campaign messages, funding sources, and potential distribution outlets, as well as an evaluation plan.

Outcome Measures. Number of individuals reached by a public education campaign

3.3.3 Advocate for policies that decrease consumption of sugary drinks in schools, after-school programs, and youth programs.

Rationale. Healthy People 2020 includes an objective to decrease the intake of foods containing added sugars. Although this objective is categorized in the nutrition and weight control topic section, it is also applicable to reducing dental caries.

Literature strongly supports the link between sugar consumption and the prevalence of dental caries in children. Children that frequently consume sugar-sweetened beverages are more likely to have dental caries and tooth decay. Therefore, reducing intake of these beverages among children will greatly reduce the risk of caries and reduce the overall prevalence of caries in children of the region.

Current status. As Strategy 3.3.3 is new as of this report, no work has been completed relating to this strategy within the Domain 3 workgroup. The Domain 1 workgroup has undertaken similar efforts through Strategy 1.3.2.

2014 Plans. Next steps relating to Strategy 3.3.3 have yet to be determined. However, they will include connecting with the Domain 1 workgroup to explore collaboration.

Outcome Measures. Number of schools and programs that enforce sugary drink policies.

This strategy has been added as of this report to replace the former 3.3.3. This strategy represents a stronger evidence-base and more concise implementation plan for partners.

Key Sources

3.3.1 Gooch BF, Griffin SO, Gray SK, Kohn WG, Rozier RG, Siegal M, et al. Preventing dental caries through school-based sealant programs: updated recommendations and reviews of evidence. Journal of the American Dental Association. 2009 Nov;140(11):1356-65.

3.3.3 Shenkin JD, Heller KE, Warren JJ, Marshall TA. Soft drink consumption and caries risk in children and adolescents. General dentistry. 2003 Jan-Feb;51(1):30-6.

Domain Area Four: Violence & Injury Prevention

Injury is the leading cause of death for the U.S. population aged 1-44 years, the leading cause of disability across all age groups, and profoundly impacts mental health, productivity, and health expenditures. Assault-, motor-vehicle-, and fall-related injuries result in nearly 30 deaths, over 700 hospitalizations, and over 6,500 emergency department visits per year in the alliance communities. The impact on the community, however, goes far beyond injury.

A key theme that emerged from interviews with community festival participants was concern for safety and crime. While crime was a major concern across the region, Worcester respondents particularly expressed concerns regarding safety in their neighborhoods. Several respondents cited gang violence, drug dealing, and slow responses by law enforcement to emergency calls as major concerns. Participants expressed that violence can affect health by causing stress and preventing residents from accessing and utilizing health-promoting resources such as healthy food outlets, public parks, or green spaces due to concerns about safety.

Data reported by hospital emergency departments to the Weapon Related Injury Surveillance System (2008-2011) shows Worcester as having the lowest weapon-related injury rate among the three municipalities in the state with a population greater than 150,000 and the fourth lowest rate among the twelve municipalities in the state with a population greater than 75,000. Despite the comparably low rate, residents of Worcester perceive a high sense of hazard in their day-to-day lives.

GOAL 4. Improve safety, reduce violence and injury, and inform public perceptions by educating and mobilizing the community around effective, targeted prevention, and intervention strategies.

Health equity considerations. The Domain 4 workgroup subcommittees have recognized several key health equity considerations within each objective. Within Objective 4.1, the group recognizes that those at the highest risk for falls are also the least likely to participate in prevention programs, such as exercise programs, due to health issues, transportation barriers, etc. The subcommittee has discussed ways to reach out to this population.

Available data related to violence and public safety indicates that residents' perception of violence is in some cases higher than actual crime rates. This perception is a barrier to accessing resources such as green spaces for exercise and creates a disparity of access. The group is working to implement a social norms campaign (Strategy 4.2.2) to address this.

The Objective 4.3 subcommittee has identified teens from low-income families as being less likely to receive driver's education and therefore more likely to have an accident when they obtain their license at age 18. The group is working to overcome this barrier by increasing access to driver's education courses (Strategy 4.3.2).

Table 13. Deaths, Hospitalizations, and Emergency Department Visits Due to Violence and Injury

	Holden	Leicester	Millbury	Shrewsbury	West Boylston	Worcester	CMRPHA	MA
Deaths per 100,000 (Average annual rate 2006-2010)								
Motor-Vehicle Occupant Deaths	-	9.1	7.5	4.1	-	4.5	4.8	3.9
Motor-Vehicle Pedestrian Deaths	0.0	0.0	0.0	-	0.0	0.8	0.7	1.1
Homicides	-	0.0	-	-	0.0	3.1	2.4	2.8
Fall Deaths	-	0.0	-	-	0.0	3.1	2.4	2.8
Non-Fatal Hospitalizations per 100,000 (Average annual rate 2009-2011)								
Motor-Vehicle Occupant Injury	44.2	85.1	72.9	39.3	47.8	44.4	46.9	43.3
Motor-Vehicle Pedestrian Injury	-	-	-	-	0.0	16.8	12.9	10.6
Assault-related Injury	-	-	22.6	21.5	47.8	65.7	51.5	37.4
Fall Related Injury	482.4	483.2	460.0	459.7	521.6	518.9	504.2	485.4
Non-Fatal ED Visits per 100,000 (Average annual rate 2009-2011)								
Motor-Vehicle Occupant Injury	534.3	768.8	648.6	525.2	434.7	1099.4	930.3	899.6
Motor-Vehicle Pedestrian Injury	-	24.3	50.3	21.5	-	80.8	62.4	50.4
Assault-related Injury	126.8	282.6	291.6	259.3	347.7	722.1	570.9	377.9
Fall Related Injury	2073.7	2315.6	2380.6	2165.4	2360.2	3088.4	2810.5	2836.0
Crash Rate	1302.5	2297.4	2271.7	1996.1	1691.9	2811.3	2514.1	1939.4

Source: Deaths – Registry of Vital Records and Statistics, 2006-2010, MDPH. Non-fatal Injuries - MA Inpatient Hospital Discharge, Observation Stay and Emergency Department Discharge Databases, 2009-2011, Center for Health Information and Analysis (CHIA). Crash Rate – MA Registry of Motor Vehicles, 2007-2011. *Crash Rate is average annual rate per 100,000.

4.1 Objective	Strategies
4.1 Reduce fall-related injuries in children age 10 and under by 5% and in adults age 65 and over by 8% by 2015.	4.1.1 Encourage practices to safe-certify homes for pediatric and elderly populations through inspections.
	4.1.2 Enhance and expand fall prevention education efforts for pediatric and elderly populations through the Mobile Safety Street.
	4.1.3 Extend the reach of existing fall prevention and balance promotion programs for the elderly.

4.2 Objective	Strategies
4.2 Increase public safety by 3% by 2015 as measured by crime rates and perceptions of safety.	4.2.1 Advocate for policies that support family health and stabilization, prevention domestic abuse, child neglect, bullying, and gang violence.
	4.2.2 Conduct a social norms campaign to define and change perceptions of violence and community safety.
	4.2.3 Promote the Goods for Guns program to decrease the number of guns on the street.
	4.2.4 Inventory and promote “safe zones” to support victims or potential victims of violence throughout the region.
	4.2.5 Promote Families and Children Engaged in Services (FACES) model to increase access to services such as child resource centers and community wrap-around services to address to address negative youth behaviors such as truancy and disruptive behavior.

4.3 Objective	Strategies
4.3 Reduce the number of motor vehicle-related pedestrian, cyclist, and occupant injuries by 10% by 2015.	4.3.1 Encourage adolescents and elderly to take appropriate driver’s education and reeducation courses. Enhance existing work of the SAFE DRIVE program.
	4.3.2 Expand access to, and improve the quality of, a comprehensive driver’s education program that includes parental education and involvement.
	4.3.3 Expand child passenger safety checkpoint system.
	4.3.4 Utilize traffic geo-mapping to identify pedestrian and cyclist injury hotspots and make appropriate changes in traffic patterns, crosswalk design, and signage.
	4.3.5 Increase consideration of pedestrian and bicycle accommodation in routine decision making through adoption of Complete Streets transportation policy throughout the region. (see 1.2.1)
	4.3.6 Enhance education about safe pedestrian and cyclist practices through efforts of Mobile Safety Street and other programs.

GOAL 4. Improve safety, reduce violence and injury, and inform public perceptions by educating and mobilizing the community around effective, targeted prevention, and intervention strategies.

4.1 Reduce fall-related injuries in children age 10 and under by 5% and in adults age 65 and over by 8% by 2015.

2013 Update. Healthy People 2020 challenges the nation to maintain the fall injury and death rates in person over 65 over 10 years. Because the this age group is expected to increase in number, maintaining this rate would represent a decrease in the total number of falls annually. After reviewing this information and the work that has been done over the past year, the subcommittee is comfortable editing the objective to insert 8% as the target rate. This value was obtained by utilizing the current data available for fall rates among seniors and the estimated number of falls that will be prevented by implementation of the strategies below. 8% represents a challenging, yet feasible target.

In addition, the subcommittee has assigned a goal of a 5% reduction in falls-related injuries among children. This value was calculated by assessing falls that could be prevented by implementing the related strategies. Available data show that approximately 9% of hospitalizations due to falls in children aged 0-5 years are a result of window falls, and the average annual rate for emergency department visits due to falls across ages 0-14 in the region is 3.89 per 1000. The average annual rate for hospitalizations due to falls in children ages 0-14 is 147 per 100,000. Utilizing this information and the estimated number of falls that could be prevented through home inspection programs, particularly those that promote window guard installation, resulted in the 5% target.

Lead Agency: Worcester Division of Public Health, UMass Memorial Healthcare

Current Partners: Worcester Senior Center, Reliant Medical Group, Senior Support Team, VNA, Family Health Center, MA Council on Aging, Elder Outreach, Family Services of Worcester, Fallon Health

4.1.1 Encourage practices to safe-certify homes for pediatric and elderly populations through inspections.

Rationale. Linked to the Healthy People 2020 measures relating to falls, is the CDC Compendium of Effective Fall Interventions: What Works for Community-Dwelling Older Adults, which includes 22 evidence-based interventions. Listed among these are several home assessment and modification interventions.

A review of the literature supports the use of home assessments and home safety interventions to reduce falls among the elderly. Studies have demonstrated that home based inspections and interventions can reduce both the risk of falls and the risk of repeat falls for elders who have previously fallen.

Current status. The past year has seen large efforts by the Objective 4.1 subcommittee aimed at launching an ongoing inspection program. An application has been submitted to the Prevention and Wellness Trust Fund to fund community health workers to conduct inspections. This work would be conducted by expanding the existing home inspection programs in Worcester through the Senior Support Team. Data collection systems are in place through the 9-1-1 system, which reports all calls for senior falls to the Senior Support Team and the Objective 4.1 subcommittee via the Worcester Division of Public Health (WDPH).

2014 Plans. The next year will focus on securing funding to launch the planned inspection program and reinforcing current infrastructure. Currently, some inspections are available to seniors in the area, but there is not a large capacity to assist seniors in making home improvements that may be recommended by inspectors such as installing hand rails, night lights, etc.

Outcome Measures. Number of homes receiving inspections for safety related to falls

4.1.2 Enhance and expand fall prevention education efforts for pediatric and elderly populations through the Mobile Safety Street.

Rationale. The National Prevention Strategy prioritizes falls prevention for older adults within the injury and violence free living priority area. The strategy suggests that community organizations can support this goal by raising awareness and promoting local fall prevention programming.

Fall prevention education has been shown to be an effective method for decreasing the rates of elderly falls, and is particularly effective when used in combination with other interventions such as home inspections and exercise programs. Some studies have successfully implemented injury prevention education programs for children and measured an increase in safe behaviors, such as increased seat belt utilization. Although this approach has not been widely used for falls prevention, there is evidence to support the model.

Current status. Mobile Safety Street continues to be a resource throughout the community for education about fall prevention, with visits to all 5th grade and Head Start classes, senior centers in the region, and various community events. Year one focus for this strategy has been to identify potential funding sources to expand the reach of Mobile Safety Street. Also in 2013, WDPH began managing the Senior Support Team database that provides invaluable information on the population that is falling, and the causes thereof. WDPH secured funding for expansion and enhancement of Mobile Safety Street that the group has preliminarily decided to put toward translation of the materials to make the program accessible to a greater population.

2014 Plans. Year two of implementation will continue to focus on securing funding and staffing to expand the work of Mobile Safety Street, with a particular focus on expanding the work beyond Worcester and into the five other towns of the Central Massachusetts Regional Public Health Alliance (CMRPHA).

Outcome Measures. Number of individuals completing Mobile Safety Street training in the region

4.1.3 Extend the reach of existing fall prevention and balance promotion programs for the elderly.

Rationale. Linked to the Healthy People 2020 measures relating to falls is the CDC Compendium of Effective Fall Interventions: What Works for Community-Dwelling Older Adults, which includes 22 evidence-based interventions. Listed among these are exercise and balance training programs to increase strength and improve balance.

A review of the literature found that both group and home-based exercise programs are able to reduce the risk of falling and the rate of falls in elderly participants. Exercise programs such as Tai Chi that are focused on improving balance are particularly effective.

Current status. Year one of implementation has seen some challenges relating to Strategy 4.1.3, mainly staff turnover at the Worcester Senior Center. Worcester Senior Center continues to offer a robust set of programming related to fall prevention and balance promotion, but extending that work through the CHIP has yet to happen. The subcommittee has recognized the need to work closely with the Worcester Senior Center in promoting currently available programming. In addition, health fairs for senior citizens were held in October 2013 which provided information on the importance of fall prevention and exercise, as well as local opportunities to participate in strength and balance training programs. In addition, the Prevention and Wellness Trust Fund application includes funding for exercise and balance programming if awarded.

2014 Plans. Year two will focus on expanding the capacity of existing programs and expanding the work into the other five CMRPHA communities. This will include conducting an assessment of opportunities available in those towns outside Worcester.

Outcome Measures. Number of individuals participating in fall prevention/balance promotion programs in the region

Key Sources

4.1.1 Stevens JA. A CDC Compendium of Effective Fall Interventions: What Works for Community-Dwelling Older Adults. 2nd ed. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, 2010.

Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, et al. Interventions for preventing falls in older people living in the community. The Cochrane database of systematic reviews. 2012;9:CD007146.

4.1.2 Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, et al. Interventions for preventing falls in older people living in the community. The Cochrane database of systematic reviews. 2012;9:CD007146.

Azeredo R, Stephens-Stidham S. Design and implementation of injury prevention curricula for elementary schools: lessons learned. Injury prevention : journal of the International Society for Child and AdolescentInjury Prevention. 2003 Sep;9(3):274-8. PubMed PMID: 12966021.

4.1.3 Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, et al.Interventions for preventing falls in older people living in the community. The Cochrane database of systematic reviews. 2012;9:CD007146.

4.2 Increase public safety by 3% by 2015 as measured by crime rates and perceptions of safety.

2013 Update. After one year of implementation, the Objective 4.2 subcommittee determined that the original language of the objective did not reflect the intent of the strategies below. The current objective is capable of combining information produced by the implementation of the strategies into one value. The objective will be measured using the Public Safety Index, which calculates public safety by magnifying crime rates by cost of crime, and includes negative effects of perception of crime such as fear of walking in the community.

Lead Agency: Worcester Division of Public Health, Mobile Safety Street, UMass Medical School

Current Partners: Worcester Police Department, Worcester District Attorney, City of Worcester Office of Human Rights and Disability, Center for Non-Violent Solutions, Unitarian Universalist Church of Worcester, Fallon Health

4.2.1 Advocate for policies that support family health and stabilization, prevention of domestic abuse, child neglect, bullying, and gang violence.

Rationale. Healthy People 2020 seeks to reduce injuries and fatalities due to violence across all age groups. Specific measures include reducing physical assaults, nonfatal assault injuries and homicides by 10%. The Guide to Community Preventive Services has not yet completed a review of community-based violence prevention programs.

Current status. As this strategy has been edited as of this report, there has not been extensive progress to date. The Objective 4.2 subcommittee struggled with determining the intent of the strategy and identifying methods of implementation.

2014 Plans. Year two of CHIP implementation, for Strategy 4.2.1 will focus on identifying appropriate policies and designing a plan for implementation. This plan will minimally include: identified policies, funding sources, and advocacy plan with target population.

Outcome Measure. Written policy brief with recommendations

This strategy has been edited by the Objective 4.1 subcommittee because the original strategy of promoting mediation services may not be an appropriate way to address certain issues, such as child neglect. Changing the language of the strategy provides more flexibility to the subcommittee to identify and implement a wide variety of evidence-based policy changes. The revised strategy also allows the subcommittee to implement policies at different levels such as institutional policies in the school systems, city-wide policies, etc.

4.2.2 Conduct a social norms campaign to define and change perceptions of violence and community safety

Rationale. Although Healthy People 2020 and the National Prevention Strategies do not focus on influencing perceptions of safety, both promote priorities that can be greatly influenced by the community's perception of safety. For example, both advocate for increased physical activity and one of the barriers to exercise can be the perception of safety. If individuals do not feel safe in their neighborhoods, they are less likely to walk, even if the crime rate in the area is low.

A literature review revealed that social norms campaign can be effective in reducing misperceptions related to violence, such as bullying. Social norms campaigns have also been shown to be effective in changing behavioral norms related to violence, and in some cases reducing physical assaults in specific settings such as schools.

Current status. In year one, the Objective 4.2 subcommittee did not prioritize this strategy. However, the group has identified the need for thorough evaluation of this strategy. A perceptions survey is planned to monitor the effectiveness of the campaign. A city-wide violence prevention effort is currently in development and representatives from this subcommittee have been active in those planning meetings to ensure productive synergy.

2014 Plans. During year two, the group will secure funding for the project and create an implementation plan. The group will connect with workgroups in other CHIP domains that are also conducting social norms campaigns for guidance and support.

Outcome Measures. Perception survey results

4.2.3 Promote the Goods for Guns program to decrease the number of guns on the street.

Rationale. Reducing firearm injuries and death by 10% and reducing the proportion of children who have carried a weapon to school by 15% are objectives of Healthy People 2020. The Guide to Community Preventive Services has found insufficient evidence to a support a number of policy-based interventions to reduce the number of firearms in the community such as bans on specific types of firearms, restrictions on acquisitions, zero-tolerance policies, etc. The task force has not yet conducted a review of the effectiveness of gun buy-back programs that provide incentives for gun-owners to voluntarily forfeit their firearms.

The literature regarding the effect of gun buy-back programs on the violence and crime rates is mixed. Although such programs often have strong community support, studies have not shown a direct correlation to a reduction in gun-related injuries. However, such programs have been shown in some cases to increase community awareness, which could lead to a reduction in violence over time. Gun buy-back programs could also benefit the community by increasing the perception of safety in the community. One study reported three times more individuals responding via survey that fewer people owning guns would make them feel more safe, as opposed to less safe. Often, residents' perception of safety is lower than reality. This misperception can discourage people from accessing healthy living resources, such as parks.

Current status. In year one, the Goods for Guns program was able to expand and diversify its funding by reaching out to clinical providers, insurance agencies and private corporations. A gun buy-back day was held in December 2013 in Worcester. This event was supported by a strong marketing campaign through print, radio, and social media. Eighty-five guns were collected during the event. The buy-back day in 2013 also attempted to integrate additional public health services by providing flu vaccinations to the public.

2014 Plans. Because the Goods for Guns program has established a solid support system in the City of Worcester, the upcoming year will focus on expanding the program into the other towns of the CMRPHA. The subcommittee will need to build partnerships with the police and administrators in the towns, as well as secure additional funding.

Outcome Measures. Number of buy-back events held; Number of weapons collected; Number of trigger locks provided

4.2.4 Inventory and promote "safe zones" to support victims or potential victims of violence throughout the region.

Rationale. While safe zones are not specifically mentioned in Healthy People 2020 or the National Prevention Strategy, both projects highlight the need to reduce interpersonal violence. Healthy People 2020 includes objectives relating to intimate partner violence, and "safe zones" such as women's shelters are able to reduce the risk of violence by removing individuals from potentially dangerous situations.

While there is not significant evidence available to support the creation of "safe zones" as a method of reducing levels of violence in the community, there is fair evidence to support "safe zones" for specific types of violence, such as intimate partner violence, with women utilizing shelter services experiencing a reduced risk for further violence.

Current status. The Objective 4.2 subcommittee did not pursue this strategy during year one, mainly because of the lack of clarity in the language of the original objective. The subcommittee also determined that establishing new safe zones was not feasible without a baseline assessment of current resources.

2014 Plans. Moving forward, the group will conduct a scan of local resources and identify currently available "safe zones." Essential to this review will be to create a strong working definition of "safe zones." Currently, the term seems to be used in different contexts in the community, and in order to implement the strategy in a meaningful way, the subcommittee has determined that a common definition is required. Once identified, the group will strategize the promotion of these facilities.

Outcome Measures. Completed report outlining current availability and access to "safe zones" in the region; Number of public education efforts

This strategy has been edited as of this report to focus efforts on promoting existing resources rather than duplicating efforts by creating new resources.

4.2.5 Promote Families and Children Engaged in Services (FACES) model to increase access to services such as child resource centers and community wrap-around services to address negative youth behaviors such as truancy and disruptive behavior.

Rationale. Although the FACES model is unique to Massachusetts, there are some Healthy People 2020 objectives to which it relates. These objectives are contained within the adolescent health topic area, for example, "increase the proportion of adolescents who are connected to a parent or other positive adult caregiver" and "increase the proportion of adolescents who have an adult in their lives with whom they can talk about serious problems."

Current status. Work on Strategy 4.2.5 was limited in year one by a lack of knowledge surrounding the specifics and timelines of the implementation of the FACES model at the state level.

2014 Plans. Year two will focus on educating the subcommittee on the current FACES model. When a baseline knowledge is achieved the subcommittee will focus on securing funding and planning a program to promote and improve access to services through the FACES model.

Outcome Measures. Number of education/outreach efforts; Number of individuals/organizations connected to FACES

Strategy 4.2.5 has been revised in this report due to policy changes at the state legislature level that resulting in the replacement of the former Child in Need of Services (CHINS) model with the current FACES model. The model was established in 2012 with the passing of "An Act Relative to Families and Children Engaged in Services" by the Massachusetts legislature. The current language allows the subcommittee to utilize resources to support local social service experts in expanding access to services through established channels and programs.

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4.3 Reduce the rate of motor-vehicle-related pedestrian, cyclist, and occupant injuries by 10% by 2015.

2013 Update. After one year of implementation the Objective 4.3 subcommittee has collected and reviewed enough data to assign a goal value of 10% for a reduction in motor-vehicle-related injuries. This value is consistent with Healthy People 2020 objectives and is feasible due to the low absolute numbers of accidents and injuries in the region.

In addition, the original objective has been revised for clarity. The original language implied that the strategies are aimed only at reducing injuries among youth and the elderly; however, the strategies are intended to reduce injuries across all age groups by preventing accidents among high risk drivers, namely, youth and the elderly. The original Strategy 4.3.3 has been removed as of this report because it was not supported by strong evidence.

Lead Agency: UMass Memorial Medical Center, Worcester Division of Public Health

Current Partners: Worcester Police Department, Central MA Regional Planning Commission, WalkBike Worcester, Massachusetts Registry of Motor Vehicles, Fallon Health

4.3.1 Encourage adolescents and elderly to take appropriate driver's education and reeducation courses. Enhance existing work of the SAFE DRIVE program.

Rationale. Although Healthy People 2020 goals and objectives do not specifically include increasing access to driver's education, they do seek to reduce motor-vehicle-related injuries and fatalities. The Guide to Community Preventive Services has not yet conducted a review of interventions seeking to improve the quality and ease of access to driver's education for reducing injuries and fatalities. However, local data has shown that in the central Massachusetts region, access to affordable driver's education has declined and many youth are delaying obtaining a driver's license until the age of 18, when they are no longer required to have completed driver training. This has resulted in an increased number of licensed drivers with limited experience on the roads.

Measurable improvements in anticipating hazards and visual inspections have been demonstrated in elderly drivers that have participated in education courses, especially those involving an "active practice" component such as simulations.

The impact of teen driver's education on crash rates is unclear, due to how varied and largely unevaluated the programs are across communities. Encouraging an increase in driver's education participation should be associated with enhancements in the programs and ongoing evaluation.

Current status. Progress has yet to be established for this strategy largely due to a lack of clarity in the language of the original objective.

2014 Plans. Without the limitation of incentivizing through insurance, the group will be able to assess best practices for encouraging drivers' education and proceed from there. The SAFE DRIVE program will also provide a report of the work that has been done in past years so the group can evaluate the most effective means of enhancing the work.

Outcome Measures. Proportion of drivers that have completed a driver's education course prior to licensure; Number of individuals participating in the SAFE DRIVE program

The Objective 4.3 subcommittee has edited this strategy as of this report. The emphasis on providing insurance incentives for drivers participating in education and reeducation courses has been removed. This decision was made for two reasons: 1) limited evidence: available research is extremely limited on the effectiveness of insurance incentives in encouraging individuals to participate in education programs 2) feasibility: the subcommittee determined that changing policies of large insurance agencies is beyond the capacity of the group.

4.3.2 Expand access to, and improve the quality of, a comprehensive driver's education program that includes parental education and involvement.

Rationale. Healthy People 2020 does not refer specifically to driver's education; however, there are objectives aiming to decrease fatalities and injuries, particularity for teens drivers. There is also an objective promoting the implementation of graduated driving laws for teen drivers. Massachusetts has already implemented these laws at the state level, so the CHIP planning committee did not consider this a viable strategy. However, there is a recent decline in the number of teens obtaining drivers licenses nationwide. In Massachusetts, this is resulting in individuals waiting until age 18 to obtain a license, by which time the graduated driving laws and drivers education requirements no longer apply. One study reported that financial barriers are the second most commonly reported reason that teens do not obtain a license. For these reason, the CHIP planning committee chose to include a strategy focused on the expansion of access to driver's education.

A literature review revealed that parental practices during the first year of driving can impact crash rates of new drivers. Increased involvement in the driver's education process hopefully leads to increased parental involvement with early drivers and reduced risk of crashing.

Current status. Discussion with the Worcester Public Schools about piloting a school-based driver's education program have begun, though funding and staff-capacity is a significant barrier to implementation.

2014 Plans. Because of the mixed literature it will be imperative for the group to establish proper evaluation of current programs prior to expansion. The group plans to have a set of tools ready for evaluation of a pilot program for the 2014-2015 school-year.

Outcome Measures. Number of driver's education programs requiring parental involvement; Number of new drivers completing driver's education

4.3.3 Expand the child-passenger safety checkpoint system.

Rationale. Healthy People 2020 objectives aim to increase the percentage of children age 0-12 years who are properly restrained by age-appropriate systems by 10%. The Guide to Community Preventive Services recommends increasing seat belt use and child safety seat use as effective methods for reducing motor-vehicle related injuries.

The child-passenger safety checkpoint system teaches new parents how to properly install and use child safety seats. Checkpoints are offered by police departments, hospitals, and community centers that have staff certified in safety seat installation. Research demonstrates improved usage practices for child restraint systems among individuals that have participated in safety checkpoints.

Current status. Currently, child safety checkpoints are offered by several police and fire departments throughout the region, as well as by UMass Memorial Medical Center's Injury Prevention Center. The subcommittee has not yet made progress on expanding the current offerings.

2014 Plans. The Objective 4.3 subcommittee will complete an inventory of current offerings in the CMRPHA communities, and will explore options for expansion. This may include seeking additional funding for current programs, and/or recruiting and training volunteers to provide safety checkpoints.

Outcome Measures. Number of individuals participating in child-passenger safety checkpoints

4.3.4 Utilize traffic geo-mapping to identify pedestrian and cyclist injury hotspots and make appropriate changes in traffic patterns, crosswalk design, and signage.

Rationale. The National Prevention Strategy recommends streetscape designs to prevent motor-vehicle-related injury. Healthy People 2020 aims to reduce injuries and fatalities related to motor-vehicle accidents, but does recommend specific environmental changes, such as street design, to support these goals. The Community Preventive Services Taskforce has not yet completed a review of environmental changes to reduce motor-vehicle-related accidents and injuries.

Identification of environmental factors leading to motor-vehicle-related accidents is essential to the design of effective countermeasures. Analysis of crash data using GIS technology allows for identification of concentrated crash points and potential contributing factors such as lack of signage or traffic lights. Literature supports careful analysis of crash data for planning purposes.

Current status. Year one of implementation saw significant progress relating to Strategy 4.3.5. Subcommittee partners representing the Worcester Police Department were able to provide a weekly compilation of accidents reported in the city. These accidents were plotted on a map and allowed the data to be surveyed for accident "hotspots." The Central Massachusetts Regional Planning Commission provided additional data. The group also recommended creation of an inter-departmental review team to share data and address pedestrian injury in the city. While representatives from WDPH, Worcester Police Department, and Central MA Regional Planning Commission have been identified, a representative from Department of Public Works has yet to come forward to participate.

2014 Plans. 2014 work will focus on compiling available data into a report with appropriate analysis, and establishing a scope for the inter-departmental pedestrian injury review team. The report will make specific recommendations for changes such as signage, traffic light installation, etc. Work will also expand into the alliance communities in 2014.

Outcome Measures. Completed report with recommendations for priority improvements of street design, crosswalks, lights, etc.; Established inter-departmental pedestrian injury review team

4.3.5 Increase the consideration of pedestrian and bicycle accommodation in routine decision making through the adaptation of a Complete Streets policy throughout the region. (see 1.2.1)

Rationale. Healthy People 2020 and the National Prevention Strategy both prioritize decreasing pedestrian and cyclist injuries and fatalities. This strategy is included closely related to Strategy 1.2.1 and will impact both physical activity and injuries, making it a particularly advantageous strategy.

Many of the street-scale urban design and land-use policies and practices recommended in the Guide to Community Preventive Services as strategies to increase physical activity have traffic safety benefits; strategies include infrastructure projects to increase safety of street crossing, use of traffic calming approaches (e.g., speed humps, traffic circles), and enhancing street landscaping.

Current Status. During 2013, the subcommittee made large strides in promoting Complete Streets, with WalkBike Worcester holding a training for key stakeholders co-sponsored by the Worcester City Council Public Works and Transportation Subcommittee and Traffic and Parking Subcommittee. WDPH also hosted a Complete Streets training for the Office of Human Rights and Disabilities. WalkBike Worcester participated in several road safety audits as well preliminary design hearings for road projects in the city. Worcester City Council formally supported the MA Active Streets bill co-sponsored by Sen. Chandler (An Act Relative to Active Streets and Healthy Communities).

2014 Plans. In 2014, the group plans to build stakeholder support through education and outreach, conduct targeted assessment of health impact of Complete Streets in three neighborhoods of the city, create materials for use by city officials and partner organizations to educate about Complete Streets, provide opportunities for education regarding healthy community design to city boards, commissions, and departments, as well as key stakeholders in CMRPHA communities. The group will also work with Worcester Department of Public Works to craft an approach to bicyclist and pedestrian accommodations, and build WDPH capacity for input on community design.

Outcome Measures. Number of municipalities implementing a complete streets policy; Number of people walking or biking to work per 1000; Number of children walking or biking to school per 1000; Miles of bike lanes

4.3.6 Enhance education about safe pedestrian and cyclist practices through efforts of Mobile Safety Street and other evidence-based models.

Rationale. Healthy People 2020 aims to reduce both pedestrian and cyclist injuries and fatalities by 10%. The Guide to Community Preventive Services has not yet completed a review of the effectiveness of public education campaigns and programs to reduce injuries.

This strategy was chosen to support the other strategies contained in this objective. It is appropriate to include a strategy relating to public education and outreach to promote these newly available resources.

Current status. Mobile Safety Street provides safety education on a wide variety of topics. During 2013, Mobile Safety Street visited nearly all 5th grade classrooms, all Head Start programs, and six community events with an approximate reach of 1600 youth participants.

2014 Plans. In 2014, Mobile Safety Street will continue to provide educational programs through the Worcester schools, but will also work to expand their reach by forming new relationships with public schools in the other CMRPHA towns, area private schools, after-school programs, etc. In order to do so, the program will need to expand its funding streams. Additionally, Mobile Safety Street materials will be translated to increase access to broader populations. Public messaging regarding safe pedestrian and cycling practices will also be introduced by WDPH in 2014.

Outcome Measures. Number of individuals reached by public education campaigns and outreach efforts; Number of individuals completing Mobile Safety Street curriculum

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Domain Area Five: Health Equity & Health Disparities

While the diversity in the region was described as an asset in the greater Worcester area by nearly all respondents, many also cited dynamics of racism and classism in the region that may influence the health of residents of color and low-income. Reducing racial, ethnic, and socioeconomic health disparities emerged as a particular concern among many interview participants. Quantitative data confirm that there are excess rates of chronic diseases among African Americans, Hispanics, and low-income residents in the greater Worcester area. Participants also explained that populations of color generally had limited access to healthy, affordable food and safe, affordable spaces to engage in physical activity, behaviors they described as linked to these health disparities.

Several participants cited unequal treatment of African American, Hispanic, and immigrant patients at health care facilities and linguistic and cultural dissonance as factors that contributed to poorer quality care for patients of color. While the percentage of non-White respondents to the survey was low, the Community Health Assessment survey respondents' perceptions of their personal experiences with discrimination when trying to access medical care varied by race and ethnicity. While 28.7% of survey respondents indicated that they had a negative experience with medical staff when trying to receive care, over 38% of Hispanics reported this issue, followed by 31% among Black and Asian respondents. When asked whether respondents felt discriminated against when getting medical care because of their race, ethnicity, or language, nearly 32% of Black survey respondents and 26% of Hispanic respondents replied "true." Income was also considered a source of discrimination when seeking medical care, particularly among non-White respondents.

GOAL 5. **Improve population health by systematically eliminating institutional racism and the pathology of oppression and discrimination by promoting equitable access to, and use of, health promoting resources in the community, and significantly reducing the structural and environmental factors that contribute to health disparities.**

2013 Update. There are no significant revisions to any of the objectives or strategies contained in Domain 5. However, the format of Domain 5 differs slightly from the other domains in that the strategies contained in each objective do not represent stand-alone projects. The strategies are laid out in sequential way, meaning that Strategy 5.1.1 represents the first step toward achieving Objective 5.1.

Rationale. An extensive literature review has revealed a number of studies and articles evidencing the existence of social determinants of health and health disparity. Many articles acknowledge determinants of health include structure of the community (i.e. access to markets, parks/recreation, and employment), access to health care, as well as language/cultural barriers. Also, many journals report that more research is needed to identify "best practice" strategies to reduce health disparity. The literature review revealed successful strategies for improving health equity that are used in developed countries with socialized healthcare systems (i.e. United Kingdom and Australia). These strategies, however, are not generalizable to communities in the United States. Worcester Division of Public Health (WDPH) found a lack of published studies that demonstrate success in reducing health disparities in US communities like those of central Massachusetts. Thus, because reducing health disparities is a new frontier for public health in the US, WDPH selected tools for guidance from the United States Department of Health and Human Services and the US Surgeon General to develop strategies to improve health equity at the local level.

5.1 Objective	Strategies	
5.1 By 2015, modify/implement two key, city-level public health policies that have the greatest impact on the systems that contribute to health disparities (e.g. zoning changes, housing policies, general education policies, etc.).	5.1.1	Research and identify two public health policies that broadly impact health disparities.
	5.1.2	Develop coalitions' capacity to mobilize communities and implement policy changes.
	5.1.3	Develop process to evaluate outcomes of policy implementation and plan for sustainability.

5.2 Objective	Strategies
5.2 By 2015, increase the capacity of over 100 grassroots adult/youth leaders (people who have lived experience in communities with disparities) to effectively influence the development of policies that address health disparities.	5.2.1 Asses current funding allocations for grassroots leadership development among local community organizations to establish baseline.
	5.2.2 Recruit and organize cohort of 100 grassroots leaders, including 25 youth, from key populations and sectors.
	5.2.3 Enhance and develop training program(s) for grassroots leaders to develop leadership knowledge and skills in community and systems change for public health.
	5.2.4 Connect trained grassroots leaders to key community leadership roles (e.g. in existing coalitions).
	5.2.5 Identify and secure resources to support and sustain ongoing community leadership development.
	5.2.6 Develop support structure ("Learning Community") for ongoing support, strategy, development, and learning among grassroots leaders engaged in this process.

5.3 Objective	Strategies
5.3 By 2015, develop the capacity and will of 20 cross-sector institutions to address and eliminate institutional oppression in their own organizations.	5.3.1 Recruit and organize a cohort of 20 health-related organizational leaders who are best poised to make a substantial impact on addressing institutional oppression in their own organizations.
	5.3.2 Identify and implement effective, evidence-based training for the cohort of 20 leaders to build the willingness and readiness to change organizational systems, structures, policies and approaches.
	5.3.3 Identify and facilitate a change process for a subgroup of 5-10 organizational leaders who can commit to addressing institutional oppression within their organizations and affecting organizational policy.
	5.3.4 Develop a support structure/network to create a learning community among the 20 organizational leaders for ongoing support and strategy development.

5.4 Objective	Strategies
5.4 Ensure that each public health priority area in the CHIP identifies strategies to address oppression and the social determinants of health.	5.4.1 Convene a forum for all priority area work groups to learn about/discuss institutional racism in the early planning stages for the CHIP, including training on race relations.
	5.4.2 Ensure that each priority area work group identifies one to two strategies, including resource strategies for implementation, to address institutional oppression/ racism in their priority area.
	5.4.3 Develop monitoring and evaluation plan to ensure each priority area's strategies are reported on bi-annually at minimum.
	5.4.4 During CHIP implementation, convene annual forum of partners in each priority area (learning community) to identify and share best practices for addressing institutional oppression as a root cause of health disparities.

GOAL 5. Improve safety, reduce violence and injury, and inform public perceptions by educating and mobilizing the community around effective, targeted prevention, and intervention strategies.

5.1 By 2015, modify/implement two key, city-level public health policies that have the greatest impact the systems that contribute to health disparities (e.g. zoning changes, housing policies, general education policies, etc.).

Rationale. Health equity can be greatly impacted and improved by policy and policy changes. The Guide to Community Preventive Services contains several policies that are recommended for improving health equity such as full day kindergarten. Although some recommended policy changes may not be feasible in the region, the CHIP planning committee decided it was appropriate to incorporate a policy change approach into the domain. A literature review revealed that it is widely recommended that that potential policy changes for improving health equity be comprehensive, coordinated policies spanning multiple sectors. Furthermore, the National Prevention Strategy recommends that the potential interventions be "grounded in the unique historical and cultural contexts of communities." The CHIP planning committee considered these factors when selecting this objective and the strategies contained within it.

Lead Agencies: Worcester Health Equity Partnership, Worcester Division of Public Health

Current Partners: Mass in Motion, Massachusetts Department of Public Health Office of Community Design, Clark University, Fallon Health

5.1.1 Research and identify two public health policies that broadly impact health disparities.

Outcome Measures. Completed report identifying policies and priority selection process

5.1.2 Develop coalitions' capacity to mobilize communities and implement policy changes.

Outcome Measures. Number of trainings held; Number of participants

5.1.3 Develop process to evaluate outcomes of policy implementation and plan for sustainability.

Outcome Measures. Completed implementation and evaluation plan

Current Status. A preliminary literature review was started by a WDPH intern, and Mass in Motion Worcester (MIM) has reached out to other MIM communities who have done thorough evaluations of local policy and its impact on health equity. Additionally, WDPH completed its first Health Impact Assessment to evaluate the health impacts of an inter-departmental neighborhood revitalization effort in an underserved neighborhood in Worcester. Health Impact Assessment is considered a best practice in improving health equity.

2014 Plans. In 2014, WDPH will allocate specific resources to do an assessment of local school, housing, and zoning policies to determine areas for improvement. Results of that assessment will be provided to the Worcester Health Equity Partnership, with an opportunity for Partnership members to provide recommendations for policy change as well.

5.2 By 2015, increase the capacity of over 100 grassroots adult and youth leaders (people who have lived experience in communities with disparities) to effectively influence the development of policies that address health disparities.

Rationale. The CHIP planning committee recognized that reducing health disparities is a complex process that will require strong leaders to affect change. This is the rational for including an objective devoted to improving the capacity of local leaders to influence health equity. Available research is sparse, however, national agencies such as the Department of Health and Human Services' Office of Minority Health and the National Prevention Council recommend increasing access to education and training surrounding health equity for local leaders, to improve program planning and engagement of stakeholders.

Lead Agencies: Worcester Health Equity Partnership, Worcester Division of Public Health

Current Partners: Black Legacy, Boys & Girls Club of Worcester, YouthConnect, Edward M. Kennedy Community Health Center, UMass Memorial Health Care, UMass Medical School, Regional Environmental Council, Worcester Division of Public Health, Mosaic Cultural Complex, Institute for Global Leadership, Common Pathways CNHA-8, Health Foundation of Central MA, United Way of Central MA, Mass College of Pharmacy and Health Sciences, MA Department of Public Health, Worcester Office of Human Rights and Disability, Fallon Health

5.2.1 Assess current funding allocations for grassroots leadership development among local community organizations to establish baseline.

Outcome Measures. Completed report outlining current funding allocations and additional funding opportunities

5.2.2 Recruit and organize cohort of 100 grassroots leaders, including 25 youth, from key populations and sectors.

Outcome Measures. Number of leaders identified and recruited

5.2.3 Enhance and develop training program(s) for grassroots leaders to develop leadership knowledge and skills in community and systems change for public health.

Outcome Measures. Completed training curriculum

5.2.4 Connect trained grassroots leaders to key community leadership roles (e.g. in existing coalitions).

Outcome Measures. Number of trained leaders holding leadership positions

5.2.5 Identify and secure resources to support and sustain ongoing community leadership development.

Outcome Measures. Secured resources

5.2.6 Develop support structure ("Learning Community") for ongoing support, strategy, development, and learning among grassroots leaders engaged in this process.

Outcome Measures. Completed Learning Community charter and structure; Number of leaders participating

Current status. The Partnership once again held an Undoing Racism training with the People's Institute for Survival and Beyond in March 2013, at the Massachusetts College of Pharmacy and Health Sciences. Thirty-two community leaders, including seven top-level individuals, went through the intensive two day training that taught the trainees about institutional racism and established a common language for all to use. The training also included several follow-up discussions with the White Caucus and the People of Color Caucus.

2014 Plans. Development of a grassroots/youth leader specific training will begin following the completion of Undoing Racism 2014. The training subcommittee of the Partnership has set a goal to host a new training, specific to grassroots leaders in fall 2014. A priority of the group is to set a definition for "grassroots leader" in order to properly target the training.

5.3 By 2015, develop the capacity and will of 20 cross-sector institutions to address and eliminate institutional oppression in their own organizations.

Rationale. The Community Health Assessment revealed disparities in quality of interactions with health care providers. Blacks, Latinos, and Asians more frequently reported negative interactions with providers. This is consistent with research compiled by the Department of Health and Human Services' Office of Minority Health found that Hispanics and African Americans report "low" quality of communication with their physicians. As part of the strategies to reduce health disparities, the National Prevention Council recommends fostering cultural competence in the workplace by considering the language, age, culture, and preferred communication styles of patients. Research also suggests that specific provider behaviors, such as, encouraging participatory decision making, can promote patient satisfaction with the healthcare system.

Lead Agency: Worcester Health Equity Partnership

Current Partners: Black Legacy, Boys & Girls Club of Worcester, YouthConnect, Edward M. Kennedy Community Health Center, UMass Memorial Health Care, UMass Medical School, Regional Environmental Council, Worcester Division of Public Health, Mosaic Cultural Complex, Institute for Global Leadership, Common Pathways CNHA-8, Health Foundation of Central MA, United Way of Central MA, Mass College of Pharmacy and Health Sciences, MA Department of Public Health, Worcester Office of Human Rights and Disability, Fallon Health

5.3.1 Recruit and organize a cohort of 20 health-related organizational leaders who are best poised to make a substantial impact on addressing institutional oppression in their own organizations.

Outcome Measures. Number of organizational leaders identified and recruited

5.3.2 Identify and implement effective, evidence-based training for the cohort of 20 leaders to build the willingness and readiness to change organizational systems, structures, policies and approaches.

Outcome Measures. Completed training curriculum

5.3.3 Identify and facilitate a change process for a subgroup of 5-10 organizational leaders who can commit to addressing institutional oppression within their organizations and affecting organizational policy.

Outcome Measures. Number of leaders recruited; Number of leaders participating in a change process; Number of organizations implementing policy changes

5.3.4 Develop a support structure/network to create a learning community among the 20 organizational leaders for ongoing support and strategy development.

Outcome Measures. Completed Learning Community charter and structure; Number of leaders participating

Current status. The Partnership held an Undoing Racism training with the People's Institute for Survival and Beyond in March 2013, at the Massachusetts College of Pharmacy and Health Sciences. Thirty-two community leaders, including seven top-level individuals, went through the intensive two day training that taught the trainees about institutional racism and established a common language for all to use. The training also included several follow-up discussions with the White Caucus and the People of Color Caucus.

2014 Plans. The Partnership training subcommittee will work to host another Undoing Racism training provided by the Peoples Institute for Survival and Beyond. The attendees this year will be institutional leaders who are poised to make a change within their organizations and in the community at large. The training will be held in early April.

5.4 Ensure that each public health priority area in the CHIP identifies strategies to address oppression and the social determinants of health.

Rationale. Because the priority health areas contained in the CHIP affect different populations disproportionately, it is crucial that health equity is considered in terms of each individual priority area to identify the most vulnerable populations and the barriers associated with poor health outcomes. Research supports this approach, with the National Prevention Council recommending community-based solutions to reducing disparities for populations at the greatest risk. The Domain 5 work group's role is to facilitate conversations with the partners of the other domains to ensure that the health equity conversations and approaches are shared.

Lead Agency: Worcester Health Equity Partnership

Current Partners: Worcester Division of Public Health, Commonwealth Medicine, Fallon Health

5.4.1 Convene a forum for all priority area work groups to learn about/discuss institutional racism in the early planning stages for the CHIP, including training on race relations.

Outcome Measures. Number of CHIP partners participating in forum and trainings

5.4.2 Ensure that each priority area work group identifies one to two strategies, including resource strategies for implementation, to address institutional oppression/racism in their priority area.

Outcome Measures. Completed report outlining health equity considerations for each Domain

5.4.3 Develop monitoring and evaluation plan to ensure each priority area's strategies are reported on biannually at minimum.

Outcome Measures. Completed report outlining evaluation plan for health equity efforts by each Domain workgroup

5.4.4 During CHIP implementation, convene annual forum of partners in each priority area (learning community) to identify and share best practices for addressing institutional oppression as a root cause of health disparities.

Outcome Measures: Number of CHIP partners participating in forum and trainings

Current status. A formal process to monitor and evaluate the domain work groups' consideration of health equity has not been established as of this time, but an action plan for 2014 has been written. Work group conveners are required to provide quarterly updates on challenges and progress in addressing health equity.

2014 Plans. Each domain work group will develop a training plan to receive training on health equity, cultural competency, and oppression in order to develop a common language for an annual forum that will coincide with the partners' conference in December 2014. Prior to the conference, each domain working group will be charged with identifying one to two strategies that will include specific efforts to reduce health disparities. The evaluation subcommittee of the Worcester Partnership will establish a plan for each workgroup to monitor and report on progress of those strategies.

Key Sources

5.1 National Partnership for Action to End Health Disparities. National Stakeholder Strategy for Achieving Health Equity. Rockville, MD: U.S. Department of Health & Human Services, Office of Minority Health; 2011 April. 228 p.

National Prevention, Health Promotion and Public Health Council. National Prevention Strategy: America's Plan for Better Health and Wellness. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General; 2011. 122 p.

5.2 National Partnership for Action to End Health Disparities. National Stakeholder Strategy for Achieving Health Equity. Rockville, MD: U.S. Department of Health & Human Services, Office of Minority Health; 2011 April. 228 p. http://minorityhealth.hhs.gov/npa/files/Plans/NSS/NSS_07_Section3.pdf http://minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=33&ID=286

National Prevention, Health Promotion and Public Health Council. National Prevention Strategy: America's Plan for Better Health and Wellness. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General; 2011. 122 p. http://www.surgeongeneral.gov/initiatives/prevention/strategy/report.pdf

5.3 National Prevention, Health Promotion and Public Health Council. National Prevention Strategy: America's Plan for Better Health and Wellness. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General; 2011. 122 p. http://www.surgeongeneral.gov/initiatives/prevention/strategy/report.pdf

National Partnership for Action to End Health Disparities. National Stakeholder Strategy for Achieving Health Equity. Rockville, MD: U.S. Department of Health & Human Services, Office of Minority Health; 2011 April. 228 p. http://minorityhealth.hhs.gov/npa/files/Plans/NSS/NSS_07_Section3.pdf

VI. Next Steps

The components included in this report represent the strategic framework for a data-driven, community-enhanced Community Health Improvement Plan.

This report builds on the foundation of the 2012 Greater Worcester CHIP by establishing measurable and time-framed target values for objectives and providing partners with key resources to refer to in implementing strategies.

During the first year of implementation, CHIP planning partners divided into domain work groups. Five work group conveners were assigned, with Domains 2 and 4 also assigning subcommittee conveners. These groups worked to collect data and implement the strategies of the CHIP. Each domain convener reports on progress quarterly to the Worcester Division of Public Health, which combines the information into a single report that is released to CHIP partners.

Over the next year, the Worcester Division of Public Health/Central Massachusetts Regional Public Health Alliance, UMass Memorial Health Care, Common Pathways, Edward M. Kennedy Community Health Center, and the Family Health Center of Worcester, and other community participants will continue to collaborate to implement the CHIP.

As part of this process, a project management framework has been developed by Commonwealth Medicine to support the domain workgroups and subcommittees in implementing the strategies and achieving the objectives contained in the CHIP. Additional resources will be solidified to ensure successful CHIP implementation and coordination of activities among key stakeholders and partners in the Greater Worcester region.

The success in developing the CHIP is dependent upon the commitment and level of participation among all parties involved. Each domain workgroup will continue to collect data and report progress to the community annually. It is our hope that you will join us in these endeavors to achieve our vision of becoming the healthiest city and region in New England by 2020.

To get involved or for more information contact:
Worcester Division of Public Health
25 Meade Street
Worcester, MA 01610
Phone: (508) 799-8531
Fax: (508) 799-8572
Email: health@worcesterma.gov
or visit: http://www.worcesterma.gov/ocm/public-health

Appendices

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APPENDIX A:

CHIP Steering Committee Members & Staff

CHIP Steering Committee:

Derek Brindisi
Director
Worcester Division
of Public Health

Liz Sheehan Castro
Director
Food and Active Living
Policy Council

Kimberly Ciottone-Reckert
Special Projects Coordinator
UMass Memorial Medical Center

Karyn Clark
Chief of Community Health
Worcester Division
of Public Health

Dr. Michael Hirsh
Commissioner
Worcester Division
of Public Health

Monica Escóbar Lowell
Vice President
Community Relations
UMass Memorial Health Care, Inc.

Cathy O'Connor
Director
Office of Healthy Communities
Massachusetts Department of
Public Health

Seth Peter
Chief of Epidemiology
Worcester Division
of Public Health

Kimberly Salmon
Director of Community
Relations
Fallon Health

Clara Savage
Director
Common Pathways

CHIP Staff:

Cassandra Andersen
Prevention Specialist
Worcester Division
of Public Health

Erin Cathcart
Accreditation Coordinator
Worcester Division
of Public Health

Megan DeNubila
Health Preparedness &
Surveillance Tech
Worcester Division
of Public Health

Zach Dyer
Prevention Specialist
Worcester Division
of Public Health

APPENDIX B:

2012 CHIP Planning Committee Members

Fran Anthes
CEO
Family Health Center
of Worcester

Derek Brindisi
Director
Worcester Division
of Public Health

Dr. Suzanne Cashman
Professor
University of Massachusetts
Medical School, Department
of Family Medicine
& Community Health

Liz Sheehan Castro
Coordinator
Food and Active Living
Policy Council

Linda Cavaioli
Executive Director
Worcester YWCA

Kimberly Ciottone-Reckert
Special Projects Coordinator
UMass Memorial Medical Center

Dr. Timothy Downs
Associate Professor of Environmental Science & Policy
Clark University

Tim Garvin
President and CEO
United Way of
Central Massachusetts

Karin Valentine Goins, MPH
Coordinator
Worcester Mass in Motion

Dr. Michael Hirsh
Commissioner
Worcester Division
of Public Health

Karyn Johnson
Substance Abuse Prevention Coordinator
Worcester Division
of Public Health

Dr. Stephenie Lemon
Associate Professor of Medicine
Division of Preventive
and Behavioral Medicine,
UMass Medical School

Monica Escóbar Lowell
Vice President Community Relations
UMass Memorial Health Care,
Inc.

Toni McGuire
President and CEO
Edward M. Kennedy
Community Health Center

Cathy O'Connor
Director
Office of Healthy Communities,
Massachusetts Department of
Public Health

Heidi Paluk
Vice President of External Affairs
United Way of
Central Massachusetts

Dr. Laurie Ross
Associate Professor of Community Development and Planning
Clark University and Coordinator,
HOPE Coalition, UMass
Memorial Medical Center

Clara Savage
Director
Common Pathways

Paulette Seymour-Route
UMass Graduate School of Nursing

Nicole Valentine
Public Relations Manager
Worcester Division of Public Health

Carlton Watson
Executive Director
Henry Lee Willis Center

Dr. Jan Yost
President and CEO
Health Foundation of
Central Massachusetts

APPENDIX C:

Glossary of CHIP Terms

Priority/Domain Areas:
broad issues that pose problems for the community

Goals:
identify in broad terms how the efforts will change things to solve identified problems

Objectives:
measurable statements of change that specify an expected result and timeline, objectives build toward achieving the goals

Strategies:
action-oriented phrases to describe how the objectives will be approached

Outcome Measures:
values that reflect achievements as a result of implementing strategies

APPENDIX D:

CHA Community Survey

THIS IS A HARD COPY VERSION OF THE SURVEY FEATURED ON-LINE.

Worcester Area Community Health Assessment 2012 Survey

The City of Worcester Division of Public Health (WDPH), UMass Memorial Medical Center, Common Pathways, and numerous community partners have recently launched a health initiative to explore the health needs, concerns, and strengths of the Greater Worcester region. Through the work of this initiative, WDPH and its partners will develop a community-wide, collaborative strategic plan that sets priorities for health improvement and engages partners and organizations to develop, support, and implement the plan. The initiative is intended to serve as a vision for the health of the Greater Worcester region and a framework for organizations and the community to use in making that vision a reality. As part of the assessment, this survey is being administered to people who live and/or work in the Greater Worcester region. The information gathered from this survey will be used to inform future programming and services. We ask that people complete this 5-minute survey by Friday, September 28th. Thank you for your participation.

1. In which of the following town/city do you live?

Holden
Leicester
Millbury
Shrewsbury
West Boylston
Worcester
Other (please specify)

2. In which of the following town/city do you work?

Holden
Leicester
Millbury
Shrewsbury
West Boylston
Worcester
Other ((please specify)

3. How would you describe your role in your community? *(Please select all that apply)*

Resident
Health care provider
Social services provider
Public Service staff
(e.g. police, firefighter, EMT)
Local government official
City employee
Faith community
Other (please specify)

4. In general, how would you describe the health of your community?

Excellent
Very good
Good
Fair
Poor

5. Please select the TOP 5 HEALTH ISSUES that have the largest impact on you and/or your family, and the community as a whole. *(Please select 5 issues under "you/your family" and 5 issues under " your community." You can select the same or different issues.)*

	You and/or Your Family	Your Community
Aging problems (Alzheimer's, arthritis, etc.)	X	X
Asthma	X	X
Cancer	X	X
Dental/oral health	X	X
Depression or other mental health issues	X	X
Diabetes	X	X
Drugs and alcohol abuse	X	X
Heart disease/heart attacks	X	X
Infectious/contagious diseases (TB, pneumonia, flu, etc.)	X	X
Obesity/overweight	X	X
Sexually transmitted infections (STIs) such as HIV/AIDS or Chlamydia	X	X
Smoking	X	X
Teenage pregnancy	X	X
Violence (gang, street, or domestic violence)	X	X
Other (please specify)_____	X	X

6. Which of the following aspects of your community make it easier or harder for you to be healthy?

	Easier to be healthy	Neither easier or harder	Harder to be healthy
Current number or location of grocery stores/bodegas	X	X	X
Current number or location of fast food restaurants	X	X	X
Current number or location of parks and recreation centers	X	X	X
Current number or location of social services	X	X	X
Current number or location of medical services	X	X	X
Current number or location of dental services	X	X	X
Current number or location of mental health services	X	X	X
Community culture around health	X	X	X
Walkability (e.g., sidewalks, bike paths, street lights)	X	X	X
Safe streets/safe neighborhoods	X	X	X
Access to public transportation	X	X	X
Affordability of housing	X	X	X
Unemployment rate in the community	X	X	X
Educational opportunities in the community	X	X	X
Other (please specify)_____	X	X	X

7. Please think about the AVAILABILITY of different health and social services in your community. How satisfied or unsatisfied are you with the availability of the following services? *(Please select one answer per row.)*

	Not satisfied at all	Somewhat satisfied	Very satisfied	Not sure/ don't know
Overall health or medical services in the area	X	X	X	X
Health or medical services for seniors (65+)	X	X	X	X
Health or medical services specifically for youth	X	X	X	X
Alcohol or drug treatment services for adults	X	X	X	X
Alcohol or drug treatment services for youth	X	X	X	X
Counseling or mental health services for adults	X	X	X	X
Counseling or mental health services for youth	X	X	X	X
Public transportation to area health services	X	X	X	X
Birth control/sexual health services for youth	X	X	X	X
Dental services in the area	X	X	X	X
Programs or services to help people quit smoking	X	X	X	X
Health or medical providers who take your insurance	X	X	X	X
Medical specialists in the area	X	X	X	X
Interpreter services during medical visits and when receiving health information	X	X	X	X
Other (please specify)_____	X	X	X	X

8. Please indicate whether each statement about your community or your personal experiences is true or false.

	True	False
The social service/health agencies in my community should focus more on prevention of diseases or health conditions	X	X
It is hard to use public transportation to get to medical/dental services	X	X
When trying to get medical care, I have had a negative experience with the staff in the office	X	X
I or someone in my household has not received the medical care needed because the costs were too high	X	X
When trying to get medical care, I have felt discriminated against because of my race, ethnicity, or language	X	X
When trying to get medical care, I have felt discriminated against because of my income	X	X
If I needed medical services I would know where to go for them	X	X

9. Have any of these issues ever made it more difficult for you to get the health care that you needed? *(Check all that apply.)*

Lack of transportation
Have no regular source of healthcare
Cost of care
Lack of evening and weekend services
Insurance problems/lack of coverage
Language problems/could not communicate with provider or office staff
Discrimination/unfriendliness of provider or office staff
Afraid to have health check-up
Don't know what type of services are available
No available provider near me
Long waits for appointments
Health care information is not kept confidential
I have never experienced any difficulties getting care
Other (please specify) _____

10. When deciding funding and other resources, what PRIORITY do you think should be given to the following issues?

	Low	Medium	High
Increasing the number of staff at area health/medical services who speak another language	X	X	X
Providing more public transportation to area health/ medical services	X	X	X
Offering more programs or services focusing on obesity, physical activity, or nutrition	X	X	X
Increasing the health/medical services available to low income individuals	X	X	X
Expanding the health/medical services focused on youth	X	X	X
Expanding the health/medical services focused on seniors (65+)	X	X	X
Providing more reproductive or sexual health services for area youth	X	X	X
Increasing the number of services to help the elderly stay in their homes	X	X	X
Providing more alcohol or drug prevention programs in the community	X	X	X
Expanding the alcohol/drug treatment services available in the community	X	X	X
Increasing the number of dental providers in the community	X	X	X
Providing more counseling or mental health services for youth	X	X	X
Providing more counseling or mental health services for adults	X	X	X
Other (please specify)_____	X	X	X

DEMOGRAPHIC INFORMATION

11. What is your gender?

Male
Female

12. What category best describes your age?

Under 18 years old
18–24 years old
25–29 years old
30–39 years old
40–49 years old
50–64 years old
65–74 years old
75 years old or over

13. How would you describe your ethnic/racial background? *(Please check all that apply.)*

Caucasian/White
African American/Black
Asian/Pacific Islander
American Indian/Native American
Other

14. What is the highest level of education that you have completed?

Some high school
High school graduate/GED
Associate's degree or technical/vocational degree or certificate
Some college
College graduate
Graduate or professional degree

APPENDIX E:

CHIP Planning Session Agendas

Greater Worcester 2012 Community Health Assessment & Community Health Improvement Plan

4 October 2012
1:00 PM – 5:00 PM

Massachusetts College of Pharmacy
and Health Sciences
25 Foster Street, 9th Floor, Worcester, MA

Outcomes:

- Review the key findings from the Community Health Assessment (CHA)
- Identify and select community health improvement priorities using common selection criteria
- Develop Goal Statements and Objectives for the selected priority areas

AGENDA

Time	Agenda Items	Presenter
1:00	Welcome and Overview	*Derek Brindisi* *Monica Escóbar Lowell*
1:10	Understanding the Health Issues within the Region • Overview of CHA Findings and Priorities • Questions and Answers	*Lisa Wolff*
2:00	Identify and Select Priority Areas • Review and agree upon selection criteria • Select Priority Areas	*Steve Ridini* *Rose Swensen*
2:45	Develop Goal Statements for Priority Areas • Work in small groups *(20 min)* • Group facilitators rotate to other tables to gather feedback *(20 min)* • Tables finalize goal statements *(20 min)*	*Donna Burke* *Steve Ridini* *Allyson Scherb* *Rose Swensen* *Lisa Wolff*
3:45	Break	
4:00	Develop Objectives for Each Goal • Instructions and examples • Work in small groups *(30 min)* • Groups rotate with facilitators to other tables to provide feedback *(15 min)* • Tables finalize objective statements *(15 min)*	*Donna Burke* *Steve Ridini* *Allyson Scherb* *Rose Swensen* *Lisa Wolff*
5:00	Next Steps and Adjourn	*Derek Brindisi* *Monica Escóbar Lowell*

Greater Worcester 2012 Community Health Assessment & Community Health Improvement Plan

19 October 2012
8:30 AM – 12:30 PM

Massachusetts College of Pharmacy
and Health Sciences
25 Foster Street, 9th Floor, Worcester, MA

Outcomes:

- Review final Goal Statements
- Develop Objectives and Strategies for each priority
- Identify draft Outcomes Indicators for each priority

AGENDA

Time	Agenda Items	Presenter
8:30	Welcome and Overview • Recap from first planning session • Questions and Answers	*Derek Brindisi* *Monica Escóbar Lowell*
8:40	Revisit Goal Statements for Priority Areas	*All*
9:00	Develop Objectives for Each Goal • Instructions and examples • Work in small groups *(45 min)* • Groups rotate with facilitators to other tables to provide feedback *(20 min)* • Tables finalize objectives *(15 min)*	*Donna Burke* *Steve Ridini* *Allyson Scherb* *Rose Swensen* *Lisa Wolff*
10:20	Break	*All*
10:30	Develop Strategies for Priority Areas • Instructions and examples • Work in small groups *(60 min)* • Groups rotate with facilitators to other tables to provide feedback *(30 min)* • Tables revise strategies *(25 min)*	*Donna Burke* *Steve Ridini* *Allyson Scherb* *Rose Swensen* *Lisa Wolff*
12:25	Next Steps and Adjourn	*Derek Brindisi* *Monica Escóbar Lowell*

APPENDIX F

CHIP Advisory Committee Feedback Survey

The following pages contain a sample of the survey questions asked in order to gather feedback on strategies, suggestions for Outcome Indicators and potential partners and resources.

Greater Worcester 2012 Draft Community Health Improvement Plan

Instructions for Completing This Survey

Dear Greater Worcester Community Member,

Thank you for your involvement in the planning sessions for the Greater Worcester Community Health Improvement Plan (CHIP). Your insights and experiences have been invaluable to this process.

We would like to offer the opportunity for you to:

- Review the draft strategies developed by all the working groups during the planning sessions.
- Offer feedback to help refine the strategies.
- Offer suggestions for outcomes indicators and partners/resources.

Please note that we have produced final versions of the goals and objectives and are not asking for your feedback on these planning components. We ask that you focus your feedback on the strategies, outcomes indicators, and potential resources/partners as you go through each of the priority areas.

DEADLINE EXTENDED: Please submit your completed survey by 5:00 PM on Wednesday, November 14th, 2012.

Thank you again for your time and thoughtfulness throughout this process!

INSTRUCTIONS

Review the following instructions and click on NEXT to start the survey.

- Please respond to each question. Scroll down each page of the survey to respond to all questions on that page.
- Click the NEXT button to save your responses for the current page. You will be able to use the PREV/NEXT buttons to navigate backwards or forwards through pages to view or edit your responses. Do not use the back/forward buttons on your browser to attempt to navigate through the survey (your responses will not be saved).
- When you have completed your survey response, click DONE at the bottom of the final page to submit your response.

Greater Worcester 2012 Draft Community Health Improvement Plan

Priority Area 1: Healthy Eating and Active Living

Goal 1: Create an environment and community that support people's ability to make healthy eating and active living choices that promote health and well-being.

Objective 1.1: Increase availability of and access to affordable fresh and local fruits and vegetables for low income residents and in Y neighborhoods by X% by (date).

Please indicate how important you believe each strategy is to achieving the above objective.
Use the following scale:
1 = NOT IMPORTANT at all, 3 = somewhat important, 5 = VERY IMPORTANT

	1	2	3	4	5	not sure
Strategy 1.1.1: Strengthen, grow and coordinate existing strategies prioritized by Regional Environmental Council of Central Massachusetts (REC) and Food and Active Living Policy Council (FALPC) (e.g., community and school gardens, veggie mobile and farmers markets, youth urban agriculture, supporting local farmers, Cooking Matters).	◯	◯	◯	◯	◯	◯
Strategy 1.1.2: Implement the Mobile Farmers' Market in seven low income/food desert communities in Worcester). [drawn from Worcester's Community Transformation Grant application. (Worcester Department of Public Health)]	◯	◯	◯	◯	◯	◯
Strategy 1.1.3: Strengthen the Mass in Motion (MiM) Corner Store initiative/extend to supermarkets (same as 1.4.1).	◯	◯	◯	◯	◯	◯
Strategy 1.1.4: Advance Food and Active Living Policy Council (FALPC) policy priorities (e.g., changing zoning regulations to promote community gardens and urban agriculture).	◯	◯	◯	◯	◯	◯

Feedback on Strategies:
Please list any alternate/additional **strategies** that you would suggest in order achieve this objective.

Outcome Indicators:
Please list any suggested **outcome indicators** that we could use to measure the changes that occur at the community level as a result of completion of the strategies listed/suggested.

Greater Worcester 2012 Draft Community Health Improvement Plan

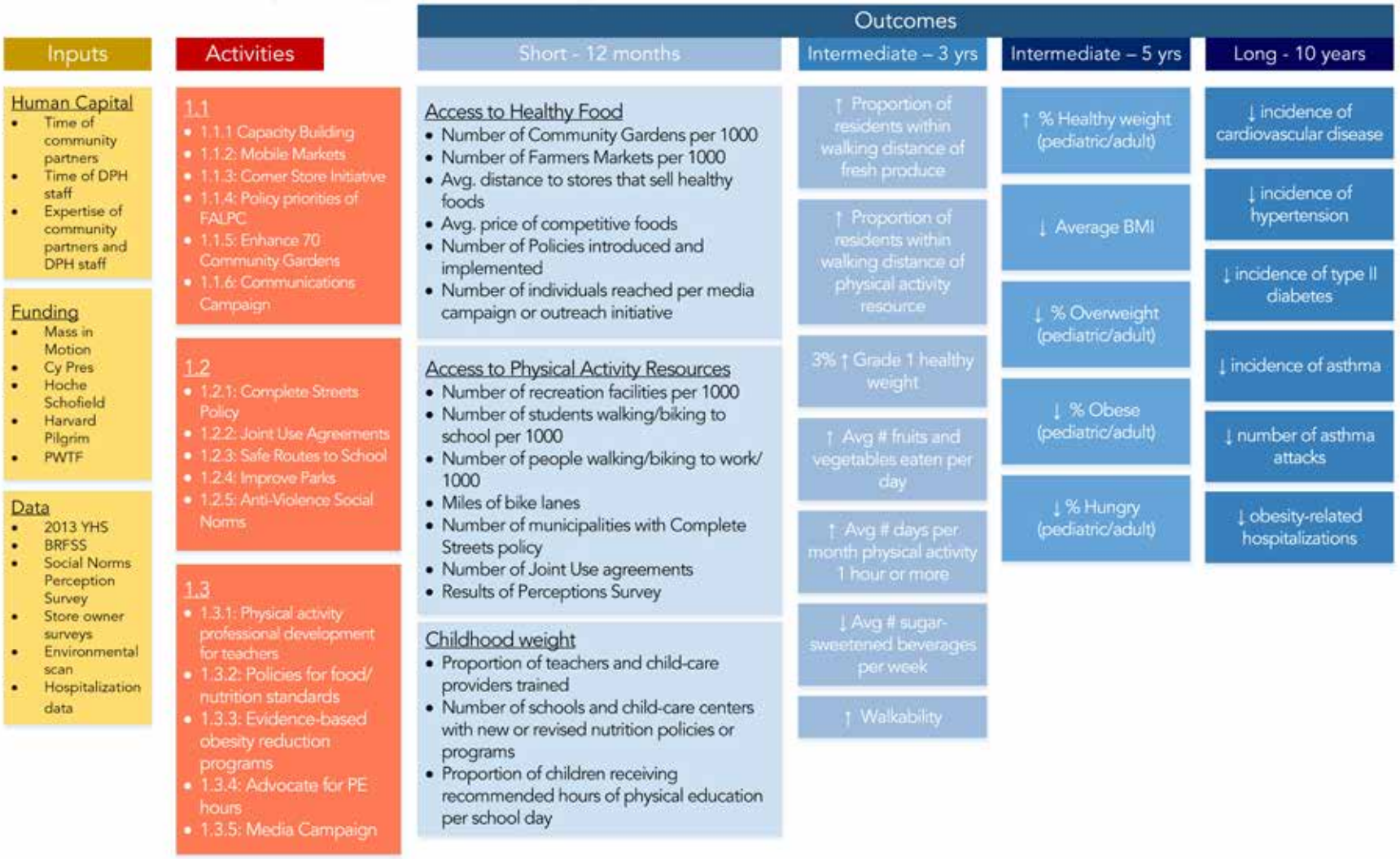
Priority Area 1: Healthy Eating and Active Living

Goal 1: Create an environment and community that support people's ability to make healthy eating and active living choices that promote health and well-being.

Partners & Resources:

Please list any individuals or organizations that are already involved in related activities, or that you would suggest be involved in achieving the Healthy Eating and Active Living goal.

Domain 1: Healthy Eating, Active Living



Assumptions: Political will, interventions work in real settings, continued funding, continued capacity in partner organizations, programs sustainable after funding

External Factors: Funding, politics, healthcare reform, staff turnover, regionalization, state and national legislature

Domain 2: Behavioral Health – Substance Abuse

Inputs

Human Capital
- Time of community partners
- Time of DPH staff
- Expertise of community partners and DPH staff

Funding
- MDPH
- SAMHSA
- Hoche-Schofield
- Cy Pres
- Umass CB
- HFCM
- PWTF

Data
- BRFSS
- BSAS
- Youth Health Survey
- Hospitalization data

Activities

2.1 & 2.2
- 2.1.1: Youth Health Survey
- 2.1.2: Social Norms
- 2.1.3: Tobacco Cessation
- 2.1.4: Smoke-free environments
- 2.1.5: Enforcement
- 2.1.6: Media literacy

2.2
- 2.2.1: Youth Health Survey
- 2.2.2: Social Norms
- 2.2.3: Enforcement
- 2.2.4: Media literacy

2.3
- 2.3.1: Safe disposal program
- 2.3.2: Proper disposal education
- 2.3.3: Safe prescribing education
- 2.3.4: Social norms

2.4
- 2.4.1: Safe prescribing education
- 2.4.2: Social norms

Outcomes

Short - 12 months

Tobacco
- # of students participating in Youth Health Survey
- Data report of YHS
- # of students participating in campaign
- Results of perception survey
- # of schools and health centers providing cessation resources
- # of students and residents accessing resources
- # of housing units and college campuses adopting smoke-free policies
- # of retailers participating in training
- Proportion of retailers passing compliance checks
- # of students participating in media literacy campaign

Alcohol
- # of students participating in Youth Health Survey
- Data report of YHS
- # of students participating in campaign
- Results of perception survey
- # of students and residents accessing resources
- # of retailers participating in training
- Proportion of retailers passing compliance checks
- # of students participating in media literacy campaign

Prescription drugs
- # of permanent drug disposal kiosks in region
- Pounds of Rx drugs collected annually
- # of individuals reached by public education and outreach
- # of healthcare providers trained
- Perceptions survey results

Opioid
- Number of healthcare providers trained
- Perception survey results

Long - 8 years

↓ proportion of high school students using tobacco to below state rates

↓ proportion of high school students misusing and abusing alcohol to below state rates

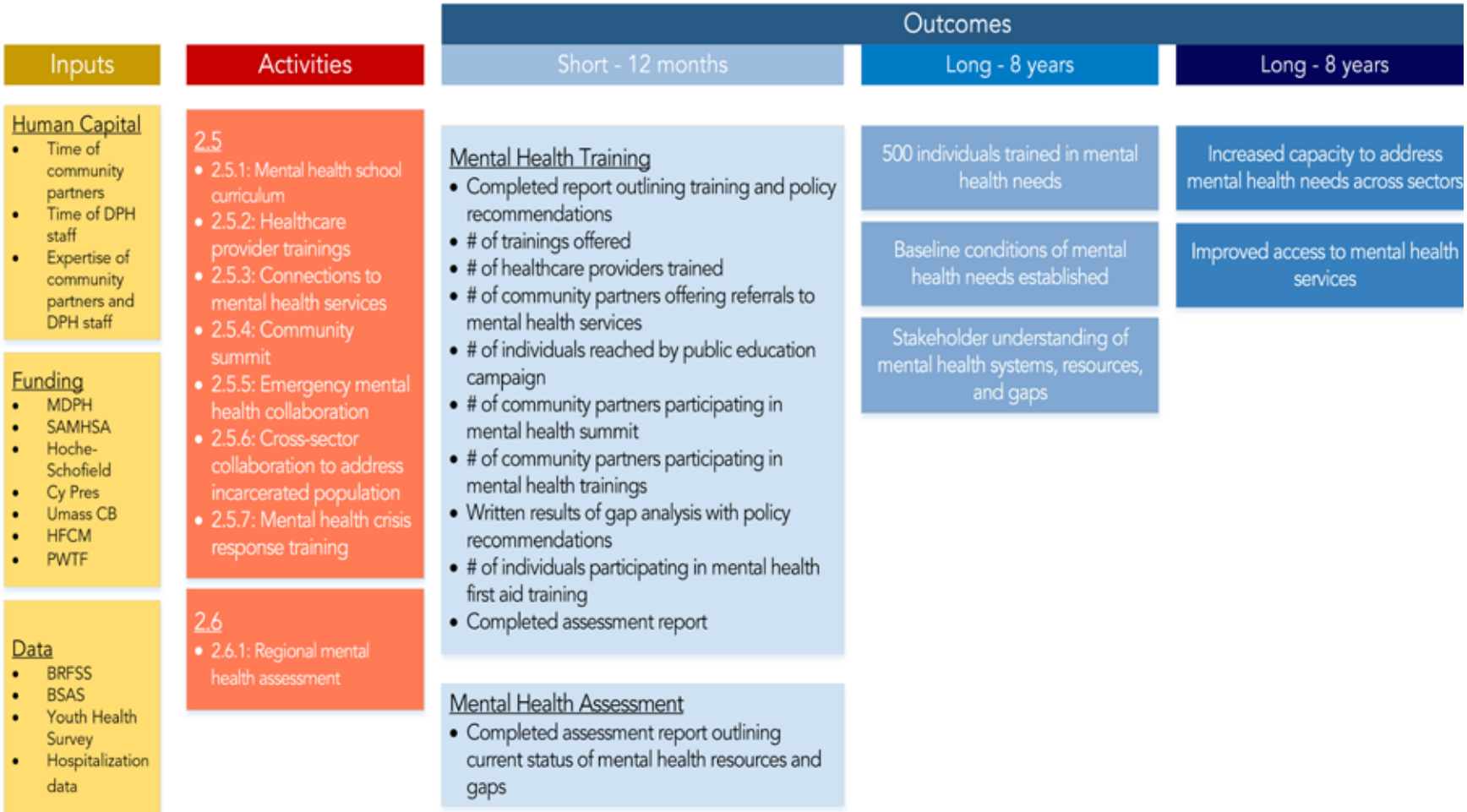
↓ proportion of high school students misusing and abusing prescription drugs to below state rates

Maintain rates of opiate overdoses

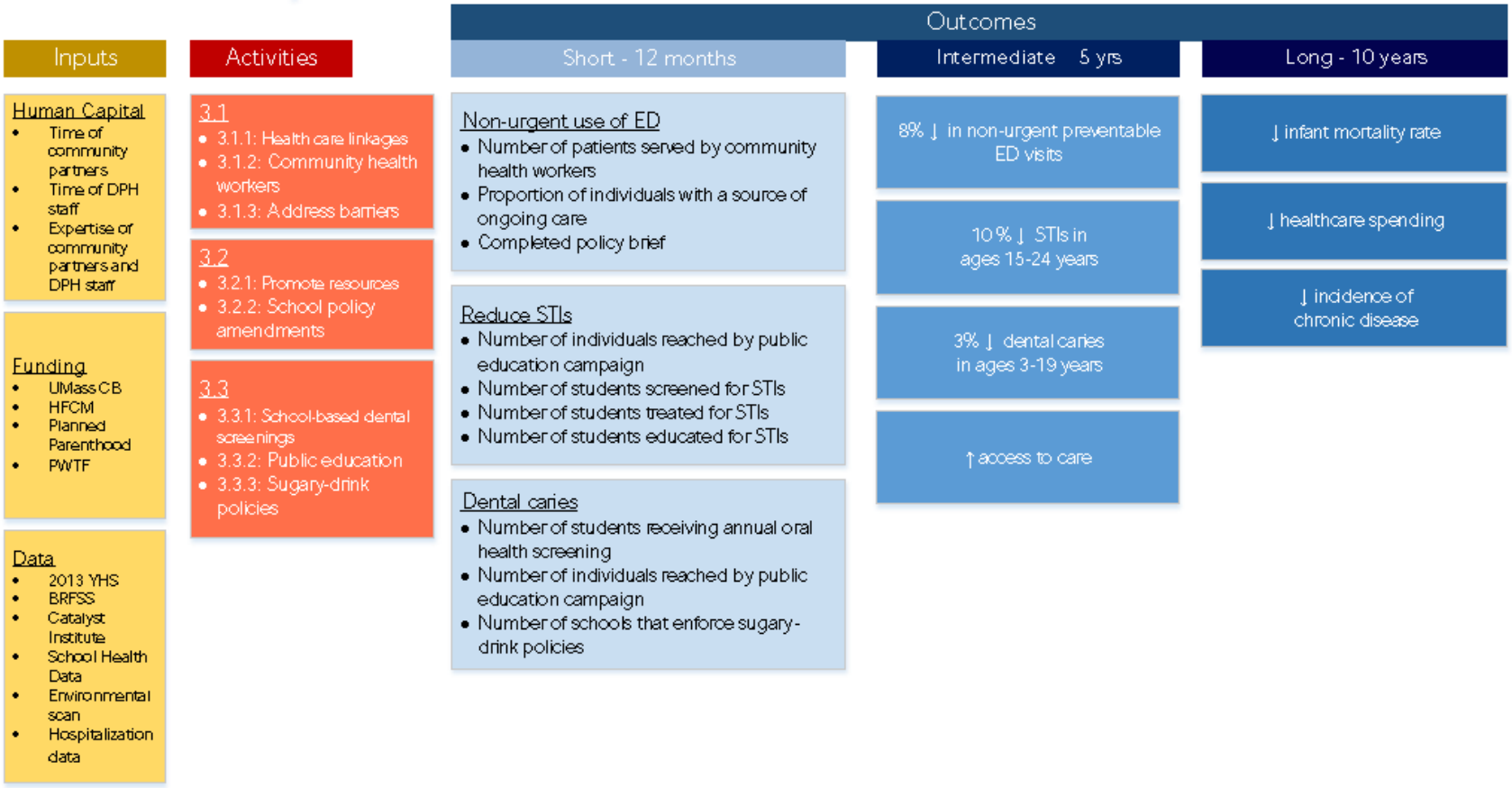
Assumptions: Political will, interventions work in real settings, continued funding, continued capacity in partner organizations, programs sustainable after funding

External Factors: Funding, politics, healthcare reform, staff turnover, regionalization, state and national legislature

Domain 2: Behavioral Health – Mental Health



Domain 3: Primary Care & Wellness



Assumptions: Political will, interventions work in real settings, continued funding, continued capacity in partner organizations, programs sustainable after funding

External Factors: Funding, politics, healthcare reform, staff turnover, regionalization, state and national legislature

Domain 4: Violence & Injury Prevention

Inputs

Human Capital
- Time of community partners
- Time of DPH staff
- Expertise of community partners and DPH staff

Funding
- Hoche-Schofield
- UMass Memorial
- SSY
- HFCM
- PWTF

Data
- WRISS
- Registry of Vital Statistics
- RMV Data
- CHIA
- Perceptions survey
- Hospitalization data

Activities

4.1
- 4.1.1: Home inspections
- 4.1.2: Mobile Safety Street
- 4.1.3: Fall prevention programs

4.2
- 4.2.1: Advocate for policies
- 4.2.2: Social norms
- 4.2.3: Goods for Guns
- 4.2.4: Safe zones inventory
- 4.2.5: Promote FACES

4.3
- 4.3.1: Drivers Education, SAFE DRIVE
- 4.3.2: Expand Drivers Education
- 4.3.3: Child Passenger Safety Checkpoint
- 4.3.4: Traffic geo-mapping
- 4.3.5: Complete Streets
- 4.3.6: Pedestrian and cyclist education

Outcomes

Short - 12 months

Falls
- Number of homes receiving inspections
- Number of individuals completing MSS training
- # of individuals participating in fall prevention/ balance promotion programs

Violence
- Written policy brief
- Perceptions survey results
- # of buyback events held
- # of weapons collected
- # of trigger locks provided
- Safe zone inventory report
- # of safe zone public education efforts
- # of organizations connected to faces

Motor-Vehicle-Related Injury
- Proportion of drivers participating in drivers ed prior to licensure
- # of individuals participating in SAFE DRIVE
- # of drivers education programs providing more than mandated parental involvement
- # of new drivers completing drivers ed
- # of individuals participating in child passenger safety checkpoints
- Completed report with recommendations for priority streetscape improvements
- Established interdepartmental pedestrian injury review team
- Number of municipalities implementing Complete Streets
- Miles of bike lanes
- # of individuals completing Mobile Safety Street curriculum
- # of individuals reached by public education

Intermediate – 5 yrs

5% ↓ in falls in ages 0-10 years

8% ↓ in falls in ages >65 years

3% ↑ public safety

10% ↓ in motor-vehicle-related injury

Long - 10 years

↓ mortality

↓ hospital admissions

↓ violence

Assumptions: Political will, interventions work in real settings, continued funding, continued capacity in partner organizations, programs sustainable after funding

External Factors: Funding, politics, healthcare reform, staff turnover, regionalization, state and national legislature

Domain 5: Health Equity & Health Disparities

Inputs

Human Capital
- Time of community partners
- Time of DPH staff
- Expertise of community partners and DPH staff

Funding
- MDPH
- Hoche-Schofield
- Cy Pres

Data
- 2013 YHS
- BRFSS
- CHA
- School Health Data
- Hospitalization data

Activities

5.1
- 5.1.1: Identify policies
- 5.1.2: Capacity-building
- 5.1.3: Evaluate outcomes

5.2
- 5.2.1: Assess funding
- 5.2.2: Recruit 100 leaders
- 5.2.3: Training programs
- 5.2.4: Connect trained leaders to key leadership roles
- 5.2.5: Secure resources to sustain program
- 5.2.6: Develop learning community

5.3
- 5.3.1: Recruit 20 organizational leaders
- 5.3.2: Organizational change training
- 5.3.3: Facilitate change process
- 5.3.4: Develop learning community

5.4
- 5.4.1: Institutional racism CHIP forum
- 5.4.2: Identify startegies in all areas of CHIP to address racism
- 5.4.3: Monitoring plan
- 5.3.4: Annual forum

Outcomes

Short - 12 months

Policy change
- Completed report identifying policies and priority selection process
- Number of trainings held
- Number of participants
- Completed implementation and evaluation plan

Grassroots leadership training
- Completed report outlining current funding allocation and additional opportunities
- Number of leaders identified and recruited
- Completed training curriculum
- Number of trained leaders holding leadership positions
- Secured resources for ongoing leadership development
- Number of leaders participating
- Completed learning community charter and structure

Institutional leadership training
- Number of organizational leaders identified and recruited
- Completed training curriculum
- Number of leaders recruited and participating
- Number of organizations implementing policy changes
- Completed learning community charter and structure
- Number of leaders participating

CHIP Integration
- Number of CHIP partners participating in forum or trainings
- Completed report outlining health equity considerations for each domain
- Completed report outlining evaluation plan for health equity efforts by each domain workgroup
- Number of CHIP partners participating in forum annually

Intermediate – 5 yrs

↑ awareness of institutional oppression, internalized racism, and cultural competency

↑ number of organizations with explicit policies to address health equity

↓ number of people reporting discrimination in a healthcare setting due to race

↓ number of people reporting discrimination in a healthcare setting due to income

Long - 10 years

↓ disparity in chronic disease rates

↓ disparity in nutrition

↓ disparity in injury

↓ disparity in behavioral health

Assumptions: Political will, interventions work in real settings, continued funding, continued capacity in partner organizations, programs sustainable after funding

External Factors: Funding, politics, healthcare reform, staff turnover, regionalization, state and national legislature

Public Health
Prevent. Promote. Protect.

Amendment and Update prepared by:

Worcester Division of Public Health

Lead Authors: Erin Cathcart, MPH, CPH · Zach Dyer, MPH

Director: Derek Brindisi, MPA, RS

In Partnership with:

UMass Memorial Medical Center
Common Pathways
Fallon Health

Original report prepared by:

Health Resources in Action

fallonhealth.
cares.

Our mission:

making our communities healthy

We are proud to partner with the Worcester Division of Public Health, UMASS Memorial and Common Pathways on the Greater Worcester Regional Community Health Improvement Plan to make the region the healthiest in New England by 2020!