

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.

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 to below 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.

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	-	9.1	7.5	4.1	-	4.5	4.8	3.9
Occupant Deaths								
Motor-Vehicle	0.0	0.0	0.0	-	0.0	0.8	0.7	1.1
Pedestrian Deaths								
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	44.2	85.1	72.9	39.3	47.8	44.4	46.9	43.3
Occupant Injury								
Motor-Vehicle	-	-	-	-	0.0	16.8	12.9	10.6
Pedestrian Injury								
Assault-related	-	-	22.6	21.5	47.8	65.7	51.5	37.4
Injury								
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	534.3	768.8	648.6	525.2	434.7	1099.4	930.3	899.6
Occupant Injury								
Motor-Vehicle	-	24.3	50.3	21.5	-	80.8	62.4	50.4
Pedestrian Injury								
Assault-related	126.8	282.6	291.6	259.3	347.7	722.1	570.9	377.9
Injury								
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.

DOMAIN AREA 4. VIOLENCE & INJURY PREVENTION

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 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 Adolescent Injury 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 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.

Key Sources

<p>4.2.2 Bigsby MJ. Seeing eye to eye? Comparing students’ and parents’ perceptions of bullying behavior. <i>School Social Work</i>, 2002; 27:37–57.</p> <p>Carver A, Timperio A, Crawford D. Playing it safe: the influence of neighbourhood safety on children’s physical activity. <i>A review. Health & place</i>. 2008 Jun;14(2):217–27.</p> <p>WHO. Violence Prevention the Evidence. Changing cultural and social norms supportive of violent behavior: World Health Organization; 2009.</p>	<p>4.2.3 McGuire M, Manno M, Rook A, Maranda L, Renaud E, DeRoss A, Hirsh M. Goods for Guns--the use of a gun buyback as an injury prevention/community education tool. <i>Journal of Trauma</i>. 2011;71(5) 537–40.</p> <p>Miller M, Azrael D, Hemenway D. Community firearms, community fear. <i>Epidemiology</i>. 2000 Nov;11(6):709–14. PubMed PMID: 11055635.</p> <p>4.2.4 Wathen CN, MacMillan HL. Interventions for violence against women: scientific review. <i>JAMA : the journal of the American Medical Association</i>. 2003 Feb 5;289(5):589–600. P</p> <p>4.2.5 An Act regarding families and children engaged in services. Massachusetts State Senate, 187 Sess. (2012).</p>
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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, particularly 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 not 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.

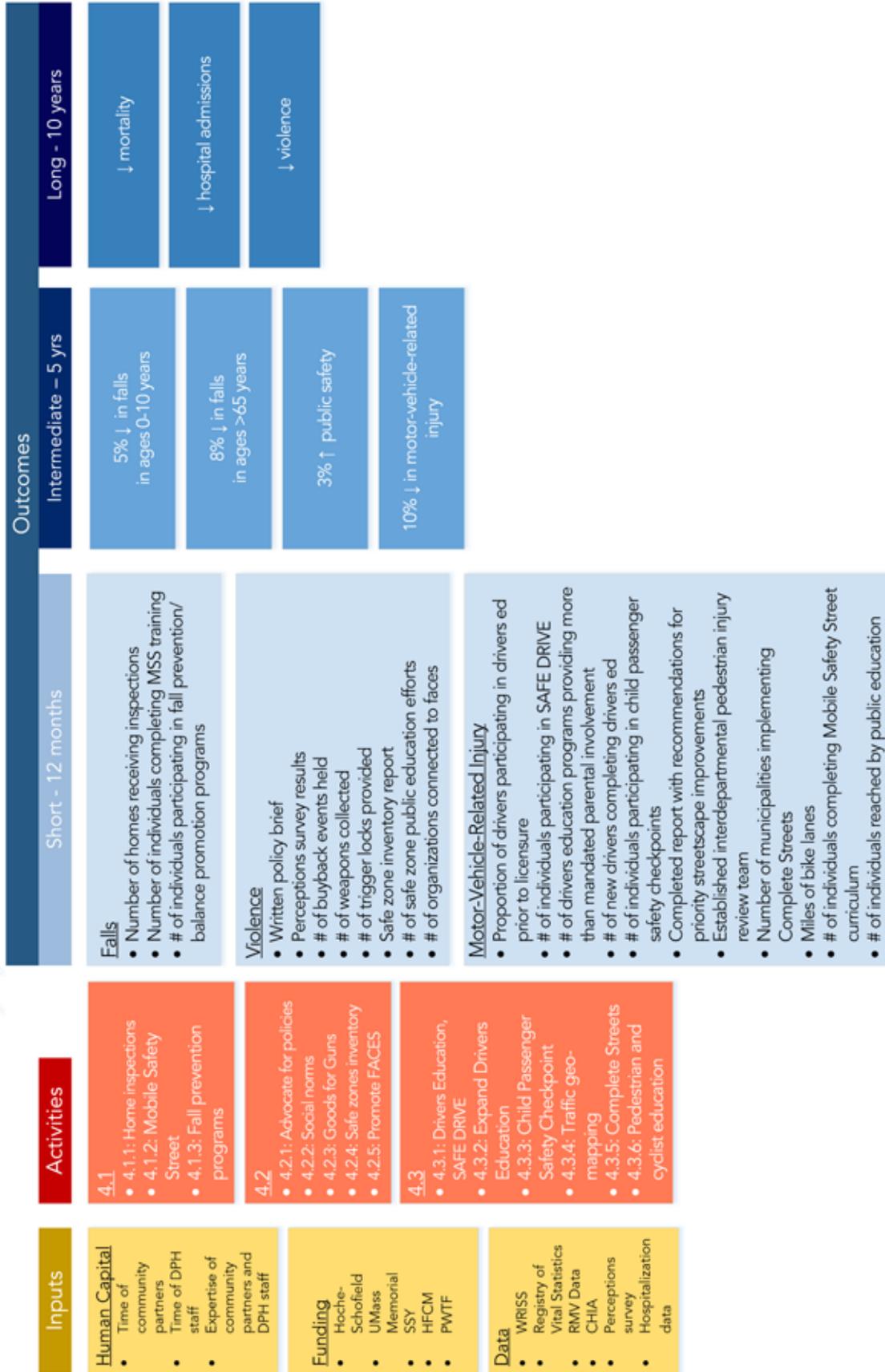
2014 Plans. In 2014, Mobile Safety Street will continue to provide educational programs through the Worcester schools, but will also work to expand their reach by forming new relationships with public schools in the other CMRPHA towns, area private schools, after-school programs, etc. In order to do 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 4: Violence & Injury Prevention



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

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



Public Health

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