



PATIENT-CENTERED OUTCOMES RESEARCH INSTITUTE

## **Spring 2014 Funding Cycle**

# **Obesity Treatment Options Set in Primary Care for Underserved Populations: Pragmatic Clinical Trials to Evaluate Real-World Comparative Effectiveness**

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This PCORI Funding Announcement applies to the funding cycle that closes May 6, 2014, at 5:00 p.m. (ET). Application guidelines, templates, and other resources are available at [pcori.org/PFA/obesity](http://pcori.org/PFA/obesity).



## **About PCORI**

PCORI is committed to transparency and a rigorous stakeholder-driven process that emphasizes patient engagement. PCORI uses a variety of forums and public comment periods to obtain public input to enhance its work. PCORI helps people make informed healthcare decisions and improves healthcare delivery and outcomes by producing and promoting high-integrity, evidence-based information that comes from research guided by patients, caregivers, and the broader healthcare community.

PCORI was authorized by the Patient Protection and Affordable Care Act of 2010 as a nonprofit, nongovernmental organization. PCORI's purpose, as defined by the law, is to help patients, clinicians, purchasers, and policy makers make better informed health decisions by "advancing the quality and relevance of evidence about how to prevent, diagnose, treat, monitor, and manage diseases, disorders, and other health conditions."

**Patient-Centered Outcomes Research Institute**  
**1828 L St., NW, Suite 900**  
**Washington, DC 20036**  
**Phone: (202) 827-7700**  
**Fax: (202) 355-9558**  
**Email: [info@pcori.org](mailto:info@pcori.org)**

**Follow us on Twitter: [@PCORI](https://twitter.com/PCORI)**



## Overview

Published	February 5, 2014																
Letters of Intent Due	<p>March 7, 2014, by 5:00 p.m. (ET)</p> <p>Letters of Intent will be screened for responsiveness and fit to program goals. An invitation to submit a full application will be sent to selected applicants no later than March 21, 2014.</p>																
Summary	<p>In this PFA, we seek to determine the real-world comparative effectiveness of obesity treatment options set in primary care, in adults for racial/ethnic minorities, populations with low socioeconomic status, and/or rural populations. We aim to fund up to two pragmatic, randomized, multi-site clinical trials that focus on improving obesity treatment outcomes in these populations. We seek proposals where the interventions are set within primary care practices and where the comparator arm of the trial is the primary care obesity treatment that is currently reimbursed through Medicare. We encourage applicants to leverage available staff, facilities, and community resources that are representative of real-world (present and potential) linkages to primary care practices to increase the potential of adoption and uptake of the findings by other healthcare providers and systems. Areas of research focus should be generalizable to other settings and clinical practice sites.</p>																
Applicant Resources	<a href="http://pcori.org/PFA/obesity">pcori.org/PFA/obesity</a>																
Key Dates	<table> <tr> <td>Online System Opens:</td> <td>February 5, 2014</td> </tr> <tr> <td>Applicant Town Hall Session:</td> <td>TBD</td> </tr> <tr> <td>Letter of Intent (LOI) Deadline:</td> <td>March 7, 2014, at 5:00 p.m. (ET)</td> </tr> <tr> <td>LOI Screening Notification</td> <td>March 21, 2014</td> </tr> <tr> <td>Application Deadline (by invitation only):</td> <td>May 6, 2014, at 5:00 p.m. (ET)</td> </tr> <tr> <td>Merit Review Dates:</td> <td>August 2014</td> </tr> <tr> <td>Awards Announced:</td> <td>September 2014</td> </tr> <tr> <td>Earliest Start Date:</td> <td>December 2014</td> </tr> </table>	Online System Opens:	February 5, 2014	Applicant Town Hall Session:	TBD	Letter of Intent (LOI) Deadline:	March 7, 2014, at 5:00 p.m. (ET)	LOI Screening Notification	March 21, 2014	Application Deadline (by invitation only):	May 6, 2014, at 5:00 p.m. (ET)	Merit Review Dates:	August 2014	Awards Announced:	September 2014	Earliest Start Date:	December 2014
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Maximum Project Budget (Total Costs)	\$10 million																
Maximum Project Period	Five years																
Funds Available Up To (Total Costs)	\$20 million																



Eligibility	Applications may be submitted by any private sector research organization, including any nonprofit or for-profit organization; any public sector research organization, including any university or college hospital or healthcare system, laboratory, manufacturer, or unit of local, state, or federal government. All US applicant organizations must be recognized by the Internal Revenue Service. Non-domestic components of organizations based in the United States and foreign organizations may apply, as long as there is demonstrable benefit to the US healthcare system and US efforts in the area of patient-centered research can be clearly shown. Organizations may submit multiple applications for funding. Individuals are not permitted to apply.
Review Criteria	<ol style="list-style-type: none"><li>1. Impact of the condition on the health of individuals and populations</li><li>2. Potential for the study to improve healthcare and outcomes</li><li>3. Technical merit</li><li>4. Patient-centeredness</li><li>5. Patient and stakeholder engagement</li></ol>
Contact Us	<p>For programmatic questions, please email (<a href="mailto:pfa@pcori.org">pfa@pcori.org</a>), phone (202-627-1884), or contact us online (<a href="http://www.pcori.org/PFA/inquiry">http://www.pcori.org/PFA/inquiry</a>). PCORI will provide a response within three business days. However, PCORI cannot guarantee that all questions will be addressed three business days prior to an LOI or application deadline.</p> <p>Please email (<a href="mailto:pfa@pcori.org">pfa@pcori.org</a>) for any administrative, financial, or technical questions. PCORI will provide a response within two business days. Please note that during the week of the application deadline, response times may exceed two business days. Applicants may call the helpdesk (202-627-1885) for technical or administrative support within a week prior to the deadline. Applicants are asked to plan accordingly. It is the applicant's responsibility to submit the application before the deadline.</p>



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## I. Introduction

### Summary of Program

The Addressing Disparities Program at the Patient-Centered Outcomes Research Institute (PCORI) seeks to fund pragmatic comparative clinical effectiveness research (CER) to improve patient-centered outcomes for individuals and populations at risk for experiencing health disparities. Obesity is a condition that disproportionately affects populations at risk for disparate outcomes. In this PCORI Funding Announcement (PFA), we seek to fund up to two pragmatic, cluster-randomized clinical trials that focus on improving obesity treatment outcomes in adults 20 years of age or older. This funding announcement focuses on obesity treatment options in minority racial/ethnic groups, individuals with low socio-economic status, and/or residents of rural areas, and it aims to help these groups receive care to achieve the best possible weight-loss outcomes.

We seek proposals that are set within primary care practices and where the comparator arm of the trial is the primary care obesity treatment currently reimbursed through Medicare<sup>1</sup>. The active-intervention treatment arm(s) can, for example, assess the effectiveness of community-based programs or practitioners through referrals and active follow-up or through partnerships between primary care practices and community organizations, targeted training of primary care practitioners within primary care practices, or tailoring of evidence-based interventions that have the potential to improve obesity outcomes and reduce disparities, which can be disseminated and adopted by health systems and primary care providers.

### Background

According to the 2013 American Heart Association/American College of Cardiology/The Obesity Society (AHA/ACC/TOS) Guidelines for the Management of Overweight and Obesity in Adults (Jensen 2013), a comprehensive lifestyle intervention is considered the first line of treatment for obesity. Such an intervention includes dietary prescriptions to reduce caloric intake, increased physical activity, and behavioral therapy to facilitate adherence to diet and activity recommendations. These components have yielded clinically significant (at least 5 percent of baseline weight) weight loss in individuals with obesity. The US Preventive Services Task Force has issued recommendations for primary care physicians to deliver behavioral therapy for obesity. However, these recommendations are not consistently implemented, and there is little evidence about what is most effective, particularly for populations at risk for disparities. Yet, primary care practices may provide practical settings for screening, monitoring, and treating obesity.

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<sup>1</sup> Medicare currently covers behavioral therapy for obesity (BMI >30 kg/m<sup>2</sup>) by a qualified primary care physician, nurse practitioner, or physician's assistant in a primary care setting. Items covered under this provision are BMI screening, dietary assessment, and intensive behavioral therapy to promote sustained weight loss. Click here for additional details.

Obesity is a condition of excess body fat, which is associated with comorbidities such as cardiovascular disease, hypertension, diabetes, and hyperlipidemia. Obesity affects nearly 36 percent of the American adult population and disproportionately affects racial and ethnic minorities, especially women. As evidence of the impact of obesity on health and healthcare, the obesity epidemic is linked to increases in direct medical costs, productivity costs, transportation costs, and human capital costs (Hammond 2010).

Obesity disproportionately affects some populations more than others. African Americans are one of the populations at highest risk, with almost 50 percent of adults affected in 2010, compared to approximately 34 percent of their white counterparts (Flegal 2012). Hispanic/Latino populations are also disproportionately affected; in 2010, approximately 39 percent of US Hispanic/Latino adults were classified as obese (Flegal 2012). Obesity also affects rural communities more than urban ones; 2008 National Health and Nutrition Examination Survey (NHANES) data show that almost 40 percent of rural survey participants were obese compared to 33 percent of urban participants (Befort 2012).

Various social determinants, including socioeconomic and systems factors, have been associated with disparities in obesity prevalence, management, morbidity, and mortality. These determinants include cultural and language barriers, health system barriers, poverty, genetics, limited health literacy and numeracy, and exposure to environmental stressors (Cheng 2012). Disparities in health care are multifaceted, and solutions to improve care and reduce disparities in obesity treatment and outcomes will need to address these complex factors.

Pragmatic clinical trials evaluate the effectiveness of interventions or therapies designed to maximize applicability of the trial's results in routine clinical practice. Thus, PCORI seeks to fund pragmatic, cluster-randomized clinical trials to test the effectiveness of multicomponent lifestyle interventions to treat obesity in adults 20 years old and older. Proposals must have at least one component set in primary care practices with linkages or partnerships to community-based programs and/or practice centers to compare the effectiveness of these comprehensive lifestyle interventions to the primary care obesity treatment currently reimbursed through Medicare<sup>2</sup>. Practices assigned to the comparator arm of treatment currently reimbursed through Medicare might receive minimal input, such as a one-time seminar and/or brochure for clinicians that covers current obesity-treatment guidelines. This funding announcement focuses on obesity-treatment options in minority racial and ethnic groups, individuals with low socioeconomic status, and/or residents of rural areas.

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<sup>2</sup> Medicare currently covers behavioral therapy for obesity (BMI >30 kg/m<sup>2</sup>) by a qualified primary care physician, nurse practitioner, or physician's assistant in a primary care setting. Items covered under this provision are BMI screening, dietary assessment, and intensive behavioral therapy to promote sustained weight loss. Click [here](#) for additional details.

The active intervention treatment arm(s) should include trained interventionists (see Table 1) and can, for example:

- Examine the effectiveness of referrals with active follow-up for obesity lifestyle intervention to community-based programs (e.g., Diabetes Prevention Program, commercial weight loss programs) and/or trained health professionals (e.g., clinicians, nutritional professionals, community health workers, nurse practitioners, physicians' assistants, and lay people)
- Test optimal roles for primary care providers in obesity treatment and management
- Compare remote, in-person, and/or hybrid lifestyle interventions
- Evaluate long-term weight loss strategies

To increase the potential of adoption and uptake of the findings by other health care providers/systems, we urge applicants to leverage available staff, facilities, and community resources that are representative of real-world (present and potential) linkages to primary care practices. Areas of research focus should be generalizable to other settings and clinical practice sites. Trials that include community resources to augment healthcare are permissible, but the community resources must be well integrated into healthcare delivery. Referral alone, without active follow-up, to community programs by the healthcare system or staff is not, in itself, adequate as a response to this PFA. Recruitment of study subjects from primary care offices, in itself is also not adequate. There should be some evidence that the community program or policy is directly linked to healthcare delivery through a formal agreement, reimbursement, and regular communication about patient progress and outcomes. PCORI is particularly interested in applications involving organizations or programs that can help researchers design, implement, disseminate, and sustain effective interventions. Applicants are strongly encouraged to collaborate with appropriate institutions or organizations to achieve this end.

### **Funds Available**

PCORI expects to fund up to \$20 million in total costs to support up to two pragmatic clinical trials under this PFA.

## **II. Guidance for Proposing Research**

### **Research Priorities**

PCORI encourages applicants to examine and compare the relative effectiveness of various models and tools to enhance delivery and uptake of lifestyle obesity treatment that has at least one component within primary care.

**Table 1: Scope of this Funding Announcement**

<p><b>Target Population</b></p>	<ul style="list-style-type: none"> <li>• Underserved adults ages <math>\geq 20</math> years from the following populations:             <ul style="list-style-type: none"> <li>○ Racial/ethnic minorities and/or</li> <li>○ Low socio-economic status and/or</li> <li>○ Rural</li> </ul> </li> <li>• BMI <math>\geq 30</math> kilograms/meter<sup>2</sup></li> </ul>
<p><b>Project Duration</b></p>	<ul style="list-style-type: none"> <li>• Up to 5 years             <ul style="list-style-type: none"> <li>○ Years 1–2: Intervention refinement and recruitment (recruitment begins by month 18), protocol development, human subjects approvals</li> <li>○ Years 2–4: Pragmatic clinical trial implementation. The weight loss intervention(s) must last at least two years.</li> <li>○ Years 4–5: Data analysis; intervention evaluation, including assessment of practice- or system-level changes to promote sustainability that could include, for example, uptake and engagement of the primary care team in delivery of the intervention or assessment of organizational or system commitment</li> </ul> </li> </ul>
<p><b>Treatment Arm Requirements</b></p>	<ul style="list-style-type: none"> <li>• <b>Comparator Arm:</b> <ul style="list-style-type: none"> <li>○ Primary care obesity treatment that is currently reimbursed through Medicare.<sup>3</sup></li> <li>○ Practices might receive minimal input, such as a one-time seminar and/or brochure for clinicians that covers current obesity treatment guidelines.</li> </ul> </li> <li>• <b>Active Intervention Arm(s):</b> <ul style="list-style-type: none"> <li>○ Tests an evidence-based comprehensive lifestyle intervention to maximize weight, such as recommended in the AHA/ACC/TOS Guidelines (Jensen 2013), that includes:                 <ul style="list-style-type: none"> <li>▪ Reduced-calorie diet</li> <li>▪ Increased physical activity</li> <li>▪ Behavior therapy as a structured program providing guidance on behavioral strategies to accomplish prescribed dietary intake and physical activity goals. Some common components of behavioral therapy are goal setting, self-monitoring, stimulus control, contingency and stress management, and problem solving</li> </ul> </li> </ul> </li> </ul>

<sup>3</sup> Medicare currently covers behavioral therapy for obesity (BMI  $>30$  kg/m<sup>2</sup>) by a qualified primary care physician, nurse practitioner, or physician’s assistant in a primary care setting. Items covered under this provision are BMI screening, dietary assessment, and intensive behavioral therapy to promote sustained weight loss. Click [here](#) for additional details.

	<ul style="list-style-type: none"> <li>○ Must fall within the high- intensity category, as defined in the 2013 AHA/ACC/TOS Guidelines (Jensen 2013). Interventions must include:             <ul style="list-style-type: none"> <li>▪ At least 14 in-person contact sessions in months 1–6</li> <li>▪ At least monthly contact sessions (in-person and/or remote) in months 7–24</li> </ul> </li> <li>○ Must have at least one component within primary care with linkages or partnerships with community-based programs and/or practitioners</li> <li>○ Must have providers, at a minimum, monitor weight-loss progress of patients</li> <li>○ Could include:             <ul style="list-style-type: none"> <li>▪ Use of technology, such as smartphones or health information technology</li> <li>▪ Practitioner training. Interventionists must be trained (see below)</li> <li>▪ Referrals with active follow-up to community-based practitioners, for example, dietitians, health coaches, programs, or organizations, such as the YMCA</li> </ul> </li> </ul>
<p><b>Active Intervention Arm Interventionists</b></p>	<ul style="list-style-type: none"> <li>• Interventionists within the active-intervention arm must have training in delivering an evidence-based behavioral weight-loss intervention.</li> <li>• Examples of publically available evidence-based training programs that could be used or adapted to train interventionists include but are not limited to:             <ul style="list-style-type: none"> <li>○ Diabetes Prevention Program training<sup>4</sup></li> <li>○ Look Ahead trial training program<sup>5</sup></li> <li>○ Weight Loss Maintenance trial training program<sup>6</sup></li> </ul> </li> </ul>
<p><b>Study Design</b></p>	<ul style="list-style-type: none"> <li>• Pragmatic, multi-site, clinical trial</li> <li>• Cluster randomization of primary care practices</li> </ul>

The proposed trial should be designed to:

- Test a multidimensional strategy designed for maximal potency in helping patients achieve weight loss, and which (if effective) is feasible for future implementation with fidelity in practice

<sup>4</sup> Available at [bsc.gwu.edu/dpp/lifestyle/dpp\\_part.html](http://bsc.gwu.edu/dpp/lifestyle/dpp_part.html)

<sup>5</sup> Available at [lookaheadtrial.org/public/dspMaterials.cfm](http://lookaheadtrial.org/public/dspMaterials.cfm)

<sup>6</sup> Available at [kpchr.org/wlmpublic/public/default.aspx](http://kpchr.org/wlmpublic/public/default.aspx)

- Provide evidence-based training, such as the national Diabetes Prevention Program training program, for the study's interventionists
- Manage the fidelity of the intervention, specifying the quality control methods
- Recruit a diverse sample of primary practices and individuals to assure adequate power to detect meaningful changes in weight
- Use secondary outcomes to assess system/practice-level changes
- Incorporate patients' and other relevant stakeholders' priorities and perspectives in the specification of the study protocol and the outcomes to be measured

We seek applications that specifically examine weight loss and weight loss maintenance as the primary outcome but also include patient-centered outcomes that can be measured within a five-year period. These outcomes can include, but are not limited to:

- Activity limitations
- Patient perceptions of care
- Quality of life
- Patient self-management skills and efficacy
- Adherence to intervention components
- Practice-level changes
- Clinical outcomes, such as blood pressure, hba1c, lipid/blood cholesterol levels

PCORI is also interested in secondary outcomes that include measures of practice change, human resource use, and sustainability of effective interventions. Applications must include an intervention-evaluation component to determine the characteristics of successful interventions and provide a plan for sustainability.

### Collaboration

PCORI is expecting to fund up to two pragmatic clinical trials within this PFA. As such, PCORI will expect collaboration between the two project teams, including but not limited to in-person or teleconference meetings to discuss recruitment challenges; collection of common measures, such as weight, in a unified way; and implementation of a common analysis plan for specific measures. Thus, PCORI requires a statement from each research team around willingness to collaborate.

As the nature and scope of any in-person meetings remain to be defined, applicants are asked not to include travel costs for these meetings within their budget. If awarded, PCORI will establish a separate cost center to cover these expenses. Awardees will submit separate invoices to PCORI for these meetings which will be reimbursed to the awardee at cost.

### Data and Safety Monitoring Board

Studies funded under this PFA will share an independent data and safety monitoring board (DSMB). The role of the DSMB is to monitor data and oversee participant safety in all the studies supported by this initiative. At the first meeting, the DSMB will review the awardees' protocols. Subsequently, the

DSMB will monitor and review recruitment, adverse events, data quality, outcome data, and overall awardee performance. It has the responsibility to review interim data and final data and recommend whether the protocol should be modified and whether the study should be continued or terminated early. The DSMB will meet twice each year. At least one meeting each year will be in person.

As the nature and scope of the in-person DSMB meetings remain to be defined, applicants are asked not to include travel costs for these meetings within their budget. If awarded, PCORI will establish a separate cost center to cover these expenses. Awardees will submit separate invoices to PCORI for these meetings which will be reimbursed to the awardee at cost.

### Research Consortium

To achieve the project goals, PCORI is requesting proposals from a consortium of research, community, and organizational partners. The proposed research consortium should include all of the necessary expertise to conduct the study. This may include, but is not limited to, individuals with expertise in:

- Clinical trials, including the staffing and infrastructure necessary to conduct a multi-site trial in real-world primary care practices
- Recruiting and retaining the target study population and sample size through a two-year intervention, including expertise in following up with research participants who do not complete the intervention (Underserved populations are often challenging to recruit and retain.)
- Engaging patients and other relevant stakeholders to participate actively in all phases of the study, including design, implementation, evaluation, and reporting of results
- Professional education—including the design and delivery of high-quality, pragmatic, clinical education to healthcare professionals such as physicians, nurses, nurse practitioners, physicians assistants, nutrition professionals, and community health workers—using media suitable for both the professionals participating in the trial and a much wider audience.
- Behavioral change and delivery of behavioral interventions
- Provision, with high fidelity, of all elements of health care identified in the study protocol, including:
  - Qualified teams and access to the services of other required professionals (e.g., community-based dietitians, nutritionists, or organizations such as commercial programs with peer-reviewed evidence of effectiveness)
  - Robust processes for monitoring and ensuring the quality of the clinical services and their fidelity to the protocol
  - Access to a sufficient number of primary care practices and subjects to ensure adequate statistical power

## Sample Research Questions

The following research questions are presented as examples. This list is by no means exhaustive.

Proposals may address more than one question. All questions must have a comparative component.

- Does the addition of a team-based, patient-centered, and culturally and socially tailored obesity intervention in primary care improve weight-loss outcomes, as compared with the primary care obesity treatment currently reimbursed through Medicare?
- Do physician or provider training programs improve efficacy of lifestyle intervention in racial/ethnic minorities, populations with low socio-economic status, and/or rural populations?
- Do different models for team-based care within the primary care setting (e.g., using different combinations of nurse case managers community health workers, physicians, dietitians, social workers, other allied health professionals, and health services contractors) and combining clinical care with community-based care improve weight-loss outcomes in underserved populations?
- Do remotely delivered interventions within the context of primary care produce comparable weight-loss outcomes as in-person or hybrid (remote plus in-person) treatment in underserved populations?
- Does involving health professionals outside the clinical system (e.g., community health workers, home visitors, patient navigators) improve adherence to lifestyle interventions compared to primary care providers alone?
- Compared with traditional educational methods, do interventions using electronic medical records improve outcomes and do electronic tools improve health literacy and adherence to interventions?
- Do organizational changes in the healthcare system result in reaching more patients and achieving more effective weight management than provider education alone?
- Do patient adherence and obesity outcomes improve when patients engage (or their caregivers engage) with current technologies such as video storytelling, smart phones, or social media for communication about obesity treatment and outcomes?

To be competitive for a PCORI contract, an application must demonstrate that its proposed research question(s) and outcomes will matter to patients and/or other stakeholders, such as clinicians, payers, and policy makers.

PCORI strongly encourages studies that can deliver findings promptly, including studies that take advantage of tools previously developed, populations recruited for prior studies, or existing infrastructure (e.g., community-based healthcare workers). Currently funded studies may be considered for PCORI funding to significantly extend the scope of work to support distinctive CER related to addressing obesity treatment in diverse populations. However, PCORI is only interested in supporting and extending highly innovative studies that push beyond traditional concepts to move the scientific field forward and that show great promise for accelerating opportunities for improving outcomes and reducing disparities.

## Non-responsiveness

Applications will be considered non-responsive if the proposed research:

- Conducts a formal cost-effectiveness analysis in the form of dollar-cost per quality-adjusted life-year to compare two or more alternatives.
- Measures the relative costs of care of two or more alternative approaches as the primary criteria for choosing the preferred alternative.

PCORI does have an interest, however, in studies that address questions about conditions that lead to high costs to the individual or to society. This is included in our review criterion on impact of the condition on the health of individuals and populations. PCORI is also interested in studies that examine differentials in healthcare resources or costs as a determinant of, or barrier to, good outcomes. Examples include ways in which out-of-pocket costs may constitute a barrier to the receipt of care.

Further, PCORI considers it important for applicants to discuss cost-related issues such as the resources needed to implement, replicate, or disseminate a successful intervention. PCORI is also interested in evaluation of interventions intended to reduce health system waste or increase health system efficiency. Proposals that include studies of these issues without utilizing a formal cost-effectiveness analysis or comparing the costs of alternatives are considered responsive.

PCORI discourages proposals that include studies of the natural history of disease, instrument development, pharmacodynamics, and fundamental science or study of biological mechanisms. It also discourages studies that have the primary purpose of developing and evaluating new decision aids or clinical prognostication tools.

## Preliminary Data and Use of Accepted Measures

PCORI encourages investigators to design their research using valid patient-centered outcomes measures. Include preliminary data that supports the proposed measures. Investigators are encouraged to consider those measures described in the [Patient Reported Outcomes Measurement Information System \(PROMIS\)](#).<sup>7</sup>

## Documentation of Assumptions

PCORI specifically seeks studies that are sufficiently powered to detect clinically meaningful effects. To that end, please justify the proposed sample sizes by explaining the assumptions used in power

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<sup>7</sup> Available at [nihpromis.org](http://nihpromis.org)

calculations. The application should clearly state all the necessary assumptions (i.e., the primary outcome measure, the estimated difference in the mean value of this measure between study arms, standard deviation of the measure, type I error rate, and any other assumptions). All such estimates must be justified by referring to prior published research or preliminary data.

## Review Criteria

PCORI's review panels rate all submitted applications on the following five criteria:

### **Criterion 1. Impact of the condition on the health of individuals and populations**

The proposal addresses the following questions:

- Is the condition or disease associated with a significant burden in the US population, in terms of prevalence, mortality, morbidity, individual suffering, or loss of productivity?
- Alternatively, does the condition or disease impose a significant burden on a smaller number of people who have a rare disease?
- Does the proposal include a particular emphasis on patients with one or more chronic condition?

### **Criterion 2. Potential for the study to improve health care and outcome**

The proposal has the potential to lead to meaningful improvement in the quality and efficiency of care and to improvements in outcomes that are important to patients. It addresses the following questions:

- Does the research question address a critical gap in current knowledge as noted in systematic reviews, guideline development efforts, or previous research prioritizations?
- Has it been identified as important by patient, caregiver, or clinician groups?
- Do wide variations in practice patterns suggest current clinical uncertainty?
- Is the research novel or innovative in its methods or approach, in the population being studied, or in the intervention being evaluated, in ways that make it likely to improve care?
- Do preliminary studies indicate potential for a sizeable benefit of the intervention relative to current practice? How likely is it that positive findings could be disseminated and implemented quickly, resulting in improvements in practice and patient outcomes?

### **Criterion 3. Technical merit**

The proposal has sufficient technical merit to ensure that the study goals will be met. It includes:

- Clear research plan with rigorous methods that demonstrates adherence to PCORI's Methodology Standards
- Realistic timeline that includes specific scientific and engagement milestones
- Research team with the necessary expertise and an appropriate organizational structure
- Research environment sufficient to support the conduct of the work with appropriate resources
- Diverse study population with respect to age, gender, race, ethnicity, and clinical status, as appropriate for the proposed research

### **Criterion 4. Patient-centeredness**

The proposal demonstrates patient-centeredness at every stage of the research. It addresses the following questions:

- Is the research focused on questions that affect outcomes of interest to patients and their

caregivers?

- Does the research address one or more of the key questions mentioned in PCORI's definition of patient-centered outcomes research?

#### **Criterion 5. Patient and stakeholder engagement**

The proposal demonstrates that people representing the population of interest and other relevant stakeholders are engaged in ways that are appropriate and necessary in a given research context.

- Are patients and other stakeholders engaged in:
  - Formulating research questions
  - Defining essential characteristics of study participants, comparators, and outcomes
  - Identifying and selecting outcomes that the population of interest notices and cares about (e.g., survival, function, symptoms, health-related quality of life) and that inform decision making relevant to the research topic
  - Monitoring study conduct and progress
  - Designing or suggesting plans for dissemination and implementation activities
- Are the roles and the decision-making authority of all research partners clearly stated?
- Does the proposal demonstrate the principles of reciprocal relationships, co-learning, partnership, trust, transparency, and honesty?

#### **Patient and Stakeholder Engagement**

PCORI encourages all applicants to clearly describe the patient and stakeholder engagement in their research proposals. PCORI understands that patient and stakeholder engagement in research can take many forms; it is not seeking one particular type or method of engagement. Rather, applicants should communicate how patients (those with lived experience), family members, caregivers, and the organizations that represent them, as well as any other relevant stakeholders, will be involved in study activities. Because this type of engagement in research is a relatively new concept, PCORI has developed a Patient and Family Engagement Rubric (see the appendix to the Engagement Template) to guide both applicants and merit reviewers. Additionally, studies are expected to adhere to PCORI's Methodology Standards Associated with Patient-Centeredness and to the PCOR Engagement Principles found within the rubric. These and additional resources are available in [PCORI's Funding Center](#).

#### **Methodological Considerations**

Regardless of study design, proposals must adhere to all relevant PCORI Methodology Standards. These include 47 individual standards that fall into 11 categories. The first five categories are cross-cutting and are relevant to most patient-centered outcomes research (PCOR) studies. Researchers should refer to all of these standards when planning and conducting their research projects. These categories are:

- Standards for Formulating Research Questions
- Standards Associated with Patient-Centeredness

- Standards on Data Integrity and Rigorous Analyses
- Standards for Preventing and Handling Missing Data
- Standards for Heterogeneity of Treatment Effect (HTE)

Six other categories of standards will be applicable to particular study designs and methods. The standards in each of these categories should be used for guidance when they are relevant to a particular study. These categories are:

- Standards for Data Registries
- Standards for Data Networks as Research-Facilitating Infrastructures
- Standards for Causal Inference Methods
- Standards for Adaptive and Bayesian Trial Designs
- Standards for Studies of Diagnostic Tests
- Standards for Systematic Reviews

Most of these standards should be considered “minimal” standards. Additional best practices, including relevant guidelines for the conduct of clinical trials developed by other organizations, should be addressed in the application for PCORI funding.

All applicants should specifically discuss their capacity to measure factors such as differential adherence to chosen treatments (or participation in intervention programs) that could create apparent differences in the effectiveness of the alternative interventions being compared in clinical populations.

### **Budget and Project Duration**

Projects may not exceed five years in duration, with the weight-loss intervention lasting at least two years. Budgets may not exceed \$10 million in total costs, including indirect costs, over the five-year period. Proposals will be reviewed and evaluated in their totality; however, draw down of project funds will be authorized in two stages, with authorization of Stage 2 option funds (covering years 3 through 5) contingent on successful performance in Stage 1 (years 1 and 2). Budgets in Stage 1 may not exceed \$2.5 million total costs. Applicants wishing to propose studies that will require more than \$2.5 million in total costs during Stage 1 and/or more than \$7.5 million in total costs for Stage 2 must submit a Greater Than Budget Request template at the time of the LOI submission. PCORI does not guarantee that permission will be granted.

Of note, costs associated with Stage 2 efforts should not be included in the budget detail for stage 1 activities. Costs associated with Stage 2 efforts should be budgeted in years 3 to 5.

We expect that Stage 1 (years 1 to 2) will be used for:

- Setting a solid foundation for successful completion of a comprehensive lifestyle obesity

treatment program in primary care settings with linkages to the community, as well as developing the study protocol and manual of procedures for the intervention

- Establishing and delineating the roles and responsibilities of members of the study team for implementing this project
- Obtaining clearances from all institutional and community partners, including Institutional Review Board approvals
- Execution of all subcontractor agreements
- Clearly communicating to PCORI an understanding of patient populations for study recruitment
- Identifying barriers to patient recruitment into the study and determining how these barriers will be addressed
- Developing a clear recruitment plan and begin recruitment (by month 18). If the recruitment plan is not successful, PCORI will consider a revised recruitment plan, which we will review for potential for success and thus future dispersal of funds
- Tailoring evidence-based interventions for target populations (e.g., tailoring educational materials, tools). Applicants are encouraged to use evidence-based strategies to adapt behavior change interventions, such as, but not limited to, those in the Toolkit for Adaptation Approaches (Davidson 2013).
- Establishing metrics to evaluate the fidelity of the intervention

If the above objectives can be achieved in less than two years, we encourage applicants to start recruitment and implementation of the intervention prior to month 18.

The purpose of Stage 2 is to develop and refine a path to make the intervention sustainable. Activities in Stage 2 (years 3 to 5) should refine, implement, analyze, and evaluate the intervention. In addition, Stage 2 would focus on maintenance of the program within the primary care setting, which could include the implementation of organizational changes to the primary care practice to ensure sustained practice changes, as well as the implementation of necessary modifications to the program to further facilitate its sustainability

The application must include clearly specified, well-defined milestones and timelines for assessing progress in both Stage 1 and 2. In the application, milestones and timelines must be provided in a separate heading at the end of each stage's Approach section.

Below are three points to consider regarding this staged approach:

- Prior to funding an application, the PCORI Program Officer will contact the applicant to discuss the Stage 1 and 2 milestones and suggested recommendations from PCORI's staff or review panel. The Program Officer and the applicant will negotiate and agree on a final set of approved Stage 1 milestones, which will be specified in the Contract. These milestones will be the basis for judging the successful completion of the work proposed in Stage 1 and progress toward

milestones in Stage 2. Milestones in Stage 1 must include the provision of submitting a revised recruitment plan in the event that the original recruitment plan is ineffective.

- During Stage 1, Project Director(s)/Principal Investigator(s) will submit to PCORI an interim progress report at six months, as well as full progress reports at 12 months and 18 months. Progress reports will include any revisions to the previously proposed Stage 2 aims. Receipt of this progress report will trigger an administrative review and/or a site visit by PCORI program staff to determine whether or not Stage 2 should be awarded.
- If the project has met the milestones for Stage 1, it will be eligible for rapid transition to Stage 2. To ensure continuity of the work, PCORI will aim to release Stage 2 funds early enough that there will be no lag in funding between stages.

Regardless of phase, continued funding is contingent upon successful completion of all programmatic and administrative milestones.

### Protection of Human Subjects

PCORI adopts, by reference, the Human Subjects requirements of 45 CFR Part 46. Refer to the Supplemental Instructions for Preparing the Protection of Human Subjects Section of the Research Plan in Part II of the Instructions for the PHS 398 Form provided by the [National Institute of Health](#).<sup>8</sup> Note: PCORI requires engagement in the research by patients and/or other stakeholders as research partners. Research subjects protection requirements do not apply to co-investigators, members of the research team, or research partners.

### Letters of Intent Review

An LOI is required and must be submitted prior to completion of an application. LOIs will be reviewed and evaluated on their responsiveness to this PFA. Following the LOI review, applicants will be notified as to whether they have been selected to submit full applications; PCORI will accept full applications from only those organizations selected. A complete application should only be submitted after applicants receive approval.

## III. How to Submit a Proposal

### PCORI Online System

To submit a proposal, you must register with the [PCORI Online System](#)<sup>9</sup> and submit a Letter of Intent (LOI). LOIs will be competitively screened. Applicants selected to submit a full application will be

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<sup>8</sup> Available at [grants.nih.gov/grants/funding/phs398/phs398.html](https://grants.nih.gov/grants/funding/phs398/phs398.html)

<sup>9</sup> Available at [pcori.fluxx.io](https://pcori.fluxx.io)

notified within two weeks after the LOI deadline.

### Submission Dates

LOIs and full applications must be submitted in accordance with the published dates and times listed in the Overview of this PFA and in the [PCORI Funding Center](#).<sup>10</sup>

### Applicant Resources

**PCORI Funding Center** [pcori.org/PFA/obesity](http://pcori.org/PFA/obesity)

**PCORI Online System** [pcori.fluxx.io](http://pcori.fluxx.io)

**PCORI Funding Awards** [pcori.org/pfaawards](http://pcori.org/pfaawards)

#### Contact Us

**Programmatic Inquiries:** Please contact the PCORI Helpdesk via email ([pfa@pcori.org](mailto:pfa@pcori.org)), phone (202-627-1884), or online (<http://www.pcori.org/PFA/inquiry>). PCORI will provide a response within three business days. However, we cannot guarantee that all questions will be addressed three business days prior to a Letter of Intent or application deadline.

**Administrative, Financial, or Technical Inquiries:** Please contact the PCORI Helpdesk at [pfa@pcori.org](mailto:pfa@pcori.org). PCORI will provide a response within two business days. Please note that during the week of the application deadline, response times may exceed two business days. One week prior to an application deadline, applicants may also call the PCORI Helpdesk (202-627-1885). Applicants are asked to plan accordingly. It is the applicant's responsibility to submit the application or before the application deadline.

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<sup>10</sup> Available at [pcori.org/apply](http://pcori.org/apply)

## VI. References

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