GUIDANCE DOCUMENTS
CATEGORY A

DP18-1817 COOPERATIVE AGREEMENT

Innovative State and Local Public Health Strategies to Prevent and Manage Diabetes and Heart Disease and Stroke
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<td><strong>Implement systems to facilitate bi-directional e-referral between health care systems and CDC-recognized lifestyle change programs for type 2 diabetes prevention</strong></td>
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**Intent of Strategy:**

The intent of this strategy is to increase the number of health care systems using electronic systems to exchange information with CDC-recognized lifestyle change programs. A bi-directional e-referral system supports information going from the health care system to a specified community program or resource [e.g. a CDC-recognized lifestyle change program (LCP)] and information returning from that program to the health care system. This strategy focuses on type 2 diabetes prevention in high burden populations/communities. Work on this strategy should result in an increase in the number of individuals with prediabetes being referred to CDC-recognized organizations offering the National DPP LCP, and support the flow of information from those CDC-recognized organizations back to the referring health care providers to provide information on their patients’ progress in the program.

**Key terms/definitions related to Strategy A.1:**

**Referral:** A health care system referral is a process whereby a patient is recommended to receive a specific service or program delivered by another entity. Referrals of eligible participants to CDC-recognized organizations offering the National DPP LCP may be initiated by physicians and other clinical workers to help facilitate patient engagement.

**Bi-directional e-referral system:** A bi-directional e-referral system supports information going from the health care system to a specified community program or resource (e.g., a CDC-recognized LCP) and information returning from that program to the health care system. Ideally, bi-directional referral systems are integrated within the electronic health record (EHR). Bi-directional referrals help “close the loop”, since CDC-recognized organizations are able to communicate with the provider using an electronic platform.

**Electronic Health Records:** An Electronic Health Record (EHR) is an electronic version of a patient’s medical history that is maintained by a health care organization/provider over time. EHRs include key administrative and clinical data relevant to an individual’s care under a particular provider, including demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports. The EHR automates access to information and has the potential to streamline the clinician’s workflow. The EHR also has the ability to support other care-related activities directly or indirectly through various interfaces, including evidence-based decision support, quality management, and outcomes reporting. ([https://www.cms.gov/Medicare/EHealth/EHealthRecords/index.html](https://www.cms.gov/Medicare/EHealth/EHealthRecords/index.html))

**Electronic Medical Record (EMR):** A digital version of a patient’s chart in the health care provider’s (HCP) office. An EMR contains the medical and treatment history of the patient in one practice.

**Enabling Services:**

Enabling services (ES) are non-clinical services that support the delivery of basic health services and facilitate access to comprehensive patient care as well as social services. They include case management, benefit counseling or eligibility assistance, health education and supportive counseling, interpretation, outreach, transportation, and education of patients and the community regarding the availability and appropriate use of health services. Community Health Workers (CHW) can be engaged to deliver enabling services and serve as advocates and health guides for patients with prediabetes. Establishing a bi-directional referral pathway can be beneficial to HCPs and LCPs alike, and ultimately improve the patient experience and impact health outcomes. ([Association of Asian Pacific Community Health Organizations (AAPCHO), 2010](http://enablingservices.aapcho.org). For more information, visit [http://enablingservices.aapcho.org](http://enablingservices.aapcho.org).
**Interoperability**: The ability of different health information technology systems to seamlessly communicate and exchange data.

**Benefits of bi-directional referral processes:**
Referrals made by HCPs must be timely and as seamless as possible to ensure smooth transitions, avoid gaps in care, and avoid negative impact on costs and quality scores. Bi-directional communication helps HCPs track the status of their referrals and associated patient outcomes, which can help demonstrate value. There are many benefits of bi-directional referral, including:

- Ensuring that information is moving both from the health care system to the CDC-recognized LCP and from the LCP back to the health care system.
- Increasing the number of touchpoints with patients which may increase likelihood for them to enroll or improve their health outcomes.
- Allowing HCPs to reinforce positive behaviors demonstrated in the program when feedback is provided on a patient’s progress.
- Keeping the LCP front of mind for HCPs, which may result in a greater number of referrals.
- Improving care continuity for the patient by establishing the LCP as a practice extender and member of the care team.
- Building a positive and ongoing relationship between the LCP and HCP/organization which guides the development of a true and respectful partnership on which to build a bi-directional implementation plan.
- Building trust between the HCP and the LCPs; HCPs may then feel more confident in referring patients to CDC-recognized LCPs.

**Removing barriers to participation for high burden populations:**

- Consider including enabling services in all bi-directional referral practices and policies, so that the social determinants of health and other social needs of the individual with prediabetes can be met.

**Examples of state and community level activities /interventions:**

- Develop formalized agreements or memorandums of understanding between LCPs and HCPs or health systems, within which bi-directional referrals will be implemented. Each party should have a clear understanding of the agreed upon practices and policies and the intended outcomes.
- Work with relevant partner organizations to assess current policies and systems relevant to EHR use for bi-directional referrals and the current landscape of referrals to evidence-based behavior change programs.
- Work with FQHCs in high-burden, high need communities to develop or enhance EHR platforms to support bi-directional referral.
- Work with community–based organizations (e.g., the YMCA) to enhance existing one-way referral pathways to complete bi-directional referrals to CDC-recognized LCPs.
- Support the testing of third party applications and related tools that enable bi-directional referral.
- Participate in statewide EHR taskforces to assist in the development or enhancement of EHRs for use in bi-directional referral of individuals with prediabetes to CDC-recognized LCPs.
- Work with a cohort of FQHCs to utilize an eClinical EHR dashboard, and participate in a learning collaborative to implement a bi-directional referral pathway between these sites and CDC-recognized LCPs.
- Once a bi-directional referral system is developed/implemented, work with partners to evaluate the system to determine how bi-directional processes are working overall and what areas to target for improvement using PDSA cycles or other mechanisms.

**Activities not allowed in this strategy:**

- Recipients should work with their Project Officers to determine appropriate expenditures related to this work.
Performance measures for strategy:

- **Short term**
  - A.1. # of patients served within health care systems that use bi-directional referral systems to exchange information with CDC-recognized lifestyle change programs

- **Intermediate**
  - A.9. # of participants enrolled in CDC-recognized lifestyle change programs

- **Long term**
  - A.14. # of CDC-recognized organizations achieving a minimum average weight loss of 5% in their eligible participants

Technical assistance and training resources to support this strategy:


- National Association of Chronic Disease Directors. Bi-directional Resources and trainings. https://www.chronicdisease.org/mpage/domain4_ref_resource

APPENDIX

**National Diabetes Prevention Program (National DPP):**
A partnership of public and private organizations working together to build the infrastructure for nationwide delivery of an evidence-based lifestyle change program for adults with prediabetes to prevent or delay onset of type 2 diabetes. The National DPP provides a framework for type 2 diabetes prevention efforts in the United States.

**CDC-recognized lifestyle change program:**
A key component of the National DPP is a structured, evidence-based, yearlong lifestyle change program to prevent or delay onset of type 2 diabetes in adults with prediabetes or at risk of developing type 2 diabetes. The lifestyle change program is group-based, facilitated by a trained lifestyle coach, and uses a CDC-approved curriculum. The curriculum incorporates regular opportunities for direct interaction between the lifestyle coach and participants, builds peer support, and focuses on behavior modification through healthy eating, increasing physical activity, and managing stress. The program may be delivered in-person, online, via distance learning, or through a combination of these delivery modes.
WORKING WITH NEW AND EXISTING CDC-RECOGNIZED ORGANIZATIONS TO ENROLL HIGH BURDEN POPULATIONS OF FOCUS

DP18-1815 (Strategy A.6) & DP18-1817 (Strategy A.2) Cooperative Agreement Guidance Document for Increasing Participant Enrollment in CDC-Recognized Lifestyle Change Programs

INTENT OF STRATEGY

An estimated 84.1 million adults in the US have prediabetes. To date, 257,820 individuals have enrolled in the National DPP lifestyle change program (for whom the Diabetes Prevention Recognition Program [DPRP] has received data); however, more work is needed to reach the remaining millions of individuals with prediabetes, or those who are at risk for type 2 diabetes, and enroll them in a CDC-recognized lifestyle change program. This strategy is designed to help start new CDC-recognized organizations in areas of the country with few or no CDC-recognized lifestyle change programs, or help enroll high burden populations of focus in existing CDC-recognized lifestyle change programs, and is included in both 1815 and 1817. Cooperative agreement funds may be used to accomplish the goal of this strategy, as long as the funds are administered using a value-based payment system. Value-based payment assures that payments are made to the CDC-recognized organization based on achievement of lifestyle change program-specific outcomes, such as participant attendance and/or weight loss.

Recipients will be expected to serve as payers when using cooperative agreement funds to enroll high burden populations of focus in CDC-recognized lifestyle change programs. CDC approximates the cost of administering the National DPP lifestyle change program to a participant who completes all 22 sessions of the year-long program to be $500. (This does not include the cost of program support incentives or additional services to address social determinants of health, such as transportation.) Activities that drive overall program cost include marketing and recruitment efforts, facility costs, and direct program delivery costs, including staffing. This document describes the value-based payment options available to recipients and provides guidance to support the decision-making process.

APPROACHES TO INCREASE ENROLLMENT IN CDC-RECOGNIZED LIFESTYLE CHANGE PROGRAMS USING VALUE-BASED PAYMENT

To fulfill the goal of this strategy, recipients can use two main approaches:

- Support participant enrollment in existing CDC-recognized lifestyle change programs. Find a CDC-recognized lifestyle change program, and pay the costs to enroll high burden populations of focus.
- Start new CDC-recognized organizations. If there are no available CDC-recognized lifestyle change programs that have the capacity and expertise to serve the high burden population(s) of focus, find new organizations willing to pursue CDC recognition.
Three Steps to Determine the Appropriate Approach

To determine the appropriate approach (or in some cases, approaches), recipients should take the following three steps and answer the minimum questions in Table 1 below.

1. Do a landscape analysis.
2. Review the administrative and financial options available to distribute and oversee accountability for funds.
3. Make strategic decisions about options with the greatest reach and potential for success.

Table 1. Three step decision-making process and questions to determine the appropriate approach for using cooperative agreement funds to increase participant enrollment in CDC-recognized lifestyle change programs.

| Step 1: Do a landscape analysis. | • Where are the high burden populations of focus?  
| | • Where are there existing CDC-recognized organizations?  
| | • Where are there gaps?  
| | • Can the gaps be met with online and distance learning programs?  
| | • Which partners might be willing to establish new organizations to offer the National DPP lifestyle change program?  |
| Step 2: Review the administrative and financial options available to distribute and be accountable for funds. | • Are you limited to making annual awards?  
| | • Are the awards required to be competitive?  
| | • Are the awards limited to 12 months?  
| | • Can you pay vouchers when services are rendered?  
| | • How do you reconcile awards that are made prospectively to ensure that deliverables are met?  
| | • How will you set and monitor performance measures at either, or both, the participant and organizational level?  
| | • Would it be more efficient and effective to contract with a third party for the administrative and financial functions?  |
| Step 3: Make strategic decisions about options with the greatest reach and potential for success. | • How much funding do you have dedicated to strategy A.6 (1815)/strategy A.2 (1817)?  
| | • What is the minimum amount of program delivery funding you need to provide to an organization to ensure the probability of success? (As a rough guideline, consider a minimum of $5,000 for an existing organization [10 participants @ $500], and a minimum of $8,000 for a new organization [10 participants, plus funds for Lifestyle Coach training, class materials, and marketing/enrollment materials].)  
| | • How will you adjust basic funds for program delivery (i.e., Add funds for incentives or supports for social determinants of health, or subtract funds for costs that you will cover such as Lifestyle Coach training).  
| | • How will you assess the capacity of the organizations you plan to work with? (General guidance: Organizations with preliminary or full recognition have already demonstrated ability to deliver the National DPP lifestyle change program. New organizations should complete the Organizational Capacity Assessment for DPRP Applicant Organizations as a condition of receiving funding.)  
| | • What is the best way to allocate funds to reach and have a positive impact on the largest number of priority populations? (Ask your Project Officer to review your proposal if you are unsure how to proceed.)  |
WHAT IS VALUE-BASED PAYMENT?

Value-based payment (VBP) is payment tied to outcomes, which typically include session attendance and weight loss. The administration of VBP typically requires a voucher system or a claims processing system (which is observed in MDPP, Medicaid, and private payers). Payments are usually made only after outcomes are met (e.g., the first payment may occur after a participant attends four class sessions). For 1815 and 1817 recipients, the following modified VBP options are available and based on the usual ways that states fund community-based organizations (i.e., through mini-grants or sub-awards):

- Modified Full VBP – Applies to existing CDC-recognized organizations and includes enrollment targets and performance goals.
- Modified interim VBP – Applies to new CDC-recognized organizations and includes annual enrollment targets. No performance goals are required for the initial 24 months. New organizations must meet enrollment targets for the first 12-month period, or they cannot continue to receive funds for an additional 12 months.

VALUE-BASED PAYMENT OPTIONS AND GUIDELINES FOR USING COOPERATIVE AGREEMENT FUNDS TO INCREASE PARTICIPANT ENROLLMENT IN CDC-RECOGNIZED LIFESTYLE CHANGE PROGRAMS

Based on the results of the 3-step decision-making process, recipients should choose from the options in Table 2 on the next page to select and fund organizations.
Table 2. Value-based payment options and guidelines for using cooperative agreement funds to increase participant enrollment in CDC-recognized lifestyle change programs.

<table>
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<th>Existing Organizations – Full VBP</th>
<th>New Organizations/New Sites for Existing Organizations – Interim VBP</th>
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<td><strong>Payment Mechanism</strong></td>
<td>Voucher (Real-Time)</td>
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<td>(No cap, tied to enrollment)</td>
<td>Payments for allowable start-up costs up to the $15,000/year cap</td>
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<td><strong>Deliverables</strong></td>
<td>Enrolled participants (Negotiated number)</td>
<td>Minimum cohort of 15 participants per each 12 month period</td>
<td>contractor sets enrollment targets with individual sites</td>
</tr>
<tr>
<td></td>
<td>Enrolled participants (Negotiated number)</td>
<td>Minimum cohort of 15 participants per each 12 month period</td>
<td></td>
</tr>
<tr>
<td><strong>Performance Goals (PGs)</strong></td>
<td>Attendance and weight loss for individual participants</td>
<td>No performance goals during first 24 months</td>
<td>contractor sets participant or organizational PGs for individual sites</td>
</tr>
<tr>
<td>(Recipient can require data as a condition of funding)</td>
<td>Average attendance and weight loss for the organization</td>
<td>No performance goals during first 24 months</td>
<td></td>
</tr>
<tr>
<td><strong>Accountability</strong></td>
<td>Accountability happens in real time since payment is only made when PGs are met</td>
<td>Annual review to ensure that at least 15 participants were enrolled for each 12 month period</td>
<td>Either real time VBP or annual review of enrollment targets and PGs required</td>
</tr>
<tr>
<td>(If PGs or deliverables are not met, 1815 funding must end.)</td>
<td>Annual review to ensure that enrollment targets and PGs were met</td>
<td>Must achieve preliminary recognition by month 24</td>
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Abbreviations: VBP = Value-Based Payment; PGs = Performance Goals.
Additional Details and Guidelines

Support Enrollment in Existing CDC-Recognized Lifestyle Change Programs (Options 1 and 2)

- Use the DPRP Registry of All Recognized Organizations to identify existing CDC-recognized organizations and their locations.
  - Some CDC-recognized organizations may offer classes in additional locations. Use Find a Class Location to identify class locations and confirm the accessibility of existing CDC-recognized lifestyle change programs.
- Determine the ability of an organization to enroll eligible participants from the high burden population(s) of focus.
  - Determine whether staff at the organization have specialized expertise to enroll and deliver the lifestyle change program to the high burden populations of focus.
  - Assess the organization’s current referral processes and potential to add/improve upon these processes to reach high burden populations of focus.
- Recipients may choose to prioritize CDC-recognized organizations that are or are interested in becoming MDPP suppliers. If recipients choose to work with an MDPP supplier, the supplier cannot be reimbursed twice for the same participant. In other words, the supplier cannot receive reimbursement for a participant from the Centers for Medicare & Medicaid Services (CMS), and also receive reimbursement from the recipient based on its VBP system for the same participant.
  - This also applies to recipients in states that have Medicaid reimbursement for the National DPP lifestyle change program.
- In order to appropriately reimburse or reconcile for milestones met, it is important to negotiate and set terms for data requirements and collection. The intent is not to set up a data collection system that duplicates the DPRP, but recipients will need information to ensure that payments are made correctly according to the VBP plan in use.
  - At a minimum, include data on participants enrolled with cooperative agreement funds as part of the negotiation.
  - Recipients may include other data as part of the negotiation (e.g., weight loss, number of sessions attended).
  - Any information on individual participants must be de-identified.
  - Recipients may choose to use the DPRP evaluation reports that CDC-recognized organizations receive after making their six month data submissions to CDC. In this case, recipients should include this in the terms and set a timeline with the CDC-recognized organization for the recipient’s receipt of this report. CDC cannot provide this report directly to the recipient.

Start New CDC-Recognized Organizations/New Program Delivery Sites (Options 3 and 4)

- If the recipient has determined it is most feasible to start a new CDC-recognized organization with the specialized expertise and capacity to reach and serve high burden populations, the recipient should identify organizations that have this specialized expertise and sufficient organizational capacity to successfully deliver the program, as evidenced by the outcome of the Organizational Capacity Assessment for DPRP Applicant Organizations.
  - Potential organizations may include: organizations with experience delivering an evidence-based behavior change program (e.g. AADE-accredited/ADA-recognized DSMES programs, clinics, cooperative extension agencies, community-based organizations, pharmacies).
- Any new organizations supported by cooperative agreement funds must apply for and receive CDC recognition from the DPRP within 30 days of receiving the cooperative agreement funds.
• Recipients should ensure that organizations develop a plan demonstrating how they will achieve long-term financial sustainability.
• Recipients should ensure that new organizations understand the terms associated with accepting cooperative agreement funds for start-up costs.
  o Organizations must agree to serve a specified number of high burden population participants at no additional cost during the 24-month start-up time period.
• Recipients may only sub-contract with the identified organizations; further sub-contracting by the identified organizations with other in-person organizations to deliver the National DPP lifestyle change program is not allowed. Note: Please contact your Project Officer if an identified organization wishes to sub-contract or partner with an online organization.
• Know the DPRP Standards and help the new organizations understand the required metrics.
• Although not a specific component of strategy A.6 (1815)/strategy A.2 (1817), participant retention should be considered and planned for from the beginning when starting new CDC-recognized organizations.

Contracting out Payment Functions (Option 5)
• If recipients determine that Option 5 – contracting out payment functions to a statewide organization – is most feasible to implement the strategy, then the organization must have a direct relationship with the delivery sites. Examples of such organizations may include, but are not limited to: State Primary Care Association to work with FQHCs, State Cooperative Extension Agency to work with local extension sites, a large pharmacy group to work with community pharmacists, and a state AADE or ADA group to work with DSMES sites. These organizations can operate in two ways:
  1. Become CDC-recognized and act as an umbrella organization, submitting data and distributing payment. The local sites can serve as class locations for the umbrella organization.
  2. Act as an administrative/management support group. In this case, the organization would set enrollment targets, distribute payment, and maintain accountability for the performance goals. The individual CDC-recognized organizations would submit their own data to the DPRP.
• Recipients are encouraged to consider limiting the levels of sub-contracting only to those needed to avoid possible contract and start date delays, as well as added complications to contract and accountability management.

For any option, recipients should:
• Provide technical assistance and support to ensure the lifestyle change program is being delivered with fidelity to the DPRP Standards, and assist the funded organizations in achieving full recognition. Recipients should refer to the resources in the Technical Assistance and Training Resources section of this document to ensure successful new CDC-recognized organization start-up and lifestyle change program implementation. Please note: the National DPP Customer Service Center is not a replacement for the direct technical assistance that recipients should provide to the organizations that they support; it should be used to supplement the assistance provided.
• Ensure that the activities being done to implement other cooperative agreement strategies support participant referral to and enrollment in CDC-recognized organizations. Please refer to the guidance documents for those strategies for additional information.
• Consider providing support and assistance to market the program to high burden populations of focus to help increase enrollment. Please refer to the 1817 strategy A.3 guidance document for additional information on implementing tailored communication/messaging to reach high burden populations of focus.

If working with 1705 recipients and/or their affiliate sites:
• Recipients may choose to work with current 1705 recipients and/or their affiliate sites. This is allowed as long as the three-step decision making process is followed and the payment is not duplicated for the participants. In other words, an organization receiving payment for a participant’s enrollment with 1705 funds – either through start-up or another payment mechanism – cannot receive payment for that same participant’s enrollment using 1815 or 1817 funds.
• Please inform your Project Officer if you will be working with current 1705 recipients and/or their affiliate sites.

Key Elements for Successful Implementation of Value-Based Payment
• Enrollment Targets
  o While the focus of this cooperative agreement is on enrolling high burden populations of focus, funds may be used to also enroll the general population. This will help organizations recruit and enroll full cohorts (about 10-20 participants).
• Performance Goals
  o Recipients should negotiate attendance and weight loss goals based on their knowledge of the organization and the context within which they are operating. While CDC is not mandating specific performance goals, here are some examples:
    ▪ Individual participant level – performance goals are a measure of how many participants met the performance goals.
      • Session attendance: measure how many participants attended 1 session, 4 sessions, 9 sessions, 16 sessions, and 22 sessions.
      • Weight loss: measure how many participants lost a certain amount of weight at 6 months and at 12 months.
    ▪ Organizational level – performance goals are a measure of an average of all participants served by the organization for a given 12-month time period.
      • Average number of sessions attended in months 1-6.
      • Average number of sessions attended in months 7-12.
      • Average weight loss at 6 months and 12 months.
• Timelines
  o The 24-month timeline for supporting the start-up of new organizations begins when the organization receives the funds.
  o New organizations must apply for pending CDC recognition within 30 days of receiving the funds and begin offering the lifestyle change program within 6 months.
  o New organizations should achieve preliminary recognition by 24 months. When preliminary recognition is achieved, the organization should be moved to full VBP with performance goals.
Working with Online CDC-Recognized Organizations

Online CDC-recognized organizations often have unique value-based payment considerations.

1. Online organizations usually require a significant frontloaded payment of about $200. This payment covers the Bluetooth scale and technical assistance in using the application platform.
2. Online organizations usually are paid by weight loss, not session attendance. After the initial payment, they may report weight loss monthly. Payments are tied to the percentage weight loss, which can be as small as one tenth of a percent. The recipient will be responsible for reviewing the weight loss reports.

Recipients contracting with an online provider should contact their Project Officer for assistance. Cooperative agreement funds cannot be used to start a new online CDC-recognized organization.

PROGRAM SUPPORT INCENTIVES

- Recipients may use some limited cooperative agreement funds to remove participation barriers for high burden populations of focus by supporting resources/services such as childcare or transportation vouchers, or for program support incentives to increase participant retention and completion.
- Program support incentives are directly related to the lifestyle change program curriculum and may include items such as pedometers, measuring cups, “Calorie King” fat/calorie counting books, stretch bands, and green food vouchers. Program support incentives cannot exceed a monetary value of $20 per participant.
- Lifestyle Coaches and/or Program Coordinators should consider when to offer program support incentives to enhance participant retention and program completion. Data have shown that participants who make it to the 17th class or 7th month of the National DPP lifestyle change program are more likely to achieve the 5% weight loss goal.
- In general, partners should be approached first to see if they are willing to support allowable incentives before using cooperative agreement funds.
- For 1817 recipients only: CDC-recognized organizations that have an approved higher enrollment fee per participant for addressing costs associated with social determinants of health may provide incentives related to direct family needs, including toilet paper, baby wipes, and school supplies. The cost of direct family needs incentives cannot exceed a monetary value of $20 per participant, and may be added in addition to the $20 allotment for Program Support Incentives, as long as the recipient evaluates the use and effectiveness of these incentives on participant retention and outcomes in the National DPP lifestyle change program.

Recipients opting to support the use of incentives under this strategy will be expected to evaluate the effectiveness of the incentives in increasing participant retention.
LIFESTYLE COACH TRAINING

- Lifestyle Coaches must be trained according to the DPRP Standards.
- Cooperative agreement funds may only be used to train Lifestyle Coaches who are directly associated with specific CDC-recognized organizations. Cooperative agreement funds may not be used to train a general pool of Lifestyle Coaches to be employed statewide.
- The number of Lifestyle Coaches that may be trained for a given CDC-recognized organization will vary depending on many factors, including the projected participant enrollment, the number of classes to be offered, and the employment status of the Lifestyle Coach (i.e. full-time, part-time, etc.). A new organization that is proposing to offer only one class to ~10-15 participants may only need to train one Lifestyle Coach (and one Program Coordinator, if a different person will fill that role). Organizations planning to offer multiple classes and reach larger number of participants will need to train additional Lifestyle Coaches.
- Methods for paying for Lifestyle Coach training will also vary depending on how the recipient is funding start-up costs for individual organizations. Recipients may include funds for Lifestyle Coach training in a “package” of start-up costs for individual organizations. Recipients may also contract directly with a CDC training entity or Master Trainer to provide training for the Lifestyle Coaches associated with these organizations.
  - In either case, recipients should ensure that the individual organizations are providing justification for their projected enrollment targets, and that the number of Lifestyle Coaches being trained aligns with the projected enrollment targets.
- Lifestyle Coach training plans are subject to Project Officer approval.

WAYS TO ADDRESS HEALTH EQUITY

Tailor program implementation activities for high burden populations of focus:

- Recipients should support tailored participant recruitment and retention activities, such as customization or adaptation of materials, directed at reaching and enrolling high burden populations of focus in CDC-recognized lifestyle change programs.
  - A portion of cooperative agreement funds may be spent on translating the PreventT2 curriculum as part of a more comprehensive approach to addressing 1815 strategy A.6 or 1817 strategy A.2. Post-award, and before pursuing the translation, recipients should follow up with their CDC Project Officer to confirm that other organizations are not working on a similar translation to prevent duplication of effort. It will also be important to determine the potential reach of the translation (e.g. Will the translated version of the curriculum target populations of significant number in your state/jurisdiction?). While strict translations of Prevent T2 do not require CDC approval, they must be reported to CDC for inclusion on the list of approved curricula. Any translations also involving cultural adaptation of the material will require CDC review/approval. (Please refer to the DPRP Standards for additional guidelines related to curriculum requirements and changes that require CDC approval.)
- When appropriate, recipients should involve Community Health Workers (CHWs) in supporting enrollment of participants in CDC-recognized lifestyle change programs. (CHWs can also serve as Lifestyle Coaches.)

Remove barriers to participation for high burden populations of focus:
Recipients may use a limited amount of cooperative agreement funding to remove enrollment barriers for high burden populations of focus by supporting resources/services such as transportation vouchers or child/elder care. Recipients should work with their Project Officers to determine appropriate expenditures related to these supports.

Recipients should ensure that proposed activities are relevant to the high burden populations of focus and consider the delivery modalities that may best support participation. Funds may be used to support the addition of a second delivery modality to an existing CDC-recognized organization (e.g., distance learning) if feasible.

**EXAMPLE WORK PLAN ACTIVITIES**

- By the end of Q2, <recipient> will complete a landscape analysis to determine whether to start new CDC-recognized organizations, or support participant enrollment in existing CDC-recognized lifestyle change programs.
- By the end of Q3, <recipient> will submit the strategy A.6 (1815)/A.2 (1817) participant enrollment plan based on the landscape analysis findings and Lifestyle Coach training plan to the Project Officer for review and approval.
- By the end of Q4, <recipient> will provide formal Lifestyle Coach training to 15 coaches according to the CDC DPRP Standards for the new CDC-recognized organizations and those expanding to serve additional underserved areas/high burden populations of focus.
- In Q2-4, <recipient> will provide technical assistance to the funded CDC-recognized organizations for the linguistic/cultural tailoring of the curriculum and/or other program materials to support the enrollment and retention of high burden populations of focus.
- In Q4, <recipient> will work with the funded CDC-recognized organizations to assess existing participant referral mechanisms and identify additional ways to increase referrals to the program.

**ACTIVITIES NOT ALLOWED IN THESE STRATEGIES**

- Funds may not be used to enroll participants in National DPP lifestyle change programs that are not CDC-recognized. Recipients can verify the recognition status of an organization via the DPRP Registry of All Recognized Organizations: [https://nccd.cdc.gov/DDT_DPRP/Registry.aspx](https://nccd.cdc.gov/DDT_DPRP/Registry.aspx).
- Recipients may not provide program support incentives in the form of cash or gift cards. Please refer to the Program Support Incentives section for specific guidance.
- Funds may not be used to train Master Trainers. Master Trainers must be associated with a CDC-recognized organization and must have offered the program successfully for at least one year before entering a formal Master Training program with one of the training entities that hold an MOU with CDC. Master Trainer training programs are not intended to prepare independent trainers or national trainers. CDC is in the process of working with training entities to strengthen programs to train Lifestyle Coaches and Master Trainers. Further guidance will be provided post-award if there are changes regarding the use of cooperative agreement funds to support Master Trainer training in years 2-5.
- Funds may not be used to build new data entry systems for the collection and monitoring of participant data. CDC is in the process of developing a web-based data entry system for the DPRP that will include a performance metrics dashboard for use by organizations to monitor their data. In the meantime, we encourage organizations to look carefully at existing systems such as DAPS (American Association of Diabetes Educators),
Chronicle (American Diabetes Association), and COMPASS (Quality and Technical Assistance Center of New York). Cooperative agreement funds may be used to pay the licensing fees to acquire use of these applications. An alternative for organizations that are prohibited from using third party applications is to modify an existing data collection platform such as Workshop Wizard or Redcap. Cooperative agreement funds up to $10,000 may be used to purchase these applications and modify them for internal use.

- Funds may not be used to purchase telehealth equipment, but may be used in other ways to support expanded use of telehealth as a means to expand access to CDC-recognized lifestyle change programs to reach high burden populations of focus, particularly in underserved areas.

### PERFORMANCE MEASURES FOR THIS STRATEGY

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>Objective</th>
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</thead>
<tbody>
<tr>
<td>Intermediate</td>
<td>A.9</td>
<td># of participants enrolled in CDC-recognized lifestyle change programs</td>
</tr>
<tr>
<td>Long term</td>
<td>A.14</td>
<td># of CDC-recognized organizations achieving a minimum average weight loss of 5% in their eligible participants</td>
</tr>
</tbody>
</table>

### TECHNICAL ASSISTANCE AND TRAINING RESOURCES

- **Keys to Success: Resources for Organizations** offers resources to help your organization execute a successful type 2 diabetes prevention program.
  - To gain CDC recognition, your organization must show that it can meet the DPRP Standards and effectively deliver a proven type 2 diabetes prevention lifestyle change program.
  - The [Organizational Capacity Assessment for DPRP Applicant Organizations](#) offers guidance to help you decide if your organization has the resources to start and maintain a lifestyle program that meets the requirements for full recognition.
  - The [National DPP Welcome Guide](#) offers helpful tips about the recognition program, national registry, evaluation requirements, and data collection.
  - The [National DPP Welcome Video](#) presents a brief overview of the DPRP and encourages viewers to use and apply the Welcome Guide.
  - [Keys to Success Tip Sheets](#) provide lessons learned and insights from others implementing the National DPP lifestyle change program. Topics include recruiting and retaining participants, collecting and monitoring data, and achieving CDC recognition.
  - [Technical Assistance for Success Tutorials](#) offer CDC-recognized organizations tips on how to implement a National DPP lifestyle change program and how to achieve full CDC recognition through the DPRP.
  - [Lifestyle Coach and Program Coordinator Videos](#) are for Lifestyle Coaches and Program Coordinators working with organizations that are planning to apply for CDC recognition or are CDC-recognized.
  - [Implementation Guides for Working with Medicare or Medicaid Beneficiaries and Employers and Insurers](#) help organizations learn how to recruit, enroll, and retain Medicare and Medicaid beneficiaries with prediabetes in the National DPP lifestyle change program, and how to work with employers and insurers to recruit, enroll, and engage people with prediabetes who have health insurance coverage.
• The National DPP Customer Service Center provides organizations with easy access to information and resources about prediabetes and the National DPP. Organizations can access training materials, toolkits, and videos; ask questions; and receive technical assistance related to all aspects of the program.

• The National DPP Coverage Toolkit provides information about the mechanics of covering the National DPP lifestyle change program.

• The CMS Webpage for the Medicare DPP Expanded Model contains resources related to implementation, supplier requirements, billing, and more.

• The Special Diabetes Program for Indians Diabetes Prevention Program Toolkit provides keys to success and lessons learned from 38 Special Diabetes Program for Indians recipients as they implemented an evidence-based lifestyle change program for type 2 diabetes prevention to meet the needs of their communities, incorporating culture and traditions.

• CDC’s Sources for Data on Social Determinants of Health contains tools and databases at various levels – national, state, county, census tract – to help improve understanding of social determinants of health and focus efforts to improve community health.

Updated: 12/17/2018
<table>
<thead>
<tr>
<th>MARKETING/ENROLLMENT</th>
<th>Strategy A.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement tailored communication/messaging to reach underserved populations at greatest risk for type 2 diabetes to increase awareness of prediabetes and the National DPP</td>
<td></td>
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</tbody>
</table>

**Goal of strategy:**
Only about 10% of people with prediabetes know that they have it. Further efforts are needed to get the message to those at risk and to find ways to encourage them to take action to prevent or delay the transition to type 2 diabetes. Experience to date shows that for every 10 people with prediabetes or at high risk for type 2 diabetes reached by promotion activities, ~1 will enroll in the National DPP lifestyle change program (LCP). When developing a communication/marketing plan, it is important to keep this in mind and identify strategies that will help reach enough people to meet enrollment goals.

**Removing barriers to participation for high burden populations:**
Effective communication and marketing efforts should be audience-specific, delivering culturally appropriate messages through communication channels that the population trusts and uses for health information. It is recommended that recipients work with members of the high burden populations of focus and/or the CDC-recognized organizations serving those populations to determine the appropriate messages and communication channels. To make sure audiences are reached, the Community Preventive Services Task Force recommends health communication initiatives that deliver messages through multiple channels, combined with incentives. Reach and awareness are not enough; perceived and real barriers to enrollment also need to be addressed, include the cost of the program, where and when it is offered, how people think about type 2 diabetes prevention, and what might motivate them to enroll.

The Community Preventive Services Task Force also recommends community-wide campaigns that involve multiple sectors and highly visible strategies. Other sectors of the community can help with efforts to reduce cost, access, and convenience barriers for your audiences. Messages must include a call to action regarding enrollment, which is an intermediate performance measure (see below). There are a host of National DPP-branded marketing materials available to assist with marketing efforts.

**Examples of state and community level activities/interventions:**
The following are examples of communications/messaging to reach different audiences. Remember, the tactics you select should be based on your program goals and objectives and the needs of your audience.

**West Virginia** is working with the Coalition of African American Churches and the *Try This* program, which sub-awards funds to communities, local health departments, and free clinics. The *Try This* goals include raising awareness of and increasing referrals to CDC-recognized LCPs. Impact is measured through readership of materials, website hits, number of materials distributed, and other metrics.

**Utah** is using Pandora, an online radio provider, to promote the National DPP LCP. Pandora has the ability to send advertisements to specific age groups (free version).
Ideas for state and community level activities/interventions:

- Use CDC’s Health Communication and Marketing Toolkit to develop a strong Communication/Marketing Plan: https://wwwdev.cdc.gov/diabetes/programs/stateandlocal/marketing.html
- Work with a communication/marketing contractor to conduct local marketing research (i.e. surveys, focus groups, etc.) to better understand your audience(s) and tailor marketing materials and supplies consistent with an approved marketing plan.
- Assess existing marketing and communication strategies to determine which are effective at reaching high burden populations of focus to increase enrollment in the National DPP LCP.
- Identify successful National DPP LCP “graduates” to serve as champions to help promote the program locally or to specific populations of focus.
- Identify opportunities for free or low cost placement of ads in locations preferred by populations of focus.
- Place National DPP videos in waiting room TV systems in clinics serving high burden populations of focus. Look for promotion opportunities in grocery stores, pharmacies, faith communities, community centers, libraries, and other locations within selected communities.
- Identify opportunities for collaboration with other sectors/organizations, including health care systems, diabetes self-management education and support programs, and other CDC-recognized LCPs operating within Designated Market Areas (DMAs) to combine resources and ultimately achieve greater reach.
- Purchase of media airtime may be appropriate in some cases to reach/enroll high burden populations in the National DPP LCP. However, before investing in campaigns or similar efforts, it is important to first understand your audience(s) (e.g., where they go for information, barriers impacting program participation, motivators, etc.).

Activities not allowed in this strategy:
- Payment for ad placements for the Ad Council’s Prediabetes Awareness Campaign

Performance measures for strategy:

- Short term
  - A.3. # of people reached by tailored communication/messaging to increase awareness of prediabetes and the National DPP

- Intermediate
  - A.9. # of participants enrolled in CDC-recognized lifestyle change programs

- Long term
  - A.14. # of CDC-recognized organizations achieving a minimum average weight loss of 5% in their eligible participants

Technical assistance and training resources:

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
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</table>
CDC Division of Diabetes Translation’s Health Communication and Marketing Toolkit
https://wwwdev.cdc.gov/diabetes/programs/stateandlocal/marketing.html

CDC Health Communication and Social Marketing Website
https://www.cdc.gov/healthcommunication/index.html

Making Health Communications Work (the Pink Book)

The Community Guide Recommendations for Health Communication and Social Marketing
https://www.thecommunityguide.org/findings/health-communication-and-social-marketing-campaigns-include-mass-media-and-health-related

National Diabetes Prevention Program Customer Service Center (CSC)
nationaldppsc.cdc.gov

APPENDIX

Key Terms and Definitions

**National Diabetes Prevention Program (National DPP):**
A partnership of public and private organizations working together to build the infrastructure for nationwide delivery of an evidence-based lifestyle change program for adults with prediabetes to prevent or delay onset of type 2 diabetes. The National DPP provides a framework for type 2 diabetes prevention efforts in the United States (1).

**CDC-recognized lifestyle change program (LCP):**
A key component of the National DPP is a structured, evidence-based, year-long lifestyle change program to prevent or delay onset of type 2 diabetes in adults with prediabetes or at risk of developing type 2 diabetes (1). The lifestyle change program is group-based, facilitated by a trained lifestyle coach, and uses a CDC-approved curriculum. The curriculum incorporates regular opportunities for direct interaction between the lifestyle coach and participants, builds peer support, and focuses on behavior modification through healthy eating, increasing physical activity, and managing stress. The program may be delivered in-person, online, or through a combination of both delivery modes.

**Diabetes Prevention Recognition Program (DPRP):**
The Division of Diabetes Translation manages the DPRP, which is the quality assurance arm of the National DPP. The DPRP awards CDC-recognition to organizations delivering the National DPP lifestyle change program that are able to meet national quality standards and achieve the outcomes proven to prevent or delay onset of type 2 diabetes.

**Designated Marketing Area (DMA):** A region where the population receives the same media offerings (radio, television, newspapers, etc.). Understanding your audiences’ media market helps you make decisions about your promotion strategy, such as where to place advertising.

**Health Communication:** Approaches that will help “get the word out” (2).

**Health Marketing:** Approaches that help address structural, environmental, and interpersonal issues that affect behavior (2).

Sources:
## Strategy A.4

**Support advanced training for Lifestyle Coaches working at CDC-recognized lifestyle change programs to strengthen skills needed to engage and retain participants**

### Intent of strategy:
National Diabetes Prevention Program (National DPP) evaluation findings have demonstrated that Lifestyle Coaches who attend advanced skills trainings have a significant impact on participant outcomes, particularly on retention in months 7 – 12 of the National DPP lifestyle change program (LCP). The aim of this strategy is to provide support for Lifestyle Coaches in strengthening the skills necessary to engage and retain participants, beyond the initial formal training.

### Key terms/definitions related to Strategy A.4
- **Advanced Training**, or Advanced Skills Training for Lifestyle Coaches - training beyond the initial training requirements described in the Diabetes Prevention Recognition Program (DPRP) Standards
- **Lifestyle Coach** – a trained individual who facilitates the yearlong National DPP LCP
- **Formal Training** – training conducted by one of the following methods: (1) a training entity that has a Memorandum of Understanding with CDC and is listed on the CDC website (found here: [https://www.cdc.gov/diabetes/prevention/lifestyle-program/staffing-training.html](https://www.cdc.gov/diabetes/prevention/lifestyle-program/staffing-training.html)); (2) a private organization with a national network of program sites; (3) a CDC-recognized virtual organization with national reach; or (4) a Master Trainer (see definition below). The recommended minimum length of formal training for new Lifestyle Coaches is at least 12 hours or two days.
- **Master Trainer** – an individual who has completed at least 12 hours of formal training as a Lifestyle Coach, has successfully offered the National DPP LCP for at least one year, and has completed a Master Trainer program offered by a training entity listed on the CDC website

### Guidelines for Advanced Skills Training for Lifestyle Coaches
- Advanced skills training should supplement Lifestyle Coach skills (for both new and existing Lifestyle Coaches), since program evaluation findings demonstrate that well trained and highly motivated coaches have a significant impact on participant outcomes. For Year 1, recipients may only use cooperative agreement funds to support lifestyle coach participation in advanced training provided by training entities with an existing Memorandum of Understanding (MOU) with CDC ([https://www.cdc.gov/diabetes/prevention/lifestyle-program/staffing-training.html](https://www.cdc.gov/diabetes/prevention/lifestyle-program/staffing-training.html)).
- Recipients may only use cooperative agreement funds to provide advanced training for Lifestyle Coaches who are trained according to the current DPRP Standards and are currently facilitating the National DPP LCP at a CDC-recognized organization.
  - In general, advanced skills training provided using cooperative agreement funds is intended for Lifestyle Coaches only, not Master Trainers. However, if the training is related to building capacity to address health equity, then Master Trainers may be invited to attend.
- Recipients must submit advanced skills training plans for Lifestyle Coaches to their CDC Diabetes Project Officers for approval.
- Recipients will need to ensure a system is in place to track advanced skills trainings attended by Lifestyle Coaches to monitor performance measure data for this strategy and any additional evaluation elements included in the evaluation plan.
- Advanced skills training should help Lifestyle Coaches strengthen the skills necessary to engage and retain participants.

CDC is in the process of working with professional coaching organizations to identify key coaching competencies and to develop additional training to help Lifestyle Coaches achieve those competencies. When this work is completed, additional guidance will be provided as to how cooperative agreement funding may be used for this purpose.
CDC will also be developing a sample tracking tool to assist recipients in collecting and monitoring the necessary information for the performance measures associated with this strategy.

Ways to Address Health Equity
- Recipients should work with CDC-recognized organizations to understand the context in which the program is delivered, and determine the specific skills necessary to serve the high burden population(s) of focus.
  - Lifestyle Coaches serving high burden populations should be sufficiently trained to have the skills necessary to meet the needs of the groups being served. Recipients should review the advanced skills trainings offered by the training entities that have an MOU with CDC to determine which entities offer training to suit specific needs.

Examples of Advanced Trainings that May Be Offered by Training Entities:
- Motivational Interviewing
- Cultural Competency
- Participant Readiness and Session Zero/Information Session
- Facilitating Behavior Change
- Using Data to Monitor Program Performance and Inform Implementation

Examples of Work Plan Activities
- In Q2-Q3 (Year 1), identify advanced skills needed by Lifestyle Coaches by reviewing and monitoring DPRP data and requesting input from Lifestyle Coaches at CDC-recognized organizations that work with <Recipient>.
- In Q4 (Year 1), work with a training entity that has an MOU with CDC to provide advanced skills training based on needs identified, either through distance learning or in-person meetings.

Activities not allowed in this strategy:
- In Year 1, funds may not be used to provide advanced skills training for Lifestyle Coaches that is not delivered by a training entity with an MOU with CDC. If recipients find trainings they believe may be helpful, but are delivered through other entities, they should submit the training details (training name and syllabus, cost, location, and organization providing the training) to the Project Officer for consideration in future years of the cooperative agreement.
- Cooperative agreement funds may not be used to support participation in Master Trainer training.

Performance measures for strategy:
- Short term
  - A.4. # of Lifestyle Coaches who have completed advanced training
- Intermediate
  - A.9. # of participants enrolled in CDC-recognized lifestyle change programs
- Long term
  - A.14. # of CDC-recognized organizations achieving a minimum average weight loss of 5% in their eligible participants

Technical assistance and training resources (to support strategy):
- The DPRP Standards describe national quality standards for type 2 diabetes prevention lifestyle change programs and explain how an organization may apply for, earn, and maintain CDC recognition.
- The National DPP Customer Service Center provides organizations with easy access to information and resources about prediabetes and the National DPP. Organizations can access training materials, toolkits, and videos; ask questions; and receive technical assistance related to all aspects of the program.
### PARTICIPATION/RETENTION - DSMES

<table>
<thead>
<tr>
<th>Strategy A.5</th>
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<tbody>
<tr>
<td>Explore and test innovative ways to eliminate barriers to participation and retention in ADA-recognized/AADE-accredited DSMES services for diabetes management among high burden populations</td>
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</table>

#### Intent of strategy:
This strategy aims to explore and test innovative approaches to eliminating barriers to participation and retention in American Diabetes Association (ADA)-recognized/American Association of Diabetes Educators (AADE)-accredited DSMES services for high burden populations.

Barriers are associated with a number of factors including the health system, the individual health care professional, community resources, and the person with diabetes (PWD). Barriers can include a misunderstanding of the necessity and effectiveness of DSMES, confusion regarding when and how to make referrals, lack of access to DSMES services, and psychosocial and behavioral factors involving the PWD. Lack of or poor reimbursement for DSMES also can hamper PWD from participating.(1)

#### Key terms/definitions related to Strategy 5.A:
- **Diabetes self-management education and support (DSMES)**: The ongoing process of facilitating the knowledge, skills, and ability necessary for diabetes self-care. This process incorporates the needs, goals, and life experiences of the person with diabetes and is guided by evidence.(1-3)
- **Diabetes self-management support (DSMS)**: The support that is required for implementing and sustaining coping skills and behaviors needed to self-manage diabetes on an ongoing basis.
- **Diabetes self-management training (DSMT)**: The Centers for Medicare & Medicaid Services (CMS) uses the term “training” (DSMT) instead of “education and support” (DSMES) when defining the reimbursable benefit DSMT. This term relates specifically to Medicare billing.
- **Telehealth**: The Health Resources and Services Administration (HRSA) defines telehealth as: “The use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration. Technologies include videoconferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications.” Telehealth may be used to expand reach and may lower the cost of services, potentially increasing service to underserved populations. ([https://www.hrsa.gov/rural-health/telehealth/index.html](https://www.hrsa.gov/rural-health/telehealth/index.html))

#### Removing barriers to participation for high burden populations:
1. Wavier of co-pay; availability of DSMES at community sites and in the workplace; weekend and evening hours
2. To learn more about removing barriers to DSMES, refer to the DSMES Toolkit section on Increasing Referrals and Overcoming Barriers to Participation.

#### Examples of state and community level activities /interventions:
1. Promote alternative locations for delivery of DSMES that are appealing to both patients and referring providers (e.g., telehealth, worksites, pharmacies, churches, community centers, etc.).
2. Promote the use of motivational interviewing to empower PWD to request DSMES referral and participate in DSMES.
3. Work with providers on building EHR-generated referrals or other systems to facilitate and track DSMES referrals and enhance decision support.
4. Integrate DSMES services/referrals into coordinated care (e.g., Patient-Centered Medical Homes).
5. Encourage involvement of community health workers to engage PWD in DSMES.
6. Conduct targeted marketing and promotional activities for DSMES to recruit high burden populations of focus. (It is important to understand barriers to DSMES access and utilization in these populations before embarking on marketing efforts.)

Activities not allowed in this strategy:
- Paying participant fees/co-pays for DSMES
- Paying for personnel time to provide DSMES directly to individuals
- Purchasing equipment to support delivery of DSMES via distance learning or telehealth

Performance measures for strategy:
- Intermediate
  - A.10. # of people with diabetes with at least one encounter at an ADA-recognized/AADE-accredited DSMES program
- Long term
  - A.15. Proportion of people with diabetes with an A1C > 9

Technical assistance and training resources (to support strategy):
1. DSMES Technical Assistance Guide: This tool identifies four key drivers that influence DSMES access: 1) availability of DSMES services, 2) payers and payment mechanisms, 3) referral policies and practices, and 4) willingness of people with diabetes to participate in DSMES services.
2. DSMES Toolkit: The purpose of this toolkit is to increase access to and participation in DSMES services among PWD. The toolkit provides available resources and tools in one place to assist with the development, promotion, implementation, and sustainability of DSMES services.
3. DSMES Joint Position Statement: This statement presents an evidence-based visual depiction of when to identify and refer individuals with type 2 diabetes to DSMES. The algorithm defines four critical time points for DSMES delivery and provides key information on the self-management skills necessary at each of these critical periods. The diabetes education algorithm can be used by health care systems, staff, or teams, as well as individuals with diabetes, to guide when and how to refer to and deliver/receive diabetes education. (1) Refer to the DSMES Algorithm of Care for a full-page version of the algorithm,
4. Approaches to Increase Access to and Participation in DSMES: This report describes the work of three states to increase access to and participation in DSMES through targeted outreach, partnership, technical assistance, grant opportunities, and reimbursement initiatives.

APPENDIX

References:
## PARTICIPATION/RETENTION - NATIONAL DPP

<table>
<thead>
<tr>
<th>Strategy A.5</th>
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<tbody>
<tr>
<td><strong>Explore and test innovative ways to eliminate barriers to participation and retention in CDC-recognized lifestyle change programs for type 2 diabetes prevention among high burden populations.</strong></td>
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### Intent of strategy:

Through Strategy A.5, recipients will work with CDC-recognized organizations and various partners to explore and assess innovative and effective ways to increase participation and retention of high burden populations in the year-long National DPP lifestyle change program (LCP). Participation and retention innovations apply to new ways that organizations and partners use technology, staff, program alumni, health leaders, faith leaders, class locations, and community events to boost participant attendance throughout the year. Innovative approaches will be unique to the particular organizations and partners working with the high burden populations of focus. Innovative approaches to increasing participation and retention may include, but are not limited to, testing strategies such as: tailoring recruitment approaches, offering introductory sessions (i.e. Session Zero), developing new value based payment models (for delivery organizations), offering participant and community incentives, utilizing technology, enhancing coach skills, employing staffing innovations including the use of community health workers (CHWs), and developing health care and community partnerships.

Recipients should develop a strategic approach based on the organizations and partners with whom they will be collaborating to identify and test approaches to reducing significant barriers to participation and retention for high burden populations of focus. The strategic approach should include three components.

First, recipients should identify collaborative partners and organizations that are actively involved in helping high burden populations fully engage in the National DPP LCP. These can include but are not limited to: CDC-recognized organizations, a state type 2 diabetes prevention council, community-based organizations representing the high burden populations of focus, social support agencies, health care systems, pharmacies, food banks, recreation departments, etc. The recipient should work with these partners to identify key barriers to participation for the high burden populations of focus, including consideration of social determinants of health.

Second, recipients should identify the target audience(s) for the intervention(s). While many interventions will directly address participants through various incentives, recipients are encouraged to think broadly and determine whether there are others who could significantly help reduce barriers to participation (e.g. CDC-recognized organizations, lifestyle coaches, physicians or other health care providers, CHWs, organizational and community leaders, and others).

Third, recipients should identify and prioritize various interventions to address barriers, both monetary and non-monetary, and both individual and community-based. Some early findings from both the CMS Medicaid Incentives to Prevent Chronic Disease (MIPCD) project and the CDC/NACDD Medicaid Demonstration Project indicate that participant financial incentives are not necessarily determinative in improving outcomes. This is an opportunity to explore, in depth, the unique needs of high burden populations. For example, one major national clinic serving a low-income African American population in an urban area recently found that physician participation for 10 minutes in LCP classes contributed significantly to improving retention. Participants shared that if their physician cared enough to show up at the class, it must be important. As another example, recipients could assist organizations or communities in testing community-based incentives (i.e. The class earns a community garden or playground.).

Recipients should leverage work in related 1817 strategies such as tailored marketing and advanced skills training for Lifestyle Coaches to address participation and retention issues.

Note: It is highly recommended that recipients assess the capacity of CDC-recognized organizations before selection to participate in developing, implementing, and evaluating innovations under this strategy. Organizations will need a
solid foundation in offering the National LCP to contribute fully to this effort. Recipients supporting new organizations under 1817 strategy A.2 should provide technical assistance and training related to participation and retention, separate from this strategy.

1. Addressing Social Determinants of Health Via Medicaid Managed Care Contracts and Section 1115 Demonstrations: December 2018. Prepared by the Center for Health Care Strategies for the Association for Community Affiliated Plans. www.communityplans.net.

Evidence Base for National DPP Participant Retention Activities:
Evidence shows that lifestyle change to prevent type 2 diabetes is “dose-dependent”, and increased attendance improves participant outcomes and the sustainability of the health outcomes found to prevent and delay type 2 diabetes \(^1\). Analysis of data from the Diabetes Prevention Recognition Program (DPRP) demonstrates that participants attending 17 or more sessions achieve the recommended weight loss goals. However, discontinued participation, especially in the second six months, is a common concern facing organizations offering the National DPP LCP. \(^1,2\)

National DPP evaluation findings indicate that well trained and highly motivated Lifestyle Coaches are a key factor in participant retention. (See related Guidance Document for Strategy A.4 on Advanced Skills Training for Lifestyle Coaches.)

Value-base payment schedules may also increase retention rates by aligning payment with attendance and outcomes. Organizations receive higher payments associated with increased attendance and achievement of participant outcomes.

Key terms/definitions related to Strategy A.5:

- **Participant Retention** – Participants who are engaged and regularly and consistently attending weekly, biweekly, and monthly sessions, especially in months 7-12.
- **National Diabetes Prevention Program (National DPP)** – A partnership of public and private organizations working together to build the infrastructure for nationwide delivery of an evidence-based lifestyle change program for adults with prediabetes to prevent or delay onset of type 2 diabetes. The National DPP provides a framework for type 2 diabetes prevention efforts in the United States.
- **National DPP lifestyle change program (LCP)** – A key component of the National DPP is a structured, evidence-based, year-long lifestyle change program to prevent or delay onset of type 2 diabetes in adults with prediabetes or at risk of developing type 2 diabetes. The lifestyle change program is group-based, facilitated by a trained lifestyle coach, and uses a CDC-approved curriculum. The curriculum incorporates regular opportunities for direct interaction between the lifestyle coach and participants, builds peer support, and focuses on behavior modification through healthy eating, increasing physical activity, and managing stress. The program may be delivered in-person, online, or through a combination of both delivery modes.
- **Diabetes Prevention Recognition Program (DPRP)** – The quality assurance arm of the National DPP. The DPRP awards CDC-recognition to organizations delivering the lifestyle change program that are able to meet national quality standards and achieve the outcomes proven to prevent or delay onset of type 2 diabetes.
- **CDC-recognized organization** – An organization that has demonstrated its ability to effectively deliver a proven type 2 diabetes prevention LCP and has applied for and received CDC recognition from the DPRP.
- **CDC-recognized lifestyle change program (LCP)** – The evidence-based, yearlong lifestyle change program delivered by a CDC-recognized organization.
- **High burden population** – Populations affected disproportionately by high blood pressure, high blood cholesterol, type 2 diabetes, or prediabetes due to socioeconomic or other characteristics, including inadequate access to care, poor quality of care, or low income.
- **Value-based payment (also known as pay for performance)** – Payment for program delivery tied to attendance benchmarks and weight loss outcomes.
- **DPRP Retention Standards**: For preliminary and full recognition, organizations must average 9 sessions in months 1-6 and 3 sessions in months 7-12 for participants in a given six month evaluation cohort.
<table>
<thead>
<tr>
<th>Target Audience</th>
<th>Intervention/Innovation</th>
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| Participants from High Burden Populations | • Supports to address social determinants of health other than childcare and transportation (already allowed under 1815), particularly around food insecurity  
• High touch support (frequent active outreach by a Lifestyle Coach or CHW; home visits)  
• Technology assisted passive outreach (daily text messages)  
• Personal contact after every missed session  
• Culturally appropriate curriculum additions (cooking classes, exercise classes)  
• Prepaid phones for make-up classes during the winter  
• Participant retention plans  |
| CDC-recognized Organizations             | • Incentives for retention rates that exceed DPRP Standards  
• Skype business license, laptop, other technology to facilitate offering make-up classes  
• State “awards” program (i.e., to honor the organization with the highest enrollment each quarter)  
• Training for Program Coordinators  
• Cultural competency workforce assessment and training  
• Testing culturally adapted marketing approaches and curricula/materials  
• Testing value based payment models (in addition to the ones allowed for 1815)  |
| Lifestyle Coaches                        | • Advanced skills training  
• Cultural competency training  
• Coach mentorship program  
• Technological support (support applications) - i.e.: Skype, FaceTime, microphone, Braille assistive technology  
• Marketing support (Swiss cheese Facebook posts, texts, or tweets)  
• Financial incentives for meeting retention targets  
• Support for innovative staffing plans to allow additional contact with participants  |
| Health Care Systems, Health Care Providers | • Encouragement to attend LCP classes and interact with participants  
• Assessment and implementation of communication touchpoint(s) between system/practice staff and enrolled participants to increase LCP completion rates for referred patients.  
• State “awards” program (i.e. to recognize the health system with the highest number of referrals)  
• Incentives to serve as program champions  |
| Community Partners                       | • Incentives to attend LCP classes as teachers or resources  
• Incentives to serve as program champions  
• Partner to address food insecurity (food boxes delivered to LCP locations)  
• Partner on community incentives (community gardens or playgrounds)  
• Partner to implement community integrated health (offering space and co-programming in community centers)  |
| Community Health Workers                 | • Active outreach between class sessions  
• Lead support activities  
• Adapt marketing approaches and curricula/teaching materials  
• Serve as cultural competency advisors to Lifestyle Coaches working with the CDC-recognized organization. |
Activities not allowed in this strategy:

Innovative incentive proposals that do not include an evaluation plan are not permitted.
- New innovative incentives in the final year may not be permitted, as final year implementation does not allow for evaluation.
- Funding cannot continue if organizations lose CDC recognition.
- Value based payment models for program delivery costs that do not cover the entire year-long program are not allowed.

National DPP related performance measures for strategy:

Intermediate
- A.9. # of participants enrolled in CDC-recognized lifestyle change programs

Long term
- A.14. # of CDC-recognized organizations achieving a minimum average weight loss of 5% in their eligible participants

Retention Tools and Resources for Technical Assistance and Training:

- **State Diabetes Prevention Recognition Program Reports** – Reports generated by the CDC Diabetes Prevention Recognition Program to help recipients monitor performance trends.
- **Resources to Encourage Participant Retention** – CDC National DPP-specific webpage dedicated to retention.
- **Testimonials** from participants who completed the year-long lifestyle change program can motivate others and potentially positively influence attendance. While it is great to engage program alumni in sharing testimonials, CDC has some testimonials already online that can be shared.
  - Mike’s Prediabetes Journey – Make sure organizations struggling with retention know about this video and others featuring participants who joined the CDC-led National DPP and found support to make healthy lifestyle changes and normalize blood glucose.
- **Keys to Success Tip Sheets** provide lessons learned and insights from others implementing the National DPP lifestyle change program, including recruiting and retaining participants, collecting and monitoring data, and achieving goals and CDC recognition.
  - The Increasing Participant Retention tip sheet provides examples of how organizations retain participants in the lifestyle change program once they are enrolled.
- **Wait, Wait, Don’t Leave Webinar** – Emory Diabetes Training and Technical Assistance Center - recorded webinar for Lifestyle Coaches
- The **National DPP Customer Service Center** provides organizations with easy access to information and resources about prediabetes and the National DPP. Organizations can access training materials, toolkits, and videos; ask questions; and receive technical assistance related to all aspects of the program.
- CDC’s **Sources for Data on Social Determinants of Health** contains tools and databases at various levels – national, state, county, census tract – to help improve understanding of social determinants of health and focus efforts to improve community health.
- **Think Cultural Health** is a U.S. Department of Health and Human Services website with resources helpful to organizations implementing National DPP delivery, marketing, and retention approaches for high burden populations.
- **Keys to Success: Resources for Organizations** are helpful for organizations focused on retention, because retaining participants is a key criteria/requirement outlined in the DPRP Standards for achieving preliminary and full recognition.
  - To gain CDC recognition, your organization must show that it can meet the DPRP Standards and effectively deliver a proven type 2 diabetes prevention lifestyle change program. Organizations focused on retention should closely review the requirements for attendance and guidance on staffing and make up sessions.
The Organizational Capacity Assessment for DPRP Applicant Organizations offers guidance to help you decide if your organization has the resources to start and maintain a National DPP lifestyle program that meets the requirements for full recognition.


**Retention Resources Coming Soon**
- Retention Toolkit – for participants and Lifestyle Coaches
- Champions Project (Alumni) – for organizations and Lifestyle Coaches

**References:**

- Addressing Social Determinants of Health Via Medicaid Managed Care Contracts and Section 1115 Demonstrations: December 2018. Prepared by the Center for Health Care Strategies for the Association for Community Affiliated Plans. [https://www.communityplans.net/](https://www.communityplans.net/)
- Realmuto, L. et al. Struggling to Stay on Track Participants Share Benefits and Barriers to Completing the National Diabetes Prevention Program. The New York Academy of Medicine October 2017. [https://nyam.org/media/filer_public/77/ee/77ee1c6a-1b2a-413e-bf8b-ca323035a1cf/diabetespreventive-report-final.pdf](https://nyam.org/media/filer_public/77/ee/77ee1c6a-1b2a-413e-bf8b-ca323035a1cf/diabetespreventive-report-final.pdf)
### Telehealth

<table>
<thead>
<tr>
<th>Strategy A.6</th>
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</thead>
<tbody>
<tr>
<td>Work with health care systems to establish or expand use of telehealth technology to increase access to one or more of the following programs/services in underserved areas:</td>
</tr>
<tr>
<td>a) ADA-recognized/AADE-accredited DSMES programs for diabetes management</td>
</tr>
<tr>
<td>b) CDC-recognized lifestyle change programs for type 2 diabetes prevention</td>
</tr>
<tr>
<td>c) Diabetic retinopathy screening (using a non-mydriatic retinal camera at the screening site connected to a central reading center through telemedicine)</td>
</tr>
</tbody>
</table>

**Intent of strategy:**

Telehealth is a strategy designed to deliver health services or education remotely. The Health Resources and Services Administration (HRSA) defines telehealth as: “The use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration. Telehealth includes telemedicine (diagnosis and treatment of illness or injury), and services such as assessment, monitoring, communications, prevention and education”. Telehealth may be used to expand reach and may lower the cost of services, potentially increasing service to underserved populations. The National Conference of State Legislatures (NCSL) reports that the use of telehealth services is expected to grow from 250,000 patients in 2013 to 3.2 million patients in 2018.

The intent of Strategy A.6 is to expand the use of telehealth technology to increase access to one or more of the following programs/services that address diabetes management and type 2 diabetes prevention, in underserved areas.

#### a) Diabetes Self-Management Education and Support (DSMES):

Type 2 diabetes (T2DM) ranks 7th as the leading cause of death in the United States. Residents in the most rural areas of America had a 12.4-point higher T2DM mortality rate from 1999-2015 than those in large cities (2). People with T2DM living in rural areas encounter numerous challenges including poor access to T2DM education and care, transportation limitations, longer distances to travel, and higher rates of poverty than urban counterparts (3).

Telehealth is a health care approach that has the potential to reach participants in low access areas to educate and motivate them to have more control over T2DM (Kaufman et al., 2006).

### References:

3. Systematic Review

### Example of state intervention:

**FLORIDA**

The Florida Department of Public Health provides funding and technical assistance to distance sites (where training staff are located) and/or originating sites (in rural counties where patients are located) to establish ADA-recognized or AADE-accredited DSMES programs provided through telehealth platforms.
### b) National Diabetes Prevention Program (National DPP):

The National Diabetes Prevention Program (DPP) Lifestyle Change Program (LCP) ([www.cdc.gov/diabetes/prevention](http://www.cdc.gov/diabetes/prevention)) is an evidence-based program designed to lower the risk of developing type 2 diabetes. Structural, cost, and behavioral barriers are impediments individuals may experience on the path to enrollment.

Telehealth, digital health, and other non in-person methods offer program potential for circumventing these barriers. Research, however, which examines these methods in the application of type 2 diabetes prevention remains sparse. Consequently, CDC’s Division of Diabetes Translation (DDT) has initiated efforts to begin studying these alternative approaches to program delivery.

### Example of state intervention:

**MONTANA**

The Montana Department of Public Health and Human Services (MDPHHS) collaborated with partners to increase participation in the National DPP LCP via telehealth. Since 2008, Holy Rosary Healthcare of Miles City has been delivering the LCP in person as a CDC-recognized organization. In 2009 they initiated a telehealth pilot with MDPHHS in 8 frontier communities.

*Publication in* [Transitional Behavioral Medicine](#)

*Publication in* [The Diabetes Educator](#)

### c) Diabetic Retinopathy Screening:

The leading cause of blindness in working-age adults is eye disease related to poorly managed diabetes.\(^1\) Diabetic retinopathy is significant because an 83% increase in diabetes is expected— 24 million in 2009 to 44 million by 2034.\(^1\)

Minority populations including American Indian/Alaska Natives are two times more likely to have diabetes than non-Hispanic whites.\(^1\) There is a 78% chance that people with poorly managed diabetes for more than 15 years will develop eye disease.

Early diagnosis through screening and treatment of diabetes-related eye disease is 90% effective in preventing blindness.\(^1\) In many communities, it can be challenging to obtain eye exams from eye care providers due to lack of transportation, lack of health insurance, limited access to eye care providers, and financial burdens such as co-pays or other associated cost of the exam.

### Intervention example:

**OREGON**

The Oregon Preventive Research Center (PRC) is researching the effectiveness of using non-mydriatic cameras and telemedicine to prevent blindness from diabetic retinopathy.

[Click here for additional information](#)
Considerations:

• There are a continuum of modalities in the telehealth landscape including mobile technology, video conferencing (synchronous live video), store and forward video (asynchronous) and full virtual delivery. (Please note that referrals to online delivery do not satisfy this strategy.)

• It is important to understand how a third party payer reimburses for services using telehealth technologies. Here are some examples of how coverage varies:

  1. The Center for Medicare and Medicaid Services (CMS) does not reimburse for Medicare Diabetes Prevention Program (MDPP) delivery via remote modalities except for make-up sessions.

  2. Individual and group diabetes self-management training services are reimbursed under Medicare’s telehealth services. However, there are certain conditions of coverage that must be met: services must be offered in an authorized originating site, an interactive audio and video telecommunications system must be used (not including telephone, fax, or email) and geographical restrictions must be met.


• The type of telehealth modality selected will dictate the type of technology that is needed, which may include: desktop or laptop computers, tablets, cameras, microphones, and internet connection. Consideration should be given to what modality is covered by third party payers and what best suits the target population before selecting a modality.

• It is important to become familiar with necessary privacy and security requirements. According to the Telehealth Resource Center, “the Health Insurance Portability and Accountability Act (HIPAA) does not have specific requirements related to telehealth. Therefore, a telehealth provider must meet the same requirements of HIPAA as would be needed if the services were delivered in-person. However, to meet those requirements, an entity may need to take different or additional steps that may not have been necessary if the service was delivered in-person”.

Activities not allowed in this strategy:

• The recipient may not use funds to purchase telehealth equipment such as desktop or laptop computers, tablets, cameras, microphones, and internet connections.

• The recipient may not use funds to purchase equipment for the delivery of clinical services, such as a non-mydriatic camera.

Performance measures for strategy:

• Short term
  A6. a) # of telehealth delivery sites established in underserved areas to increase access to ADA-recognized/AADE-accredited DSMES programs for diabetes management
  A7. b) # of telehealth delivery sites established in underserved areas to increase access to CDC-recognized lifestyle change programs for type 2 diabetes prevention
  A8. c) # of diabetic retinopathy screening sites established in underserved areas and connected to a telemedicine reading center
- **Intermediate**
  A.11. a) # of people participating in ADA-recognized/AADE-accredited DSMES programs via telehealth
  A.12. b) # of people participating in CDC-recognized lifestyle change programs via telehealth
  A.13. c) # of people screened for diabetic retinopathy at screening sites established in underserved areas and connected to a telemedicine reading center.

- **Long term**
  A.15. a) Proportion of people with diabetes with an A1C > 9
  A.14. b) # of CDC-recognized organizations achieving a minimum average weight loss of 5% in their eligible participants
  A.16. c) Proportion of people with diabetes who have retinopathy

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**Technical assistance and training resources:**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telehealth Resource Centers (TRCs)</td>
<td><a href="https://www.telehealthresourcecenter.org/">https://www.telehealthresourcecenter.org/</a></td>
</tr>
<tr>
<td>Rural Health Information Hub</td>
<td><a href="http://www.ruralhealthinfo.org">www.ruralhealthinfo.org</a></td>
</tr>
<tr>
<td>Health Resources &amp; Services Administration (HRSA)</td>
<td><a href="https://www.hrsa.gov/rural-health/telehealth/">https://www.hrsa.gov/rural-health/telehealth/</a></td>
</tr>
<tr>
<td>State by State Guide for Telehealth Laws &amp; Medicaid Program Policies</td>
<td>State by State Guide compiled by the Center for Connected Health Policy for States Telehealth Laws and Medicaid Program Policies,</td>
</tr>
<tr>
<td>American Telemedicine Association (ATA) State Telemedicine Toolkit</td>
<td>ATA State Telemedicine Toolkit: Coverage and Reimbursement</td>
</tr>
<tr>
<td>Institutes of Medicine Report</td>
<td>The Role of Telehealth in an Evolving Health Care Environment</td>
</tr>
<tr>
<td>Comprehensive Glossary of Telehealth and eHealth</td>
<td>Download the telehealth glossary of terms</td>
</tr>
<tr>
<td>National DPP Customer Service Center (CSC)</td>
<td>nationaldppsc.cdc.gov</td>
</tr>
<tr>
<td><strong>CMS:</strong></td>
<td>The Center for Medicare and Medicaid Services (<a href="http://www.cms.gov">www.cms.gov</a>)</td>
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<tr>
<td><strong>Diabetes Self-Management Education and Support (DSMES):</strong></td>
<td>“The ongoing process of facilitating the knowledge, skill, and ability necessary for diabetes self-care. This process incorporates the needs, goals, and life experiences of the person with diabetes and is guided by evidence-based standards” (2).</td>
</tr>
<tr>
<td><strong>Digital Health:</strong></td>
<td>The broad scope of digital health includes categories such as mobile health (mHealth), health information technology (IT), wearable devices, telehealth and telemedicine, and personalized medicine.</td>
</tr>
<tr>
<td>Source:</td>
<td>U.S. Food &amp; Drug Administration</td>
</tr>
<tr>
<td><strong>National Diabetes Prevention Program (National DPP):</strong></td>
<td>A partnership of public and private organizations working together to build the infrastructure for nationwide delivery of an evidence-based lifestyle change program for adults with prediabetes to prevent or delay onset of type 2 diabetes. The National DPP provides a framework for type 2 diabetes prevention efforts in the United States.</td>
</tr>
<tr>
<td><strong>CDC-recognized lifestyle change program:</strong></td>
<td>A key component of the National DPP is a structured, evidence-based, year-long lifestyle change program to prevent or delay onset of type 2 diabetes in adults with prediabetes or at risk of developing type 2 diabetes (1). The lifestyle change program is group-based, facilitated by a trained lifestyle coach, and uses a CDC-approved curriculum. The curriculum incorporates regular opportunities for direct interaction between the lifestyle coach and participants, builds peer support, and focuses on behavior modification through healthy eating, increasing physical activity, and managing stress. The program may be delivered in-person, online, or through a combination of both delivery modes.</td>
</tr>
<tr>
<td><strong>Diabetes Prevention Recognition Program (DPRP):</strong></td>
<td>The Division of Diabetes Translation manages the DPRP, which is the quality assurance arm of the National DPP. The DPRP awards CDC-recognition to organizations delivering the National DPP lifestyle change program that are able to meet national quality standards and achieve the outcomes proven to prevent or delay onset of type 2 diabetes.</td>
</tr>
<tr>
<td><strong>National DPP Delivery Modes:</strong></td>
<td>1. <strong>In-person</strong> – Yearlong lifestyle change program delivered 100% in-person for all participants by trained Lifestyle Coaches; meaning, participants are physically present in a classroom or classroom-like setting. 2. <strong>Online</strong> – Yearlong lifestyle change program delivered 100% online for all participants by trained Lifestyle Coaches; meaning participants log into course sessions via a computer, laptop, tablet, or smart phone. 3. <strong>Distance Learning</strong> – Yearlong lifestyle change program delivered 100% by trained Lifestyle Coaches via remote classroom or telehealth (i.e., conference call or SKYPE) where the Lifestyle Coach is present in one location and participants are calling in or video-conferencing from another location is considered Distance Learning. 4. <strong>Combination</strong> – Yearlong lifestyle change program delivered as a combination of any of the previously defined delivery modes (1–3 above) for all participants by trained Lifestyle Coaches.</td>
</tr>
<tr>
<td>Source:</td>
<td>Centers for Disease Control and Prevention Diabetes Prevention Recognition Program Standards and Operating Procedures, page 4, 2018</td>
</tr>
</tbody>
</table>
**Online Programs**: Online programs are delivered 100% online for all participants. Participants log into course sessions via a computer, laptop, tablet, or smart phone. Participants also must interact with Lifestyle Coaches at various times and by various communication methods.

Source: Centers for Disease Control and Prevention DPRP Standards

**Telehealth** – Health Resources and Services Administration (HRSA) defines telehealth as: “The use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration.” Telehealth includes telemedicine (diagnosis and treatment of illness or injury), and services such as assessment, monitoring, communications, prevention, and education.

**Telehealth Delivery Methods**

1. **Live video (synchronous)** – Live, two-way interaction between a person (patient, caregiver, or provider) and a provider using audiovisual telecommunications technology. This type of service is also referred to as “real-time” and may serve as a substitute for an in-person encounter when it is not available.

2. **Store and Forward (asynchronous)** – Transmission of recorded health history (pre-recorded videos and digital images such as x-rays and photos) through a secure electronic communications system to a practitioner, who uses the information to evaluate the case or render a service outside of a real-time or live interaction.

3. **Remote Patient Monitoring** – Personal health and medical data collection from an individual in one location via electronic communication technologies, which is transmitted to a provider (sometimes via a data processing service) in a different location for use in care and related support.

4. **Mobile Health** – Health care and public health practice and education supported by mobile communication devices such as cell phones, tablet computers, and PDA’s.

**Telemedicine** - The American Telemedicine Association (ATA) defines telemedicine as the use of medical information exchanged from one site to another via electronic communications to improve a patient’s clinical health status. Telemedicine includes a growing variety of applications and services using two-way video, smart phones, wireless tools, and other forms of telecommunications technology.
DIABETES CLINICAL CARE IMPROVEMENT

<table>
<thead>
<tr>
<th>Strategy A.7</th>
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<tbody>
<tr>
<td>Increase adoption and use of clinical systems and care practices to improve health outcomes for people with diabetes (e.g., HIT/EHRs, clinical decision support tools, learning collaboratives to improve quality of care)</td>
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</tbody>
</table>

Intent of strategy:

This strategy strives to encourage collaboration across the health care workforce through the efficient use of clinical systems and practices. The major focus is to increase the number of people with diabetes served by health care systems that are actively using clinical systems and care practices to improve quality of care and, as a result, diabetes-related health outcomes. This work aligns with the Chronic Care Model (CCM) which is a multifaceted, evidence-based framework for enhancing care delivery by identifying essential components of the health care system that can be modified to support high-quality, patient-centered chronic disease management.

Key terms/definitions related to Strategy A.7:

- **Care Practices**: The process and delivery of care, in this case for persons with diabetes. Appropriate diabetes-related care practices should align with evidence-based clinical guidelines such as the American Diabetes Association’s *Standards of Medical Care in Diabetes*.

- **Electronic Health Records**: An Electronic Health Record (EHR) is an electronic version of a patient’s medical history that is maintained by the provider over time. EHRs may include all of the key administrative and clinical data relevant to an individual’s care under a particular provider, including demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports. The EHR automates access to information and has the potential to streamline the clinician’s workflow. The EHR also has the ability to support other care-related activities directly or indirectly through various interfaces, including evidence-based decision support, quality management, and outcomes reporting. ([https://www.cms.gov/Medicare/EHealth/EHealthRecords/index.html](https://www.cms.gov/Medicare/EHealth/EHealthRecords/index.html))

- **Collaborative Practice Agreement (CPA)**: A formal agreement in which a licensed provider makes a diagnosis, supervises patient care, and refers patients to a pharmacist under a protocol that allows the pharmacist to perform specific patient care functions.

- **Clinical Decision Support (CDS)**: Clinical decision support (CDS) provides clinicians, staff, patients, and others with knowledge and person-specific information, intelligently filtered or presented at appropriate times, to enhance health and health care. CDS encompasses a variety of tools to enhance decision-making in the clinical workflow. These tools include computerized alerts and reminders to care providers and patients; clinical guidelines; condition-specific order sets; focused patient data reports and summaries; documentation templates; diagnostic support; and contextually relevant reference information, among other tools. It requires computable biomedical knowledge, person-specific data, and a reasoning or inferencing mechanism that combines knowledge and data to generate and present helpful information to clinicians as care is being delivered. This information must be filtered, organized, and presented in a way that supports the current workflow, allowing the user to make an informed decision quickly and take action. The majority of CDS applications operate as components of comprehensive EHR systems, although stand-alone CDS systems are also used. ([https://www.healthit.gov/policy-researchers-implementers/clinical-decision-support-cds](https://www.healthit.gov/policy-researchers-implementers/clinical-decision-support-cds))

- **Reminders (Alerts)**: Reminders are a type of alert triggered by particular parameters (e.g. time and date, high/low threshold, or clinical indication) usually presented as highlighted text or a pop-up that requires action. Reminders serve to cue clinicians that certain events should take place, but have not yet done so. Reminders are regularly used in primary care systems, particularly with respect to the management of patients with chronic conditions that require regularly scheduled repetitive tasks. ([http://www.americanehr.com/blog/2013/02/optimizing-the-ehr-alerts-and-reminders/](http://www.americanehr.com/blog/2013/02/optimizing-the-ehr-alerts-and-reminders/))
### Removing barriers to participation for high burden populations:

- Work with health care organizations/providers to use alternative approaches to improve access to quality care (e.g. telehealth).
- Work with targeted FQHCs in high-burden, high need communities to develop or enhance EHR platforms in ways that facilitate use of clinical decision support tools (diabetes registries; clinician prompts/reminders, etc.) to improve quality of care.
- Support the promotion and dissemination of culturally adaptive materials to improve quality of care delivery.
- Engage Community health workers (CHWs) to help people with diabetes navigate the barriers they might experience in the health care system.

### Examples of state and community level activities:

- Support formal collaborations such as CPAs among health care providers (certified diabetes educators, pharmacists, dentists etc.) that promote timely interventions for people with diabetes. ([http://wire.ama-assn.org/practice-management/add-pharmacist-team-see-better-outcomes](http://wire.ama-assn.org/practice-management/add-pharmacist-team-see-better-outcomes))
- Work with Managed Care Organizations (MCOs) to increase adoption and use of clinical systems and care practices to improve health outcomes for people with diabetes.
- Work with health care systems to incorporate current clinical guidelines into practice in a multidisciplinary manner (i.e. involving dentists, pharmacists, optometrists, etc.).
- Promote clinician participation in the CMS Transforming Clinical Practice Initiative designed to help clinicians achieve large-scale health transformation. The initiative is intended to support more than 140,000 clinician practices in sharing, adapting and further developing their comprehensive quality improvement strategies. ([https://innovation.cms.gov/initiatives/Transforming-Clinical-Practices/](https://innovation.cms.gov/initiatives/Transforming-Clinical-Practices/))
- Implement or expand CHW interventions that have been found to be successful in improving diabetes outcomes.
- Work with health care organizations to implement Plan-Do-Study, Act (PDSA) cycles to identify gaps in care delivery, implement improvements, and evaluate their effectiveness.
- Implement learning collaboratives to share quality improvement practices across health care organizations.

### Activities not allowed in this strategy:

- Initial purchase/set up of EHR systems
- Use of federal funds to cover the cost of diagnostic testing or direct patient care

### Performance measures for strategy:

- **Short term**
  - A.7. # of healthcare systems actively using clinical systems and care practices to improve health outcomes for people with diabetes
- **Intermediate**
  - A.12. # of people with diabetes served by healthcare systems actively using clinical systems and care practices to improve diabetes-related health outcomes
- **Long term**

### Technical assistance and training resources to support this strategy:

- American Diabetes Association [Standards of Medical Care in Diabetes](https://care.diabetesjournals.org/article/S1539-3703(18)30214-7)
- American Association of Clinical Endocrinologists [Clinical Guidelines](https://www.aace.com)
- CPA toolkit: https://www.cdc.gov/dhdsp/pubs/docs/CPA-Team-Based-Care.pdf
- Community-Linkages for the Prevention and Control of Chronic Diseases. A Practitioners Guide
- Chronic Care Model: http://www.improvingchroniccare.org/index.php
- Community Health Workers in diabetes
- Health Equity Resources
- National Quality Forum
- Transforming Clinical Practices (CMS)
## CKD EARLY DETECTION THROUGH THE EHR

### Strategy A.8

**Increase use of clinical decision support within the EHR to promote early detection of chronic kidney disease (CKD) in people with diabetes**

#### Intent of strategy:

The intent of this strategy is to promote early detection of chronic kidney disease (CKD) using tools within the Electronic Health Record (EHR). Kidney diseases are the ninth leading cause of death in the U.S. About 37 million people, or 15% of U.S. adults, are estimated to have CKD, yet about 90% are not aware of their condition. Having kidney disease also increases risk for heart disease and stroke, heart failure, and premature death (Heron, 2018). In diabetic kidney disease, in addition to cardiovascular disease, individuals are at higher risk of other diabetes-related complications, including retinopathy and neuropathy.

Specific blood and urine tests that measure the level of creatinine in the blood and the level of protein in the urine are used to diagnose people with CKD. Research indicates that EHRs hold the most promise for CKD screening and early detection through improvements in the flow of information and application of clinical decision support (Vassalotti, et al, 2010; Drawz, et al, 2015). Once detected, CKD is typically treated with medications such as angiotensin-converting enzyme (ACE) inhibitors or angiotensin II receptor blockers (ARB) to slow disease progression. In addition, blood sugar and blood pressure control have been shown to lower the risk for kidney failure and may prevent additional health problems such as heart disease.

#### Key terms/definitions related to Strategy A.8:

**Diagnostic testing:** Regardless of cause, CKD is diagnosed by the presence of either of the following two indicators for at least 3 months (Kidney Disease: Improving Global Outcomes (KDIGO) CKD Work Group, 2012):

1. Markers of kidney damage (one or more): Albuminuria (AER ≥30 mg/24 hours; ACR ≥30 mg/g [≥3 mg/mmol])
   - Urine sediment abnormalities
   - Electrolyte and other abnormalities due to tubular disorders
   - Abnormalities detected by histology
   - Structural abnormalities detected by imaging
   - History of kidney transplantation
2. Decreased glomerular filtration rate (eGFR): eGFR <60 ml/min/1.73 m²

**Reminders (Alerts):** Reminders are a type of alert triggered by particular parameters (e.g. time and date, high/low threshold, or clinical indication) usually presented as highlighted text or a pop-up that requires action. Reminders serve to cue clinicians that certain events should take place, but have not yet done so. Reminders are regularly used in primary care systems, particularly with respect to the management of patients with chronic conditions that require regularly scheduled repetitive tasks. (http://www.americanehr.com/blog/2013/02/optimizing-the-ehr-alerts-and-reminders/)

**Electronic Health Records:** An Electronic Health Record (EHR) is an electronic version of a patient’s medical history that is maintained by the provider over time. EHRs may include all of the key administrative clinical data relevant to an individual’s care under a particular provider, including demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports. The EHR automates access to information and has the potential to streamline the clinician's workflow. The EHR also has the ability to support other care-related activities directly or indirectly through various interfaces, including evidence-based decision support, quality management, and outcomes reporting. (https://www.cms.gov/Medicare/ EHHealth/EHealthRecords/index.html)
Clinical Decision Support (CDS): Clinical decision support (CDS) provides clinicians, staff, patients, and others with knowledge and person-specific information, intelligently filtered or presented at appropriate times, to enhance health and health care. CDS encompasses a variety of tools to enhance decision-making in the clinical workflow. These tools include computerized alerts and reminders to care providers and patients; clinical guidelines; condition-specific order sets; focused patient data reports and summaries; documentation templates; diagnostic support; and contextually relevant reference information, among other tools. They require computable biomedical knowledge, person-specific data, and a reasoning or inferencing mechanism that combines knowledge and data to generate and present helpful information to clinicians as care is being delivered. This information must be filtered, organized, and presented in a way that supports the current workflow, allowing the user to make an informed decision quickly and take action. The majority of CDS applications operate as components of comprehensive EHR systems, although stand-alone CDS systems are also used. ([https://www.healthit.gov/policy-researchers-implementers/clinical-decision-support-cds](https://www.healthit.gov/policy-researchers-implementers/clinical-decision-support-cds))

Removing barriers to participation for high burden populations:

- Work with FQHCs and other clinical organizations providing services to un/underinsured populations to develop or expand tools within the EHR to detect CKD.
- Work with primary care associations and medical societies to develop health information technology (HIT)-related policies and practices to assist physicians/health care organizations serving un/underinsured populations in detecting CKD and supporting appropriate care.
- Develop CKD detection “smart phrases” or algorithms, and implement them in selected primary care settings that serve un/underinsured populations to identify individuals with CKD and support appropriate care.

Examples of state and community level activities:

- Work with targeted health care systems to implement and test appropriate CDS algorithms and reminders/prompts to improve early detection of CKD by primary care providers.
- Work with targeted health care systems to develop provider dashboards to monitor CKD detection and facilitate appropriate treatment.
- Promote interoperability of systems within health care organizations or between clinics to detect CKD and allow for the flow of information between primary care providers and specialists or other members of the care team.
- Once CDS tools are in place to support CKD early detection, work with targeted health care systems to:
  - Use Plan-Do-Study-Act (PDSA) cycles to ensure that tools/practices to support early detection of CKD in the health care setting are appropriately used and institutionalized.
  - Facilitate the collection and use of data on quality measures to provide feedback to providers and care teams in order to more optimally identify patients with undiagnosed, untreated, or poorly managed CKD.
  - Promote the use of ACE/ARBs as a standard practice in people with diabetes and hypertension to reduce CKD.
- Develop CKD management practices in the primary care setting to ensure appropriate care (e.g., ensure that all adults are referred to the nephrologist if eGFR is <30 mL/min/1.73 m²).

Additional Information:

Elements of a CKD Clinical Decision Support for the EHR* (Vassalotti JR et al. 2010)

- Annual eGFR and ACR for adults with diabetes, hypertension or age 60 and older
- Use of ACE inhibitor or ARB in individuals with proteinuria
- Blood Pressure target less than 130/80 mm Hg

Managing CKD and Diabetes
- Avoidance of nephrotoxins for CKD
- Medication dose adjustment based on level of eGFR
- Nephrology referral if eGFR is <30 mL/min/ 1.73 m²

**Other Indications for Nephrology Referral**
- Refractory heavy albuminuria (ACR ≥300 mg/g)
- Refractory hyperkalemia (potassium ≥5.5 mEq/L)
- Resistant hypertension (3 or more drugs with target not achieved)
- Rapid loss of eGFR (≥3 mL/min/1.73 m² per year)

*Lipid monitoring and management, glycemic control, as well as tobacco cessation are part of overall care.

**Activities not allowed in this strategy:**
- General CKD screening and education
- Direct patient care/treatment to address CKD

**Performance measures for strategy:**
- **Short term** - A.8. # of health care systems using clinical decision support within the EHR to promote early detection of CKD in people with diabetes
- **Intermediate** - A.13. # of people with diabetes screened for CKD in these healthcare systems

**Technical assistance and training resources to support this strategy:**

[https://www.cdc.gov/kidneydisease/index.html](https://www.cdc.gov/kidneydisease/index.html)


NKDEP Health Information Technology Work Group: [https://www.niddk.nih.gov/health-information/communication-programs/nkdep/working-groups/health-information-technology](https://www.niddk.nih.gov/health-information/communication-programs/nkdep/working-groups/health-information-technology)
This group works to enable and support the widespread interoperability of data related to kidney health among health care software applications to optimize CKD detection and management.