OVERVIEW

Connecticut's *Communities Putting Prevention to Work* (CPPW) is a comprehensive, community-based health promotion and wellness program designed to reduce risk factors associated with increased levels of obesity, lack of physical activity, and poor nutrition. Toward that end, the Connecticut Department of Public Health (DPH) has partnered with two local health departments, the Northeast District Department of Health (NDDH), with jurisdiction over twelve officially designated rural towns, and the New Haven Health Department (NHHD), a small but vibrant city in the state. The proposal will focus on an appropriate array of interventions drawn from selected MAPPS strategies, which will feasibly produce effective and sustainable outcomes for policy and environmental changes in the areas of nutrition and physical activity.

The application is organized into four sections and describes the initiatives proposed by the state-community partnership. The first section will explain the state perspective and readiness for policy change through the proceedings of the Connecticut Food Policy Council, followed by a second section that will present the NDDH proposal, and a third section with the NHHD proposal. The final section outlines the coordinated approach of the State and local health agencies for evaluation of all CPPW initiatives introduced in the application.

SECTION 1: STATE-COORDINATED INTERVENTIONS

The goal of the Connecticut's CPPW program is to mobilize the Northeast District and the New Haven communities to implement sustainable, replicable, and integrated community-based approaches that promote physical activity and healthy eating, thereby reducing the burden of obesity, diabetes, and cardiovascular disease. Efforts will be organized to: (1) develop and sustain a network of wellness activities; (2) integrate and support health behavior change in community, school, and worksite settings; and (3) address identified environmental, policy, and

organizational changes to reduce risk factors and disparities that contribute to chronic disease. As a result of policy and systemic changes, community residents will be more effective and empowered to take personal responsibility toward healthier lifestyles.

DPH staff, part of the Public Health Initiatives Branch, will provide leadership and oversight for the proposal. Grant management will be specifically assigned to the Nutrition, Physical Activity, and Obesity Program. Two senior managers, a Section Chief and a Public Health Services Manager, will assume ultimate responsibility for the grant. In addition to two full time positions, Health Program Associate and Epidemiologist, hired by the grant, at least two senior Epidemiologists at DPH will be involved in the implementation through technical support and oversight. The SNAP program nutritionist will be assigned part-time to work in this grant as the Healthy Communities Coordinator (See Appendix B: Project Leadership).

In preparation for this grant, DPH will convene a State-Community Management Team. In addition to NDDH and NHDH leadership members, the Team will include members of the Connecticut Childhood Obesity Council (CCOC) and Coordinated School Health Management Team. CCOC is a coalition of state agencies and non-governmental partners working to address issues of poor nutrition and physical activity. The council has effectively mobilized municipal officials, community leaders, health care professionals, educators, business members, and families to respond more effectively to the childhood obesity epidemic[1]. Coordinated School Health, funded by the Centers for Disease Control, is a strong partnership between the Connecticut Department of Education and DPH that is designed to improve student's capacity to learn through families, communities, and schools working together. The Team will also include representatives from **A**ction **C**ommunity for **H**ealth, **I**nnovation, and **E**n**V**ironmental Chang**E** (ACHIEVE) and the YMCA Pioneering Healthy Communities initiatives. (Appendix C: Letters

[1] (http://www.cga.ct.gov/COC/obesity_forum.htm)

of Support). The Management Team will oversee the CPPW initiatives to ensure they remain aligned with the goals of the proposal and that outcomes are consistent with the expected policy and environmental changes. Specifically, the Team will: (1) promote collaborations and develop strategic alliances within and among different sectors of the community; (2) educate and empower community leaders and elected officials to recognize the impact of obesity and lack of physical activity; and, (3) achieve measurable, cost-effective outcomes that ensure sustainability.

In addition, DPH will be the lead for two overarching components of the application. First, DPH will lead the evaluation process explained in the last section of the application. In coordination with the Management Team, the DPH will procure a contractor through a competitive process. Second, DPH will partner with the State Department of Agriculture and the American Farmland Trust (AFT) to support the work of the Connecticut Food Policy Council (CFPC). Under the direction of the Program Manager, the Women Infant and Children (WIC) program director will coordinate the work of the CFPC on behalf of DPH.

This initiative will not only create synergies with other food policy councils in the state such as the New Haven Food Policy Council chaired by the Rudd Center for Food Policy and Obesity, but will also enhance food procurement policies promoted by the NDDH and the NHHD. The Connecticut Legislature established the CFPC in 1997, the first of its kind in the nation, to develop and implement a food system policy linking local economic development, environmental protection and preservation with farming and urban issues. The Council will actively examine new policy options to increase access and availability of fresh and locally grown foods, thereby improving the nutritional health of Connecticut residents, while developing sustainable economic development in Connecticut's food production systems. Through this grant, CFPC with AFT assistance will convene a working group comprised of food industry experts, education and healthcare delivery professionals and state and local agency

representatives to focus on making improvements in state procurement policy in order to increase institutional use of locally grown food in Connecticut schools and hospitals. The working group will examine the current status of state procurement policy, its impact on the procurement of locally grown food, and procurement models from other states. To foster policy change, the CFPC will host two regional conferences to 1) share strategies to increase purchasing volume of locally grown; 2) learn about different approaches to informing consumers (marketing) of locally grown products in their menus; and, 3) examine critical infrastructure, regulatory, and/or legal barriers to more growth in this sector. Lastly, the Council with AFT assistance will oversee a statewide incentive grants program to institutions that receive state funding to encourage innovative strategies to increase their procurement of locally grown products and enhance the marketing of these local foods to their consumers.

Despite Connecticut's budget deficit and the economic recession, DPH is confident that the Connecticut's CPPW initiatives will endure the economic challenges and maintain their long-term impact. The strong commitment and engagement of both State and community stakeholders in the application represents a significant leverage of government resources by private and non-profit sectors. NDDH's progress with and extensive commitment to the ACHIEVE Healthy Communities initiative further demonstrates consistency and future sustainability. Similarly, the strong interconnectedness of the NHHD initiatives with the previously established New Haven Wellness Policy Objectives provides unprecedented leverage for long-term sustainability.

Gaining support from the general population will be critical to advance and sustain the proposed policy changes. Therefore, DPH as well as NDDH and NHHD will continuously reach out to community organizations and elected officials to foster policy and environmental changes in other future projects. Garnering legislative interest through self-promotion and evaluation data that demonstrates cost-effectiveness, will secure further commitments and resource

appropriations. DPH is confident that outcomes from the initiatives will become solid stepping-stones with long lasting effect beyond the CPPW grant.

Consistent with the requirements of the American Recovery and Reinvestment Act (ARRA), DPH has developed strict protocols to ensure appropriate fiscal management to report all funded activities. All ARRA applications, approvals, contracts, and financial activity are recorded with ARRA-specific codes into a statewide fiscal management system. The unique codes allow for ARRA projects to track individual expenditures. In addition, DPH has established a reporting system to ensure thoroughness and accuracy for all ARRA programming and fiscal management. A Chief Accountability Officer (CAO) has been designated within the agency and reports monthly and quarterly ARRA-related activities in compliance with Federal and State requirements. DPH attends meetings with the Governor's staff and other selected agencies to review ARRA activities within the state. Simultaneously, DPH conducts weekly internal coordination meetings to review current activities and develop strategies to comply with the Governor's directives. Established DPH protocols require all program staff to ensure transparency, thoroughness, accuracy, and timeliness for DPH activities that are funded and/or required through ARRA. All programs compile and send a program report to the CAO; the CAO compiles the information into an agency report for the Governor on a monthly basis.

SECTION 2: NORTHEAST DISTRICT DEPARTMENT OF HEALTH (NDDH)

I. PROGRAM INFRASTRUCTURE AND FISCAL MANAGEMENT: The NDDH provides essential public health services to 85,742 residents in 12 towns in the northeastern quadrant of the state. NDDH has a long, positive funding history with DPH, which has allowed the implementation of numerous successful community wellness programs. In the past eight years, NDDH has received nearly $2 million in health promotion and disease prevention funding to

target cardiovascular health, obesity, asthma, Lyme disease, breast cancer, and emergency preparedness planning through DPH and other regional, state, and national funding partners. This includes selection as a demonstration site for a National Association of County and City Health Officials (NACCHO)-funded project that developed a food-borne illness prevention toolkit for local health departments to use for food oversight at agricultural fairs. NDDH serves as the lead Mass Dispensing Area for the State and is the Region 3 lead for two asthma grants. NDDH has a 35-year history of grant administration with successful completion of all deliverable and reporting requirements. NDDH fiscal staff and HealthQuest (HQ) leadership possess the necessary skills, strong financial infrastructure and the ability to contract with service providers, and are fully prepared to meet all ARRA-reporting requirements.

Further, NDDH was funded by the National Association of Chronic Disease Directors (NACDD) for ACHIEVE in March of 2009. As a national ACHIEVE community, NDDH has already started to implement policy, systems, and environmental changes in their jurisdiction and have undertaken numerous steps required in the application, which includes: the creation of a two-year Community Action Plan (CAP) (Appendix A); the formation of a Community Health Action Response Team; completion of 27 ACHIEVE CHANGE (**C**ommunity **H**ealth **A**ssessment a**N**d **G**roup **E**valuation) tool assessments; and the ability to complete activities within the time allotted. NDDH established and directed HQ, a strong coalition of community leaders who work towards developing and building community-based prevention and wellness strategies with long term goals. HQ leaders have an important and instrumental role in the ACHIEVE initiative; they participated in national Coaches meetings and Action Institutes, and are invested in successfully accomplishing the CAP strategies during the next two years.

NDDH staff members and the HQ leadership team possess a strong relationship with local and state legislators, and have provided testimony to Senate panels on issues concerning

health and the community. NDDH leadership staff includes: (1) Director of Health will provide in-kind support as an active member of the HQ leadership team; (2) Director of Health Education and Communications will serve as the CPPW Project Director and oversee all aspects of grant deliverables; (3) Grant Assistant and Administrative Assistant will provide administrative support; (4) CPPW Financial Manager will provide fiscal management; and, (5) Environmental Staff will assess existing space for development of worksite, school, and community gardens as well as provide training and inspection of Farmer's Markets (See Budget and Budget Narrative). In addition, a HQ partner, Day Kimball Healthcare (DKH), northeastern Connecticut's largest health care provider and one of the region's top employers, will commit a management team for finance and administration.

To preserve and create jobs and promote economic recovery, the CPPW grant will create employment opportunities for a full-time Project Manager with experience in physical activity and nutrition who will plan, implement, and evaluate the grant strategies; DKH positions for a full-time nutritionist, full-time lactation consultant, and part-time data collection specialist; and up to 24 part-time contracted positions (Appendix B: Project Leadership for CV/Résumés, Appendix C: Letters of Support).

II. LEADERSHIP TEAM AND COALITIONS: The HQ Leadership Team (HQLT), which started in 2006 as a result of Healthy Hearts funding, will become the CPPW Leadership Team. The core members of the Healthy Hearts Northeast Community Cardiovascular Health Coalition pledged to provide support for future activities and the HQLT has remained active with 11 core community leaders committed to the process of building and sustaining healthier communities.

The Healthy Hearts Coalition began in 2003 when the district received funds for a nutrition/physical activity policy and environmental intervention to decrease heart disease and stroke in the community. The Healthy Hearts Coalition expanded quickly and "Health Teams"

were instituted in local schools and businesses to develop staff wellness programs suited for their organization's culture and environment. Simultaneously, NDDH worked with local school systems on a grant-funded Obesity Prevention Project to improve nutrition for 4th, 5th, and 6th grade children. As a result, newly developed health plans and wellness programs produced school and business policy and environmental changes that enforced no smoking policies, improved vending machine choices, and encouraged exercise. The success of this initial program and coalition-building achievement was presented at the 2004 Healthier US Summit.

After funding ended in 2006, the Healthy Hearts Coalition provided support for future activities which resulted in HQ 2008, a daylong symposium, with over 200 participants that laid the groundwork for building and planning healthier communities, schools, and workplaces. Then during HQ 2009, national recreational walking expert, Robert Sweetgall, launched a walking initiative for two schools in the Plainfield School System, which encouraged the school systems to adopt policy and systems changes. Over 1,100 students and staff currently participate in WriteSteps and start the school day with a ten-minute brisk walk followed by ten minutes of journaling once they return to the classroom. In addition to increased physical activity and improved writing, the Plainfield School Principal reports no discipline referrals from teachers during the morning block since the program was instituted. As further evidence of success, the schools received a Bronze Award for Healthy Schools from the Alliance for a Healthier Generation, which only selected 114 schools throughout the nation for this distinction. HQ will institute the WriteSteps program throughout the twelve communities. An additional result from the HQ 2009 event was the establishment of a Worksite Wellness Committee by the local Chamber of Commerce to assess worksite wellness strategies.

Continual recruitment will build HQLT subcommittees to include representation from: town leadership; newly proposed YMCA; three Family Resource Centers; six Food Banks; three

regional Farmer's Markets; twelve Parks & Recreation Departments; local bicycling association; regional senior center; tourism district; Windham County Extension Center; local business; faith-based and civic groups; and local social service agencies.

The HQLT forms the foundation of the ACHIEVE CHART; current members represent the leadership of the organizations they represent (Appendix B: Project Leadership for Coalition Members and Appendix C: Letters of Support). The HQLT meets, at minimum, monthly and convenes more often especially during community-based strategy, planning, and implementation meetings (Appendix G: NDDH Achievements for HQLT Minutes). HQLT members, as part of the ACHIEVE grant, participated in the ACHIEVE Action Institute in Alexandria, VA in July 2009. In addition, the HQLT and the initiatives within the application are fully supported by the Northeastern Connecticut Council of Governments, which represents the political leadership (i.e., Mayors, Town Councils) for 11 of the 12 towns. The HQLT is committed to maintaining a successful coalition that represents all 12 NDDH communities. CAP strategies include plans to increase community stakeholder participation and to ensure continuity of community representation to establish environments and opportunities for healthy eating and increased physical activity. The HQLT will meet bimonthly to establish and maintain the organizational structure, address the CAP, oversee data collection, and enact selected policies.

In NDDH regions, area schools and towns have collaborated with the following programs: Women, Infants, and Children Program; National School Lunch Program (for both school kitchen improvements and Team Nutrition); School Breakfast Program; Summer Food Service Program; Head Start; Carol M. White Physical Education Program; National Programs for Safe & Drug-Free Schools and Communities; EPA Brownfields Projects; and Rural Community Facilities Program Grants. The HQLT will continue to research and leverage federal funds to enhance CPPW efforts.

III. INTERVENTION AREA AND POPULATIONS OF NEED: CPPW will encompass the entire health department jurisdiction. NDDH has been a strong, stable, public health resource for northeastern Connecticut since 1973 and provides essential public health services to 85,742 residents in 12 towns over 438 square miles (Brooklyn – 7,949, Canterbury – 5,118, Eastford – 1,798, Hampton – 2,149, Killingly – 17,826, Plainfield – 15,430, Pomfret – 4,168, Putnam – 9,307, Sterling – 3,748, Thompson – 9,269, Union - 751, and Woodstock – 8,229). Though the NDDH jurusdiction does not meet the population criteria as a CPPW rural area, 11 of 12 towns in the jurisdiction carry an official rural designation from the State Office of Rural Health.

The CPPW HQ initiative supports the entire region served by the NDDH. The population ranges from long term, multi-generational families to newly immigrated residents from urban areas. There is a wide range of socioeconomic factors and disparities including: high income to extreme poverty; advanced education to incomplete high school education; and home ownership to renters. In 2008, the median household income in Windham County was $54,859, the lowest of any county in the Connecticut. Twelve percent of the population is of an ethnicity other than Caucasian.

The 12 towns rely on NDDH to develop and maintain strong prevention programs to support the community. NDDH has changed the health of the entire community (Appendix G: NDDH Achievements); although, rates of asthma, obesity, cardiovascular disease, diabetes, and other chronic illnesses still remain high. Windham County ranks second in the state for asthma hospitalization rates (13.5 per 10,000). The public transportation system is minimal and the majority of roads are two-lane country roads with limited access for elderly, disabled, disenfranchised, and unemployed. Connecticut recognizes nine rural towns with overall poverty levels at or above the state percentage, and four are located with the NDDH jurisdiction. Plainfield, Putnam, and Killingly are among 18 Connecticut municipalities with families headed

by females, living in poverty. Day Kimball Healthcare (DKH) reports that costs of uncompensated care increased by 25% from 1999 to 2001.

Further, statewide data on cardiovascular disease and diabetes indicates a high Age Adjusted Mortality Rates (AAMR). AAMR for all deaths from cardiovascular disease is 242.8 compared to 292.7 for the NDDH towns. Deaths from heart disease alone are higher in NDDH towns with an AAMR of 223.9 versus 186.8 statewide. AAMR for diabetes statewide is 18.1 while for NDDH towns it is 20.6. In addition, AAMR for diabetes-related deaths is 65.3; in NDDH it is higher at 73.5. From 1990 to 2004, the prevalence of obesity among Connecticut adults increased 68%. In 2004, 56.2% of Connecticut's adult population was either overweight (36.5%) or obese (19.7%). Arthritis**,** diabetes, and hypertension among adults in the state are positively correlated with BMI, and an estimated $856 million dollars in adult medical expenditures in the State are attributable to obesity.

IV. SELECTION OF RISK FACTORS AND INTERVENTIONS: Federal funding will allow HQ to pursue strategies developed in its CAP to reduce risk factors of obesity by advancing policy, systems, and environmental changes that support increased physical activity and better nutrition. The NDDH initiatives will be sustainable due to strong community support and HQ partners will identify additional federal, state, and local funding sources. Most of the proposed initiatives are tied to policy, systems, and environmental change strategies already underway. The interventions and measures are further detailed in the two-year CAP. (Appendix A)

1. Plow to Plate® (P2P) [*Nutrition – MAPPS Access & Price*]: HQ will contract with P2P founder Marydale DeBor and John Turenne, President of Sustainable Food Systems (SFS), to implement a multi-faceted community based sustainable foods model to promote and increase consumption of healthy, locally grown food by the community at large as well as within institutional settings. The P2P initiative is clearly aligned with the goals of the Connecticut Food

Policy Council (CFPC) and will serve as a practical demonstration of local food procurement. NDDH will be a participant in the CFPC working group and will bring valuable experience to the regional conferences planned by the Council.

DKH, which employs over 1,200 people, will be the focus site of P2P and SFS implementation. P2P is a dynamic coalition of physicians, farmers, chefs, restaurateurs, community leaders, land preservationists, and “locivores” who have come together to alter the way that healthcare is dispensed by promoting nutrition first, through encouraging the community to support local food production. HQ will also implement the P2P Youth Chef Advocate Program, which creates a "corps" of peer educators and advocates composed of middle and high school students. After mastering a full spectrum of "local food skills" – farming, culinary, menu design, public speaking, and advocacy – these students will conduct outreach programs and food demonstrations at local schools and social service agencies to share knowledge about the benefits of a healthy diet based on "Connecticut Grown" food. Through field trips to farms, restaurants with local food menus and food distributors that work with Connecticut farmers, students will learn of the many career opportunities created by sustainable food systems. They will also receive school internship credit for their participation. A full-time nutritionist will be hired to coordinate and sustain on-site program implementation and to work with all DKH pediatric sites to educate high-risk patients.

In addition, HQ will implement the P2P Farm Bucks® initiative, a $5 Farm Buck will be made available through local pediatricians, obstetrician/gynecologist, and family practice offices. Physicians provide the Farm Bucks along with a HQ Healthy Eating Active Living “Prescription” that indicates the need for better nutrition and increased physical activity, and a packet of nutritional information, recipes, and tips. Patients redeem Farm Bucks at local Farmer’s Markets. Farmers submit Farm Bucks, which will be reimbursed from grant funds.

Farm Bucks carry serial numbers that allow HQ to track which doctor prescribed it and what goods were purchased from the farmers. P2P will also offer guidance for future funding resources, including local sponsorships to sustain the program. A final component will link daily food banks and food pantries with Farmers Market's and locally grown resources to bring healthier foods to disadvantaged populations.

2. Breastfeeding Action Program (BAP) [*Nutrition – MAPPS Social Support & Services*]: In an effort to reverse a recent trend away from breastfeeding, HQ will partner with DKH to implement a BAP at their community hospital, which reports approximately 600 births annually. The program will educate new and expectant mothers about the advantages of nursing and techniques necessary to achieve success in breastfeeding a newborn. A physician and nurse champion will be trained to educate colleagues about instructing nursing mothers. Additionally, a full-time lactation consultant will be hired to work both in the newborn nursery and in pediatric practices throughout NDDH to assist mothers to avoid abandonment of nursing. BAP will provide support to mothers at several points of contact (i.e., obstetrician's office, newborn nursery, pediatrician's office) and will allow for measurable results of program success.

3. Bike It, Hike It, Like It [*Physical Activity –MAPPS Access & Point of Purchase /Promotion*]: HQ will contract with a national expert, public health, planning, and transportation consultant, Mark Fenton, to provide much-needed training to town officials, zoning boards, and community leaders on the fundamentals of active and healthy community design. Through a series of educational summits, workshops, symposiums, and on-going consultation with HQLT, Fenton will assist in the assessment of existing spaces that are appropriate for the development of physical activity trails in neighborhoods and industrial parks (to engage worksite wellness). This will include analysis of the Airline Trail and East Coast Greenway and portions of national trail systems that run through the NDDH. In addition, a worksite wellness coordinator will work with

the business community to explore strategies for changing their local environments to create opportunities for physical activity. Fenton will be contracted to assess all 12 communities for walkability in the first year, and then HQ will work to turn 12 existing spaces into physical activity trails by adding destination signage and outdoor fitness clusters along each site to encourage physical activity.

4. WriteSteps [*Physical Activity – MAPPS Access*]: HQ will contract with national recreational walking expert Robert Sweetgall to expand the coalition's highly successful school-based ***WriteSteps*** walking and writing initiative to 11 other schools within the jurisdiction over the 24-month grant period, with potential outreach to 8,000 students and staff members. Schools will adopt policies to implement and sustain the daily 10-minute brisk walk that is followed by 10 minutes of journaling upon return to the classroom. This successfully adds 50 minutes of physical activity to each student's weekly schedule. DKH will also form a Pediatric Outreach Team to collaborate with school and community-based Health Outreach Teams; the will meet at least twice a year to track the status of child and adolescent populations in the school system.

5. Healthy Living Campaign [*Nutrition & Physical Activity – MAPPS Media*]: Local non-metropolitan media outlets allow for more affordable media campaigns. HQ will apply the Program Director's communications and media background and work with contractors to implement broad-based, hard-hitting media messages communitywide. HQ will develop a creative and compelling media campaign to promote healthy behaviors. A bold ***"You Know You Want Me"*** fruit and vegetable campaign will put a "fresh" spin on better nutrition by using messaging to entice people to increase their intake of "fresh" fruits and vegetables. A physical activity media campaign promoting HQ's ***"Bike It, Hike It, Like It"*** initiative to assess existing space for walkability and bikability will include a guide to physical activity trails and a communitywide contest to encourage residents to submit one to two mile walking or biking

loops within each of the 12 towns for a chance to win a bike. In addition to community media outlets, outreach strategies will include the creation of a HQ website, and promotion of HQ's school-based ***WriteSteps*** walking/writing initiative through in-school posters, print ads, student/school newspaper articles, websites, radio stations, and clubs.

V. EVALUATION TO MONITOR/MEASURE PROGRESS: Please refer to page 27 for the state-coordinated approach to evaluation.

VI. COMMUNITY PROGRAMMATIC SUPPORT NEEDS: HQ will rely on assistance from federal, state, and regional partners to successfully implement grant deliverables and meet required ARRA reporting measures. This includes technical assistance in the form of webinars, conference calls, conferences, and on-site visits from the CDC as well as national ACHIEVE partner, the National Association of Chronic Disease Directors. HQ will also utilize DPH technical assistance, data, resources, and expertise in epidemiology and chronic diseases to ensure the greatest benefit for collaborative efforts. While implementing CPPW initiatives in such a wide jurisdiction is challenging, HQ is fully prepared to commit all necessary coalition resources to accomplish the goals.

SECTION 3: NEW HAVEN DEPARTMENT OF HEALTH (NHDH)

I. PROGRAM INFRASTRUCTURE AND FISCAL MANAGEMENT: New Haven is Connecticut's third largest municipality, home of Yale University, and has some of the most vulnerable populations with an elevated risk for chronic diseases and negative health outcomes. The New Haven Health Department would like to reverse the trends and its mission states, "to create a healthy environment for its residents and to be the people's advocate in promoting essential public health endeavors". Under the leadership of Mayor DeStefano, the Community Services Administrator (CSA) (board certified pediatrician), and Director of Health, NHHD will

convene a distinguished Leadership Team that consists of city department heads, New Haven Public Schools (NHPS) leadership, and the Directors of Yale University's Community Alliance for Research and Engagement (CARE) and the Griffin Prevention Research Center (PRC) to implement an ambitious policy and systems agenda to improve the city's health. The CPPW Project Director (PD) with the Leadership Team will provide management for project activities and participate on the State-Community Management Team (Appendix B: Project Leadership).

The following City staff are responsible for: (1) PD will ensure project management, liaison with partnering staff, agencies, DPH, and project officer and direct contractors implementing media campaign, web portal development, and evaluation; (2) Prevention Policy Analyst will focus on translating effective initiatives into permanent policy change, and support effective communications with local and state policymakers; (3) Health Equity Alliance (HEA) Community Health Educator will assist in community engagement; (4) Director of Sustainability will support the Food Policy Council; (5) Street Smarts Kids Coordinator will implement Safe Routes to Schools; and, (6) Traffic Engineer will implement neighborhood pedestrian infrastructure enhancements (See Budget and Budget Narrative).

The CSA will also coordinate specific organizations and key New Haven stakeholders for the proposed initiatives. For school wellness, the NHHD will coordinate with: (1) NHPS for the District Wellness Coordinator who will implement the Physical Activity and Wellness (PAW) interventions and implement policy; (2) PAW Coordinator to establish PAW in K-8 schools; (3) School Wellness Team Facilitators for 27 PreK-8 schools (12,562 students); (4) Farm-to-School Coordinator to advance local food purchases, pursue school food production, and establish farm trips for students; (5) Registered Dietitian to support food policy interventions; and, (6) NHPS-CARE Coordinator to advise on interventions and manage data collection for evaluation.

Secondly, CSA will partner with the Yale-Griffin PRC to implement the Nutritional Guidance Initiative based on their NuVal™ food scoring system, working with the Registered Dietitian/Coordinator and three NuVal™ team members to oversee community and school interventions, and Nutrition Detectives™ and ABCs of Fitness™ classroom-based interventions in all K-8 schools.

For the 2nd year, CSA will partner with CARE's, Community Interventions for Health (CIH) initiative, to administer the Neighborhood Survey, a critical measurement tool that will track health changes at the neighborhood level. The Community Outreach Intern and CIH Senior Staff will provide considerable in-kind support. Additionally, CitySeed and DataHaven will document, disseminate, and maintain a central repository for clear, accessible health-related CPPW data for connections between health and environment to assist evaluation efforts.

NHHD has approximately $650M annual budget, which includes federal, state, and private grant dollars and currently oversees three ARRA-funded grants. New Haven's Finance Division has successfully met all deliverables and reporting requirements, including the quarterly benchmarks mandated by the grantors, and supports the CSA in its fiduciary capacity of monitoring and ensuring accountability due to their strong financial infrastructure and ability to contract with service providers expeditiously.

Another asset, besides strong fiscal management, is NHHD's established relationship with community organizations, local funders, and academia. Components of this proposal build upon nationally recognized initiatives, including the Elm City ID Card, ROOF foreclosure prevention program, and the Health Equity Alliance. These initiatives are city-led partnerships with community-based buy-in. They are sustained with federal, state, and philanthropic funds. In addition, by partnering with Yale and local funders, this collaborative institutionalized pilot programs and raised substantial grant funding to leverage local tax dollars. CPPW initiatives

will build upon these policy innovations, interventions, and infrastructure, as well as utilize the results of these initiatives to advocate for continued support after the grant funds expire.

II. LEADERSHIP TEAM AND COALITIONS: The CPPW Leadership Team is comprised of city leaders who have successfully worked together on multiple community initiatives and are committed to improve health of the residents of New Haven and will be chaired by the CSA. The Leadership Team has the authority to oversee the strategic direction and related citywide policy priorities, establish a governance structure for the community coalition, identify and address system and service barriers, participate in local and national meetings, and exercise collective power to ensure that policy directives are prioritized, enacted on schedule, and carefully evaluated. The team will meet monthly, then every six to eight weeks after the six-month startup to track progress and resolve any residual barriers to implementing CPPW initiatives. Additionally, the Health Equity and Wellness Commission will be created and will work with the Leadership Team to improve the health of NHHD's residents through community-based intervention and engagement, media, and policy change. The Commission will include city and NHHD leadership, community-based health providers, academia-based researchers, and grassroots neighborhood organizers. (Appendix B: Project Leadership and Appendix C: Letters of Support)

Furthermore, NHHD provides an unprecedented opportunity to leverage community-based efforts as well as foster linkages with ARRA funded programs (i.e., ARRA: Homeless Prevention Rental Program and Education, ARRA: Elementary and Secondary Education) in the City. Since 2007, NHHD and the Leadership Team have had a collaborative relationship with CARE. CARE fosters rigorous community-based research and community engagement efforts, and translates scientific breakthroughs into practical benefits to strengthen community-university alliances around health. Secondly, New Haven serves as a pilot site for the Health Equity

Alliance (HEA), a project of the Connecticut Association of Directors of Health (Kellogg-funded) that focuses on policy reforms, investments in prevention to create conditions for people to be healthy rather than treating them afterwards. HEA utilizes extensive community engagement strategies to connect over 50 local health-related coalitions, political leaders, and policy makers to identify where resources are needed the most and transform policy for the betterment of the community (e.g., Mayor's Task Force on AIDS/Needle Exchange Program). The usage of the Health Equity Index, an assessment tool, will profile and measure the social, economic, and environmental conditions and determinants that affect residents' wellbeing. The commitment between academia and the New Haven community serves as a model to address the root causes of health disparities. An additional asset is the Community Interventions for Health (CIH), an international evidence-based initiative that mobilizes communities around three risk factors for premature death – poor nutrition, physical inactivity, and tobacco use. CIH, which is closely aligned with the purpose of CPPW, directly engages thousands of African-American and Hispanic/Latino households and neighborhoods to increase their level of chronic disease awareness (Appendix B: Project Leadership).

III. INTERVENTION AREA AND POPULATIONS OF NEED: With a population of 124,447 in 19 square miles, 52 public schools (21,000 students) and the primary urban center within a metropolitan region of 845,244 persons, New Haven is a city of great diversity and disproportionate health inequities. New Haven is at elevated risk for many negative health outcomes when compared to Connecticut and the nation as a whole due to high rates of poverty and unemployment. Additionally, racial and ethnic poverty disparities further compound the exposure of minority populations to these health risks: 28% of African American and 35% of Latinos live in poverty, as do 40% of African American and Latino children under five. The total population make-up is 39% African American, 23% Latino, and 6% Asian/Asian American,

with a median age of 30 and a median household income is $36,428. There are high rates of teen pregnancy, low birth weight, infant mortality, lead exposure, and obesity among New Haven's children (50% greater than across the state), which decreases their quality of life and increases their risk for heart disease, cancer, and diabetes. According to BRFSS data, Black non-Hispanic residents are twice as likely as White non-Hispanic residents to be obese (35.3% vs. 16.6%); thrice as likely to be told they have diabetes (16.3% vs. 4.8%). Hispanic residents were 2.2 times more likely than White non-Hispanic residents to be told they have diabetes and 1.6 times more likely to report no regular physical activity. Links between social and health disparities are widely recognized and documented (Appendix E: NH Initiative Briefs).

In 2009, CIH administered a randomized survey of 1,175 students from six low-income neighborhoods (80% response rate) and showed that 27% percent of students believed it is not safe to be physically active because of fears of traffic safety, lack of sidewalks, and gangs. The same survey showed that 52% of adults drink sugar-sweetened beverages and less than 50% eat the recommended fruits and/or vegetables servings per week.

Though significant progress has been made in recent years, community environmental conditions continue to present an obstacle to physical activity and healthy eating. Although New Haven was named "top 10" in both transportation and green space, physical activity remains limited within the population and the per capita rate of pediatric pedestrian injury (223 per 100,000) is over twice the national average, contributing to the disparities cited. Although New Haven is a national leader in Farmer Market's activity, availability of fruits and vegetables has been limited in school cafeterias and neighborhoods. The proposed initiatives correspond to and overcome the specific array of barriers to healthy living that plague NHHD.

IV. SELECTION OF RISK FACTORS AND INTERVENTIONS: Federal funding will allow NHHD to pursue strategies developed in the New Haven CAP to reduce risk factors of obesity

and chronic disease by advancing policy, systems, and environmental changes that support increased physical activity and better nutrition (Appendix A: CAP, Appendix E: New Haven Initiative Briefs). Reaching families with programs that make both physical activity and nutrition more accessible to children and adults alike will require interventions in diverse settings, from schools to supermarkets, using a variety of complementary strategies. Measurable changes in nutrition and physical activity in adults and children throughout the jurisdiction will have major implications for reduction in obesity and associated control of chronic disease and health care cost and improved community wellness. The Leadership Team will prioritize aggressive policy and systems changes to support long term goals to meet two-year Citywide Wellness Policy (CWP) objectives (See Appendix E: NH Initiative Briefs). The Leadership Team will closely coordinate interventions and regularly monitor objectives. Results, best practices, and detailed data related to the initiatives will be immediately reported to community and health partners through DataHaven's *Community Knowledge Center*, an interactive web portal, as a model to advance more widespread engagement and grassroots planning.

The following interventions were selected due to the specificity to population needs and risk factors, the clear short term objectives; having measurable, achievable, and evidence-based approach; based on MAPPS strategies; and, designed to sustain and significantly expand systems, environment, and policy changes.

1. Community-Wide Media Campaign and Wellness Portal [*Nutrition, Physical Activity – MAPPS Media*]: The NHHD, NHPS, and partners will implement a community-wide media campaign and internet portal to promote nutrition and physical activity incentives and opportunities, based on an overarching "healthy living" brand encompassing all planned interventions and affiliated health campaigns. Building on effective local models, this campaign will use diverse, targeted media to saturate city neighborhoods, including radio, bus posters,

billboards, social networking sites and direct person-to-person engagement through community-based messengers. A new Wellness Portal will link partners and residents to incentives and information on all activities and local sources of health and wellness information (e.g. Yale New Haven Hospital). The campaign will promote SNAP recipients' access to Farmer's Markets with targeted poster advertising at transit points. Linked school-based health campaigns by School Wellness Teams will promote nutrition and physical activity. The City will partner with the New Haven Register, WTNH TV-8, La Voz Hispanica, WYBC, and the New Haven Independent to publicize the health campaign messages (see Appendix B: Letters of Support).

2. Elm City Resident Card (ECRC) [*Nutrition, Physical Activity – MAPPS Access*]: New Haven is the first city to offer a multi-purpose municipal ID card to all city residents. The ECRC works as a debit card and provides access to services, including financial services, local businesses, and use as an identification card. With over 10,000 cardholders and growing, the ECRC will be linked with the City's nutritional campaign that uses the NuVal™ scoring system at the local grocery and corner stores. Residents who purchase healthy food items will be acknowledged with instant rewards that includes discounts, coupons, cash back, or larger health reward after more purchases.

3. Nutritional Value (NuVal™) Guidance [*Nutrition – MAPPS Media & Access*]: Adopting a more healthy diet begins by choosing more nutritious foods, a challenge for most consumers. NHHD has teamed up with NuVal™, a food scoring system that allows consumers to see the nutritional value of foods in a glance. The NuVal™ system easily translates nutrition information into a number between 1 and 100 – the higher the number, the more nutritious the food. The initiative will provide citywide guidance for residents, through implementation of the NuVal™ system in four citywide supermarkets serving low-income areas responsible for 50% of all Supplemental Nutrition Assistance Program (SNAP) purchases.

Studies have shown that those with less money have lower-quality diets that provide plenty of calories but fewer nutrients, and thus increase the risk of obesity and diabetes. The NuVal™ food scoring will be used to incentivize selection of more nutritious foods by SNAP participants, and 300 participants will have their food purchases analyzed using NuVal™ and compared against the range of nutrition scores available in any given food category. The value of each $1 food voucher will be increased from our incentive pool based on the nutritional quality score (Appendix E: NH Initiative Briefs). This will demonstrate the influence of direct financial incentives on dietary patterns and related health outcomes for more nutritious choices among residents most in need.

4. New Haven Cooks [*Nutrition – MAPPS Media & Access*]: This initiative promotes health food choices and incentivizes Farmer's Market food purchases with a culturally sensitive community-cooking program developed by CitySeed, a local grassroots community organization. Fresh produce tastings will be organized for school children associated with cooking trainings and the distribution of 5,000 Community Cookbook (in-kind), which CitySeed has published with DPH support. The books will be distributed at school and community events along with $5 coupons redeemed at Farmer's Markets.

5. School Farm Program [*Nutrition – MAPPS Media & Access*]: New Haven Public Schools (NHPS) are a state and national leader in progressive policies to improve school food. Serving 21,000 students and staff daily, NHPS assumed internal management of food services and banned all "junk food" from vending machines. With support from the District Wellness Committee and the New Haven Food Policy Council, NHPS improved school meals with affordable, healthy, and locally grown food and connected students to farms for lifetime change. Interventions include: (1) improve marketing, menu contents, and menu labeling incorporating NuVal™ nutrition scoring in all schools; (2) greatly expand the purchase of local produce,

including school-grown food and pursuit of an NHPS-run farm, which is perfectly aligned with the mission of the CFPC serving as a practical demonstration of local food procurement; (3) provide field trips to area farms for 4,000 4th-5th grade students per year, reinforced with curriculum in the field and classroom; and, (4) offer 750 preK-Grade1 children a proven effective Farmer's Market tours with literacy infusion; (5) offer 1,350 additional 5th graders the evidence-based Nutrition Detectives™ program to teach why and how food choices matter. This program only requires 90 minutes and imparts a practical skill – food label literacy – to children and parents with impact assessment. The NHHD will be a participant in the CFPC working group led by the State and will bring valuable experience to the regional conferences planned by the State Council.

6. Safe Routes to School (SRTS) and Street Smarts Campaign [*Physical Activity – MAPPS Media, Access, Point of Purchase, Price & Social Support*]: A SRTS coordinator will drive efforts to expand Street Smarts "Kids" Campaign to all 27 PreK-8 schools, a coordinated, strategic approach to promote physical activity through safe walking and bicycling practices. This will be supported by installation of safety improvements for bike and pedestrian access to five target schools within a long-term goal to become the first Connecticut municipality to introduce the SRTS model citywide (Appendix E: NH Initiatives).

7. Safe Routes to Neighborhood Destinations [*Physical Activity – MAPPS Media, Access, Point of Purchase, Price & Social Support*]: In October 2008, the City Board of Aldermen created a Complete Streets Commission to draft an Ordinance to improve access to city streets for residents to walk and bicycle, and increase physical activity. NHHD will: (1) create places for physical activity along 20 miles of new complete streets, facilitating pedestrian, bicycle, and transit access to neighborhood destinations with safe, attractive facilities and lighting for the surrounding 20,000 residents; and (2) advance existing city Complete Streets Policy with

planning, zoning, and urban design guidelines. NHHD will install: 625 multi-modal activity-promotion signs customized for destinations (e.g., schools, parks, Farmer's Markets) and targeted towards bus riders, cyclists, and pedestrians, within a system-wide umbrella design; lighting to improve signage and sidewalk visibility at key intersections with personal safety concerns; and bicycle racks at retail clusters along routes. As additional support for greater physical activity, the City will institute major street closures to incentivize active travel to key destinations, Farmer's Markets, or neighborhood art and food festivals. The City will engage over 30 community groups in co-promotions to generate more than 15,000 participants annually.

8. New Haven Moving [*Physical Activity – MAPPS Media, Access, Price & Social Support*]: The City and NHPS constructed 31 new schools over the last 10 years, all with state-of-the-art gymnasiums and other facilities, in addition to a central field house. The Prevention Policy Director will work with the NHPS, the City Parks & Recreation Department, and other partners to expand school-linked physical activity programming to include: (1) expand the Open Schools program to provide an additional 900 days of community open gym access; (2) provision of extended physical activity programming from community providers reaching an additional 333 residents modeled on the successful, culturally attuned We Walk in New Haven (WeWin) intervention (linking to the Elm City Resident Card to track activity for earning of incentives); (3) funding for 25 grassroots neighborhood initiatives to support local physical activity programs for 1,000 residents in targeted neighborhoods; (4) expanded incorporation of popular "Exer-gaming" equipment into middle school physical education curriculum for additional aerobic conditioning, and (5) institutionalize ABC for Fitness™ and Take 10™ across the 27 K-8 schools. Schools have difficulty providing the recommended 60 minutes of daily physical activity to children due to competing demands. The widely disseminated, and successfully evaluated, ABC for Fitness ™ program allows schools to provide a baseline 'dose' of 30 minutes

of daily physical activity to elementary school children in the classrooms, without taking time away from teaching. Because the program offers activity bursts tailored to grade level and subject matter, the program may even lead to increased daily teaching time. Effects on habitual activity levels, fitness, academic performance, and health measures will be evaluated.

All initiatives support aggressive policy changes necessary to reach the identified long term goals, and collectively they will have a major impact on the entire New Haven population. (Appendix A: CAP). NHHD and community coalitions have mobilized around public health issues and recognize that cross-cutting changes in policy, systems, and environment are crucial to address the social determinants of chronic disease conditions. The City has worked with state and national experts in developing widely recognized School Wellness, Complete Streets, Food Policy Council, and ECRC policies to improve citywide health (Appendix E: NH Initiatives), all of which closely tie in with the CPPW objectives and CDC long-term goals identified.

V. EVALUATION TO MONITOR/MEASURE PROGRESS: Please refer to page 27 for the state-coordinated approach to evaluation.

VI. COMMUNICATION & INFORMATION SHARING WITH STATE/FEDERAL: NHHD will produce at least two Implementation Guides translating how to replicate New Haven's successes and share unique challenges. NHHD will mentor at least one unfunded community in the second year of the grant, providing guidance regarding best practices; mentorship will include a site visit with the selected community and instruction on how to use the Implementation Guides. Moreover, NHHD welcomes the opportunity to collaborate with CDC and other communities nationwide. NHHD developed sustainable interventions to address poor diet and physical inactivity, demonstrating effectiveness in ways that are practical and scientifically rigorous. The initiative has full support of the City of New Haven and its collaborative partners. Existing data sources in New Haven include: hospital discharge data; asthma hospital discharge data; medical

care practice data, i.e., "Prevention Quality Indicators" from the Agency for Healthcare Research and Quality (AHRQ); DPH vital statistics; DPH WIC data; Community Health Center data; and Medicaid and Medicare data. NHPS will provide all school data including health conditions and risk information. Other data sources will include BMI measurements. DataHaven's *Community Knowledge Center* will be available locally; DataHaven will work with the HEA to merge data from many of the listed sources into one web-based system that can be queried by block group. In addition to traditional health outcome indicators (morbidity and mortality), it will also include behavioral risk factors, hospitalizations, health resource availability, sociodemographics, crime, domestic violence, and alcohol-related motor vehicle crash data.

SECTION 4: EVALUATION TO MONITOR PROGRESS

To conduct objective evaluation activities that monitor imitative output and outcome measures for NDDH and NHHD, DPH will contract with an independent evaluator through the issuance of request for proposals or sole source. The evaluator will act as the lead for the evaluation team; the team will include DPH staff from the Nutrition, Physical Activity, and Obesity (NPAO) program and Epidemiologists, as well as NDDH and NHHD project leads. The evaluation team will identify and engage key stakeholders to convey the mission and objectives of the initiatives being evaluated, and to design an evaluation that is focused on assessing issues of greatest concern to stakeholders.

DPH as well as NDDH and NHHD commit to participate fully in all national evaluation activities. To gather credible evidence for evaluation, the evaluator, DPH Youth Risk Behavior Survey (YRBS) Coordinator, and local YRBS designees from NDDH and NHHD will implement the YRBS survey in all public school districts within the Northeast District and throughout New Haven. The DPH YRBS Coordinator will work directly with local YRBS

designees to conduct a standard YRBS representative sample of at least 1,500 9th-12th grade students in the intervention area during the 2010 fall semester. The protocol will measure at least dietary behaviors and physical activity. The YRBS, among another representative sample of 9th-12th grade students, will be repeated at the end of the initiative period. Public school districts within the intervention area have pledged their support for implementing the YRBS survey in their school districts (Appendix C: Letters of Support).

DPH has successfully administered YRBS statewide in 2005, 2007, and 2009 after assuming responsibility for YRBS from the Connecticut State Department of Education (SDE) through an ongoing Memorandum of Understanding. DPH fostered an excellent working relationship with staff at SDE for YRBS administration. This positive working relationship has helped ensure that data collected are used in presentations to health educators, and are integrated into the development of health curricula and program evaluation. Through the partnership with SDE, staff in the DPH Survey Unit developed strategies that improved the response rates within urban schools, including New Haven. Consequently, the YRBS response rates have steadily increased from 60% in 2005, to 61% in 2007, and to 64% in 2009. DPH worked hard to establish relationships with educators within the schools and plans to work with NDDH and NHHD to utilize and enhance existing relationships. The DPH Survey Unit also established strategies and systems regarding: sample selection; correspondence tracking; preparation of student survey packages; data collection; and data quality control. DPH developed a Microsoft Access™ database to assist with tracking of school participation, correspondence with schools, and data collection. DPH will work closely with NDDH and NHHD to help them develop individualized systems for their jurisdictions. The DPH YRBS Coordinator will attend a three-day YRBS national training in August 2010. Afterwards, DPH will offer to train the local YRBS designees and assist them with all aspects of their YRBS administration.

The YRBS Coordinator – Diane Aye, MPH, PhD – is also the Behavior Risk Factor Surveillance System (BRFSS) coordinator for Connecticut. As the BRFSS coordinator, she will work with NDDH and NHHD, and the BRFSS contractor (currently ICF Macro) on the collection of BRFSS data within their jurisdictions. DPH, funded by CDC to collect BRFSS data since 1988, has contracted with ICF Macro for over 10 years. Dr. Aye will prepare an application to CDC to fund additional BRFSS data collection within NDDH and NHHD, and will prepare an amendment to the existing data collection contract.

The evaluation team will obtain community feedback by conducting focus groups with residents and in-depth interviews with key stakeholders. Focus groups will identify: perceived health priorities in the community; interventions working and not working; interventions and policies preferred; barriers and facilitators to implementation; engagement of others; and institutional support and sustainability. The team will implement Rapid Policy Assessment and Response (RPAR), a set of tools for promoting healthy public policy at the local level. This structured analysis focuses on how local policies are being implemented, mobilizes community stakeholders to craft solutions, and informs policy development. RPAR will define the effectiveness of efforts in regard to structural interventions aimed to change the health risk environment.

DPH, working with the NDDH and NHHD, will also collect physical and biological measurements to evaluate outcomes for school children, including height, weight, hip and waist circumference, blood pressure, and heart rate.

In NHHD, HealthQuest will partner with Day Kimball Healthcare (DKH) to assist in data collection. The current DKH strategic plan is to advance the organization of primary care to reflect the concept of the Patient Centered Primary Care Medical Home Model. Specific action steps include selection and implementation of an electronic medical record software system. The

pediatric practice, child and adolescent obesity, is the primary focus for grant-related data collection, and data from the electronic medical record software system will be used to report physical and biological measurements.

NHHD, together with Yale University's CARE program and DataHaven, has completed a Data Atlas/"Health Indicators" report. The data on leading health and social issues serves as a baseline assessment in New Haven. The Data Atlas will be updated biennially to evaluate potential positive changes as a result of the initiatives. The Community Health Data Scan for Connecticut, includes health and social indicator data, will be used to compare trends for New Haven versus other Connecticut urban centers (Hartford, Bridgeport), as well as areas adjacent to non-urban communities. This report uses data (town/reference group level) from the CDC, US Census, DPH BRFSS, and others. Careful attention will be paid to replicate questions so that appropriate comparisons can be made to examine cross-sectional rates and longitudinal trends.

DPH will systematically collect and biannually report on progress and implementation of existing policy, systems, and environmental change strategies using the CHANGE tool related to chronic disease prevention and health promotion, to evaluate initiative process and outcomes. Utilizing the CHANGE tool, DPH will also track the progress of implementing activities that create policy, systems, and environmental changes.

DPH NPAO staff will work closely with the evaluator, YRBS Coordinator, and DPH Fiscal Office accountant, to prepare CDC reports and to meet all ARRA reporting requirements. All required reports would be submitted through FederalReporting.gov on a quarterly basis within 10 days after the end of each calendar quarter. This includes participation as a case study, if selected, to examine contextual and environmental factors that act as facilitators or barriers to program implementation and achievement of intended outcomes that lead to variations in implementation costs across sites.