



## Cycle 2 2019 Funding Cycle

### PCORI Funding Announcement: Treatment Options for Age-Related Hearing Loss

Published May 1, 2019

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This PCORI Funding Announcement (PFA) applies to the funding cycle that closes September 4, 2019, at 5 pm (ET). Application Guidelines, templates, and other resources are available at <https://www.pcori.org/funding-opportunities/announcement/treatment-options-age-related-hearing-loss-cycle-2-2019>.



## **About PCORI**

The Patient-Centered Outcomes Research Institute (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 and other stakeholders.

PCORI was authorized by Congress in 2010 as a nonprofit, nongovernmental organization. PCORI's purpose, as defined by our authorizing legislation, is to help patients, caregivers, clinicians, policy makers, and other healthcare system stakeholders 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."

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## Overview

Published	May 1, 2019
Letter of Intent Deadline	May 29, 2019, by 5 pm (ET)  Letters of Intent (LOIs) will be screened for responsiveness to this PCORI Funding Announcement (PFA) and for fit to program goals. Only those selected will be permitted to submit full applications. Notification of denial or approval to submit a full application will occur no later than June 24, 2019.
Applicant Resources	See <a href="https://www.pcori.org/funding-opportunities/announcement/treatment-options-age-related-hearing-loss-cycle-2-2019">https://www.pcori.org/funding-opportunities/announcement/treatment-options-age-related-hearing-loss-cycle-2-2019</a>
Key Dates	Online System Opens: May 1, 2019 Town Hall: <a href="#">May 16, 2019; 12:00 pm ET</a> LOI Deadline: May 29, 2019, by 5 pm (ET) LOI Status Notification: June 24, 2019 Application Deadline: September 4, 2019, by 5 pm (ET) Merit Review: November 2019 Awards Announced: February 2020 Earliest Project Start Date: June 2020
Maximum Project Budget (Direct Costs)	\$2 million
Maximum Research Project Period	3 years
Funds Available Up To	\$12 million
Summary	<p>This PCORI funding announcement (PFA) seeks to fund rigorous, impactful comparative effectiveness research (CER) projects that focus on treatment options for adults 50 years or older with mild to moderate age-related hearing loss.</p> <p>For this PFA, investigators should address important decisional dilemmas by comparing treatment options that may include hearing devices and/or the support services for hearing loss. Hearing devices may encompass, but are not limited to, hearing aids or personal sound amplification products. Examples of support services include audiologist or licensed technician fitting of hearing aids, patient self-selection and -fitting of hearing aids, and counseling or education interventions. Proposed comparators must have documented evidence of efficacy for hearing-related outcomes or of widespread use.</p> <p>Studies should evaluate important patient-centered outcomes for up to six months, although studies with well justified design and analysis plans that may be completed in a shorter time frame are encouraged.</p> <p>Please note that PCORI does not fund intervention costs and investigators will be required to document how they plan to cover these costs.</p>



Eligibility	Applications may be submitted by any private-sector research organization, including any nonprofit or for-profit organization, and any public-sector research organization, including any university or college hospital or healthcare system; laboratory or manufacturer; or unit of local, state, or federal government. The Internal Revenue Service must recognize all U.S. applicant organizations. Nondomestic components of organizations based in the U.S. and foreign organizations may apply, as long as there is demonstrable benefit to the U.S. healthcare system and U.S. efforts in the area of patient-centered research can be shown clearly. Organizations may submit multiple applications for funding. Individuals are not permitted to apply.
Review Criteria	<ol style="list-style-type: none"><li>1. Potential for the study to fill critical gaps in evidence</li><li>2. Potential for the study findings to be adopted into clinical practice and improve delivery of care</li><li>3. Scientific merit (research design, analysis, and outcomes)</li><li>4. Investigator(s) and environment</li><li>5. Patient-centeredness</li><li>6. Patient and stakeholder engagement</li></ol>
Contact Us	<p><b>Programmatic Inquires:</b> Please contact the PCORI Helpdesk via email (<a href="mailto:sciencequestions@pcori.org">sciencequestions@pcori.org</a>), phone (202-627-1884), or online (<a href="http://www.pcori.org/PFA/inquiry">http://www.pcori.org/PFA/inquiry</a>). PCORI will respond within two business days. However, we cannot guarantee that all questions will be addressed in two business days prior to an LOI or application deadline.</p> <p><b>Administrative, Financial, or Technical Inquiries:</b> Please contact the PCORI Helpdesk at <a href="mailto:pfa@pcori.org">pfa@pcori.org</a>. PCORI will respond within two business days. Please note that during the week of a deadline, response times may exceed two business days. 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 on or before the application deadline.</p>
Other	Deadlines are at 5 pm (ET). If deadlines fall on a weekend or a federal holiday, the deadline will be the following Monday or the next day after the federal holiday.

**What Has Changed for the Cycle 2 2019 Funding Cycle:**

- New PCORI Methodology Standard categories (Standards for Qualitative Methods, Standards for Mixed Methods Research, and Standards for Individual Participant-Level Data Meta-Analysis) have been added—see pages 7-8
- See the Application Guidelines for this PFA for administrative and template changes.



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## I. Introduction

### Summary of Program

The Patient-Centered Outcomes Research Institute (PCORI) seeks to fund clinical comparative effectiveness research (CER) that will generate evidence to address important decisional dilemmas regarding current treatment options for age-related hearing loss or presbycusis.

Competitive applications must address the following research question:

Which hearing devices and/or support services are most effective for the treatment of age-related hearing loss?

Hearing devices may encompass, but are not limited to, hearing aids or personal sound amplification products. Examples of support services include audiologist or licensed technician fitting of hearing aids, patient self-selection and -fitting of hearing aids, and counseling or educational interventions.

Responsive applications should also do the following:

- Compare two or more approaches that have documented evidence of efficacy or of common use for hearing loss.
- Include interventions that are or can be made available to most patients
- Describe interventions that are well characterized to facilitate replication and dissemination
- Propose a sufficiently large study population to ensure precise estimates of effect sizes and to account for reasonable rates of attrition
- Demonstrate strong endorsement and participation of patients and other stakeholders

Please note that PCORI does not fund the cost of interventions, and investigators will be required to document how those costs will be covered.

### Background

Hearing loss affects approximately 37.5 million adults in the United States,<sup>1</sup> and its prevalence increases with age.<sup>2</sup> Age-related hearing loss, or presbycusis, is a sensorineural disorder<sup>3</sup> that is typically bilateral, symmetric, and most prominent at higher frequencies.<sup>4,5</sup> Almost 25 percent of adults 65 to 74 years of

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<sup>1</sup> Blackwell DL, Lucas JW, Clarke TC. Summary health statistics for U.S. adults: National Health Interview Survey. *Vital Health Stat. Series 10; Number 260*; 2012; [https://www.cdc.gov/nchs/data/series/sr\\_10/sr10\\_260.pdf](https://www.cdc.gov/nchs/data/series/sr_10/sr10_260.pdf). Accessed October 11, 2018.

<sup>2</sup> Hoffman HJ, Dobie RA, Losonczy KG, Themann CL, Flamme GA. Declining prevalence of hearing loss in US adults aged 20 to 69 years. *JAMA Otolaryngol Head Neck Surg.* 2017;143(3):274-285.

<sup>3</sup> Cunningham LL, Tucci DL. Hearing loss in adults. *N Engl J Med.* 2017;377(25):2465-2473.

<sup>4</sup> Allen PD, Eddins DA. Presbycusis phenotypes form a heterogeneous continuum when ordered by degree and configuration of hearing loss. *Hear Res.* 2010;264(1-2):10-20.

<sup>5</sup> Dubno JR, Lee FS, Matthews LJ, Ahlstrom JB, Horwitz AR, Mills JH. Longitudinal changes in speech recognition in older persons. *J Acoust Soc Am.* 2008;123(1):462-475.

age have some degree of hearing impairment, and the rate increases to 50 percent for those over 75 years old.<sup>6</sup> As the US population ages, the clinical burden of hearing loss will be even more pronounced.<sup>2</sup>

Untreated adult hearing loss can negatively impact communication, social relationships, psychosocial well-being, and quality of life.<sup>3</sup> When compared with age-matched adults with normal hearing, elderly patients with hearing impairment have higher rates of hospitalization, death, dementia, depression, and falls and frailty.<sup>3</sup> However, it has been challenging to implement effective treatments for hearing loss. Use of hearing aids by adults with hearing impairment is relatively low. A 2012 survey revealed that from 1999 to 2006, only 14.2 percent of hearing-impaired US adults 50 years and older used hearing aids.<sup>7</sup> This rate of use may reflect that, for some people, the devices do not sufficiently meet their needs. Other barriers to hearing aid use may include device and maintenance costs, inadequate insurance coverage, discomfort, appearance, and stigma.<sup>2,8,9</sup>

Publications by the President's Council of Advisors on Science and Technology in 2015<sup>9</sup> and the National Academy of Sciences, Engineering, and Medicine in 2015<sup>10</sup> emphasized the need for increasing access to healthcare services that address the clinical burden of hearing loss. These publications also addressed the need for increasing device accessibility and affordability by urging the Food and Drug Administration (FDA) to create a category of over-the-counter (OTC) hearing aids and to relax regulations on personal sound amplification products.<sup>9,10</sup> In response to these recommendations, the FDA announced in 2016 that it will no longer require adults to obtain a medical evaluation or sign a waiver for such an evaluation before purchasing most hearing aids. The FDA also took steps toward implementing the recommendation of creating a new category of OTC devices.<sup>11</sup> In August 2017, the FDA Reauthorization Act of 2017, which includes the Over-the-Counter Hearing Aid Act, was signed into law.<sup>12</sup> The FDA also recently announced approval and marketing authorization for a self-fitting hearing aid through the De Novo pre-market review pathway.

In response to the impending changes in the hearing loss treatment landscape, this PFA aims to fund studies that will provide evidence regarding treatment options for patients with age-related hearing loss to inform compelling decisional dilemmas currently faced in real-world settings.

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<sup>6</sup> Quick statistics about hearing. [National Institute on Deafness and Other Communication Disorders.]

<https://www.nidcd.nih.gov/health/statistics/quick-statistics-hearing>. Published 2016. Accessed October 12, 2018.

<sup>7</sup> Chien W, Lin FR. Prevalence of hearing aid use among older adults in the United States. *Arch Intern Med*. 2012;172(3):292-293.

<sup>8</sup> Blazer DG. Hearing health care: review of a report from the National Academies of Sciences, Engineering, and Medicine. *Ann Intern Med*. 2016;165:441-442.

<sup>9</sup> Aging America and hearing loss: imperative of improved hearing technologies. [National Institute on Deafness and Other Communication Disorders.]

<https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/Aging%20America%20and%20Hearing%20Loss.pdf>. Published 2015. 23 Oct. 2018.

<sup>10</sup> National Academies of Sciences, Engineering, and Medicine. *Hearing Health Care for Adults: Priorities for Improving Access and Affordability*. Washington, DC: The National Academies Press; 2016.

<sup>11</sup> FDA takes steps to improve hearing aid accessibility. FDA News Release.

<https://www.fda.gov/newsevents/newsroom/%20pressannouncements/ucm532005.htm>. Published 2016. Accessed October 12, 2018.

<sup>12</sup> Over-the-counter hearing aid legislation and regulatory action. [American Academy of Audiology.]

<https://www.audiology.org/publications/accessibility-and-affordability-hearing-care-adult-consumers>. Published 2017. Accessed October 12, 2018.



## Evidence Gaps

Studies focusing on hearing devices and support services for hearing loss, especially clinical trials, remain a relatively unexplored area of research. Evidence gaps identified from relevant systematic reviews are presented below.

- **Effectiveness of Hearing Aids for Mild to Moderate Hearing Loss.** There is limited evidence for the long-term effectiveness of digital hearing aids currently used by patients, in terms of patient-reported outcomes such as satisfaction and benefit, hearing-related participation (i.e., involvement in social aspects of life), listening ability, and health-related quality of life (HRQoL),<sup>13</sup> although benefits for HRQoL have been demonstrated.<sup>14</sup>
  - A Cochrane review published in 2017 of five randomized controlled trials (RCTs) with adults (69–83 years of age) who have mild to moderate hearing loss<sup>15</sup> randomized to either hearing aids or a control group (i.e., no hearing aids or placebo hearing aids), demonstrated moderate quality evidence for the effectiveness of the devices in several domains.<sup>13</sup> Hearing aids have a large beneficial effect on patient participation in everyday situations and ability to listen to others. Hearing aids also have a small beneficial effect on general HRQoL (e.g., physical, social, emotional, and mental well-being).<sup>13</sup>
- **Unilateral versus Bilateral Hearing Aids.** Age-related hearing loss usually affects both ears, and this bilateral loss of hearing may be treated with the fitting of one or two hearing aids.<sup>14</sup> A Cochrane systematic review evaluated four small RCTs that assessed patient preference for unilateral versus bilateral hearing aids. The evidence for the primary outcome across the four studies is considered of very low quality, with 39–77 percent of participants in the four studies preferring bilateral hearing aids.<sup>15</sup>
- **Adult Auditory Rehabilitation (AR) to Improve Hearing Aid Use.** While guideline organizations recommend providing patients with education, counseling, or rehabilitation on how to use and obtain optimal benefits from hearing aids to improve adherence,<sup>16,17</sup> there is a paucity of evidence to support the added value of AR to the fitting process.
  - A Cochrane review was conducted on 37 RCTs with 4,129 participants (majority over 65 years old) with mild to moderate hearing loss. These studies compared interventions

<sup>13</sup> Ferguson MA, Kitterick PT, Chong LY, Edmondson-Jones M, Barker F, Hoare DJ. Hearing aids for mild to moderate hearing loss in adults. *Cochrane Database Syst Rev.* 2017;9:CD012023. [10.1002/14651858.CD012023]

<sup>14</sup> Chisolm TH, Johnson CE, Danhauer JL, et al. A systematic review of health-related quality of life and hearing aids: final report of the American Academy of Audiology Task Force on the health-related quality of life benefits of amplification in adults. *J Am Acad Audiol.* 2007;18(2):151-183.

<sup>15</sup> Schilder AG, Chong LY, Ftouh S, Burton MJ. Bilateral versus unilateral hearing aids for bilateral hearing impairment in adults. *Cochrane Database Syst Rev.* 2017;12:CD012665. [10.1002/14651858.CD012665]

<sup>16</sup> Valente M, Abrams H, Benson D, et al. Guidelines for the audiologic management of adult hearing impairment. *Audiology Today.* 2006;18(5):1-44.

<sup>17</sup> Walling AD, Dickson GM. Hearing loss in older adults. *Am Fam Physician.* 2012;85(12):1150-1156.

designed to promote hearing aid use with either usual care or another intervention.<sup>18</sup> The interventions tested in the trials included self-management support interventions or health delivery system design interventions. The self-management support interventions had short- to medium-term effects on reducing hearing handicaps and increasing application of verbal communication strategies. However, none of the interventions increased daily hours of hearing aid use, and the quality of evidence was rated as very low, due to the heterogeneity of outcome measures used among the studies.<sup>18</sup>

- Another systematic review investigated the effectiveness of counseling and communication strategy-based group AR programs.<sup>19</sup> A review of 12 studies revealed that use of adult AR group programs resulted in a very modest reduction in self-perception of hearing handicap and may improve use of communication strategies and hearing aids in the short term. However, it is unclear that these programs provide long-term benefits when compared with hearing aid use without AR. Since the initial period of hearing aid use is thought to determine whether patients decide to keep using hearing aids, it is hypothesized that the short-term benefits of AR may help promote long-term device adherence.<sup>19</sup>

In summary, more evidence is needed to inform patients and other stakeholders regarding the available treatment options—hearing devices and support services—for age-related hearing loss.

### Priority Research Question

PCORI seeks to fund rigorous, high-quality, and impactful clinical studies that address the following research question:

Which hearing devices and/or support services are most effective for the treatment of age-related hearing loss?

Applicants should consider the following parameters when responding to this funding opportunity:

- **Population:** The target population is patients 50 years or older with mild to moderate age-related hearing loss. A well-justified description of the proposed sample size and power should be provided to demonstrate adequacy for producing robust study results. The hypothesized effect size and the relevant citations to support these assumptions should be clearly articulated. Further, reasonable estimates of participant attrition should be accounted for in the proposed sample size.
- **Interventions:** Proposed interventions may include hearing devices and/or support/rehabilitation services. Hearing devices may encompass, but are not limited to, hearing aids or personal sound amplification products. Examples of support services include audiologist

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<sup>18</sup> Barker F, MacKenzie E, Elliott L, de Lusignan S. Outcome measurement in adult auditory rehabilitation: a scoping review of measures used in randomized controlled trials. *Ear Hear.* 2015;36(5):567-573.

<sup>19</sup> Hawkins DB. Effectiveness of counseling-based adult group aural rehabilitation programs: a systematic review of the evidence. *J Am Acad Audiol.* 2005;16(7):485-493.

or licensed technician fitting of hearing aids, patient self-selection and -fitting of hearing aids, and counseling or educational interventions.

Proposed interventions should represent important, relevant choices currently encountered by the target patient population, caregivers, and healthcare providers. A justification for the appropriateness of the interventions within the proposed population must be provided. PCORI is interested in the comparison of interventions that have *demonstrated evidence of efficacy for hearing-related outcomes and that are in common use*. Applications must provide evidence to substantiate the efficacy and common use of interventions. Evidence of efficacy may be documented by systematic reviews, prior empirical investigations, or other scientific documentation. Investigators should take the proper precautions to ensure the safety of any proposed hearing devices for use by study participants. In addition, attention to relevant comorbidities (e.g., other sensory disorders, cognitive impairment) and their possible effects on outcomes assessed should be considered.

- **Outcomes:** Applicants should propose well-supported patient-centered outcomes. Study outcomes should include well-validated patient assessment measures (e.g., hearing-related quality of life), functional outcomes relevant to devices, safety, adverse events, and other key clinical outcomes, as appropriate.
- **Timing:** Follow-up of patient participants should be conducted for at least six months. Studies with rigorous, well-justified design and analysis plans that may be completed in a compact time frame are encouraged.
- **Setting:** Proposed healthcare settings should be representative of sites where the target patient population typically receives care.

### Funds Available

PCORI has allotted \$12 million in total costs to fund rigorous, impactful studies focusing on treatment options for age-related hearing loss across Cycles 1 and 2 2019. Investigators should propose a well-justified budget appropriate for the scope of the study and may request up to \$2 million in direct costs for a maximum project period of three years.

*PCORI does not cover the cost of devices or the costs for clinical services that constitute procedures, treatments, interventions, or other standard clinical care that is proposed for comparison. The host healthcare delivery system, third-party payer, intervention developer, or other interested party must cover the costs of these interventions. In some cases, it may be appropriate for product manufacturers to provide devices for use in a proposed study. **Investigators are required to document the coverage of device and intervention costs in the full application.***

PCORI seeks efficient studies, such as those that take advantage of large populations already under observation; registries; research cooperatives; and the supportive involvement of delivery systems or health plans to enhance recruitment, data collection, and coverage of intervention-related costs.

## II. Requirements for PCORI Research



This section includes language that is specific to PCORI's requirements for applications for funding. Applicants should use this section as guidance when preparing their applications.

### Research Priorities

To be considered responsive, applications must:

- *Describe comparators.* Regardless of the approach being studied, all proposed research projects must compare at least two alternatives. If the applicant proposes “usual care” as a rational and important comparator in the proposed study, then it must be described in detail, coherent as a clinical alternative, and properly justified as a legitimate comparator (e.g., “usual care” is guidelines-based). It must also be accompanied by an explanation of how the care given in the “usual care” group will be measured in each patient, and how appropriate inferences will be drawn from its inclusion. “Usual care” must be described as mentioned above to ensure that it accounts for geographic and temporal variations, and it has wide interpretability, applicability, and reproducibility.
- *Describe research that compares two or more alternatives, each of which has established efficacy.* PCORI expects the efficacy or effectiveness of each intervention to be known. If the efficacy or evidence base is insufficient, then data need to be provided to document that the intervention is used widely. The application must provide information about the efficacy of the interventions that will be compared; pilot data might be appropriate. Projects aiming to develop new interventions that lack evidence of efficacy or effectiveness will be considered out of scope.
- *Describe research that studies the benefits and harms of interventions and strategies delivered in real-world settings.* PCORI is interested in studies that provide practical information that can help patients and other stakeholders make informed decisions about their health care and health outcomes.
- *Describe consultation with patients and other stakeholders about how the study is answering a critical question.* Explain the pertinent evidence gaps and why the project questions represent decisional dilemmas for patients, caregivers, clinicians, policy makers, and other healthcare system stakeholders. Describe why project outcomes are especially relevant and meaningful endpoints to patients and other stakeholders.

### Categories of Non-responsiveness

PCORI discourages proposals in the following categories, and will deem them nonresponsive:

- Instrument development, such as new surveys, scales, etc.
- Developing, testing, and validating new decision aids and tools, or clinical prognostication tools
- Pilot studies intended to inform larger efforts
- Comparing patient characteristics rather than clinical strategy options

Consistent with PCORI's [authorizing law](#),<sup>20</sup> PCORI does not fund research whose findings will include:

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<sup>19</sup>Available at [http://www.pcori.org/sites/default/files/PCORI\\_Authorizing\\_Legislation.pdf/](http://www.pcori.org/sites/default/files/PCORI_Authorizing_Legislation.pdf/).

- Coverage recommendations
- Payment or policy recommendations
- Creation of clinical practice guidelines or clinical pathways
- Establishment of efficacy for a new clinical strategy
- Pharmacodynamics
- Study of the natural history of disease
- Basic science or the study of biological mechanisms

### Studies of Cost-Effectiveness

PCORI will consider an application nonresponsive if the proposed research:

- Conducts a formal cost-effectiveness analysis of alternative approaches to providing care
- Directly compares the costs of care between two or more alternative approaches to providing care

Proposals that include studies of these issues may measure and report utilization of any or all health services but may not employ direct measurements of care costs. For further information, please reference the [cost-effectiveness analysis FAQs](#).

PCORI does have an interest, however, in studies addressing questions about conditions leading to high costs to the individual or to society. This interest is reflected in our review criterion on the condition's impact on the health of individuals and populations. Thus, PCORI is interested in studies that:

- Examine the effect of costs on patients, such as patients' out-of-pocket costs, hardship or lost opportunity, or costs as a determinant of or barrier to access to care
- Address cost-related issues, such as the resources needed to replicate or disseminate a successful intervention
- Evaluate interventions to reduce health system waste or increase health system efficiency

### Avoiding Redundancy

PCORI encourages potential applicants to review funded research at [pcori.org](http://pcori.org). We intend to balance our funded portfolio to achieve synergy and avoid redundancy where possible.

### Methodological Considerations

Regardless of study design, applications must adhere to all relevant [PCORI Methodology Standards](#). These include 65 individual standards that fall into 16 categories. The first five categories are cross-cutting and relevant to most PCOR studies. Researchers should refer to all of these standards when planning and conducting their research projects. These cross-cutting categories are:

1. Standards for Formulating Research Questions
2. Standards Associated with Patient-Centeredness
3. Standards on Data Integrity and Rigorous Analyses

4. Standards for Preventing and Handling Missing Data
5. Standards for Heterogeneity of Treatment Effect (HTE)

In addition to these five sets of standards, the first standard of “Standards for Causal Inference Methods” -(CI-1)- is cross-cutting and applicable to all PCOR studies.

The 11 other standards categories will be applicable to particular study designs and methods. Applicants should use the standards in each of these categories as guidance when they are relevant to a study. These categories are:

6. Standards for Data Registries
7. Standards for Data Networks as Research-Facilitating Structures
8. Standards for Causal Inference Methods
9. Standards for Adaptive and Bayesian Trial Designs
10. Standards for Studies of Medical Tests
11. Standards for Systematic Reviews
12. Standards on Research Designs Using Clusters
13. Standards for Studies of Complex Interventions
14. Standards for Qualitative Methods
15. Standards for Mixed Methods Research
16. Standards for Individual Participant-Level Data Meta-Analysis (IPD-MA)

Most of these standards are minimal. The PCORI Methodology Standards reflect practices that applicants should follow in all cases, and all deviations need to be explained and justified. Applicants should address additional best practices—including relevant guidelines for conducting clinical trials developed by other organizations—in the application for PCORI funding. To help reviewers quickly identify adherence to a particular standard, applicants must cite each relevant [PCORI Methodology Standard](#) within the [Methodology Standards Checklist](#), following the instruction in the checklist itself and in the [Hearing Loss Application Guidelines](#). Program staff use the checklist to evaluate applications.

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

### **Patient-Centered Outcome Measures**

PCORI encourages investigators to design their research using validated outcome measures. Include preliminary data that support using the proposed measures in the study population. We encourage investigators to consider those measures described in the [Patient-Reported Outcomes Measurement Information System<sup>21</sup>](#) (PROMIS).

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<sup>21</sup> Available at <http://www.nihpromis.org/>.

## Leveraging Existing Resources

PCORI encourages investigators to propose studies that leverage existing resources, such as adding PCOR to an existing large clinical trial or analyzing existing large databases that contain valuable, relevant information that may be used to answer important CER questions. PCORI is interested in studies that leverage existing research network or consortia, as well as established data resources such as patient outcomes registries especially when such patient outcomes registries can be linked to electronic medical record (EMR) data from healthcare delivery systems or administrative claim data from public or commercial insurers to facilitate the conduct of comparative clinical effectiveness research. PCORI does not intend for this PFA to support the development of new patient registries, but rather to support the effective utilization of established patient registries where comprehensive data on patient characteristics and patient outcomes have been collected and/or can be linked to the EMR data or claims data to evaluate treatment outcomes in the proposed CER studies. In circumstances where randomized control trials are not practical or ethically acceptable, studies leveraging established patient outcomes registries can have meaningful and complementary roles in evaluating patient outcomes.

## Patient and Stakeholder Engagement

PCORI encourages all applicants to outline how patients and other stakeholders will participate as partners in various phases of the proposed research. Before completing this section of the Research Strategy, applicants are encouraged to review the [Engagement Rubric](#)<sup>22</sup>, which can be found in the PCORI Funding Center. Applicants should also review the PCORI Methodology Standards Associated with Patient-Centeredness. The rubric is not intended to be comprehensive or prescriptive; instead, it provides a variety of examples to incorporate engagement, where relevant, into the research process.

Applicants are expected to consult with patients and other stakeholders on their decisional dilemma and evidence needs, or to reference previously documented decisional dilemmas in preparation for the submission of Letters of Intent (LOIs) and applications. To describe the decisional dilemma, state the specific clinical decision(s) or treatment choice(s) confronted by the decision makers and explain how the findings from the proposed research will inform those decisions. State why this decision—such as choosing a specific medication, surgical approach, or care delivery strategy to treat a condition or manage a specific population—is important to patients. Document the uncertainty patients and other stakeholders face in making this decision. Identify the patients and other stakeholders you consulted in determining that the proposed study addresses their evidentiary needs for decision making and indicate your commitment to continue engaging them actively in the conduct of the study. Similarly, applicants should document how the project outcomes are especially relevant and meaningful endpoints to patients and other stakeholders.

## Populations Studied

PCORI seeks to fund research that includes diverse populations with respect to age, gender, race, ethnicity, geography, or clinical status, so that possible differences in outcomes may be examined in defined subpopulations, otherwise known as HTE. PCORI recognizes that some proposed studies might

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<sup>22</sup> Available at <http://www.pcori.org/sites/default/files/Engagement-Rubric.pdf>.

represent important PCOR opportunities, even in the absence of a broadly diverse study population. However, the burden is on the applicant to justify the study's importance in the absence of diversity; to discuss which subgroups are most important; and to discuss how the subgroups will be analyzed, including whether or not the study will be powered to examine the question of effectiveness in subgroups. PCORI is particularly interested in including previously understudied populations for whom effectiveness information is especially needed, such as hard-to-reach populations or patients with multiple conditions. Thus, comparisons should examine the impact of the strategies in various subpopulations, with attention to the possibility that the strategy's effects might differ across subpopulations. PCORI has developed the following list of populations of interest to guide our efforts in research and engagement. (Note that the Addressing Disparities Priority Area requires that proposed research focus on at least one of the groups indicated by an asterisk below.)

- Racial and ethnic minority groups\*
- Low-income groups\*
- Women
- Children (age 0–17 years)
- Older adults (age 65 years and older)
- Residents of rural areas\*
- Individuals with special healthcare needs, including individuals with disabilities\*
- Individuals with multiple chronic diseases
- Individuals with rare diseases
- Individuals whose genetic makeup affects their medical outcomes
- Patients with low health literacy, numeracy, or limited English proficiency\*
- Lesbian, gay, bisexual, transgender (LGBT) persons\*
- Veterans and members of the Armed Forces and their families

### Protection of Human Subjects

This component (up to five pages) is included in the Research Plan Template. Describe the protection of human subjects involved in your proposed research. PCORI follows the Federal Policy for the Protection of Human Subjects (45 CFR part 46), including the Common Rule. For more detailed information, please see Section 5, titled "Human Subjects Research Policy," in the [Supplemental Grant Application Instructions for All Competing Applications and Progress Reports](#),<sup>23</sup> which is issued by the U.S. Department of Health and Human Services (HHS). In referencing the HHS Supplemental Grant Application Instructions, note that PCORI does not require that applicants comply with sections of that policy that refer to requirements for federal-wide assurance and the inclusion of women, minorities, and children in the proposed studies. Instead PCORI expects applicants to address diversity in study participants in the research plan, through a focus on subpopulations, as described in the above section

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<sup>23</sup> See <http://grants.nih.gov/sites/default/files/supplementalinstructions.docx>





on [Populations Studied](#). Awardees must also comply with appropriate state, local, and institutional regulations and guidelines pertaining to the use of human subjects in research.

PCORI requires awardees to ensure that there is a Data and Safety Monitoring Plan, which may include the need to appoint a Data and Safety Monitoring Board, as provided in the [PCORI Policy on Data and Safety Monitoring Plans for PCORI-Funded Research](#).<sup>24</sup>

PCORI merit reviewers will examine plans for protection of human subjects in all applications and may provide comments regarding the plans (see [How To Evaluate Human Subjects Protections](#)<sup>25</sup>). Reviewers' comments on human subject research are not reflected in the overall application score, but PCORI staff might use them during potential funding negotiations. Final determinations about the adequacy of human subject protections rest with the Institutional Review Board or international equivalent that have jurisdiction for the study.

The Awardee Institution, whether domestic or foreign, bears ultimate responsibility for safeguarding the rights and welfare of human subjects in PCORI-supported activities.

### **Required Education of Key Personnel on the Protection of Human Subject Participants**

PCORI requires that all applicants adhere to the National Institutes of Health (NIH) policy on education in the protection of human subject participants in the conduct of research. This applies to all individuals listed as key personnel in the application. The policy and FAQs are available on the [NIH website](#).<sup>26</sup>

### **Data Management and Data-Sharing Plan**

PCORI encourages openness in research and making research data available for purposes of replication and reproducibility. As such, if an award is made through this targeted Funding Announcement, the Awardee will be required to adhere to [PCORI's Policy for Data Management and Data Sharing](#). The Policy articulates PCORI's requirement that certain Awardees—specifically those funded through the Pragmatic Clinical Studies and all targeted Funding Announcements—make the underlying data and data documentation (e.g., study protocol, metadata, and analytic code) from their PCORI-funded research projects available to third-party requestors. The Policy includes details about what data certain Awardees will be expected to deposit into a PCORI-designated data repository and when that data would be available for third-party requests.

A full data management and data sharing plan is not required at the time of application. If an award is made, the Awardee will be required to develop and maintain such a plan, which is described in detail in the [PCORI Methodology Standards for Data Integrity and Rigorous Analyses](#), specifically Standard IR-7. This plan must be appropriate for the nature of the research project and the types of research project data, and consistent with applicable privacy, confidentiality, and other legal requirements. Awardees are also strongly encouraged to include, as appropriate, language in the research project's informed consent forms that allows for the de-identification and sharing of study data for secondary research purposes.

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<sup>24</sup> See <http://www.pcori.org/sites/default/files/PCORI-Policy-Data-Safety-Monitoring-Plans.pdf>

<sup>25</sup> See <http://www.pcori.org/sites/default/files/PCORI-Checklist-for-Evaluating-Human-Subjects-Protections.pdf/>.

<sup>26</sup> See <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-054.html>.



As part of the Policy, PCORI intends to cover reasonable costs associated with the time and effort needed for preparing, depositing, and maintaining the Full Data Package in the repository for a period of at least seven years following acceptance by PCORI of the Final Research Report. PCORI will negotiate with Awardees on the specific budget needs associated with this Policy requirement at the time of Award, in addition to the requested research project budget.

The information here is meant for informational purposes only and does not attempt to be an exhaustive representation of the [Policy for Data Management and Data Sharing](#). Please refer to the [Policy](#) in its entirety for additional information.

### Recruitment

Proposals should include information about the size and representativeness of the potential pool of patients from which recruitment will occur and describe the means by which this size estimate was determined. Likewise, proposals should provide evidence-based estimates of how many participants are expected in the study, based on expected recruitment; applying the study's inclusion and exclusion criteria; anticipated acceptance (or refusal) rates; and other factors, such as failure to follow up. Such estimates must be discussed in the application, specified in the milestones, reviewed by merit reviewers and PCORI staff, and monitored by PCORI in the funded research.

### Peer Review and Release of Research Findings

PCORI has a legislative mandate to ensure the scientific integrity of the primary research it supports and to make study findings widely available and useful to patients, clinicians, and the general public within a specific timeframe. Accordingly, the PCORI Board of Governors (Board) adopted the [Process for Peer Review of Primary Research and Public Release of Research Findings](#).<sup>27</sup>

In summary, Awardee Institutions are required to submit to PCORI for peer review a draft final research report that provides the methodological details, describes the main study results, and interprets the findings in clinical or other decisional contexts. Subject matter experts; individuals with expertise in research methodology or biostatistics; and patients, caregivers, and other healthcare stakeholders will review the draft final research report. After Awardee Institutions have responded to reviewers' comments to PCORI's satisfaction, the report will be accepted and considered final. PCORI will then prepare a 500-word standardized abstract summarizing the study results for patients and the general public, which the Awardee Institution will review and approve.

PCORI will post the following materials on its website no later than 90 days after the draft final research report is accepted: (1) a 500-word abstract for medical professionals; (2) a 500-word standardized abstract summarizing the study results for patients and the general public; (3) a link to the study record on [ClinicalTrials.gov](http://ClinicalTrials.gov) (as applicable); and (4) ancillary information, including conflict of interest disclosures. The final research report, along with anonymized reviewer comments, will be made publicly available on the PCORI website no later than 12 months after its acceptance, except by prior mutual agreement with the Awardee Institution.

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<sup>27</sup> See <http://www.pcori.org/sites/default/files/PCORI-Peer-Review-and-Release-of-Findings-Process.pdf>.

### III. How to Submit an Application

Applying for funding from PCORI is a two-stage process. A Letter of Intent must be submitted and an applicant must be invited to submit an application.

#### Letter of Intent (LOI)

Applicants should download the [Hearing Loss LOI Template](#) from the [PCORI Funding Center](#). They must complete the document and convert it to a PDF file. The LOI is limited to two pages, excluding references. PCORI suggests including all references as in-text citations using American Medical Association citation style, but other citation styles are accepted. Do not upload additional documents as part of your LOI, including Letters of Endorsement or Letters of Support, because they are not requested at this stage. Their inclusion will result in LOI rejection without review. Please visit the [PCORI Funding Center](#) for additional applicant resources, including the PFA and required templates.

The LOI for the proposed study should contain the following information:

- Title of the proposed study that preferably captures the comparative nature of the study
- Specific aims (clearly stated)
- How the study will improve the quality and relevance of evidence available to help patients and stakeholders make informed health decisions
- Knowledge gap addressed by research question(s)
- Concise description of study design
- Study population (description of participants and participating study sites)
- Outcomes (identification and description of why they are important to patients)
- Sample size
- Comparators (described and listed clearly, with demonstrated efficacy specified for each and details on how the strategies will be delivered in real-world settings)
- Patient and other stakeholder engagement (involvement through planning, conducting, and disseminating)

The LOI Template provides guidance on responding to each item. Please refer to the [Hearing Loss Application Guidelines](#) for due dates and information on how to submit an LOI via [PCORI Online](#). **The deadline for LOI submission is May 29, 2019, by 5 p.m. (ET).**

#### LOI Review

LOIs are evaluated based on the following:

- Importance and relevance of the topics to PCORI priorities, as evidenced by critical gaps identified by clinical guidelines developers and recent systematic reviews
- Clarity and credibility of responses to the LOI questions



- The investigators' prior relevant experience
- Programmatic fit and balance, considering whether the application overlaps with previously funded studies or concurrent applications to a significant degree or, conversely, whether the application fills a gap in the portfolio with certain characteristics, including disease category, topics, priority population, methodologies, and other variables

Only applicants whose LOIs are deemed most responsive to this PFA will be invited to submit a full application. A minimum of two PCORI staff review the LOIs, which are not scored during review. Notification of the request to submit a full application will occur no later than June 24, 2019.

Applicants are invited to submit an application based on the information provided in the LOI. Any changes to the following require PCORI's approval:

- Research question(s)
- Specific aims
- Study design
- Comparators
- Principal Investigator (PI)
- Institution

If you need to change any of this information or have questions, please email [pfa@pcori.org](mailto:pfa@pcori.org).

**Note:** A PI can only submit one LOI per PFA. However, an individual listed as a PI on one LOI may be listed as and serve in another non-PI role (e.g., co-investigator or consultant) on other LOIs within the same PFA, during the same cycle. A PI can submit multiple LOIs to different program PFAs in a cycle, but the PI must ensure that the research topics and projects are not similar. If a PI submits an LOI to multiple program PFAs, LOIs that exhibit scientific overlap or that appear to be duplicate submissions will be disqualified. PCORI will contact the PI and provide him or her with an opportunity to choose which PFA he or she would like to apply to. This applies to single and dual-PI submissions.

### **Project Budget and Duration**

At the time of contract execution, PCORI sets aside all of the funds associated with an awarded project to be made available throughout the contract's period of performance. The maximum budget includes all research- and peer-review-related costs. Refer to the [Hearing Loss Application Guidelines](#) for additional details.

Appendix 2 within the guidelines provides a list of allowable and unallowable costs. This PFA does not consider exceptions to the budget or to period-of-performance limits. PCORI will not review requests exceeding the stated maximum budget or period of performance. Note that although subcontractor indirect costs are included in the prime applicant's direct-cost budget, subcontractor indirect costs are not factored when determining adherence to the PFA's direct-cost limit.



### Submission Dates

LOIs and applications must be submitted in accordance with the published dates and times listed in the Overview section of this document and in the [PCORI Funding Center](#).

### PCORI Online

To submit an application, you must register with [PCORI Online](#) and submit an LOI and an application for each cycle to which you are applying.

### Applicant Resources

<b>PCORI Funding Center</b>	<a href="https://www.pcori.org/funding-opportunities/announcement/treatment-options-age-related-hearing-loss-cycle-2-2019">https://www.pcori.org/funding-opportunities/announcement/treatment-options-age-related-hearing-loss-cycle-2-2019</a>
<b>PCORI Online System</b>	<a href="https://pcori.force.com/engagement">https://pcori.force.com/engagement</a>
<b>PCORI Funding Awards</b>	<a href="http://www.pcori.org/research-results-home">http://www.pcori.org/research-results-home</a>

## IV. Merit Review

PCORI's merit review process is designed to support the following goals:

- Identify applications that have the strongest potential to help patients, caregivers, clinicians, policy makers, and other healthcare system stakeholders make informed decisions to improve patient outcomes.
- Implement a transparent, fair, objective, and consistent process to identify these applications.
- Elicit high-quality feedback that reflects a diversity of perspectives to ensure that the PCORI-funded research reflects the interests and views of patients and other stakeholders and those who care for them, and that it meets the criteria for scientific rigor.
- Fund projects that fill important evidence gaps and have strong implementation potential.
- Regularly evaluate and continually improve the merit review process and policies in support of PCORI's mission.

PCORI merit review is a multiphase process that includes PFA development; staff evaluation of LOIs; the review panel's preliminary review of full applications; an in-person panel discussion of a subset of full applications (identified by PCORI's Research Priority Area Program staff and based on the preliminary review and program priorities); the Selection Committee's recommendation of applications for funding; and, finally, Board award approval.

### Preliminary Review

PCORI conducts rigorous merit review of the full applications it receives. Note that PCORI may eliminate applications from the review process for administrative or scientific reasons (e.g., non-responsiveness). An application may be administratively withdrawn if it is incomplete; submitted past the stated due date and time; or does not meet the formatting criteria outlined in the [Hearing Loss Application Guidelines](#), in the PCORI templates, and in PCORI Online. An application can be scientifically withdrawn if it is not



responsive to the guidelines described in this PFA, describes research that is not comparative, includes a cost-effectiveness analysis, or otherwise does not meet PCORI programmatic requirements.

PCORI Merit Review Officers (MROs) recruit each review panel based on the number of invited LOIs and topic areas represented by the invited LOIs. MROs recruit the panel chair, scientist reviewers who are subject matter experts, patient representatives, and representatives of other stakeholder groups. All panel members receive training during the review cycle to ensure that they understand the programmatic and organizational goals of review.

The table below is designed to help applicants understand how the PCORI merit review criteria align with criteria from other funding organizations with which applicants might be familiar (e.g., NIH). Though PCORI’s criteria do map to most NIH criteria, there are areas where we ask for different information (i.e., PCORI does not include a criterion that tracks to NIH’s innovation criterion but does include criteria evaluating patient-centeredness and engagement) reflecting PCORI’s unique approach.

Crosswalk of PCORI Merit Review Criteria with NIH Criteria	
SIGNIFICANCE	<ol style="list-style-type: none"> <li>1. Potential for the study to fill critical gaps in evidence</li> <li>2. Potential for the study findings to be adopted into clinical practice and improve delivery of care</li> </ol>
APPROACH	<ol style="list-style-type: none"> <li>3. Scientific merit (research design, analysis, and outcomes)</li> <li>4. Investigator(s) and environment</li> </ol>
PCORI-only Merit Review Criteria	
PATIENT-CENTEREDNESS /ENGAGEMENT	<ol style="list-style-type: none"> <li>5. Patient-centeredness</li> <li>6. Patient and stakeholder engagement</li> </ol>

Below are PCORI’s merit review criteria. PCORI’s merit review panels use these criteria during the preliminary and in-person review phases to evaluate and score all submitted applications, and to ensure consistency and fairness in how applications are evaluated.

**Criterion 1. Potential for the study to fill critical gaps in evidence:**

The application should address the following questions:

- Does the application convincingly describe the clinical burden?
- Does the application identify a critical gap in current knowledge as noted in systematic reviews, guideline development efforts, or previous research prioritizations?
- Does the application identify a critical gap in current knowledge, evidenced by inconsistency in clinical practice and decision making?
- Would research findings from the study have the potential to fill these evidence gaps?

**Criterion 2. Potential for the study findings to be adopted into clinical practice and improve delivery of care**

The application should describe how evidence generated from this study could be adopted into clinical

practice and delivery of care by others. The application should also address the following questions:

- Does the application identify who will make the decision (i.e., the decision maker) or use (i.e., the end-user) the study findings (not the intervention) this study produces, such as local and national stakeholders?
- Does the application identify potential end-users of study findings—such as local and national stakeholders—and describe strategies to engage these end-users?
- Does the application provide information that supports a demand for this kind of a study from end-users?
- Would this study’s research findings have the potential to inform decision making for key stakeholders? If so, provide an example. How likely is it that positive findings could be reproduced by others, resulting in improvements in practice and patient outcomes? Identify the potential barriers that could hinder adoption of the intervention by others.
- Does the application describe a plan for how study findings will be disseminated beyond publication in peer-reviewed journals and at national conferences?

### **Criterion 3. Scientific merit (research design, analysis, and outcomes)**

The application should show sufficient technical merit in the research design to ensure that the study goals will be met. The application should also address the following questions:

- Does the application describe a clear conceptual framework anchored in background literature which informs the design, key variables, and relationship between interventions and outcomes being tested?
- Does the Research Plan describe rigorous methods that demonstrate adherence to the PCORI Methodology Standards?
- Is the overall study design justified?
- Are the patient population and study setting appropriate for the proposed research question?
- Does the application provide justification that the outcome measures are validated and appropriate for the population?
- Are each of the comparators (e.g., active intervention arm and comparator arm) described clearly and well-justified? If “usual care” is one of the arms, is it adequately justified, and will it be sufficiently measured?
- Are the sample sizes and power estimates appropriate? Is the study design (e.g., cluster randomized design, randomized controlled trial, or observational study) accounted for and is the anticipated effect size adequately justified?
- Is the study plan feasible? Is the project timeline realistic, including specific scientific and engagement milestones? Is the strategy for recruiting participants feasible? Are assumptions about participant attrition realistic, and are plans to address patient or site attrition adequate?

#### **Criterion 4. Investigator(s) and environment**

This criterion should assess the appropriateness (e.g., qualifications and experience) of the investigator(s)/team and the environment's capacity (e.g., resources, facilities, and equipment) to support the proposed project. It should not be an assessment of the institution's quality.

The application should also address the following questions:

- How well-qualified are the PIs, collaborators, and other researchers to conduct the proposed activities? Is there evidence of sufficient clinical or statistical expertise (if applicable)?
- Does the investigator or co-investigator have demonstrated experience conducting projects of a similar size, scope, and complexity?
- If the project is collaborative or dual-PI, do the investigators have complementary and integrated expertise? Are the leadership, governance, and organizational structures appropriate for the project?
  - (Dual-PI Option Only) Does the Leadership Plan adequately describe and justify PI roles and areas of responsibility?
- Is the level of effort for each team member appropriate for successfully conducting the proposed work?
- Does the application describe adequate availability of and access to facilities and resources (including patient populations, samples, and collaborative arrangements) to carry out the proposed research?
- Is the institutional support appropriate for the proposed research?

#### **Criterion 5. Patient-centeredness**

The application should demonstrate that the study focuses on improving patient-centered outcomes and employs a patient-centered research design (i.e., a design informed or endorsed by patients). *(Note: The study can be patient-centered even if the end-user is not the patient, as long as patients will benefit from the information.)*

The application should also address the following questions:

- Does the application include a thorough description about which outcomes (both benefits and harms) are important to patients, and are those outcomes included in the study plan?
- Does the application provide information that indicates that closing the evidence gap is important to patients and other stakeholders?
- Are the interventions being compared in the study available to patients now, and are they the best options for comparison (including whether they would be chosen by patients and their healthcare providers for managing the condition being studied)?



## **Criterion 6. Patient and stakeholder engagement**

The application should demonstrate the engagement of relevant patients and other stakeholders (e.g., patients, caregivers, clinicians, policy makers, hospital and health system representatives, payers [insurance], purchasers [business], industry, researchers, and training institutions) in the conduct of the study. Quality of engagement should be evaluated based on scope, form, and frequency of patient and stakeholder involvement throughout the research process.

The application should also address the following questions:

- Does the application provide a well-justified description of how the research team incorporates stakeholder involvement? Does the study include the right individuals (e.g., patients, caregivers, clinicians, policy makers, hospital and health system representatives, payers, purchasers, industry, researchers, and training institutions) to ensure that the projects will be carried out successfully?
- Does the application show evidence of active engagement among scientists, patients, and other stakeholders throughout the research process (e.g., formulating questions, identifying outcomes, monitoring the study, disseminating, and implementing)? Is the frequency and level of patient and stakeholder involvement sufficient to support the study goals?
- Is the proposed Engagement Plan appropriate and tailored to the study?
- Are the roles and the decision-making authority of all study partners described clearly?
- Are the organizational structure and resources appropriate to engage patients and stakeholders throughout the project?

### **In-Person Review**

During preliminary review, all administratively and scientifically compliant applications are evaluated and scored by panels of external reviewers based on PCORI's merit review criteria, including evaluation of adherence to the PCORI Methodology Standards. After preliminary review, PCORI program staff members evaluate panel scores and critiques to identify a subset of applications for merit reviewers to discuss at the in-person review meeting. Not all submitted applications move forward to in-person review.

During the in-person review, merit reviewers meet to discuss applications and to clarify further the merits of the proposed research. They also identify areas for improvement. Each application is re-scored based on the content of discussion. The Panel Chair and PCORI MRO lead the in-person panel meeting and ensure that all applications receive a fair and thorough review according to the standards outlined in the PFA.

### **Post-Panel Review**

After the in-person meeting, PCORI program staff evaluate final merit review panel scores and comments, identify duplication or synergy among funded projects, and consider the fit of applications within the programmatic vision. Program staff members then recommend projects to a Selection Committee, which includes members of the Board. The Selection Committee considers



recommendations and works with staff to identify a slate of applications for possible funding based on merit review scores, programmatic balance and fit, and PCORI's strategic priorities. This slate is then proposed to the Board for consideration and approval.

In addition, PCORI evaluates applicant risk before issuing a PCORI award. Factors considered include financial stability, quality of management systems, audit findings, and past performance on PCORI awards (e.g., compliance with PCORI reporting requirements, conformance to PCORI terms and conditions on previous awards, and timely achievement of milestones). Based on the risk assessment, PCORI may impose special terms and conditions on awardees or withhold contract issuance until such business risks are mitigated. **PCORI will not award new contracts to current awardees with overdue reports (progress, interim, final, etc.) until the overdue reports have been submitted to PCORI.**

### Summary Statements and Funding Recommendations

Summary statements are provided to applicants approximately two weeks before funding decisions are announced. **If an application progresses to in-person discussion**, the applicant will receive a summary statement which will include:

- In-person panel discussion notes
- Final average overall score
- Preliminary reviewer critiques
- Application quartile, to help applicants understand how they did relative to other discussed applications

Summary statements for applications that do not progress to in-person discussion include only the preliminary reviewer critiques.

Funding recommendations are made by identifying meritorious applications that fit the programmatic needs and that satisfactorily address the merit review criteria while adhering to the PCORI Methodology Standards. Programs also consider the funds allotted for the current funding announcement when deciding which applications to recommend to the Board for approval. Applicants to this current cycle's PFA will receive summary statements and notification of the funding status of their application no later than February 2020.