# STATE PUBLIC HEALTH ACTIONS TO PREVENT AND CONTROL DIABETES, HEART DISEASE, OBESITY AND ASSOCIATED RISK FACTORS AND PROMOTE SCHOOL HEALTH

## (CDC-RFA-DP13-1305)

## *Annual Local Evaluation Report*
### June 2017

*Sara Wakai, Ph.D.*
**Co-Principal Investigator**
Assistant Professor of Medicine

*Ann M. Ferris, Ph.D., R.D.*
**Principal Investigator**
Professor Emerita of Medicine and Public Health

*Erin Havens, MPA, MPH*
Planning Specialist

*Eric Horan, JD, MPA*
Research Associate

*Dorothy B. Wakefield, MS, PStat®*
Biostatistician

UConn Health
Center for Population Health
263 Farmington Avenue, MC 6030
Farmington, Connecticut 06030
publichealth.uconn.edu

# Acknowledgement

The evaluation team would like to thank the Connecticut Department of Public Health 1305 team for the opportunity to conduct this evaluation and for their contributions to the evaluation report. We are grateful to the 1305 critical partners who, among numerous other responsibilities, attended meetings and collaborated in preparing and administering assessment tools. Thank you to the program participants who contributed their time and knowledge to this evaluation by providing valuable information on their experiences with their programs. We greatly appreciate the contributions of Connie Cantor to the design and format of the report.

# Table of Contents

# Connecticut 1305 Local Evaluation Annual Report
## June 2017

**1305 Grant Background**
In 2013, the Centers for Disease Control and Prevention (CDC) awarded the Connecticut Department of Public Health (DPH) a five-year grant: State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health (1305) (Grant # 1U58DP004797-01). The purpose of the grant is to reduce the risk factors associated with childhood and adult obesity, diabetes, heart disease, and stroke.

The national 1305 program combines the chronic disease prevention and management priorities of four distinct categorical program areas in the CDC's National Center for Chronic Disease Prevention and Health Promotion: Nutrition, Physical Activity and Obesity; School Health; Heart Disease and Stroke Prevention; and Diabetes. The grant is organized around four public health "domains," which cross-cut the categorical program areas. These domains are: 1) epidemiology, 2) environmental approaches, 3) health care system interventions, and 4) community program-clinical services links. CDC has developed many strategies to prevent and manage chronic diseases for this grant that align with the categorical program areas and domains. Connecticut has selected 21 of the CDC-recommended strategies for its 1305 implementation.

**Connecticut's 1305 Local Evaluation**
DPH contracted for the services of UConn Health's Center for Public Health and Health Policy (CPHHP) to design and implement the evaluation. The structure of the local evaluation follows a template required by the CDC. Among other things, the CDC provides core questions that the local evaluation must address. For each core question, there are several indicators, some of which are based on recommendations by the CDC and some of which have been created specifically for this evaluation. CDC approved the Year 4 Evaluation Plan in September 2016.

The local evaluation includes a "process evaluation," which measures the state level 1305 partnership itself. Among other things, it tracks membership in the partnership and assesses the synergies arising from the partnership. It also evaluates the implementation of four of the many programs carried out by Connecticut's 1305 partnership.

The local evaluation is organized into the following parts:
- **Part 1: Process Evaluation**
  The process evaluation investigates the degree to which the collaboration of DPH staff from different program areas and external partners has had a synergistic effect on the partners' abilities to address issues in their individual programs.
- **Part 2: Physical Education and Physical Activity in Early Care and Education**
  The evaluated activity for this part in Year 4 is the implementation of the physical activity and physical education program I am Moving, I am Learning (IMIL). The evaluation investigates what physical activities have been implemented in the participating centers and the facilitators and barriers to implementing those activities.
- **Part 3: Physical Education and Physical Activity in K-12 Schools**

Connecticut's State Department of Education (CSDE) is implementing Comprehensive School Physical Activity Programs (CSPAPs) in public and private K-12 districts and schools in the state that participate in the Healthy School Communities for Successful Students (HSCSS) partnership.  This part focuses on the implementation of CSPAPs in these districts and accompanying facilitators and barriers to the implementation.

- **Part 4:  Health Care Extenders in the Community in Support of Self-Management of High Blood Pressure**

  Faculty from UConn's School of Pharmacy have created a partnership with pharmacists to implement Medication Therapy Management (MTM) in community pharmacies throughout Connecticut.  The evaluation focuses on tracking the number of pharmacists certified in MTM in the state, and describing the state actions to encourage certification and the barriers and facilitators faced by pharmacists providing the services.

- **Part 5:  Diabetes Self-Management Programs in Community Settings**
  The Stanford Diabetes Self-Management Program (DSMP) is a six-week diabetes self-management workshop offered in community settings.  The purpose of the evaluation is to assess the implementation of the DSMP model and identify ways to increase use of DSMP in Connecticut.

Each of the four programs fall into one of the four CDC categorical program areas, and align with at least one of the four CDC health domains, as shown in Table 1.

Table 1

*Programs, Program Areas and Domains:  Connecticut 1305 Local Evaluation (Year 4)*

| | CDC Categorical Program Areas | | | |
| --- | --- | --- | --- | --- |
| **CDC Domains** | Nutrition, Physical Activity and Obesity | School Health | Heart Disease and Stroke Prevention | Diabetes |
| Epidemiology* | | | | |
| Environmental approaches | IMIL | CSPAP | | |
| Health care system interventions | | | | |
| Community program - clinical services links | | | MTM | DSMP |

*All four programs involve epidemiological activities.

The evaluation team is responsible for presenting evaluation findings to DPH and critical partners at quarterly meetings and in annual reports.  The findings are part of quality assurance and program improvement activities intended to identify areas of strength and those in need of modification in subsequent years of the grant.

# Part 1

## Process Evaluation

*Synergy*

# Part 1:  Process Evaluation

## *Synergy*

The State Public Health Actions (1305) grant is designed, in part, to encourage grant recipients to partner with multiple groups to deliver services related to chronic disease prevention and control.  The process evaluation examines whether the collaborative efforts taken by the 1305 partnership to address 1305 program objectives have achieved high levels of synergy.  As defined in the CDC guidance, "Synergy occurs when collaboration/ coordination/ alignment/ combination of inputs and activities (i.e., the assets and skills of all partners, resources, etc.) produce outputs and outcomes greater than what would have occurred if they had been used separately."[1]

**CDC Core Evaluation Questions:**

1) *How has coordination with critical partners changed due to the implementation of 1305?*

   *1a) Synergy: Please include information on ways working across categorical program areas may have enhanced coordination with critical partners.*

2) *How has your organizational structure and approach changed due to the implementation of 1305?*

   *2a) Synergy: Please include information on ways working across categorical program areas may have increased or decreased operational efficiencies.*

---

[1] CDC definition of synergy: 1305 Evaluation Plan Guidance (February 26, 2014) p. 2.

Table 1.1 lists the CDC core evaluation questions and associated indicators.

Table 1.1
*Evaluation Format*

| Indicator | | Data Source |
|---|---|---|
| **Evaluation Question 1:** How has coordination with critical partners changed due to the implementation of 1305? | | |
| 1.1 | Number of external partners that join the 1305 partnership | PSAT Contact List |
| 1.2 | Number of external partners that leave the 1305 partnership | PSAT Contact List |
| 1.3 | Percent of external partners working on more than one 1305 strategy | DPH partner spreadsheet |
| 1.4 | Percent of external partners working in more than one DPH program area | DPH partner diagram |
| 1.5 | Percent of partners participating in the partnership self-assessment | Partnership Self-Assessment Tool |
| 1.6 | Number of cross-program area meetings offered to external partners | List of cross-program area meetings |
| **Evaluation Question 1a:** Synergy. Please include information on ways working across categorical program areas may have enhanced coordination with critical partners. | | |
| 1a.1 | 1305 partnership scores for synergy and related areas | PSAT |
| New (1) | (New Indicator) Percent of DPH 1305 staff who report high levels of satisfaction with their involvement in the partnership | PSAT |
| 1a.2 | Percent of DPH 1305 staff who report high levels of synergy | PSAT |
| 1a.3 | Percent of DPH 1305 staff reporting high levels of administration and management effectiveness | PSAT |
| 1a.4 | Percent of DPH 1305 staff reporting high levels of leadership effectiveness | PSAT |
| 1a.5 | Percent of DPH 1305 staff reporting benefits | PSAT |
| 1a.6 | Percent of DPH 1305 staff reporting drawbacks | PSAT |
| 1a.7 | Percent of DPH 1305 staff reporting benefits exceed drawbacks | PSAT |
| New (2) | (New Indicator) Percent of external partners who report high levels of satisfaction with their involvement in the partnership | PSAT |
| 1a.8 | Percent of external partners reporting high levels of synergy | PSAT |
| 1a.9 | Percent of external partners reporting high levels of administration and management effectiveness | PSAT |
| 1a.10 | Percent of external partners reporting high levels of leadership effectiveness | PSAT |
| 1a.11 | Percent of external partners reporting benefits | PSAT |
| 1a.12 | Percent of external partners reporting drawbacks | PSAT |
| 1a.13 | Percent of external partners reporting benefits exceed drawbacks | PSAT |

Table 1.1
*Evaluation Format*

| Indicator | | Data Source |
|---|---|---|
| **Evaluation Question 2:** How has organizational structure and approach changed? | | |
| 2.1 | Number of personnel with FTE funded from two or more program areas | Organizational Charts and job descriptions |
| 2.2 | Number of cross-program area meetings offered to DPH 1305 staff | List of DPH 1305 internal meetings |
| **Evaluation Question: 2a:** Synergy. Please include information on ways working across categorical program areas may have increased or decreased operational efficiencies. | | |
| 2a.1 | Percent of DPH 1305 staff who report a high level of efficiency with partnership resources | PSAT |
| 2a.2 | Percent of external partners who report a high level of efficiency with partnership resources | PSAT |
| 2a.3 | Number and percent of DPH 1305 staff reporting the partnership as very good to excellent at combining the perspectives, resources, and skills of partners | PSAT |
| New (3) | (New Indicator) Percent of external partners reporting the partnership as very good to excellent at combining the perspectives, resources, and skills of partners | PSAT |

## Background

Connecticut's 1305 program commenced when DPH was in the midst of reviewing and revising its internal organization. A few years before the 1305 grant, in state fiscal year 2011 (July 1, 2010- June 30, 2011), DPH released Healthy Connecticut, which served as Connecticut's adaptation of the federal Healthy People framework.[2,3] In preparation to creating the Healthy Connecticut framework, DPH compiled a directory of public health plans, which included abstracts of 35 health improvement and strategic plans.[4] Most of these plans were program area specific. There were strategic plans at that time for, among other things, diabetes, high blood pressure, and obesity.[5] The following year, in September 2011, DPH began a process of strategic mapping to review its internal organization in light of its mission and strategic

---

[2] "Department of Public Health" (2011). In Rusczyk, C. (Ed.), *Digest of Administrative Reports to the Governor*, Connecticut Department of Administrative Services, available at: http://das.ct.gov/fp1.aspx?page=387 (accessed June 2, 2017).

[3] Healthy Connecticut 2020: Creating the State Health Improvement Plan (updated December 20, 2016), available at: http://www.ct.gov/dph/cwp/view.asp?a=3130&Q=542346&PM=1 (accessed June 2, 2017).

[4] "Department of Public Health" (2011). In Rusczyk, C. (Ed.), *Digest of Administrative Reports to the Governor*, Connecticut Department of Administrative Services, available at: http://das.ct.gov/fp1.aspx?page=387 (accessed June 2, 2017).

[5] Bower, Carol E., and Abeer Ayaz. 2009. Directory of Connecticut Public Health Plans. Hartford, CT: Connecticut Department of Public Health, Planning Branch, Planning and Workforce Development Section, available at: http://www.ct.gov/dph/lib/dph/state_health_planning/dphplans/plan_directory_dph_012010.pdf (accessed June 2, 2017).

priorities.[6]  The agency-wide strategic plan[7] was released during the 2012-2013 state fiscal year.  This same fiscal year, DPH was notified of its award under the 1305 grant program.[8]  In May of 2014, DPH released "Live Healthy Connecticut," a coordinated chronic disease prevention and health promotion plan.[9, 10]  The release of this plan coincided with the first year of implementation for Connecticut's 1305 program.

## Data Collection

This part relies on four sources of data to measure Connecticut's 1305 partnership and the synergistic effects achieved by it during Year 4 of the 1305 grant.  These data sources are the Partnership Self-Assessment Tool (PSAT), the PSAT Contact List, DPH 1305 staff organizational charts and personnel task descriptions, and DPH meeting announcements and other DPH meeting information.

**Partnership Self-Assessment Tool (PSAT)**.  The PSAT was used to measure various aspects of the 1305 partnership.  It was developed by the Center for the Advancement of Collaborative Strategies in Health at The New York Academy of Medicine with funding from the W. K. Kellogg Foundation and consists of the following topics:  Synergy, Satisfaction with the Partnership, Benefits of Participation, Drawbacks of Participation, Comparing Benefits and Drawbacks, Leadership, Efficiency, Administration and Management, Non-financial Resources, Financial Resources, and Decision-Making.

The survey was formatted by CPHHP for online administration to 1305 critical partners.  For the purposes of the evaluation, "partners" are organizations.  "Critical partners" consist of an internal partner and external partners.  The internal partner is DPH.  The external partners are organizations that are independent of DPH.  These partners change somewhat from year to year, but, generally, they may be other state agencies; regional and local governmental and quasi-governmental agencies; non-profit and other community groups; or other independent groups.  While critical partners are organizations, the PSAT is sent to individuals to complete.  Most external partners have a single individual complete the survey; this is not universally true, however, which leads to some differences in the critical partner and individual response rates, as discussed below.

DPH staff involved with the 1305 partnership and external partner staff are invited to complete the PSAT annually.  In Year 4, nine DPH staff members and 42 individuals representing 40

[6] "Department of Public Health" (2012).  In Rusczyk, C. (Ed.), Digest of Administrative Reports to the Governor, Connecticut Department of Administrative Services, available at: http://das.ct.gov/fp1.aspx?page=409  (accessed June 2, 2017).

[7] Connecticut Department of Public Health Strategic Plan: 2013-2018, available at: http://www.ct.gov/dph/lib/dph/admin/org/ctdph_strategic_plan.pdf (accessed June 2, 2017).

[8] "Department of Public Health" (2013).  In Rusczyk, C. (Ed.), Digest of Administrative Reports to the Governor, Connecticut Department of Administrative Services, available at: http://das.ct.gov/fp1.aspx?page=440  (accessed June 2, 2017).

[9] "Department of Public Health" (2014).  In Rusczyk, C. (Ed.), Digest of Administrative Reports to the Governor, Connecticut Department of Administrative Services, available at: http://das.ct.gov/fp1.aspx?page=462  (accessed June 2, 2017).

[10] Connecticut Department of Public Health. 2014. Live Healthy Connecticut, A Coordinated Chronic Disease Prevention and Health Promotion Plan. Hartford, CT: Connecticut Department of Public Health, available at: http://www.ct.gov/dph/cwp/view.asp?a=3137&Q=543772 (accessed June 2, 2017).

external partners were so invited.  The invitations were sent electronically, via email, by the Chronic Disease Director at DPH.

The response rate for all individuals invited to complete the PSAT for Year 4 was 59 percent (30 out of 51 individuals) (Table 1.2).  The external partner response rate was 50 percent (20 out of 40 external partners).  The individual response rate for external staff was also 50 percent (21 out of 42 external staff).  All DPH staff invited to complete the survey did so.  The individual respondent response rate was slightly different from the total critical partner response rate because nine individuals from the internal partner, DPH, were invited to complete the survey and three individual respondents represented a single external partner.

Table 1.2
*PSAT Response Rates (Year 4)*

|  | **Invited** | **Responded** | **Response rate** |
|---|---|---|---|
| External Partners (organizations) | 40 | 20 | 50 % |
| External staff (individuals) | 42 | 21 | 50 % |
| DPH staff (individuals) | 9 | 9 | 100 % |
| All Contacts (individuals) | 51 | 30 | 59 % |

**Partnership Self-Assessment Tool Contact List (PSAT Contact List).**  The PSAT is administered annually in January, beginning in Year 2.  DPH provides CPHHP with a list of individual contacts for all critical partners (internal and external) who are part of the 1305 partnership.  This list is compiled in January of the given year.  The PSAT Contact List also serves as an annually updated list of current critical partners.  Thus, references to critical partners refer to the critical partners in January of the respective year.  In Year 2 there were 26 critical partners (25 external partners and DPH), in Year 3 there were 38 critical partners, and in Year 4 there were 41.

**Connecticut 1305 Organizational charts and personnel descriptions.**  DPH program organizational charts were examined to identify potential changes in organizational structure during the implementation of 1305, including hierarchical structure and personnel assigned across DPH program areas.  DPH provided CPHHP with an organizational chart of DPH in May, 2014 (Year 1 of the grant) and an updated organization chart in May, 2017 (Year 4).

**DPH 1305 meeting information.**  DPH organizes four quarterly meetings per year for Connecticut's 1305 program, semi-monthly 1305 team meetings, and other meetings throughout the year.  CPHHP staff attends the quarterly meetings and DPH staff provides information to the evaluators about the other 1305-related meetings.

**Question 1:**  **How has coordination with critical partners changed due to the implementation of 1305?**

*1.1 Number of external partners that join the 1305 partnership*

*1.2 Number of external partners that leave the 1305 partnership*

In Year 3 there were 37 external partners (organizations).  By January of Year 4, the number of external partners had increased to 40, a net increase of three partners.  Four organizations became new external partners in Year 4; one external partner from Year 3 did not continue into Year 4.  Thirty-six external partners were active in both years (Figure 1.1).  The one external partner that did not formally continue with the 1305 partnership contributed to the NAP SACC partnership (a sub-group within Connecticut's 1305 partnership, engaging in NPAO activities) in Year 3.  This former partner contributed some of its staff to become NAP SACC trainers and subsequently trained several child care providers to implement NAP SACC.  The external partner had trained all of the child care providers with which it works in Year 3, and so declined to continue with the 1305 partnership in Year 4.  One of the external partners new to Year 4 is United Way/2-1-1 Childcare, which is involved in developing the NAP SACC partnership in Year 4.  The three other new partners, YMCA of Torrington, YMCA of Greater Hartford and the town of Fairfield's Health Department, joined the 1305 partnership to help enable them to offer diabetes prevention services.

Figure 1.1
*Increase in Number of External Partners, Year 3 to Year 4*
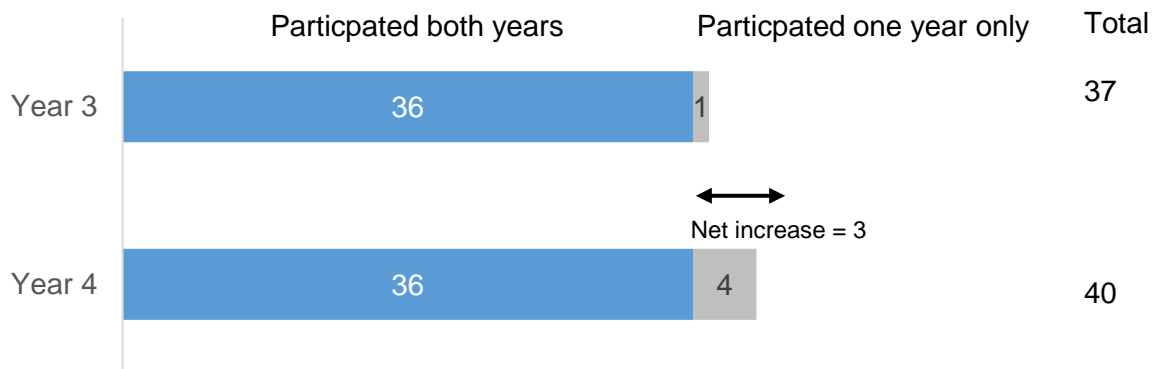


Each summer Connecticut's 1305 staff identifies potential external partners for the coming grant year (which extends from, approximately, July 1 to the following June 30) as part of its yearly evaluation plan.  Thirty-three potential external partners were listed in the Year 3 Evaluation Plan.  Of these, 27 were partners in January 2016 (82 percent) and 10 additional organizations were partners who were not identified in the plan, for a total of 37 external partners (Table 1.3).  In the Year 4 Evaluation Plan, 38 potential external partners were identified.  All 38 had joined Connecticut's 1305 partnership by January of 2016 and two additional external partners (not listed in the Evaluation Plan) had also joined the partnership, for a total of 40 external partners.

Table 1.3

*Planned and Actual External Partners of Connecticut's 1305 Partnership, Year 3 and Year 4*

| 1305 Grant year | Proposed External Partners listed in the Evaluation Plans | Proposed External Partners that joined the 1305 partnership | Additional External Partners that joined the 1305 partnership | Total External Partners that joined the 1305 partnership |
|---|---|---|---|---|
| Year 3 | 33 | 27 | 10 | 37 |
| Year 4 | 38 | 38 | 2 | 40 |

Fidelity to the 1305 Evaluation Plan increased from Year 3 to Year 4 with regard to membership in the 1305 partnership, that is, the list of actual partners was closer to the list of partners in the evaluation plan in Year 4 than in Year 3.  In Year 3, 82 percent of the proposed external partners were partners by the following January, whereas in Year 4 all of the proposed partners had joined.  In Year 3, ten of the 37 external partners (24 percent) did not appear in the evaluation plan; and in Year 4, two of the 40 external partners (5 percent) were not named in the evaluation plan.

### 1.3 Percent of external partners working on more than one 1305 strategy

Connecticut's 1305 partnership activities are carried out within the framework of 21 CDC strategies.  Seven of these strategies are from the basic 1305 program, seven are from Domain 2 (environmental approaches), two are from Domain 3 (health care system interventions), and five are from Domain 4 (community program - clinical services links).  The 40 external partners were involved with 20 of the 21 strategies in Year 4 (Appendix 1.A).  Each of them engaged in activities in at least one strategy.  Twenty-six of the 40 external partners (65 percent) worked on more than one strategy.  Twelve of the partners (30 percent) engaged in four or more strategies.
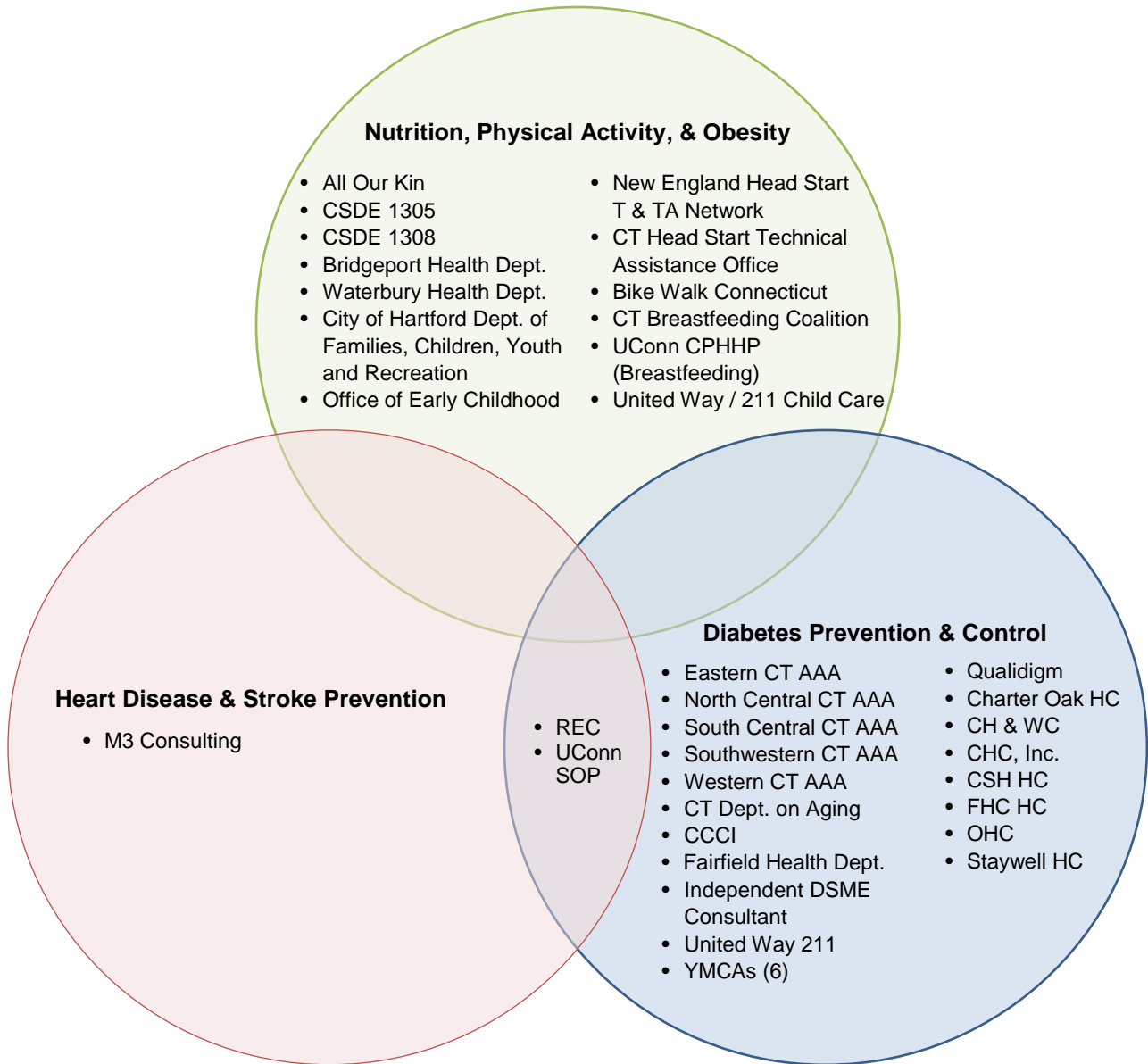
### 1.4 Percent of external partners working in more than one DPH program area

DPH has three program areas that coincide with the CDC's four categorical program areas involved in the 1305 grant.[11]  The DPH program areas are:  Nutrition, Physical Activity, and Obesity[12]; Heart Disease & Stroke Prevention; and Diabetes Prevention & Control.  Each of the external partners engages in activities that align with the goals of at least one of these program areas.  Thirteen external partners engage in NPAO-related activities, twenty-six in diabetes-related activities and three in HDSP-related activities.  Two of the external partners engage in activities related to both the program area of Heart Disease & Stroke Prevention and the program area of Diabetes Prevention & Control.  None of the other external partners engage in activities in multiple program areas, at least with regard to their participation in the 1305 partnership.  The program areas in which external partners engage are illustrated in Figure 1.2.

---

[11] The four CDC categorical program areas are:  Nutrition, Physical Activity, and Obesity; School Health; Heart Disease and Stroke Prevention; and Diabetes.

[12] DPH's program area Nutrition, Physical Activity, and Obesity correlates with two of CDC's categorical program areas: Nutrition, Physical Activity and Obesity; and School Health.

Figure 1.2
*External Partners and DPH Program Areas*

**Nutrition, Physical Activity, & Obesity**

- All Our Kin
- CSDE 1305
- CSDE 1308
- Bridgeport Health Dept.
- Waterbury Health Dept.
- City of Hartford Dept. of Families, Children, Youth and Recreation
- Office of Early Childhood
- New England Head Start T & TA Network
- CT Head Start Technical Assistance Office
- Bike Walk Connecticut
- CT Breastfeeding Coalition
- UConn CPHHP (Breastfeeding)
- United Way / 211 Child Care

**Heart Disease & Stroke Prevention**

- M3 Consulting

- REC
- UConn SOP

**Diabetes Prevention & Control**

- Eastern CT AAA
- North Central CT AAA
- South Central CT AAA
- Southwestern CT AAA
- Western CT AAA
- CT Dept. on Aging
- CCCI
- Fairfield Health Dept.
- Independent DSME Consultant
- United Way 211
- YMCAs (6)
- Qualidigm
- Charter Oak HC
- CH & WC
- CHC, Inc.
- CSH HC
- FHC HC
- OHC
- Staywell HC

**Abbreviations**:
AAA = Area Agencies on Aging
CCCI = Connecticut Community Care, Inc.
CHC, Inc. = Community Health Center, Inc.
CH & WC = Community Health and Wellness Center
CPHHP = Center for Public Health & Health Policy
CSDE = Connecticut State Department of Education
CSH HC = Cornell Scott Hill Health Center
CT = Connecticut
FHC HC = Fair Haven Community Health Center
HC = Health Center
OHC = Optimus Health Care
REC = Regional Extension Center / eHealth Connecticut
T & TA = Training and Technical Assistance
UConn SOP = University of Connecticut School of Pharmacy

11

### 1.5 Percent of partners participating in the partnership self-assessment

In Year 2, 26 critical partners (25 external partners and DPH) were invited to complete the PSAT (Table 1.4). Twenty-one of the critical partners responded, for a response rate of 81 percent. In Year 3, 38 critical partners (37 external partners and DPH) were invited to respond to the survey; 26 critical partners did so, for a response rate of 68 percent.[13] In Year 4, 41 organizations were invited and 21 had at least one staff person respond (51 percent).

Over the course of the three years in which the PSAT has been administered, a total of 46 critical partners (both internal and external) have been invited to complete the PSAT at least once. Of them, 35 did so at least once. Ten critical partners (22 percent) responded to all three administrations of the survey.

As noted in the data and analysis section, the response rate for individual respondents is somewhat different from the critical partners' response rate. In Year 2, 34 individuals were invited to take the PSAT, and 24 returned responses, for a response rate of 71 percent. In Year 3, 47 individuals were invited and 31 returned responses, for a response rate of 66 percent. In Year 4, 30 out of 51 invited individuals responded to the survey, for a response rate of 59 percent.

Fifty-eight individuals were invited to complete the PSAT at least once during Years 2, 3 and 4 and 45 did so at least once. By Year 4, more than three-quarters of the individuals invited, participated in at least one partnership self-assessment. Of these 45 respondents, four responded only to the Year 2 survey, seven responded only to the Year 3 survey, and seven responded only to the Year 4 survey. Thirteen individuals (19%) responded to all three years.

Table 1.4

*Partners Participating in the Partnership Self-assessment*

| Year | **Critical partners** (organizations) | | | **Individuals** | | |
|---|---|---|---|---|---|---|
| | Invited | Responded | Response rate | Invited | Responded | Response rate |
| Year 2 | 26 | 20 | 77 percent | 34 | 24 | 71 percent |
| Year 3 | 38 | 26 | 68 percent | 47 | 31 | 66 percent |
| Year 4 | 41 | 21 | 51 percent | 51 | 30 | 59 percent |
| Year 2, 3, or 4 | 46* | 35** | 76 percent*** | 58* | 45** | 78 percent*** |

\* Invited at least once in Year 2, 3 or 4.
\*\*Responded at least once in Year 2, 3, or 4.
\*\*\*This rate is not an average of the response rates for Years 2 through 4 because some respondents were invited multiple years.

---

[13] For both Year 2 and Year 3, two of the organizational partners were represented in the PSAT by a single individual respondent. For the purpose of calculating the organizational response rate, these two organizations are counted as if each had sent in a response. For the individual response rates, and the analysis of the PSAT results, the individual's responses are counted once.

## 1.6 Number of cross-program area meetings offered to external partners

DPH hosted three formal cross-program area meetings with its external partners in Year 4. Each of these meetings addressed activities that included the program areas of Heart Disease & Stroke Prevention and Diabetes Prevention & Control. The meetings were attended by several DPH staff, the Regional Extension Center, Qualidigm and M3 Consulting.

## Question 1a: Synergy. Please include information on ways working across categorical program areas may have enhanced coordination with critical partners.

The Partnership Self-Assessment Tool (PSAT) is administered annually to 1305 critical partners as a means to assess internal and external partner experiences with the collaborative process and how the partnership may enhance coordination. Responses to the survey were analyzed to identify partner perspectives about how well the 1305 collaborative process is working and their level of satisfaction with the synergistic process and outcomes. Analyses of both the internal partner and external partners' responses were conducted. The internal partner results include survey responses from DPH staff who are responsible for coordinating across categorical program areas or implementing 1305 initiatives. In the following section, the 1305 partnership results are shown for Years 2, 3 and 4. The Year 4 results should be interpreted with caution, however, because the response rate of 59 percent overall and 50 percent for external partners does not meet the PSAT developer's standard that at least 65 percent of partners invited to complete the survey submit a response. In addition, when comparing results for each year, it is important to note that the list of critical partners invited to complete the survey varied somewhat from year to year as did completion of the survey in multiple years for those partners so invited. Because the samples from year to year are neither completely independent nor dependent, tests of statistically significant differences are not appropriate. Findings suggests that satisfaction with the partnership's process and outcomes has stayed at a similar level through the course of the grant.

## 1a.1 1305 partnership scores for synergy and related areas

The PSAT includes six scales that measure the level of partnership synergy achieved and how well the collaborative process is working with regard to five related concepts: leadership effectiveness, administration and management effectiveness, overall efficiency, non-financial resources sufficiency, and financial and capital resources sufficiency. Each scale consists of several questions (items) rated on a five-point scale. The individual item scores for a given scale are then averaged for an overall score for that scale. For each scale, the PSAT developers categorize average scores into five groups referred to as "partnership zones." Scores of 1.0 to 2.9 are classified as a "danger zone," scores of 3.0-3.9 a "work zone," scores of 4.0-4.5 a "headway zone" and scores of 4.6-5.0 the "target zone."

Figure 1.3 shows the 1305 Partnership's PSAT scale scores for Years 2, 3 and 4 of the grant. The synergy score is intended as an indicator of how well the partnership's collaborative process is working. The synergy scale includes nine items about how well the partnership works together. These items are rated on a scale of "not well at all" = 1, "not so well" = 2, "somewhat well" = 3, "very well" = 4, and "extremely well" = 5. As in previous years, the 1305 Partnership synergy score for Year 4 (3.5), continues to suggest there is evidence that to some extent the 1305 participants accomplish more through the partnership's collaborative efforts than would be

13

accomplished independently.  Similarly, evidence of successful collaboration is reflected in the scores for the other five scales.  Specifically, the average score for both leadership effectiveness and non-financial resources sufficiency was 3.9 and efficiency along with the scales for administration and management effectiveness and financial and capital resources sufficiency had an average score of 3.7.

Figure 1.3
*Partnership Self-Assessment Scores for Years 2, 3 and 4\**
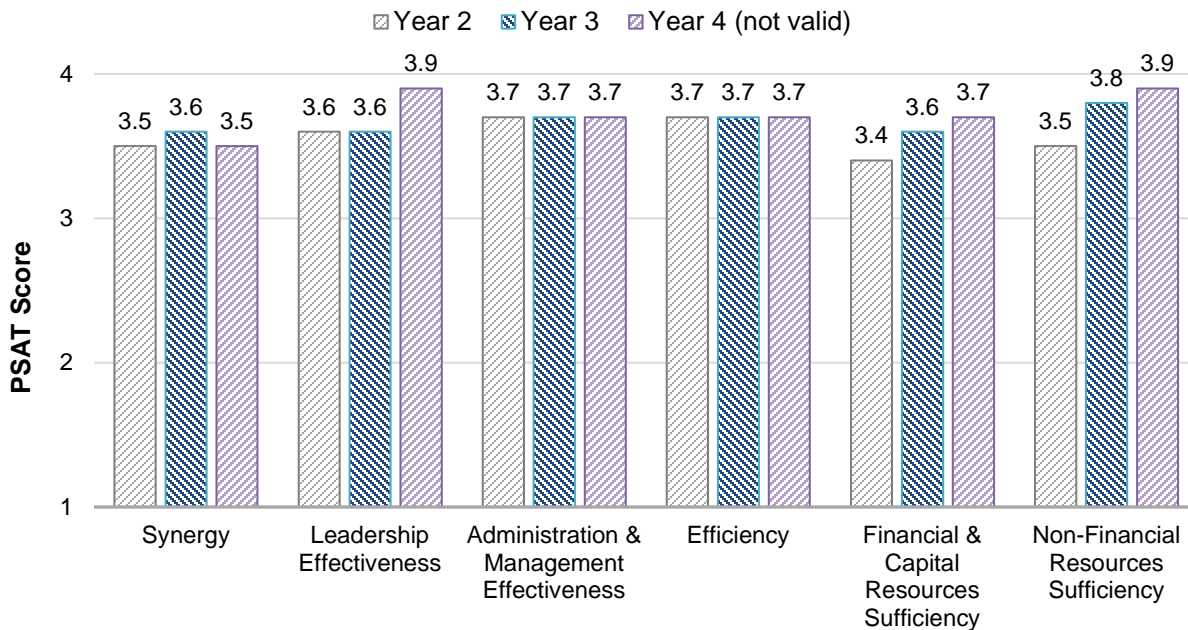


*Year 4 response rate did not attain the PSAT developer's standard of 65 percent.

Interpreting the scores another way, the Year 4 1305 Partnership scores for leadership effectiveness and non-financial resources sufficiency suggest a positive shift closer to the headway zone.  The synergy score of 3.6 in Year 3 and 3.5 in Years 2 and 4 suggest the 1305 partnership continues to be at a point where maximizing the partnership's collaborative efforts requires "more effort."

## Critical Partner Satisfaction with Synergistic Process and Outcomes

Critical partner satisfaction related to the synergistic process and outcomes was operationalized as the proportion of partners who report high levels of:

- satisfaction with participating in the partnership
- synergy (synergy scale)
- effectiveness of the partnership's leaders (leadership effectiveness scale)
- effectiveness of the partnership's administration and management (administration and management scale)
- benefits from participating in the partnership

14

Satisfaction was also measured as the proportion of partners who report that the benefits experienced exceed the drawbacks and the proportion of partners who experience multiple drawbacks.

Satisfaction with participation in the partnership was examined using the five PSAT questions that specifically ask partners to rate their satisfaction level related to how partners work together, ability to influence decisions, one's role, the partnership's plans, and the way the partnership implements its plans.[14] PSAT scales measuring synergy, leadership effectiveness, and administration and management effectiveness were used as indicators of enhanced coordination and a proxy for satisfaction related to the level of synergy. The perceived benefits and drawbacks of partnership participation were also examined using the PSAT items that ask about specific benefits (11 items), drawbacks (6 items), and whether benefits exceed any drawbacks that partners may experience as a result of participation.

In Year 4, more than 70 percent of critical partners who completed the PSAT reported high levels of satisfaction, multiple benefits of participation, and that the benefits of participation outweighed the drawbacks. For example:

- 73 percent of respondents reported being mostly or completely satisfied with their participation in the partnership
- 87 percent of respondents reported six or more benefits from participating in the partnership
- 93 percent of respondents reported that the benefits of participating in the 1305 Partnership exceed drawbacks

More than 25 percent of critical partners who completed the PSAT also reported very high levels of enhanced coordination and satisfaction related to the level of partnership synergy. The percent of critical partners reporting high levels of enhanced coordination and satisfaction for the synergy, leadership effectiveness, and administration and management scales were as follows:

- Synergy Scale: 27 percent of the critical partners rated the 1305 Partnership as doing "very well" to "extremely well" accomplishing more together than individual partners could alone
- Leadership Effectiveness Scale: 47 percent of the respondents rated the leadership of the 1305 Partnership as "very good" to "excellent" at facilitating productive interactions among the critical partners
- Administration and Management Effectiveness Scale: 33 percent of the respondents rated the 1305 Partnership as "very good" to "excellent" at coordinating and carrying out related activities such as timely communication, organizing partnership activities, and orienting new critical partners

In the following section, the perspectives of DPH 1305 staff and external partners are examined separately.

---

[14] These five satisfaction items were not used as a scale by the PSAT developers; however, high internal consistency of the five items was confirmed by our evaluation team after analyzing 1305 critical partner PSAT responses from Year 2-4 (Cronbach's alpha $\geq 0.95$ for each year).

## Internal Partner Satisfaction

As the internal partner, DPH designated staff involved with Connecticut's 1305 program were invited to complete the PSAT each year. Over the past three years, a total of ten DPH 1305 staff (DPH staff) have been surveyed, nine of whom have responded at least once. From year to year, however, the DPH staff surveyed and responded has varied somewhat. Notably, in Year 4, a 100 percent response rate was attained for the nine staff invited to complete the survey. This compares to 78 percent in Year 3 (7 out of 9) and 71 percent in Year 2 (5 out of 7).

Figure 1.4 shows the percent of DPH 1305 staff satisfied with the synergistic process and its outcomes, based on responses to the PSAT in Years 2, 3 and 4. Differences in the results from year to year should be interpreted with caution due to the small sample size and variations in the sample size, who responded, and the response rate.

Figure 1.4
*DPH 1305 Staff -Satisfaction with the Synergistic Process and Outcomes: Years 2, 3 and 4*
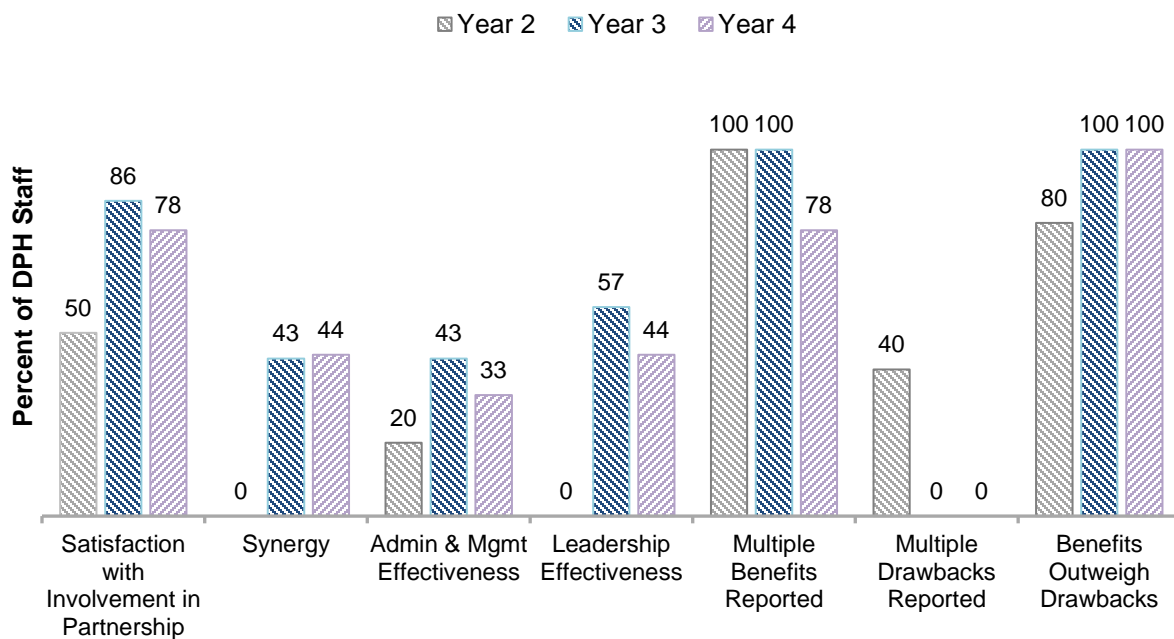


The results for each year suggest the DPH staff have been satisfied with the synergistic process and outcomes.

### *New (1) (New Indicator) Percent of DPH 1305 staff who report high levels of satisfaction with their involvement in the partnership*

In Year 4, 78 percent of the DPH staff surveyed reported being mostly or completely satisfied with their involvement with the partnership. This means that on average, staff felt high levels of satisfaction with regard to how partners work together, the ability to influence decisions, the partnership's plans, and the way the partnership has implemented its plans.

16

### 1a.2 Percent of DPH 1305 staff who report high levels of synergy

In Year 2, none of the five DPH staff who responded to the PSAT rated the partnership as having high levels of synergy. The following year, three of the seven staff (43 percent) responding to the PSAT reported high levels of synergy. In Year 4, the first year with a 100 percent response rate from DPH staff, four of the nine DPH staff (44 percent) reported high levels of synergy. Their synergy scores rated the partnership as doing "very well" or "extremely well" accomplishing more together than individual partners could alone.

### 1a.3 Percent of DPH 1305 staff reporting high levels of administration and management effectiveness

Similar to previous years, one third of the DPH staff surveyed rated the partnership as "very good" or "excellent" at coordinating and carrying out administration and management functions such as internal and external communication, preparing materials for decision-making, and project meetings and activities.

### 1a.4 Percent of DPH 1305 staff reporting high levels of leadership effectiveness

None of the five DPH staff who completed the PSAT in Year 2 rated leadership effectiveness as "very good" or "excellent." In both Year 3 and Year 4, four DPH staff rated the leadership of the 1305 Partnership as doing a "very good" to "excellent" job facilitating productive interactions among the critical partners.

### 1a.5 Percent of DPH 1305 staff reporting benefits

In Years 3 and 4, seven DPH staff reported experiencing six or more benefits. This was 78 percent of the nine DPH staff surveyed in Year 4 and 100 percent of the seven DPH staff who completed the survey in Year 3. (Nine staff were surveyed in both years, but only seven completed the survey in Year 3.)

### 1a.6 Percent of DPH 1305 staff reporting drawbacks

None of the DPH staff surveyed in Year 4 reported experiencing four or more drawbacks.

### 1a.7 Percent of DPH 1305 staff reporting benefits exceed drawbacks

In Years 3 and 4, all of the DPH staff responding to the PSAT reported that the benefits of participating in the partnership mostly or completely outweighed the drawbacks. Overall, the number of DPH staff who felt the benefits mostly or completely outweighed the drawbacks increased from four staff in Year 2, to seven staff in Year 3 and then all nine staff in Year 4.

## External Partner Satisfaction

Figure 1.5 shows PSAT findings for external partner satisfaction with the synergistic process and outcomes in Year 2, 3 and 4. It is important to note, however, that the response rates for external partners was lowest in Year 4, with 50 percent of the 42 invited partners responding and the

threshold for results to be considered valid by the PSAT developers was not met.  Therefore, Year 4 results should be interpreted with caution.

Figure 1.5
*External Partners -Satisfaction with the Synergistic Process and Outcomes: Years 2, 3 and 4*
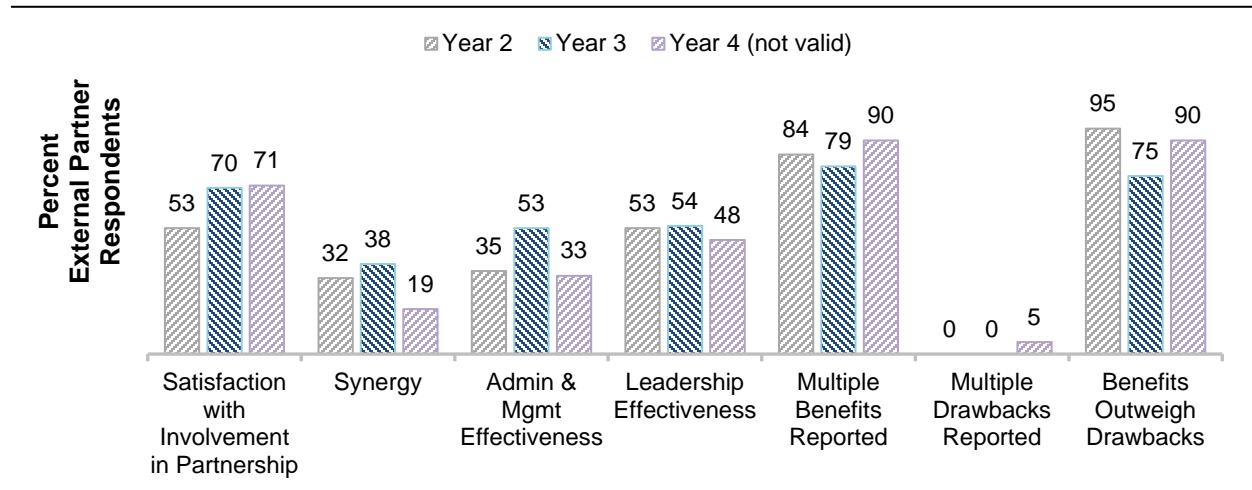


### New (2)     (New Indicator) Percent of external partners who report high levels of satisfaction with their involvement in the partnership

In Year 4, 71 percent of external partners with a satisfaction score reported being mostly or completely satisfied with their involvement with the partnership.  This is similar to the 70 percent observed the previous year.

### 1a.8 Percent of external partners who report high levels of synergy

A greater percentage of external partners reported high levels of partnership synergy on the PSAT in Year 2 (30 percent) and Year 3 (38 percent) than in Year 4.  In Year 4, only 19 percent of external partners rated the partnership as having high levels of synergy.  Nineteen percent observed this year and the decrease in PSAT response rate may indicate a change in how external partners view the partnership.

### 1a.9 Percent of external partners reporting high levels of administration and management effectiveness

Similar to Year 2, 33 percent of the external partner PSAT respondents rated the partnership as "very good" or "excellent" at coordinating and carrying out administration and management functions in Year 4.

### 1a.10 Percent of external partners reporting high levels of leadership effectiveness

Almost half of the external partners responding to the PSAT in Year 4 rated the effectiveness of the partnership's leaders as doing a "very good" to "excellent" job facilitating productive interactions among the critical partners.

### 1a.11 Percent of external partners reporting benefits

Of external partners responding to the survey in Year 4, 90 percent reported experiencing six or more benefits as part of their involvement with the partnership.  Similarly, in Year 2, multiple benefits were reported by 84 percent of respondents.

### 1a.12 Percent of external partners reporting drawbacks

Similar to previous years, 5 percent of external partners who completed the PSAT reported experiencing multiple drawbacks from participating in the partnership.

### 1a.13 Percent of external partners reporting benefits exceed drawbacks

In Year 4, 90 percent of the external partners responding to the PSAT reported that the benefits of participating in the partnership exceeded the drawbacks.

## Question 2:  How has your organizational structure and approach changed due to the implementation of 1305?

In May, 2014, during the first year of the 1305 grant, the program areas involved in Connecticut's 1305 partnership were organized (along with many other programs) within the Community Health and Prevention Section (CHAPS) at DPH.  CHAPS housed DPH's Diabetes Prevention and Control Program, Heart Disease and Stroke Prevention Program, an epidemiology unit, and a unit for Nutrition, Physical Activity and Obesity (NPAO) programs.  The section employed a Chronic Disease Director, who reported to the section chief.  During the 2014-2015 State Fiscal Year (Year 2 of the 1305 grant), CHAPS was reorganized, and merged with the Family Health Section, to create a new organizational section within DPH, the Community, Family and Health Equity Section (CFHES).  During that year, the Diabetes Prevention and Control program and the Heart Disease and Stroke Prevention program were placed within a Chronic Disease unit (which also housed an Injury Prevention program).  NPAO and Epidemiology continued as separate units within the new CFHES Section.[15]

By the end of Year 4 of the 1305 grant (late April 2017), CFHES had been renamed the Community, Family Health and Prevention Section (CFHPS).  Chronic Disease continues to be a unit under the CFHPS, which is headed up by a Chronic Disease Director.  The Chronic Disease unit currently includes several subunits, among them Diabetes, Heart Disease and Stroke; and NPAO.  Epidemiology continues as a separate unit under CFHPS.

### 2.1 Number of personnel with FTE funded from two or more program areas

Nine DPH staff members were identified in January 2017 as being involved with the 1305 partnership.  Three of the staff members (the Connecticut 1305 program manager, an epidemiologist, and a health systems specialist) are involved in 1305 activities from more than one DPH program area (one additional staff member is involved in activities that span CDC's

---

[15] "Department of Public Health" (2014).  In Rusczyk, C. (Ed.), Digest of Administrative Reports to the Governor, Connecticut Department of Administrative Services, available at: http://das.ct.gov/fp1.aspx?page=462 (accessed June 2, 2017).

two categorical program areas of NPAO and School Health).  DPH 1305 staff and the program areas in which they work are illustrated in Figure 1.6.

Figure 1.6
*DPH 1305:  Staff and DPH Program Areas*

**Nutrition, Physical Activity, and Obesity**

- · Chronic Disease Prevention Specialist
- · Nutrition Consultant
- · Physical Activity Coordinator
- · Nutrition Consultant (WIC)
- · Breastfeeding Program Staff

· Epidemiologist
· HDSP Nurse Consultant*

· Health Systems Specialist

**Heart Disease and Stroke Prevention**

**Diabetes Prevention and Control**

- · Diabetes Coordinator

**Abbreviations:**
DPH = Connecticut Department of Public Health
HDSP = Heart Disease and Stroke Prevention
WIC = Special Supplemental Nutrition Program for Women, Infants and Children

*The DPH HDSP Nurse Consultant is responsible for the general oversight of Connecticut's 1305 program, and is, therefore, involved in all program areas.

DPH had in place a few cross-program area positions before the commencement of the 1305 partnership. A Chronic Disease Director oversaw chronic disease-related activity in the department. An epidemiologist and a nurse consultant each worked in both Diabetes Prevention & Control and Heart Disease & Stroke Prevention. A Health Systems Specialist working in the diabetes and heart disease prevention program areas was hired due to DPH's involvement with 1305, during Year 2 of the grant.

### *2.2 Number of cross-program area meetings offered to DPH 1305 staff*

Connecticut's 1305 staff members host four quarterly meetings per year in which individuals from each of the program areas involved with the 1305 partnership attend. These meetings generally feature updates on activities in each of the 1305 programs, a presentation from the local program evaluator focusing on one of the five areas of the local evaluation, and less structured time in which the attendees have an opportunity to discuss the similarities and differences in their programs and identify potential ways to link their program activities. In Year 4 the quarterly meetings were planned for September 26, 2016; December 21, 2016; March 15, 2017; and June 30, 2017. The local evaluation presentations for the first two of these meetings focused on the implementation of the Stanford Diabetes Self-Management Program (DSMP) (Domain 4, Strategy 1) and Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) in family child care programs (Domain 2, Strategy 5). The third meeting would have focused on Medication Therapy Management (MTM) in community pharmacies (Domain 4, Strategy 3), but the meeting was canceled due to weather. (The evaluator sent a written update to DPH staff.) The final presentation of the year focused on the implementation of Comprehensive School Physical Activity Programs (CSPAPs) and included a brief update on the evaluation of other sections. The evaluation for Year 5 was then discussed. DPH staff also held 24 internal cross-program area meetings among the 1305 staff members during Year 4 to discuss program-related issues.

## Question 2a: Synergy: Please include information on ways working across categorical program areas may have increased or decreased operational efficiencies.

Operational efficiency is described here using the PSAT scale for efficiency, a measure that summarizes how well a partnership optimizes partner resources, including financial resources, in-kind resources and time. In addition, operational efficiency is also evaluated using the PSAT question that asks partners to rate how well the partnership combines the perspectives, resources and skills of the partners. For this evaluation, analyses focused on reporting the percent of partners who perceived high levels of optimization.

The PSAT responses suggest that the partnership has increased operational efficiencies. In Year 4, 75 percent of the critical partners responding to the survey rated the partnership as "very good" to "excellent" at combining the perspectives, resources and skills of the partners. In addition, 41 percent of critical partners with an efficiency score had a score that rates optimization of partner financial resources, in-kind resources and time as "very good" to "excellent."

Figure 1.7 shows the proportions of DPH 1305 staff and external partners who reported high levels of operational efficiencies.  Results are shown for Years 2, 3 and 4.

Figure 1.7
*High Levels of Resource Optimization Reported among DPH 1305 Staff and External Partners*
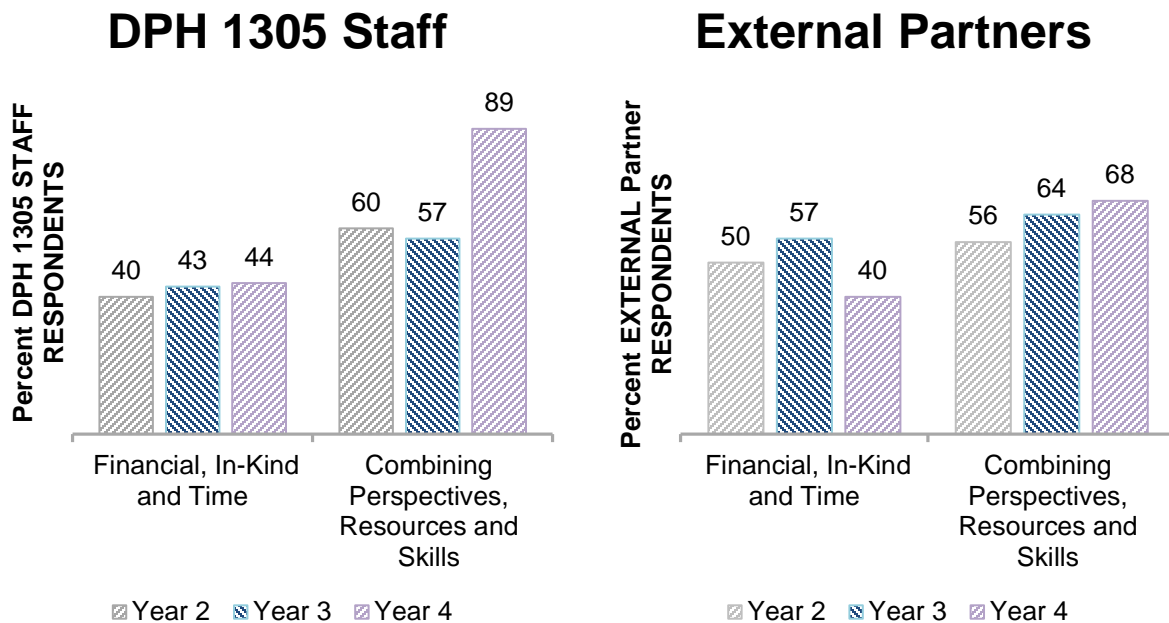
## DPH 1305 Staff

## External Partners



### 2a.1 Percent of DPH 1305 staff who report a high level of efficiency with partnership resources

In Year 4, 44 percent of DPH 1305 staff reported high levels of resource optimization, as reflected by an average efficiency scale score of "very good" to "excellent."  While the percentage of staff has been similar, each year, the number of DPH 1305 staff reporting high levels of resource optimization has actually increased by one staff member per year and the response rate from DPH 1305 staff increased to 100 percent in the most recent year, Year 4.

### 2a.2 Percent of external partners who report a high level of efficiency with partnership resources

Forty percent of external partners with an efficiency scale score rated use of partner financial resources, in-kind resources and time as very good to excellent levels of resource optimization in Year 4.  In Year 2, half of the external partners with an efficiency score reported high levels of resource optimization and in Year 3, 57 percent of external partners also reported high levels of resource optimization.  This may be less favorable than survey responses in the prior years when high levels of resource optimization were perceived by 50 percent (Year 2) to 57 percent (Year 3) of the external partners with an efficiency score.

### 2a.3 Percent of DPH 1305 staff reporting the partnership as very good to excellent at combining the perspectives, resources and skills of partners

When asked to rate how well the partnership combines the perspectives, resources and skills of partners, 89 percent of DPH 1305 staff rated the partnership as "very good" to "excellent" in Year 4 and 57 percent rated the partnership as "very good" to "excellent" in Year 3.  Looking at the number of staff who rated the partnership as very good to excellent at combining partner perspectives, resources and skills, the number doubles from four staff in Year 3 to eight staff in Year 4.  Some, but not all, of this increase may be explained by the higher response rate in Year 4.

### New (3)      (New Indicator)  Percent of external partners reporting the partnership as very good to excellent at combining the perspectives, resources, and skills of partners

In Year 4, the ability of the partnership to combine partner perspectives, resources and skills was rated as very good to excellent by two-thirds of the external partners completing the survey.

# Part 2a

## Physical Education and Physical Activity in Early Care and Education

*Nutrition and Physical Activity
Self-Assessment for Child Care
(NAP SACC)*

# Domain 2, Strategy 5:
## Implement Physical Education and Physical Activity in Early Care and Education

## *The Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC)*

In Year 3, the intervention for Domain 2, Strategy 5 was the Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC). CDC's chronic disease prevention Domain 2 encompasses strategies that focus on environmental changes that make it easier for individuals to live a healthy life. NAP SACC's overarching goal is to reduce obesity; it does so by aiming to instill healthy physical activity and nutrition habits in young children who are enrolled in child care. In Connecticut, the NAP SACC intervention was modified for use by licensed family child care providers. This evaluation was designed to identify critical activities and resources for, and facilitators and barriers to, the successful implementation of physical activity changes in ECE environments.

**CDC Core Evaluation Questions:**

1) *What are the key activities and resources considered critical to the successful implementation of standards to increase physical activity in the ECEs?*

2) *What were the major facilitators and barriers in implementing standards to increase physical activity in ECEs?*

Table 2a.1 lists the evaluation questions, associated indicators, and data sources.

Table 2a.1
*Evaluation Format*

| **Evaluation Q1**: What are the key activities and resources considered critical to the successful implementation of standards to increase physical activity in the ECEs? | | |
|---|---|---|
| | **Indicator** | **Data Source** |
| 1.1 | Number of activities and resources considered to be critical to the successful implementation of standards for physical activity in the ECE setting as reported by the family daycare providers | NAP SACC Training Series Evaluation Form |
| 1.2 | Number of activities and resources considered to be critical to the successful implementation of standards for physical activity in the ECE setting as reported by the NAP SACC Trainers | NAP SACC Partnership Progress Report |
| 1.3 | Percent of programs that report the implementation of standards for physical activity (e.g., children accumulate at least 60 minutes of daily structured physical activity, as well as 60 minutes of daily, unstructured physical activity) | NAP SACC Training Series Evaluation Form |

Table 2a.1
*Evaluation Format*

| **Evaluation Q2:** What were the major facilitators and barriers in implementing standards to increase physical activity in ECEs? | |
|---|---|
| 2.1 Most frequently cited facilitators and barriers (e.g. professional development, technical assistance, communication methods, etc.) in implementing physical activity in ECEs as reported by family daycare providers | NAP SACC Partnership Training Series Evaluation Form |
| 2.2 Barriers and facilitators most frequently cited by NAP SACC trainers | NAP SACC Partnership Progress Report |

## Background

The Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) program was created to address obesity by instilling healthy nutrition and physical activity habits in young children enrolled in child care.  It is designed to assist early care and education (ECE) providers improve the health of their nutrition and physical activity environments.  Specifically, it is designed to help child care facilities implement or improve nutrition and physical activity policies; improve the nutritional content of food provided to children; increase the quantity and quality of child physical activity; improve child care provider interactions with children about nutrition and physical activity; and create educational opportunities for children, child care providers, and parents.[16]

NAP SACC was developed in 2002 by a team of researchers at the University of North Carolina at Chapel Hill in conjunction with members of the North Carolina Division of Public Health.  The intervention was pilot tested and later evaluated in several sites in North Carolina and, later, in other states.  The Center for Training and Research Translation, which is part of a CDC-funded Prevention Research Center at the University of North Carolina, recognized NAP SACC as an evidence-based program in 2008; NAP SACC materials are available through their website.[17]

NAP SACC is implemented in two parts.  First, consultants, or trainers, are identified and trained on the NAP SACC program.  They then recruit child care providers in their communities and help them make nutrition and physical activity related changes to their child care programs.  NAP SACC provides a technical manual and implementation guide to trainers so they can familiarize themselves with the project, but the NAP SACC creators suggest more extensive training may be useful.  The trainers help child care providers work through five "core elements" of NAP SACC:  1) self-assessment; 2) goal setting and action planning; 3) educational workshops; 4) technical assistance; and 5) re-assessment and revision.  A trainer recruits child

---

[16] "Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC)," (March, 2014).  Center for Training and Research Translation, UNC Center for Health Promotion and Disease Prevention, available at: http://centertrt.org/content/docs/Intervention_Documents/Intervention_Templates/NAPSACC_Template_Updated _April_2014.pdf (accessed December 29, 2016).

[17] Center TRT, "Nutrition and Physical Activity Self-Assessment for Child-Care (NAP SACC)," (no date), available at:  http://centertrt.org/?p=intervention&id=1091 (accessed June 7, 2017).

care providers and begins the NAP SACC intervention by introducing the NAP SACC self-assessment tools.  The assessment tools measure 14 areas of nutrition and physical activity.  The trainer then works with the child care provider to use the results of the assessment to set a reasonable number of goals (NAP SACC suggests three) and to create an action plan to attain those goals.

Trainers also deliver educational workshops to child care providers and staff to improve their knowledge and increase their skills.  The workshops cover childhood obesity, nutrition for young children, physical activity for young children, personal health and wellness for staff, and working with families to promote healthy weight behaviors.  The workshops are expected to each require 30 to 60 minutes to deliver.[18]  During the implementation and evaluation period, NAP SACC trainers are available for both on-site and off-site consultations to provide technical assistance and to assist the child care providers in reaching their goals.[19]  (The NAP SACC materials caution that technical assistance is the implementation step most likely to be neglected, but may be the most important.[20])

In 2015, as part of Year 3 of the 1305 grant, Connecticut's State Department of Education (CSDE) and Department of Public Health (DPH) adapted the NAP SACC intervention for use by licensed family child care providers.  Among other things, DPH and CSDE created a comprehensive two-day train-the-trainer session; updated the information in the NAP SACC workshops to include data relevant to licensed family child care providers in Connecticut; and translated many of the NAP SACC materials into Spanish that were previously available only in English.[21]  Staff at DPH and CSDE identified organizations with established ties to licensed family child care providers throughout Connecticut.  Four such organizations with the capacity and interest in providing staff to act as trainers ultimately participated in the NAP SACC Family Child Care Partnership (NAP SACC partnership) and provided a total of eight NAP SACC trainers.  The participating organizations were United Way – 211 in Rocky Hill; All-our-Kin, which has offices in New Haven, Bridgeport and Stamford; the Middletown Family Resource Center; and the City of Hartford's Department of Families, Children, Youth and Recreation.

DPH and CSDE provided a comprehensive, two-day training for the NAP SACC trainers on January 21 and February 23, 2016.  The train-the-trainer sessions covered NAP SACC implementation, assessment tools and partner responsibilities.  The training sessions also included discussions of Adult Learning Theory and Social Cognitive Theory.  The trainers then recruited licensed family child care providers in their communities to participate in the NAP SACC partnership.  These communities included Bridgeport, Stamford, Middletown, Clinton,

---

[18] "Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC)," (March, 2014).  Center for Training and Research Translation, UNC Center for Health Promotion and Disease Prevention, available at: http://centertrt.org/content/docs/Intervention_Documents/Intervention_Templates/NAPSACC_Template_Updated_April_2014.pdf  (accessed December 14, 2016).

[19] NAP SACC. (n.d.). NAP SACC: Our history. Retrieved from  https://www.gonapsacc.org/about-nap-sacc/our-history (accessed October 3, 2016)

[20] NAP SACC (n.d.).  NAP SACC Implementation Guide, p.15, available online at: http://centertrt.org/content/docs/Intervention_Documents/Intervention_Materials/NAP_SACC/Technical_Assistance_Materials/Intervention_Implementation_Guide.pdf (accessed December 23, 2016).

[21] Connecticut's ECE team subsequently began discussing with other states the possibility of sharing the translated NAP SACC materials.

Stratford and Hartford. To be eligible to participate in the NAP SACC partnership, the ECEs had to be licensed family child care providers and have at least one child enrolled who was between the ages of 3 and 5. The licensed family child care providers also had to agree to complete the full NAP SACC intervention without skipping any of the five core elements (i.e., self-assessment, action planning, workshop participation, receiving technical assistance, and evaluating and revising). The first workshop was delivered on March 14, 2016. Each of the eight trainers set a workshop schedule for the providers in their communities. The trainers offered the workshops throughout the spring and the final workshop was delivered on May 17, 2016. Ninety-nine providers ultimately participated in the NAP SACC partnership in its first year. This is approximately one quarter of all licensed family child care providers in the selected towns.[22] DPH and CSDE staff conducted site visits with each of the trainers and met with some of the providers during implementation.

## Data Collection

Two instruments were used to collect feedback from the trainers and providers participating in the NAP SACC partnership: the NAP SACC Training Series Evaluation Form (providers) and the NAP SACC Partnership Progress Report (trainers). Table 2a.2 displays the response rates for the two instruments.

Table 2a.2
*Data Sources and Response Rates*

| Data source | Invited | Responded | Response Rate |
|---|---|---|---|
| NAP SACC Training Series Evaluation Form | 99 | 83 | 84% |
| NAP SACC Partnership Progress Report* | 8 | 6 | 75% |

*One respondent did not complete several sections of the survey. Relevant here, these include the sections on physical activity changes and working with the partnership. For these sections, there were only 5 respondents, for a response rate of 63%.

**The NAP SACC Training Series Evaluation Form**. The purpose of this form was to elicit the reactions of the family child care providers to the implementation of NAP SACC. Relevant to this evaluation, the form gave providers an opportunity to provide feedback on the workshops and their beliefs about likely facilitators and barriers to implementing physical activity changes in their child care programs. The form was developed by DPH and CSDE staff, with input from the evaluation team at the Center for Public Health and Health Policy (CPHHP).

The form was administered to family child care providers after they completed their final NAP SACC workshop. These final workshops were delivered on: April 18, April 27, May 9, and May 17, 2016. A paper copy of the survey was distributed to the providers, who returned their responses either to their trainer or directly to 1305 staff. The form provided three statements about the workshops and invited the respondents to indicate whether they agreed or disagreed with the statements, using a four point scale (1 = "Strongly Agree" to 4 = "Strongly Disagree"). The form also presented the providers with 15 activities and resources related to making physical

---

[22] "Family Day Care Homes Total by Date," Connecticut Department of Public Health, available at: https://www.elicense.ct.gov/ (accessed November 29, 2016).

activity changes, and allowed them to rate the items using a scale from 1 ("a significant barrier") to 5 ("a significant help").

Ninety-nine child care providers participated in the NAP SACC training and 83 completed the evaluation form (84% response rate).

**NAP SACC Partnership Progress Report.**  The NAP SACC Partnership Progress Report was designed to solicit feedback from the NAP SACC trainers on both delivering the workshops and implementing physical activity changes.  The report was developed by DPH and CSDE staff, with input from the evaluation team at CPHHP.  The topics covered that are relevant here include: workshop delivery, making physical activity changes, and the partnership.

This survey was administered to NAP SACC trainers near the end of the grant year.  The trainers submitted their responses in late May through early June.  Eight trainers participated in the NAP SACC training and six completed the first section of the Progress Report (75% response rate), which solicited feedback on delivering the workshops.  Five trainers completed the physical activity-specific section of the Progress Report (62.5% response rate).

**Question 1:**  **What are the key activities and/or resources considered critical to the successful implementation of standards for physical activity in the ECE setting?**

Responses from both the NAP SACC trainers and the licensed family child care providers were solicited to address this core question.

### 1.1 Number of activities and resources considered to be critical to the successful implementation of standards for physical activity in the ECE setting as reported by the family daycare providers

The *Training Series Evaluation Form* presented the licensed child care providers with six activities[23] and nine resources (Table 2a.3), a total of 15 items, related to implementation of physical activity changes.  Respondents could rate the items from 1 (a significant barrier) to 5 (a significant help), or, if their program had no experience with the item or they did not have enough information, they could mark DK/NA.  For the purposes of this evaluation, the items with the top three highest score averages are considered "critical" to implementation of the NAP SACC physical activities component.

The item with the highest average score was "attending the training workshops," which refers to the five workshops provided by the NAP SACC trainers (average rating = 4.89).  This aligns

---

[23] A seventh activity, "completing the nutrition assessment," was inadvertently included among the physical activity items.  While the responses to this question are not included in the analysis presented in the text, it should be noted that respondents also completed a physical activity assessment as part of their program.  The physical activity assessment employed the same instrument as the nutrition assessment, and the respondents may have been indicating their experience with that process when rating this item.  The item was rated by 81 of the 83 respondents and had an average rating of 4.75.  Were this included in the analysis, it would be one of the three items with the highest average ratings.

with the NAP SACC creators' belief that providing the workshops was one of the "core elements" of the NAP SACC program. The item referencing technical assistance and other support provided from the consultant was the second highest rated item (average rating = 4.77). Two items tied for the third highest rating: educational tools provided as part of the training and communicating new practices to parents (average rating = 4.74).

None of the items presented to the providers received an average rating lower than 4, suggesting most of the providers thought most of the listed activities and resources would be useful. Further, the most frequently provided rating for each item was 5. The items with the three lowest average ratings were: engaging community partners (average rating = 4.49), technology (average rating = 4.46), and funding (average rating = 4.45).

Table 2a.3 displays descriptive statistics, including average ratings, standard deviation,[24] the range of responses, and the response modes.[25] (The items have been arranged from highest average rating to lowest average rating.)

Table 2a.3
*Helpfulness of Activities and Resources for Implementing Physical Activity, as Rated by Family Child Care Providers*

| Activity or Resource | n | Mean (SD) | Min. | Max. | Mode | N/A or Missing[a] |
|---|---|---|---|---|---|---|
| Attending the training workshops | 81 | 4.89 (.35) | 3 | 5 | 5 | 2 |
| The trainer providing suggestions and support | 79 | 4.77 (.45) | 3 | 5 | 5 | 4 |
| Educational tools provided as part of the training | 74 | 4.74 (.58) | 3 | 5 | 5 | 9 |
| Communicating new practices to parents | 79 | 4.74 (.50) | 3 | 5 | 5 | 3 |
| Making changes to my exercise habits | 82 | 4.72 (.53) | 3 | 5 | 5 | 1 |
| Networking with peers at the training | 78 | 4.63 (.58) | 2 | 5 | 5 | 5 |
| Play equipment | 76 | 4.59 (.68) | 2 | 5 | 5 | 7 |
| Personnel | 55 | 4.58 (.60) | 3 | 5 | 5 | 28 |
| Support from parents | 75 | 4.57 (.66) | 3 | 5 | 5 | 8 |
| Supplies that I already have for use in my program | 77 | 4.56 (.68) | 2 | 5 | 5 | 6 |
| Space | 74 | 4.53 (.73) | 2 | 5 | 5 | 9 |
| Time | 63 | 4.51 (.67) | 2 | 5 | 5 | 20 |
| Engaging community partners | 70 | 4.49 (.65) | 3 | 5 | 5 | 13 |
| Technology | 67 | 4.46 (.80) | 1 | 5 | 5 | 16 |

---

[24] Standard deviation is a calculation used to measure how individual responses to a particular question vary from the average responses from a group.
[25] The "mode" is the most frequently provided response.

Table 2a.3

*Helpfulness of Activities and Resources for Implementing Physical Activity, as Rated by Family Child Care Providers*

| Activity or Resource | n | Mean (SD) | Min. | Max. | Mode | N/A or Missing[a] |
|---|---|---|---|---|---|---|
| Funding | 62 | 4.45 (.69) | 3 | 5 | 5 | 21 |

Note. All response items are scored from 1 (significant barrier) to 5 (significant facilitator), or N/A.
[a] This includes the sum of responses indicated as "Not Applicable" and missing responses.

The providers were also asked a few questions specifically about their experience with the NAP SACC workshops. A large majority of the respondents indicated that the topics covered by the workshops were relevant, the training would be useful, and the presenter effectively taught the workshops. The responses are displayed in Table 2a.4.

Table 2a.4

*Provider Feedback on the NAP SACC Workshops*

| | n | Strongly Agree 1 | Agree 2 | Disagree 3 | Strongly Disagree 4 |
|---|---|---|---|---|---|
| The topic was important or relevant to me | 83 | 65 | 15 | 0 | 3 |
| The training I received will be useful to me in my work environment | 83 | 72 | 8 | 0 | 3 |
| The presenter effectively taught the workshop series | 83 | 72 | 8 | 0 | 3 |

## *1.2 Number of activities and resources considered to be critical to the successful implementation of standards for physical activity in the ECE setting as reported by the NAP SACC Trainers*

The NAP SACC trainers were asked to provide feedback on their experience with delivering the workshops to the licensed family child care providers. They were also asked to provide their impressions on what they believed would be helpful to implement the NAP SACC physical activity changes.

*Delivering the NAP SACC workshops*:

The NAP SACC trainers were presented with a list of 11 activities and resources and asked to rate those items on their level of helpfulness, from 1 (not at all) to 5 (a great deal). Items that were rated 5 are considered critical. The trainers were also invited to write in other activities or resources that may have been involved in delivering the workshops. None of the providers added additional items.

All six respondents rated the NAP SACC materials as having helped a great deal. Attending the NAP SACC training days were also frequently rated as having helped a great deal (each training day was rated a 5 by five of the respondents). Two of the items were rated a 3 by two respondents each: "Training supports/incentives" and "Having materials and presentations

31

available in Spanish for Spanish speaking providers." None of the respondents indicated that any of the items were not helpful (rating of 1 or 2).

None of the respondents skipped any of these items. There were, however, a few instances of items being marked as "Not Applicable." Two of the respondents indicated that having Spanish materials was not applicable to them. One of the respondents indicated that training supports and incentives were not applicable.

Table 2a.5
*Helpfulness of Activities and Resources for Delivering the Workshops, as Rated by Trainers*

| Activity or Resource | n | 1 (not at all) | 2 | 3 | 4 | 5 (a great deal) | N/A |
|---|---|---|---|---|---|---|---|
| Attending the NAP SACC Partnership Orientation Workshop (Training Day 1) | 6 | 0 | 0 | 0 | 1 | 5 | 0 |
| Attending the NAP SACC Partnership Workshop Development (Training Day 2) | 6 | 0 | 0 | 0 | 1 | 5 | 0 |
| Networking with other trainers | 6 | 0 | 0 | 1 | 2 | 3 | 0 |
| Receiving feedback from the providers | 6 | 0 | 0 | 0 | 3 | 3 | 0 |
| Using the NAP SACC Implementation Form | 6 | 0 | 0 | 1 | 2 | 3 | 0 |
| Using NAP SACC Monitoring Guide Template or Spreadsheet | 6 | 0 | 0 | 1 | 1 | 4 | 0 |
| NAP SACC Materials (Binders, PowerPoint, etc.) | 6 | 0 | 0 | 0 | 0 | 6 | 0 |
| Administrative/organizational support | 6 | 0 | 0 | 0 | 2 | 4 | 0 |
| Training supports/incentives | 6 | 0 | 0 | 2 | 1 | 2 | 1 |
| Support from DPH/CSDE staff | 6 | 0 | 0 | 1 | 1 | 4 | 0 |
| Having materials and presentations available in Spanish for Spanish speaking providers | 6 | 0 | 0 | 2 | 1 | 1 | 2 |

*Implementing the NAP SACC physical activity changes*:

The NAP SACC trainers were also invited to rate how useful they thought various activities and resources might be to the licensed child care providers when the providers implemented NAP SACC. The Progress Report provided NAP SACC trainers with a list of 18 activities and resources. The trainers could rate the items from 1 (not at all) to 5 (a great deal), or, if they did not have sufficient information to respond to an item, they could mark "N/A."

All five of the NAP SACC trainers who responded to this question identified time as likely to help a great deal (rating = 5) when providers attempt to make physical activity practice changes. Four of the trainers identified "providers' modeling of good physical practices" as likely to help implementation a great deal. Six other activities and resources were also thought by a majority of trainers likely to help a great deal with implementation: attending the NAP SACC training (workshop) series, completing the self-assessments, equipment, space, supports and incentives, and having the materials and presentations in Spanish.

Two of the trainers thought that volunteers would not be helpful at all to the providers when implementing NAP SACC (the three other trainers said volunteers were not applicable to their providers). For four of the items, at least one trainer for each thought that the activity or resource was not applicable: volunteers (N/A = 3), community partners (N/A = 2), and technical assistance/support from trainer (including site visits) (N/A = 2), and parents (N/A = 1).

The trainers were also provided space to list any other resource or activity that they believed might influence the providers' implementation of NAP SACC. No trainers provided any additional items.[26]

Table 2a.6
*Activities and Resources Helpful to Implementing Physical Activity Changes, as Rated by NAP SACC Trainers*

| Activity or Resource | n | 1 (not at all) | 2 | 3 | 4 | 5 (a great deal) | N/A |
|---|---|---|---|---|---|---|---|
| Attending the NAP SACC training series | 5 | 0 | 0 | 0 | 2 | 3 | 0 |
| Completing the NAP SACC self-assessment | 5 | 0 | 0 | 0 | 2 | 3 | 0 |
| Completing the NAP SACC action plan | 5 | 0 | 0 | 1 | 2 | 2 | 0 |
| Networking with other providers | 5 | 0 | 1 | 1 | 1 | 2 | 0 |
| Providers' modeling of good physical practices | 5 | 0 | 0 | 0 | 1 | 4 | 0 |
| Time | 5 | 0 | 0 | 0 | 0 | 5 | 0 |
| Funding | 4 | 0 | 2 | 0 | 1 | 1 | 0 |
| Supplies | 5 | 0 | 0 | 1 | 2 | 2 | 0 |
| Equipment | 5 | 0 | 0 | 0 | 2 | 3 | 0 |
| Space | 5 | 0 | 1 | 0 | 1 | 3 | 0 |
| Curriculum | 5 | 0 | 1 | 0 | 2 | 2 | 0 |
| Parents | 5 | 0 | 0 | 2 | 1 | 1 | 1 |

---

[26] One trainer, however, used the space to state that some of the providers were already implementing the physical activity component of NAP SACC.

Table 2a.6
*Activities and Resources Helpful to Implementing Physical Activity Changes, as Rated by NAP SACC Trainers*

| Activity or Resource | n | 1 (not at all) | 2 | 3 | 4 | 5 (a great deal) | N/A |
|---|---|---|---|---|---|---|---|
| Volunteers | 5 | 2 | 0 | 0 | 0 | 0 | 3 |
| Community partners | 5 | 0 | 0 | 2 | 0 | 1 | 2 |
| Technical assistance/support from trainer (including site visits) | 5 | 0 | 0 | 1 | 0 | 2 | 2 |
| Training supports/incentives | 5 | 0 | 0 | 0 | 2 | 3 | 0 |
| NAP SACC materials (binders, PowerPoints, etc.) | 5 | 0 | 0 | 0 | 3 | 2 | 0 |
| Having materials and presentations available in Spanish for Spanish speaking providers | 5 | 0 | 0 | 0 | 2 | 3 | 0 |

Note. All response items are scored on likely helpfulness from 1 (not at all) to 5 (a great deal), or N/A.

### 1.3  Percent of programs that report the implementation of standards for physical activity (e.g., children accumulate at least 60 minutes of daily structured physical activity, as well as 60 minutes of daily, unstructured physical activity)

Four out of five trainers indicated that some of the child care providers they trained had begun to implement some aspects of the NAP SACC program by early June, 2016.  One mentioned that the providers were reviewing their action plans and proposed changes; another said that some had increased the amount of outdoor physical activity time for the children.  One trainer noted, however, that she had had no further contact with the providers after the completion of the final workshop, and, therefore, did not know whether any of them were implementing physical activity changes.

**Question 2:**  **What were the major facilitators and barriers in implementing this strategy?  How were the barriers overcome?**

Implementation of the NAP SACC programs has two major steps.  First, the trainers deliver the workshops and provide technical assistance to providers, and, second, the providers implement program changes.  The trainers were asked to provide information on facilitators and barriers to implementing the workshops and, further, to identify what they thought might act as barriers and facilitators as the providers implemented the NAP SACC changes.  The providers' views were also solicited:  They were invited to rate the degree to which they believed certain resources and activities would be barriers or facilitators to implementing the physical activity changes.

### 2.1  Most frequently cited facilitators and barriers (e.g. professional development, technical assistance, communication methods, etc.) in implementing physical activity in ECEs as reported by family daycare providers

The providers were presented with a list of 15[27] activities and resources related to the implementation of the physical activity component of NAP SACC. They were asked to rate each item from 1 ("a significant barrier") to 5 ("a significant help").

**Facilitators:**
Seventy-three child care providers identified attending the NAP SACC training workshops as being a significant facilitator. More providers thought this item was a significant help than any of the other items. Other items frequently indicated as a significant facilitator to implementation include receiving suggestions and support from their NAP SACC trainer (62); the providers making changes to their own exercise habits (62); communicating new practices to parents (61); and educational tools provided as part of the training (60). All of the items were marked as a significant help by at least one respondent. Further, all of the items were identified as being either a help or a significant help (rating of 4 or 5) by a majority of the respondents.

The items identified as a "significant help" by the fewest number of respondents were "funding" and "personnel," which were each rated a 5 by only 35 respondents.

**Barriers:**
The only item indicated as a significant barrier to changing physical activity practices was technology, and that assessment was given by a single respondent. Six items were thought to present a barrier (rating = 2) by at least one respondent each: play equipment (2), networking with peers at the training (1), time (1), supplies already in the possession of the provider (1), space (1), and technology (1).

Four items had more than 15 percent of respondents skip the item or mark the item "Don't know/Not Applicable" (DK/NA). These items include personnel (DK/NA = 16; missing = 12), funding (DK/NA = 15; missing = 6), time (DK/NA = 12; missing = 8), and technology (DK/NA = 11; missing = 5).

The providers were given the chance to provide further comments. None of the providers identified additional barriers or facilitators to implementing the physical activity component of NAP SACC. Two respondents, however, did supply an additional comment: both indicated approval of the NAP SACC program. One respondent wrote that the training activities were "Very helpful and very dynamic and fun." The second respondent indicated that "The presenter was great and interesting. She made the workshop fun and I think everyone enjoyed it. I learned a lot about what my peers are doing in their programs. It was enlightening."

---

[27] A 16th item having to do with nutrition was inadvertently included, see note 8.

Table 2a.7

*Activities and Resources Rated by Child Care Providers as Facilitators or Barriers to Implementing Physical Activity*

| Activity or Resource | 1 (significant barrier) | 2 | 3 | 4 | 5 (significant help) | N/A or Missing[a] |
|---|---|---|---|---|---|---|
| Attending the training workshops | 0 | 0 | 1 | 7 | 73 | 2 |
| Engaging community partners | 0 | 0 | 6 | 24 | 40 | 13 |
| Communicating new practices to parents | 0 | 0 | 2 | 17 | 61 | 3 |
| Making changes to my exercise habits | 0 | 0 | 3 | 17 | 62 | 1 |
| Networking with peers at the training | 0 | 1 | 1 | 24 | 52 | 5 |
| The trainer providing suggestions and support | 0 | 0 | 1 | 16 | 62 | 4 |
| Personnel | 0 | 0 | 3 | 17 | 35 | 28 |
| Time | 0 | 1 | 3 | 22 | 37 | 20 |
| Funding | 0 | 0 | 7 | 20 | 35 | 21 |
| Educational tools provided as part of the training | 0 | 0 | 5 | 9 | 60 | 9 |
| Supplies that I already have for use in my program | 0 | 1 | 5 | 21 | 50 | 6 |
| Play equipment | 0 | 2 | 2 | 21 | 51 | 7 |
| Space | 0 | 1 | 7 | 18 | 48 | 9 |
| Technology | 1 | 1 | 4 | 21 | 40 | 16 |
| Support from parents | 0 | 0 | 7 | 18 | 50 | 8 |

[a] The number in this column includes the sum of responses indicated as "Not Applicable" and missing responses.

## 2.2 Barriers and facilitators most frequently cited by NAP SACC trainers

The NAP SACC trainers were invited to provide feedback on barriers and facilitators to implementing the NAP SACC workshops. They were also provided space to discuss what they believed would be facilitators and barriers to implementing the physical activity component of NAP SACC. Finally, the trainers were asked a series of questions about their participation in the NAP SACC partnership itself and invited to provide suggestions on how to improve it going forward.

*Delivering the workshops*:

NAP SACC trainers were provided space to list two facilitators and two barriers to implementing the NAP SACC workshops. The trainers provided a total of five facilitators applicable to either the workshops generally, or specifically to the physical activity components.[28] The trainers also identified nine barriers to implementing the workshops.

**Facilitators:**
Three of the identified facilitators involved the NAP SACC materials. One trainer suggested generally that "everything was good" about the materials and resources. Other trainers were more specific. The NAP SACC curriculum and PowerPoint presentations and trainer manual were mentioned as being helpful. According to one trainer "the guide and PowerPoint presentations made it very easy to facilitate the training, engage providers, and prompt thoughtful discussions." The other identified facilitators were the provider incentives and the pre-workshop trainings. About the training, one trainer stated that "working with the other facilitators during the train the trainer sessions was [very] helpful in planning and discovering new ways to implement training."

**Barriers:**
Six trainers each provided two barriers, for a total of 12 responses. The trainers offered suggestions to overcome some of the barriers. Most of the identified barriers fell into four categories: amount and type of material in the curriculum; challenges arising from providing the workshops in Spanish and English; scheduling difficulties; and provider incentives.[29]

*Amount and type of content.* Three of the trainers identified aspects of the content of the workshops as a challenge. One trainer thought that there was too much information in the workshops, another that the information was too repetitive. A third respondent thought the data provided in the first module was difficult to communicate to the providers and, in contrast with the other two respondents, stated that the repetition in the subsequent modules was helpful for conveying the information to the providers. The three provided somewhat contrary means to overcoming their identified barriers. The solutions were:
- Omitting repetitive material
- Repeating confusing material

*Providing workshops in English and Spanish.* Four of the trainers raised challenges that arose from offering the workshops in both English and Spanish. Two of the responses focused on the time required to present the workshops in both languages. One trainer noted that the workshops took a total of nine hours to deliver (NAP SACC suggests each workshop is expected to require between 30 and 60 minutes to deliver, for a total of between 2.5 to 5 hours). The other two

---

[28] In addition, the trainers provided two facilitators that were specific to the nutritional component of the workshops: information on the amount of sugar "'hidden' in foods and beverages" and information on serving portion size. A third response provides that "childhood obesity" is itself a facilitator of the program. These responses are not included in the analysis.

[29] One trainer identified a lack of family child care providers in that trainer's area as a barrier to implementing the NAP SACC workshops, noting that "we have found there has been a significant decrease in family [child care] population in the area." This response is not included in the analysis.

barriers related to translating the materials. One trainer noted that she did not receive the trainer's outline in Spanish.[30] The trainers' responses include:

- Lengthening the sessions to cover materials in both languages
- Cutting out materials to reduce the time required to deliver the workshops in both languages
- Translating materials

*Scheduling*. Two trainers raised issues related to scheduling. For both, the challenge was that some providers had other obligations during the time when the workshops were delivered. One of the providers proposed a solution:

- Offer the training again in the future

*Provider incentives*. Finally, two of the trainers believed that the incentives for the providers arrived too late. Neither offered a specific means of overcoming this barrier: One simply stated that "it was hard to tell the participants that they would have to wait" and the other indicated merely that the trainer "improvised."

*Implementing the NAP SACC physical activity changes*:

The NAP SACC trainers also provided their insights on what they believed would be particularly helpful or challenging during implementation of the NAP SACC physical activity component. The trainers were provided space to identify two facilitators and two barriers. Four trainers each provided two facilitators.[31]

**Facilitators:**
The NAP SACC trainers identified the completion of the NAP SACC physical activity self-assessment, the provider incentives, materials for parents, ongoing technical assistance, and workshop training and examples as likely facilitators to the NAP SACC implementation.

Two trainers identified the physical activity self-assessments as likely to assist the providers. "The Assessments gave the providers a good understanding of what is happening in their centers." Two of the trainers thought that the provider incentives would prove useful, though neither elaborated. Three trainers cited the information and materials provided during the workshops: One of these trainers noted that the providers were "eager to use the handouts for parents," another that the physical activity examples would likely be helpful. One of the trainers mentioned that the ongoing availability of technical assistance should be helpful.

**Barriers:**
Five trainers each suggested two barriers that providers might face as they implement NAP SACC. Challenges related to time and space for physical activity were most frequently mentioned. The trainers also expressed a concern about the physical activity habits of the providers and the children's families.

---

[30] The other response is too vague to interpret with any specificity. The trainer merely wrote "Spanish Material" as the barrier and "Translated material" as the solution.

[31] A fifth trainer used the space to provide likely facilitators and barriers to implementing the nutrition component of NAP SACC.

*Space for physical activity.*  Three trainers suggested that finding sufficient space for physical activity would likely be a challenge for the providers.  One trainer noted that many providers expressed a belief that opportunities for physical activity are limited when the weather is bad and the children must stay indoors.  The trainers shared a few ways they had already attempted to address these barriers.  They did so by:

- Having group discussions with providers to generate ideas for safe indoor physical activities
- Discussing appropriate clothing for continued outdoor activity during "other-than-sunny" days

*Time for physical activity.*  Three trainers thought that providers might have problems finding sufficient time for the children to engage in the recommend physical activities.  Their suggestions were:

- Plan for physical activities ahead of time
- Tie physical activities to other activities (such as adding physical activity to the recitation of the alphabet: "J is for Jump!")

*Provider and family physical activity habits.*  Two of the trainers were concerned that the physical activity habits of the providers and families might act as a barrier to successfully instilling good physical activity habits in the children.  One trainer noted that some of the providers themselves are not physically fit and another that parents may not engage in much physical activity in the home.  This trainer noted that she "talked about lots of health reasons to be physically active and ways to squeeze in more activity" with the providers.

*Other barriers.*  Two other challenges focused on the children: one trainer thought that some providers might have too many children to implement physical activity and another that providers would have a difficult time hosting physical activities that appealed to a range of age groups.

**Respondent comments and suggestions:**  NAP SACC trainers provided feedback on what they liked and did not like about the NAP SACC partnership, as well as make suggestions for improving the intervention in the future.  Five of the respondents provided some written response to these questions.  Though these are not specifically questions about "facilitators and barriers" the answers are included here because of their importance to program improvement.

All five of the responding trainers stated that they would participate in the NAP SACC partnership again in the future (one specifically mentioned having already committed to train additional providers in the fall).

All five of the responding trainers noted that they liked the training and accompanying NAP SACC materials.  One respondent wrote that there was "lots of great information in [the] training."  Another reported that the materials were "clear [and] easy to use" and facilitated the delivery of the workshops.  In addition to the NAP SACC materials, one trainer specifically mentioned enjoying working with the NAP SACC partnership: "[The] partnership was wonderful to work with.  [Staff] was available to answer questions that may have come up before

or during the training as well as when we were facilitating the workshops." Another trainer noted: "We are excited to have the opportunity to spread this information to providers."

Three respondents indicated the need for better organization of the partnership, including better communication and having all intervention materials available for the trainers ahead of time. For example, one trainer stated that "the communication back and forth has at times been unclear." Two of the respondents requested that the training materials and provider incentives be available earlier in the process: "Have all materials (binders, incentives, etc.) beforehand!" exclaimed one trainer. One respondent suggested eliminating "some of the repeated things, make it shorter and add more time for activities" (though it is unclear whether this respondent was referring to the train-the-trainer session, the workshops, or something else). One respondent requested more time for scheduling the workshops.

Five trainers provided suggestions on how they might improve how they deliver the NAP SACC program next time. Two said they would have two distinct classes, one in English and one in Spanish (provided there were sufficient resources to conduct both). Another would combine workshops, offering them all in a single day. One trainer would like to use the provider incentives during the workshops and another would alter the information presented in the first workshop to include data more relevant to the providers (but no specific examples were provided).

# Part 2b

## Physical Education and Physical Activity in Early Care and Education

### *I am Moving, I am Learning (IMIL)*

# Domain 2, Strategy 5:
# Implement Physical Education and Physical Activity
# in Early Care and Education

## *I am Moving, I am Learning (IMIL)*

In Year 4, the intervention for Domain 2, Strategy 5 was I am Moving, I am Learning (IMIL). CDC's chronic disease prevention Domain 2 encompasses strategies that focus on environmental changes that make it easier for individuals to live a healthy life. IMIL's overarching goal is to reduce obesity; it aims to do this by increasing healthy physical activity and nutrition activities in the daily routines of early care and education centers (ECEs). In Connecticut, the Year 4 IMIL Partnership included 16 ECEs. This evaluation was designed to identify critical activities and resources for, and facilitators and barriers to, the successful implementation of physical activity changes in ECE environments.

**CDC Core Evaluation Questions:**

1) *What are the key activities and resources considered critical to the successful implementation of standards to increase physical activity in the ECE setting?*

2) *What were the major facilitators and barriers in implementing this strategy? How were the barriers overcome?*

Table 2b.1 lists the evaluation questions, associated indicators, and data sources.

Table 2b.1
*Evaluation Format*

| **Evaluation Q1:** What are the key activities and resources considered critical to the successful implementation of standards to increase physical activity in the ECE setting? | | **Data Source** |
|---|---|---|
| | **Indicator** | **Data Source** |
| 1.1 | Percent of workshop participants who report plans to implement policy changes | Orientation and Policy Workshop Evaluation Form |
| 1.2 | Percent of training participants who report plans to implement program, technical assistance needed related to activities, and resources considered critical to the successful implementation of standards for physical activity in the ECE setting | IMIL Training Evaluation Form |
| 1.3 | Percent of programs that report the implementation of standards for physical activity (e.g., children accumulate at least 60 minutes of daily structured physical activity, as well as 60 minutes of daily, unstructured physical activity) | IMIL Program Progress Report |

Table 2b.1
*Evaluation Format*

| 1.4 | Number of activities and resources considered critical to the successful implementation of standards for physical activity in the ECE setting | IMIL Program Progress Report |
|---|---|---|
| **Evaluation Q2:** What were the major facilitators and barriers in implementing this strategy? How were the barriers overcome? | | |
| 2.1 | Most frequently cited facilitators and barriers (e.g. professional development, technical assistance, communication methods, etc.) in implementing physical activity in ECEs | IMIL Program Progress Report |
| 2.2 | Percent of ECEs reporting barriers that also reported ways to overcome the barriers | IMIL Program Progress Report |

## Background

I am Moving, I am Learning (IMIL) is an intervention that aims to address obesity by encouraging staff at early care and education centers (ECEs) to make changes to the ECE environment that facilitate healthy nutrition and physical activity choices. IMIL's three overarching goals are to increase the amount of daily moderate to vigorous physical activity (MVPA), increase the quality and quantity of structured physical activity (that is, physical activity purposefully planned and led by an adult), and increase the proportion of healthy food that is consumed by children in the ECE setting.[32]

The Office of Head Start, Region III, initiated IMIL in 2004.[33] The aim of IMIL is to address the increasing rates of overweight and obesity among children. The Office of Head Start partnered with Choosy Kids, LLC, a private educational firm, to develop the materials and strategies employed in IMIL and to train directors and other staff at participating Head Start programs.[34] IMIL was pilot-tested at select Head Start programs in Virginia and West Virginia, then expanded to the rest of Region III, and then to other Head Start Regions. Recently, it has been implemented in non-Head Start ECEs throughout the country. The intervention was systematically evaluated by Mathematica Policy Research in 2010.[35]

---

[32] I am moving I am learning: Head Start lays the foundation for early childhood obesity prevention (updated January 8, 2015), available at: https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/health/healthy-active-living/imil (accessed May 3, 2017).

[33] Report to Congress on Head Start Efforts to Prevent and Reduce Obesity in Children (no date). U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start, available at: https://eclkc.ohs.acf.hhs.gov/hslc/data/rc (accessed May 3, 2017).

[34] Choosy Kids, Professional Development and Training, available at: https://choosykids.com/pages/imil (accessed May 3, 2017).

[35] Administration for Children and Families (2010). Efforts to Meet Children's Physical Activity and Nutritional Needs: Findings from the I Am Moving, I Am Learning Implementation Evaluation. M. K. Fox, K. Hallgren, K. Boller, and A. Turner. Washington, DC: U.S. Department of Health and Human Services. February, 2010, available at: https://www.acf.hhs.gov/opre/resource/efforts-to-meet-childrens-physical-activity-and-nutritional-needs (accessed May 3, 2010).

The main components of IMIL are a training-of-trainers session, strategies, and materials that assist ECE staff incorporate physical activity and good nutritional practices into their daily routines.[36] IMIL is not itself a curriculum and does not prescribe specific activities or lessons, but rather is intended to increase the physical activity and nutritional offerings of any curriculum used by an ECE. [37,38] The training-of-trainers session is typically offered as a multi-day training. Generally, the training introduces trainees to rates of obesity and the health problems that follow, and concepts of MVPA, structured physical activity, and nutrition. The training is offered to program directors and a limited number of other key ECE staff. These individuals then return to their programs and train the rest of their ECE staff to incorporate IMIL strategies into their daily routines.[39] At the training, attendees learn about strategies to pursue the three IMIL goals. Examples of strategies that have been included are the use of "Choosy," a character created by Choosy Kids, LLC, who provides various health-related messages;[40] and using words from the *Healthy Habits Vocabulary Framework*, which collects together a set of vocabulary words related to physical activity and nutrition that can be discussed with children.[41] The trainees are provided with some of the materials, such as music CDs, that support the implementation of the IMIL strategies, and given information on how to obtain or make additional materials.[42] The Office of Head Start also maintains a website for an "IMIL Interactive Tool" that is made available to trainees and the general public.[43]

---

[36] Administration for Children and Families (2010). Efforts to Meet Children's Physical Activity and Nutritional Needs: Findings from the I Am Moving, I Am Learning Implementation Evaluation. M. K. Fox, K. Hallgren, K. Boller, and A. Turner. Washington, DC: U.S. Department of Health and Human Services, February, 2010, pp 19-25, available at: https://www.acf.hhs.gov/opre/resource/efforts-to-meet-childrens-physical-activity-and-nutritional-needs (accessed May 3, 2010).

[37] Administration for Children and Families (2010). Efforts to Meet Children's Physical Activity and Nutritional Needs: Findings from the I Am Moving, I Am Learning Implementation Evaluation. M. K. Fox, K. Hallgren, K. Boller, and A. Turner. Washington, DC: U.S. Department of Health and Human Services, February, 2010, p. 2, available at: https://www.acf.hhs.gov/opre/resource/efforts-to-meet-childrens-physical-activity-and-nutritional-needs (accessed May 3, 2010).

[38] Choosy Kids, Healthy Habits in the Classroom, Curriculum Enhancements, available at: https://choosykids.com/pages/curriculum-enhancements (accessed May 3, 2017).

[39] Administration for Children and Families (2010). Efforts to Meet Children's Physical Activity and Nutritional Needs: Findings from the I Am Moving, I Am Learning Implementation Evaluation. M. K. Fox, K. Hallgren, K. Boller, and A. Turner. Washington, DC: U.S. Department of Health and Human Services, February, 2010, p. 19, available at: https://www.acf.hhs.gov/opre/resource/efforts-to-meet-childrens-physical-activity-and-nutritional-needs (accessed May 3, 2010).

[40] Administration for Children and Families (2010). Efforts to Meet Children's Physical Activity and Nutritional Needs: Findings from the I Am Moving, I Am Learning Implementation Evaluation. M. K. Fox, K. Hallgren, K. Boller, and A. Turner. Washington, DC: U.S. Department of Health and Human Services, February, 2010, p. 19-25, available at: https://www.acf.hhs.gov/opre/resource/efforts-to-meet-childrens-physical-activity-and-nutritional-needs (accessed May 3, 2010).

[41] Choosy Kids, Healthy Habits in the Classroom, Curriculum Enhancements, available at: https://choosykids.com/pages/curriculum-enhancements (accessed May 3, 2017).

[42] Administration for Children and Families (2010). Efforts to Meet Children's Physical Activity and Nutritional Needs: Findings from the I Am Moving, I Am Learning Implementation Evaluation. M. K. Fox, K. Hallgren, K. Boller, and A. Turner. Washington, DC: U.S. Department of Health and Human Services, February, 2010, p. 19-25, available at: https://www.acf.hhs.gov/opre/resource/efforts-to-meet-childrens-physical-activity-and-nutritional-needs (accessed May 3, 2010).

[43] IMIL Interactive Tool (last updated March 9, 2016), available at: https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/health/healthy-active-living/imil/interactive (accessed May 3, 2017).

Connecticut's Department of Public Health (DPH) offered IMIL training through the 1305 program in 2016-2017 (Year 4 of the grant). DPH partnered with Connecticut's Office of Early Childhood, Connecticut's Head Start State Collaboration Office, and the New England Head Start Training and Technical Assistance Network to identify appropriate ECEs to recruit for the IMIL Partnership. In Connecticut, each participating ECE program is matched with a dedicated IMIL mentor; provided a half-day Orientation and Policy Workshop for one staff member; and provided a two-day IMIL Training for a team of up to four staff. Mentors are available to ECE staff to provide ongoing technical assistance. They are required to make at least three site visits to their ECEs throughout the implementation period. The Orientation and Policy Workshop was developed based on feedback from the Year 1 IMIL Partnership. The workshop is designed to familiarize mentors and ECE key staff with the general principles of IMIL, and provide partnership timelines and expectations; assist ECE staff complete the "Let's Move Childcare Checklist" to assess their existing policies; and train staff to develop policies that support physical activity and nutrition. The workshop also serves as an opportunity for mentors to meet their mentees. In Year 4, the workshop was offered on October 11, 2016, in Farmington, Connecticut. Twenty-two individuals attended. The two-day IMIL Training occurred the following month, on November 8 and 9, 2016. Sixty-two individuals from 16 ECEs attended the training. These individuals were trained on IMIL strategies and received IMIL-related materials. They were provided time to begin drafting action plans to incorporate IMIL into their program operations. By January 2017, all of the participating ECEs had submitted their action plans to DPH for review. DPH staff conducted several site visits from March until June 2017 to monitor implementation of their IMIL-related goals. IMIL mentors were instructed to complete their mandatory site visits by May 1, 2017.

## Data Collection

**IMIL Orientation and Policy Workshop Evaluation Form**. The purpose of this form was to invite attendees of the IMIL Orientation and Policy Workshop to provide feedback on the workshop and communicate the next steps they planned to take after the workshop. The survey was administered at the close of the workshop. The workshop was attended by 21 individuals: 6 mentors and 15 ECE program staff (either ECE directors or IMIL implementation team leads). Twenty attendees completed the survey for a response rate of 95 percent.

**IMIL Training Evaluation Form**. The IMIL Training Evaluation Form elicited attendee feedback about the IMIL training sessions. The form also collected information on how the respondents planned to apply what they had learned in their programs, what they thought would be the most important factors to implementing IMIL, and what further technical assistance they might need. The form was administered to attendees of the IMIL training at the close of the final training day. The IMIL training was held on November 8 and 9, 2017. Sixty-two individuals from 16 ECEs attended the training. Of them, 54 responded to the survey, for a response rate of 87 percent. The survey consisted of a mix of closed and open-ended items. For the question "How much do the following factors affect the implementation of IMIL in your center?" respondents were presented with a series of 22 items (including "other") and invited to rate the items from 1 (significant barrier) to 5 (significant help). The respondents were given space to provide written answers to how they planned to use what they learned, and whether they needed further technical assistance.

**IMIL Partnership Program Progress Report (2016-2017).** The IMIL Program Progress Report was designed to assess ECE progress in implementing nutrition and physical activity goals that they identified as part of their IMIL program. The survey was designed by DPH's 1305 ECE team, with feedback from the evaluators at CPHHP. All 16 ECEs returned the survey. The surveys were completed between March 30 and May 2, 2017. Thus, the responses reflect the ECE's experience with the IMIL Partnership approximately 5 months after the IMIL Training.

Table 2b.2
*Data Sources and Response Rates*

| Data Source | Invited | Responded | Response Rate |
|---|---|---|---|
| Orientation and Policy Workshop Evaluation Form | 21 | 20 | 95% |
| IMIL Training Evaluation Form | 62 | 54 | 87% |
| IMIL Program Progress Report | 16 | 16 | 100% |

**Question 1:** **What are the key activities and/or resources considered critical to the successful implementation of standards for physical activity in the ECE setting?**

## *1.1 Percent of workshop participants who report plans to implement policy changes*

All twenty respondents provided some details on what they planned to do next with what they learned at the Policy and Orientation Workshop. Four of them specifically mentioned plans to review their center's policies and update as appropriate. Fourteen of the respondents mentioned that they would share the information learned with staff at the ECEs, six specifically mentioned sharing the information with families, and three reported that they were going to assess their programs. Other respondents reported reviewing IMIL materials, gathering further relevant information, creating a physical activity-related contest for the classroom (to see "who can come up with next month's [or] week's [physical activity] opportunity"), and adding materials to their classrooms.

Table 2b.3
*Next Steps after the Policy and Orientation Workshop*

| What are some next steps that you might take in applying what you learned here? | |
|---|---|
| Response theme* | Count |
| Share information with staff | 14 |
| Share information with families | 6 |
| Review and update policies | 4 |
| Assess programs | 3 |
| Other | 4 |
| *Some respondents provided more than one "next step." | |

*1.2 Percent of training participants who report plans to implement program, technical assistance needed related to activities, and resources considered critical to the successful implementation of standards for physical activity in the ECE setting*

Information in this section was provided by attendees of the IMIL Training on November 8 and 9, 2016, who completed the IMIL Training Evaluation Form. The form was returned by 54 individuals, including 33 teachers, 9 directors, and 12 individuals with other roles.

**Percent of training participants who report plans to implement IMIL:**
Forty-six respondents (85%) provided ways that they planned to implement the physical activity portion of the IMIL training into their programs, or implement IMIL generally.[44] Six of the respondents broadly asserted that they planned to implement IMIL, without giving any particulars (for example, one respondent wrote that she planned to apply "as much as possible!" of what she learned). The majority of respondents, however, provided more specific ways they planned to implement IMIL. Twenty-two respondents stated that they would use what they learned to incorporate more physical activity into their days. Five respondents noted that they intended to incorporate more music, and accompanying physical activity, during their routines. Four identified transition time as a period where they would focus on increasing physical activity. Two of the respondents specifically mentioned that they planned to make sure that students receive at least 60 minutes of physical activity time daily. Fourteen of the respondents noted that they planned to share what they had learned with teachers and other staff at their center. One respondent stated that she planned to offer small group sessions for her center's teachers and other staff. Seven respondents mentioned sharing the information with families. One stated an intention to provide parents "with resources and techniques to improve their lifestyle." Another planned to set up parent teacher conferences to discuss physical activity. Six of the respondents stated that they planned to use the information to ensure that their planning activities include planning to incorporate physical activities. Five of the respondents mentioned an intention to use words more deliberately, and incorporate physical activity vocabulary into their communication (for example, one respondent reported that she plans "to use words that my students are familiar with to describe actions or movements"; and another "to be more intentional – use more vocabulary to enhance activity"). One respondent planned to encourage teachers and staff to be IMIL champions, another mentioned an intention to develop written policies for physical activity, and a third planned to implement a physical activity assessment.

---

[44] Additionally, three respondents addressed how they would implement the nutrition portion of the training, but did not address the physical activity portion, and three respondents provided answers that were nonresponsive to the question.

Table 2b.4
*Plans to Apply Skills Learned at Training*

| How do you plan to apply what you have learned from this training to implement IMIL in your center? | |
| --- | --- |
| **Response theme*** | **Count** |
| Implement physical activities | 22 |
| Share with teachers and staff | 14 |
| Share with families | 7 |
| Nonspecific implementation | 6 |
| Planning | 6 |
| Vocabulary words | 5 |
| Other | 3 |
| *Some respondents provided more than one way they planned to implement IMIL. | |

**Technical Assistance and Support Needed:**
Twenty-one of the respondents (39%) provided some response indicating a need for further technical assistance or other supports.[45]  Nine of the respondents requested further materials to support implementation of IMIL.  Of them, four specifically asked to have copies of the music used during the training.  Other requested materials included posters, a list or guidebook for structured and unstructured activities, and a list of helpful websites.  One respondent requested "more space in the classroom" and "more time within the day to plan and [collaborate] with coworkers."

Seven respondents requested further training or technical assistance.  Four of these respondents wanted to train more of their staff; one specifically requested "on-site training for all staff."  The three other requests for technical assistance or training included a request for a follow-up IMIL meeting 6 months after the IMIL Training to discuss implementation, for help writing goals, and for help making and using homemade materials.

Four respondents indicated they needed further assistance from others within their organizations, including the director, health director, and administration generally.  One respondent thought it would be helpful if the teachers conducted an evaluation of IMIL implementation.

Two respondents requested contact information in case they had further questions about IMIL.

---

[45] Three other respondents stated affirmatively that they did not believe they needed further supports at that time, one respondent explained that "with the mentor, the information on the flash drive, website and most importantly the training I feel confident in implementing IMIL."  A fourth respondent requested guidance on implementing the nutritional aspect of IMIL.

Table 2b.5
*Needs for TA and other Supports*

| What further technical assistance and support would you like related to the implementation of IMIL in your program? | |
| --- | --- |
| Response theme* | Count |
| Materials | 9 |
| Training & technical assistance | 7 |
| Internal support | 4 |
| Contact information | 2 |
| * Some respondents identified more than one item of need. | |

**Resources considered critical to the successful implementation of IMIL:**
Respondents were presented with 19 items related to implementing IMIL generally, or physical activity specifically, and were asked to rate the helpfulness of each item on a scale of 1 (significant barrier) to 5 (significant help). With the exception of the "other" option, every item was rated as a significant help by at least one respondent, see Table 2b.6. Forty or more of the respondents (74%) rated two items as being a significant help: support from the administration and the IMIL training. The high number of respondents who chose to rate these two items as a significant help suggest that they may be critical to the implementation of IMIL (or at least were thought to be so at the time of the IMIL training). Other items believed to be a significant help by more than half (n=22) of the respondents include: physical activity resources, opportunities for physical education, staff training on physical activity, staff training on physical education, site visits from mentor, space for physical activity, space, resources distributed by CSDE/DPH staff, and the orientation and policy workshop. The item identified as a significant help by the fewest number of respondents was "site visits by CSDE/DPH staff." (This likely reflects the fact that no site visits had yet been made at the time of the administration of this survey. Similarly, the relatively high number of respondents selecting DK/NA for a few of the items related to technical assistance and stipend payments may stem from the fact that these activities had not yet happened.)

While only 22 respondents rated the Orientation and Policy Workshop as a significant help, only a subset of the training attendees were present at the workshop. There were 21 individuals at the workshop, and several of them were mentors. Interestingly, 41 respondents provided some rating to the workshop item, suggesting that its influence extended beyond those who attended. Of those respondents who rated the workshop, 54 percent rated it as a significant help.

None of the items were identified as a significant barrier by a large number of respondents. Space, and specifically space for physical activity, was identified as a barrier or significant barrier by 5 respondents. Four respondents each rated established center policies, staff training on physical activity and staff training on physical education as barriers.

Table 2b.6
*Facilitating Factors*

| How much do the following factors affect the implementation of IMIL in your center? | | | | | | |
|---|---|---|---|---|---|---|
| | **1** **(not at all)** | **2** | **3** | **4** | **5** **(a great deal)** | **DK/NA** |
| Support from administration | 0 | 1 | 0 | 10 | 40 | 3 |
| Support from teachers/staff | 0 | 3 | 8 | 14 | 26 | 3 |
| Support from parents/families | 0 | 4 | 18 | 10 | 19 | 3 |
| Site visits from mentor | 0 | 1 | 6 | 9 | 26 | 12 |
| Site visits from CSDE/DPH staff | 0 | 1 | 5 | 11 | 14 | 23 |
| Technical assistance/support from mentor | 0 | 1 | 4 | 10 | 21 | 18 |
| Resources distributed by CSDE/DPH staff | 0 | 1 | 5 | 10 | 23 | 15 |
| Physical activity resources | 0 | 3 | 3 | 16 | 30 | 2 |
| Opportunities for physical education | 0 | 2 | 6 | 14 | 29 | 3 |
| Staff training on physical education | 1 | 3 | 7 | 14 | 27 | 2 |
| Staff training on physical activity | 1 | 3 | 4 | 14 | 29 | 3 |
| Space for physical activity | 2 | 3 | 5 | 11 | 26 | 5 |
| Established center policies on physical activity | 1 | 3 | 6 | 15 | 20 | 9 |
| Orientation and Policy Workshop | 0 | 1 | 6 | 12 | 22 | 13 |
| IMIL training | 0 | 1 | 3 | 6 | 41 | 3 |
| Stipend payment | 1 | 1 | 7 | 10 | 15 | 20 |
| Funding | 1 | 2 | 8 | 8 | 15 | 20 |
| Space | 0 | 5 | 5 | 9 | 26 | 9 |

*Seven of the respondents marked "other," but none provided a label or description.

**Other Comments and Suggestions:**
The respondents were provided an opportunity to write any additional comments that they might have about the IMIL training, or IMIL in general. Twenty-three respondents availed themselves of this opportunity. Eighteen respondents stated that they were satisfied, overall, with the training. One respondent wrote, "I really enjoyed the training and am leaving with some great ideas!" and another that the training provided, "many great ideas to use in the classroom." One respondent asserted that this was the "[first] time I felt fully involved in the whole training." Four respondents singled out specific aspects of the training that they appreciated or found helpful. Two of them stated that they enjoyed the way the information was presented, describing the presenters as "fun, energetic, engaging and motivating" and that the presenters' "love for this comes across in every aspect of" the presentation. One respondent asserted that handing out materials on a flash drive was a good idea, and another that incorporating music and movement into the training sessions was helpful. Two respondents suggested that the training be repeated so other staff might attend and that it should be offered to child care providers in other types of settings, specifically home child care. Two respondents made specific suggestions for the skit

portion of the training: one suggested that the skit was not helpful ("do not like the skit portion"), and the other requested more time to prepare for the skit.[46]

### *1.3 Percent of programs that report the implementation of standards for physical activity (e.g., children accumulate at least 60 minutes of daily structured physical activity, as well as 60 minutes of daily, unstructured physical activity)*

Respondents from 15 of the 16 ECEs participating in the IMIL Partnership in Year 4 reported that their center had adopted and implemented guidelines or standards to increase physical activity by spring of 2017.

All 16 centers had created, and submitted to DPH for review, action plans to implement changes in accordance with IMIL. All 16 reported on the progress that their centers had made in implementing the physical activity goals identified in their action plans at the time of the progress report. Nine of the respondents mentioned that they had provided staff physical activity training or that their teachers had incorporated physical activity within their planning process (but without mentioning whether students were actually engaging in more physical activity). One respondent, for example, noted that her ECE had provided a 30 minute workshop for all the center's teachers on incorporating physical activity into their daily activities, another that teachers had been provided with a monthly calendar with daily physical activity suggestions. Seven of the respondents mentioned increasing physical activity opportunities for the children at their centers. Two of these respondents provided specific physical activity times, one noted a baseline of 34 minutes per day and set a goal of 45 minutes. When reassessing physical activity later, this ECE provided an average of 66 minutes per day. Another respondent reported having attained 30 minutes of structured and 30 minutes of unstructured MVPA per day. Other respondents noted that outdoor time for children and movement with music had been increased. The children "are enjoying learning new music and movement activities," stated one respondent. The respondents also reported upgrading physical activity equipment, hosting a health fair, offering fitness classes for staff, and speaking to parents about the importance of physical activity at home.[47] Response themes are listed in Table 2b.7.

Table 2b.7
*Implementation of IMIL Physical Activity Goals*

| Response Theme | Frequency |
|---|---|
| Staff education and physical activity planning | 9 |
| Physical activity for children | 7 |
| Physical activity for staff | 1 |
| Equipment | 1 |
| Communication with parents | 1 |
| Events | 1 |

---

[46] In addition, two respondents provided uninterpretable responses.

[47] Two additional responses are too vague to interpret: "we are accomplishing most of our goals" and "progress has been made towards our goals. . . ."

### 1.4 Number of activities and resources considered critical to the successful implementation of standards for physical activity in the ECE setting

The IMIL Program Progress Report was administered in April 2017, approximately five months after the IMIL Training. It presented respondents with 14 activities, 11 resources, and 17 other factors (Tables 2b.2 through 2b.4), a total of 42 items. The respondents were requested to rate each item based on how much it contributed to the implementation of the IMIL program in their centers. Respondents could rate the items from 1 (not at all) to 5 (a great deal), or, if their program had no experience with the item, they could mark DK/NA. Respondents were also provided space to suggest other items that may have contributed to the implementation of their IMIL program, and invited to rate the proffered items. For the purposes of this indicator, an item with a response of 5 is considered to be "critical" to program implementation.

Each of the 42 activities and resources were marked critical by at least one of the ECEs. Sixteen of the items were rated as a 5 by more than half of the respondents. The items rated a 5 by the most respondents are: activities: attending the IMIL training (n=13), engaging staff throughout the center (n=12), and using music for movement in classrooms (n=12); resources: personnel (n=13), equipment (n=10), time (n=9), funding (n=9), and curriculum (n=9); and other factors: support from administration (n=13), support from teachers and staff (n=13), and IMIL training (n=13).

Two of the items were rated as being not helpful at all by at least one respondent: volunteers (n=2) and technology (n=2). The items rated as a 3 or lower by five or more respondents were volunteers, engaging partners, using social media, and incorporating physical activity into staff meetings. Of those, the volunteers item had the highest percentage of respondents rating it as a 3 or less (45%, excluding the respondents marking DK/NA). The item with the highest number of DK/NA responses was starting a wellness center for staff (n=6), followed by technology (n=5), volunteers (n=5), community partners (n=5), and space (n=4).

Table 2b.8
*Activities*

| How much did the following activities contribute to the implementation of physical activity standards in your center? | 1 (not at all) | 2 | 3 | 4 | 5 (a great deal) | DK/NA |
|---|---|---|---|---|---|---|
| Attending the IMIL training | 0 | 0 | 1 | 1 | 13 | 0 |
| Attending the Orientation and Policy Workshop | 0 | 1 | 1 | 4 | 10 | 0 |
| Completing policy assessments | 0 | 1 | 2 | 3 | 9 | 1 |
| Implementing policy changes related to physical activity | 1 | 0 | 3 | 4 | 8 | 0 |
| Engaging partners | 0 | 3 | 2 | 3 | 7 | 1 |
| Engaging staff throughout the center | 0 | 0 | 1 | 3 | 12 | 0 |

Table 2b.8
*Activities*

| How much did the following activities contribute to the implementation of physical activity standards in your center? | | | | | | |
|---|---|---|---|---|---|---|
| | 1 (not at all) | 2 | 3 | 4 | 5 (a great deal) | DK/NA |
| Using communication tools to promote IMIL practices to parents and staff | 0 | 0 | 3 | 4 | 8 | 1 |
| Using social media to promote center activities | 1 | 0 | 4 | 3 | 4 | 1 |
| Starting a wellness campaign for staff at the center | 1 | 1 | 1 | 5 | 2 | 6 |
| Working with mentors during the partnership | 1 | 1 | 1 | 5 | 8 | 0 |
| Hosting parent engagement/family activities | 1 | 1 | 1 | 3 | 7 | 3 |
| Staff modeling good physical activity practices | 0 | 1 | 1 | 3 | 11 | 0 |
| Using music for movement in classrooms | 0 | 0 | 2 | 2 | 12 | 0 |
| Incorporating physical activity into staff meetings | 0 | 0 | 5 | 2 | 6 | 3 |

Table 2b.9
*Resources*

| How much did the following resources contribute to the implementation of physical activity standards in your center? | | | | | | |
|---|---|---|---|---|---|---|
| | 1 (not at all) | 2 | 3 | 4 | 5 (a great deal) | DK/NA |
| Personnel | 0 | 0 | 2 | 1 | 13 | 0 |
| Time | 0 | 0 | 1 | 6 | 9 | 0 |
| Funding | 0 | 2 | 2 | 1 | 9 | 2 |
| Supplies | 1 | 1 | 2 | 2 | 7 | 2 |
| Equipment | 0 | 1 | 2 | 0 | 10 | 3 |
| Space | 1 | 0 | 2 | 3 | 6 | 4 |
| Curriculum | 0 | 0 | 4 | 3 | 9 | 0 |
| Technology | 2 | 0 | 1 | 3 | 5 | 5 |
| Parents | 0 | 2 | 2 | 4 | 5 | 3 |
| Volunteers | 2 | 1 | 2 | 1 | 5 | 5 |
| Community partners | 0 | 2 | 2 | 0 | 7 | 5 |

Table 2b.10
*Other Factors*

How much did the following factors affect the implementation of physical activity practices or policies in your center?

| | 1 (not at all) | 2 | 3 | 4 | 5 (a great deal) | DK/NA |
|---|---|---|---|---|---|---|
| Support from administration | 0 | 1 | 0 | 2 | 13 | 0 |
| Support from teachers/staff | 0 | 1 | 0 | 2 | 13 | 0 |
| Support from parents/families | 1 | 2 | 1 | 5 | 5 | 2 |
| Site visits from mentor | 1 | 2 | 1 | 4 | 8 | 0 |
| Technical assistance/support from mentor | 1 | 2 | 1 | 3 | 6 | 3 |
| Site visits from CSDE/DPH staff | 0 | 1 | 1 | 2 | 7 | 5 |
| Resources distributed by CSDE/DPH staff | 0 | 2 | 1 | 3 | 8 | 2 |
| Orientation and Policy Workshop | 0 | 2 | 0 | 7 | 7 | 0 |
| IMIL training | 0 | 1 | 0 | 2 | 13 | 0 |
| Stipend payment | 0 | 1 | 2 | 0 | 9 | 2 |
| Staff training on physical education | 0 | 1 | 1 | 6 | 6 | 2 |
| Staff training on physical activity | 0 | 1 | 1 | 6 | 6 | 2 |
| Established center policies on physical activity | 0 | 2 | 1 | 6 | 6 | 1 |
| Physical education resources | 0 | 2 | 2 | 1 | 9 | 2 |
| Opportunities for physical education | 1 | 1 | 2 | 4 | 7 | 1 |
| Funding | 1 | 3 | 0 | 3 | 7 | 2 |
| Space for physical activity | 1 | 2 | 0 | 2 | 8 | 3 |

The list of "other factors" that the respondents were asked to rate was nearly identical to the list provided to the respondents of the Training Evaluation Form. While formal statistical analysis is inappropriate because the two groups of respondents are neither identical nor wholly independent, the size of the change in rating is notably large for some items. The change in rating for all items is informally compared and displayed in Table 2b.11. Because the number of respondents to the earlier survey was much larger than the number of respondents to the latter survey, Table 2b.11 displays the percentage of respondents rating an item a 5 (rather than the number of respondents). The three largest percentage point increases are marked in bold; the three largest decreases are italicized. The three largest increases include receiving the stipend (which had not been distributed at the time of the earlier survey), teacher and staff support, and site visits from DPH. The three largest decreases were for staff training on physical activity, site visits from the mentor, and technical assistance and other support from the mentor. Since the training evaluation was administered before IMIL implementation began, some of the difference in the responses between the two surveys captures the difference between the early expectations of the respondents and their later experiences.

Table 2b.11
*Percentage Point Change in Respondents Rating an Item as Helping a Great Deal between the Training Evaluation Form and the IMIL Progress Report*

| | Training evaluation | Progress report | Percentage point change |
|---|---|---|---|
| Support from administration | 78% | 81% | 3 |
| **Support from teachers/staff** | **51%** | **81%** | **30** |
| Support from parents/families | 37% | 36% | -2 |
| *Site visits from mentor* | *62%* | *50%* | *-12* |
| **Site visits from CSDE/DPH staff** | **45%** | **64%** | **18** |
| *Technical assistance/support from mentor* | *58%* | *46%* | *-12* |
| Resources distributed by CSDE/DPH staff | 59% | 57% | -2 |
| Physical activity resources | 58% | 64% | 7 |
| Opportunities for physical education | 57% | 47% | -10 |
| Staff training on physical education | 52% | 43% | -9 |
| *Staff training on physical activity* | *57%* | *43%* | *-14* |
| Space for physical activity | 55% | 62% | 6 |
| Established center policies on physical activity | 44% | 40% | -4 |
| Orientation and Policy Workshop | 54% | 44% | -10 |
| IMIL training | 80% | 81% | 1 |
| **Stipend payment** | **44%** | **75%** | **31** |
| Funding | 44% | 50% | 6 |
| Space | 58% | 62% | 4 |

Note:  Responses of NA/DK have not been included in the calculation of these percentages.
Note 2:  The percentage point difference displayed does not exactly match to the percentages displayed for the two surveys in all cases due to rounding.

**Question 2:**  **What were the major facilitators and barriers in implementing this strategy?  How were the barriers overcome?**

*2.1 Most frequently cited facilitators and barriers (e.g. professional development, technical assistance, communication methods, etc.) in implementing physical activity in ECEs*

*2.2 Percent of ECEs reporting barriers that also reported ways to overcome the barriers*

All 16 respondents listed at least one facilitator, and many listed two, that helped to implement IMIL-related physical activity.  Thirteen of the respondents also reported at least one barrier to implementing the physical activity changes (the other three specifically wrote that they had not faced any barriers).  Ten of the thirteen respondents reporting barriers (77%) also reported ways to overcome at least one of the barriers they raised.

**Facilitators**:
All 16 respondents listed at least one facilitator, and many listed two, for a total of 29 responses. The major themes to emerge were the importance of the IMIL training and other training

sessions, teacher and staff support, incorporating music into the day, building on existing physical activity policies and resources, and assistance from mentors.

*IMIL and other training*.  More than half of the respondents identified staff training as one of the most important facilitators to implementing physical activity changes.  One respondent noted that the ideas for incorporating physical activities was helpful, while another highlighted the music and other items, noting that the "new materials made it easier for the teaching staff to get the children physically moving."  One respondent stated that watching the trainers act out some of the songs and movement gave the trainees confidence and made them "feel more comfortable implementing" physical activity in their ECEs.

*Teacher and staff support*.  The second most commonly reported facilitator was support from teachers and staff, which was identified by seven respondents.  One respondent wrote that the teachers "lead the lessons and implement the plans and take it to another level of using their own ideas to modify plans according to the" needs of the children and parents involved.

*Existing policies and resources*.  Three respondents noted that they were able to coordinate their IMIL changes with pre-existing physical activity policies and resources.  One reported that their experience with soccer, yoga and music programs informed their implementation of IMIL activities, and another that guidelines provided by the YMCA and YWCA help guide their implementation of IMIL.

*Music*.  Three of the respondents identified the music accompanying the IMIL training as a major facilitator to realizing their physical activity goals.  "Children loved the CD and know the words and love to move to it," according to one respondent.

*Mentors*.  Three of the respondents reported that their mentors were one of the two biggest facilitators to implementing IMIL.  The mentor "provided support in developing our goals," wrote one respondent, "and encouragement to add MVPA to our daily schedule."

*Other*.  Other facilitators included having sufficient space for physical activity (which was used by children during the day and occasional family physical activity nights), support from the administration, and deliberately planning physical activities.

**Barriers**:
The respondents were provided space to identify the two most important barriers they faced when implementing IMIL-related physical activity changes and asked to explain how the barriers were overcome.  Thirteen of the respondents provided at least one barrier, and several provided two for a total of twenty responses.[48]  The identified barriers fell into five categories: lack of adequate space; challenges with gaining key stakeholder support; inadequate funding, equipment, or materials; time constrains; and staff availability.  Ten respondents supplied suggestions for overcoming the barriers.

*Lack of adequate space (particularly during bad weather)*.  Half of the respondents identified challenges related to having adequate space to conduct physical activity:  indoor space, outdoor

---

[48] One respondent listed the absence of a playground twice.  This is counted as one response here.

space, and space when the weather is not suitable for outdoor physical activity. One respondent stated that her center does not have "enough outside space for the children to enjoy" and another that the available space is so far distant that there is no time to bring any equipment there. The listed methods for overcoming insufficient space include:

- Applying for grants to get a new playground
- Obtaining a license to use a parking lot as a temporary playground
- Looking for suggestions for activities that require minimal amounts of space
- Using a "big room" indoors for physical activity when weather does not permit outdoor activities

*Challenges gaining support from key stakeholders (staff and parents).* Four of the respondents noted challenges getting the support of key stakeholders, specifically staff and parents. The suggested means of overcoming this barrier include:

- Providing physical activity information to parents
- Training and education opportunities for staff
- Monitoring of staff
- Providing support daily to staff implementing physical activities

*Funding, equipment, and materials.* Four of the respondents stated that their program was hampered by a lack of funding, equipment, or materials. Two of these respondents stated that their programs suffered from lack of sufficient funding generally, one wrote that more outside equipment was needed and the fourth that there was an insufficient number of CDs at the center. To address these barriers, respondents suggested:

- Using the stipend to purchase equipment and materials
- Building capacity for grant writing
- Holding fundraisers

*Time constraints.* Three respondents mentioned time constrains. "There is a ton going on already, and people feel stressed with work load now stated," explained one respondent, who then wondered, "How do we find time for more?"

*Staff availability.* Finally, one respondent alluded to a key staff person being absent and that this hindered the implementation of IMIL activity changes.

**Other respondent comments and suggestions**:
The respondents were invited to provide any additional comments they might have about participating in the IMIL partnership. Twelve of them chose to do so. Eleven of the respondents stated generally that they enjoyed participating. One respondent, for example, wrote that her staff "really enjoyed the IMIL training and implementation of it in our program" and another mentioned that "our program truly enjoyed our partnership with the Connecticut DPH…." Several expressed thanks to the ECE Team for organizing the partnership. Three respondents gave more specific comments expressing their satisfaction with the program. Two of the respondents mentioned the helpfulness of the mentors, one stating that "the mentors and all who took part in the IMIL program were awesome!!!" Another reported that the teachers now understood the connection between structured physical activity and learning. In addition to the mentors, the site visits and other resources were identified as being helpful. Two of the

respondents expressed some reservations about the mentors, however.  One stated that the mentor did "not provide extensive support" to her program (but then suggested that this might be because her ECE did not have much trouble implementing its physical activity goals).  Another stated only that the mentor "did not help."  Only one respondent provided a suggestion to improve the program for next year:  that respondent suggested making additional physical activity and nutrition trainings available to ECE staff (beyond the IMIL training).

# Part 3

## Physical Education and Physical Activity in K-12 Schools

*Comprehensive School Physical Activity Programs*

# Domain 2, Strategy 6:
# Implement Quality Physical Education and
# Physical Activity in K-12 Schools

# *Comprehensive School Physical Activity Programs*

For Domain 2, Strategy 6 (implement quality physical education and physical activity in K-12 schools), participating school districts in Connecticut are implementing Comprehensive School Physical Activity Programs (CSPAPs).  CDC's chronic disease prevention Domain 2 encompasses strategies that focus on environmental changes to make it easier for individuals to live a healthy life.  CSPAPs aim to encourage students in Kindergarten through grade 12 to engage in nationally recommended amounts of physical activity by ensuring adequate opportunities for physical activity in the school setting.  In Connecticut, four partner districts and 12 schools within those districts have implemented CSPAPs as part of the 1305 program since Year 1 of the grant.  This evaluation was designed to identify critical activities and resources for, and facilitators and barriers to, the successful implementation of CSPAPs in the partner districts and schools.

## CDC Core Evaluation Questions:

1) *What critical factors or activities influence the successful implementation of CSPAP?*

2) *To what extent has CSPAP implementation increased the number of physical activity opportunities available to students during the school day?*

Table 3.1 lists the evaluation questions and the associated indicators and data sources.

Table 3.1
*Evaluation Format*

| **Evaluation Q1:** What critical factors or activities influence the successful implementation of CSPAP? | | |
|---|---|---|
| | **Indicator** | **Data Source** |
| 1.1 | Number of state activities considered effective in promoting the implementation of CSPAPs as reported by HSCSS districts (along with a description of how they were helpful to implementing CSPAP activities) | HSCSS Year-End Report 2015-2016 |
| 1.2 | Number and type of professional development activities (conferences, trainings, webinars, etc.) attended by 1305 staff | CSDE PD list |
| 1.3 | Number of professional development and technical assistance interactions CSDE provided HSCSS districts and schools | HSCSS PD and TA List |
| 1.4 | Number of facilitators and barriers (e.g., effectiveness of professional development, technical assistance, communication methods, funding, etc.) to the implementation of CSPAPs (and descriptions of how the facilitators and barriers influence the implementation of CSPAPs) as reported by HSCSS districts | HSCSS Year-End Report 2015-2016 |

Table 3.1
*Evaluation Format*

| **Evaluation Q2:** To what extent has CSPAP implementation increased the number of physical activity opportunities available to students during the school day? | | |
|---|---|---|
| 2.1 | Percent of HSCSS districts that report implementing components of CSPAPs (e.g., daily physical education, recess, etc.) | HSCSS Year-End Report 2015-2016 |
| 2.2 | Percent of HSCSS pilot schools that report implementing components of CSPAPs (e.g., daily physical education, recess, etc.) | HSCSS Pilot School CSPAP Questionnaire, Physical Activity Inventory |

## Background

Comprehensive School Physical Activity Programs (CSPAPs) are school-based programs that adhere to a framework for physical education and physical activity promulgated by the Centers for Disease Control and Prevention (CDC), SHAPE America, and other partners. CSPAPs aim to increase physical activity opportunities for students in elementary through high school during the school day. Specifically, the goal of CSPAPs are to 1) "provide a variety of school-based physical activities to enable all students to participate in 60 minutes of moderate-to-vigorous physical activity each day" and 2) "provide coordination among the CSPAP components . . . so that all students will be fully physically educated and well-equipped for a lifetime of physical activity."[49]

The CDC began supporting a "holistic" approach to student health in the 1980s, when it developed the "Coordinated School Health Program" model. In 2008, in part to address rising rates of obesity, HHS released *Physical Activity Guidelines for Americans*, which included, among other things, the recommendation that Americans older than six years participate in at least 60 minutes of moderate to vigorous physical activity each day. That same year, the National Association for Sport and Physical Education (NASPE) released the position paper *Comprehensive School Physical Activity Programs* to provide suggestions on incorporating the 60 minute recommendation into a school setting.[50] In December of 2013, the CDC released *Comprehensive School Physical Activity Programs: A Guide for Schools*, which was developed in partnership with SHAPE America and other physical education specialists.[51]

A CSPAP has five basic components: quality physical education; physical activity during school; physical activity before and after school; staff involvement; and family and community engagement. The CDC suggests seven steps to implement and improve a CSPAP. These steps include: 1) establish a team to implement the CSPAP and designate a physical activity leader; 2) assess existing physical activity opportunities; 3) create a vision statement, goals, and objectives;

---

[49] Centers for Disease Control and Prevention. Comprehensive School Physical Activity Programs: A Guide for Schools. Atlanta, GA: U.S. Department of Health and Human Services; 2013.

[50] Hunt K and Metzler M (2017). Adoption of comprehensive school physical activity programs: A literature review, The Physical Educator, vol. 74 pp. 315-340.

[51] Centers for Disease Control and Prevention. Comprehensive School Physical Activity Programs: A Guide for Schools. Atlanta, GA: U.S. Department of Health and Human Services; 2013.

4) identify specific changes the program will make; 5) identify specific activities the CSPAP will include; 6) implement the program; 7) evaluate the program and revise where appropriate.[52]

Four school districts, and 12 individual schools within those districts, that are part of the state Healthy School Communities for Successful Students (HSCSS) partnership joined the 1305 program to implement CSPAPs. CSDE staff, in collaboration with DPH staff in the 2015-2016 school year, conducted activities designed to increase the capacity of HSCSS partner schools to implement high quality CSPAPs. These activities include the provision of professional development, technical assistance, and follow-up support; the dissemination of CSPAP resources and conducting site visits to review CSPAP policies; and the observation of CSPAP activities. Staff also discussed facilitators and barriers to implementing CSPAPs in the districts and schools. Four school districts joined the physical activity component of the HSCSS partnership in Year 1 of the 1305 grant, and all four continued their participation in Years 2, 3, and 4. In addition, twelve individual schools within those districts, called "pilot schools," participate in the 1305 program. Physical activity is one component of CSDE's HSCSS Partnership, which coordinates 1305 interventions with non-1305 interventions related to school health.[53] The results from Year 3 of the 1305 grant (2015-2016) are reported here.

## Data Collection

**Healthy School Communities for Successful Students (HSCSS) District Year-End Report 2015-2016**. The HSCSS District Year-End report collects data on progress towards implementing components of CSPAPs at the district level. The form was developed by DPH and CSDE to collect information for the 1305 report and other reports related to the HSCSS partnership. The four HSCSS districts were sent the form in the late spring of 2016 to provide data on the 2015-2016 school year. They were asked to complete the form and return it to CSDE by June 30, 2016. None of the districts returned the report by that date. One district completed and returned the form in March 2017. Thus, by the time of this report one out of four HSCSS districts had returned information for school year 2015-2016, for a response rate of 25 percent. The response rates to the HSCSS District Year-End Report for grant years 1 through 3 are displayed in Table 3.2.

Table 3.2
*Response Rates to HSCSS District Year-End Reports, Grant Years 1 through 3*

| Grant Year | Response Rate |
|---|---|
| Year 1 (2013-2014) | 100% |
| Year 2 (2014-2015) | 75% |
| Year 3 (2015-2016) | 25% |

**HSCSS Performance Measure Questions**. The HSCSS Performance Measure Questions form includes five questions. Relevant to physical activities, it asks respondents: "How many schools

---

[52] Centers for Disease Control and Prevention. Comprehensive School Physical Activity Programs: A Guide for Schools. Atlanta, GA: U.S. Department of Health and Human Services; 2013.

[53] Connecticut State Department of Education, Healthy School Communities for Successful Students (updated May 3, 2017), available at: http://www.sde.ct.gov/sde/cwp/view.asp?a=2678&q=335222 (accessed May 8, 2017).

in the district require DAILY physical education?" and to identify "the total number of schools in your district (excluding preschools)." The three districts that did not return the HSCSS District Year-End report completed this much briefer form.

**2015-2016 Pilot School CSPAP Questionnaire, Physical Activity Inventory**. The Physical Activity Inventory invited HSCSS pilot schools to list the opportunities for MVPA that they had provided to students, staff, and the community in the 2015-2016 school year. The inventory provided space for staff to list physical activities and identify to which component of CSPAP they belonged. Eleven of the twelve pilot schools returned the inventory for a response rate of 92 percent.

**Connecticut's 1305 CSPAP Professional Development List**. The CSPAP 1305 team, which included staff from DPH and CSDE during the 2015-2016 school year, provided a list of the professional development sessions related to CSPAPs that team members attended during that school year.

**HSCSS Professional Development/Technical Assistance List**. Connecticut 1305 staff working with CSPAP implementation provided a list of technical assistance and professional development provided to staff in the HSCSS districts related to CSPAPs.

## Question 1: What critical factors or activities influence the successful implementation of CSPAP?

### 1.1 Number of state activities considered effective in promoting the implementation of CSPAPs as reported by HSCSS districts (along with a description of how they were helpful to implementing CSPAP activities)

The HSCSS districts were asked to rate the helpfulness of four types of state activities: professional development; one-on-one technical assistance; site visits; and distribution of resources, tools or guidelines, focusing on the 2015-2016 academic year. The respondents could rate the activities as not at all helpful, somewhat helpful, or very helpful. (Only one district responded and, therefore, the answers should be interpreted cautiously as that district's experiences may or may not be similar to the experience of the other districts.)

As shown in Table 3.3 the respondent found DPH/CSDE's professional development sessions and site visits to be somewhat helpful in promoting CSPAPs in the district. It did not, however, believe that the one-on-one technical assistance or state distributed resources were helpful (Table 3.3).

The respondent was not given the opportunity to provide reasons for why it found the state activities to be helpful or not for the 2015-2016 school year.

Table 3.3
*To What Extent Were the Following State-Activities Helpful in Assisting the District to Promote Its Comprehensive School Physical Activity Program?*

|  | **Not at all helpful** | **Somewhat helpful** | **Very helpful** |
|---|---|---|---|
| Professional Development |  | ✓ |  |
| One-on-one technical assistance | ✓ |  |  |
| Site visits |  | ✓ |  |
| Distribution of resources, tools or guidelines | ✓ |  |  |

### *1.2 Number and type of professional development activities (conferences, trainings, webinars, etc.) attended by 1305 staff*

Three state-level 1305 staff members collectively attended 22 professional development activities related to physical activity during the 2015-2016 school year. These activities included one conference, three training events, eight webinars, and ten conference calls. The conference was the Connecticut Public Health Association Annual Conference on October 23, 2015. All of the three training sessions were focused on building evaluation capacity; they occurred on March 16, March 30, and April 13, 2016. Of the eight webinars, one focused specifically on implementing CSPAPs and seven included physical activity components. There were ten conference calls: nine with the National Association of Chronic Disease Directors (NACDD) and one with the CDC.

### *1.3 Number of professional development and technical assistance interactions CSDE provided HSCSS districts and schools*

CSDE and DPH staff provided two professional development sessions, made site visits to eleven of the pilot schools, and provided twenty other instances of technical assistance in 2015-2016, relevant to the 1305 CSPAP program. The first professional development was entitled "Comprehensive School Physical Activity Programs" and was offered on December 1, 2015. Staff from three of the four HSCSS districts attended. Topics discussed included strategies to develop, implement and evaluate CSPAPs, and learning about resources available to districts to increase capacity to provide opportunities to be physically active. The staff also discussed the Whole School, Whole Community, Whole Child model, which, among other things, aligns with the goal of CSPAPs to increase student physical activity. The second professional development was offered on April 5, 2016. This session was entitled "Local Wellness Policy (LSWP): Development and Implementation Training." The session focused on implementing local school wellness policies (LSWPs), and the federal and state laws governing these policies. General information was also provided on developing, implementing, and evaluating LSWPs.

Staff from CSDE and DPH also visited all of the pilot schools within the HSCSS districts to provide technical assistance in 2015-2016. These visits occurred between March 8 and June 14, 2016. Among other things, CSDE and DPH staff provided guidance on assessing Year 3 physical activities and using the results to plan for Year 4 physical activities. As an example, CSDE developed and provided to HSCSS districts a Physical Activity Inventory form to collect data on physical activities in the pilot schools that are implementing CSPAPs at the school level.

The other instances of technical assistance included 12 email-based communications, four telephone calls, three meetings, and one presentation. These were provided between September 1, 2015 and June 1, 2016.

***1.4 Number of facilitators and barriers (e.g., effectiveness of professional development, technical assistance, communication methods, funding, etc.) to the implementation of CSPAPs (and descriptions of how the facilitators and barriers influence the implementation of CSPAPs) as reported by HSCSS districts***

The four HSCSS districts were invited to identify whether various items helped or hindered the implementation of CSPAPs in their district. One district responded. The results are provided below. The responses may or may not reflect the experience of the non-responding districts.

The districts were provided a list of 14 items and were asked to rate each item on whether it helped to implement CSPAPs in the district. The districts could rate the items from 1 (not at all) to 5 (a great deal). The districts were also presented with an "other" option that enabled them to provide a facilitator that was not otherwise included in the list. The only item that the respondent identified as having helped a great deal was student acceptance and engagement with the process. The respondent reported that most of the items were only somewhat helpful, rating them as a 3. Local board of education support was marked as not being helpful at all. The respondent did not suggest any additional facilitators. The full results are displayed in Table 3.4.

Table 3.4
*List of Facilitators (Districts)*

| How much did the following factors <u>HELP</u> with implementation of CSPAPs? | | | | | |
|---|:---:|:---:|:---:|:---:|:---:|
| | **1**<br>**(Not at all)** | **2** | **3** | **4** | **5**<br>**(a great deal)** |
| Staff cooperation or support | | | ✓ | | |
| Staff interest or motivation | | | ✓ | | |
| Administrative support | | ✓ | | | |
| District wellness coordinator support | | | ✓ | | |
| Local board of education support | ✓ | | | | |
| Student acceptance/engagement | | | | | ✓ |
| Coordination of local wellness team members | | | ✓ | | |
| Adequate outdoor space | | | | ✓ | |
| Adequate indoor space | | | ✓ | | |
| Community engagement/partnerships | | ✓ | | | |
| Family engagement/partnerships | | ✓ | | | |
| Financial resources (i.e. grants or other funding sources) | | | ✓ | | |

Table 3.4
*List of Facilitators (Districts)*

| How much did the following factors <u>HELP</u> with implementation of CSPAPs? | | | | | |
|---|---|---|---|---|---|
| | **1** **(Not at all)** | **2** | **3** | **4** | **5** **(a great deal)** |
| Resources (not funding) and technical assistance <u>not provided</u> by CSDE staff through the HSCSS partnership | | ✓ | | | |
| Staff training and/or professional development <u>not provided</u> by CSDE staff through the HSCSS Partnership | | | ✓ | | |

The districts were invited to list what they found to be the two most important facilitators. The respondent identified staff professional development and grants and other funding, explaining that professional development kept "everyone . . . on the same page" and that the district "always needs money." The respondent did not describe, however, how it used grant funding to further improve CSPAP implementation.

Table 3.5
*Most Important Facilitators*

| **Facilitator** | **How Facilitator Helped** |
|---|---|
| "Staff professional development" | "Everyone is on the same page and gets information" |
| "Grants and funding" | "We always need money" |

The districts were invited to provide feedback on barriers to implementing CSPAPs in their districts. They were presented with a list of 16 potential barriers and asked to rate them from 1 (not a barrier) to 5 (a significant barrier). The districts were also given the opportunity to provide a barrier not otherwise included on the list. The respondent did not identify any of the items as a significant barrier. The respondent did rate five of the items as a 4, however, indicating that they were a barrier to some degree. These items included: lack of time for local wellness team members; lack of monetary resources; staff and administrative turnover; lack of technical assistance and other resources; and CSPAPs not being a priority.

Table 3.6
*List of Barriers (Districts)*

| How much did the following factors serve as <u>BARRIERS</u> to the implementation of CSPAPs? | | | | | |
|---|---|---|---|---|---|
| | **1** **(not a barrier)** | **2** | **3** | **4** | **5** **(a significant barrier)** |
| Lack of staff cooperation or support | | | ✓ | | |
| Lack of administrative support | | ✓ | | | |
| Lack of district wellness coordinator support | | | ✓ | | |
| Lack of local board of education support | | ✓ | | | |
| Lack of student acceptance | ✓ | | | | |

Table 3.6
*List of Barriers (Districts)*

| How much did the following factors serve as <u>BARRIERS</u> to the implementation of CSPAPs? | | | | | |
|---|---|---|---|---|---|
| | **1**<br>**(not a**<br>**barrier)** | **2** | **3** | **4** | **5**<br>**(a significant**<br>**barrier)** |
| Lack of time or coordination of local wellness team members | | | | ✓ | |
| Lack of monetary resources | | | | ✓ | |
| Staff and administrative turnover | | | | ✓ | |
| Lack of indoor space | | ✓ | | | |
| Lack of outdoor space | | ✓ | | | |
| Lack of resources and technical assistance unrelated to funds | | | | ✓ | |
| Weather | | | ✓ | | |
| Lack of staff training | | | ✓ | | |
| Not a priority | | | | ✓ | |
| No consequences of non-compliance | | | ✓ | | |
| Lack of knowledge of how to implement | | | ✓ | | |

The districts were asked to identify the two most important barriers to implementing CSPAPs and provide their strategies to overcome the barrier. The first barrier the respondent provided did not appear on the closed list: The respondent reported that there were too many mandates and requirements. The respondent further stated that this barrier was not addressed. The respondent did not state whether implementing CSPAPs themselves were administratively difficult or whether mandates and requirements related to other programs used up time that could otherwise be spent implementing CSPAPs. Lack of funding was the second barrier identified by the respondent. It is unclear what part of CSPAP could not be implemented due to lack of funding and no means of addressing this barrier was provided.

Table 3.7
*Most Important Barriers and Strategies to Overcome the Barriers*

| Barrier | Strategy to Address Barrier |
|---|---|
| "Too many mandates and other requirements" | "These barriers were not overcome" |
| "Lack of funding to run programs" | [no response] |

**Question 2:** **To what extent has CSPAP implementation increased the number of physical activity opportunities available to students during the school day?**

*2.1 Percent of HSCSS districts that report implementing components of CSPAPs (e.g., daily physical education, recess, etc.)*

The districts were asked to report on activity opportunities that were available in the 2015-2016 school year from four of the five CSPAP components. The four components include: quality physical education; physical activity during school; physical activity for staff; and physical activity for community members. This information was collected with the HSCSS District Year-End Report. One district responded (and is referred to as "the respondent" in this section). The three other districts provided limited information on physical education through the HSCSS Performance Measure Questions form.

**Physical Education:**
The respondent reported that it had identified a staff member to coordinate all of the district's physical education activities in the 2015-2016 school year. The respondent also required that all physical education teachers receive discipline-specific training. It presented the physical education teachers with a written list of goals, objectives and expected outcomes; a written physical education curriculum; and resources for fitness testing and physical activity monitoring devices, such as a pedometer. The respondent further reported having written policies requiring the individual schools to follow specific education standards; requiring physical education to be graded similar to other subjects; and requiring a specific number of minutes per day or per week that students must be provided physical education.

The respondent did not have a district-wide policy requiring daily physical education and none of the district's schools required that its students attend daily physical education. Two of the other HSCSS districts similarly reported that none of their schools require daily physical education. The fourth district reported that 17 of its 18 schools require daily physical education.

**Physical activity during school:**
The respondent reported that it had district-wide written policies specifying a minimum number of minutes of physical activity students should receive per day; prohibiting the withholding of recess for academic or disciplinary reasons; and supporting physical activity breaks in the classroom. The respondent also stated that it encouraged school staff to offer physical activity opportunities to students by participating in the Go Noodles physical activity program, allowing staff to offer students extra recess, and sponsoring a health fair.

**Physical activity before and after school:**
The districts were not asked to provide information on district-wide policies or practices for before or after school activities in the 2015-2016 school year.

**Physical activity for staff:**
The respondent did not offer physical activities to staff as part of an employee wellness program in school year 2015-2016.

**Physical activity for community members:**
The respondent did not partner with families or community groups to implement CSPAPs in 2015-2016, nor did it report any community use agreements with community groups to increase opportunities for community members to be physically active during the 2015-2016 school year.

***2.2 Percent of HSCSS pilot schools that report implementing components of CSPAPs (e.g., daily physical education, recess, etc.)***

Eleven of the twelve participating HSCSS pilot schools returned the Physical Activity Inventory, listing physical activities that they made available to students and others during the 2015-2016 school year.  Only three of the schools, however, identified which CSPAP component was associated with the listed activity.  For the great majority of activities, then, what population was offered the activity; whether the activity occurred during, before or after school; and whether the activity was offered as part of a physical education class or not, cannot be determined from the answers provided.

Of the three respondent schools that identified the CSPAP component associated with their listed activities, all three offered activities provided before or after school; two reported offering physical education classes; two listed physical activities provided during school; two listed activities involving staff; and one listed activities involving the community.

The two schools that listed physical education merely listed "PE," with one indicating that physical education classes are offered every other day.  Both of the respondents citing physical activity during school listed "brain breaks."  Club activities and periodic fitness events (such as health fairs) were also identified.  All three schools listed activities provided before and after school, these included team sports clubs, a yoga club, and a Frisbee-related game.  Two of the schools mentioned involving staff.  One listed "staff walking" as an activity opportunity for staff, though it is not clear whether this is an organized activity or not.  Another respondent school cited particular events, such as an annual health fair and field trips.  The one school indicating community involvement similarly listed infrequent events such as field trips.

The schools that did not identify CSPAP components listed many different examples of physical activities at their schools, including, among other things, sports clubs, dance and music clubs, physical education electives, brain breaks, field trips, field days, recess, parent information sessions and participation in the Go Noodle program.

# Part 4

# Health Care Extenders in the Community in Support of Self-Management of High Blood Pressure

*Medication Therapy Management*

# Domain 4, Strategy 3:
# Increase Use of Health Care Extenders in the Community In Support of Self-Management of High Blood Pressure
## *Medication Therapy Management*

Medication Therapy Management (MTM) is the intervention being evaluated for Domain 4, Strategy 3: Increase Use of Health Care Extenders in the Community in Support of Self-Management of High Blood Pressure. CDC's chronic disease prevention Domain 4 includes strategies that focus on community-clinical linkages, that is, disease prevention and management programs available in the community that are coordinated with primary care. MTM is a type of pharmacy practice in which pharmacists discuss patients' medications with them, and make medication-related recommendations to patients and patients' medication prescribers when appropriate. Connecticut's 1305 program encourages community pharmacists to become certified in MTM and assists community pharmacies across the state offer MTM services. The purpose of the evaluation of this intervention is to assess the progress in certifying Connecticut pharmacists in MTM; the experience of pharmacists participating in MTM supported by 1305; and the initiation and strengthening of programs that support the use of pharmacists as health care extenders. (The effectiveness of the MTM program itself is not part of this evaluation report.)

**CDC Core Evaluation Questions:**

1) *How has the state promoted the use of health care extenders in the community in support of self-management of high blood pressure? What were the key facilitators and barriers to initiating MTM?*

2) *What policies/systems facilitate the support and promotion of the increased use of pharmacists as health care extenders?*

Table 4.1 lists the evaluation questions and the associated indicators and data sources.

Table 4.1
*Evaluation Format*

| **Evaluation Q1:** How has the state promoted the use of health care extenders in the community in support of self-management of high blood pressure? What were key facilitators and barriers? | | |
| --- | --- | --- |
| | **Indicator** | **Data Source** |
| 1.1 | Percent of community pharmacists in the state certified in MTM. (Aligns with performance measure 4.3.03: "Proportion of community pharmacists that promote medication- | CT-Department of Consumer Protection registry of licensed pharmacists. Rosters for certification programs |

Table 4.1
*Evaluation Format*

| | | management or self-management for adults with high blood pressure.") | funded by 1305 or sponsored by SOP and CPA (APhA program) |
|---|---|---|---|
| | 1.2 | Number of 1305 MTM trained pharmacists who report specific facilitators and barriers | MTM Pharmacists Survey |
| **Evaluation Q2:** What policies/systems facilitate the support and promotion of the increased use of pharmacists as health care extenders? | | | |
| | 2.1 | Number, type, influence of policies /systems that support and promote the increased use of pharmacists for management of high blood pressure | Key Informant Survey |

## Background

Pharmacists providing MTM services educate patients on self-management techniques and assist patients develop medication-related action plans. According to the American Pharmacists Association, an MTM program has five core components: medication therapy review, personal medication record, medication-related action plan, intervention and referral, and documentation and follow-up.[54] MTM aligns with the Community Preventive Services Task Force's Community Guide recommendation on team-based care of hypertension[55] and guidelines from the CDC's Million Hearts Initiative.[56] The University of Connecticut (UConn) School of Pharmacy developed a partnership with an urban five-pharmacy chain in Year 1. Subsequently, the partnership was expanded to a second chain in Year 2. Seven additional community pharmacists joined in Year 3 and six in Year 4. This report focuses on the results from Year 3 of the 1305 grant (2015-2016). Preliminary data from Year 4 is included where available.

**Data sources:**

- MTM certification records. Rosters of Connecticut-licensed pharmacists who completed MTM certification through UConn's School of Pharmacy or the Connecticut Pharmacists Association (CPA).

- MTM Pharmacist Survey. The survey focuses on the experiences of pharmacists participating in the 1305-funded MTM program and perceived facilitators and barriers to program implementation.

---

[54] American Pharmacists Association and National Association of Chain Drug Stores Foundation (2008). Medication Therapy Management in Pharmacy Practice: Core Elements of an MTM Service Model. *Journal of the American Pharmacists Association*, 48:341-353. doi: 10.1331/JAPhA.2008.08514 A version of this report is available online at: http://www.pharmacist.com/sites/default/files/files/core_elements_of_an_mtm_practice.pdf (accessed May 15, 2017).
[55] *Cardiovascular Disease Prevention and Control: Team –Based Care to Improve Blood Pressure Control*. The Guide to Community Preventive Services, available at: http://www.thecommunityguide.org/cvd/teambasedcare.html (accessed May 15, 2017).
[56] Million Hearts, available at: http://millionhearts.hhs.gov/ (accessed May 15, 2017).

- Key Informant Survey. The Key Informant Survey of pharmacy and health care reform leaders in Connecticut focuses on policies and practices carried out in Connecticut during the 1305 period, related to the implementation of MTM.

**Question 1:** **How has the state promoted the use of health care extenders in the community in support of self-management of high blood pressure? What were the key facilitators and barriers?**

### *1.1 Percent of community pharmacists in the state certified in MTM*

Near the end of Year 3 (June, 2016), an estimated 3.3 percent of pharmacists practicing in community settings in Connecticut were certified in MTM.[57] The number of pharmacists certified in MTM was at least 54 and the total number of community pharmacists, as of May, 2016, was an estimated 1,650.[58]

There is currently no comprehensive list of pharmacists who are certified in MTM and practicing in Connecticut. To obtain an approximate count, CPHHP requests certification records from UConn's School of Pharmacy and the Connecticut Pharmacists Association (CPA) (the Connecticut chapter of the American Pharmacists Association) annually. Although there are other online and in-person MTM certification programs available nationally, the consensus view of pharmacy leaders in Connecticut is that certifications from other programs would be an insignificant number in Connecticut.

A pharmacist does not need to practice in Connecticut or even be licensed in the state to participate in an MTM certification program located in the state. Therefore, the record for each MTM certified pharmacist is checked against Connecticut's pharmacist licensing records. Only Connecticut-licensed pharmacists are included in this report.[59] Not all pharmacists licensed by Connecticut practice in the state. Publically available pharmacist licensing records include an address for each pharmacist. For the purpose of this report, we assume that the state listed on the license is the state in which the pharmacist practices. (Pharmacists participating in Connecticut's 1305 MTM intervention are assumed to practice in Connecticut, regardless of the state listed on their license). This process of verification was used in Year 2 and Year 4. In Year 3, CPHHP was not able to obtain the list of pharmacists certified through the CPA and so could not verify that the six pharmacists reported to have received MTM certification through it that year practice in Connecticut.

The number of Connecticut pharmacists certified in MTM was compared to total community pharmacists in Connecticut.[60] Based on data provided by the United States Bureau of Labor

---

[57] This assumes all Connecticut pharmacists certified in MTM practice in community settings.

[58] The number of MTM certified pharmacists was at least 61 on July 1, 2017. The BLS pharmacist estimates that form the basis of the estimate of community pharmacists in Connecticut for 2017 is expected to be available in May, 2018.

[59] The state of Connecticut maintains an online listing of all licensed pharmacists in Connecticut (https://www.elicense.ct.gov).

[60] On June 1, 2016 there were 5,679 pharmacists licensed by the state of Connecticut. Of those, 3,405 listed Connecticut addresses. The licensing records do not include information on whether the pharmacist is actively practicing or, if so, in what sector (e.g., research, community pharmacy, academia, etc.). Therefore, this number was not used as the estimate of community pharmacists in Connecticut.

Statistics, Occupational Employment Statistics (BLS-OES), there were approximately 1,650 community pharmacists practicing in Connecticut in May, 2016 (the most recent data available at the time of this report). BLS-OES does not directly provide an estimate of community pharmacists practicing in Connecticut, but it does provide an estimate of all practicing pharmacists in the state, which was 2,730 in May 2016.[61] Nationally, approximately 60.4 percent of all practicing pharmacists were employed in a community setting (pharmacies, grocery stores, general merchandise stores, etc.).[62] The estimate of 1,650 practicing community pharmacists in Connecticut assumes that the distribution of pharmacists is similar in Connecticut to the United States as a whole.

Table 4.2 displays an estimate of the number of Connecticut-licensed pharmacists who have received certification to provide MTM services as of June 1, 2016 and the number who join the 1305 program each year. Seven pharmacists who received MTM certification joined the 1305 program in Year 3. Two Connecticut pharmacists who did not participate in the 1305 MTM intervention received an MTM certification through UConn's School of Pharmacy and, according to the CPA, six pharmacists received MTM certification through APhA programs in Year 3. Preliminary results from Year 4 (July 1, 2016 – June 30, 2017) are based on MTM certification lists from both UConn's School of Pharmacy and the CPA and are included in Table 4.2. As of July 1, 2017, three Connecticut pharmacists received MTM certification through the CPA and four through UConn's School of Pharmacy in Year 4. Six pharmacists joined the 1305 program in Year 4, increasing the total to 22 pharmacists involved with the program.

### 1.2 Number of 1305 MTM trained pharmacists who report specific facilitators and barriers

In Year 3, ten pharmacists certified in MTM reported specific facilitators and barriers to providing MTM services.

To measure the facilitators and barriers faced by MTM pharmacists in the community, the evaluation team focused on the experience of pharmacists participating in Connecticut's 1305 program. These pharmacists are invited annually to complete a survey and provide information on their experience with the program. The survey was first administered in January 2015, then again in summer of 2015 and summer of 2016. The responses to the third administration of the survey are reported here.

In the first year, three pharmacists certified in MTM joined Connecticut's 1305 MTM intervention. Six more joined in Year 2 and seven in Year 3, for a total of 16 MTM-certified pharmacists. Two of the three pharmacists responded to the survey in Year 1, four responded in Year 2 and ten responded in Year 3. The yearly response rates are displayed in Table 4.3. Seventy-five percent of the pharmacists participating in the 1305 program have completed the survey at least once.

---

[61] Bureau of Labor Statistics, May 2014 State Occupational Employment and Wage Estimates, Connecticut, available at: http://www.bls.gov/oes/current/oes_ct.htm#29-0000 (accessed May 15, 2017).

[62] The Bureau of Labor Statistics allows the public to create tables for many occupations and industries through its occupational employment statistics query system, available at: https://data.bls.gov/oes/#/home (accessed Mary 15, 2017). For this report the option "one occupation for multiple industries" was selected. "Community pharmacist" was defined as Standard Occupational Code (SOC) sectors 44 and 45 ("Retail trade"), less SOC 454000 ("Nonstore Retailers").

Table 4.2

*Connecticut Pharmacists Certified in Medication Therapy Management (MTM)*

Total Licensed Pharmacists = 5679[63]    Estimated number of pharmacists in community settings = 1,650[64]

| By address of license | Conn. Licensees (6/1/16) | Year 2 2014-2015 | | | Year 3 2015-2016 | | | Year 4 2016-2017 | | | Year 5 2017-2018 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1305[65] | SOP | CPA | 1305[66] | SOP | CPA | 1305[67] | SOP | CPA | 1305 | SOP | CPA |
| New England States | | | | | | | | | | | | | |
| CT | 3,405 | 6 | 10 | 21 | 7 | 3 | 6* | 6 | 4 | 3 | | | |
| Other NE states | 712 | | | | | | | | | | | | |
| Mid-Atlantic | 708 | | | | | | | | | | | | |
| Other | 854 | | | | | | | | | | | | |
| Total | 5,679 | 9[68] | 24[69] | 21 | 16 | 27 | 27* | 22 | 31 | 30* | | | |

*CPHHP received only a count, not a list, of pharmacists certified in MTM through the APhA in Year 3, and, therefore, could not verify that the six pharmacists had Connecticut addresses.

[63] State of Connecticut licensing website: https://www.elicense.ct.gov (accessed 6/1/2016).

[64] Based on BLS-OES estimates of pharmacists practicing in Connecticut and national average of pharmacists practicing in the community, May 2016.

[65] Pharmacists joining the 1305 program in Year 2 (including pharmacists certified by SOP and CPA).

[66] Pharmacists joining the 1305 program in Year 3 (including pharmacists certified by SOP and CPA).

[67] Pharmacists joining the 1305 program in Year 4 (including pharmacists certified by SOP and CPA).

[68] This includes three Connecticut licensed pharmacists who joined the 1305 program in Year 1 and six who joined in Year 2.

[69] Connecticut's School of Pharmacy began certifying pharmacists in MTM in June of 2013. The number displayed includes all pharmacists who received certification in MTM through the SOP as of June 30, 2015 who had a Connecticut license and listed a Connecticut address on that license.

Table 4.3
*Pharmacist Yearly Response Rates*

|  | Invited | Responded | Response rate |
| --- | --- | --- | --- |
| Year 1 | 3 | 2 | 67% |
| Year 2 | 9 | 4 | 44% |
| Year 3 | 16 | 10 | 63% |
| Year 1, 2, or 3 | 16 | 12 | 75% |

The respondents were presented with a list of 15 statements regarding various aspects of implementing the MTM program. They were invited to mark one of five responses to each statement, ranging from strongly disagree to strongly agree. These closed-ended questions touch upon five aspects of delivering MTM services: time, relationship with patients and prescribers, logistics, training and education, and cultural competency. Low scores are interpreted as indicating barriers and high scores as indicating facilitators.[70]

The respondents were also invited to provide open-ended answers to questions about facilitators and barriers encountered during the implementation of the service. Specifically, they were asked to "describe two barriers that you view as being the greatest obstacles of patients to participate in the MTM program." Next, they were asked to "describe two facilitators that you view as having the greatest positive impact on encouraging patients to participate in the MTM program."[71] In some cases the respondents discussed the aspects of the program raised in the closed questions, in other instances they discussed other aspects of the program, including facilitators and barriers related to: referrals, recruitment, and scheduling; patient transportation; patient knowledge and attitudes about receiving care; and the role of other health care workers.

**Time-related:**
A majority of the respondents indicated that they had sufficient time to complete activities related to providing direct service to patients and completing paperwork about the service. One-third, however, disagreed. One respondent noted that patients often do not know their "numbers," and so the pharmacist must use a great deal of time determining whether the patient is eligible for MTM services.[72]

A majority of respondents thought that there was sufficient time to visit with the patient and complete the accompanying paperwork. A majority disagreed, however, that there was sufficient
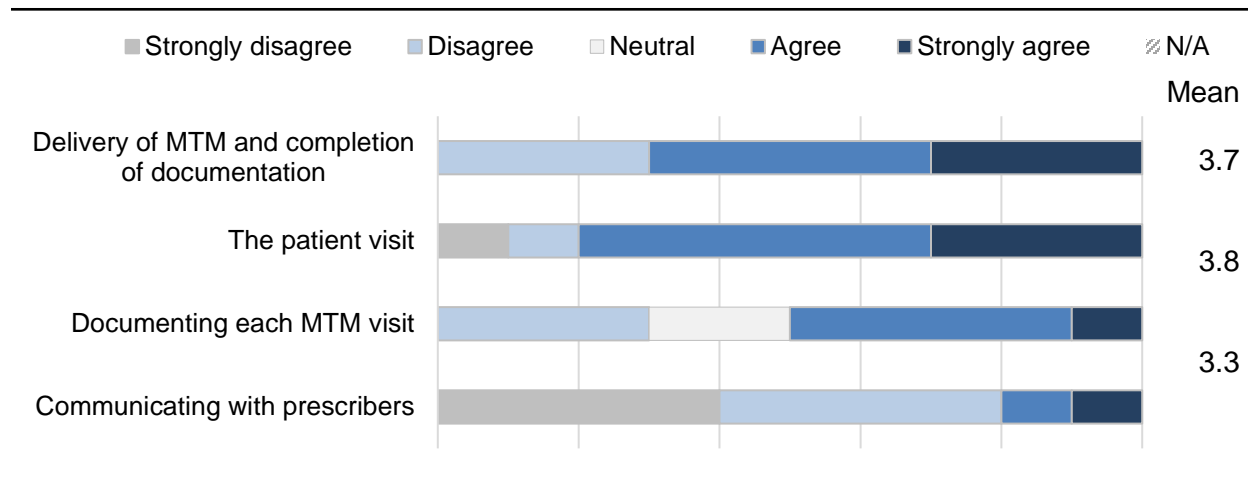
---

[70] The particular wording of some questions required the respondent to score an item as "5" if the item described a challenge (e.g., "It is difficult to find a private space to provide MTM services to patients."). In order to compare the responses to these items with the other items (where a score of "1" indicates a challenge), the responses have been reverse coded, so that, for all items, a score of "1" indicates a challenge.

[71] The respondents were also provided separate spaces to discuss how the barriers were overcome and describe how the facilitators were helpful. Some respondents alluded to possible additional barriers and facilitators when providing these descriptions. For the purpose of this report, only the facilitators and barriers marked as such are discussed.

[72] There is no minimum blood pressure level patients must have to participate in the MTM intervention. Pharmacists were requested, however, to prioritize the highest-risk patients.

time to communicate with prescribers.  Only one of the ten respondents strongly agreed that there was sufficient time for this.
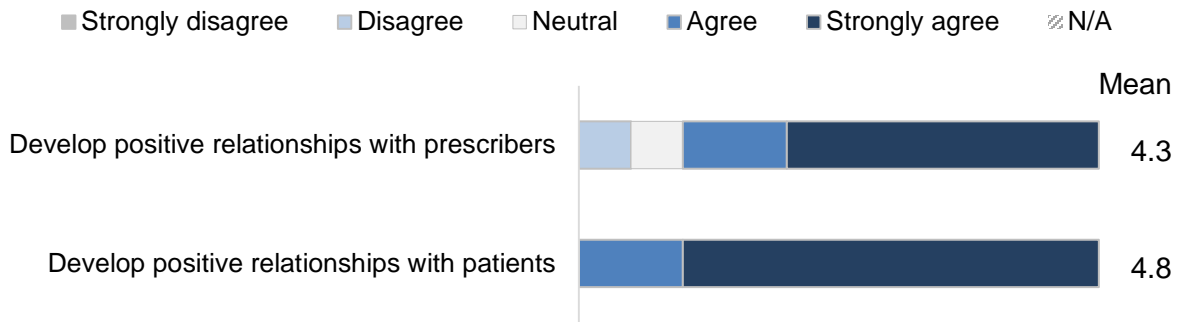
Figure 4.1
*Sufficient Time for…*



| | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | N/A | Mean |
|---|---|---|---|---|---|---|---|

Delivery of MTM and completion of documentation — 3.7

The patient visit — 3.8

Documenting each MTM visit — 3.3

Communicating with prescribers

**Relationships with prescribers and patients:**
The two questions about developing relationships with prescribers and patients elicited some of the highest ratings in the survey.  In addition, there were eight open-ended comments that touched upon these relationships.  Every respondent agreed that they were able to develop positive relationships with their MTM patients, and eight of them strongly agreed.  One respondent noted that the "opportunity to establish a personal relationship between patient [and] pharmacist has helped facilitate the process [of providing MTM]."  A few respondents provided specific ways they encouraged this.  One noted that providing incentives to the patients helped, because it "shows that the time spent with the patient is valuable to the pharmacist."  Another found that providing "positive words" of encouragement to the patient was helpful and a third offered that "listening to [patient] concerns and not trying to 'sell' the program" was important to build rapport.

A majority of the respondents also indicated that they developed a positive relationship with prescribers (although one disagreed that this was the case and a second provided a "neutral" response).  Two respondents mentioned that securing provider buy-in was important but difficult.  One respondent suggested speaking to provider groups and presenting the benefits of MTM services could improve provider buy-in.  A respondent also noted that some patients become discouraged when they believe that their doctor does not take sufficient time to discuss their condition with them and suggested that pharmacists could assist in these conversations when they are included on the patient's care team.

Figure 4.2
*Developing Positive Relationships*



| | Mean |
|---|---|
| Develop positive relationships with prescribers | 4.3 |
| Develop positive relationships with patients | 4.8 |

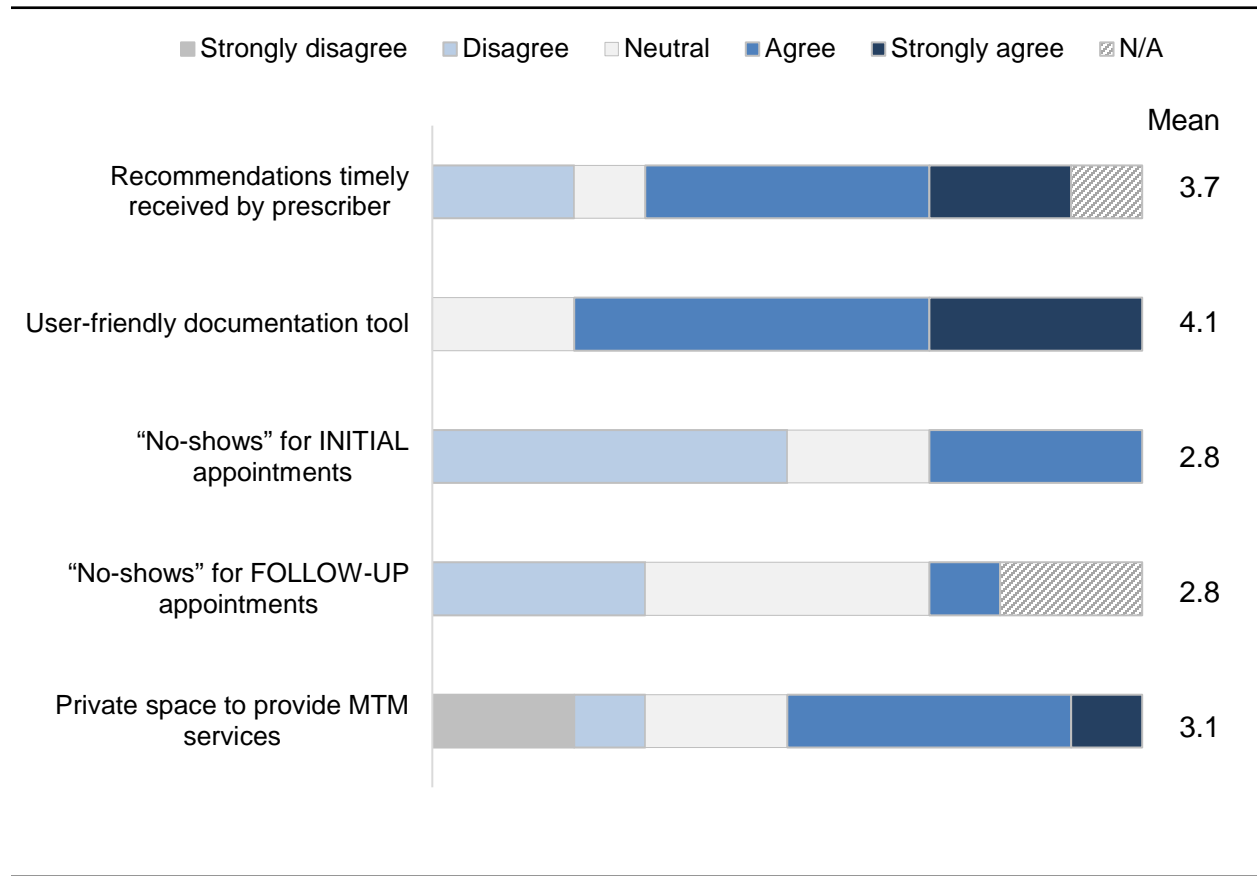Legend: ■ Strongly disagree ■ Disagree ☐ Neutral ■ Agree ■ Strongly agree ▨ N/A

**Logistics:**

The respondents were asked about five specific aspects of delivering MTM services, listed in Figure 4.3. Several respondents also raised other aspects of delivery in their open-ended answers. Most of the respondents agreed that the MTM documentation tool was user friendly; none disagreed though two provided a neutral response. A majority of the respondents, six, agreed that their recommendations were received by prescribers in a timely manner. Two respondents disagreed, one provided a neutral answer and one stated that this item was not applicable. One respondent provided additional information, asserting that it was sometimes difficult to reach prescribers. This respondent further suggested that, to avoid delays, the pharmacists should have a collaborative practice agreement in place with prescribers. One respondent noted that the pharmacist incentive enabled the pharmacists to provide services other than simply prescription-filling.

The majority of respondents provided neutral or negative responses regarding patients who fail to show up for either their initial appointments or follow-up, although more respondents indicated problems with "no-shows" at the initial appointment than for follow-up. Two of the respondents noted that being able to provide gift cards to the patients encouraged them to keep follow-up appointments.

Half of the respondents agreed that there was adequate space at their pharmacies to provide MTM services. Three of the respondents provided a negative response, however, and of them, two strongly disagreed that they had adequate space. "The lack of private space makes it difficult to discuss health issues with the patient outside of earshot of other patients or employees," according to one respondent. This respondent further noted that lack of privacy makes some patients uncomfortable when receiving MTM services.

Respondents also noted the cost of medication and compilation of blood reports as barriers to delivering MTM services.
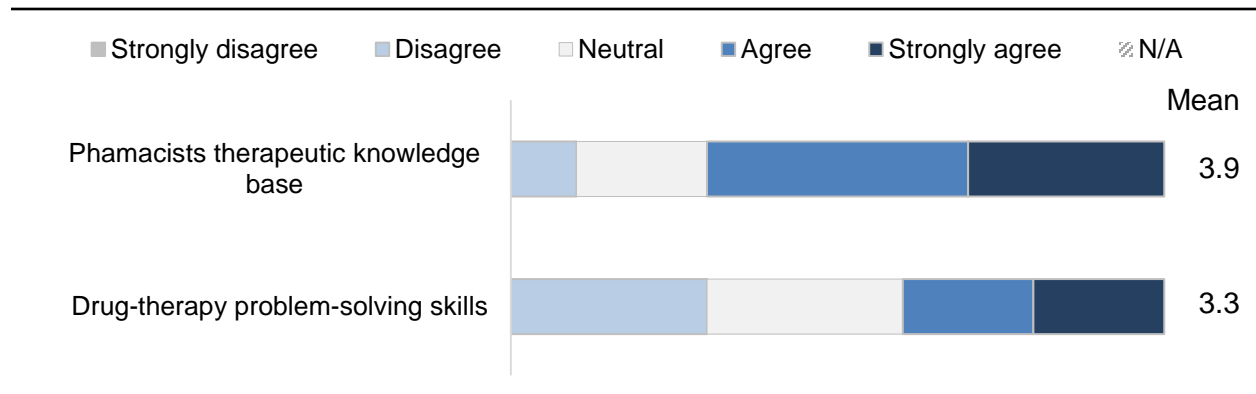
Figure 4.3
*Logistics*



Figure legend: ■ Strongly disagree ■ Disagree □ Neutral ■ Agree ■ Strongly agree ▨ N/A

| Item | Mean |
|---|---|
| Recommendations timely received by prescriber | 3.7 |
| User-friendly documentation tool | 4.1 |
| "No-shows" for INITIAL appointments | 2.8 |
| "No-shows" for FOLLOW-UP appointments | 2.8 |
| Private space to provide MTM services | 3.1 |

**Training and education:**
A majority of respondents indicated a need to increase their knowledge base in order to provide MTM services and four of them agreed that they needed to further develop their drug-therapy problem-solving skills.[73]  No respondent provided further detail in the open-answer section.

---

[73]  Q.19: "I feel I need to develop my therapeutic knowledge base to better provide MTM;"
  Q.20: "I feel I need to develop my drug-therapy problem-solving skills to better provide MTM."

Figure 4.4
*Knowledge*

| | | Mean |
|---|---|---|
| ■ Strongly disagree ■ Disagree ▢ Neutral ■ Agree ■ Strongly agree ▨ N/A | | |
| Phamacists therapeutic knowledge base | | 3.9 |
| Drug-therapy problem-solving skills | | 3.3 |

**Cultural competency:**

At least half of the respondents provided positive answers regarding their level of comfort with the cultural competency issues raised by the three relevant closed-ended items. All of the respondents indicated that they understood the implications of health literacy within the context of their roles and responsibilities, and eight of them strongly agreed this was so. They rated themselves somewhat lower in regard to ensuring that printed information takes into account average literacy levels. The respondents provided their lowest ratings in this series of questions to language issues. While half indicated that they agreed that they were comfortable with having an interpreter at the pharmacy, three provided a neutral answer and two indicated that this item did not apply to their pharmacy. No respondent provided further comments about cultural competency issues.

Figure 4.5
*Cultural Competency*

| | | Mean |
|---|---|---|
| ■ Strongly disagree ■ Disagree ▢ Neutral ■ Agree ■ Strongly agree ▨ N/A | | |
| Comfortable with an interpreter | | 3.9 |
| Ensure printed information takes into account average literacy levels | | 4.1 |
| Understand the implications of health literacy within the context of my roles and responsibilities | | 4.8 |
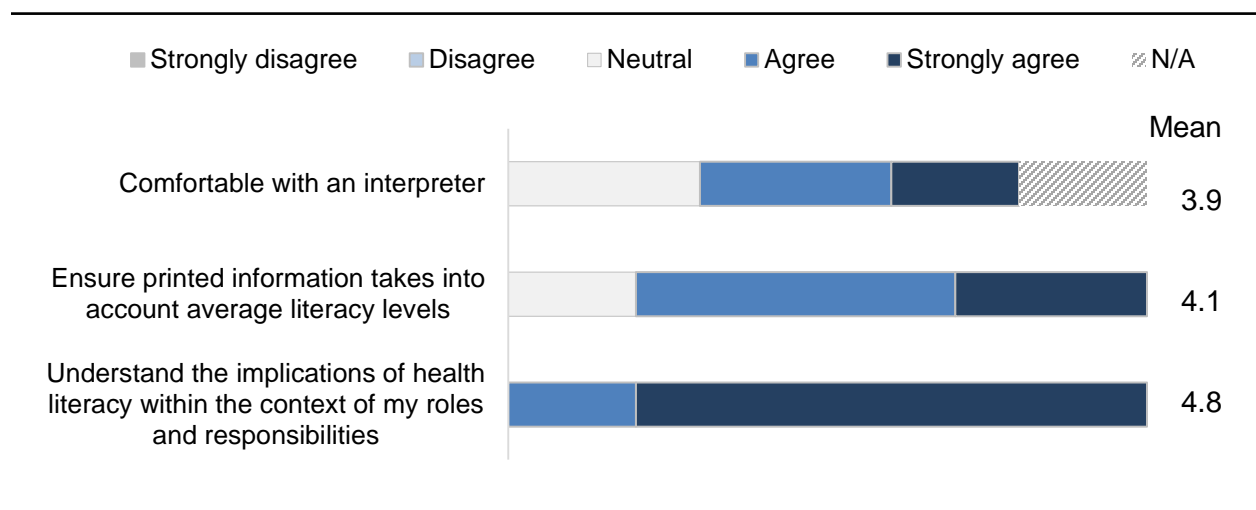
## Facilitators and barriers to other aspects of MTM

The respondents discussed several aspects of providing MTM services that were not captured by the closed-ended questions. These aspects include patient recruitment, referral and scheduling; transportation; patient attitudes toward care; and the role of other health care workers.

**Recruitment, referrals, and scheduling:**
Nine comments discussed issues related to recruiting patients, referral from others, or scheduling appointments to provide MTM services.

"Recruitment can be painfully slow" noted one respondent. Another respondent explained that patients "are afraid of the time commitment" at first. Several responses mention the helpfulness of others recommending MTM services to encourage patients to participate. Recommendations by nurses, medical officers, and customer service personnel in the pharmacy were specifically mentioned. One pharmacist noted having more success with personally inviting patients to attend MTM sessions, rather than distributing flyers or making other impersonal announcements. One respondent noted that a barrier that MTM pharmacists face is encouraging primary care physicians to refer their patients for MTM services. Another respondent noted difficulty scheduling times for patients to receive MTM services at times that the respondent was available.

**Transportation:**
Three comments discussed transportation for the patient to the pharmacy to receive MTM services. Two of the comments simply identified transportation as a barrier generally, while the third noted that home-bound patients, in particular, could be a population that is difficult to serve. "We offer phone MTMs," the respondent noted, "but most of the time [the patients] are required to come to the store and [those who cannot] are often forgotten about." The respondent also noted that health insurance typically does not cover MTM sessions provided over the telephone. Another respondent suggested that a possible solution to transportation issues is to have pharmacists provide services in the home (it is unclear, however, whether this service is available from the respondent's pharmacy).

**Patient knowledge and attitudes regarding care:**
Seven of the comments discussed patient knowledge about or attitudes toward care, and how these may act as facilitators or barriers. Four of these comments identified barriers to delivering MTM services. The patients often lack "buy-in" to the program, according to one respondent, because they do not understand the purpose of MTM. Other respondents found that patients do not always accept that they are overweight, or realize the amount of sugar they regularly eat and drink and its effect on health. Patients also resist the idea of engaging in care that might require them to take medications for the rest of their life, according to one respondent. This respondent stated that it is important to assure the patients that it is not shameful to take medications and that, with proper care, some of them may be able to manage their condition without the medication.

Four comments described strategies that the respondents believed encouraged patient acceptance of care. One pharmacist stated that making simple suggestions about lifestyle changes encouraged the patients to become more involved in their care, while another noted that

discussing "results based progress" motivated the patients.  Two comments referred to gift cards and other free gifts, such as glucose monitors and discounts on home blood pressure monitoring kits, given to motivate patients and provide them with tools to engage in self-care at home.

**Other health care professionals:**
Four responses discussed other health care workers in the pharmacy setting.  The types of workers specifically mentioned as being helpful include a diabetes educator and nurse, pharmacy technicians, and clerks ("They help make this happen").  One respondent noted that it can be difficult to deliver MTM care when the patient is not accompanied by a nurse or other caregiver.

**Summary of aspects of care raised in open responses**

Table 4.4 provides a summary of the aspects of care that the respondents discussed (both facilitators and barriers) in their answers to the open-ended questions.  Issues related to recruitment, referrals, and scheduling had the most comments.  Relationships with patients and prescribers developed as part of the MTM process were also frequently discussed.  Logistics and patients' knowledge and attitudes had seven comments each.  Two categories of MTM delivery covered by the closed questions, education and cultural competency, were not discussed in the open section.

Table 4.4
*Aspects of Care*

|  | Facilitator | Barrier | Total |
|---|---|---|---|
| Referrals, recruitment, and scheduling | 5 | 4 | 9 |
| Relationships with prescribers and patients | 4 | 4 | 8 |
| Logistics | 3 | 4 | 7 |
| Patient attitudes | 4 | 3 | 7 |
| Other health professionals | 3 | 1 | 4 |
| Transportation | 0 | 3 | 3 |
| Time-Related | 0 | 1 | 1 |
| Cultural Competency | 0 | 0 | 0 |
| Training and Education | 0 | 0 | 0 |
| Total | 19 | 20 | 39 |

# Other items included in the MTM pharmacist survey:  Pharmacist satisfaction and beliefs about care

The MTM survey included eight other closed-ended items, which were related to pharmacist satisfaction and pharmacists' perceptions of patient care.

Most of the respondents indicated that participating in the MTM project was a positive experience.  Ninety percent of the respondents agreed that they would encourage other

pharmacists to participate in the project in the future, and 70 percent of them strongly agreed to this. One respondent exclaimed, 'I love being a part of this program!!!'

Figure 4.6
*Satisfaction with MTM*
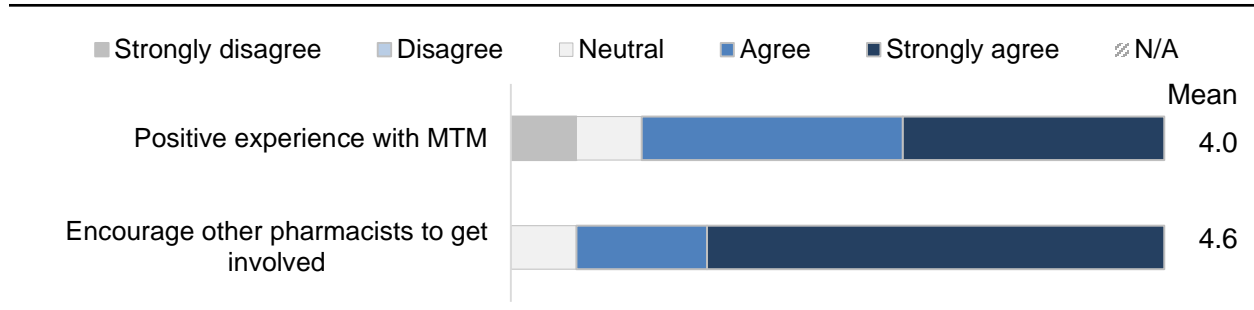


Respondents generally provided positive ratings for each of the patient care items listed in Figure 4.7. Half of the respondents, for example, strongly agreed with the statement that "I have seen an increased number of patients make positive lifestyle choices as a result of MTM." Half also strongly agreed that MTM enabled them to provide important high blood pressure information to the patients. None of the respondents strongly disagreed with any of the patient care items, though most of the items had at least one respondent provide a neutral answer. Two respondents provided further comments, expressing their belief in the importance of providing MTM: "Everyone I speak to about MTM tells me how needed it is" stated one and "[we] need MTM and we need to expand it to our patients," wrote the other.

Figure 4.7
*Patient Care*
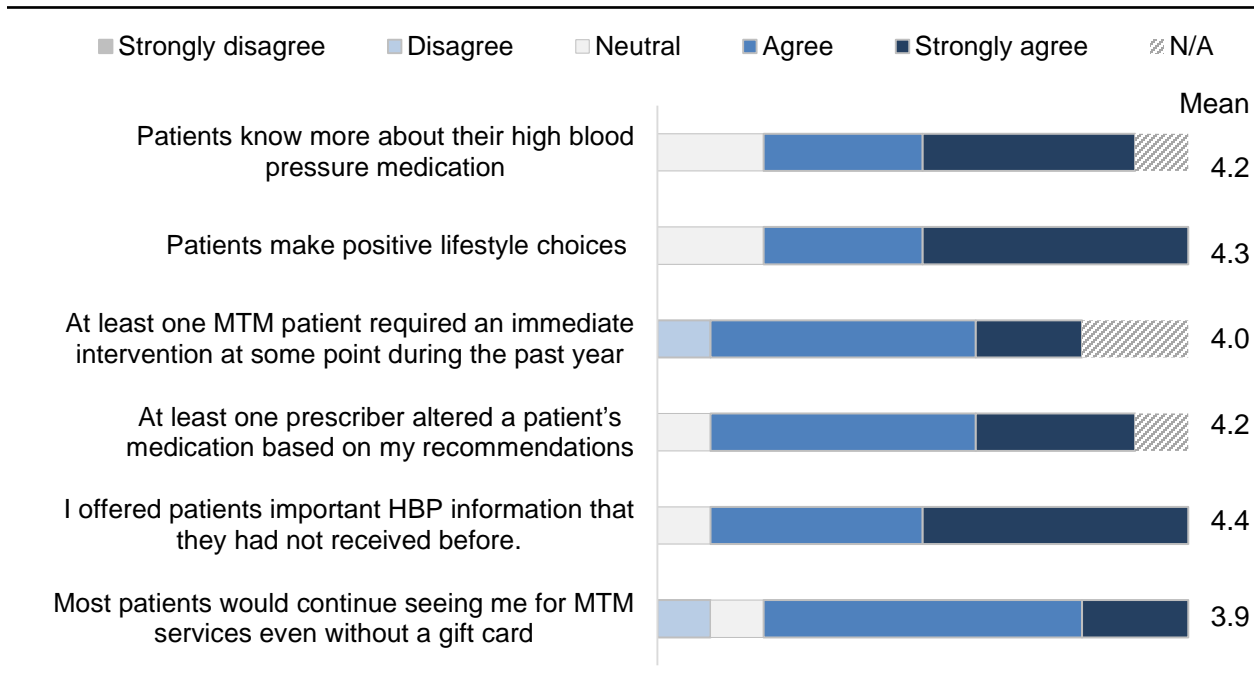
**Question 2:** **What policies/systems facilitated the support and promotion of the increased use of pharmacists as health-care extenders?**

*2.1 Number, type, influence of policies /systems that support and promote the increased use of pharmacists for management of high blood pressure*

In the middle of Year 3 of the grant (December, 2015), CPHHP contacted pharmacy leaders in the state of Connecticut to request information on the policies and system innovations in Connecticut to encourage the delivery of MTM services throughout the state. The types of activities inquired of fell into four broad categories: state legislation; education; health systems; and payers. A similar request was sent at the end of Year 3 and in December of Year 4. Each time the requests were sent by email. The first email was sent on December 11, 2015 to 13 key informants, with a request to respond by January 24, 2016. The informants were asked to provide activities starting from July 1, 2015 (a few activities from Year 2 were reported and are included in Table 4.5, but systematic reporting did not begin until July 1, 2015). Twelve of the 13 key informants returned detailed responses (a fourteenth key informant, who is involved in 1305, had previously sent a detailed response). The second request was sent on July 21, 2016. The number of key informants was increased to 15 (a Health Systems Specialist at DPH, involved with 1305, was added). The key informants were asked to report on activities since the last request the prior December and to review previously reported activities to ensure a complete list for Year 3 (July 1, 2015 – June 30, 2016). Thirteen of the key informants replied to the request. The third request (covering the first half of Year 4) was sent on December 5, 2016 to 15 key informants, with a request to reply by December 21, 2016. Fourteen key informants replied.

The responses provided for Year 3 (July 1, 2015-June 30, 2016, the most recent period for which there are complete results) are discussed below. These and early reports from the first half of Year 4 (covering July 1, 2015 – December 5, 2016) are listed in Tables 4.5 and 4.6.

**State Legislation**: No new laws to encourage the practice of MTM pharmacy, or increase pharmacists' roles as health care extenders generally, were reported for Year 3.

**Education**: UConn's School of Pharmacy and the Connecticut Pharmacy Association continued to conduct MTM trainings and certify Connecticut pharmacists in MTM in Year 3. In addition, UConn's School of Pharmacy created a new fellowship to focus on the integration of pharmacists into primary care. A third educational initiative, the Million Hearts Initiative, continued into Year 3. (The initiative began with a Million Hearts Workshop on June 11, 2015.) In September 2015, DPH and its partners distributed a brief describing the MTM-related issues discussed at the Million Hearts Workshop. Also, individuals involved with Connecticut's 1305 MTM presented a poster at the ASHP Midyear Clinical meeting in May, 2016. Key informants identified five educational events, three conferences and two webinars, during Year 3. The conferences included the 2015 Tri-State Health-system Pharmacy Summit held in Tarrytown, NY, on September 18, 2015; the New England Pharmacists Annual Meeting in Foxborough, Massachusetts on September 24 and 25, 2015; and the Catch the Wave conference at the Coco Key Convention Center in Waterbury, on November 13, 2015. One webinar, sponsored by the Connecticut Chapter of the American Society of Consultant Pharmacists, was presented on

December 2, 2015 and the second was presented on May 25, 2016, by a faculty member from the University of St. Joseph.

**Health Systems**:  The key informants reported that seven health care systems in the state either employed or advertised to hire a pharmacist to conduct MTM or related health management services in Year 3.  Hartford Health Care operated a grant funded service to provide MTM services through home visits in the town of Southington.  Faculty at UConn's School of Pharmacy provided MTM services to Cambodian Americans during 2015-2016.

**Payers**:  Connecticut's Department of Social Services began operating a pilot program in which it reimbursed through Connecticut's Medicaid program for MTM services provided at an FQHC located in Bridgeport.  This pilot program began on February 1, 2016.

Table 4.5

*Connecticut Activities to Promote Pharmacists as Physician Extenders*

| Category | Activity | Lead | Status | | | |
| --- | --- | --- | --- | --- | --- | --- |
| | | | **2014-15**[74] | **2015-16**[75] | **2016-17**[76] | **2017-18** |
| Legislative | Medicaid reimbursement to pharmacists for providing MTM services. | CT Pharmacy Association, UConn School of Pharmacy, University of St. Joseph School of Pharmacy, Connecticut Society of Health-System Pharmacists, CT Chapter of the American Society of Consultant Pharmacists | Proposed Bill No. 6157, An Act Concerning Medicaid Therapy Management<br><br>Introduced by Rep. Conroy and referred to the Joint Committee on Human Services on 1/22/15. Human Services voted to raise the bill as a concept on 2/5/15. (16 in favor, 2 absent.) No further action. | No legislative activity in the 2016 regular session. | No legislative activity as of December 5, 2016. | |
| Education | Connecticut Million Hearts Initiative | CT-DPH, UConn School of Pharmacy | Million Hearts Initiative, initial Workshop (6-11-15) | Published CT Million Hearts MTM Workshop Issue Brief – Sept 2015<br><br>Poster accepted for ASHP Midyear Clinical Meeting on private/public partnerships developing pharmacy network to deliver MTM. Buckley T, Dalal M, Jensen M, Eyler R, Pose A. Connecticut Million Hearts Learning Collaborative: Creating Community-Clinical | Presentation on Connecticut's 1305-related MTM intervention delivered by Monica Jensen at the national 1305 Grantee Meeting on November 30th. | |

[74] July 1, 2014 – June 30, 2015
[75] July 1, 2015 – June 30, 2016
[76] July 1, 2016 – December 31, 2016

Table 4.5

*Connecticut Activities to Promote Pharmacists as Physician Extenders*

| Category | Activity | Lead | 2014-15[74] | 2015-16[75] | 2016-17[76] | 2017-18 |
|---|---|---|---|---|---|---|
| | | | | | **Status** | |
| | | | | Linkages to Reduce Disparities in Hypertension Identification and Control. Poster presentation: Bringing Public Health and Primary Care Together: The Practical Playbook National Meeting, Bethesda, MD, May 2016 | | |
| Education | MTM Certification Program | Connecticut Pharmacy Association | | See Table 4.6 for specific events | See Table 4.6 for specific events | |
| Education | MTM Certification Program | UConn School of Pharmacy | | See Table 4.6 for specific events | See Table 4.6 for specific events | |
| Education | Pharmacy Practice/Primary Care Transformation Fellowship | UConn School of Pharmacy Preceptor: Marie Smith, PharmD | | New fellowship to focus on integration of pharmacists in primary care + enhanced coordination with community pharmacy practice | New Clinical practice site at UConn Health - Storrs | |
| Health System Innovation | Use of pharmacist to manage population health and to deliver MTM in physicians' offices | Hartford Healthcare | Hired UConn faculty pharmacist for population management | Hired 2nd faculty position to focus on Hartford Healthcare primary care practices | No activities reported. | |
| | | Family Medicine Center at Asylum Hill (USJ faculty pharmacist provides MTM) | | USJ faculty pharmacist provides MTM (beginning October, 2015). | | |

Table 4.5

*Connecticut Activities to Promote Pharmacists as Physician Extenders*

| Category | Activity | Lead | Status | | | |
|---|---|---|---|---|---|---|
| | | | 2014-15[74] | 2015-16[75] | 2016-17[76] | 2017-18 |
| Health System Innovation | Use of pharmacist to manage population health and to deliver MTM in physicians' offices | Yale-New Haven Hospital Primary Care Clinic | | USJ faculty provide MTM services (beginning November, 2015) | | |
| | | ProHealth Physicians | | ProHealth Physicians hired pharmacist to create an MTM program in December, 2015 | | |
| | | Yale-New Haven Health System | | New position posted to work within Northeast Medical Group Medical Homes and start practice of MTM and postgraduate second year residency | | |
| | | Hartford Healthcare Community Pharmacy and Clinic | | USJ faculty provide MTM services (beginning April, 2015). | | |
| | | CT-DPH, UConn SOP, Optimus Health Care | Screening & management of hypertension in African American males: use of pharmacist to provide MTM services. Follow-up with Collaborative Drug Therapy Management (CDTM) protocol management in community pharmacy. Project partners begin rapid cycle PDSAs in community, funded, in part, through ASTHO's Million Hearts program. | Poster presented at Practical Playbook National Meeting, won best poster award for innovation. | | |

Table 4.5

*Connecticut Activities to Promote Pharmacists as Physician Extenders*

| Category | Activity | Lead | Status | | | |
| --- | --- | --- | --- | --- | --- | --- |
| | | | 2014-15[74] | 2015-16[75] | 2016-17[76] | 2017-18 |
| Health System Innovation | Home pharmacist visits | Hartford Healthcare at Home | | Pharmacists provide MTM services in homes in the town of Southington | Applied for grant for 2017 | |
| Health System Innovation | MTM delivered to Cambodian Americans with pre-diabetes through cross-cultural teams of pharmacists and CHWs. Part of NIH grant demonstrating impact of health promotion, MTM, or usual care on pre-diabetes clinical & behavioral health | UConn School of Medicine, UConn School of Pharmacy, Khmer Health Advocates | | Recruitment of patients begun in CT, RI, and MA | No activities reported | |
| Payers (Public) | MTM reimbursement initiatives: 1. Pilot MTM project at an FQHC in CT | CT-DPH, UConn SOP, CPA | Discussions with CT Medicaid to provide reimbursement for specified MTM services. | DSS: The FQHC pilot project begins 2/1/16. | No activities reported | |
| | 2. Intensive care management patients 3. Medical home case management | | | DSS considering expanding with other vendors and programs | | |
| Payers (Commercial) | | | | | | |

Table 4.6

*Connecticut Education and Outreach Activities*  (Collection of data started July 1, 2015)

| Date | Sponsor | Location | Title | Speakers |
|---|---|---|---|---|
| 9/18/15 | CT Society of Health-System Pharmacists; New Jersey Society of Health-System Pharmacists; New York State Council of Health-system Pharmacists (Tri-State Health System Pharmacy Summit) | Tarrytown, NY | Interdisciplinary Teamwork in a Transitional Primary Care Clinic | Tamara Malm, PharmD, MPH Assistant Professor St. Joseph School of Pharmacy |
| 9/24/15 | New England Pharmacists with CPA (Annual Meeting) | Foxborough, MA | Certificate Programs: 1. Pharmacy –based cardiovascular disease risk management 2. Delivering medication therapy management service 3. Pharmacist & patient centered diabetes care | |
| 9/25/15 | New England Pharmacists with CPA (Annual Meeting) | Foxborough, MA | Keynote Address: Integrating Pharmacist into the Care Team | Reid Blackwelder, MD, FAAFP and L. Brian Cross, PharmD, BCACP, CDE, The East Tennessee State University Family Physicians Clinic, Kingsport, TN |
| 9/25/15 | New England Pharmacists with CPA (Annual Meeting) | Foxborough, MA | Track 1:  Transitions of Care:  Pharmacists' Role: Referral System and Interventions | Sarah Thompson, PharmD, Director of Clinical Pharmacy Services and Quality at Coastal Medical Inc., Providence, RI |
| 11/13/15 | UConn School of Pharmacy (Catch the Wave) | Waterbury, CT | MTM for Diabetes Certification Program | UConn School of Pharmacy faculty |
| 11/13/15 | CT Society of Health Systems Pharmacists (Catch the Wave) | Waterbury, CT | Population Health: The Prescription for Value Based Care | Sean Jeffery, UConn School of Pharmacy, Hartford Healthcare<br><br>Amanda Skinner, MSN, MBA, Executive |

Table 4.6

*Connecticut Education and Outreach Activities*  (Collection of data started July 1, 2015)

| Date | Sponsor | Location | Title | Speakers |
|---|---|---|---|---|
| | | | | Director, Clinical Integration and Population Health, Yale-New Haven Health System |
| 12/2/15 | Connecticut Chapter of the American Society of Consultant Pharmacists | Webinar | Paradigm Shifts: LTC and ACOs | Paul Liistro, CEO, Arbors of Hop Brook (continuing care, post-acute hospital rehab, long-term care and independent living facility) |
| 5/25/16 | USJ, Qualidigm, New England QIN-QIO | Webinar | INTERACT: Medication Reconciliation Tool | A. Leschak |
| 9/30/16 | CT Society of Health-System Pharmacists; New Jersey Society of Health-System Pharmacists; New York State Council of Health-system Pharmacists (Tri-State Health System Pharmacy Summit) | Tarrytown, NY | Implementing MTM Recommendations in a Physician Residency Driven Medical Home | Amanda Williams, RPh, BCACP, CDE, CACP PGY2 Residency Program Director for Ambulatory Care Saint Francis Hospital and Medical Center |
| 12/4/16 – 12/8/16 | American Society of Health-System Pharmacists | Las Vegas, NV | Creating the Connecticut community pharmacy practice network through public-private partnerships (poster presentation) | Thomas Buckley, Marissa Salvo, Mehul Dalal, Monica Jensen, Luis Arroyo |
| 12/4/16 – 12/8/16 | American Society of Health-System Pharmacists | Las Vegas, NV | Barriers to delivering comprehensive medication therapy management implemented in urban Connecticut community pharmacies (poster presentation) | Sarah Leverett, Thomas Buckley, Marissa Salvo |
| 12/15/16 | National Institutes of Health, AcademyHealth | | Creating community-clinical linkages to reduce disparities in hypertension identification and control | Thomas Buckley, Mehul Dalal, Monica Jensen, Frank Boskello, Laks Pudipeddi |

# Part 5

## Increase Use of Diabetes Self-Management Programs in Community Settings

*Stanford Diabetes Self-Management Program*

# Domain 4 Strategy 1:
# Increase Use of Diabetes Self-Management Programs in Community Settings

## *Stanford Diabetes Self-Management Program*

The Stanford Diabetes Self-Management Program is the intervention being evaluated for Domain 4, Strategy 1: Diabetes Self-Management Programs in Community Settings. The CDC's Domain 4 includes strategies that link community programs with clinical services to help ensure that people with or at high risk of chronic diseases have access to the disease prevention and management resources they need.[77] Domain 4, Strategy 1 focuses on increasing the use of effective diabetes self-management programs in community settings by making them widely available in the community and building in clinical linkages such as clinician referrals and third party payments to American Association of Diabetes Educators accredited providers who deliver the self-management programs. In Connecticut, the Stanford Diabetes Self-Management Program (DSMP), which participants attend for free, is being implemented as part of the Domain 4, Strategy 1 activities. The Connecticut Department of Public Health (DPH), in collaboration with the Department on Aging's five Area Agencies on Aging and Connecticut Community Care, Inc., coordinate the implementation of DSMP throughout the state.

The purpose of the DSMP evaluation was to identify the facilitators and barriers to successful implementation, the strategies used to overcome the barriers, and the actions taken to reach diverse populations that would benefit from participating in DSMP. The findings presented in this section of the annual report address the two CDC core evaluation questions below. Table 5.1 and 5.2 list associated indicators and data sources used to address evaluation Questions 1 and 2, respectively.

**CDC Core Evaluation Questions:**
1) *What were the major facilitators and barriers in implementing the four drivers\* during the implementation phase? How were the barriers overcome?*

2) *What were the key activities critical to addressing disparities in the four drivers\* during the implementation phase?*

*\*The four drivers are: DSME programs, Payers/payment mechanisms, Referral policies, and Persons with diabetes willing to attend DSME programs.*

---

[77] https://www.cdc.gov/chronicdisease/pdf/four-domains-factsheet-2015.pdf

Table 5.1

*Evaluation Question 1 Indicators and Data Sources*

| **Evaluation Q1:** *What were the major facilitators and barriers in implementing the four drivers\* during the implementation phase? How were the barriers overcome?* | |
|---|---|
| **Indicator** | **Data Source** |
| **Driver 1: Implementing DSME programs** | |
| 1.1  Number of DSMP programs delivered | NCOA Portal |
| 1.2  Number of DSMP workshops by site type and county | NCOA Portal |
| 1.3  Number of DSMP leaders | NCOA Portal |
| 1.4  Number of regional coordinators who report specified facilitators to implementing DSMP programs | Regional Coordinator Survey |
| 1.5  Number of regional coordinators who report specified barriers to implementing DSMP programs | Regional Coordinator Survey |
| 1.6  Percent of DSMP leaders who report specified barriers to implementing DSMP workshops (reasons for not delivering workshops) | Workshop Leader Survey |
| 1.7  Facilitators for overcoming barriers to delivering more DSMP workshops (reported by DSMP leaders) | Workshop Leader Survey |
| **Driver 2: Payer and Payment Mechanisms** | |
| 1.8  Facilitators and barriers to implementing payer and payment mechanisms (reported by state DSMP coordinator) | State coordinator interview |
| **Driver 3: Referral Policies and Procedures** | |
| 1.9  Percent of DSMP participants who report health care provider as recruitment or referral method | State coordinator interview |
| 1.10 Facilitators and barriers to implementing referral policies /systems (reported by state DSMP coordinator) | NCOA Portal |
| **Driver 4: Persons with Diabetes Willing to Attend DSME Programs** | |
| 1.11 Number of DSMP workshop participants | NCOA Portal |
| 1.12 Number and percentage of participants who complete the DSMP workshop series by attending at least 4 of the 6 workshops | NCOA Portal |
| 1.13 Number and percent of DSMP participants who report satisfaction with the workshop | Live Well Evaluation |
| 1.14 Facilitators of success for DSMP participation and promotion reported by regional coordinators | Regional Coordinator Survey |
| 1.15 Percent of DSMP leaders who report specified facilitators to participant willingness to attend programs (workshop content and dynamics) | Workshop Leader Survey |
| 1.16 Number of regional coordinators who report specified barriers to participant willingness to attend programs | Regional Coordinator Survey |
| 1.17 Percent of DSMP leaders who report specified barriers to participation in DSMP workshops | Workshop Leader Survey |
| 1.18 Number of regional coordinators who report effective workshop promotion strategies | Regional Coordinator Survey |
| 1.19 Percent of DSMP leaders who report effective strategies to promote workshop participation | Workshop Leader Survey |

Table 5.2
*Evaluation Question 2 Indicators and Data Sources*

| **Evaluation Question 2:** *What were the key activities critical to addressing disparities in the four drivers\* during the implementation phase?* | |
|---|---|
| **Indicator** | **Data Source** |
| 2.1  Number and percent of participants who attend DSMP workshops by demographic and background characteristics | NCOA Portal |
| 2.2  Number and percent of participants who complete the DSMP workshop series by race, ethnicity and education level | NCOA Portal |
| 2.3  Number and percent of participants who attend DSMP workshops offered in Spanish | NCOA Portal |
| 2.4  Number and percent of DSMP workshops offered in Spanish | NCOA Portal |
| 2.5  Number and percent of DSMP leaders trained to deliver DSMP workshops in Spanish | NCOA Portal |
| 2.6  Number and percent of participants who attend DSMP workshops in low income communities | NCOA Portal |
| 2.7  Number of DSMP workshops offered in low income communities | NCOA Portal |
| 2.8  Number and percent of participants attending DSMP who are from low income communities | NCOA Portal |
| 2.9  Number of regional coordinators who report specific activities critical to addressing disparities in the four drivers | NCOA Portal |

## Background

The Stanford Diabetes Self-Management Program (DSMP) is a community-based diabetes self-management program developed for persons with type 2 diabetes and their significant others (including spouses, close friends, and close relatives).  The DSMP workshop includes six weekly 2.5 hour sessions led by two trained leaders at least one of whom should be a peer with diabetes. The curriculum includes: "1) techniques to deal with the symptoms of diabetes, fatigue, pain, hyper/hypoglycemia, stress, and emotional problems such as depression, anger, fear and frustration, 2) appropriate exercise for maintaining and improving strength and endurance, 3) healthy eating, 4) appropriate use of medication, and 5) working more effectively with health care providers."[78]  The DSMP process is designed to be highly participative and create a dynamic of mutual support and success that helps build participants' confidence in their ability to manage their condition and lead an active life.  As part of this process, participants make weekly action plans and are invited to share their experiences and help one another problem solve issues related to creating or carrying out their self-management plan.

In Connecticut, the DPH, Department on Aging, and Connecticut Community Care, Inc. have been collaborating to implement DSMP in community settings throughout the state.  The DSMP efforts have focused on the target population of persons diagnosed with or at high risk of diabetes who access Department on Aging services.  Regional coordinators from the Department

---

[78] Stanford Patient Education Center.  Steps to Healthier Living Diabetes Self-Management Program.  Accessed May 2017 from: http://patienteducation.stanford.edu/programs/diabeteseng.html.

on Aging's five Area Agencies on Aging and Connecticut Community Care, Inc. have developed partnerships with senior centers, senior housing, community health centers, local health departments and others organizations to host and promote DSMP workshops and to train new leaders to deliver DSMP. The DSMP initiative activities also include collaboration with local hospitals and federally qualified health centers to establish DSMP referral systems and the successful pursuit of American Association of Diabetes Educators (AADE) recognition and the ability to bill for Medicare reimbursement for one of the six 1305 subcontractors for DSMP.

## Data Collection

The evaluation of DSMP activities in Year 4 relied upon five data sources. Three data sources, the Regional Coordinator Survey, Workshop Leader Survey and the state DSMP coordinator interview, were used to identify facilitators and barriers of DSMP implementation, the strategies used to overcome barriers, and actions taken to reach diverse populations who would benefit from participating in DSMP. In addition, workshop administrative data from the National Center on Aging's Center for Healthy Aging portal (NCOA Portal) was used to quantify workshop implementation and participation. The Live Well Evaluation Survey was used to describe participant satisfaction with DSMP. Each of these data sources are described in more detail below.

For Year 4, the evaluation team, in collaboration with DPH, updated the Regional Coordinator Survey and Workshop Leader Survey to reflect the lessons learned in Year 2 and Year 3 and added the interview with the state DSMP coordinator.

*State DSMP Coordinator Interview*. The interview, conducted in December 2016, included a series of open-ended questions designed to identify DSMP activities related to Driver 2 and Driver 3 and to identify any key strategies being used to overcome barriers and actions taken to reach diverse populations.

*Regional Coordinator Survey.* The Year 4 Regional Coordinator Survey asked regional coordinators (RCs) 15 questions about DSMP activities in their region during the 2016 calendar year. Survey items asked RCs to identify: 1) the greatest facilitators and barriers to DSMP participation, 2) the key strategies used to recruit diverse leaders and increase delivery and promotion of DSMP to low income, Spanish speaking and racially/ethnically diverse populations, and 3) payer/payment mechanisms used for DSMP. The survey also asked RCs to rate on a five item scale (1= "not at all" to 5= "extremely"): 1) the importance of available leaders and host organizations for implementing workshops, 2) how much specified factors hindered DSMP implementation and participation, and 3) the effectiveness of different approaches used in the region for referrals and participant recruitment. The Year 4 Regional Coordinator Survey was administered electronically via REDCap from February 10, 2017 through March 9, 2017. Invitations to complete the survey went to six RCs, five of whom completed the survey (a response rate of 83 percent).

*Workshop Leader Survey.* The Year 4 Workshop Leader Survey included nine questions about DSMP activities in the 2016 calendar year. Questions asked leaders to rate the extent to which different factors encouraged or hindered participant attendance, the effectiveness of participant recruitment strategies used, barriers that hindered their ability to facilitate workshops and to

identify what, if anything, would increase the likelihood of facilitating more workshops in the future. The Year 4 DSMP leader survey was administered electronically via REDCap from February 16, 2017 to March 9, 2017. Invitations to complete the survey went to 62 leaders who delivered at least one DSMP workshop during the period from July 1, 2014 through December 31, 2016, as recorded in the NCOA portal. Thirty-eight leaders completed the survey for a response rate of 61 percent.

*NCOA Portal (DSMP administrative data)*. Administrative data from the NCOA Portal was used to document DSMP delivery and populations reached. A data extract for the period from July 1, 2014 and March 31, 2017 was provided by NCOA to the evaluators. All workshops that ended within this time period were included in the analyses. Data from the NCOA Portal includes the workshop record, attendance sheets and participant data from the DSMP Participant Information Survey. The DSMP Participant Information Survey, which is administered to DSMP participants at the first session of the workshop includes self-reported demographics, residence zip code, health conditions, household size and how the participant heard about the class. Information from the workshop record and attendance sheets document the workshop start and end date, language of training, group leader names, host organization, implementation sites and locations, and participant attendance records.

*Live Well Workshop Evaluation.* The Live Well Workshop Evaluation is a brief survey administered to workshop participants at the last session of the DSMP. The Live Well Evaluation survey asks participants to rate eight statements related to workshop satisfaction on a five point scale ranging from strongly disagree to strongly agree. Approximately 47 percent of DSMP participants in the period from July 1, 2014 through March 31, 2017 completed a survey.

**Question 1:** **What were the major facilitators and barriers in implementing the four drivers\* during the implementation phase? How were the barriers overcome? \*The four drivers are: DSME programs, payers/payment mechanisms, referral policies, and persons with diabetes willing to attend DSME programs.**

# Driver 1:  Implementing DSME Programs

## DSMP Workshop Implementation

### 1.1. *Number of DSMP programs delivered*

During the period from July 1, 2014 through March 31, 2017, 85 DSMP workshops were delivered at 72 community sites located in 45 Connecticut towns.  Figure 5.1 shows the number of workshops delivered each fiscal year by quarter.  A total of 33 workshops were delivered in Year 2 and Year 3.  In both years, about half of the workshops occurred in the final quarter of the year.  For Year 4, 19 DSMP workshops have been delivered in the first three quarters.  This is slightly more than in previous years which suggests that Connecticut's Year 4 DSMP implementation may be on track for delivering a similar number of workshops as previous years.

Figure 5.1
*DSMP Delivery in Connecticut, Fiscal Years 2015-2017*
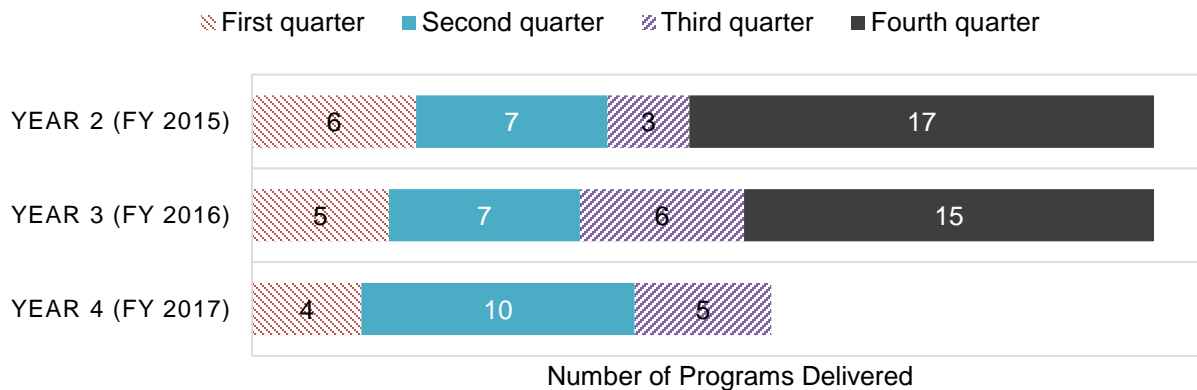
## 1.2 Number of DSMP workshops by site type and county

The most common settings for DSMP have been senior centers, residential facilities, faith-based organizations, and health care organizations (Figure 5.2). Senior centers and residential facilities hosted approximately two-thirds of the workshops delivered overall and in both Year 2 and Year 3. The most common type of host organization, senior centers, have hosted almost half of the workshops to date.

Figure 5.2
*DSMP Implementation by Type of Community Setting*
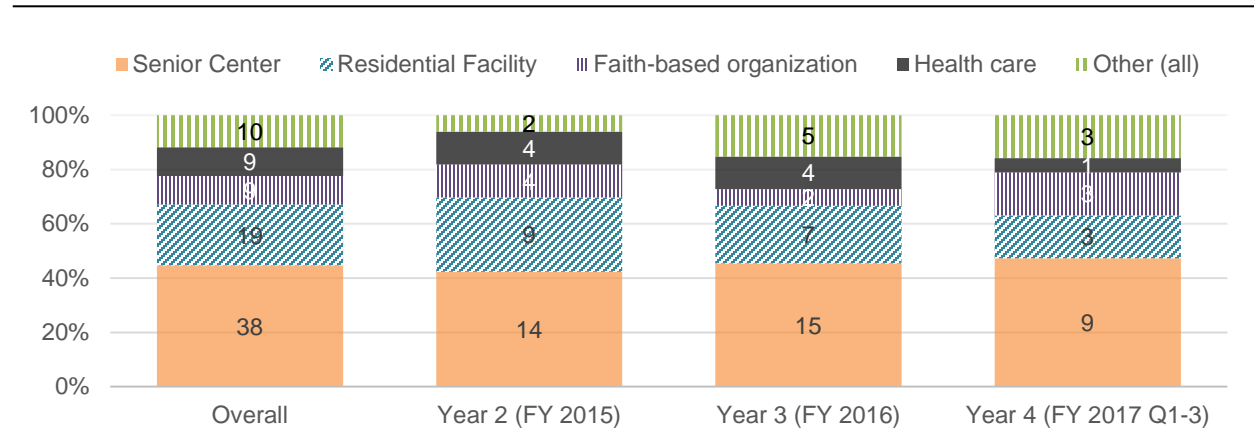


Figures 5.3 show the proportion of DSMP workshops delivered in each Connecticut county from July 1, 2014 to March 31, 2017. Ninety percent of DSMP workshops were delivered in four of Connecticut's eight counties: Hartford, New Haven, Fairfield, and New London. The greatest proportion of workshops was in Hartford (34 percent) and New Haven (28 percent) whereas just 1 workshop was delivered in Windham and Middlesex counties. Taking into account county poverty rates, the number of workshops per 1,000 people below the federal poverty level has been higher in New London County and Tolland County than in Hartford County (results not shown). From year to year, it appears the proportion of workshops may be increasing in Hartford County, fairly stable in New Haven County, and decreasing in New London County (Figure 5.4). This shift may reflect an increase of workshops offered in towns with the greatest poverty rates.

| Figure 5.3 | Figure 5.4 |
|---|---|
| *DSMP Workshop Implementation by County: July 1, 2014-March 31, 2017* | *Grant Year DSMP Workshop Implementation by County* |
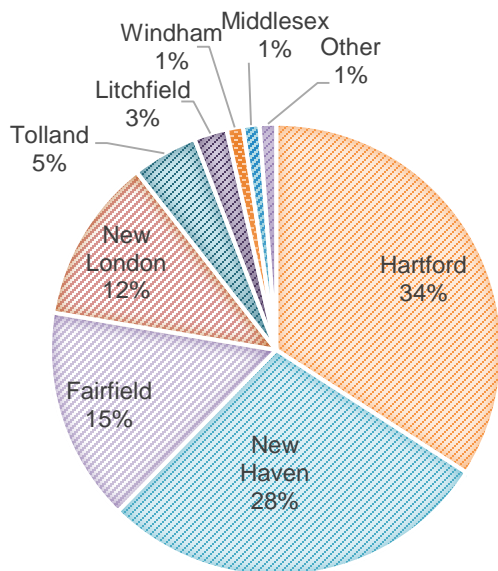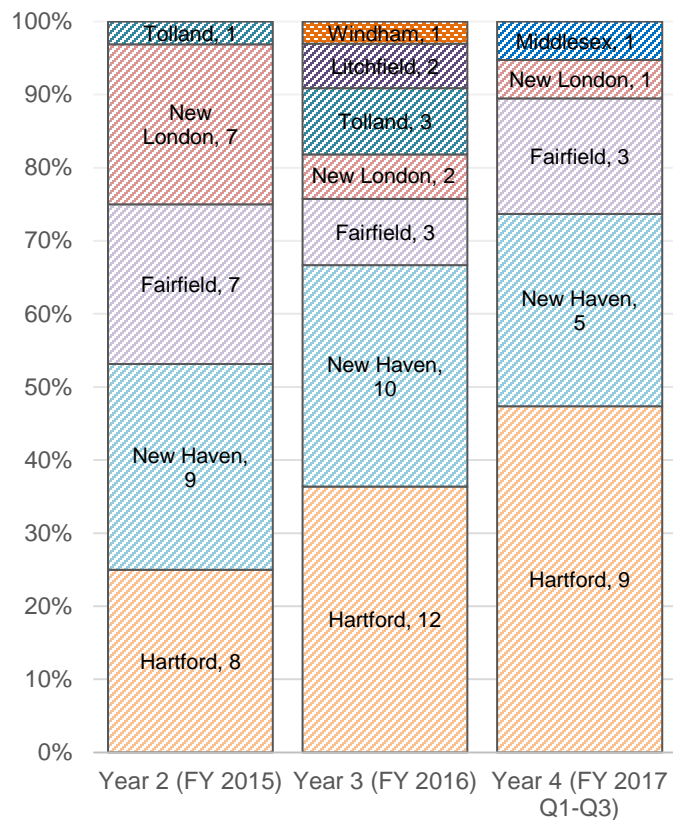


## Capacity to Deliver Workshops

Capacity to implement DSMP workshops is influenced by the number of qualified DSMP leaders and their level of involvement delivering workshops.  The Stanford Patient Education Research Center refers to individuals authorized to facilitate their Self-Management Workshops, including the DSMP, as "Leaders."  Authorization to deliver DSMP requires successful completion of a leader training and satisfactory co-facilitation of DSMP within 12 months of the training.  To maintain DSMP authorization, the leader must deliver at least one workshop series every 12 months.  For leaders who have not led a workshop within the past 12 months, a refresher course for DSMP authorization is available.

### 1.3.  Number of DSMP leaders

For the purpose of this report we identify DSMP leaders using administrative data from the NCOA Portal.  Individuals listed as delivering at least one DSMP workshop in the time frame of July 1, 2014-March 31, 2017 were considered to be certified DSMP Leaders in Connecticut.  The NCOA portal data identified 90 individuals who delivered 85 DSMP workshops in this time

frame.  During the first three quarters of Year 4, 31 of the 90 leaders delivered workshops.
Sixteen of these leaders were new and 15 were returning.  Of the returning leaders, only four had
delivered workshops in both Year 2 and Year 3.

The number of workshops each leader has delivered varies from 1 to 13, with 95 percent
delivering between one and three workshops (Figure 5.6).  Out of the pool of 90 DSMP leaders,
half have delivered one workshop and 30 percent have delivered two workshops.

Figure 5.6
*Percent of DSMP Leaders by Total Workshops Delivered*
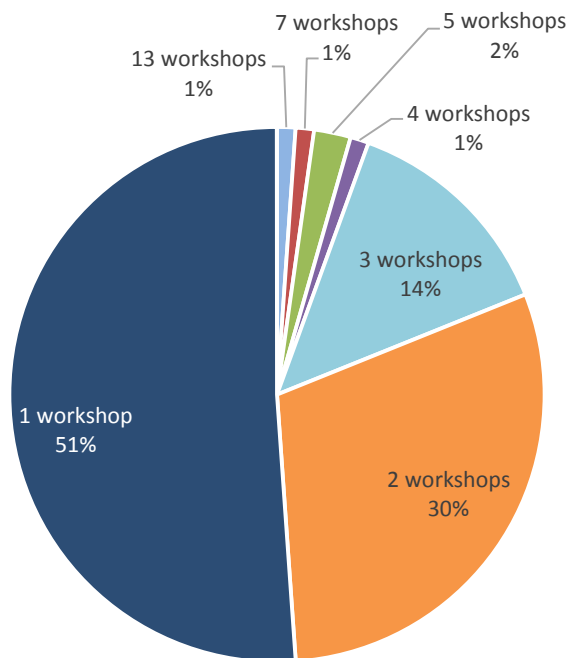


## Facilitators of DSMP Implementation

***Facilitators reported by the state DSMP coordinator.***  When asked to describe facilitators to
implementing DSMP throughout the state, the state DSMP coordinator noted the importance of
maintaining the same RCs over time and the creation and adoption of policy manuals put in place
to help program sustainability.

### 1.4. Number of regional coordinators who report specified facilitators to implementing DSMP programs

The Regional Coordinator Survey responses in Year 2 and Year 3 identified several factors as
helpful to implementing DSMP programs.  In Year 4, RCs were asked to rate how important
three of the potential facilitators were to program implementation during the 2016 calendar year.
These facilitators included having leaders available to facilitate DSMP workshops in English and
Spanish and organizations willing to host DSMP.

Shown in Figure 5.7, all five RCs participating in the survey rated each facilitator as being at least a little important to the successful implementation of DSMP in their region during 2016. In fact, each of the facilitators were perceived as being very or extremely important by at least three RCs.

- Having leaders available to facilitate DSMP workshops in English was rated very or extremely important by the five RCs and had the highest mean score, suggesting this may have been the strongest facilitator to DSMP implementation in 2016.
- A region having organizations willing to host DSMP was rated by four out of five RCs as very or extremely important.
- Having leaders available to facilitate DSMP workshops in Spanish received a rating of very or extremely important from three of the five RCs.

Figure 5.7
*Facilitators Important to Implementing DSMP Programs in 2016 (Regional Coordinator Survey)*
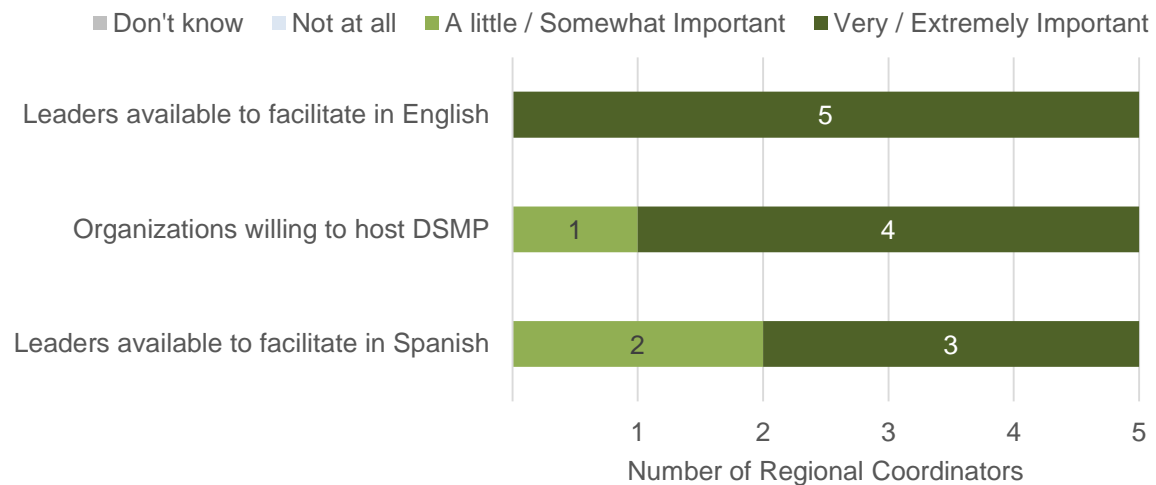


## Barriers to Scheduling DSMP Workshops

### *1.5. Number of regional coordinators who report specified barriers to implementing DSMP programs*

The Regional Coordinator Surveys in Year 2 and Year 3 identified a number of potential barriers related to scheduling workshops, including lack of available leaders, organizations willing to host DSMP, and participants. In Year 4, RCs were asked to rate how much seven potential barriers hindered scheduling workshops in their region during the 2016 calendar year. Responses of "very" or "extremely" are referred to in the discussion below as barriers that "substantially hinder" or as "strong hindrances."

Figure 5.8 summarizes RC perspectives on the extent to which seven potential barriers hindered implementing DSMP in their region during 2016. Each of the barriers were reported as

hindering DSMP scheduling at least a little by at least four of the five RCs.  The only barrier reported by several RCs as substantially hindering DSMP implementation was difficulty finding leaders to facilitate DSMP in Spanish (n=3).  Three other barriers – lack of participants, difficulty finding leaders to facilitate DSMP in English and difficulty finding locations to host DSMP -- were each considered a strong hindrance by one RC.  Conversely, for several barriers rated as a slight hindrance by four of the RCs, one RC reported the barrier was not a hindrance in their region.  These barriers included: limited staff time available to coordinate DSMP, lack of meeting space available for six 2.5 hour sessions, and organizations not being interested in hosting DSMP.

Figure 5.8
*Factors that Hindered Implementing DSMP Programs in 2016 (Regional Coordinator Survey)*
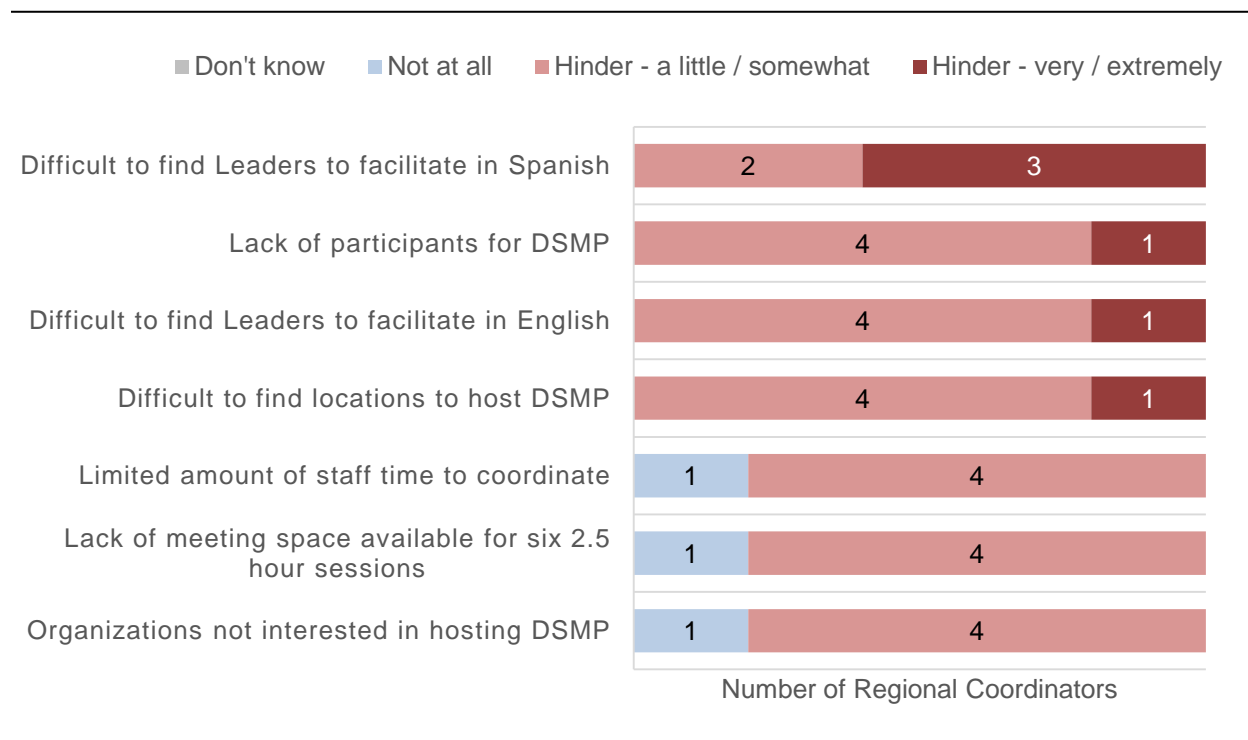


## 1.6. Percent of DSMP leaders who report specified barriers to implementing DSMP workshops (reasons for not delivering DSMP workshops)

The Workshop Leader Surveys in Year 2 and Year 3 identified a number of potential barriers related to implementing workshops, such as convenience of the location, not being able to deliver the workshop as part of one's job, and the time commitment.  In Year 4, leaders were asked to rate how much seven potential barriers hindered their being able to facilitate DSMP workshops during the 2016 calendar year.  Responses of "a lot" or "extremely" are described as "substantial" barriers.

Figure 5.9 summarizes leader perspectives on the extent to which seven potential barriers hindered their ability to deliver workshops during 2016.  Out of the potential barriers, more than

70 percent of the 38 leaders who responded to the survey identified not having enough participants and the time commitment as barriers to delivering workshops in 2016; approximately 30 percent of the leaders thought these issues were a substantial barrier (rating of a lot or extremely) to their ability to deliver workshops and 42 percent reported these as having a little or somewhat of an impact.  More than half of the leaders felt the other barriers did not impact delivering workshops in 2016.  Just under half of the leaders thought not hearing about opportunities to facilitate (43 percent) and having an inconvenient workshop time (45 percent) were a little bit or somewhat of a barrier to facilitating workshops in 2016.  Fewer than 15 percent of leaders identified not being able to deliver DSMP as part of their job or having lapsed certification as a leader as being a little or somewhat of a barrier in 2016.

Figure 5.9
*Leader-Reported Barriers to Facilitating DSMP Workshops in 2016 (n=38)*
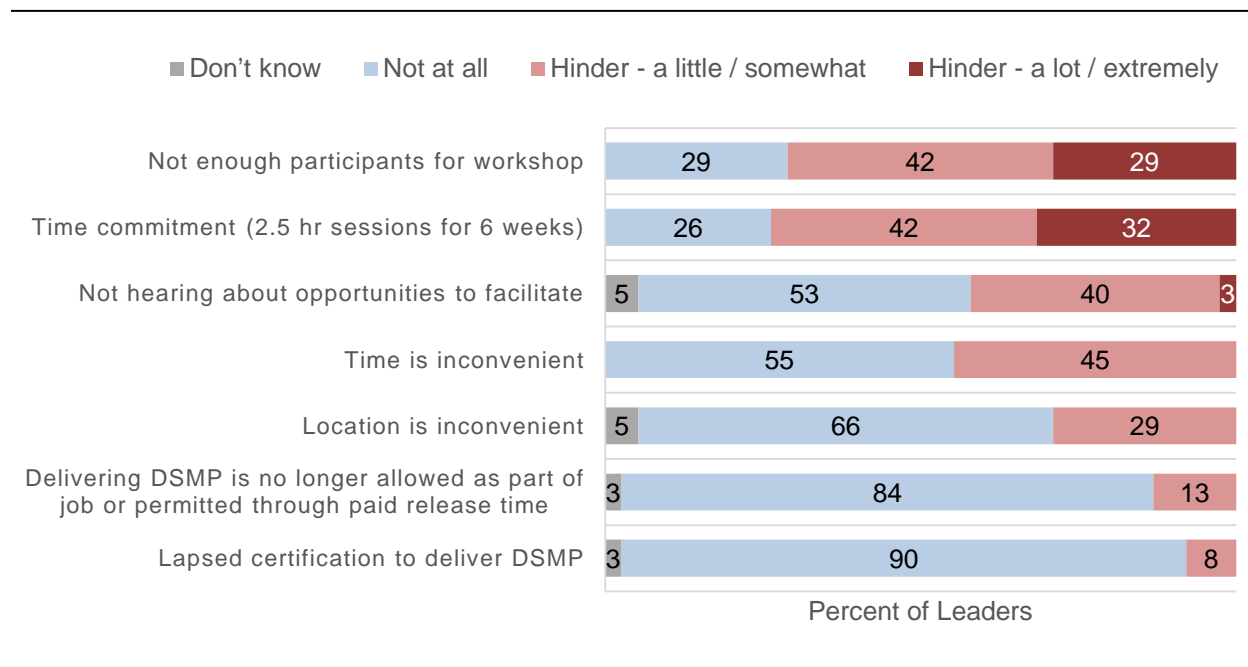


**Barriers to implementing DSMP reported by the state DSMP coordinator.**  The state DSMP coordinator described major barriers to implementing DSMP throughout the state during 2016.  The barriers included the logistics of scheduling workshops, changes to the Stanford DSMP training curricula, challenges recruiting competent leaders, lack of compensation for leaders and motivating leaders to deliver workshops.  Scheduling workshops was described as a major barrier because holding the DSMP requires aligning the schedules of two leaders willing to facilitate, at least eight participants who will attend, and a host location.  There have been instances where there has been community interest from locations such as a local pharmacy, but no nearby free community space available to hold the program.

## Overcoming Barriers

*State DSMP coordinator perspective.*  The state DSMP coordinator reported establishing organizational partnerships and finding community champions as two important strategies used

to overcome barriers to implementing DSMP.  Successful organizational partnerships have been developed by identifying and collaborating with organizations where the mission or focus aligns with DSMP.  These types of partnerships have been established and maintained with the Department of Corrections, the Veteran's Administration, West Indian Nurses Association, St. Francis Hospital and Fair Haven Community Health Center.  Through these collaborations, new leaders have been trained and DSMP has been implemented or is on the horizon.  In addition, having community champions who promote DSMP was also reported as a key strategy for overcoming barriers.  For example, successes at senior housing and senior centers have been facilitated by finding a champion who hosts and promotes DSMP.  Promotion activities such as knocking on doors to talk with residents about DSMP and arranging transportation to the workshop were referred to as very helpful.

### 1.7. Facilitators for overcoming barriers to delivering more DSMP workshops (reported by DSMP Leaders)

On the Workshop Leader Survey, leaders were asked about their plans to facilitate DSMP workshops in 2017 and what would increase the likelihood of them facilitating more workshops. Of the 38 leaders who responded, 77 percent planned to deliver at least one workshop and 21 percent were not sure how many workshops they would deliver.  Twenty-three leaders described what would increase their likelihood of facilitating more workshops in 2017.  The common themes that emerged from leader responses as facilitators for delivering more workshops included having fewer competing demands, enough participants sign up for class, the ability to fit DSMP into their work schedule, and grant or other funding to deliver DSMP.  In addition, at least one leader indicated needing marketing assistance, reducing the number of sessions, and "trying to find a time of year where weather isn't a factor."

# Driver 2: Payer and Payment Mechanisms

### 1.8. Facilitators and barriers to implementing payer and payment mechanisms (reported by state DSMP coordinator)

Efforts to establish payment mechanisms for DSMP have included successes but also involve significant challenges, as reported by the state DSMP coordinator. Challenges include the need for systems change to establish such mechanisms, Connecticut Medicaid not reimbursing for DSME, and questions of whether DSMP should be charged for because it is offered at no cost to participants. These systems-level concerns and the issue of payment mechanisms have been raised at the state-level through a legislatively mandated Diabetes Advisory Council that convened in August 2016 and delivered a recommendations report to the Connecticut General Assembly's Public Health Committee in May 2017. The Diabetes Advisory Council Final Report highlights the Diabetes Prevention Program and DSMP. The report outlines a series of recommendations and related action steps for securing coverage for DSME and removing cost-sharing requirements, among other things. Examples of action steps include assessing the cost-benefit of DSME for the Medicaid population as well as collaborative efforts among the Department of Public Health, Office of the State Comptroller, and the State Innovation Model Project Management Office to formulate recommendations for DSME within Value-Based Insurance Design policies. For further detail, consult the [Diabetes Advisory Council Final Report](#).

The 1305 activities underway to establish a payment mechanism for DSMP include the pursuit of American Association of Diabetes Educators (AADE) recognition and the ability to bill for Medicare reimbursement for one of the six 1305 subcontractors for DSMP. To date, the subcontractor has successfully obtained AADE recognition and is working on the Medicare billing aspects. Obtaining AADE recognition is noteworthy because the credentialed organization is one of a few non-hospital settings in the country to achieve AADE recognition.

There have been several barriers to obtaining AADE recognition and establishing the ability to bill for DSMP. The barriers described by the state coordinator include that it is time consuming to obtain both the AADE recognition and the Medicare billing credential and that finding DSMP participants who are eligible for reimbursement under Medicare rules is difficult. These barriers were successfully overcome because of available funding and staff dedication. Technical assistance provided by the National Council on Aging learning collaborative also helped in overcoming barriers to AADE recognition. Based on these successes, this organization is now in a position to mentor others in navigating the AADE recognition process and Medicare billing. As a next step, the other five subcontractors and two local health departments have been exploring the possibility of pursuing AADE recognition and Medicare billing for DSMP.

***Number of regional coordinators reporting use of specified payer/payment mechanisms in their region.*** At the regional level, only one RC reported using a payment mechanism. In this region, Title IIID funds at a hospital were used to provide Live Well workshops. On the other hand, Medicare, Medicaid, and employer-based payment mechanisms had not been used for DSMP by four of the five RCs and the other RC responded "don't know."

# Driver 3:  Referral Policies

## Participant-Reported Health Care Provider Referrals for DSMP

### 1.9.  Percent of DSMP participants who report health care provider as a recruitment or referral method

There is some evidence that participants are hearing about the DSMP workshops from their providers.  In Year 4, a new question added to the Participant Information Survey asked whether a doctor or care provider suggested the program.  Twenty percent of the participants who answered reported that a doctor or care provider had suggested DSMP.

## Facilitators and Barriers

### 1.10.  Facilitators and barriers to implementing referral policies / systems (reported by the state DSMP coordinator)

The statewide coordinator for DSMP reported that there have been many barriers to establishing and using referral policies and systems; no facilitators were mentioned.  As described by the state DSMP coordinator, historically, there has been a lack of commitment at the health care organization level for referral policies or implementing systems changes.  Because of the challenges creating systems change, alternative approaches are underway.  Two examples of alternative approaches include:

1) A hospital has established a system to send out a follow up letter to DSME participants six months after they complete hospital-based DSME.  This letter informs them about the DSMP workshops.

2) A federally qualified health center is working with the state and regional coordinators to train some of its staff or volunteers to become DSMP leaders as a first step.  Once leaders have been trained, the FQHC plans to build in a referral system for DSMP.

## 2016 Referral Strategies by Region and Perceived Effectiveness

Figure 5.10 shows the number of RCs who reported collaborating locally with health care providers, health departments or senior centers to promote DSMP to potential participants during 2016.  All five RCs reported coordinating with senior centers, four RCs reported coordinating with local health departments, three RCs reported providing DSMP materials to health providers and three reported having referral processes with health care providers or systems as a way to recruit DSMP participants.

Figure 5.10
*Regional Coordinator Use of Referral Approaches and Perceived Effectiveness during 2016 (Regional Coordinator Survey)*
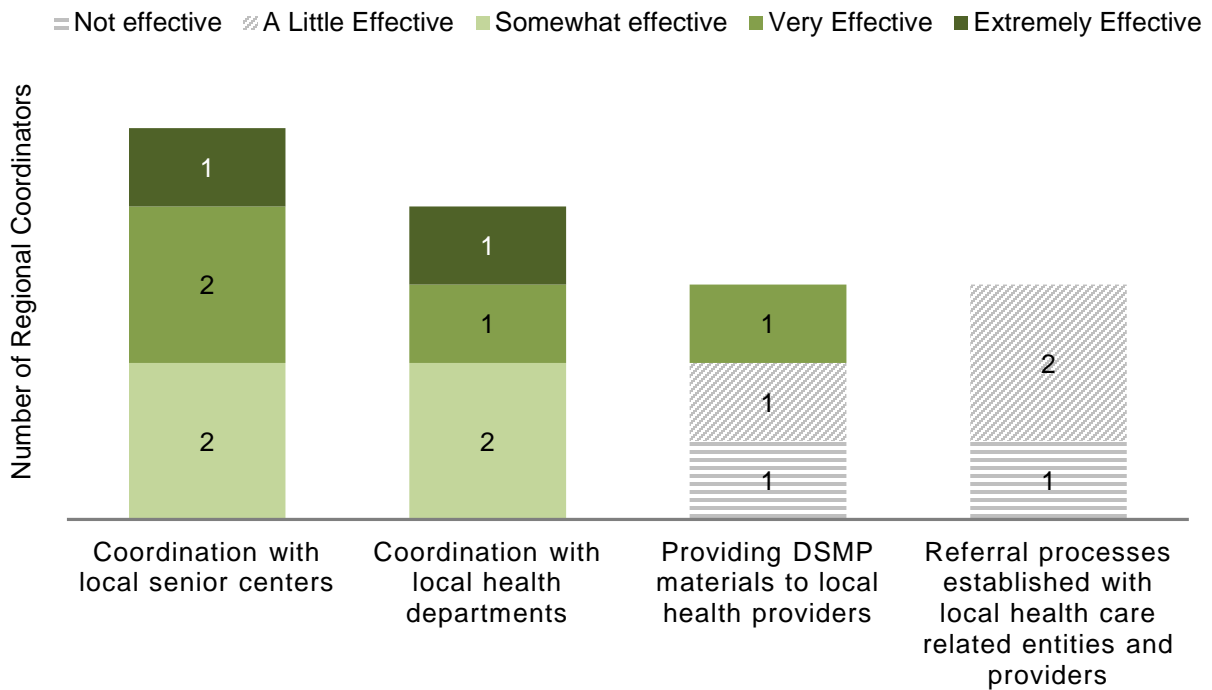


The two referral approaches with the best ratings for effectiveness were coordination with local senior centers and coordination with local health departments. Both of these approaches were rated as at least somewhat effective and were rated as very or extremely effective by at least one RC. On the other hand, the other two referral approaches may have been less effective in 2016. Specifically, only one of the three RCs in a region where DSMP materials were provided to local health providers rated that referral approach as very effective. Further, both providing health providers DSMP materials and referral processes established with local health-care related providers were rated as not effective by one of the three RCs using those approaches.

# Driver 4: Willingness to Attend DSME Programs

## DSMP Participation

### 1.11. Number of DSMP workshop participants

Connecticut DSMP administrative data recorded in the NCOA portal for the period from July 1, 2014 and March 31, 2017 was analyzed to determine participation levels, session attendance and DSMP series completion rates. Between July 1, 2014 and March 31, 2017, 1008 people participated in DSMP, approximately 70 percent of whom reported having a diabetes diagnosis. Overall and quarterly DSMP participation rates for fiscal years 2015-2017 are shown in Figure 5.11. The DSMP workshops reached 375 participants during Year 3 (FY 2016), slightly less than the previous year (n = 394). During the first three quarters of Year 4, DSMP workshops had 239 participants which is more than the number of participants at the same time in Year 3 (n=210) and Year 2 (n=197).

Figure 5.11
*Connecticut DSMP Workshop Quarterly Participation, Fiscal Years, 2015-2017*
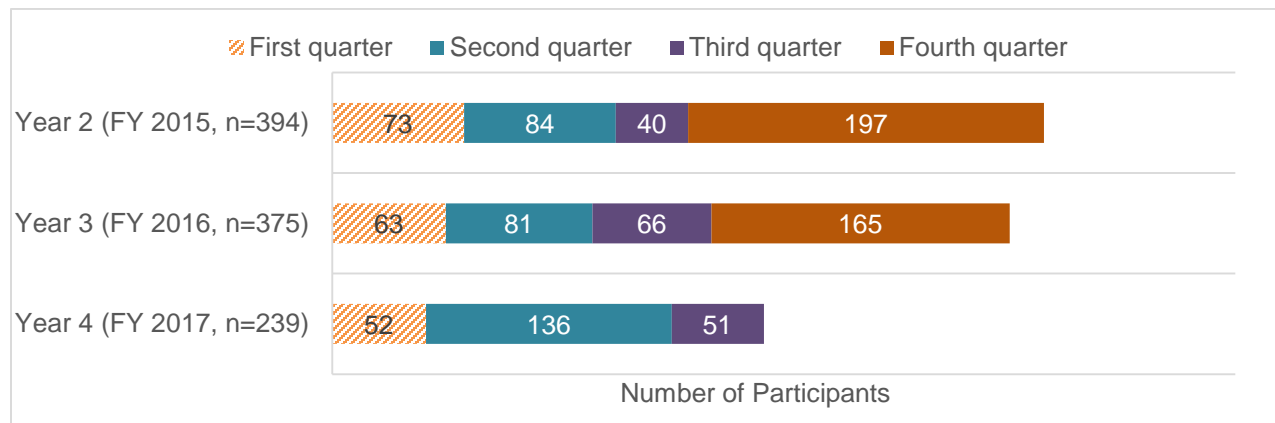


### 1.12. Number and percentage of participants who complete the DSMP workshop series by attending at least 4 of the 6 workshops

Figure 5.12 shows participant attendance and DSMP workshop completion for Years 2, 3 and 4 of the grant. Overall, 71 percent of the participants (n = 718) completed the series by attending at least four of the six workshops. Far fewer participants, 32 percent, attended all sessions (n = 323) and 22 percent attended only one or two sessions (n = 258). At the time of this review, 171 participants had completed the series in Year 4.

*Figure 5.12*
*Number of Participants by Total Workshop Sessions Attended\**
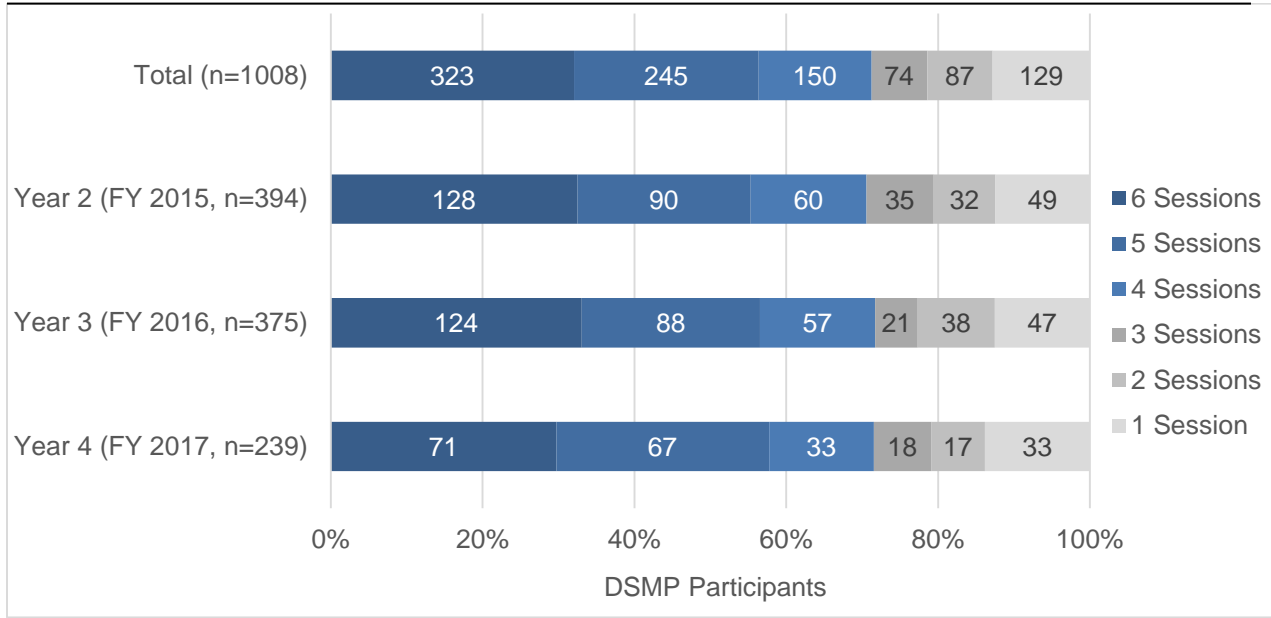


*\*Completion of DMSP requires attending at least 4 sessions.*

## Facilitators to Workshop Participation and Attendance

### *1.13. Number and percent of DSMP participants who report satisfaction with the workshop*

The Live Well Workshop Evaluation is a survey administered to workshop participants at the last session of the DSMP. Approximately half of the participants have completed the Live Well Survey. Participants completing the survey consistently report a high level of satisfaction with the workshop (Table 5.3). Participants were considered satisfied if they responded "agree" or "strongly agree" to the satisfaction item. Nearly all survey respondents in Years 2 through 4 reported they would recommend the workshop to others (99 percent), the workshops were well organized (99 percent), and the workshop leaders were knowledgeable, effective (99 percent), and respectful of group members needs and differences (99 percent). Survey respondents also agreed or strongly agreed that they planned to continue using skills learned in the workshop (97 percent) and felt more confident managing their health needs (96 percent).

Table 5.3
*Participant Reported Satisfaction with Workshop (Percent Agree or Strongly Agree)*

| Satisfaction item | Year 2-4 [a] | Year 4 [b] |
|---|---|---|
| Well organized sessions | 99.4 (463) | 100 (108) |
| Leaders were knowledgeable and effective | 99.1 (465) | 100 (110) |
| I would recommend this workshop to others | 98.7 (462) | 98.1 (106) |
| Leaders show respect to group members needs and differences | 98.5 (463) | 98.2 (109) |
| Location met my needs | 97.0 (458) | 97.3 (109) |
| I will continue to use self-management skills I learned in this workshop | 97.0 (456) | 98.2 (108) |
| I now feel more confident in managing my health condition | 96.4 (453) | 95.5 (105) |
| Offered at a convenient time | 93.2 (437) | 92.7 (102) |

[a] July 1, 2014 – March 31, 2017
[b] July 1, 2016 – March 31, 2017

### 1.14. Facilitators of success for DSMP participation and promotion reported by regional coordinators

Regional coordinators were asked what had the greatest positive impact on encouraging DSMP participation in their region during the 2016 calendar year. The responses from three of the RCs, shown below, highlighted the importance of community leader buy in and their involvement in recruitment efforts, having an active champion who participants know, and promoting the workshop through information sessions and email outreach.

- *Buy-in and recruitment efforts from community leaders, including staff or clergy at host sites, as well as volunteers who are members of their church, senior center, or other institution hosting the workshop.*

- *A champion who was known to the participants and was able to recruit their participants.*

- *I feel holding information sessions have helped encourage DSMP participation. I also think email outreach has helped spread the word about the program.*

### 1.15. Percent of DSMP leaders who report specified facilitators to participant willingness to attend programs (workshop content and dynamics)

Informed by open-ended responses to the Regional Coordinator Survey and Workshop Leader Survey administered in previous years, the Year 4 Workshop Leader Survey asked leaders to rate how much four facilitators related to workshop content and dynamics encouraged participants to attend DSMP workshops. The facilitators included satisfaction with the workshop, the information provided during the workshop and skills taught, group dynamics and sense of community, and the use of action plans and goal setting. Figure 5.13 shows how leaders rated each potential facilitator. Almost all leaders reported satisfaction with the workshop, group dynamics and sense of community, and the information provided and skills taught as facilitators

to DSMP attendance; more than 75 percent of leaders felt these factors significantly encouraged attendance (responses of a lot or extremely). Action plans and goal setting were also considered facilitators by 86 percent of leaders, with 51 percent of leaders reporting it encouraged attendance a substantial amount (a lot or extremely).

Figure 5.13
*Leader- Reported Facilitators of DSMP Participation*
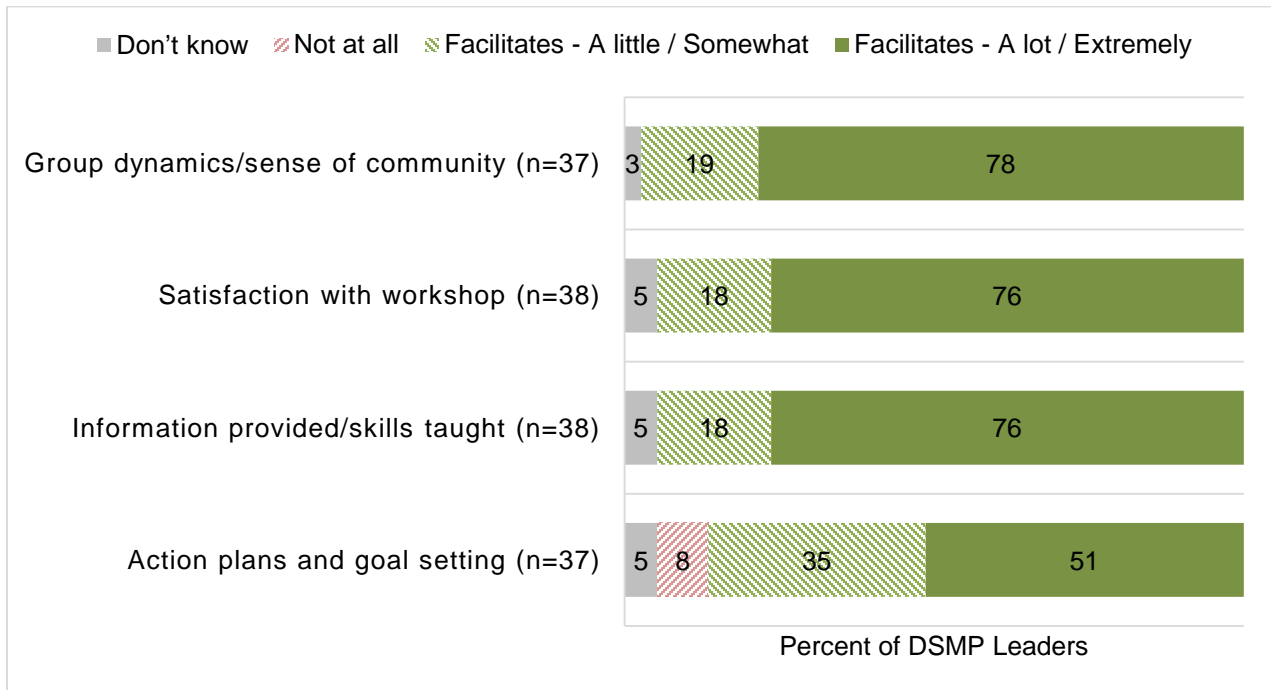


## Barriers to Workshop Participation

In Year 4, the Regional Coordinator Survey and Workshop Leader Survey asked respondents to rate how much four potential barriers hindered participation in DSMP workshops. Based on the barriers identified in the closed and open-ended questions asked in previous years, RCs and leaders were asked to rate how much the length of the workshop session (2.5 hours), number of workshop sessions (6), potential participants not having awareness of the workshop, and potential participants not knowing the likely benefits of participation hindered participation in DSMP.

*1.16. Number of regional coordinators who report specified barriers to participant willingness to attend programs*

Shown in Figure 5.14, each of these barriers were considered a hindrance to DSMP participation by four or five RCs. All five RCs reported the 2.5 hour length of the workshop as a substantial hindrance to DSMP participation and at least two RCs thought the other three barriers hindered attendance significantly (rated "a lot" or "extremely").

*Figure 5.14*
*Regional Coordinator – Reported Barriers to Participation in DSMP Workshops*
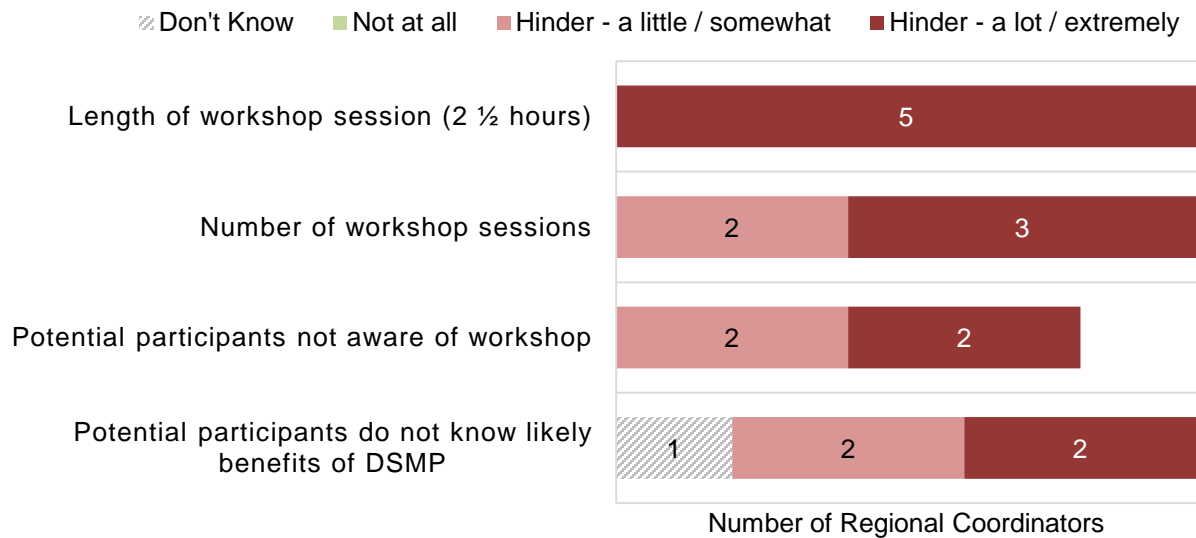


The Regional Coordinator Survey also included an open-ended question asking RCs to describe the greatest barriers to participant willingness to attend DSMP in their region during the 2016 calendar year. The greatest barriers experienced in 2016 are similar to the ones experienced in previous years. Several also overlap with the four barriers to participation that RCs and leaders were asked to rate in the Year 4 survey. For example, all five of the RCs mentioned the time commitment required for the workshop – 2.5 hours for six weeks – as one of the greatest barriers to participation in their region. As an example of this, one coordinator reported that senior centers in the region would not hold the workshop because they felt 2.5 hours was too long for their seniors. Another barrier, the feeling that potential participants did not understand or have enough knowledge about the program and the benefits of participation, was noted by two RCs.

In addition, the following barriers were also identified by at least one RC as among the greatest barriers in their region:
- Language barriers due to not having Spanish speaking leaders in the region
- No leaders of color
- Lack of incentives for participants to keep coming back to workshops
- Lack of permission to provide healthy snacks to participants
- Lack of transportation services to/from workshop

*1.17.* *Percent of DSMP leaders who report specified barriers to participation in DSMP workshops*

Figure 5.15 shows the proportion of leaders reporting barriers to attendance. Each of the four barriers were reported as hindering DSMP participation by at least 70 percent of leaders; however, fewer than half of the leaders thought the barriers hindered participation substantially ("a lot" or "extremely"). The barrier considered a substantial hindrance by the most leaders was that potential participants do not know the likely benefits of DSMP. Forty-nine percent of leaders rated this as a substantial hindrance and 39 percent rated potential participants not aware of the workshop as a substantial hindrance. About one-third of the leaders rated length of the workshop session and number of workshop sessions a substantial hindrance.

Figure 5.15
*Leader- Reported Barriers to Participation in DSMP Workshops*
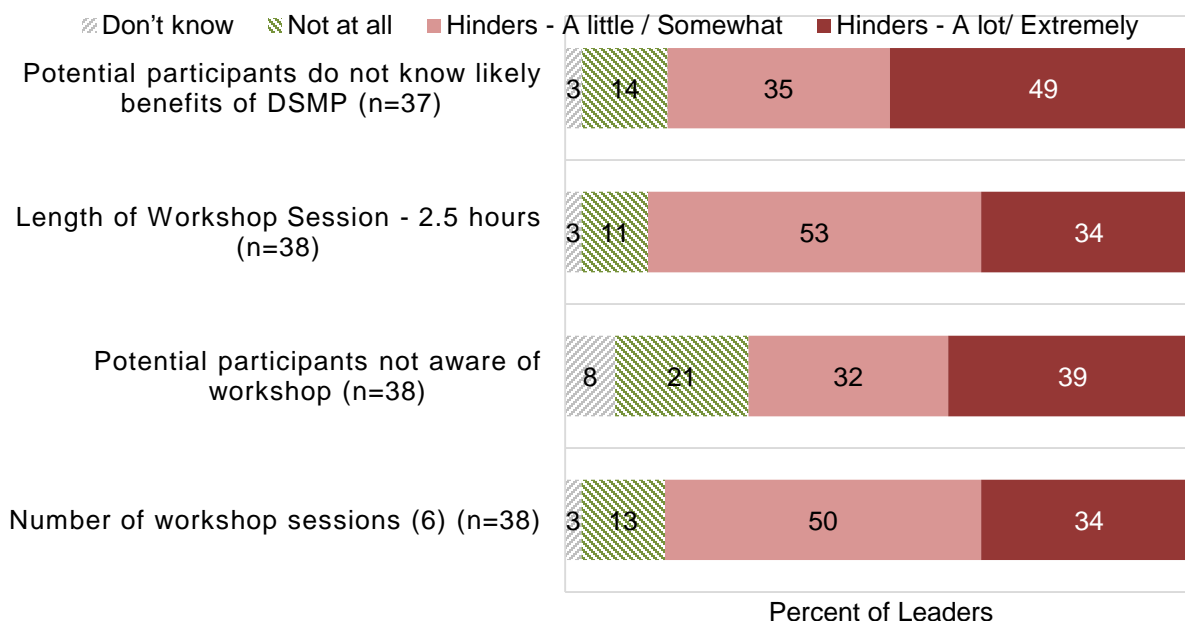


## Overcoming Barriers to DSMP Implementation

Workshop promotion has been one of the most commonly identified needs and recommended strategies for overcoming barriers to recruiting persons with diabetes to attend DSMP workshops. This year, the Regional Coordinator Survey asked RCs about 11 participant recruitment strategies that may have been used, and to rate the effectiveness of those strategies used in their region during the 2016 calendar year. Similarly, the Workshop Leader Survey asked DSMP leaders whether nine of the strategies had been used to promote the DSMP workshops they delivered and if so, to rate the effectiveness.

Table 5.4 shows the number of RCs and percent of DSMP leaders who indicated using the different workshop promotion strategies during 2016. The strategies reported by all five RCs included distributing flyers/brochures, placing articles or ads in newsletters, and having leaders and host organizations promote DSMP. Other recruitment strategies used by at least four RCs included holding information sessions, outreach to health care providers, hosting an outreach table and providing incentives to participants. Responses from DSMP leaders suggest these strategies were commonly used for promotion. More than 85 percent of responding DSMP leaders indicated using flyers/brochures (97 percent), information sessions (89 percent), outreach to local health care providers (86 percent) and articles or ads in newsletters (82 percent) as promotion strategies for the DSMP workshops they facilitated during 2016. About two-thirds of DSMP leaders indicated use of outreach tables and incentives to DSMP participants. Use of radio station interviews or ads and local cable channels presentations or announcements were the least common workshop promotion strategies according to survey responses from both RCs and DSMP leaders.

Table 5.4
*Workshop Promotion Strategies used by Regional Coordinators and DSMP Leaders*

|  | Regional Coordinators (n=5) | DSMP Leaders* (%, n) |
|---|---|---|
| Workshop leaders | 5 | n/a |
| Host organizations | 5 | n/a |
| Flyers/brochures | 5 | 97 (34) |
| Articles or ads in newsletters | 5 | 82 (28) |
| Information session | 4 | 89 (31) |
| Outreach to local health care providers / system | 4 | 86 (30) |
| Outreach table | 4 | 66 (23) |
| Incentives to DSMP participants | 4 | 66 (23) |
| Former DSMP participants promoting workshops | 3 | 63 (22) |
| Local cable channel presentations or announcements | 2 | 49 (17) |
| Radio station interviews or ads | 2 | 46 (16) |

*Number of DSMP leader respondents varies from 34 to 35 depending on promotion strategy.*

**1.18. Number of regional coordinators who report effective workshop promotion strategies**

**1.19. Percent of DSMP leaders who report effective strategies to promote workshop participation**

Figure 5.16

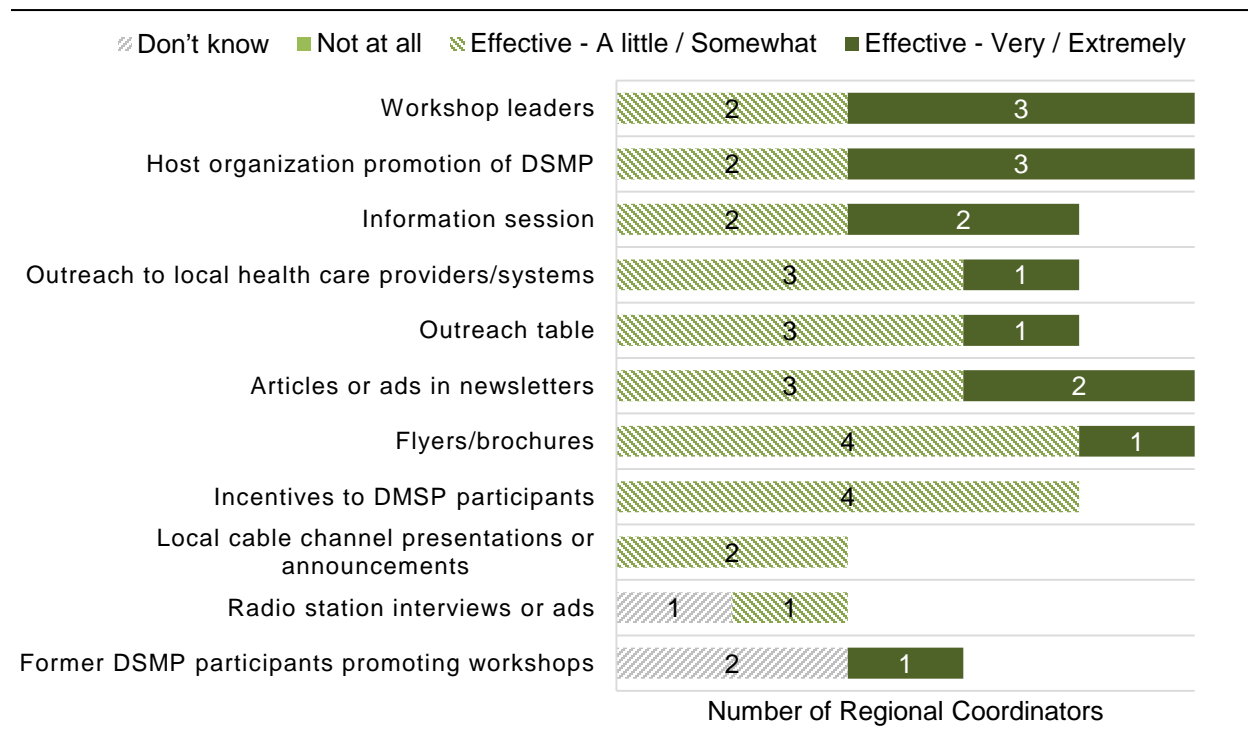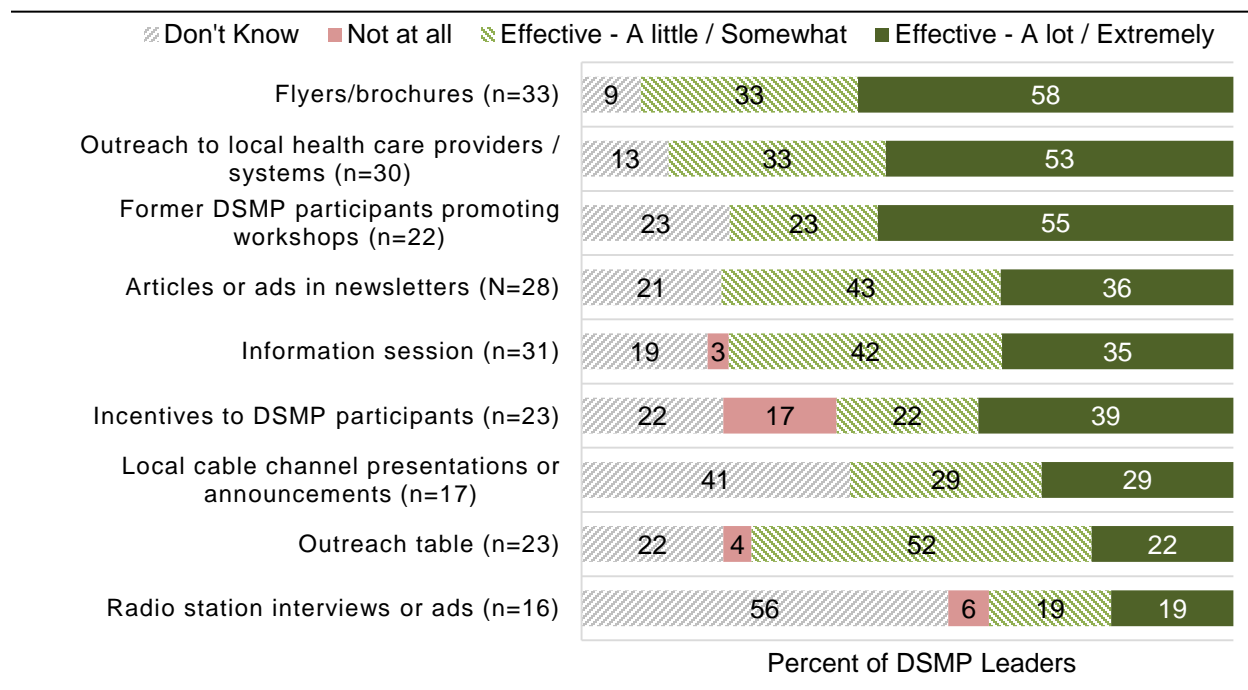*Regional Coordinator Perspectives about Workshop Promotion Strategy Effectiveness during 2016*



Legend: Don't know | Not at all | Effective - A little / Somewhat | Effective - Very / Extremely

| | |
|---|---|
| Workshop leaders | 2, 3 |
| Host organization promotion of DSMP | 2, 3 |
| Information session | 2, 2 |
| Outreach to local health care providers/systems | 3, 1 |
| Outreach table | 3, 1 |
| Articles or ads in newsletters | 3, 2 |
| Flyers/brochures | 4, 1 |
| Incentives to DMSP participants | 4 |
| Local cable channel presentations or announcements | 2 |
| Radio station interviews or ads | 1, 1 |
| Former DSMP participants promoting workshops | 2, 1 |

Number of Regional Coordinators

Figure 5.17

*DSMP Leader Perspectives about Workshop Promotion Strategy Effectiveness during 2016*



Legend: Don't Know | Not at all | Effective - A little / Somewhat | Effective - A lot / Extremely

| | |
|---|---|
| Flyers/brochures (n=33) | 9, 33, 58 |
| Outreach to local health care providers / systems (n=30) | 13, 33, 53 |
| Former DSMP participants promoting workshops (n=22) | 23, 23, 55 |
| Articles or ads in newsletters (N=28) | 21, 43, 36 |
| Information session (n=31) | 19, 3, 42, 35 |
| Incentives to DSMP participants (n=23) | 22, 17, 22, 39 |
| Local cable channel presentations or announcements (n=17) | 41, 29, 29 |
| Outreach table (n=23) | 22, 4, 52, 22 |
| Radio station interviews or ads (n=16) | 56, 6, 19, 19 |

Percent of DSMP Leaders

116

*Regional coordinator perspective*.  Regional coordinator perceptions of recruitment strategy effectiveness varied (Figure 5.16).  The most commonly used strategies involving DSMP leaders and host organizations in promotion were considered highly effective by three RCs.  The effectiveness of information sessions and articles or ads in newsletters for participant recruitment were also considered very or extremely effective by two RCs.  On the other hand, the seven remaining strategies were considered highly effective by one or fewer RCs.  The least common strategies (use of local cable channels and radio) were not rated as highly effective by the RCs who used them.

*DSMP leader perspective*.  Figure 5.17 shows the effectiveness rating provided by DSMP leaders for the participant recruitment strategies used in their region for the workshop(s) they delivered in 2016.  Distributing flyers/brochures (59 percent), former DSMP participants promoting workshops (55 percent), and outreach to local health care providers or systems (53 percent) were considered "highly effective" by more than half of the DSMP leaders who rated the effectiveness.  In addition, promoting workshops with articles or ads in newsletters, information sessions, and incentives to DSMP participants were considered highly effective by at least one-third of the DSMP leaders.  Workshop promotion using the two least commonly used strategies had more mixed reviews, however.  In fact, the most common response for the effectiveness of radio station interviews or ads and local cable channels presentations or announcements was "don't know."

*State DSMP coordinator perspective.*  In addition to the workshop promotion strategies being used by RCs and DSMP leaders, the state DSMP coordinator reported pursuing collaborations with other organizations, creation of a website, and a previous media campaign as activities used to try and overcome barriers to DSMP implementation.

---

**Question 2:  What were the key activities critical to addressing disparities in the four drivers during the implementation phase?**

## DSMP Participation and Disparities

### 2.1.  Number and percent of participants who attend DSMP workshop series by demographics and background characteristics
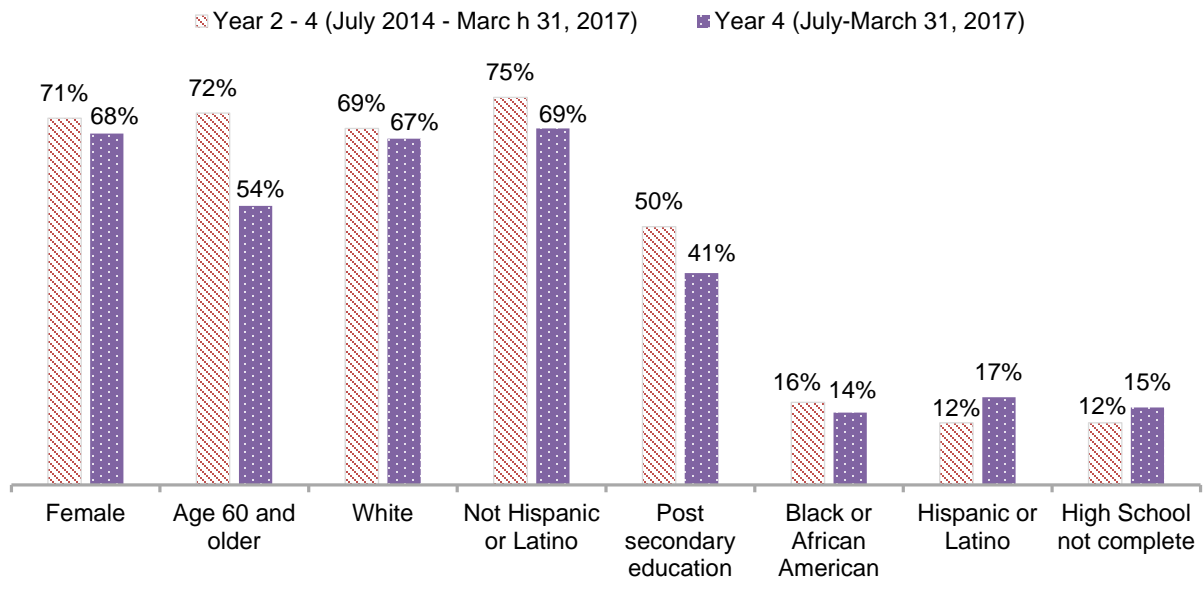
**Participant Demographics.**  DSMP participants are asked to complete a Participant Information Survey at the first session.  The responses are recorded in the NCOA portal along with attendance records.  Figure 5.18 summarizes select demographic characteristics of DSMP participants as reported on the Participant Information Survey.  The percentages shown include participants who did not respond to the demographic question in the denominator.

During the period from July 1, 2014 – March 31, 2017, more than two-thirds of workshop attendees were females (71 percent), White (69 percent), non-Hispanic/Latino (75 percent), age 60 and older (72 percent) and approximately half had a post-secondary education.  Fewer than 20 percent of participants were Black or African American (16 percent), Hispanic or Latino (12 percent), or had not completed high school (12 percent).  The demographics of participants in

Year 4, as of March 31, 2017, suggest a smaller proportion of participants who have post-secondary education and participants with an age of 60 and older are participating in DSMP than in previous years.

Figure 5.18
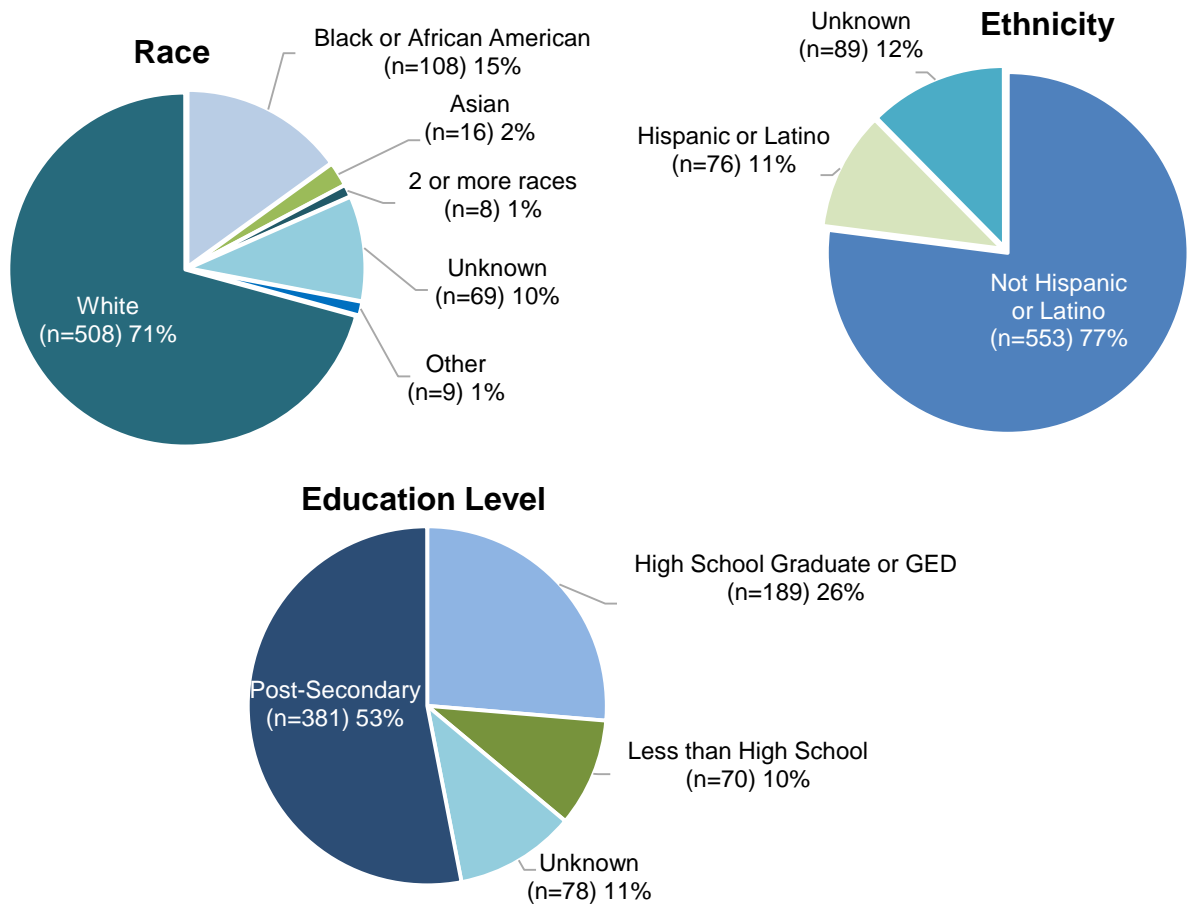*Demographic Characteristics of DSMP Participants, July 1, 2014-March 31, 2017*



Percentages for all total survey respondents, including those who did not respond to the demographic question. Percentages for race include individuals who reported one or more races.

## 2.2. Number and percent of participants who complete the DSMP workshop series by race/ethnicity and education level

The race, ethnicity and education level of participants who completed the DSMP series are shown in Figure 5.19. More than 70 percent of participants who completed DSMP by attending at least four workshops were White (71 percent), not Hispanic or Latino (77 percent) and had a high school degree or higher level of educational attainment (79 percent). Fifteen percent of DSMP completers were Black or African American, 11 percent were Hispanic or Latino, 36 percent had a high school degree or less, and 10 percent had less than a high school education. DSMP completion rates were similar for participants who were White and those who were Black or African American, but varied for participants depending on ethnicity and education levels. Participants who were Hispanic or Latino (65 percent) had lower completion rates than those who were not Hispanic or Latino (74 percent). Participants without a post-secondary education (67 percent), especially those with less than a high school degree (59 percent), had lower completion rates than participants with a post-secondary education (76 percent).

118

Figure 5.19
*Year 2 – Year 4: Completion of DSMP by Race, Ethnicity and Education Level (n=718)*



**Race**

Black or African American
(n=108) 15%

Asian
(n=16) 2%

2 or more races
(n=8) 1%

Unknown
(n=69) 10%

Other
(n=9) 1%

White
(n=508) 71%

**Ethnicity**

Unknown
(n=89) 12%

Hispanic or Latino
(n=76) 11%

Not Hispanic
or Latino
(n=553) 77%

**Education Level**

High School Graduate or GED
(n=189) 26%

Post-Secondary
(n=381) 53%

Less than High School
(n=70) 10%

Unknown
(n=78) 11%

## DSMP Workshop Delivered in Spanish and Participation

The number of workshops, participants and leaders for DSMP workshops led in English and Spanish are shown in Figure 5.20.

> *2.3. Number and percent of participants who attend DSMP workshops offered in Spanish*

> *2.4. Number and percent of DSMP workshops offered in Spanish*

Six DSMP workshops led in Spanish were held in five towns:  Hartford, New Britain, New London, Stamford and Wethersfield.  Workshops held in Spanish account for seven percent of Connecticut's 85 DSMP workshops as well as seven percent of the 1008 DSMP participants. Seventy-one participants attended these workshops, 51 of whom attended at least four workshops and completed the series.

Figure 5.20.
*DSMP Delivery in English and Spanish*



| Workshops N=85 | Participants N=1008 | Leaders N=90 |
|---|---|---|
| 7% Spanish / 93% English | 7% Spanish / 93% English | 11% Spanish / 89% English |

Legend: ■ Spanish  ■ English
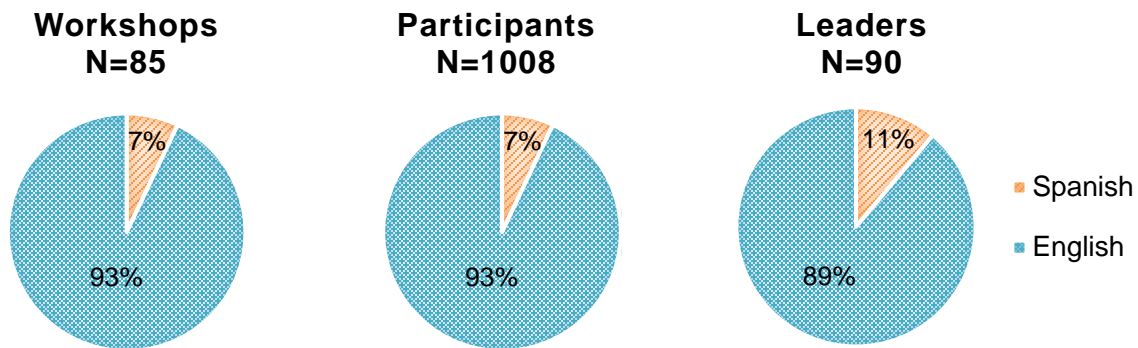
Three workshops (9 percent) were led in Spanish in Year 2 and two (6 percent) were led in Year 3 (results not shown). As of March 31, 2017, one of the 19 DSMP workshops offered in Year 4 was in Spanish (5 percent). This workshop had 21 participants, 20 of whom completed the program.

### 2.5. *Number and percent DSMP leaders trained to deliver workshops in Spanish*

Ten leaders led the DSMP workshops delivered in Spanish. This was 18 percent of leaders in Year 2 (n=6), 12 percent of leaders in Year 3 (n=4) and six percent of leaders as of the third quarter of Year 4 (n=2). Four of the leaders who delivered workshops in Spanish did so in both Year 2 and Year 3.

## DSMP Reach in Low Income Communities

The U.S. Census Bureau American FactFinder was used to identify poverty rates for each of the 45 Connecticut towns where DSMP workshops have been held and the 126 residence zip codes for participants during the period from July 1, 2014 through March 31, 2017. For the purposes of this report, poverty rate was defined as the percentage of individuals below the federal poverty level (FPL) within a given town or zip code using the 2011-2015 American Community Survey 5-Year Estimates. Poverty rates were then used to categorize Connecticut towns and zip codes as a low income community if at least 20 percent of residents in the town were below the FPL. This is the same threshold used by the Census Bureau to identify census tracts or block numbering areas as "poverty areas." The remaining towns or zip codes were grouped into communities with 10-19 percent of individuals below FPL and communities with fewer than 10 percent of individuals below FPL.

### 2.6. *Number and percent of participants who attend DSMP workshops in low income communities*

### 2.7 *Number of DSMP workshops offered in low income communities*

Table 5.5 shows DSMP workshops delivered by town poverty rates overall and for Years 2, 3 and 4 of the 1305 grant. As of March 31, 2017 almost one-fourth of the DSMP workshops were delivered in these low income towns; more than twice as many workshops were delivered in towns with poverty rates below 10 percent (n=52). During this time, 236 of the 1008 DSMP participants (24 percent) attended the 20 workshops held in low income communities with the highest poverty rates.

Table 5.5
*Connecticut DSMP Workshop Offerings in Low Income Communities*

| Town Poverty Rates | Year 2 (FY 2015) % (n) | Year 3 (FY 2016) % (n) | Year 4 (FY 2017-Q1-3) % (n) | Overall % (n) |
|---|---|---|---|---|
| 20% or more | 24 (8) | 15 (5) | 37 (7) | 24 (20) |
| 10-19% | 30 (10) | 24 (8) | 16 (3) | 24 (21) |
| <10% | 46 (15) | 61 (20) | 47 (9) | 52 (44) |
| Total | 100 (33) | 100 (33) | 100 (19) | 100 (85) |

The proportion of DSMP workshops offered in low income communities has varied from year to year (*Figure 5.21*). Between Year 2 and Year 3, the proportion of workshops delivered in towns with the highest poverty rates (low income communities) decreased from 24 to 15 percent while the delivery of DSMP in towns with the least poverty increased from 46 to 61 percent. For Year 4, as of the close of the third fiscal quarter, DSMP delivery in low income towns appears to have improved. In fact, the seven workshops delivered in low income towns in Year 4 already surpasses the five workshops delivered in low income towns during Year 3.

Figure 5.21
*Comparison of DSMP Workshops in Towns with the Lowest and Highest Poverty Rates*



121
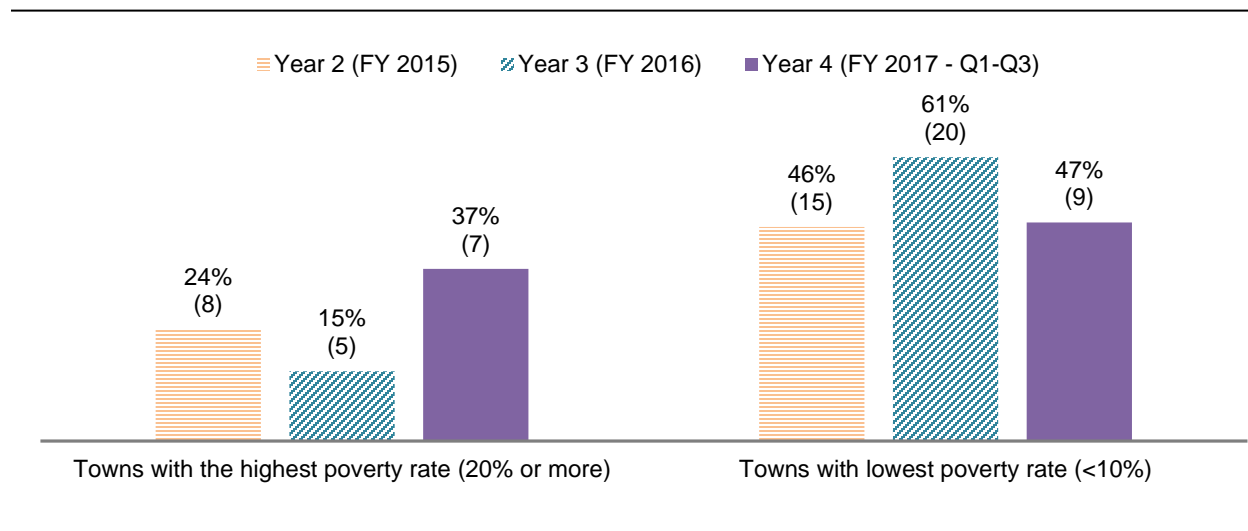
### 2.8. *Number and percent of participants attending trainings who are from low-income communities*

Participant zip codes were listed in the NCOA portal for 896 of the 1008 participants. Twenty percent of the 896 participants (n=176) lived in communities with zip codes where at least 20 percent of residents earn below the FPL.

## Barriers to Reaching Underserved Populations

The state DSMP coordinator reported that RCs are asked to schedule DSMP for underserved populations. As described by the state coordinator, enrolling the eight participants necessary to hold DSMP has been even more challenging with underserved populations because these populations face additional competing demands for their time.

## Key Activities to Address Disparities

The state DSMP coordinator was asked about key activities used in 2016 to overcome disparities in scheduling DSMP workshops that reach underserved populations and successful promotion of the workshops. The key activities were targeted collaborations with organizations to recruit new leaders and schedule DSMP. Examples of collaborations to reach low-income and/or racially diverse communities included engaging St. Francis Center for Health Equity, Waterbury Health Department, Fair Haven Community Health Center, West Indian Nurses Association (training of nurses to become DSMP leaders), the Veteran's Administration (training veterans to teach veterans), and Department of Corrections inmate training.

### 2.9. *Number of regional coordinators who report specific activities critical to addressing disparities in the four drivers*

The Regional Coordinator Survey for Year 4, asks RCs to describe key strategies used in their region during 2016 to: 1) recruit new workshop leaders from underserved populations, 2) increase delivery of DSMP workshops for underserved populations, and 3) promote workshops to underserved populations. One of the five RC reported no strategies were used in 2016 to recruit new DSMP leaders or increase delivery of DSMP workshops for underserved populations. Four RCs provided examples of strategies used to better reach underserved populations. The key strategy used was to reach out to and collaborate with organizations and people in underserved communities. As part of this strategy, at least two RCs reported engaging health departments, health clinics, senior centers, housing sites and local churches. One RC also reported recruiting and training "ethnically/racially diverse leaders representative of the communities they serve."

# Appendix

Appendix 1.A
*1305 Strategies and External Partners*

| Basic Strategies | |
|---|---|
| Strategy 1: Promote the adoption of food service guidelines/nutrition standards, which include sodium | CSDE (1305 Staff) CSDE (1308 Staff) Office of Early Childhood Waterbury Health Department All Our Kin City of Hartford United Way / 211 Child Care |
| Strategy 2: Promote the adoption of physical education/physical activity (PE/PA) in school | CSDE (1305 Staff) CSDE (1308 Staff) |
| Strategy 3: Promote the adoption of physical activity (PA) in early care and education (ECE) and worksites | CSDE (1305 Staff) CSDE (1308 Staff) Office of Early Childhood Waterbury Health Department All Our Kin City of Hartford United Way / 211 Child Care |
| Strategy 4: Promote reporting of blood pressure and A1C measures; and, as able, initiate activities that promote clinical innovations, team-based care, and self-monitoring of blood pressure | Charter Oak Health Center Community Health & Wellness Center Community Health Center, Inc. Cornell Scott Health Center Fair Haven Community Health Center Optimus Health Care Staywell Health Center Regional Extension Center |
| Strategy 5: Promote awareness of high blood pressure among patients | Regional Extension Center |
| Strategy 7: Promote participation in ADA-recognized, AADE-accredited, state-accredited/certified, and/or Stanford licensed diabetes self-management education (DSME) programs | Charter Oak Health Center Community Health & Wellness Center Community Health Center, Inc. Cornell Scott Health Center Fair Haven Community Health Center Optimus Health Care Staywell Health Center Regional Extension Center |

| Enhanced Strategies | |
|---|---|
| **Domain 2: Environmental Approaches that Promote Health** | |
| Strategy 1: Increase access to healthy foods and beverages<br>    • Provide access to healthier food retail<br>    • Provide access to farmer's markets | Bridgeport Health Department<br>Waterbury Health Department |
| Strategy 2: Implement food service guidelines/nutrition standards where foods and beverages are available.  Guidelines and standards should address sodium<br>    • Implement food service guidelines in priority settings (ECEs, worksites, communities) | CT State Department of Education (1305 Staff)<br>CT State Department of Education (1308 Staff)<br>Office of Early Childhood<br>CT Head Start Technical Assistance Office<br>New England Head Start Training and Technical Assistance Network<br>United Way / 211 Child Care |
| Strategy 3: Create supportive nutrition environments in school<br>    • Implement policies and practices that create a supportive nutrition environment, including establish standards (including sodium) for all competitive foods; prohibit advertising of unhealthy foods; and promote healthy foods in schools, including those sold and served within school meal programs and other venues | CT State Department of Education (1305 Staff)<br>CT State Department of Education (1308 Staff) |
| Strategy 4: Increase physical activity access and outreach<br>    • Design streets and communities for physical activity | Bike Walk CT |
| Strategy 5: Implement physical activity in early care and education<br>    • Implement ECE standards for physical activity | CSDE (1305 Staff)<br>CSDE (1308 Staff)<br>Office of Early Childhood<br>CT Head Start Technical Assistance Office<br>New England Head Start Training and Technical Assistance Network<br>Waterbury Health Department<br>All Our Kin<br>City of Hartford<br>United Way / 211 Child Care |
| Strategy 6: Implement quality physical education and physical activity in K-12 schools<br>    • Develop, implement, and evaluate comprehensive school physical activity | CSDE (1305 Staff)<br>CSDE (1308 Staff) |

| **Enhanced Strategies** | |
|---|---|
| Domain 2: Environmental Approaches that Promote Health | |
| programs (CSPAP). CSPAP includes quality physical education and physical activity programming before, during, and after school, such as recess, classroom activity breaks, walk/bicycle to school, physical activity clubs | |
| Strategy 7: Increase access to breastfeeding friendly environments <br> • Implement practices supportive of breastfeeding in birthing facilities <br> • Provide access to professional and peer support for breastfeeding <br> • Ensure workplace compliance with federal lactation accommodation law | CT Breastfeeding Coalition (CBC) <br> UConn CPHHP (Breastfeeding) |


| **Enhanced Strategies** | |
|---|---|
| Domain 3:  Health System Interventions | |
| Strategy 1: Increase implementation of quality improvement processes in health systems <br> • Increase electronic health records (EHR) adoption and the use of health information technology (HIT) to improve performance <br> • Increase the institutionalization and monitoring of aggregated/standardized quality measures at the provider and systems level | Regional Extension Center |
| Strategy 2: Increase use of team-based care in health systems <br> • Increase use of self-measured blood pressure monitoring tied with clinical support | M3 Consulting <br> Regional Extension Center |

| Enhanced Strategies | |
|---|---|
| Domain 4: Community-Clinical Linkages | |
| Strategy 1: Increase use of diabetes self-management programs in community settings<br>• Increase access, referrals, and reimbursement for AADE-accredited, ADA-recognized, State-accredited/certified, or Stanford-licensed DSME programs | Charter Oak Health Center<br>Community Health & Wellness Center<br>Community Health Center, Inc.<br>Cornell Scott Health Center<br>Fair Haven Community Health Center<br>Optimus Health Care<br>Staywell Health Center<br>Regional Extension Center<br>UConn School of Pharmacy<br>CT Community Care (CCCI)<br>Eastern Connecticut Area Agency on Aging<br>North Central Connecticut Area Agency on Aging<br>South Central Connecticut Area Agency on Aging<br>Southwestern Connecticut Area Agency on Aging<br>Western Connecticut Area Agency on Aging<br>Qualidigm<br>211 United Way |
| Strategy 2: Increase use of lifestyle intervention programs in community settings for the primary prevention of type 2 diabetes<br>• Increase referrals to, use of, and/or reimbursement for CDC recognized lifestyle change programs for the prevention of type 2 diabetes | Charter Oak Health Center<br>Community Health & Wellness Center<br>Community Health Center, Inc.<br>Cornell Scott Health Center<br>Fair Haven Community Health Center<br>Optimus Health Care<br>Staywell Health Center<br>Regional Extension Center<br>Wilton branch of Riverbrook Regional YMCA<br>Central Connecticut Coast YMCA<br>Regional YMCA of Western Connecticut<br>Wallingford Family YMCA<br>211 United Way<br>YMCA Torrington<br>YMCA of Greater Hartford<br>Fairfield Health Department |
| Strategy 3: Increase use of health-care extenders in the community in support of self-management of high blood pressure and diabetes<br>• Increase engagement of community health workers (CHWs) in the | UConn School of Pharmacy |

| Enhanced Strategies | |
|---|---|
| **Domain 4: Community-Clinical Linkages** | |
| provision of self-management programs and on-going support for adults with diabetes<br>• Increase engagement of community pharmacists in the provision of medication/self-management for adults with high blood pressure and adults with diabetes | |
| Strategy 4: Increase use of chronic disease self-management programs in community settings<br>• Increase access to and use of Chronic Disease Self-Management (CDSM) programs (Note: States selecting this strategy must already be engaged in this work at a state level and/or be currently funded for by the CDC Arthritis Program to support work in CDSMP.) | Eastern Connecticut Area Agency on Aging<br>North Central Connecticut Area Agency on Aging<br>South Central Connecticut Area Agency on Aging<br>Southwestern Connecticut Area Agency on Aging<br>Western Connecticut Area Agency on Aging<br>CT Department on Aging |
| Strategy 5: Implement policies, processes, and protocols in schools to meet the management and care needs of students with chronic conditions<br>• Identifying and tracking students with chronic conditions that may require daily or emergency management, e.g. asthma and food allergies<br>• Developing protocols that ensure students identified with a chronic condition that may require daily or emergency management are enrolled into private, state, or federally funded insurance programs if eligible<br>• Providing assessment, counseling, and referrals to community-based medical care providers for students on activity, diet, and weight-related chronic conditions | CSDE (1305 Staff)<br>CSDE (1308 Staff) |