COMMUNITY IN ACTION

GREATER LOWELL
Community Health Improvement Plan
2017 CHIP

Vision: *A healthier community through collaboration, education and the coordination of resources.*

GLHA
GREATER LOWELL HEALTH ALLIANCE

October 2017

This Community Health Improvement Planning process was conducted from November 2016 through October 2017. It serves as the basis of action for health improvement efforts carried out by the Greater Lowell Health Alliance of CHNA 10 and our many community partners. Built on priorities set by the 2016 Greater Lowell Community Health Needs Assessment, this Community Health Improvement Plan (CHIP) identifies the goals, objectives and recommended strategies to improve health through collaboration.

Annual updates and revisions will be made available online and through public community events.

For more information visit: www.greaterlowellhealthalliance.org/CHIP

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Executive Summary

The community we live in influences our health. For some, good health means reducing the rate of diabetes or asthma, while for others it is providing access to education and economic stability. In either case, to achieve optimal health it is imperative that we improve the region where we live, learn, work and play. To do this, collaboration is key to developing the best strategies to address the needs of the community.

In 2016, Lowell General Hospital, in partnership with the Greater Lowell Health Alliance, commissioned the University of Massachusetts Lowell to conduct and assessment of community health needs for the Greater Lowell area, which includes, Billerica, Chelmsford, Dracut, Dunstable, Lowell, Tewksbury, Tyngsboro and Westford. The purpose of this assessment includes evaluating the overall health of residents by involving a broad spectrum of community members, identifying the top health issues and strengths and weaknesses of the healthcare network, recommending actions to address priority concerns, and providing information that informs a community process to build consensus around strategies to improve the health of Greater Lowell residents.

The top health problems identified by the 2016 Greater Lowell Community Health Needs Assessment (GLCHNA) through focus groups and interviews in order of preference and supported by public health data include mental health (e.g. depression), diabetes, substance abuse, hypertension and obesity (had the same preference), and respiratory diseases (e.g. asthma and chronic obstructive pulmonary disease).

Shortly after the completion of the 2016 Greater Lowell Community Health Needs Assessment, the planning process for the Greater Lowell Community Health Improvement Plan (CHIP) began. Utilizing the data and recommendations provided by the CHNA, and the input of over 100 individuals from over 50 different organizations, the CHIP began to take shape. Two large scale community events took place, where we identified six priority areas and established three top objectives under each. The Greater Lowell Health Alliance (GLHA) task forces served as working groups for each of these areas to further develop strategies for each objective. Interviews with experts in each of these areas as well as round table also discussions took place. The GLHA Cultural Competency task force was convened to assess all proposed objectives and strategies through a lens of Cultural Competency/Responsiveness and Health Equity. The task force members decided to incorporate a plan to meet the National Standards for Culturally and Linguistically Appropriate Services (CLAS) in health and health care into the CHIP process in order to reduce disparities and achieve health equity. After refinement from the staff, interns, and volunteers of the GLHA, six overarching aims, 21 objectives and nearly 100 strategic recommendations were finalized. These items are within a larger framework with 1 overarching goal, health equity. A brief summary of those follow.

One Goal: *Health Equity*

The Robert Wood Johnson Foundation defines health equity as "all people, regardless of ethnicity, socio-economic status, sex or age, have equal opportunity to develop and maintain health through equal access to resources." In the initial meeting of the CHIP process, community partners agreed to work towards equity, as a shared goal, in all priority areas as equity was defined as success in community health improvement. The community partners of the region are all in agreement that the community deserves the opportunity to be healthy, making equity the ultimate goal.

Key Component: *Cultural Competency/Cultural Responsiveness*

Greater Lowell region has a diverse population, to ensure that the work done through the CHIP grows towards health equity, all priority areas need to be culturally competent. National CLAS standards will be used to guide community partners towards this shift.

Six Priority Areas:

Access to Healthy Food

Aim: Foster a community that focuses on providing access to nutritious food through resources and education to ultimately reduce the rates of diabetes, hypertension, and obesity. This priority areas seeks to meet its aim by promoting economic benefits associated with healthy foods, modifying nutritional practices, and engaging community partners.

Asthma

Aim: Reduce the burden and incidence of asthma in the region through education, prevention, and advocacy efforts. This priority areas seeks to meet its aim by increasing resources, advocating, increasing asthma education and increasing communication and collaboration efforts.

Mental Health

Aim: Foster a supportive and mindful community that has an equally shared, respectful and holistic understanding of mental and physical health. This priority areas seeks to meet its aim by strengthening communication and care coordination, decreasing stigma and increasing the number of culturally competent community health workers.

Physical Activity

Aim: Improve the overall health of the region through safe, equitable access to physical activity. This priority areas seeks to meet its aim by advocating for policy change, increase safe spaces, and promoting workplace initiatives.

Social Determinants of Health

Aim: Have a culture that provides equitable access to education, employment opportunities, transportation, housing positive social environments and health care to achieve improved positive health outcomes. This priority areas seeks to meet its aim by educating leaders in the community to increase awareness and understanding of cultural factors that influence behaviors and health outcomes.

Substance Use & Addiction

Aim: Create a region that prevents substance misuse and/or reduces substance use disorder and associated mental health illnesses for all populations. This priority areas seeks to meet its aim by promoting treatment over punishment, increasing access to treatment options and implementing early interventions.

Introduction and Background

Greater Lowell Community Health Improvement Plan (CHIP)

A Community Health Improvement Plan (CHIP) is a long-term, systematic effort to address public health problems in a community. The plan is based on the results of community health assessment activities, and is part of a community health improvement process, helping to set priorities, coordinate efforts, and target resources. It should define the vision for the health of the community through a collaborative process and should address the gamut of strengths, weaknesses, challenges, and opportunities that exist in the community to improve the health status of that community. *(Source: Public Health Accreditation Board)*

A CHIP for Greater Lowell

With a goal to create a long-term strategy to strengthen the area's health systems, our CHIP will be used as road map for health improvement over a three-year period, guiding the investment of resources of organizations with a stake in improving health for the residents of Lowell and the surrounding communities. Our CHIP mission: to turn data into action and working initiatives to address our community's top health priorities. While addressing specific health priorities, the overarching goal is always one of health equity, meeting the health needs not just for some, but for all.

Who Is Involved

A CHIP's value and significance stems from the involvement of the community. Over this past year, the GLHA has engaged more than 100 people from more than fifty community organizations to develop our first Community Health Improvement Plan, with many more partner agencies and organizations expected to join in the coming year.

Our Plan in Action

In 2016 and 2017 the GLHA held two high-energy CHIP planning process meetings that enabled us to join with community members and leaders to further identify our community's top health priorities by drilling deeper into our health needs assessment. Through those meetings, we are working to develop SMART goals and objectives — those that are specific, measurable, achievable, results-focused, and time-bound — to leverage and maximize community resources to fill gaps and avoid duplication of efforts in these priority areas. The GLHA task forces and the CHIP steering committee, comprising a small group of interested partners in each area of expertise, will continually measure health progress and indicators that will then be reported back to the community.

Creating Impact

Although our CHIP is a working document in its early stages, it is already creating impact. The CHIP process helped determine priority areas for grants, enabling the GLHA to distribute funds to the organizations on the front line of addressing our area's unmet health needs. Our 2017 Community Health Initiatives Grants were awarded around health priorities and programs that met the specific areas of focus identified by the CHIP process: Access to Healthy Food, Asthma, Mental Health, Physical Activity, Social Determinants of Health, and Substance Use and Prevention.

CULTURAL COMPETENCY/ CULTURAL RESPONSIVENESS

Improve the capacity of health and social service agencies to provide national standards for Culturally and Linguistically Appropriate Services (CLAS) to all individuals in order to reduce disparities and achieve health equity.

Culturally and Linguistically Appropriate Services (CLAS) Standards[1]

- ***Principal Standards***
  1) Provide effective, equitable, understandable and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, preferred languages, health literacy and other communication needs.

- ***Governance, Leadership, and Workforce***
  2) Advance and sustain organizational governance and leadership that promotes CLAS and health equity through policy, practices and allocated resources.
  3) Recruit, promote and support a culturally and linguistically diverse governance, leadership and workforce that are responsive to the population in the service area.
  4) Educate and train governance, leadership and workforce in culturally and linguistically appropriate policies and practices on an ongoing basis.

- ***Communication and Language Assistance***
  5) Offer language assistance to individuals who have limited English proficiency and/or other communication needs, at no cost to them, to facilitate timely access to all health care and services.
  6) Inform all individuals of the availability of language assistance services clearly and in their preferred language, verbally and in writing.
  7) Ensure the competence of individuals providing language assistance, recognizing that the use of untrained individuals and/or minors as interpreters should be avoided.
  8) Provide easy-to-understand print and multimedia materials and signage in the languages commonly used by the populations in the service area.

- ***Engagement, Continuous Improvement, and Accountability***
  9) Establish culturally and linguistically appropriate goals, policies and management accountability, and infuse them throughout the organizations' planning and operations.
  10) Conduct ongoing assessments of the organization's CLAS-related activities and integrate CLAS-related measures into assessment measurement and continuous quality improvement activities.
  11) Collect and maintain accurate and reliable demographic data to monitor and evaluate the impact of CLAS on health equity and outcomes and to inform service delivery.
  12) Conduct regular assessments of community health assets and needs and use the results to plan and implement services that respond to the cultural and linguistic diversity of populations in the service area.
  13) Partner with the community to design, implement and evaluate policies, practices and services to ensure cultural and linguistic appropriateness.
  14) Create conflict- and grievance-resolution processes that are culturally and linguistically appropriate to identify, prevent and resolve conflicts or complaints.
  15) Communicate the organization's progress in implementing and sustaining CLAS to all stakeholders, constituents and the general public.

[1] Source: https://minorityhealth.hhs.gov/

ACCESS TO HEALTHY FOOD

Foster a community that focuses on providing access to nutritious food through resources and education to ultimately reduce the rates of diabetes, hypertension, and obesity.

Objective 1	Recommended Strategies
Engage community partners in the collaboration of educational opportunities on healthy eating	• Establish common definition of "healthy eating" • Establish a clearing house for resources related to nutrition and food access in the region • Identify gaps in the outreach to and education of specific populations • Create capacity within the community that targets these populations
Rationale: *The Greater Lowell Community Health Needs Assessment identified that there is a lack of nutritional education in the community. Teaching nutrition education may be a major factor in preventing childhood obesity, and by teaching them the correlation between eating healthy and living well, it may also help children to combat the constant array of aggressive marketing techniques put forth by companies.[2] There is also a high prevalence of undernutrition among all ages, and to reverse this undernutrition, education is an essential component in improving dietary habits and food choices.[3]*	

Objective 2	Recommended Strategies
Increase the number of healthy incentive programs	• Establish the role of the Corner Store Initiative (CSI) working group within the community • Exploring the Blue Zone initiatives through the Healthy Eating Active Living Task Force • Encourage local food retail stores to learn and incorporate Incentives and Technical Assistance for fresh and healthy food retail • Increase number of corner stores, farmers markets, and mobile markets accepting Supplemental Nutrition Assistance Program (SNAP) and Women, Infants, and Children (WIC) benefits
Rationale*: Healthy Food Retail (HFR) such as corner store initiatives or mobile farmers markets are best practices on improving people's access to healthier foods. According to the Center for Disease Control and Prevention (2017), these initiatives can improve economic and transportation development in addition to expanding access of nutrient dense foods to those in the community.*	

Objective 3	Recommended Strategies
Modify or implement nutritional practices within municipal policies	• Identify municipal policies and practices in place in other communities across the country that improve access to healthy foods and nutrition • Promote the Heathy Incentive Program (HIP) expansion to include corner stores and convenience stores via state or municipally allocated funds

[2] Steinbronn, B. (2015, January 2). Nutrition Education: Why It Is More Important Than Ever In 2015. Retrieved July 11, 2017, from http://communityfoodbankofsbc.org/2015/01/nutrition-education-why-it-is-more-important-than-ever-in-2015/

[3] Wunderlich, S. (2013). The Importance of Appropriate Nutrition Assessment and Nutrition Education for Older Adults. Journal of Nutrition & Food Sciences, 03(05). doi:10.4172/2155-9600.1000e121

***Rationale**: People consume food that is easily available and cost effective. By providing healthier choices and nutritional education through municipal policies, people will be directed towards more nutritionally fulfilling foods.[1] Policies are the "center-role" of a community by deciding what will be provided to the community.[2] If more nutritional practices are unified within municipal policies, then there is a greater possibility of those practices improving the health of the community.*

Objective 4	Recommended Strategies
Promote and educate economic benefits of accessing healthy foods	• Research and promote Return On Investment (ROI) as it relates to eating healthy within the community • Dissemination of SNAP and HIP education, lists, and materials • Reach out to corner stores to present potential profit margin of offering fresh produce • Host a symposium for the public who receives SNAP or WIC benefits to help expand their knowledge of benefits and different ways to maximize them and strategically shop. • Collaborate with the Massachusetts Public Health Association (MPHA) on the Massachusetts Food Trust
***Rationale**: Healthy food projects and businesses improve the economic health and well-being of communities, and they can help to revitalize struggling business districts and neighborhoods. In addition to providing jobs across the food system, healthy food businesses also increase or stabilize home values in nearby neighborhoods, generate local tax revenues, provide workforce training and development, and promote additional spending in the local economy.*	

ASTHMA

Reduce the burden and incidence of asthma in the region through education, prevention, and advocacy efforts.

Objective 1	Recommended Strategies
Increase resources to conduct asthma assessments, education, and prevention	• Identify existing gap areas and best practices to increase access to resource opportunities • Disseminate the Massachusetts Adult Asthma Action Plan and booklet on Managing Asthma in the School Environment to school nurses across the region • Encourage community partners to utilize freely available promotion and intervention materials from the Massachusetts Health Promotion Clearing House • Leverage funds and encourage the utilization of disseminated resources to provide education and intervention to daycare providers and parents • Seek funding for asthma prevention information campaign • Provide instructions on the proper usage of asthma treatment mechanisms for those directly and indirectly impacted by asthma • Increase the amount of education for primary care physicians to accurately diagnose and provide referrals for effective asthma management
***Rationale**: In 2013, there were 1.6 million emergency department visits with asthma as the primary diagnosis.[4] Asthma symptoms and attacks could be lessened if there were more resources for education, assessment, and prevention.*	

Objective 2	Recommended Strategies
Increase communication to enhance the continuity of care	• Widely share, communicate and disseminate available information on asthma • Utilize the Greater Lowell Health Alliance web space and ethnic media outlets to educate the community • Engage wellness committees within school systems around Asthma • Disseminate information to larger organizations within the region with networks of contractors who work in schools, community centers, senior centers and other frontline organizations who may potentially provide a service to a person with asthma • Develop integrative protocol based on the results of the pilot project between PHO and school nurses with the aim to increase parental authorization that enable school nurses to talk to physicians about the child's asthmas-related health • Expand membership of the Asthma Coalition of Greater Lowell area to include a representative from the wellness committees and head nurses of each town within the region • Coordinate with parents of children with asthma to provide school nurses with written asthma plans

[4] Asthma. (2017, June 07). Retrieved July 20, 2017, from https://www.cdc.gov/asthma/most_recent_data.htm

***Rationale**: Patient satisfaction and healthcare plan effectiveness increases with better communication between all parties. Communication will help to establish a finite plan for asthma care for a patient who needs one. With more proficient communication, the continuity of care will increase, thus will the quality.[5] An increase in communication will ultimately allow the patient to receive the same proficient care within all settings of their environment.*

Objective 3	Recommended Strategies
Educate residents on identifying triggers and addressing environmental issues	• Hire and train more asthma health educators on effective asthma strategies to control asthma triggers and asthma management • Utilize existing social media to educate the public and raise awareness about asthma • Provides resources and fact sheets on healthy cleaning and maintenance for asthma control • Disseminate information and educate residents on importance of green cleaning • Expand education to daycare providers, teachers, and parents in order to increase knowledge of potential asthma triggers • Disseminate informational newsletters, booklets, and flyers on asthma friendly homes and potential environmental triggers • Identify online and in-person trainings
***Rationale**: Every person with asthma can have varying triggers that can cause an attack. To be able to prevent attacks and treat asthma, the education of different triggers is important. Many studies have reported associations between air pollution exposures and asthma. Air pollution, such as ozone and particle pollution, can make asthma symptoms worse and trigger attacks.[6] To reduce asthma attacks, producing strategies with an increased focus on both how land use and transportation decisions builds an environment that contributes to or reduces asthma risk are essential.[7]*	

Objective 4	Recommended Strategies
Advocate for the development and adherence to policies for better air quality in housing, schools, and public areas	• Conduct health and safety assessments of daycare facilities and schools • Review current policies and practices around asthma medication drop off and retrieval protocols • Advocate for and utilize Indoor Air Quality (IAQ) tools and resources • Implement the sections of the 2017 Massachusetts Sanitary Code that focus on indoor air quality in the region • Increase rate of healthy renovations and/or create newly built buildings with healthy design elements • Identify and collaborate with local representatives and stakeholders involved in the development of policies that improve indoor air quality
***Rationale**: The Greater Lowell Community Health Needs Assessment addresses the housing stock in Lowell as mostly substandard units. Poor quality housing tends to have poor indoor air quality and is a major exacerbation of asthma. Effective strategies to reduce environmental triggers need to include institutional and political decisions that affect the daily living conditions in the communities.*	

[5] Asthma. (2017, June 07). Retrieved July 20, 2017, from https://www.cdc.gov/asthma/most_recent_data.htm
[6] Asthma. (2016, December 14). Retrieved July 11, 2017, from https://ephtracking.cdc.gov/showAsthmaAndEnv
[7] Environmental Asthma - RAMP. (n.d.). Retrieved July 11, 2017, from http://www.rampasthma.org/about-ramp/programs/inequities/environmental-asthma

MENTAL HEALTH

Foster a supportive and mindful community that has an equally shared, respectful, and holistic understanding of mental and physical health.

Objective 1	Recommended Strategies
Strengthen the expertise and capacity of the mental health work force in the region	• Train mental health providers, child and geriatric psychiatrists, school nurses, and community health workers to administer and/or conduct appropriate mental health screenings which will be made available in different languages • Increase education regarding mental wellness and mental health first aid within the health and human service workforce
Rationale: *The mental health workforce is broad and consists of many occupations, levels, and functions.[8] Along with the diversity of the field, there is also a stigma that negatively reflects mental health and affects the care community members can receive.[9] By providing training for and expanding the mental health workforce to better accommodate for a variety of people, it will ensure that community members receive competent, accessible, and stigma-free care.*	

Objective 2	Recommended Strategies
Increase the number of well-trained, culturally-diverse mental health providers and Community Health Workers (CHWs)	• Create an advocacy plan with specific actions such as speaking with local, state and federal legislators and local agencies regarding Behavioral Health Service (BHS) provider shortages, root causes and potential solutions that focus on recruitment and retention of a workforce that is reflective of Greater Lowell's cultural and linguistic diversity
Rationale: *The Greater Lowell Community Health Needs Assessment revealed several barriers to using mental health services in the area, included (but not limited to): long waiting lists, navigating the mental health system, language barriers, and logistical barriers.*	

Objective 3	Recommended Strategies
Decrease mental health stigma by increasing knowledge and awareness amongst the community about mental health	• Conduct mental health education through community forums, panel discussions, and workshops that work towards becoming a more trauma informed community as defined by an agreed-upon definition and is responsive to Greater Lowell's community's social, cultural and linguistic needs • Define and increase the number of "safe spaces" where individuals can obtain some level of support in the Greater Lowell community • Identify components of a culturally responsive Mental Health Awareness Campaign for implementation in various communities
Rationale: *Mental health stigmas often lead to isolation, blame, and secrecy, which in turn creates difficulties in reaching out and getting needed support.[10] Community members, such as elders, resist treatment for depression and*	

[8] Beck, A. J. (2017, February 16). *Research to Stregthen Behavioral Health Workforce Capacity* [PDF]. Ann Arbor, MI: University of Michigan.
[9] NAMI. (n.d.) Retrieved July 11, 2017, from https://www.nami.org/stigmafree
[10] NAMI. (n.d.). Retrieved July 11, 2017, from https://www.nami.org/stigmafree

other disorders, as their association with mental illness is based on images frequently propagated by the mass media and popular culture.[11] The Rand Corporation conducted a study which revealed that the stigma of depression and the potentially negative reactions of family members are the top reasons why depressed teens don't seek treatment for their mental health problems.[12] Various forums, discussions, workshops, and programs can help to decrease the mental health stigma for varying populations.

Objective 4	Recommended Strategies
Strengthen communication and care coordination between primary care physicians, patients, behavioral health providers, other support services, parents, guardians, and caregivers as it relates to mental health and substance use services	• Determine baseline of common communication barriers amongst service providers that could negatively impact patient's access to appropriate services • Explore options that would enable easier communication among service providers while protecting patient privacy and confidentiality and other legal requirements/mandates
Rationale: *Poor communication amongst service providers can negatively affect the treatment of a patient. Regarding substance abuse and mental health, there is often a case of dual diagnosis.[13] If substance abuse first responders, support services, physicians, etc., are not actively communicating within their community, then the patient will fail to receive adequate and relevant care. Elimination of barriers and improvement of communication between service providers improves success rates.[14]*	

[11] Inc., N. M. (n.d.). Overlooked and Undeserved: Elders in Need of Mental Care. Retrieved July 11, 2017, from http://www.mhaging.org/info/olus.html

[12] McBride, H. C. (n.d.). Stigma Keeps Many Teens from Getting Mental Health Treatment. Retrieved July 11, 2017, from http://www.crchealth.com/troubled-teenagers/stigma-teens-mental-health-treatment/.

[13] Mental Health and Drug Abuse." *DrugAbuse.com*, 25 Oct. 2016, drugabuse..com/library/mental-health-and-drug-abuse/.

[14] "Impact of Communication in Healthcare." IHC, healthcarecomm.org/about-us/impact-of-communication-in-healthcare/.

PHYSICAL ACTIVITY

Improve the overall health of the region through safe, equitable access to physical activity.

Objective 1	Recommended Strategies
Advocate for policies and practices that increase access to physical activities	• Increase awareness for current policies and procedures that directly affect the walkability of a community • Support pilot programs in local, well-known gyms, senior centers, and community organizations throughout the region to decrease adverse health outcomes such as obesity, diabetes, and hypertension • Advocate for policies that directly impact access to physical activity • Create a list of all areas in the region that need to be fixed following the guidelines established by Mass in Motion/Complete Streets • Empower community leaders, students and the general population to acquire skills in advocacy • Promote international Walk to School/Work Day to empower the general population and encourage physical activity
***Rationale**: Regular physical activity helps maintain a person's overall health and wellbeing. There are barriers including lack of transportation, funding, or space that lessens people's access to physical activities. With policies regulating such barriers, it will create more opportunities for people to engage in regular physical activity.*	

Objective 2	Recommended Strategies
Increase the amount of safe indoor or outdoor physical activity sites	• Establish points of contact with personnel involved in city planning, city engineering, school systems, zoning laws, and aspects of the physical environment to promote change and physical activity • Conduct an Environment Assessment to determine baseline data regarding the level of physical activity in each population • Collaborate with superintendent of schools, principals, and teachers to participate in pilot programs that incorporate physical activity for children during gym class, recess, or after school • Promote and create maps of walkable trails with organizations in each community • Support the movement to incorporate Mass in Motion ADA compliancy throughout the region • Provide educational workshops on understanding Mass in Motion, Complete Streets signage, bike laws, street signs, etc. • Increase bike racks in areas accessible to children, customers, and employees • Promote new infrastructure changes through various media outlets

***Rationale**: Providing and promoting space for people to be physically active may increase public use of these facilities as well as help boost people's physical activity levels. This can include creating and improving walking trails, building exercise facilities, and providing access to existing facilities.*[15]

Objective 3	Recommended Strategies
Develop and promote workplace initiatives	• Implement evidence based train-the-trainer programs to increase involvement in worksite wellness and exercise programs • Promote worksite wellness programs within organizations that incorporate physical activity throughout the work week • Create a resource guide of evidence-based workplace wellness programs for employers • Raise awareness about health insurance companies that offer benefits for wellness status • Raise awareness for health insurance companies that offer benefits for wellness status
***Rationale**: Worksite wellness programs have potential to increase employees' productivity, reduce absenteeism, and increase morale. A healthier workforce can also benefit from reduced direct costs associated with health care expenses.*[16] *According to health promotion experts, an organization-level commitment to focus on employee health as a corporate goal is one the most influential and cost-effective changes to implement.*[17]	

[15] Physical Activity: Strategies and Resources. (2017, April 11). Retrieved July 18, 2017, from https://www.cdc.gov/nccdphp/dnpao/state-local-programs/physicalactivity.html
[16] Worksite Physical Activity. (2016, July 19). Retrieved July 18, 2017, from https://www.cdc.gov/physicalactivity/worksite-pa/index.htm
[17] Fostering a Workplace Culture of Physical Activity. (n.d.). Retrieved July 18, 2017, from https://www.acefitness.org/fitness-fact-article/3120/fostering-a-workplace-culture-of/

SOCIAL DETERMINANTS OF HEALTH

Have a culture that provides equitable access to education, employment opportunities, transportation, housing, positive social environments, and health care to achieve improved positive health outcomes.

Objective 1
Provide trainings and workshops for providers and community leaders to increase their awareness of contextual, social, historical and cultural factors that influence health behaviors and health outcomes
Rationale: *A culturally competent health care system recognizes that ethnicity and culture influences health beliefs, perception of health and disease, individual symptom recognition, health care–seeking behavior, and the use of health care services. The implementation of training programs that help educate practitioners, providers, and community leaders on effective communication methods will increase cultural awareness and produce changes in attitudes about cross-cultural interactions.*[18]

Objective 2
Increase access and capacity to preventative care for low-socioeconomic populations
Rationale: *Despite the proven benefits of preventive health services, too many Americans go without needed preventive care because of financial barriers. Even families with insurance may be deterred by copayments and deductibles from getting cancer screenings, immunizations for their children and themselves, and well-baby check-ups that they need to keep their families healthy.*[19] *Increasing access and capacity to high-quality preventive care helps Americans stay healthy, avoid or delay the onset of disease, lead productive lives, and reduce costs.*

Objective 3
Increase understanding of specific underserved communities' health-related priorities, obstacles and strengths
Rationale: *Healthful social conditions can ensure that all members of society—especially the most vulnerable—benefit from the same basic rights, security, and opportunities. By addressing inequalities in social and physical environmental factors, we can increase health equity and decrease health disparities. Doing so involves recognizing the substantial, often cumulative effects of socioeconomic status and related factors on health, functioning, and well-being from even before birth throughout the entire life course.*[20]

The World Health Organization defines social determinants of health (SDOH) as "the conditions in which people are born, grow, live, work and age." Healthy People 2020 identified five key areas of SDOH: "economic stability, education, social and community context, health and health care and the neighborhood and built environment." According to the Greater Lowell CHA, research now shows that social and economic factors as well as the physical environment are responsible for 50% of health outcomes. Community partners agree that social determinants of health is a key component for achieving health equity. Therefore, the following vision will be considered in all priority areas: The Greater Lowell region will have a culture that provides equitable access to education, employment opportunities, transportation, housing, positive social environments, and health care to achieve positive health outcomes. To achieve this vision, the community partners will work towards aligning efforts, prioritizing specific focuses and training health professionals to maximize collaboration.

[18] National Institute of Health. Retrieved October 18, 2017, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1426185/
[19] Centers for Medicare and Medicaid Services. Retrieved October 18, 2017, from https://www.cms.gov/CCIIO/Resources/Fact-Sheets-and-FAQs/preventive-care-background.html
[20] Healthy People 20/20. Retrieved October 1, 2017, from http://www.healthypeople.gov/2010/hp2020/advisory/SocietalDeterminantsHealth.htm

SUBSTANCE USE & PREVENTION

Create a region that prevents substance misuse and/or reduces substance use disorder and associated mental health illnesses for all populations.

Objective 1	Recommended Strategies
Early intervention through preventative education, assessments, screenings and services provide resources for children and adolescents	• Identify and implement evidence-based approaches and best practices • Provide the appropriate tools to the community to assess community readiness regarding substance use and mental health services • Provide a predetermined number of Youth and Adult Mental Health First Aid trainings offered by community partners • Support mandated Screening, Brief Intervention, and Referral to Treatment (SBIRT) implementation in schools within the region • Once SBIRT round I is completed, provide support in follow-up interventions to students • Identify and enroll high risk adolescents into early intervention and treatment programs
Rationale: *The Greater Lowell Community Health Assessment noted that the health care model focuses on treatment rather than prevention. When evidence-based substance use prevention programs are properly implemented by schools and communities, use of alcohol, tobacco, and illegal drugs is reduced.*[21]	

Objective 2	Recommended Strategies
Increase access and awareness to treatment services and resources	***Resources*** • Develop and expand on the laminated mental health and substance abuse service resource/referral list for first responders and community members • Promote "drugfreegreaterlowell.org" for consistent messages regarding available resources • Increase awareness for Drug-Take-Back Program's proper process for disposal procedures and current kiosks ***Transportation*** *(*Patients transported to treatment facilities after being medically cleared) • Research protocol from Emergency Medical Services in each town in the region regarding where they currently transport substance abuse and mental health patients • Identify and present best practices for transportation to treatment facilities ***Access*** • Advocate for policy changes to improve access for individuals to receive substance abuse and mental health services
Rationale: *The Greater Lowell Community Health Needs Assessment expressed concern at the lack of access to resources, counseling, and care for people with substance use disorder. Besides an overall scarcity of resources, there*	

[21] Abuse, N. I. (n.d.). Preventing Drug Abuse: The Best Strategy. Retrieved July 11, 2017, from https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/preventing-drug-abuse-best-strategy

is also a lack of established programming for specific community members, such as mothers and children with substance abuse.

Objective 3	Recommended Strategies
Collaborate on strategies that emphasize treatment over punishment	• Provide train-the-trainer programs specific to first responders and recovery coaches on how to respond and provide treatment options for overdose victims • Encourage the community to follow current and support existing evidence based jail diversion programs for mental health and substance abuse • Increase the number of recovery coaches in the region • Establish clearing house for location of jail diversion programs • Promote alternative community service programs for individuals with substance-related offenses
Rationale: *Inmates in jail for drug-related charges, who are left untreated or not adequately treated, are at greater risk for using drugs when they are released from prison, and tend to commit crimes at a higher rate than those who do not use drugs.*[22] *Providing a person with substance use disorder with treatment rather than punishment would be more effective and would help them into recovery.*	

[22] January 10, 2013 by Join Together Staff. (n.d.). Choosing Substance Abuse Treatment Over Prison Could Save Billions: Study. Retrieved July 11, 2017, from https://drugfree.org/learn/drug-and-alcohol-news/choosing-substance-abuse-treatment-over-prison-could-save-billions-study/

Our Community Partners

The success of the Greater Lowell Health Alliance is due to collaborative relationships with many diverse partner organizations. We are honored to partner with more than 200 energized organizations to help fulfill our mission to improve the overall health and wellness of those living in the Greater Lowell region. Find a list of these valued community partners at greaterlowellhealthalliance.org.

Help Implement the 2017 Community Health Improvement Plan!

The new Greater Lowell Community Health Improvement Plan (CHIP), will guide our region's investment of resources over the next three years—but we need you to make it happen! Making Greater Lowell stronger and healthier is a huge initiative, but with your involvement and commitment, we can succeed. We are inviting individuals and organizations to please join us and CHIP In to help make our community the healthiest it can be. Go to our website today and tell us your areas of interest and how you would like to CHIP In! From participating or leading a work group to providing staffing to promoting within your own organization, you will be an integral part of this important community initiative!
"Chip In" today at *www.greaterlowellhealthalliance.org/CHIP*.

Access to Healthy Food

- Cambodian Mutual Assistance Association
- Chelmsford Unitarian Church
- Coalition for a Better Acre
- Elder Services of the Merrimack Valley, Inc.
- First Parish UU Chelmsford
- Greater Lowell YMCA
- Hannaford's Supermarkets
- Lowell Community Health Center
- Lowell General Hospital
- Lowell Public Schools
- Merrimack Community College
- Merrimack Valley Food Bank
- Mill City Grows
- Physician Hospital Organization
- Stop and Shop
- University of Massachusetts Lowell

Asthma

- Circle Home, Inc.
- Lowell Community Health Center
- Lowell General Hospital
- Lowell Public Schools
- Physician Hospital Organization
- Northeast Tobacco Free Community Partnership
- University of Massachusetts Lowell

Mental Health

- Boys and Girls Club of Greater Lowell
- Catholic Charities of Merrimack Valley/Brigid's Crossing
- Center for Hope and Healing
- Circle Home Inc.
- Community Teamwork Inc.
- Department of Public Health
- Element Care
- Greater Lowell Elder Mental Health Collaborative
- Greater Lowell Health Alliance
- Healthy Futures
- House of Hope
- Hunger Homeless Commission
- Lowell Community Health Center
- Lowell General Hospital
- Lowell Health Department
- Lowell Public Schools
- Mass Housing Authority
- Massachusetts Public Health Association
- Massachusetts Society for the Prevention of Cruelty to Children (MSPCC)
- Mental Health Association of Greater Lowell
- Middlesex Community College
- Middlesex House of Correction
- Northeast Legal Aid

- South Bay Community Services
- Substance Abuse Prevention Collaborative (SAPC)
- Tewksbury Police Department
- Thom Anne Sullivan Center
- University of Massachusetts Lowell

Physical Activity

- Chelmsford Wellness Center
- D'Youville Life and Wellness Community
- Fallon Community Health Plan
- Genesis Health Care Plan
- Greater Lowell Technical High School
- Greater Lowell YMCA
- Hallmark Health
- Local Government
- Lowell Community Health Center
- Lowell General Hospital
- Lowell National Historical Parks
- Lowell Parks and Recreation
- Lowell Public Schools
- Lowell Senior Center
- Massachusetts State Representatives
- Merrimack Valley Area Health Education Center
- Mill City Grows
- Miracle Providers Northeast
- Network Health
- New England Community Care
- Senior Whole Health
- SLS Fitness
- United Healthcare

Partners/Resources for Substance Use & Prevention

- Billerica Board of Health
- Billerica Public Schools
- Billerica Substance Abuse Prevention Committee
- Chelmsford Board of Health
- Clean State Centers
- Community Opioid Outreach Program (CO-OP)
- Department of Corrections
- Dracut Board of Health
- Dracut Public Schools
- Institute of Health and Recovery
- Living Waters Center for Hope
- Lowell Fire Department
- Lowell General Hospital
- Lowell Health Department
- Lowell House Addiction, Treatment & Recovery
- Lowell and Lawrence Drug Court
- Lowell Police Department
- Lowell Public Schools
- Lowell Middlesex Academy Charter School
- Lowell Transitional Living Center
- Massachusetts Interscholastic Athletic Association
- Middlesex Community College
- Middlesex Sheriff's Office
- Northeast Behavioral Health
- Northeast Tobacco Free Community Partnership
- Project COPE/Bridgewell
- South Bay Community Services
- Tewksbury Board of Health
- Tewksbury CARES
- Tewksbury Health Department
- Tewksbury Hospital
- Tewksbury Police Department
- Tewksbury Treatment Center
- Town of Chelmsford
- Town and Country Health Care Center (Lowell)
- Trinity EMS
- Tyngsboro Health Department
- University of Massachusetts Lowell Police Department
- UTEC
- Westford Health Department

Appendices

Appendix A: Definitions and Acronyms Key

Definitions

- ***Advocacy plan***: A specified aim to outline the process and outcome of an objective.
- ***Barriers***: Obstacles, such as linguistic or navigational, that prevent community members from receiving services to their fullest capacity.
- ***Best practices***: Procedures that have been accepted by community affiliates as the most effective.
- ***Blue Zone Initiatives***: Reshaping communities through nutrition, community, and motivation so that people "naturally move more" and want to make healthier choices.
- ***Corner store***: The Food Trust defines corner stores as having less than 2,000 square feet, four aisles or less, and one cash register.
- ***Cultural competence***: The ability of providers to adequately deliver services that meet the cultural, linguistic, social, and physical needs of their community.
- ***Evidence based approaches***: Addressing a priority area using clinical expertise gathered from available data.
- ***Drug-Take-Back Programs***: A solution to unused prescription medication that provides safe and controlled ways to dispose of drugs.
- ***Greater Lowell Community Health Needs Assessment***: "In partnership with the Greater Lowell Health Alliance, Lowell General Hospital in 2016 commissioned researchers and students from the University of Massachusetts Lowell to conduct a community health needs assessment to identify the unmet medical and public health needs within the Greater Lowell community. The geographic area assessed included the communities of Lowell, Billerica, Chelmsford, Dracut, Dunstable, Tewksbury, Tyngsboro and Westford." The results led to the chosen priority areas of focus.
- ***Frontline organizations***: Organizations that are directly responsible for a service.
- ***Green cleaning***: Environmentally friendly methods of cleaning that can help protect the health of community members.
- ***High risk environments***: An area where community members are more likely to be at risk of emotional and physical harm due to their surroundings and lack of adequate services.
- ***Mental Health Wellness Education Campaign***: A culturally responsive plan that develops organizations and programs to inform the community on mental health wellness.
- ***Municipal Policy***: A statement, ordinance, regulation, or decision officially adopted and promulgated by a local governing body's officers
- ***Objectives***: Measurable statement of change that specify an expected result; objectives build towards achieving the goals.
- ***Pilot program***: A small scale project that can reflect what the results will be in a large-scale project.
- ***Policy***: A course or principle of action adopted or proposed by a government, party, business, or individual.
- ***Priority Area***: Broad issue that are prioritized due to their position as a challenge for the community.
- ***Safe spaces***: An environment where any member of a community can feel free of physical or emotional harm and discrimination.
- ***Stakeholders:*** A person, group, or organization that not only has an interest in, but can be affected by the organization's actions and objectives.
- ***Stigma***: A negative connotation with a circumstance or quality.
- ***Strategies***: Action-oriented recommendations to be taken to achieve the target outlined in the objective
- ***Symposium***: A conference or meeting to discuss a particular subject.
- ***Train-the-trainer programs***: Workshops that prepares trainers with adequate skills to perform their job exceptionally.
- ***2017 Massachusetts Sanitary Code***: describes the conditions needed for an environment to be habitable.

Acronyms

- CHIP Community Health Improvement Plan
- CHNA 10 Community Health Network Area 10
- CHW Community Health Workers
- CIS Crime Intelligence System - law enforcement, probation, courts
- CSI Corner Store Initiatives: increasing healthy food inventory in corner stores
- CTI Community Teamwork, Inc.
- DPH Department of Public
- GLHA Greater Lowell Health Alliance
- EPA Environmental Protection Agency
- HEAL Healthy Eating Active Living
- HFR Healthy Food Retail
- HIP Healthy Incentives Program: helps earn SNAP dollars through purchasing local fruits and vegetables.
- IAQ Indoor Air Quality as it relates to the health and comfort of building occupants
- LGH Lowell general Hospital
- LPS Lowell Public Schools
- MHA Mental Health Association
- MIAA Massachusetts Interscholastic Athletic Association – sports teams, teens
- MPHA Massachusetts Public Health Association
- PHO Physician Hospital Organization
- PSA Public Service Announcement
- ROI Return On Investment
- SBIRT Screening, Brief Intervention, and Referral to Treatment: an evidence-based practice used to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and illicit drugs.
- SLS Fitness Strength and conditioning center
- SNAP Supplemental Nutrition Assistance Program: a nutrition program for families and individuals that meet certain income and resource guidelines.
- UTEC United Teen Equality Center
- Trinity EMS Emergency Medical Services: 911 emergency responder
- TURI Toxic Use Reduction Institute
- WIC Women, Infants, and Children: supplemental nutrition program for women, infants, children.

Resources:

https://www.integration.samhsa.gov/clinical-practice/SBIRT
https://www.epa.gov/indoor-air-quality-iaq/introduction-indoor-air-quality
http://www.mass.gov/agr/massgrown/hip.htm
http://thefoodtrust.org/uploads/media_items/healthy-corner-store-overview.original.pdf
https://definitions.uslegal.com/m/municipal-policy/
https://www.lowellgeneral.org/news-and-media/publications/greater-lowell-community-health-needs-assessment
https://www.rand.org/about.html
https://www.bluezonesproject.com/
http://www.mass.gov/ago/consumer-resources/consumer-information/home-and-housing/landlord-and-tenant-law/state-sanitary-code.html

Appendix B: Priority Area Best Practices

Access to Health Food Best Practices

1. **Farm to Preschool Programs:** Nutrition and garden based education for low-income families and children of preschool age *((Healthy Kids, Healthy Futures Pilot Year Evaluation Report 2009.) and (Hoffman J. et al., August 2010).*
2. **Mass in Motion's Healthy Corner Store Initiatives:** Strategy initiative to provide healthier options to smaller markets *(Cavanaugh E., et al., 2014).*
3. **Meals on Wheels Program:** Home delivered nutrition services for seniors age 60 or older, low income families, veterans, and those at risk of malnutrition.
4. **Strategies to Reach and Implement the Vision of Health Equity (STRIVE):** Project grant strategy under CDC's racial and ethnic approaches to community health programs targeting Asian Americans and NHPI community *(Patel et al, 2015).*
5. **UTEC Health Food Financing Initiative-Community Economic Development Program (HFFI-CED):** Economic development program aimed at increasing access to healthy produce, creating jobs, and training youth in life skills.

Asthma Best Practices

1. **Asthma Care Act (ACT) for kids:** Patient education model of asthma for children ages 7 to 12 and their families *((CDC, 2009.) ;(CE Lewis, 1984.) ;(National Heart, Lung, and Blood Institute, 1997.)).*
2. **Creating a Medical Home for Asthma:** Training program for physicians, nurses, lab technicians, clerical staff, and receptionists to improve communication between providers and patients *(Evans S. et al., 1997).*
3. **CDC's National Asthma Control:** Asthma control service for healthcare providers *(Centers for Disease Control and Prevention, 2012.)*
4. **Interactive Multimedia Program for Asthma Control and Tracking:** Asthma education program for children and their caregivers *(Krishna, S., B. D. Francisco, et al. (2003).*
5. **Open Airways for Schools:** Asthma management program and school based curriculum for children ages 8 to 11 *(Clark NM et al., 2004).*
6. **Physician Asthma Care Education (PACE)**: Asthma education and training program for physicians *(Cabana et al., 2006.).*
7. **Wee Wheezers:** Asthma education program for caregivers of children under 7 years old *(Wilson S.R., 2009).*
8. **YES WE CAN:** Asthma intervention model for low-income children in San Francisco who had poorly controlled asthma *(Thyne et al., 2006).*

Mental Health Best Practices

1. **Adult Needs and Strengths (ANSA):** Behavioral Assessment/screening tool for behavioral health professionals to identify strengths and needs, support decision making, and monitor outcomes for adults *(Lyons, J.S. (2009). CommunimetricsLyons, J.S. Weiner, D.A. (2009). (Eds.) Strategies in Behavioral Healthcare: Assessment).*
2. **Aggression Replacement Training (ART):** Teaches adolescents ages 12-17 to replace aggression and antisocial behavior with positive alternatives *(OJJDP Effective Program; PPN Screened Program).*
3. **Behavioral Activation Therapy:** Psychotherapy treatment for therapists to use the behavioral model of depression to evaluate symptom severity *((Dimidjian, S., et al, 2006) and (Dobson, K.S., et al, 2008) and (Ekers et al, 2008)).*
4. **Blues Program:** Cognitive behavioral group (CBT) of depression prevention for ages 15-18 *(Blueprints Program Rating: Model).*

5. **Body Project:** A female only series of exercises for ages 15-22, that help create dissonance in participants by engaging them in a critique of the thin ideal to prevent eating disorders *(Blueprints Program Rating: Model).*
6. **Care, Assess, Respond, Empower (CARE):** Suicide prevention targeting high-risk youth from ages 13-25 *(Reviewed as promising by NREPP).*
7. **Child and Adolescent Needs and Strengths (CANS):** Behavioral assessment/screening tool for behavioral health professionals to identify strengths and needs, support decision making, and monitor the outcomes of services for children *(Lyons, J.S. (2009). CommunimetricsLyons, J.S. Weiner, D.A. (2009). (Eds.) Strategies in Behavioral Healthcare: Assessment).*
8. **Child FIRST:** Psychotherapeutic intervention for children birth to six years, and their families to prevent or reduce children's emotional, behavioral, developmental, and learning problems *(Reviewed as effective by NREPP).*
9. **Cognitive Behavioral Interventions for Trauma in Schools (CBITS):** Teaches six cognitive-behavioral techniques about relaxation, reaction to trauma, real life exposure, and social problem solving to ages 10-15 *(NREPP Legacy Program; OJJDP Exemplary Program; PPN Proven Program; and Blueprints Program rating: promising).*
10. **Cognitive Behavioral Therapy (CBT):** Psychotherapy for individuals who suffer with mental health, eating, mood, substance abuse, etc. *(Hofmann, S.G., Asnaani, A., Vonk, I. J.J, Sawyer, A.T., and Fang, A.(2012).).*
11. **Coping Cat:** Project that helps ages 8-17 recognize and analyze anxious feelings, and how to deal with anxiety-provoking situations *(Reviewed as promising by NREPP).*
12. **Coping Power:** School mental health professionals address substance abuse risk factors such as social competence, self-regulation, and lack of positive parental involvement *(Helping America's Youth Registry Level 1; NREPP Legacy Program; OJJDP Exemplary Program; PPN Screened Program; SAMHSA Model Program).*
13. **Crisis Intervention Training (CIT):** Training officers how to respond to mental health crisis. This program has been successful at improving officer's self-efficacy, and reducing stigma *(Bahora, et.al, 2008; Compton, et.al, 2006; Bower and Pettit, 2001).*
14. **Game (GBG):** Improves aggressive/disruptive classroom behavior through skill building to ultimately prevent criminality later in life *(Registry Level 1; NREPP Legacy Program; OJJDP Exemplary Program; PPN Screened Program; SAMHSA Effective Program; Blueprints Program rating: promising).*
15. **Girls Circle:** A structured support group for girls that integrates relational theory, resilience practices, and skills training to increase positive connection, personal and collective strengths, and competence *(Helping America's Youth Level 3; OJJDP Promising Program).*
16. **House Docket #3570:** To enhance municipal police training for law enforcement and mental health professionals. This bill is predicted to increase the current 17% of police departments in Massachusetts with adequate mental health training *(Proposed priority bill for 2017-2018. National Alliance on Mental Health of Massachusetts).*
17. **I Can Problem Solve: Raising a Thinking Child (ICPS):** Violence prevention program that helps ages 4-12 think of alternative nonviolent ways to solve everyday problems *(Blueprints Promising Program; A CASEL Select Program; Helping America's Youth Registry Level 2; NREPP Legacy Program; OJJDP Effective Program; PPN Screened Program; SAMHSA Promising Program; Strengthening America's Families Exemplary II Program).*
18. **Life Skills Training (LST):** A substance use prevention Program that teaches self-esteem, confidence, and coping skills for ages 8-14 *(Blueprints Model Program; Helping America's Youth Registry Level 1; Reviewed by NREPP as promising; OJJDP Exemplary Program; PPN Proven Program; USDE's Safe, Disciplined, and Drug Free Schools Exemplary Program).*
19. **Lion's Quest Skills for Adolescence (SFA):** Life skills and drug prevention curriculum for 6th and 8th grade students that emphasizes a positive learning environment, social and emotional skills, promoting prosocial behavior, and preventing drug and alcohol use *(A CASEL Select Program; Helping America's Youth, Registry Level 3; Reviewed by NREPP as promising; OJJDP Effective Program; PPN Screened Program; SAMHSA Model Program; USDE's Safe, Disciplined, and Drug Free Schools Promising Program).*
20. **MassHealth Wraparound Program:** Training mental health professionals how to provide intensive, individualized care for youth and families *(Tolan and Dodge, 2005.).*

21. **Mental Health First Aid (MHFA):** Educational training of the ability to recognize when a person is developing a mental health challenge for adolescents, families, caregivers, teachers, etc. This program has a positive impact on increasing knowledge, attitudes, and helping behaviors *(Kitchener and Jorm, 2002, 2006; Jorm, et.al 2010).*
22. **Mobilizing Action through Planning and Partnerships (MAPP):** Community participatory research to improve meaningful community inclusion and culturally responsive outcomes *(Lenihan, P., 2005, Corso, L. Wiesner, P., and Lenihan, P., 2005).*
23. **National Alliance on Mental Health Senate Bill #1090 and House Docket #2601**: An act establishing the Center of Excellence in Community Policing and Behavioral Health for law enforcement and mental health professionals. This bill is predicted to increase the number of law enforcement professionals with adequate knowledge and awareness of mental health *(Proposed priority bill 2017-2018. National Alliance on Mental Health of Massachusetts).*
24. **Olweus Bully Prevention Program:** Program for K to 9th grade, designed to reduce and prevent bullying by providing training to school staff *(Blueprints Model Program; PPN Screened Program; SAMHSA Model Program).*
25. **PACE Model (Programs of All Inclusive Care):** Medicare program for seniors 55 years and older to increase the quality of life and independence of seniors with mental health issues and those with disabilities *(Boult, C., Wieland, G.D., 2010, Damons, J, 2001, Leavitt, M, Secretary of Health and Human Services, Friedman et al, 2005 etc.).*
26. **Positive Action**: Improves academics and behavior for ages 5 to 18 through teaching and reinforcement of the philosophy that those who do positive actions feel good about themselves *(Helping America's Youth Registry Level 2; Reviewed by NREPP as promising; OJJDP Effective Program; PPN Screened Program, SAMHSA Model Program; USDE's Safe, Disciplined, and Drug Free Schools Promising Program).*
27. **Primary Project:** Early intervention program for children who show evidence of early school adjustment difficulties with the involvement of trained supervisors *(Helping America's Youth Leve 3; Reviewed by NREPP as Promising; OJJDP Promising Program; PPN Screen Program; SAMHSA Model Program; USDE's Safe, Disciplined, and Drug Free Schools Promising Progam).*
28. **Project ACHIEVE:** School improvement program that focuses on the academic and social-emotional/behavioral progress and success of all students *(A CASEL Select Program; Helping America's Youth Registry Level 2; OJJDP Promising Program; PPN Screen Program, SAMHSA Model Program).*
29. **Project Alert:** Substance abuse prevention program designed to motivate students against drug use, to provide skills and strategies for resisting use, and to establish non-use lifestyles *(Blueprints Promising Program; Helping America's Youth Registry Level 1; Reviewed by NREPP as promising, OJJDP Exemplary Program, PPN Proven Program; SAMHSA Model Program; USDE's Safe, Disciplined, and Drug Free Schools Exemplary Program).*
30. **Promoting Alternative Thinking Strategies (PATHS):** Promotion of emotional and social competencies and reducing aggression and behavior while also enhancing the educational process for Pre-K to 5th grade students *(Blueprints Model Program; A CASEL Select Program; Helping America's Youth Registry Level 1; Reviewed by NREPP as Promising; OJJDP Exemplary Program; PPN Screened Program; USDE's Safe, Disciplined, and Drug Free School Promising program).*
31. **Quiet Time Program:** Mindfulness/meditation program designed to reduce stress, improve academic performance, attendance, student wellness, and to decrease teachers' turnover rate *(Elias and Wilson, 1994).*
32. **Responsive Classroom (RC):** To help further student learning by fostering on social, emotional, and academic growth through positive interactions for K to 8th grade *(A CASEL Select Program Helping America's Youth Registry Level 3; OJJDP Promising Program).*
33. **Second Step Violence Prevention Program:** Teaches children to identify and understand their own and others' emotions, and to practice a variety of social skills for all students *(A CASEL Select Program; Helping America's Youth Registry Level 2; Reviewed by NREPP as promising; OJJDP Effective Program; PPN Promising Program; SAMHSA Model Program; USDE's Safe, Disciplined, and Drug Free Schools Exemplary Program).*
34. **SOS Signs of Suicide:** Teachings for ages 14 to 18 of the appropriate response when encountering a friend or peer that is suicidal *(NREPP Reviewed as Promising; OJJDP Promising Program; SAMHSA Promising Program; SPRC Reviewed).*
35. **Strategies and Tools Embrace Prevention with Upstream Programs (STEP UP):** Curriculum aimed at promoting positive mental health, building emotional competence, and creating a safe school climate for middle school students (*NREPP Reviewed Programs with Effective Outcomes).*

36. **Teenscreen:** Assists in the early identification of problems by bringing in an outside mental health professional *(NREPP reviewed as promising).*
37. **The Incredible Years:** Teacher and Child Programs: A series of Programs that seek to strengthen children's social and emotional academic competencies, both at home and in school *(Blueprints Model Program; Reviewed by NREPP as promising; OJJDP Model Program; PPN Proven Program; SAMHSA Model Program; Strengthening America's Families Exemplary I Program).*
38. **Too Good for Drugs and Violence Programs:** Lessons that promote students' prosocial skills, positivity, and violence- and drug free norms *(Helping America's Youth Registry Level 1 - Violence Component, Level 3 - Drug Component; Reviewed by NREPP as Promising - Drug Component; OJJDP Exemplary program - Violence Component, Promising Program - Drug Component; PPN Screened Program; SAMHSA Model Program).*
39. **Transition to Independence Program:** A youth to adult transition program for adults 14-29 to provide tools for young adults to successfully transition into adult and to improve mental health *((Clark and Hart, 2009. National Network on Youth Transition (NNYT) research team) (Clark Deschenes, Seiler, Green, White, and Sondheimer, 2008; Clark, Karpur, Deschenes, Gamache, and Haber, 1008; etc.)).*

Physical Activity Best Practices

1. **CDC's StairWELL to Better Health:** Obesity prevention for employers to improve employee health *(VerWeiji 2011, CG-Obesity, Dishman 2009).*
2. **Complete Streets:** Community design to ease transportation for all pedestrians, bicyclists, and users of public transit.
3. **Enhance Fitness:** Group fitness program for seniors at all levels of physical activity *(Wallace JI, et al. (1998)).*
4. **Healthy Kids, Healthy Futures':** Obesity prevention program to provide physical activity access for youth and families *((Agrawal T., et al., 2012) and (Castaneda-Sceppa C., et al., 2011)).*
5. **Let's Move!** Physical activity campaign for everyone *((Wojcicki and Heyman, 2010.) and (Georgiadis, M., 2013.)).*
6. **SPARK:** Physical activity model for teachers and recreational leaders who serve Pre-K through 12th grade students to combat childhood obesity *(Herrick, H. et al., 2012.).*
7. **Ways to Enhance Children's Activity and Nutrition (We Can!):** Science-based educational physical activity program for parents, caregivers, and the entire community to help ages 8-13. *(National Heart, Lung, and Blood Institute of Health, January 2007).*

Substance Use and Prevention Best Practices

1. **Cognitive Behavioral Therapy (CBT)**: Psychotherapy treatment for individuals with disorders relating to mental health, eating, mood, addiction, and substance abuse *(Hofmann, S. G.; Asnaani, A.; Vonk, I. J.J., Swayer; A.T., and Fang, A. (2012.))*.
2. **Gloucester's ANGEL Program**: Drug addiction program run by police departments for individuals who suffer from addiction *(Knopf, A (2016)).*
3. **Local Drug Take Back Programs:** Drop off kiosk disposal program for individuals with substance use disorder *(Gray, J., 2015. And Lubick, N. (2010)).*
4. **Lowell Drug Courts:** Substance abuse recovery program for individuals who with substance use disorder *((Dowden and Andrews, 2004) and (Chadwick et al, 2015) and (Bureau of Justice Assistance, 2016).*
5. **Lowell House Addiction Treatment and Recovery COOP:** A partnership team between Lowell Police, Lowell Fire, and Lowell Health Department that offers outreach and follow-up visits to opioid overdose victims and families for individuals with substance use disorder.
6. **Massachusetts Offender Recidivism Reduction:** Drug court model for individuals who pose risk of relapse *(Warren, R.K, 2007).*

7. **Massachusetts Results First Program:** Analysis model for the commonwealth's new and existing juvenile justice and child welfare programs for inmates and children Pre-K to 12th grade *("Massachusetts Results First," August 2014).*
8. **Massachusetts Technical Assistance Partnership for Prevention (MassTaPP's PFS 2015 initiative):** An online prevention framework to implement effective, data-informed, culturally competent strategies for professionals working with clients with mental health and substance use disorders (*(Centers for Disease Control and Prevention (2012, October)) and (Massachusetts Department of Public Health (2014, December))).*
9. **Middlesex Sheriff's Office Treatment Program:** A 12-step self-group for inmates with addiction, behavioral, and anger management disorders.
10. **Middlesex Driving Under the Influence of Liquor Program (DUIL):** A 14 day intensive treatment program at Tewksbury Hospital for those convicted of a second offense of driving under the influence of liquor *(Substance Abuse and Mental Health Services Administration (SAMHSA), July 30, 2004).*
11. **Support Screening, Brief Intervention, and Referral to Treatment (sBIRT)**: Used to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and illicit drugs *(Madras BK, Compton WM; Avula D., Stegbauer T.; Stein JB, Clark HW., 2009).*