ABSTRACT: 2016 ELAM Institutional Action Project Symposium

Project Title: Promoting a Breast Cancer Outcomes Research Integrated Network

Name and Institution: Elizabeth Chrischilles, PhD,¹⁻⁵ University of Iowa

Collaborators: Dean Sue Curry, PhD¹ (mentor); Gary Rosenthal, MD,¹-⁵ George Weiner, MD,²-⁴ and Russ Waitman, PhD⁵ (collaborators); University of Iowa Colleges of ¹Public Health and ²Medicine, ³Institute for Clinical and Translational Science, and ⁴Holden Comprehensive Cancer Center; ⁵Greater Plains Collaborative⁵

Background, Challenge or Opportunity: The Greater Plains Collaborative (GPC) is a new network of 12 medical centers in 9 states launched in April, 2014 as part of PCORNet: the Patient-Centered Outcomes Research Institute (PCORI) "network of networks" that includes health care data for over 75 million persons cared for in 130 US health care delivery systems. The purpose of PCORNet is to conduct patient-centered outcomes research including pragmatic comparative effectiveness trials. A number of PCORnet sites are associated with the 60 plus National Cancer Institute (NCI)-funded cancer centers. This affords an opportunity for PCORNet to complement the population-focused research agendas of NCI cancer centers. The GPC network is unique in its integration of standardized cancer tumor registries with electronic medical record data in its distributed data network. During Phase 1, the GPC established governance, IRB reliance, and data sharing agreements and demonstrated ability to select, survey, and characterize a cohort of breast cancer patients from across the network. In October, 2015 with GPC Phase 2 awarded, the GPC was given the opportunity to demonstrate a sustainable breast cancer research agenda.

Purpose/Objectives: To promote a breast cancer research agenda within the Greater Plains Collaborative (GPC) by integrating access to three national resources: NCI Cancer Centers, PCORNet, and Clinical and Translational Science Award Program Hubs

Methods/Approach:

- Evaluation of the Phase 1 pilot: Present findings to GPC leadership including recommendations for improvement.
- Stakeholder Engagement: Cancer Center Directors, patients, breast cancer researchers, informatics specialists, NCI and PCORI sponsors
- Virtual Team Building: Invite new members. Build trust through communication tools and
 collaborative publication policies, manage work through twice a month webinar check-ins and
 asynchronous document postings and emails, monitor progress through milestones and tracking,
 and enhance team visibility through frequent reports to the GPC Global Committee.
- Collaborative Paper Writing: Develop an efficient review process and distribute a well-documented linked survey-EMR-tumor registry database to paper-writing teams. Award small grants for analysis.

Outcomes and Evaluation Strategy: By evaluating the Phase 1 pilot, needed improvements to network processes and data quality were presented to decision-makers and scheduled for resolution. The GPC breast cancer interest group expanded to 58 members and 12 medical centers. Funds were secured from a contract amendment and pilot grants and discounted data analysis was made available from affiliated Cancer Centers. Twelve collaborative paper-writing teams were formed and supplied with data. A speaking engagement for the PCORI Executive Director was arranged for the annual meeting of the Association of American Cancer Institutes. Collaboration was launched with the PCORNet hereditary breast and ovarian cancer patient network. Expected longer term outcomes include grants, presentations, publications, and expansion of this model to other cancer types and other networks.

PROMOTING A BREAST CANCER OUTCOMES RESEARCH INTEGRATED NETWORK



Elizabeth Chrischilles, PhD¹

Mentor: Dean Sue Curry, PhD^{1,2} Collaborators: Gary Rosenthal, MD,¹⁻⁵ George Weiner, MD,^{2,4} Russ Waitman, PhD⁵



BACKGROUND/OPPORTUNITY

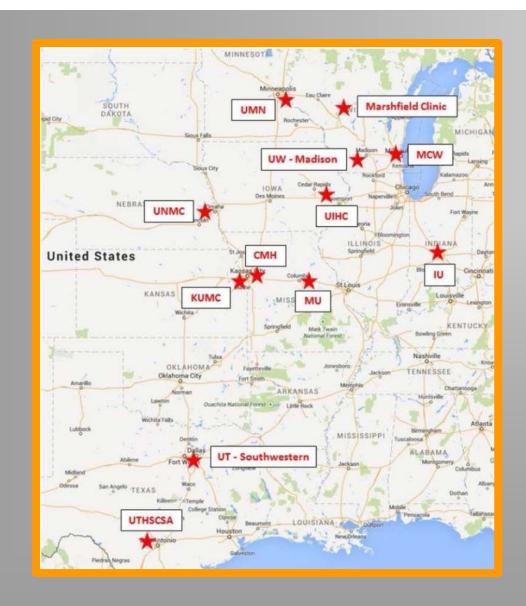
PCORNet: the Patient-Centered Outcomes Research Institute (PCORI) "network of networks":

- Includes health care data for over 75 million persons cared for in 130 US health care delivery systems
- Many PCORnet sites are associated with the 60 plus
 National Cancer Institute (NCI)-funded cancer centers
- Opportunity for PCORNet to complement the research agendas of NCI cancer centers

The Greater Plains Collaborative (GPC) (Figure 1) is a PCORNet network:

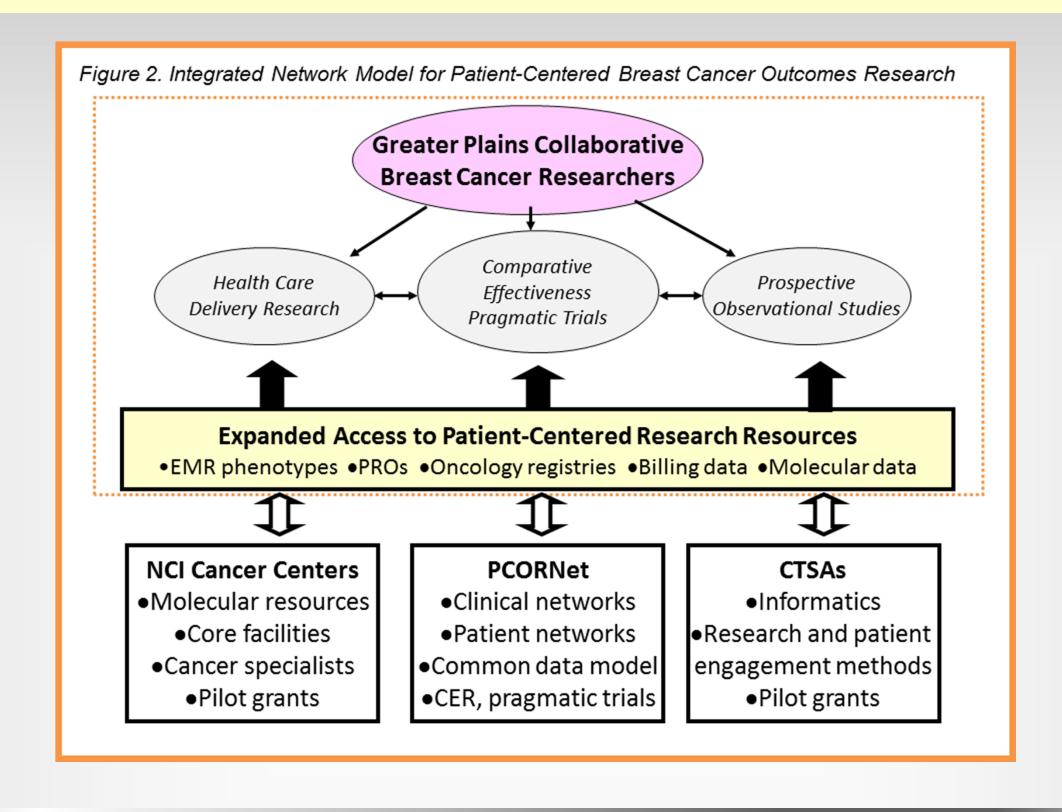
- Unique in its integration of standardized cancer tumor registries with electronic medical record (EMR) data in its distributed data network
- During Phase 1, the GPC established governance, IRB reliance, and data sharing agreements and demonstrated ability to select, survey, and characterize a cohort of breast cancer patients from across the network
- In October, 2015 with GPC Phase 2 awarded, the GPC was given the opportunity to demonstrate a sustainable breast cancer research agenda

Figure 1. Greater Plains Collaborative Member Institutions



PURPOSE

To promote a breast cancer research agenda within the Greater Plains Collaborative by integrating access to three national resources: NCI Cancer Centers, PCORNet, and Clinical and Translational Science Award Program Hubs (Figure 2)



METHODS/APPROACH

Evaluate the Phase 1 pilot

Present findings to GPC leadership including recommendations for improvement

Stakeholder Engagement

 Cancer Center Directors, patients, breast cancer researchers, informatics specialists, NCI and PCORI sponsors

Virtual Team Building

- Invite new members
- Build trust through communication tools and collaborative publication policies
- Manage work with twice a month webinars and asynchronous document postings
- Monitor progress through milestones and tracking
- Enhance team visibility through frequent reports to GPC Global Committee

Collaborative Paper Writing

- Test the concept of "writing teams" for generating collaborations and managing overlap
- Distribute a well-documented database to all paper-writing teams
- Provide small grants for analyst time & discounts from Cancer Center Biostatistics Cores

OUTCOMES & EVALUATION STRATEGY

- By evaluating the Phase 1 pilot, needed improvements to network processes and data quality were presented to GPC decision-makers and scheduled for resolution
- By attention to virtual team building,12 collaborative writing teams submitted proposals to write papers together
- Visibility for breast cancer research in the GPC was increased by presentations to the GPC and PCORI leadership and to NCI Cancer Center Directors
- See Table 1 for short-term metrics and results
 Expected longer term outcomes include national presentations, published papers, funded grants, and expansion of this model collaboration to include other cancer types and other networks

Table 1. Metrics and Results Number of members involved 58 people, 12 institutions Publication policies established November 2015 January 2016. Recommended Findings of Phase 1 pilot evaluation presented to GPC leadership improvements were prioritized and added to GPC web-based software project management and bug/issue tracking system Publications Committee recruited March 2016 Collaborative writing teams approved 12 Topics include aspects of decisionmaking (7 papers) and survivorship (5 March 2016 Linked dataset distributed to writing Presentations to GPC leadership GPC Principal Investigators, PCORI Project Officer, PCORI Executive Director Support secured from CTSAs and Pilot grant, discounts on data analysis by Cancer Centers biostatistics cores, prep-for-research queries by informatics cores Participation of patient communities Launched collaboration with hereditary breast and ovarian cancer patient network **Engagement of NCI Cancer Centers** Presentation to Association of American Cancer Institutes scheduled (July 2016)

NEXT STEPS

Continue twice-monthly webinars, submit abstracts to San Antonio Breast Cancer Symposium, collaborate with the hereditary breast and ovarian cancer patient network to develop PCORNet designation as a Cancer Cross-Cutting Research Group, conduct preparatory-toresearch database queries & pilot studies, submit PCORI Letter of Intent November 2016