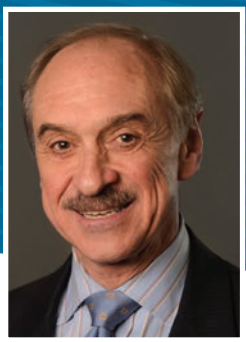
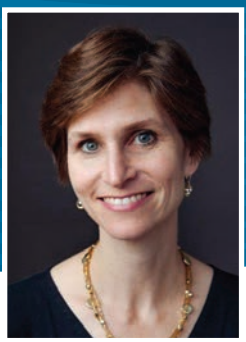
Advancing Patient-Centered Outcomes Research:

An Interview with Dr. Bryan Luce and Dr. Lori Frank of PCORI



Dr. Bryan Luce



Dr. Lori Frank

Healthcare decision making can be a minefield to navigate. With treatment options increasing, reimbursement issues constantly changing, and an abundance of information that can be difficult to digest and comprehend, patients, caregivers, families, and clinicians are often faced with complex and challenging healthcare decisions. They need accessible, trustworthy information in order to make the right decisions, and this information is often not available or difficult to understand and use effectively.

The Patient-Centered Outcomes Research Institute (PCORI) was established as part of the U.S. Patient Protection and Affordable Care Act of 2010 to help address some of these challenges by closing the gaps in evidence needed to improve key health outcomes. To this end, its efforts include identifying critical research questions, funding patient-centered comparative clinical effectiveness research (CER), and disseminating the results of this research in ways that end users will find useful and valuable.

To better understand the goals and activities of PCORI, members of Evidera's Centers of Excellence in Health Economics, Outcomes Research, Epidemiology and Statistics put their questions forward, and we posed them to Bryan Luce, PhD, MS, MBA, Chief Science Officer, and Lori Frank, PhD, Program Director, Science, Research Integration and Evaluation, both of PCORI.

Dr. Luce previously founded the outcomes research firm MEDTAP® International, serving as its chairman, president, and chief executive officer, and was the senior vice president for science and policy at United BioSource Corporation. Earlier, he was director of Battelle's Centers for Public Health Research and Evaluation; director of the Office of Research and Demonstrations, Centers for Medicare and Medicaid Services; and a senior analyst at the Office of Technology Assessment of the U.S. Congress.

Dr. Frank previously worked as a director in health outcomes and pharmacoeconomics at MedImmune, LLC, and before that, she spent 13 years with MEDTAP International and United BioSource Corporation where she was a senior research leader and executive director of the Center for Health Outcomes Research. She also initiated and served as principal investigator of the Cognition Initiative, a multi-sponsor, patient-reported outcomes (PRO) development consortium and continues in an advisory role for that work, now part of the Critical Path Institute PRO Consortium.

We've been hearing a lot about patient-centered outcomes research (PCOR) and there seem to be differing opinions on its definition. How do you describe PCOR?

Dr. Frank: PCOR is research that considers patients' needs and preferences while focusing on outcomes that are most important to them. It investigates what works, for whom, and under what circumstances to help patients and other stakeholders make informed decisions about health and healthcare options. The essence of the PCORI definition of patient-centered outcomes research is the evaluation of questions and outcomes meaningful and important to patients and caregivers. This definition rests on the axiom that patients have unique perspectives that can change and improve the pursuit of clinical questions. An important point to mention is that the PCORI Board of Governors went through a participatory process when they were coming out with this definition, including soliciting public comment, which is fairly unusual to see from a funding agency but also shows that they really took the public input to heart in all areas when developing PCORI.

Are you seeing people using the term in different ways or are you seeing any alignment in the definition?

Dr. Frank: We are seeing some variation in how the notion of patient-centered outcomes research is being expressed, but over the last three years I've seen some narrowing of the definition and increasing consensus.

Dr. Luce: My impression is there is less confusion about the definition of PCOR as opposed to how the concept is applied to research and research topics. So from a PCORI standpoint, we reinforce our definition by explaining that PCORI is a funder and we have certain funding requirements that interact with that definition, including ensuring that the comparative effectiveness research that we fund is patient-centered.

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– Dr. Luce

Can you provide a bit more detail around the use of comparative effectiveness in PCORI's mandates and funding?

Dr. Frank: PCORI is charged with funding comparative clinical effectiveness research. We have five main research priority areas:

- Assessment of Prevention, Diagnosis, and Treatment Options
- Improving Healthcare Systems
- Communication and Dissemination Research
- Addressing Disparities
- Accelerating Patient-Centered Outcomes Research and Methodological Research

Four of these areas have as a requirement for funding that the applications involve a comparison that meets our definition of comparative effectiveness research. The fifth area is focused on methods where we fund basic methods research and focus on improving methods for comparative effectiveness research, and infrastructure, which focuses on PCORnet, the National Patient-Centered Clinical Research Network that we are developing with 29 health data networks.

How do you see the biopharma industry engaging in patient-centered outcomes research, and what opportunities do you see for PCORI and the pharmaceutical/biotech/medical device industry to work together?

Dr. Frank: There are many definitions of end users or stakeholders of the research we are funding, and industry is a really important one. Not surprisingly, Bryan has been leading the way to make sure that PCORI's ability to work with all stakeholders is well known, especially within industry.

Dr. Luce: We actually had a very focused workshop on March 30 with representatives of the pharmaceutical and biologics industries, and we held another on March 31 with the medical device industry to discuss PCORnet. These meetings included talking to and, more importantly, listening to industry about their interest and needs in working in an infrastructure like we have in PCORnet, and part of that is in patient engagement and patient-centered research.

Dr. Frank: I would also add that there are members of industry on our advisory panels, including the patient engagement and clinical trial advisory panels, and representatives from industry also participate in evaluating

funding applications for PCORI as stakeholder reviewers. PCORI has board and methodology committee members from industry. So industry is more than welcome, and actually recruited, to participate in PCORI activities.

Have you seen a lot of interest from industry?

Dr. Luce: Yes, there is definite interest, but I think they can be more active. Certain companies are highly committed, but in a broad sense. I don't think industry has engaged as much as we would like and I think it would be in the best interest of industry to engage more.

How do you see the work at PCORI improving health outcomes for Americans in general?

Dr. Frank: It is the goal of everything that we're doing at PCORI — to improve health outcomes ultimately. The research that we fund has as a requirement that it have an impact on the health of the population. So, before research is even selected for funding, we ask everyone to evaluate whether it can ultimately improve health outcomes.

Dr. Luce: The other component of that is that we have a strong belief that by the very act of engaging real-world decision makers — those who would ultimately be the consumer of the evidence — in our entire process, the evidence for decision making has a much higher chance of being adopted and used, and potentially changing the practice of how evidence is gathered and considered.

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– Dr. Frank

The research applications that we review for potential funding are actually prioritized by multi-stakeholder merit review panels that include patients, researchers, and other stakeholders. These panels of 20-25 individuals come together, debate and score the merits of individual studies, and final decisions are made based on those scores. So again, this is a unique system where patients and researchers are all at the table together and are all considered equal members of the team.

Our merit review criteria include not only the impact of the condition on the health of individuals and populations, the potential to improve healthcare and outcomes, and technical merit, but also unique criteria that includes patient-centeredness and patient stakeholder engagement. It is our belief that by requiring all of these elements, not only will the research itself improve, but the speed of its uptake and ultimate impact on health outcomes will also increase.

When participating in merit review, do patients evaluate the applications only in areas that they are personally affected by or do they cross therapeutic areas and indications?

Dr. Frank: Great question, and it's one we've really spent a lot of time talking about. We encourage all of the reviewers, including the patient reviewers, to let us have the benefit of their general perspective, and if there's a specific therapeutic area in which they have expertise, that will definitely be considered.

It's challenging to make sure we're getting the right voices heard, and we have put a lot of thought into this process. We have a pretty robust and, we think, effective training program that educates patients and other non-scientific reviewers on how to evaluate research proposals. We also acknowledge that the non-scientists might not feel comfortable sitting at a table with scientists who are used to writing and reviewing these funding applications. So, PCORI provides mentors who have been through the process and can speak to them from experience and guide them so they are able to provide the best review possible.

We also focus on bi-directional training and communication, including training the scientific reviewers on how to interact with the non-scientists, to reduce concern about intimidation or respect when they're debating the scientific merits of a proposal. We also reinforce that patients often have something they can teach the research community and that all parties should engage in educating and listening to the others on the team. It definitely takes extra time and the entire process took some honing, but it has turned out to be quite impressive and it really works. Overall, we have found the inclusion of patients and caregivers highly enriches the discussion and process, so that we end up funding research that meets high standards for technical merit but is also meaningful to patients.

How do you go about identifying patients to participate in PCORI activities?

Dr. Frank: We have a whole patient engagement team, a group that focuses on engagement with the patient community, and this includes individual patients as well

as patient advocacy organizations. For participation in activities like our panels and merit review teams, there is an application process. So, we have a PCORI list of those who have applied, but we are always doing outreach beyond that to encourage new participation. Our engagement team has engagement awards and funding available to help support infrastructure to help connect patients with researchers, for example.

In regard to your funded projects, do you have results from projects yet? And what happens to those results? How will they be used?

Dr. Frank: Well, PCORI is not just interested in getting good research funded, but also in making the results available as quickly as possible. Our first round of funding for our pilot projects was announced in May of 2012. There were 50 pilot projects. Those were two-year projects, shorter than normal, and they are either final or just finishing up. There has already been some dissemination in peer-reviewed literature and also in grey literature, forums other than peer-reviewed literature that help get the word out to stakeholders who need to know the information.

PCORI is like any other funder in that the results of the research belong to the awardees. However, our legislation requires that at least the basic results and data from our funded research are made available within 90 days of our receipt of the final report about a project. We also require the research be registered with the public site appropriate to the study design, such as ClinicalTrials.gov, and we will post research reports on our website.

Do you get the sense that payers in the U.S. are reaching out for PCOR information?

Dr. Luce: Payers are absolutely interested. We have reached out to them and we have seen some outreach from payers to us. However, we would like to see them more engaged. The interest and participation seem to be more focused on some of our big trials that have funding in the $10 million range. For these large trials we require that applicants have a robust study team that includes major organizations, national organizations, and key stakeholders — including payers, clinical specialty societies, patient advocacy groups, etc. As a result, many of the research applications that we are funding will include payer input since one of the considerations in our funding decisions is whether the right stakeholders are part of the research, and that includes payers.

PCORI is, obviously, U.S. focused as its creation was part of the U.S. Affordable Care Act. Is there any non-U.S. involvement or do you see PCORI activity influencing treatment decisions outside of the U.S.?

Dr. Frank: PCORI's intent and mandate is to help U.S. citizens, and although anyone can apply for PCORI funding, the research must improve the health of people residing in the U.S. To date, almost 100 percent of our funding has been awarded to U.S. investigators.

We are always looking for ways in which the PCORI model is influencing others, and we certainly have been in conversations with different groups who also have public involvement in research around the world. We are interested in how those groups include public involvement, so we have a formal outreach program to make sure that we're not missing out on what's being learned elsewhere. But increasingly, we hear that those groups are watching us and they want to see how we are handling the process, surveying people, what questions we are asking about engagement, etc.

Dr. Luce: One particular area is rare diseases. This is one area that may require reaching beyond U.S. borders in order to have enough patients to do research. We have a rare disease advisory panel and they are currently discussing this, so we could see more involvement outside the U.S. in research for those specific cases. But again, the final research would need to benefit U.S. citizens.

Are there any counterparts to PCORI in other countries that you're aware of, or is PCORI really unique in its focus on patient-centered outcomes research?

Dr. Luce: I would say PCORI is unique, especially because of the emphasis on comparative effectiveness research and our requirement for engagement of end-users in the research.

We have seen a fair amount of interest from other countries that have sent delegations to meet with us, including Canada, the United Kingdom, and Australia, and in a number of cases, there is some sort of government funded, patient-centered endeavor for research. It is not clear if the PCORI model of patient and stakeholder engagement has been fully adopted any place else, but there is a clear interest in the whole process, including countries outside of the U.S.

Is there anything else important to note about PCORI that you think our readers would be interested in?

Dr. Frank: I just want to re-emphasize the very important point that we engage stakeholders in everything we do, so it's a requirement for the research we fund. They help us identify the topics we pursue for funding, evaluate the research itself, and get the word out about the research once it is finished.

Dr. Luce: One area I wanted to expand on is the national priorities that the board has set for trial applications. That includes what the field calls clinical comparative effectiveness research, which includes a drug-drug, drug-device, drug-procedure, and drug-usual care studies — clinical trials or observational studies for that matter. Another priority is improving healthcare systems, where we look for comparative ways to organize the care or systems-level intervention, such as transitional care. For example, we have a big project on alternative ways to prevent serious falls in the frail and elderly, which is a whole systems issue and not an individual clinical intervention. Another national priority is studies addressing disparities, recognizing that vulnerable populations have all types of problems relative to health, and that there are alternative ways to address them. An example here might be an asthma program that may be highly effective when it comes to trials and in major populations, but it may not be effective in a Hispanic or an inner-city population, or a frail and elderly population. We also have specific research programs focused on alternative ways to communicate and disseminate useful research.

PCORI has gotten a lot of praise in the news and it is obvious there is a lot happening. Is there something for each of you that you're particularly excited about or something that we have to look forward to?

Dr. Luce: The big thing you have to look forward to is the outcome of several hundred million dollars' worth of comparative effectiveness research. If we are doing the job we were created to do, and I think we are, there will be a great deal of research evidence across many, many different areas of healthcare clinical interests that will be highly focused on the real concerns of all key stakeholders. That includes patients, doctors, payers, clinical guideline committees, etc. The questions that those groups have that no one has been funding will start to be answered. Initial results are starting to come out, but within the next year we should start to see an increase in real research outcomes. And, we're attempting to link different studies with different teams, even bringing together different groups that are working in the same general area, which should really make a difference. If we are doing our job right, you will see truly useful evidence for decision making.

Dr. Frank: I just want to endorse that answer. PCORI is funding research for important questions that need to be answered, and PCORI has a specific interest in making sure that the results of that research are heard by the people who need it.

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– Dr. Frank

Dr. Luce, I understand that you are retiring this fall. What are your goals during your remaining time with PCORI, and what are your future plans?

Dr. Luce: Yes, I announced last year that I would be retiring from PCORI in September 2015. The main goal of my office, and certainly myself, is to fund truly impactful comparative effectiveness research that will make a difference in improving healthcare. And as far as my future after PCORI, who knows what I'll be doing, but I'll probably not totally disappear.

As we conclude, Dr. Frank, do you have specific goals that you want to accomplish at PCORI?

Dr. Frank: My role at PCORI focuses on leading the evaluation of PCORI processes and process improvement in general, with the merit review process being an important part of that. I want to be sure that we're always collecting the right information so that at any time we can know for ourselves and share with others how well PCORI is doing against its mission and against its stated goals.

RESOURCES AND REFERENCES

- PCORI website: www.pcori.org
- Frank L, Basch E, Selby JV. The PCORI Perspective on Patient-Centered Outcomes Research. *JAMA*. 2014 Oct 15; 312(15):1513-1514.

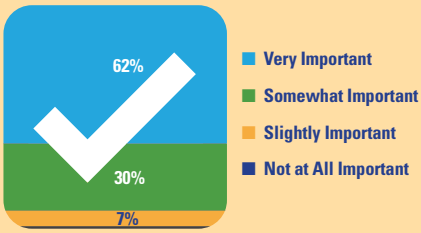
National Pharmaceutical Council

2015 COMPARATIVE EFFECTIVENESS RESEARCH AND THE ENVIRONMENT FOR HEALTH CARE DECISION-MAKING

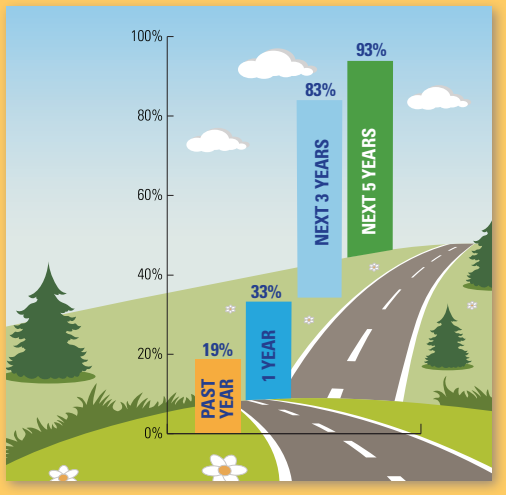
Now in its fifth year, the National Pharmaceutical Council's annual survey of health care stakeholders continues to shed light on the environment for comparative effectiveness research (CER) and health care decision-making.

THE STAKEHOLDERS WE SURVEYED...

SAID CER IS IMPORTANT...

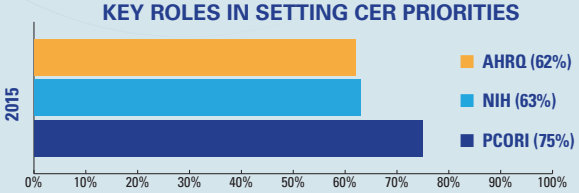


BUT ITS IMPACT ON DECISION-MAKING IS STILL 3-5 YEARS DOWN THE ROAD.

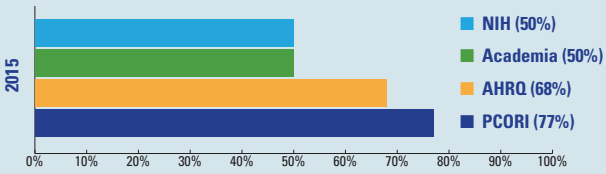


STAKEHOLDERS ALSO TOLD US WHICH ORGANIZATIONS ARE PLAYING KEY ROLES IN THE CER EFFORT.

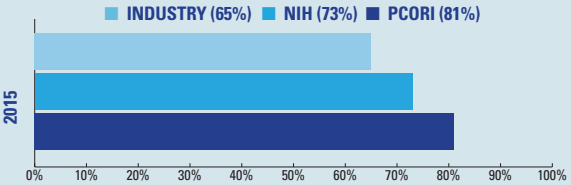
KEY ROLES IN SETTING CER PRIORITIES



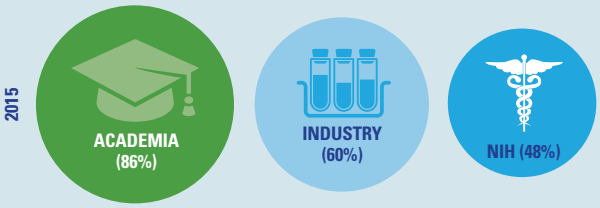
KEY PLAYERS IN SETTING RESEARCH STANDARDS



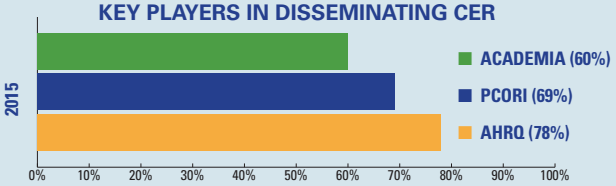
KEY ROLES IN FUNDING, MONITORING RESEARCH



KEY GROUPS IN CONDUCTING CER



KEY PLAYERS IN DISSEMINATING CER



For key roles, stakeholders were asked to choose among the Agency for Healthcare Research and Quality (AHRQ), the National Institutes of Health (NIH), the Food and Drug Administration (FDA), the Patient-Centered Outcomes Research Institute (PCORI), academia, private health plans and the biopharmaceutical industry. N=122 for Stakeholders Surveyed. N=115 for Importance of CER. N=114 for Impact of CER in the Past Year and 1 Year; N=115 for the Next 3 Years and Next 5 Years. N=117 for remaining figures.

View the complete survey results and related materials and download our booklet, *2015 Comparative Effectiveness Research and the Environment for Health Care Decision-Making* at **www.npcnow.org/cersurvey15**.