rootCAUSE

Massachusetts Chronic Disease Self-Management Program

Business Plan
Prepared by Root Cause
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advancing innovation *for* SOCIAL IMPACT

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Executive Summary

Thousands of Massachusetts residents live with at least one chronic disease, and many live with multiple chronic conditions. Chronic diseases affect every age group, every ethnic group, and every region of the state. The cost of treating and living with these diseases in Massachusetts exceeds $35 million annually, plus the intangible costs in quality of life for patients and their families.[1]

The Massachusetts Chronic Disease Self-Management Program (CDSMP) is a collaborative initiative between the Massachusetts Executive Office of Elder Affairs (EOEA), the Massachusetts Department of Public Health (DPH), and the Healthy Living Center of Excellence, (HLCE) which is supported by Elder Services of Merrimack Valley and Hebrew Senior Life. Regional collaboratives and a wide range of diverse organizations work with EOEA, DPH and the HLCE to disseminate and implement programs that help people with chronic diseases learn strategies for living with and managing their diseases. This evidence-based model improves quality of life and potentially lowers treatment costs, and it enhances communication and collaboration between consumers and health care providers. The CDSMP is part of a larger family of chronic disease self-management education programs (CDSME).

After being piloted in select regions of Massachusetts with the support of Federal stimulus funds, the CDSMP model is ready to be deployed throughout the state under the direction of an innovative public/private partnership including two state agencies, statewide and regional nonprofits, health care providers, and higher education institutions. Regional collaboratives, a key vehicle for coordinating the local delivery of CDSMP as well as for supporting CDSMP implementation statewide, are a critical component of the overall delivery model. This regional approach to program delivery in conjunction with a centralized infrastructure for training, fidelity monitoring, outreach and marketing is what makes Massachusetts unique.

The national Affordable Care Act, with its emphasis on consumer-directed health care, makes this moment ripe for a mutually leveraged use of health care resources, private philanthropy, and Federal and State funding to ensure that every Massachusetts resident affected by a chronic disease has the tools to live and prosper, regardless of economic status, race, ethnicity, disability, or place of residence.

A working group made up of representatives from state government, statewide and regional nonprofits, health plans, and academic institutions met from 2011-12 to review the accomplishments, challenges and opportunities presented by the pilot and to consider recent policy changes at the state and Federal levels.

[1] Massachusetts Executive Office of Health and Human Services
http://www.mass.gov/eohhs/consumer/wellness/chronic-disease/quick-facts.html

This business plan is the result of their work and lays out a sustainable path forward, ensuring that residents in every part of the state have the tools to manage and live with chronic diseases. In the private sector, a business plan is a document that articulates the steps that a company will take to generate profit, while making a case that will attract traditional investors. This business plan applies the same strategic rigor and financial savvy to social problem solving. It defines a course of action to generate another kind of profit: lasting social impact.

Background

The CDSMP was developed at Stanford University as a peer-led series of six workshops that helped people with chronic diseases develop techniques to deal with common problems, learn exercises to improve strength and endurance, manage medications, and speak more effectively with health care providers. In Massachusetts, CDSMP was initially a partnership between the Massachusetts Executive Office of Elder Affairs (EOEA), the Massachusetts Department of Public Health (DPH) and three community-based agencies. With continued federal funding from the Administration on Aging (AoA), Massachusetts was able to expand the reach of CDSMP, replicating the program widely, especially through the American Recovery and Reinvestment Act (ARRA), which provided funding for the programs throughout the country. Under ARRA funding, delivery of CDSMP in Massachusetts was overseen by EOEA and DPH.

As the CDSMP model is scaled to serve the entire state, program delivery will be coordinated through the Healthy Living Center of Excellence (HLCE), a multi-sector collaborative established by Elder Services of the Merrimack Valley (ESMV, a large multi-service community-based home care agency and Area Agency on Aging (AAA) and Hebrew SeniorLife (HSL), a Boston-based medical provider. The HLCE is guided by an Advisory Board made up of key stakeholders representing EOEA, DPH, local aging services network organizations (Councils on Aging (*COAs*), AAAs, and Aging Service Access Points (*ASAPs*)), private insurance providers, medical providers, a multicultural community agency, trainers, and consumers.

NEED AND OPPORTUNITY

Nationally, 27% of Americans have multiple chronic conditions (MCC).[2]

- 7 out of 10 deaths among Americans each year are from chronic diseases. Heart disease, cancer and stroke account for more than 50% of all deaths each year.[3]
- 133 million Americans – almost 1 out of every 2 adults – had at least one chronic illness.[4]
- About one-fourth of people with chronic conditions have one or more daily activity limitations.[5]
- 75% of all health care costs are related to the treatment of chronic conditions.[6]

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[2] U.S. Department of Health and Human Services. *Multiple Chronic Conditions—A Strategic Framework: Optimum Health and Quality of Life for Individuals with Multiple Chronic Conditions.* Washington, DC. December 2010.
[3] Kung HC, Hoyert DL, Xu JQ, Murphy SL. Deaths: final data for 2005. National Vital Statistics Reports 2008;56(10). Available from: http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_10.pdf
[4] Wu SY, Green A. Projection of chronic illness prevalence and cost inflation. Santa Monica, CA: RAND Health; 2000
[5] Anderson G. Chronic conditions: making the case for ongoing care. Baltimore, MD: John Hopkins University; 2004.
[6] Chronic Diseases: The Power to Prevent, the Call to Control, Centers for Disease Control and Prevention, 2009,http://www.cdc.gov/chronicdisease/resources/publications/AAG/chronic.htm

The number of adult (18 and older) with chronic diseases is growing at a dramatic rate, from 118 million adult Americans in 1995 to 141 million in 2010. [7] At current growth rates, 171 million adults will suffer from at least one chronic disease by 2030.

In 2011, the number of reported cases of selected chronic disease in Massachusetts with the percentage of the adult population:[8]

- 197,758 cases of heart attack: 3.8%
- 197,758 cases of angina or coronary heart disease: 3.8%
- 114,491 cases of stroke: 2.2%
- 801,440 cases of asthma: 15.4%
- 1,228,180 cases of arthritis: 23.6%
- 416,332 cases of diabetes: 8.0%
- 275,820 cases of skin cancer: 5.3%
- 348,678 cases of other cancers: 6.7%
- 301,841 chronic obstructive pulmonary disease: 5.8%
- 98,879 cases of kidney disease: 1.9%

In Massachusetts, chronic diseases are costly:[9]

- Treatment expenditures for chronic diseases were $8.1 million.
- Lost productivity was estimated to be $25.9 million.

Given the number of individuals with chronic diseases and the associated costs of treatment in emergency rooms, hospital ICUs and other high-cost settings, the CDSMP offers those who have chronic diseases an opportunity to manage what to many feels like an unmanageable situation. Consumers report improvements in quality of life and the potential for reduction in higher cost interventions.

This business plan builds on the promising results of the initial deployment of the CDSMP model funded under ARRA. The goal of future dissemination is to make the program available to consumers throughout the state. There are several gaps that were identified as part of the ARRA grant that need to be addressed.

1. *Gaps in Reaching Specific Populations*

In ARRA-funded programs, Massachusetts was above the national average in Latino CDSMP completers (26.7% in Massachusetts vs. 17.6% nationally) and Asian completers (6.5% in

[7] The Marshall Protocol Knowledge Base http://mpkb.org/home/pathogenesis/epidemiology
[8] CDC's Behavioral Risk Factor Surveillance System
[9] Massachusetts Executive Office of Health and Human Services
http://www.mass.gov/eohhs/consumer/wellness/chronic-disease/quick-facts.html

Massachusetts vs. 3.6% nationally.), due to strong partnerships with social service agencies and churches serving the Latino and Asian communities, but the number of people served only represents a small fraction of the people in these groups over 60. In the same programs, Massachusetts had limited success in reaching African Americans (6.6% in Massachusetts vs. 21.1% nationally). Moreover, little outreach was done with Massachusetts Native American tribes, which have higher rates of diabetes, high blood pressure and being overweight than the overall state population.[10] To date there has also been no collaboration with veterans' agencies to deliver CDSMP.

Over three quarters of CDSMP completers in Massachusetts are age 60 and over, with more limited outreach to younger people with disabilities or chronic disease, who are consequently under-represented among current CDSMP completers. Massachusetts has the opportunity to expand program participation in the under-60 demographic through the use of online programming and in-person trainings at work sites, libraries, and other venues not specifically associated with programming for elders. The online option can also expand participation for the significant portion of people with chronic diseases who also live with disabilities as well as those who are homebound, have trouble accessing group programs due to limited transportation options or have recurrent health issues that prevent them from completing a six-week group program.

2. Geographic Gaps

Nearly 70% of Massachusetts CDSMP workshops during the ARRA grant period were in three counties in the eastern and northeastern regions of the state (Middlesex, Essex and Suffolk). Work under the ARRA grant to extend the network of workshop providers into central and western Massachusetts made progress, but significant work remains to be done with rural populations, MetroWest and southeastern regions. Dukes, Nantucket, and Barnstable Counties had particularly low participation rates due to their low population density and geographic location, and Bristol County is also an underserved region. Recruitment of trainers from under-represented populations, such as Latinos, is a particularly important strategy for addressing the gaps in participation.

3. Gaps in Workforce Capability

While Massachusetts has an ample supply of Master Trainers, geographic expansion of CDSMP workshops will necessitate additional leader trainings in the southeastern, central regions, the Cape and Islands, and rural areas. Further, existing peer leaders can be cross-trained to deliver Stanford Chronic Disease Self-Management Education programs including Diabetes, Chronic Pain, and HIV Self Management programs.

4. Infrastructure Gaps

EOEA and DPH used ARRA funding to begin to create a network of health and human service agencies, businesses, and faith-based organizations to facilitate delivery of CDSMP workshops, and develop the HLCE as a coordinated training and technical assistance center. To support the

[10] http://www.mass.gov/eohhs/docs/dph/research-epi/native-american-health.pdf

long-term sustainability of CDSMP, HLCE, with EOEA and DPH support, will need to fully develop its role beyond training and technical assistance into a statewide center for fidelity and quality assurance, recruitment, intake, referral, registration, and fiscal management. Regional collaboratives and other infrastructure elements need similar development and long-term sources of funding. Ongoing content development and maintenance of a statewide website and trainings calendar is an essential function of the statewide infrastructure.

5. Gaps in Awareness of Key Stakeholders

Key informant interviews indicated a lack of awareness among medical providers and other stakeholders regarding CDSMP content and availability, consumers' participation in programs, and the impact such programs have on consumers' ability to manage their chronic conditions.

6. Gaps in Integration with Health Care Delivery Systems

Significant barriers to integration of CDSMP with medical systems include minimal regional program capacity, lack of program awareness among health systems, concerns around program quality assurance, lack of a regular class schedule in some regions, and limited infrastructure that supports ease of referral, feedback loops to providers, and incentives for consumers to participate in programs with demonstrated outcomes. CDSMP interventions successfully lead to behavior change in older adults but are most effective when accompanied by improved partnerships with health care providers, resulting in more efficient use of resources and personnel, reduction in costs, improved health and better care. However, as part of the business model, opportunities to expand relationships between community-based agencies and health care systems through medical homes, community health centers and medical group practices in order to secure reimbursement for CDSME programs will be essential for program sustainability.

7. Financial Gaps

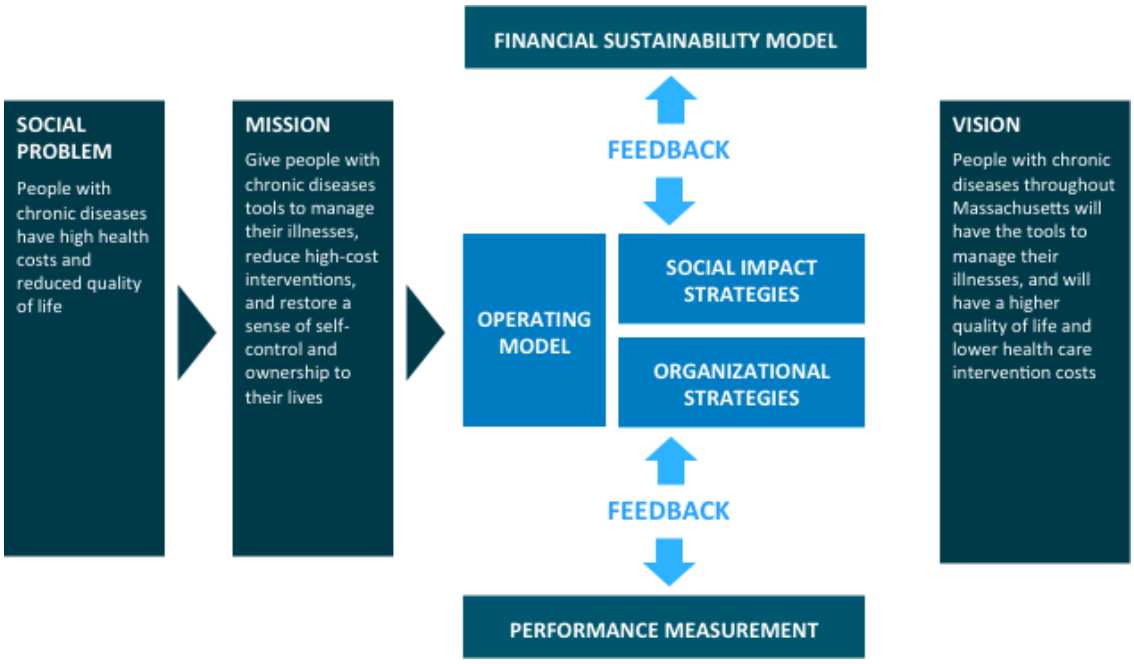
CDSMP is currently supported by short-term grant funding and in-kind staff time from human service agencies that are already working at capacity. Limited infrastructure support for the HLCE is also provided by ESMV and HSL, however such support is insufficient to implement the infrastructure needed at a state-wide level . Accreditation of one provider agency (ESMV, through partnership with HSL) by the American Association of Diabetes Educators to offer Diabetes Self-Management Programs (DSMP) as a model reimbursable by Medicare is a promising, replicable model for a broad system of reimbursement. Such replication, however, will be more successful with a statewide infrastructure. Indeed the accreditation is limited to one provider agency in one region of the state, and absent that infrastructure, there is no mechanism to extend the model.

Business Plan

This business plan lays out a sustainable path forward for CDSMP in Massachusetts, ensuring that residents in every part of the state have the tools to manage and live with chronic diseases. In the private sector, a business plan is a document that articulates the steps that a company will take to generate profit, while making a case that will attract traditional investors. This business plan applies the same strategic rigor and financial savvy to social problem solving. It defines a course of action to generate another kind of profit: lasting social impact.

SOCIAL IMPACT MODEL

The CDSMP Social Impact Model, shown below, provides the strategic framework for the infrastructure supporting CDSMP in Massachusetts. The model will guide the work carried out by the public-private partnership that oversees the CDSMP and will allow the leadership to make strategic decisions about priorities. Other methods to develop a framework to achieve social impact employ either a theory of change or a logic model. Root Cause's Social Impact Model blends the big-picture thinking of the theory of change and the step-by-step reasoning of the logic model. It adds a feedback loop to enable an organization to continually improve its performance and achieve financial sustainability.


FINANCIAL SUSTAINABILITY MODEL
SOCIAL PROBLEM
People with chronic diseases have high health costs and reduced quality of life
MISSION
Give people with chronic diseases tools to manage their illnesses, reduce high-cost interventions, and restore a sense of self-control and ownership to their lives
FEEDBACK
OPERATING MODEL
SOCIAL IMPACT STRATEGIES
ORGANIZATIONAL STRATEGIES
FEEDBACK
PERFORMANCE MEASUREMENT
VISION
People with chronic diseases throughout Massachusetts will have the tools to manage their illnesses, and will have a higher quality of life and lower health care intervention costs

The social impact model illustrates the relationship between the **social problem** that CDSMP aims to address, the **mission** to address this social problem, and the **vision of success**. The model also articulates the **CDSMP operating model** and the **strategies** that will guide the activities to achieve the vision. Finally, the Social Impact Model shows that the infrastructure for CDSMP will use **performance measurement** to gauge progress toward achieving the vision, with a feedback loop that will allow the use of data to continuously monitor the success of the strategies and make course corrections along the way.

Social Problem Definition

The social problem definition frames the need for Chronic Disease Self-Management Programs and the infrastructure to support them throughout Massachusetts:

People with chronic diseases have high health costs and a limited sense of control over their circumstances, resulting in reduced quality of life. The costs are borne both individually and collectively in the burdens placed on our health system.

Mission and Vision

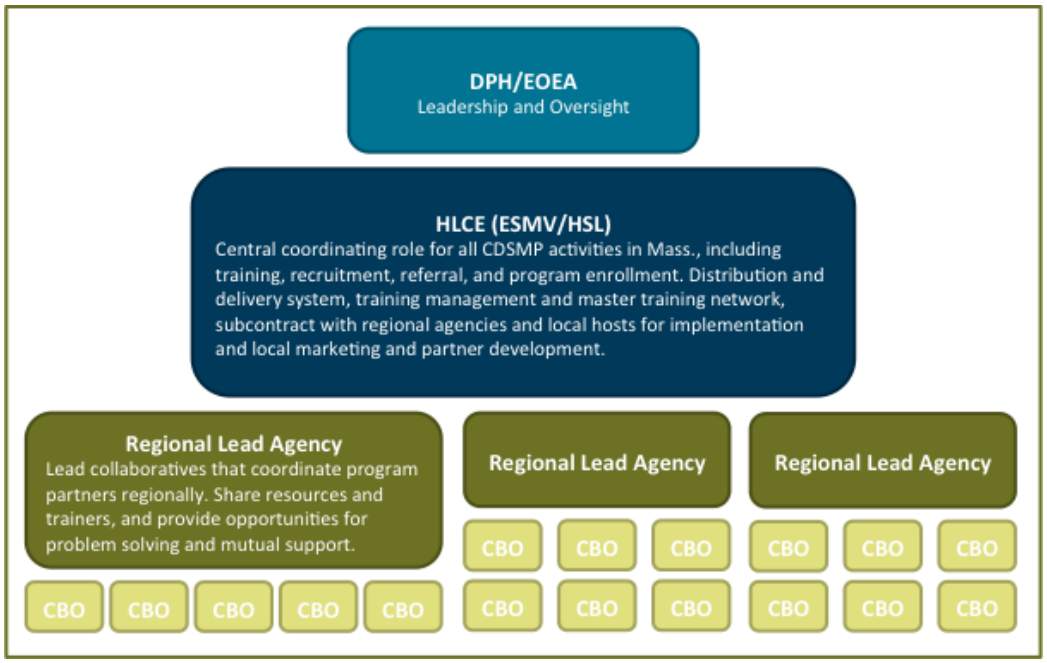
The CDSMP mission describes the core purpose and activities of Chronic Disease Self-Management Programs, while the vision is meant to be a "future state" demonstrating an ambitious, long-term definition of success in addressing social problem.

Mission: Give people with chronic diseases tools to manage their illnesses, reduce high-cost interventions, and restore a sense of self-control in their lives.

Vision: People with chronic diseases throughout Massachusetts will have the tools to manage their illnesses and will have a higher quality of life and lower health care intervention costs.

OPERATING MODEL

The CDSMP operating model describes how the mission will be pursued and how the social impact strategies will be implemented.



CDSMP workshops are delivered at the local level by community-based organizations and other local institutions.

The infrastructure to support the program delivery begins with local and/or regional collaboratives consisting of local health and human services agencies, medical providers, governmental agencies and private businesses that reach out to potential host agencies, referral agencies and participants to provide CDSMP and other healthy aging programming in their communities. They share resources and trainers and provide opportunities for problem solving and mutual support.

The Healthy Living Center for Excellence provides the infrastructure and serves the central coordinating role for all CDSMP activities in the state, including recruitment, referral, and program enrollment. HLCE further operates as a networking, learning and technical assistance center for the local and/or regional collaborative, providing trainings, fidelity and quality control, workforce engagement opportunities, and business development. HLCE is managed by Elder Services of Merrimack Valley and Hebrew Senior Life. The efforts of HLCE are further informed by the Advisory Council referenced below.

DPH and EOEA are the lead state agencies that will work cooperatively with HLCE for all CDSME activities in the state, administering the funding from federal and state sources, and providing additional coordination for any government entities involved in the programs. DPH and EOEA also provide a convening function, ensuring greater awareness statewide among all stakeholders implementing CDSMP programming, regardless of funding sources.

ORGANIZATIONAL STRATEGIES

Representative Leadership
EOEA and DPH are the lead state agencies that will work cooperatively with the HLCE to oversee the implementation of CDSMP in Massachusetts, with joint responsibility for project leadership, management and monitoring and reporting. HLCE, which provides for the CDSMP infrastructure, will be managed by ESMV and HSL, and will seek input from an Advisory Council that will provide strategic direction for program development, implementation and sustainability. The Advisory Council will be comprised of representatives from regional collaboratives, EOEA, DPH, Tufts Health Plan Foundation, Massachusetts Association of Councils on Aging and Senior Centers, the Massachusetts League of Community Health Centers or individual community health centers, the Latino Health Insurance Program, Brandeis University, Commonwealth Care Alliance, an agency serving people with disabilities, and CDSMP graduates.

Public-Private Partnership
The project Leadership team will encourage strategic partnerships with HLCE to embed CDSMP into the ongoing operations of key partner organizations/agencies. Partners who are able to provide multiple delivery sites and/or capacity to increase access to CDSMP among large populations throughout thestate will be sought out and given priority. Ideal partners will have access to multiple demographic categories, including the ability to provide services across lifespans, and provide avenues for direct consumer engagement. These include:

1. Aging and disability service networks
2. Health care partners
3. Veterans programs
4. Medical homes
5. Care transition programs
6. Programs for All-Inclusive Care (PACE) and Senior Care Options (SCO) programs
7. Workplace wellness programs
8. Municipal governments or government associations
9. Municipal employee unions

Embed Program Delivery in Existing and Potential Health Care and Human Service Delivery Systems

Partners in CDSMP implementation will focus on offering workshops through organizations and institutions that are already working with the target populations. This will include offering programs through Older Americans Act Title III-D funding of human service delivery systems, faith-based organizations, community health centers, hospitals, and other delivery systems already in place.

Centralized Coordination of Training, Quality Assurance, Recruitment, Referral, Enrollment, Partnership and Business Development

HLCE will serve as a comprehensive statewide source of information for consumers, referring agencies, and potential third party payors surrounding CDSMP throughout the state through distribution of promotional materials, a toll-free 1-800 number, a statewide calendar of workshops, and a website dedicated to program delivery. As a statewide entity representing multiple stakeholders, HLCE will market CDSMP to larger delivery systems that span multiple regions, such as medical homes, insurance companies, care transitions programs, accountable care organizations, and others.

While most outreach will be conducted on a regional level, HLCE will make marketing tools available to local partners as a resource for recruiting host sites, participants, program leaders, and referral sources. These include Participant Recruitment Information Sessions (in-person and web based information sessions geared towards specific audiences such as health care providers, community based organizations, aging service network providers, home care, and disability service networks and organizations) and for strategic business planning and other topics that will help regional and local partners better able to offer CDSMP.

Fully Load Network Costs into Program Delivery Costs

In order to ensure that the CDSMP infrastructure is able to support the regional collaboratives and local organizations delivering the programs, HLCE has developed a cost structure for program delivery that takes into account the expenses of running the supporting infrastructure and network. While autonomy of the local CBOs, hospitals, and other entities that deliver workshops is important, the necessity of building strong support structures to sustain CDSMP offerings across Massachusetts makes including these costs in the payments for each participant a clear priority. The fully loaded delivery, infrastructure and evaluation costs are attached in Appendix A.

Regional Distribution and Support Networks
HLCE will support six (6) regional collaboratives that coordinate local organizations delivering the program. Three regional collaboratives, in Greater Boston, northeast, and western Massachusetts, were developed through ARRA funding. Additional collaboratives are currently being developed in the Metrowest, Central, and Southeast/Cape regions of the state. These collaboratives continue to expand as HLCE identifies potential lead organizations to coordinate CDSMP activity in new target regions. Collaboratives will include relevant community stakeholders: health care systems and plans, governmental agencies, aging service network providers, business and industry, and faith-based organizations. The approaches taken for program delivery will be locally sensitive, driven by the resources, needs and culture of each region, such as preference for professional versus volunteer program leaders, or outreach to multiple hospitals in urban areas versus a single hospital serving a large rural area.

EOEA, DPH, and HLCE leadership will meet quarterly with existing collaboratives and monthly with new collaboratives, to guide development, share lessons learned and address challenges. To ensure that program implementation remains consumer-centered, collaboratives will also include program graduates, peer leaders or community volunteers as members, reflecting the project's targeted population of older adults and people with disabilities of all ages who have one or more chronic condition.

The success of one regional network organization (ESMV) in securing approval to bill Medicare for certain CDSME interventions (specifically, diabetes) offers a promising precedent for broader access to this funding stream. However, other network organizations will need to go through the same certification process, with no guarantee of success. Another key role of the statewide network will be to share effective approaches with Medicare and to provide knowledge and logistical support to regional network organizations that may lack the resources and internal experience of ESMV.

SOCIAL IMPACT STRATEGIES

Build evidence of effectiveness through data collection and analysis
HLCE will oversee data collection and analysis for CDSMP, which will include a focus on quality assurance and fidelity as well as longer-term focus on data and evaluation to build evidence of program effectiveness.

Data collection will be instrumental in informing continuous quality improvement and in demonstrating value of programs to specific potential payers. In addition to general demographic data, pre-, post- and six month post-intervention participant surveys will be utilized to study self-report impact. Data tools will be modified based on lessons learned under ARRA and as permitted by the requirements of this funding opportunity. In addition to impact data collection, additional evaluation tools will be used to measure the quality of leaders, leader satisfaction, and participant satisfaction.

HLCE will have a dedicated Quality Assurance (QA) Manager, who will oversee implementation of the Fidelity Monitoring Plan developed under ARRA, including the usage of fidelity checklists, fidelity monitors, and leader surveys. All potential leaders will be screened to determine their understanding of the responsibilities and requirements of being a leader and the importance of fidelity. Leaders will have further opportunity to increase quality through attendance at the annual Sharpening Your Skills Conference and regular webinars.

Ensure Delivery to Underserved Populations and Regions
Efforts to expand delivery of CDSMP will particularly focus on underserved populations and regions, including developing collaboratives in underserved regions, partnering with organizations with strong connections to underserved communities, providing additional trainings for Spanish-language programs (Tomando), and targeted outreach to rural areas of the state. Expanding participation beyond the traditional 60+ chronic disease population is another priority, so focusing on service delivery methods across the lifespan, including those that are better suited to younger people with chronic conditions, such as online workshops, will be a priority.

Provide Multiple Delivery Options to Make the Program Accessible
In order to reach younger populations and enable people with disabilities and multiple chronic conditions to access programs, program delivery options such as online workshops and in-person settings that would appeal to younger populations (e.g., health clubs vs. senior centers) will be emphasized.

Create Effective Incentives for Program Completion
Both individual as well as agency incentives must be addressed for long-term sustainability. During the pilot, different partners had different rates of completion among program participants, but their reimbursements were tied to program enrollment rather than completion. The CDSMP model depends on effective peer interaction to produce ideal outcomes for participants, and the program is priced based on assumptions about minimum participation levels. Incentives for agencies to recruit adequate numbers of program participants for effective peer interaction and program efficiencies are critical. This plan structures the financing model for individual workshop participants so that a portion of the payments are reserved until an individual has completed the workshop series, ensuring that workshop providers have an incentive to focus on program retention and completion

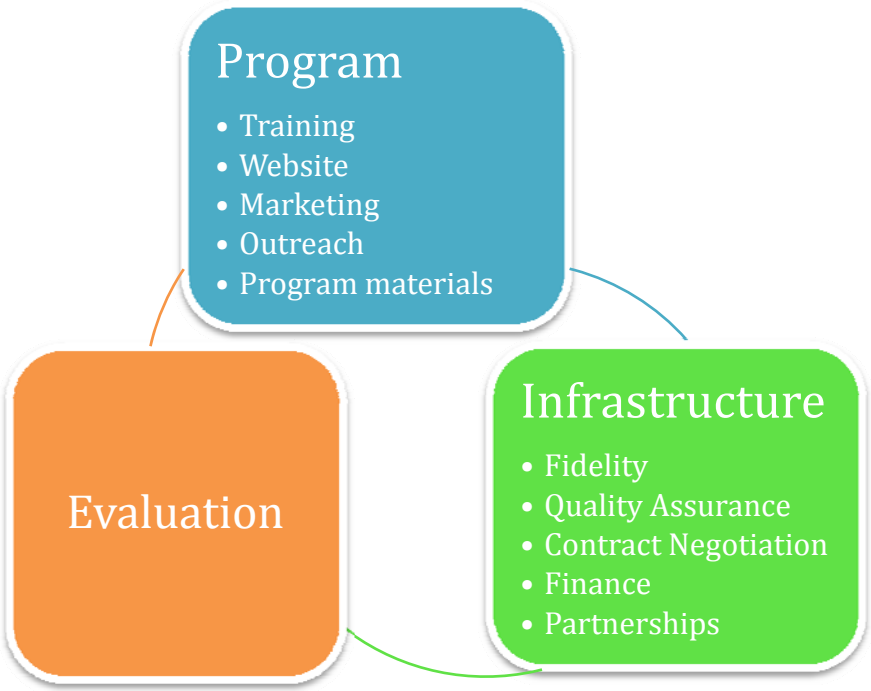
FINANCIAL MODEL

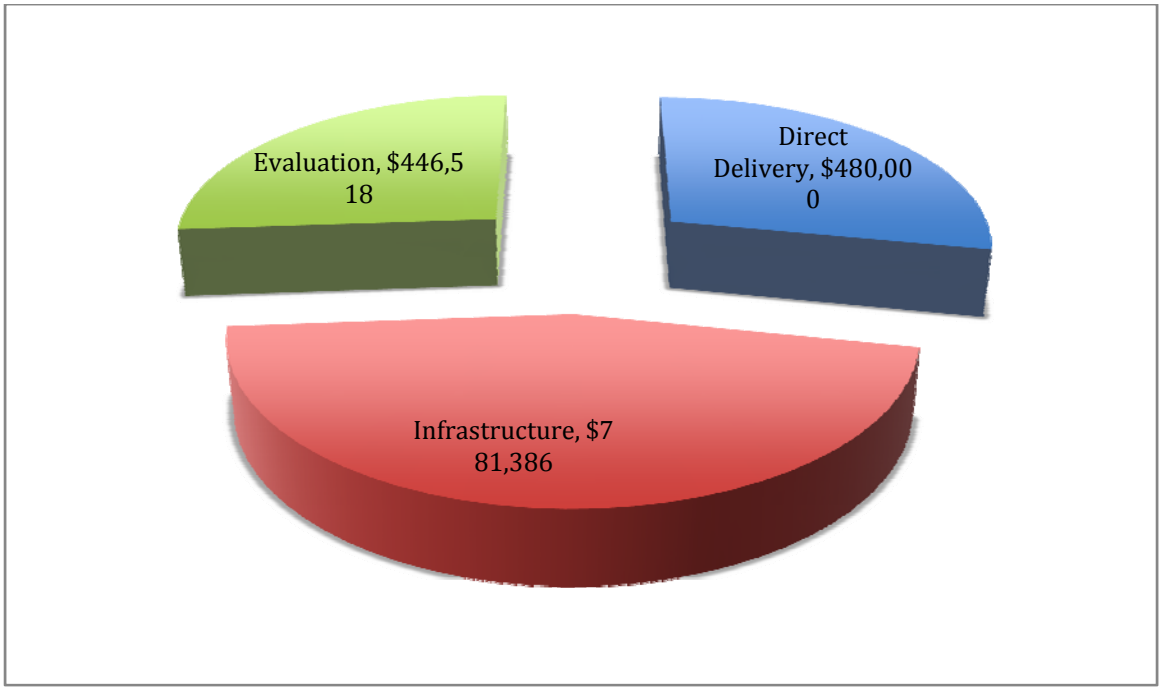
The purpose of the financial model is to provide the framework for sustaining the delivery of the program as a component of the overall business plan. It does not predict specific revenue sources that will materialize over the course of the project because those will be subject to policy changes and specific budget authorizations. The model outlines the strategic approach that will be taken to sustain CDSME activities in the state over the coming years.

Financial sustainability for CDSME programs in Massachusetts has two dimensions:

- *Program Sustainability*: How to sustain the delivery of CDSMP after the sunset of ARRA funding
- *Infrastructure Sustainability*: How to fund and sustain the network infrastructure that is essential for program delivery

Key Program & Infrastructure Functions and Costs (a more detailed model of the infrastructure, delivery, and evaluations functions and costs is appears in Appendix B).





The principal program sustainability strategy for CDSMP will be to tie the program to broader preventive care and cost control efforts under way or anticipated to launch in the coming 18-24 months, including reimbursement from insurance companies, health plans, medical homes and Medicaid.

The global payments approach to health care financing provides an opportunity to offer CDSMP as a relatively low cost, easy-to-implement program with potential benefits in reducing high-cost interventions. Pursuit of this strategy will be highly dependent on efforts to engage and educate medical providers, who will have a great deal of discretion over what is included in global payments and how consumers use these accounts.

A statewide public/private network with a solid infrastructure is critical for CDSMP to be implemented at the local level. The path to sustainability for the CDSMP infrastructure will lie in successfully embedding it in a comprehensive framework for ensuring preventive care delivery and cost containment. Specifically, the costs of supporting the development of the components of a solid infrastructure should be part of the unit rate for the program. The current fee structure does not reflect the fully loaded cost of program delivery. If the infrastructure were to disappear tomorrow, CDSMP classes could continue at the local and regional level for a limited period of time, but new trainers would not be recruited and trained, program outcomes could not be tracked and documented, and most importantly, partnership and reimbursement agreements could not continue to be negotiated. Currently, CDSMP infrastructure will be funded through a grant from the Administration on Aging and private philanthropy.

In the near term, the HLCE will focus on strategies for program financing through:

- *Medicare Reimbursement for CDSMP.* The partnership between HSL and ESMV is the first in the country to be accredited by the American Association of Diabetes Educators to receive Medicare reimbursement, as defined by the Centers for Medicare and Medicaid Services (*CMS*), for DSMP. HLCE will develop protocols for reimbursement, work with regional collaboratives to deliver DSMP, and explore similar opportunities for accreditation for other CDSME programming. As was noted above, while this model provides a precedent, there is no mechanism for extending this framework to other partnerships in the state. Without national policy changes, there are limits on a strategy that is executed one regional collaborative at a time.
- *Foundation and Philanthropy Support.* Foundations, such as Tufts Health Plan Foundation and the MetroWest Foundation, continue to be a source of support for CDSMP at the local level. These funds are often pooled with federal funds to build strong local infrastructures for program delivery.
- *Pioneer Accountable Care Organizations (ACOs).* Five of the 32 Pioneer ACOs announced by CMS are based in Massachusetts. These Pioneer ACOs "will test the impact of different payment arrangements in helping these organizations achieve the goals of providing better care to consumers, and reducing Medicare costs." [11] To date, two Massachusetts Pioneer ACOs have approached HLCE to discuss incorporation of CDSMP to enhance consumer activation, behavior modification, and contribute to achievement of the three-part aim of better health, better health care and lower costs.
- *Title III-D Funding*. As part of the FY-2012 Congressional appropriations, Older Americans Act Title IIID funding is required to be used primarily for programs and activities which have been demonstrated to be evidence-based. Although many Massachusetts AAAs are already implementing CDSMP and other evidence-based programs, CDSMP is not equally embedded across the state in our aging services network. CDSMP implemented through AAAs, councils on aging, ASAPs and other community-based agencies will thus be supported partially through Title IIID funds and partially by grant funds. AAAs and agencies that they work with on Title IIID programs will be invited to join regional coalitions for support and mentoring and education from HLCE and other agencies.
- *Prevention and Wellness Trust.* Funding is included in the Massachusetts health cost-control bill which will pay for programs to reduce the impact of chronic illnesses such as diabetes, asthma and heart disease that are contributing to increased health care costs. There is $60 million earmarked over the next four years for the Prevention and Wellness Trust, which will be paid for by a tax on insurers and an assessment on some larger hospitals. Communities, health care providers, regional planning agencies and health

[11] http://www.cms.gov/apps/media/press/factsheet

plans will be able to apply for grants, to be awarded by the Massachusetts Department of Public Health, to develop programs to help reduce preventable illnesses. The funding will also help employers develop and implement work-based wellness programs. The bill creates tax credits for employers that provide these wellness programs. It also requires health insurance premium discounts for small businesses that set up these programs. CDSMP can be a key program offered as part of employee wellness programs and programs offered by community agencies, health care providers and health plans.

Over the medium- to long-term, two other funding strategies may present themselves:

- *Global Payments*: Health care reimbursement is undergoing dramatic changes, with a shift away from fee-for-service reimbursement to a "global payments" system where primary care physicians and their patients manage a capped medical budget for the year. Preventative care and related interventions that provide alternatives to hospitalizations and other higher-cost interventions will be incented by this system. CDSMP providers may be in a position to take advantage of the global payments system as it comes online, but uncertainty remains about the timing and procedures of this system. We recommend that CDSMP leadership closely monitor changes in policy and continue outreach to statewide, regional, and local physicians groups to build awareness of the cost savings and efficacy of the model in anticipation of the Global Payments system coming online.[12]

- Social Impact Bonds: "Pay for Success"[13] funding mechanisms are another alternative approach to government financing that is being piloted in Massachusetts. Social Impact Bonds (SIBs), modeled on a program in the U.K., leverage private sector capital markets to fund public sector projects where successful implementation leads to a reduction in government expenditures over time. The idea behind SIBs is to align the interests of the private and philanthropic investors with the public sector driving toward a common outcome that all parties wish to achieve such as reducing prisoner recidivism or lowering high-cost health care interventions. Funding is not based on services provided but on achieved outcomes, and private investors realize their returns based on the achievement of these outcomes. . Adapting the Social Impact Bond model for the U.S. could have tremendous implications for the way funding for social needs is secured by bringing the efficiency and relative transparency of the private capital markets to bear in solving social problems. In Massachusetts, a state pilot is moving forward focused on juvenile offenders and another, focusing on healthcare, is in the planning stages. Given that CDSMP can reduce more costly interventions that are often paid for by Medicaid and Medicare, there may be opportunities to use Social Impact Bond financing either to fund the widespread deployment of the program or as part of larger package of

[12] For more information, see "Health spending 3.3 percent less under Blue Cross global payment plan, study finds," The Boston Globe, July 12, 2012.
[13] See http://nonprofitfinancefund.org/pay-for-success for more information on Social Impact Bonds.

preventative care initiatives, but the parameters of that financing and the opportunities for the CDSMP model are not yet defined.

TEAM AND GOVERNANCE

The main organizational roles for partners in implementing CDSMP are described in the Representational Leadership section above. The key partner agencies currently steering the CDSMP initiative and providing overall leadership for CDSMP are EOEA, DPH and the HLCE (ESMV and HSL). Key agency stakeholders include:

DPH lead: Cheryl Bartlett, Director, Bureau of Community Health and Prevention
EOEA lead: Ruth Palombo, Assistant Secretary, Office of Program Planning and Management
HLCE: Roseanne DiStefano, Executive Director (ESMV), Joan Hatem-Roy, Assistant Director (ESMV), Robert Schreiber, Medical Director (HSL), Jennifer Raymond, CDSME Project Director

While not strictly serving a governance function, HLCE's work will be informed by an Advisory Council composed of representatives from across the state and interested sectors, providing strategic direction for program development, implementation, and sustainability. All of the leadership above served on the Working Group for the development of this business plan along with the following key stakeholders:

David Abelman (Tufts Health Plan Foundation)
Milagros Abreu (Latino Health Insurance Program)
Anita Albright (Formerly with DPH)
Ana Karchmer (Formerly with EOEA)
Walter Leutz (Brandeis University)
Roseanne Martoccia (Franklin County Home Care Corporation)
David Stevens (Massachusetts Association of Councils on Aging and Senior Centers)

Appendix A:
Healthy Living Center of Excellence (HLCE) Functions and Costs

The HLCE functions and their associated costs fall into three distinct categories: 1. Infrastructure and Learning Collaborative; 2. Direct Delivery of Services; and 3. Evaluation:

Infrastructure and Learning Collaborative: The Massachusetts Healthy Living Center of Excellence (HLCE) will promote the integration of evidence-based self-management programs within the health care delivery system through collaboratives which include the community based organizations, health care providers and plans, government, foundations, and for-profit partners. In addition to functioning as a centralized, statewide body to promote and sustain programs, HLCE and partners will operate as a "learning collaborative," offering motivation, inspiration, support, and technical assistance to organizations seeking paths to program sustainability (i.e., accreditation to offer DSMT for Medicare reimbursement; incorporation of Evidence Based Programming (*EBP*) in Community-based Care Transitions Programs (*CCTP*), Patient-Centered Medical Homes (*PCMH*), and other pilots). To perform these functions, HLCE requires an infrastructure consisting of staffing and expertise in the arenas of capacity building, quality assurance, and business development. The business development function of HLCE will seek to achieve HLCE and EBP sustainability statewide within three years through diversified funding. While direct formation of policy is not a centralized function of HLCE, HLCE efforts would inform policy, specifically through collaboration with Tufts Health Plan Foundation's Health Policy Officer, the Department of Public Health, and the Executive Office of Elder Affairs. HLCE infrastructure also consists of six (6) part time "regional coordinators" to convene local collaboratives to implement, grow and sustain programs consistent with HLCE centralized efforts while maintaining regional sensitivities. HLCE infrastructure is further enhanced by an Advisory Board consisting of key stakeholders. There currently exists limited funding for infrastructure, aside from organizational support for ESMV and HSL. The award of a three-year grant to the Massachusetts Executive Office of Elder Affairs from the Administration on Aging (*Administration on Community Living*) in September 2012 will partially, but not fully, support infrastructure development and expansion.

Costs associated with Infrastructure and the Learning Collaborative are explained below:

Infrastructure		
	Project Director and Business Dev. (.8 FTE)	72,000
	Manager, Quality and Education (.8 FTE)	48,000
	Manager, Capacity and Partnership (.8 FTE)	48,000
	Coordination (.8 FTE)	32,000
	Six (6) Regional Coordinators (.5 FTE)	156,000
	Personal Subtotal	356,000
	fringe (29.8%)	106088
	Training/Travel/Supplies	24,000
	Direct subtotal	486,088
	Indirect Costs (60.75%)	295,298

	Infrastructure Total	**781,386**

Direct Delivery of Services: Capacity for program delivery is currently inconsistent in Massachusetts. The regions with greatest capacity (Northeast, Boston, and Western) have benefited from a combination of innovative leadership, successful collaborations, and federal or foundation funding. The infrastructure of HLCE is designed to spread these what has been learned to those regions with less capacity (Central, Metrowest, Southeast). Currently, direct delivery of programs is supported through a combination of federal (Title IIID, incorporation in CCTP pilots), foundation (Tufts Health Plan Foundation, Metrowest Foundation), and other philanthropic and organizational support. The award of a three-year grant to the Massachusetts Executive Office of Elder Affairs from the Administration on Aging (Administration on Community Living in September 2012 further supports direct delivery of CDSME services.

Costs for direct program delivery will vary depending on workforce model, recruitment strategies, incentives offered (e.g. books, CDs), and ability to successfully partner with other agencies to implement programs. On average, organizations report a cost of about $1,000 per workshop (or $100 per participant) for actual program implementation. These costs, however, assume significant support at the planning, training and marketing levels provide by the HLCE. These costs associated with maintenance of a statewide infrastructure and the regional collaboratives also need to be clearly identified and included in an overall budget as these costs directly impact local program costs as well as support local program delivery.

Direct Delivery of Services		
	Unit Rate Reimbursement to cover all costs	
	$100 per participant for 4,000 participants*	400,000
	Direct Delivery Total	**400,000**

*Based on 10-14 participants per group. Reimbursement provided to community-based organizations for implementation of programs.

Evaluation and Data Collection: The HLCE infrastructure functions to centrally collect EBP data, including self-reported pre- and post-intervention data. There currently exists no funding for more robust data collection or evaluation of health care utilization or outcomes data. The feasibility of NIH grant submissions to perform such is currently being examined, with partners including Hebrew SeniorLife's Institute for Aging Research and Brandeis University's Heller School. HLCE further seeks to develop and expand partnerships with SCOs, ACOs, health plans, and other entities with access to FFS/utilization data (BIDPO ACO, BIDMC Gerontology, Tufts Health Plan, etc).

Costs associated with evaluation will allow for program evaluation in three (3) specific arenas:

1. Implementation and operations to identify what works well and what does not in delivering evidence-based programs across the life-span to elders, younger adults and persons with disabilities with chronic diseases; enhancing coordination with health care services; improving quality; and replicating and sustaining the approach.

2. Workforce development to assess how the new role for Community Health Workers (*CHWs*) in EBPs is developed in terms of recruitment, training, placement, wages, effectiveness in program delivery, enhancing linkages between health and aging service delivery systems, and worker satisfaction.

3. Impacts on Medicare utilization and expenditures and on participant outcomes such as health status, self-efficacy, and assessments of quality of care.

The total costs for evaluation of implementation and operations, workforce development, and impact on Medicare utilization are $446,548. Should evaluation focus only on impact on Medicare utilization for a specific cohort or cohorts, fewer resources would be needed for co-investigators and evaluation leads, resulting in a reduced cost of $226,518. A more detailed description of such evaluation appears in Appendix B.

Evaluation		
	Evaluation Leader	40,000
	Co-Investigator	25,000
	Co-Investigator	50,000
	Co-Investigator	36,000
	Statistician	15,000
	Research Assistant	8,000
	Data Collection Assistant	40,000
	Personal Subtotal	214,000
	Fringe Benefits (29.8%)	63772
	Direct subtotal	277,772
	Indirect Costs (60.75%)	168,746
	Evaluation Total	**446,518**

Total Costs:		
Direct Delivery of Services		
	Unit Rate Reimbursement to cover all costs	
	$100 per for 4,000 participants	400,000
	Direct Delivery Total	**400,000**
Infrastructure		
	Project Director and Business Dev. (.8 FTE)	72,000
	Manger, Quality and Education (.8 FTE)	48,000
	Manager, Capacity and Partnership (.8 FTE)	48,000
	Coordination (.8 FTE)	32,000
	Six (6) Regional Coordinators (.5 FTE)	156,000
	Personal Subtotal	356,000
	Fringe Benefits(29.8%)	106,088
	Training/Travel/Supplies	24,000
	Direct subtotal	486,088
	Indirect Costs (60.75%)	295,298
	Infrastructure Total	**781,386**
Evaluation		
	Evaluation Leader	40,000
	Co-Investigator	25,000
	Co-Investigator	50,000
	Co-Investigator	36,000
	Statistician	15,000
	Research Assistant	8,000
	Data Collection Assistant	40,000
	Personal Subtotal	214,000
	Fringe Benefits (29.8%)	63,772
	Direct subtotal	277,772
	Indirect Costs (60.75%)	168,746
	Evaluation Total	**446,518**
	Total	**1,627,904**

As described above, the annual cost of a fully functioning HLCE is approximately $1,627,905. Funding is currently derived from a variety of diverse sources included federal grant support, Title III- D Older Americans Act funding, private foundation support, and Medicare reimbursement. While these funding sources are significant, currently available funding does not cover all needed costs for a fully sustainable statewide delivery system. A funding gap of approximately $887,904 exists (for infrastructure development equal to approximately $421,830; evaluation equal to approximately $446,518; and some direct delivery of services equal to approximately $20,000) to implement and sustain a statewide CDSME delivery system (including the HLCE) on an annual basis.

Appendix B:

Appendix B:
Detailed Evaluation

Evaluation for CDSMP falls into three distinct categories:

1. Implementation evaluation: The project seeks to demonstrate how an existing network for delivering EBPs (CDSMP and DSMP) that is based primarily in aging services agencies (AAA/ASAPs, COAs) and also in a Medicare dual-eligible Special Needs Plan can be strengthened by: (a) cross-training EBP program group leaders and CHWs; and (b) by building new links with a variety of health care providers to integrate the delivery system. The workforce development evaluation (see #2 below) will assess the worker training systems and how the jobs of EBP leaders and CHWs are affected. The implementation evaluation will show whether and how health care services are improved. To promote learning and improvement of operations, the evaluators will conduct both initial assessments with feedback and a final assessment with attention to replication and sustainability.

a. Focuses of evaluation: Attention will focus on systems to identify and refer appropriate patients EBPs, whether health care and aging services systems are integrated to encourage participation in and completion of EBPs, whether providers change practice to work with newly empowered patients, and the costs of developing and operating the new systems. **First,** what methods are being used by providers in different health care settings to identify appropriate patients and refer them to the EBPs? Issues addressed will include screening criteria, materials and scripts used to describe the programs, staff providing information, the use of culturally and linguistically sensitive approaches, and assistance with transportation and other logistics. The evaluation will document the effectiveness of referral systems as measured by the ratio of number of referrals made to number of patients enrolled from each health care setting. **Second**, how does the level of coordination between the aging services delivery system and the health care delivery system change over time? Brandeis will identify what mechanisms are being used to achieve integration and also assess the degree of integration by program area from linked, to coordinated, to fully integrated. Areas will include numbers of patient referrals; means of communication between providers, CHWs and aging service agencies; number of EBP completers; communication between CWHs and primary care settings. **Third,** how do health care systems and providers work with newly empowered patients? Approaches may include education and training of providers, notification of completion of providers in medical records, and ongoing reinforcement of empowerment and self-management. **Fourth,** what does it cost to develop and operate the integrated approach to EPB

delivery, including the costs of cross-training? It will be important to determine whether the set fee that the project pays EBP providers per completer is fair and accurate. To determine this, the evaluation will collect information on both the start-up costs for new training, referral and communications systems, and the ongoing costs per completer.

2. Workforce Development Evaluation: The primary workforce innovation of the project is to enhance the capabilities of CHWs and EBP group leaders by offering members of each occupation the chance to be trained and certified in the other's field, i.e., CHWs get the chance to be certified as EBP group leaders and vice versa. The project also seeks to embed these workers more securely in a system that links community-based training agencies with health care providers. The workforce development component of the evaluation will ascertain the effects of these innovations on the two workforces and occupations, as well as how the effects are achieved. This will include assessments of recruitment and training, changes in employment and wages, changes in job responsibilities, and timeliness and sustainability.

3. Outcome and impact evaluation: To address the project's impacts on health, health care, and costs, the impact and outcome section of the evaluation will determine whether and how the intervention affects Medicare costs and utilization and the experience of individual beneficiaries. The strategy to assess the impact of EBPs in diverse settings will rely on: a. Identification of appropriate comparison groups for each setting; b. Specification of measures of health, services quality and cost customized for each setting; c. Comparison of the impacts over the study period for intervention and comparison groups (difference-in-differences) for utilization and cost; pre-post comparisons for beneficiary experience of program participants.