

## *Enhancing Community Health Center PCORI Engagement (EnCoRE)*

Funded by:

Patient Centered Outcomes Research Institute (PCORI)  
Eugene Washington PCORI Engagement Award 2014-2015



With support from:

*N<sup>2</sup> PBRN – Building a Network of Safety Net PBRNs*

funded by:

Grant # 1 P30 HS 021667



www.PCORI.org



www.icommunityhealth.org



www.aapcho.org



www.SCPHCA.org



www.accesscommunityhealth.net

# Enhancing Community Health Center PCORI Engagement (EnCoRE)

## Session 1

### Introduction to Patient Centered Outcomes Research (PCOR): Developing a Study and Study Questions

#### Presenter:

Jonathan N. Tobin, PhD, FACE, FAHA

President/CEO

CLINICAL DIRECTORS NETWORK (CDN)

Professor, Department of Epidemiology & Population Health

ALBERT EINSTEIN COLLEGE OF MEDICINE OF YESHIVA UNIVERSITY

Co-Director for Community Engaged Research & Adjunct Professor Allen and Frances Adler Laboratory of Blood and Vascular Biology

Center for Clinical and Translational Science

THE ROCKEFELLER UNIVERSITY

[JNTobin@CDNetwork.org](mailto:JNTobin@CDNetwork.org) [www.CDNetwork.org](http://www.CDNetwork.org)

(212) 382 0699



[www.PCORI.org](http://www.PCORI.org)



[www.icommunityhealth.org](http://www.icommunityhealth.org)



[www.aapcho.org](http://www.aapcho.org)



[www.SCPHCA.org](http://www.SCPHCA.org)



[www.accesscommunityhealth.net](http://www.accesscommunityhealth.net)



# Project Partners

Clinical Directors Network  
(CDN)  
New York, NY

Jonathan N. Tobin, PhD [JNTobin@CDNetwork.org](mailto:JNTobin@CDNetwork.org)  
Maria Dziok, PhD [MDziok@CDNetwork.org](mailto:MDziok@CDNetwork.org)  
Rachel Tayler, MSc [RTayler@CDNetwork.org](mailto:RTayler@CDNetwork.org)



National Association of  
Community Health Centers  
(NACHC)  
Washington D.C.

Michelle Proser, MPP [MProser@NACHC.org](mailto:MProser@NACHC.org)  
Michelle Jester, MA [MJester@NACHC.org](mailto:MJester@NACHC.org)



The Association of Asian  
Pacific Community Health  
Organizations (AAPCHO)  
Oakland, CA

Rosy Chang Weir, PhD [rcweir@aapcho.org](mailto:rcweir@aapcho.org)



Access Community Health  
Network  
Chicago, IL

Danielle Lazar, [Danielle.Lazar@accesscommunityhealth.net](mailto:Danielle.Lazar@accesscommunityhealth.net)



Institute for Community  
Health (ICH) a Harvard  
Affiliated Institute  
Cambridge, MA

Shalini, A. Tendulkar, ScM, ScD [stendulkar@challiance.org](mailto:stendulkar@challiance.org)  
Leah Zallman [lzallman@challiance.org](mailto:lzallman@challiance.org)



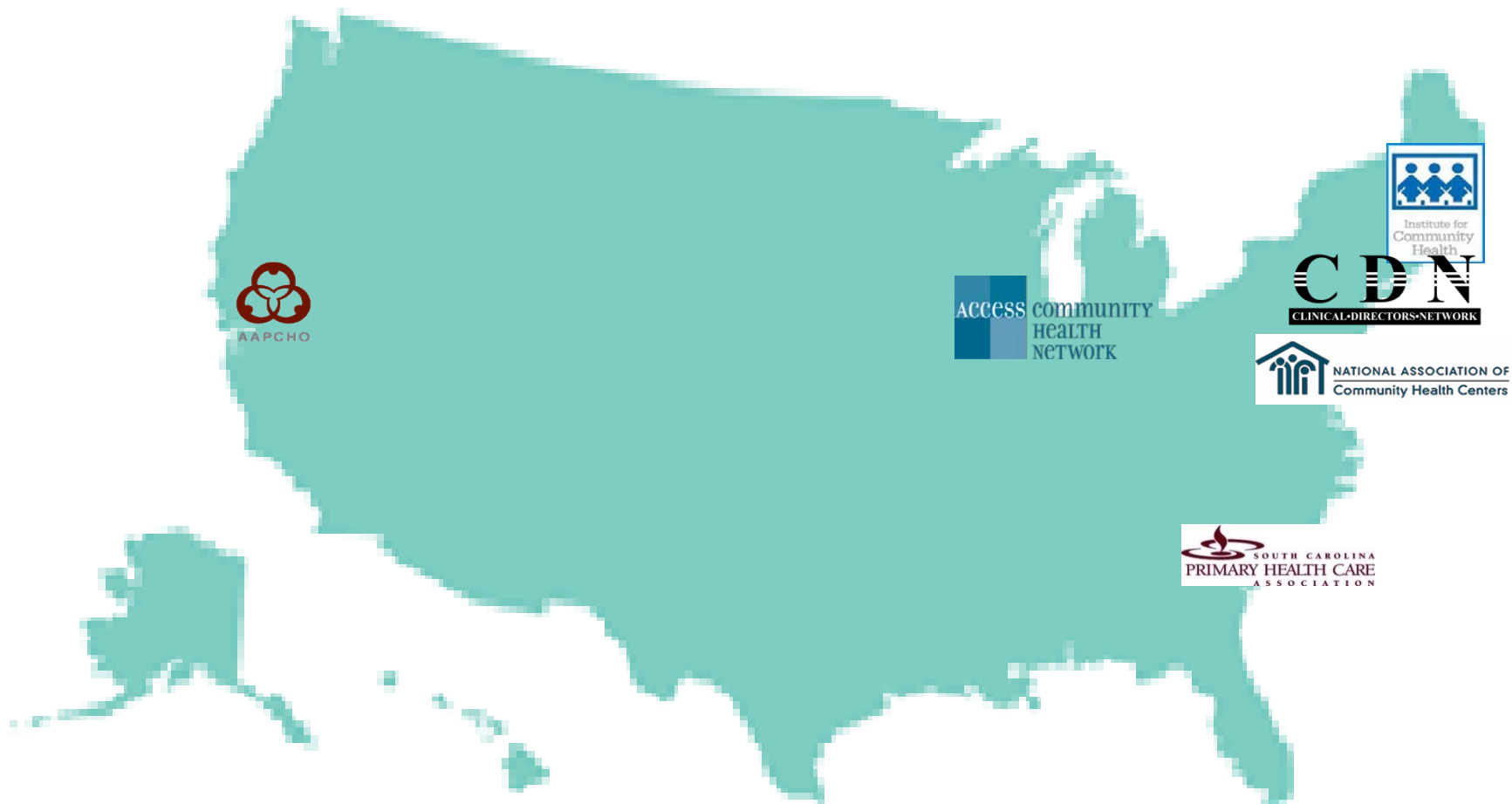
The South Carolina Primary  
Health Care Association  
(SCPHCA)  
Columbia, South Carolina

Vicki Young, PhD [vickiy@scphca.org](mailto:vickiy@scphca.org)

Additional Faculty: Milton “Mickey” Eder, PhD, Assistant Professor at University of Minnesota Medical School

# EnCoRE Partners' Geography

## 2014-2015



## Goal:

To adapt, enhance, and implement an existing year long training curriculum designed to educate and engage Health Center teams including patients, clinical and administrative staff in Patient Centered Outcomes Research (PCOR).

## Objectives:

- Build infrastructure to strengthen the patient-centered comparative effectiveness research (CER) capacity of Health Centers as they develop or expand their own research infrastructure
- Develop, implement, and disseminate an innovative online training, which will be targeted to and accessible at no cost to all Health Centers and other primary care practices.
- Content will prepare Health Center patients, staff, and researchers in the conduct of community-led PCOR

# Introductions

- Name
- Responsibilities
- Community Health Center Affiliation
- Prior Research Experience
- What are you hoping to learn from EnCoRE?

# Session Goals

- What is the EnCoRE project?
- What are patient-centered outcomes?
- Why is patient-centered outcomes research important to Health Centers?
- How to ask a question and form a testable hypothesis
- Types of variables
- Introduction to clinical epidemiology and types of study designs
- Introduction to human subjects research
- Introduction to literature search/PubMed

- The Patient Centered Outcomes Research Institute (PCORI) [www.PCORI.org](http://www.PCORI.org) is committed to funding research guided by patients, caregivers, and the broader healthcare community
- The “Pipeline to Proposal” program, part of the Eugene Washington Awards, program addresses the challenge of engaging stakeholders (such as patients, clinicians, and researchers) to create partnerships that lead to PCOR research proposals
- Using the award resources and PCORI patient engagement guidelines, this project aims to build a community of patients, stakeholders, and researchers who can participate in patient centered outcomes research (PCOR)



The screenshot shows the PCORI Pipeline to Proposal Awards webpage. At the top is the PCORI logo and the text "Patient-Centered Outcomes Research Institute". Below this is a navigation bar with links: About Us, Research We Support, Funding Opportunities (highlighted), Meetings & Events, Get Involved, and News Room. A "Blog" link is also present. The main heading is "Pipeline to Proposal Awards". Below this is a diagram showing the progression from Tier I (Up to \$15,000, Up to 9-month term) to Tier II (Up to \$25,000, Up to 12-month term) to Tier III (Up to \$50,000, Up to 12-month term) to PCORI Funding Announcement. To the right of the diagram are social media icons for Facebook, Twitter, LinkedIn, YouTube, and a plus sign for more. Below the diagram, the text states: "Our first funding opportunity under the Pipeline to Proposal Awards program is the Tier I Pipeline to Proposal Awards for the Western Region of the United States. This RFP for the first cycle of Tier I Pipeline to Proposal Awards has been managed in collaboration with the Colorado Foundation for Public Health and the Environment (CFPHE), our pilot Intermediate Funder for this effort." It then mentions that in early 2014, additional opportunities will be announced. A section titled "Tier I awards provide seed money to individuals and groups who have healthcare research ideas and who believe in the promise of patient-centered research." describes the focus on building community and engaging stakeholders. It also states that the awards are open to any individual patient, other healthcare stakeholder, or researcher—or group of patients, stakeholders, or researchers—oriented around a particular health issue and interested in developing questions that can be addressed by comparative effectiveness research. A "Read More —" button is located below this text. On the right side of the page, there is a section titled "“Pipeline to Proposal” Awards" with a map of the United States highlighting the Western region. Below the map, it states: "PCORI approved 30 projects totaling more than \$400,000 under the pilot phase of its “Pipeline to Proposal” awards program. These Tier I awards were initially offered in the Western US to build communities around common health research interests. The program will soon be expanded nationwide." At the bottom right, there is a section titled "Opening a Pipeline to Patient-Centered Research Proposals" which states: "With a new type of award, we invite individuals and groups to build a community and partnerships prepared to participate in patient-centered outcomes research."

# Training Curriculum

- A year long structured program
  - Monthly training webcasts
  - Monthly “homework” assignments
  - Online clearinghouse of skill-building resources
- What will this series cover?
  - Basics of PCOR
  - Development of research questions
  - The structure of research design and protocols
  - Patient and community engagement
  - Human subjects protection
  - Data analysis and interpretation
  - Dissemination

## Recommended Team Agenda:

| Agenda:       |  |  |
|---------------|--|--|
| 12:00-1:00 pm | Pre Lunch: Working team lunch meeting                |  |
| 1:00-2:00 pm  | Webcast/Virtual Classroom                            |  |
| 2:00-2:30 pm  | Post Class Work: Team Meeting to Follow Up/Implement |  |
| 3:00 pm       | Adjourn  |  |

|               |  |  |
|---------------|--|--|
| 12:00-1:00 pm | Pre Lunch: Working team lunch meeting                |  |
| 1:00-2:30 pm  | Webcast/Virtual Classroom                            |  |
| 2:30-3:00 pm  | Post Class Work: Team Meeting to Follow Up/Implement |  |
| 3:30 pm       | Adjourn  |  |

## Specific CHC responsibilities will include:

- Commit the time for a Team of 3-5 clinicians and staff members and **patient representatives** to participate in this project and participate in monthly webcasts and pre and post webcast related activities
- Identify one staff champion to lead this group of 3-5 clinicians and staff members
- Identify one or more patient representatives to participate

# Training Curriculum

**Session 1 – Introduction to PCOR - Developing a Study and Study Questions**

**Session 2 – Patient Engagement in Selecting and Designing Interventions for Testing and Outcomes for Assessment**

**Session 3 – Community Engagement for Selecting and Designing Interventions for Testing**

**Session 4– Measurement, Defining Variables (dependent, independent, covariates)**

**Session 5 - Sample Size, Power Calculations, Sampling Methods, and Recruiting Plans**

**Session 6–Study Design & Clinical Statistics**

**Session 7– Biostatistics/Univariate Data Analysis**

**Session 8 – Bioinformatics**

**Session 9 - Research Ethics, IRB, FDA Regulations, and Good Clinical Practices (GCP)**

**Session 10 - Grant Writing, Fundraising, Project Planning, Identifying Study Partners, and Funders**

**Session 11 - Preparing Budgets, Work Plans, and Timelines**

**Session 12–Dissemination and Presentation**

# Training Curriculum (Cont'd)

- The partners will develop the training course by building on existing CDN/N2-PBRN, NACHC, and CTSA training programs and PCORI training resources and adding any content gaps identified by partners or learners
- The curriculum will incorporate previously developed and archived online training resources on research models and methodology using a “flipped classroom” learning model
- All webinars developed during the project period will be posted [on www.CDNetwork.org/](http://www.CDNetwork.org/) and [www.CDNetwork.org](http://www.CDNetwork.org) for free global dissemination



**CDN**  
CLINICAL DIRECTORS NETWORK

ABOUT US | RESEARCH | EDUCATION | PARTNERSHIPS | CONTACT US

**Translating Research into Practice**

Clinical Directors Network, Inc. (CDN) is a not-for-profit clinical membership organization, practice-based research network (PBRN), and clinician training organization, focused on providing peer-informed activities for clinicians practicing in the primary, specialty, and other underserved communities. CDN's overall goal is to translate clinical research into clinical practice for the enhancement of health equity and improvement of public health.

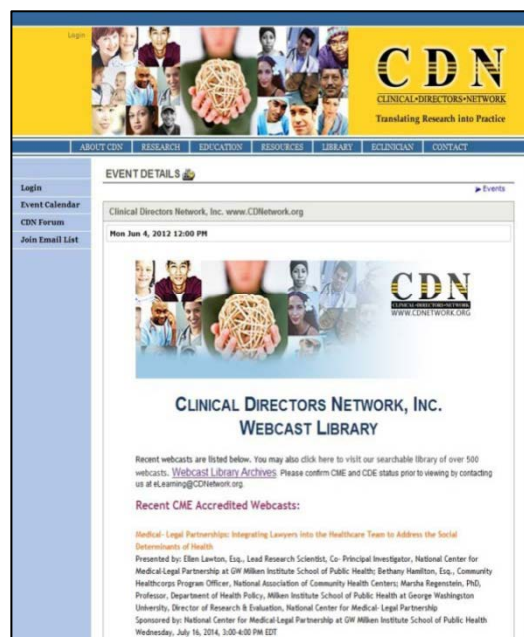
**Research**  
CDN was designated a "best practice" Clinical Research Network by the NIH (2006).  
We accelerate research translation. CDN has over 25 years of experience developing, conducting, representing and evaluating practice-based research with Community Health Centers and other safety-net practices.

**Education**  
CDN has an extensive network of multidisciplinary researchers, clinicians, clinical leaders and policy-makers.  
We provide peer support through training and education that integrates online and on-site academic and experiential learning. Collaborate with us to meet your training needs.

**Partnership**  
CDN has an extensive network of multidisciplinary researchers, clinicians, clinical leaders and policy-makers.  
We conduct research and educational activities in partnership with government, academic, not-for-profit, and for-profit organizations. Our national network represents an enormous resource for change.

**Upcoming Webcasts**  
Taking a History of Sexual Health: Opening the Door to Effective HIV Prevention and Care  
Presented by: Harvey J. Makadon MD, Director, National LGBT Health Education Center, The Fenway Institute; Fenway Health, Clinical Professor of Medicine; Harvard Medical School  
Sponsored by: N2 PBRN Virtual Training Series (AHRQ, Grant No. 1 P30-HS-021667)  
Tuesday, August 12, 2014, 1:00-2:00 PM EDT  
Click here to register!

State of the Art: Effective Arthritis Management in 5 Minutes or Less  
Presented by: Ben Nowell, PhD, Director, Patient Centered Research, Global Healthy Living Foundation; HHS Navarro-Milán, MD, University of Alabama, Birmingham  
Sponsored by: Global Healthy Living Foundation  
Wednesday, September 24, 2014, 2:00-3:00 PM EDT  
Click here to register!



**CDN**  
CLINICAL DIRECTORS NETWORK  
Translating Research into Practice

ABOUT CDN | RESEARCH | EDUCATION | RESOURCES | LIBRARY | EDUCATION | CONTACT

Event Details  
Clinical Directors Network, Inc. www.CDNetwork.org

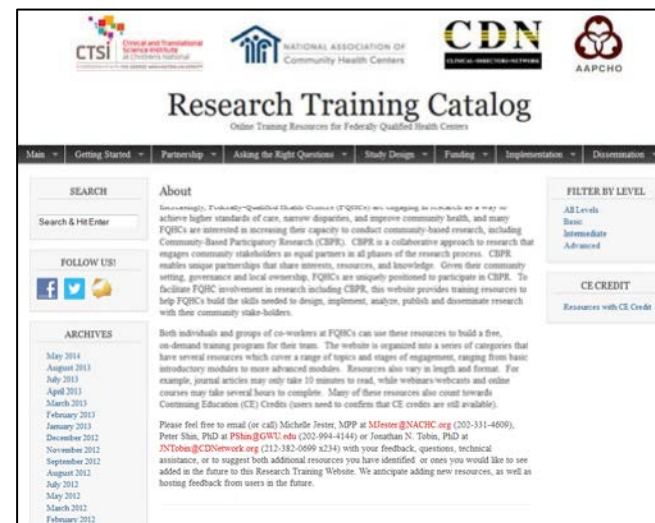
Mon Jun 4, 2012 12:00 PM

**CLINICAL DIRECTORS NETWORK, INC.  
WEBCAST LIBRARY**

Recent webcasts are listed below. You may also click here to visit our searchable library of over 500 webcasts. [Webcast Library Archives](#). Please confirm CME and CDE status prior to viewing by contacting us at [cdlearning@cdnetwork.org](mailto:cdlearning@cdnetwork.org).

**Recent CME Accredited Webcasts:**

**Medical-Legal Partnerships: Integrating Lawyers into the Healthcare Team to Address the Social Determinants of Health**  
Presented by: Ellen Lantieri, Esq., Lead Research Scientist, Co-Principal Investigator, National Center for Medical-Legal Partnership at GW Milken Institute School of Public Health; Bethany Hamilton, Esq., Community Healthcops Program Officer, National Association of Community Health Centers; Marsha Regenstein, PhD, Professor, Department of Health Policy, Milken Institute School of Public Health at George Washington University; Director of Research & Evaluation, National Center for Medical-Legal Partnership  
Sponsored by: National Center for Medical-Legal Partnership at GW Milken Institute School of Public Health  
Wednesday, July 16, 2014, 3:00-4:00 PM EDT



CTSI | NATIONAL ASSOCIATION OF Community Health Centers | CDN | AAPCHO

**Research Training Catalog**  
Online Training Resources for Federally Qualified Health Centers

Man | Getting Started | Partnership | Asking the Right Questions | Study Design | Funding | Implementation | Dissemination

**SEARCH**  
Search & Hit Enter

**FOLLOW US!**  
Facebook | Twitter | YouTube

**ARCHIVES**  
May 2014  
August 2013  
July 2013  
April 2013  
March 2013  
February 2013  
January 2013  
December 2012  
November 2012  
September 2012  
August 2012  
July 2012  
May 2012  
March 2012  
February 2012

**About**  
Increasingly, Federally-Qualified Health Centers (FQHCs) are engaging in research as a way to achieve higher standards of care, narrow disparities, and improve community health, and many FQHCs are interested in increasing their capacity to conduct community-based research, including Community-Based Participatory Research (CBPR). CBPR is a collaborative approach to research that engages community stakeholders as equal partners in all phases of the research process. CBPR realizes unique partnerships that share interests, resources, and knowledge. Given their community setting, governance and local ownership, FQHCs are uniquely positioned to participate in CBPR. To facilitate FQHC involvement in research including CBPR, this website provides training resources to help FQHCs build the skills needed to design, implement, analyze, publish and disseminate research with their community stakeholders.

**Both individuals and groups of co-workers at FQHCs can use these resources to build a free, on-demand training program for their team. The website is organized into a series of categories that have several resources which cover a range of topics and stages of engagement, ranging from basic introductory modules to more advanced modules. Resources also vary in length and format. For example, journal articles may only take 10 minutes to read, while webinars/webcasts and online courses may take several hours to complete. Many of these resources also count towards Continuing Education (CE) credits (users need to confirm that CE credits are still available).**

Please feel free to email (or call) Michele Jones, MPP at [Melvina@NACHC.org](mailto:Melvina@NACHC.org) (202-331-4609), Peter Shin, PhD at [Phin@GWU.edu](mailto:Phin@GWU.edu) (202-994-4144) or Jonathan N. Tobin, PhD at [JNTobin@CDNetwork.org](mailto:JNTobin@CDNetwork.org) (212-382-0699 x214) with your feedback, questions, technical assistance, or to suggest both additional resources you have identified or ones you would like to see added to the future of this Research Training Website. We anticipate adding new resources, as well as hosting feedback from users in the future.

**FILTER BY LEVEL**  
All Levels  
Basic  
Intermediate  
Advanced

**CE CREDIT**  
Resources with CE Credit

# Goals for your Health Center

## Short Term Goals:

- To gain meaningful understanding of PCOR engagement, knowledge, and methods
- To become “research engaged”
- To become PCOR “research-ready”
- To successfully submit PCOR funding applications to PCORI as well as NIH, AHRQ, and CDC
- To become partners, stakeholders, collaborators, and leaders in PCORI applications

## Long Term Goals:

- To receive PCORI funding
- To publish PCOR results in peer-reviewed journals
- To aligning and integrating research and QI efforts
- To be prepared to incorporate results into practice with measurable impact on clinical, patient-centered and population health outcomes
- To increase the number of Health Center patients, clinicians, and staff participating as PCORI grant reviewers, and to improve the quality of those reviews over time

# What is PCOR?

## Why patient-centered outcomes?

Patient-Centered Outcomes Research (See [www.PCORI.org](http://www.PCORI.org))

- “...considers patients’ needs and preferences and focuses on outcomes most important to them.”
- “...can help patients and other healthcare stakeholders, such as caregivers, clinicians, insurers, policymakers and others, make better-informed decisions about their health and healthcare options.”
- “...answers patient-centered questions, such as:”
  - “Given my personal characteristics, conditions, and preferences, what should I expect will happen to me?”
  - “What are my options, and what are the potential benefits and harms of those options?”
  - “What can I do to improve the outcomes that are most important to me?”
  - “How can clinicians and the care delivery systems they work in help me make the best decisions about my health and health care?”

# What is PCOR?

## Why are patient-centered outcomes important?

### Patient Centered Outcomes Research (PCOR):

- “Assesses the benefits and harms of preventive, diagnostic, therapeutic, palliative, or health delivery system interventions to inform decision making, highlighting comparisons and outcomes that matter to people”
- “Is inclusive of an individual's preferences, autonomy, and needs, focusing on outcomes that people notice and care about such as survival, function, symptoms, and health-related quality of life”
- “Incorporates a wide variety of settings and diversity of participants to address individual differences and barriers to implementation and dissemination”
- “Investigates optimizing outcomes while addressing burden to individuals, availability of services, technology, and personnel, and other stakeholder perspectives”

See [www.PCORI.org](http://www.PCORI.org)



www.PCORI.org



www.icommunityhealth.org



AAPCHO

www.aapcho.org



www.SCPHCA.org



www.accesscommunityhealth.net

# Types of PCOR

- Infrastructure
- Methodology Studies
- Observational Studies
- Individual Randomized Controlled Trials (RCTs)
- Cluster RCTs
- Pragmatic Clinical Trials (PCTs, Individual or Cluster)

For more information see [www.PCORI.org](http://www.PCORI.org)  
<http://www.pcori.org/content/research-we-support>

- Prospective - treatment precedes outcome
- Randomized - treatment assignment at random
- Controlled - comparison group
  - Placebo
  - Standard treatment
  - Alternative treatments – head to head comparison (cf. Comparative Effectiveness Research)
- Single Blind- treatment group assignment is unknown to participant
- Double Blind - treatment group assignment is unknown to both investigator and participant

# Why is community-based collaborative work important for PCOR?



[www.PCORI.org](http://www.PCORI.org)



[www.icommunityhealth.org](http://www.icommunityhealth.org)



[www.aapcho.org](http://www.aapcho.org)

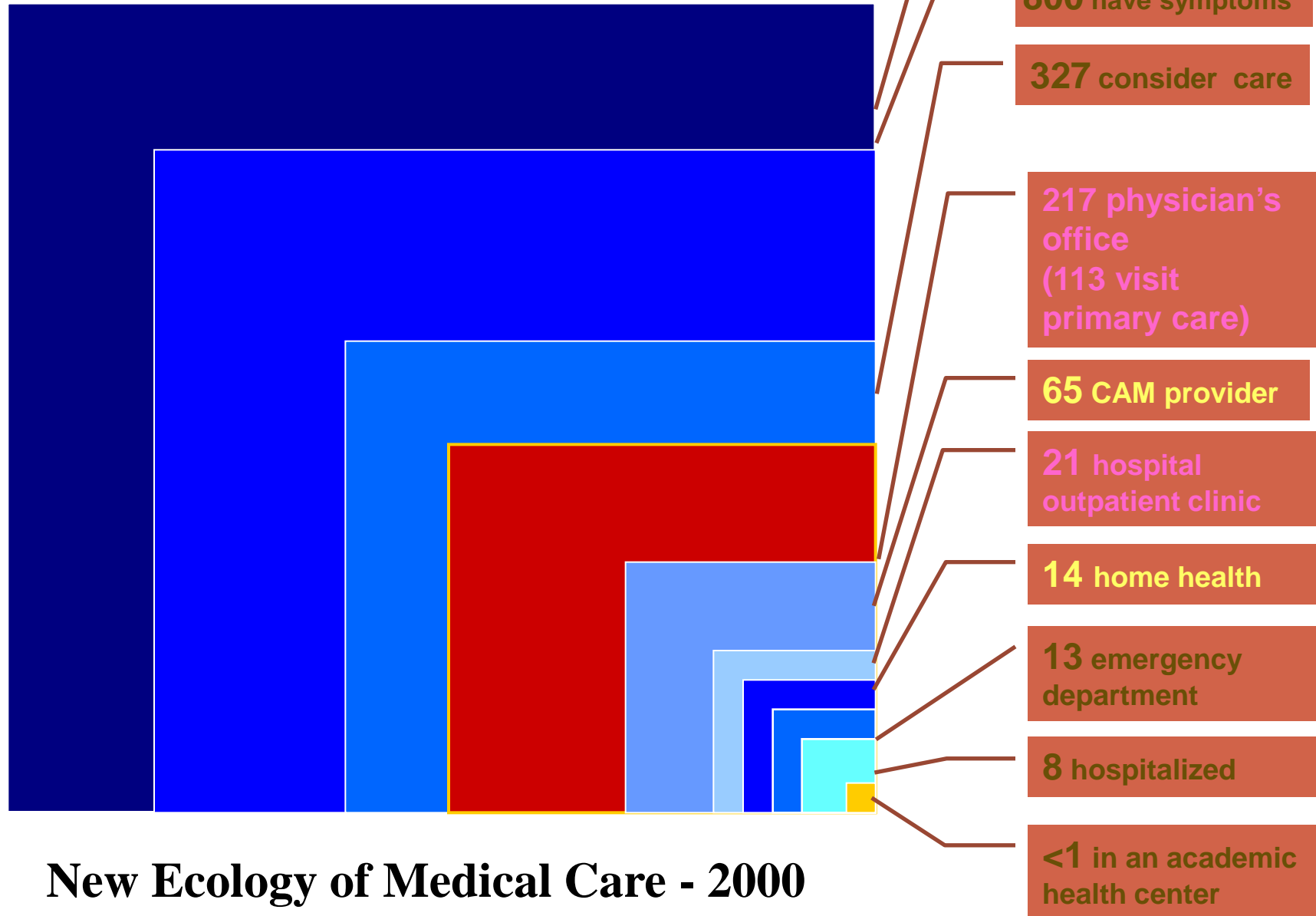


[www.SCPHCA.org](http://www.SCPHCA.org)



[www.accesscommunityhealth.net](http://www.accesscommunityhealth.net)

In an average month:



**Clinical Epidemiology**  
applies  
epidemiological principles and study designs  
in clinical settings  
using medically defined populations  
as opposed to population settings

**Closely related to:**

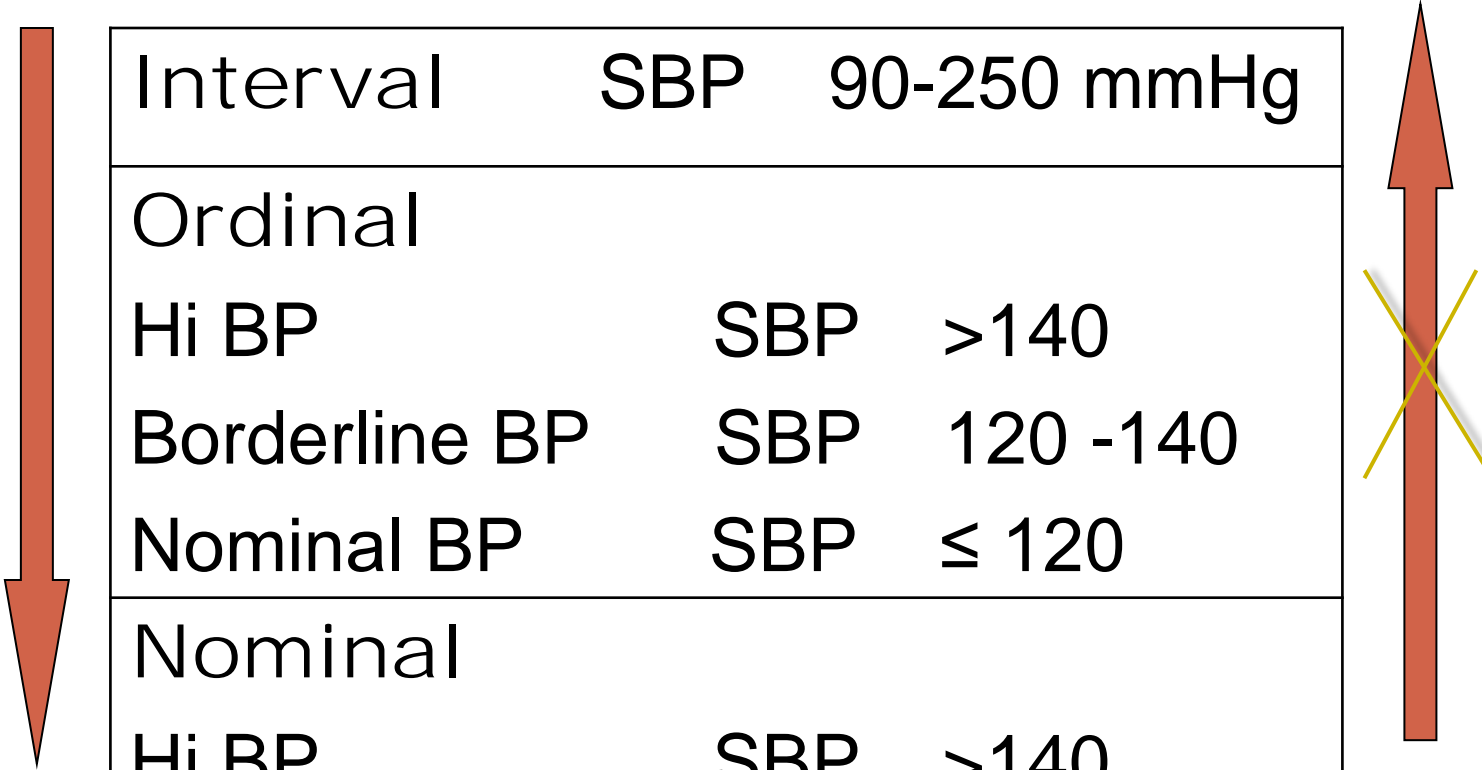
- **Comparative Effectiveness Research (CER)**
- **Patient-Centered Outcomes Research (PCOR)**

# Types of Measures or Variables

|          | Examples   |
|----------|--|
| Nominal  | <ul style="list-style-type: none"><li>• Gender</li><li>• Eye color</li></ul>   |
| Ordinal  | <ul style="list-style-type: none"><li>• Size</li></ul>                         |
| Interval | <ul style="list-style-type: none"><li>• Blood Pressure</li><li>• A1c</li></ul> |
| Ratio    | <ul style="list-style-type: none"><li>• HIV Viral Load</li></ul>               |

# Recoding Measures

Example: Systolic Blood Pressure (mmHg)



| Interval      | SBP | 90-250 mmHg |
|---------------|-----|-------------|
| Ordinal       |     |             |
| Hi BP         | SBP | >140        |
| Borderline BP | SBP | 120 -140    |
| Nominal BP    | SBP | ≤ 120       |
| Nominal       |     |             |
| Hi BP         | SBP | >140        |

# Types of Analysis

| Type of Variable | Type of Analysis                        |
|------------------|---|
| Nominal          | Frequencies<br>$\chi^2$                 |
| Ordinal          |   |
| Interval         | Means<br>t-Tests<br>ANOVA<br>Regression |
| Ratio            |   |

Governed by the Office of Human Research Protections (OHRP; [www.hhs.gov](http://www.hhs.gov))

The Belmont Report

[www.hhs.gov/ohrp/humansubjects/guidance/belmont.html](http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html)

Human Subjects Protection Certification

[phrp.nihtraining.com/users/register.php](http://phrp.nihtraining.com/users/register.php)

Collaborative Institutional Training Initiative (CITI)

<https://www.citiprogram.org/>

# Exercise #1

## Self-Assessment

- 1) Does your Health Center have experience conducting any type of research?
- 2) Is your Health Center currently conducting PCOR?
- 3) Is your Health Center ready to conduct PCOR?
- 4) What would it take to get ready to conduct PCOR?
- 5) Why is participating in research important to my Health Center?

## Exercise #2

# Develop a patient-centered study question

What questions would your health center like answered?

Remember PCOR addresses...

“Given my personal characteristics, conditions, and preferences, what should I expect will happen to me?”

“What are my options, and what are the potential benefits and harms of those options?”

“What can I do to improve the outcomes that are most important to me?”

“How can clinicians and the care delivery systems they work in help me make the best decisions about my health and health care?”

quoted from [www.PCORI.org](http://www.PCORI.org)

## Exercise #3

- 1) Who is your target patient or clinical population
- 2) Who are the most important patient and clinical subgroups?

# Patient-centered CER of Home-based Interventions to Prevent CA-MRSA Infection Recurrence (CAMP-2)

*Funding by:*

*Patient Centered Outcomes Research Institute (Grant # Pending)*

*The Rockefeller University Center for Clinical and Translational Science (CCTS)  
Pilot Grant and Administrative Supplement  
(NIH-NCATS Grant # 8-UL1-TR000043)*



*AHRQ Grant # P30 HS 021667*



www.PCORI.org



www.icommunityhealth.org



www.aapcho.org



www.SCPHCA.org



accesscommunityhealth.net

# CAMP Qualitative Findings: Convergence of CER/PCOR Interests

- **Patients**: Responses from the RPPS patient focus group indicated that many patients participated in the CAMP study in order to contribute to knowledge about CA-MRSA transmission and recurrence. Outcomes that patients were most concerned about include: **recurrence**, pain and inability to work.
- **Clinicians**: “[It is assumed that] colonization is ongoing, because we’ve had **patients return with recurrent infections**. ...If you just use systemic antibiotics, the nasal colonization persists. Another question to consider is if the source is in the house. We can take all measures to decolonize the person but if the infection is still in the house (pet, towel, sheets, etc), then it’s a huge factor.” – Dr. Balachandra
- **Laboratory Investigators**: “Does the MRSA **recurrent phenotype** reflect a single or multiple genotypes?”
- **Clinical Investigators**: **31%** of MRSA+ wounds and **28%** of MSSA+ wounds are **recurrent**

# CAMP-2 Research Design

Incision & Drainage  
Oral Antibiotics

Home Assessment

Patient  
Decolonization &  
Environmental  
Decontamination  
(after Huang, 2014)

Usual Care  
(CDC Guidelines-  
Directed) (n=139)

+

+

-

Usual Care (CDC) +  
Experimental  
Intervention (n=139)

+

+

+

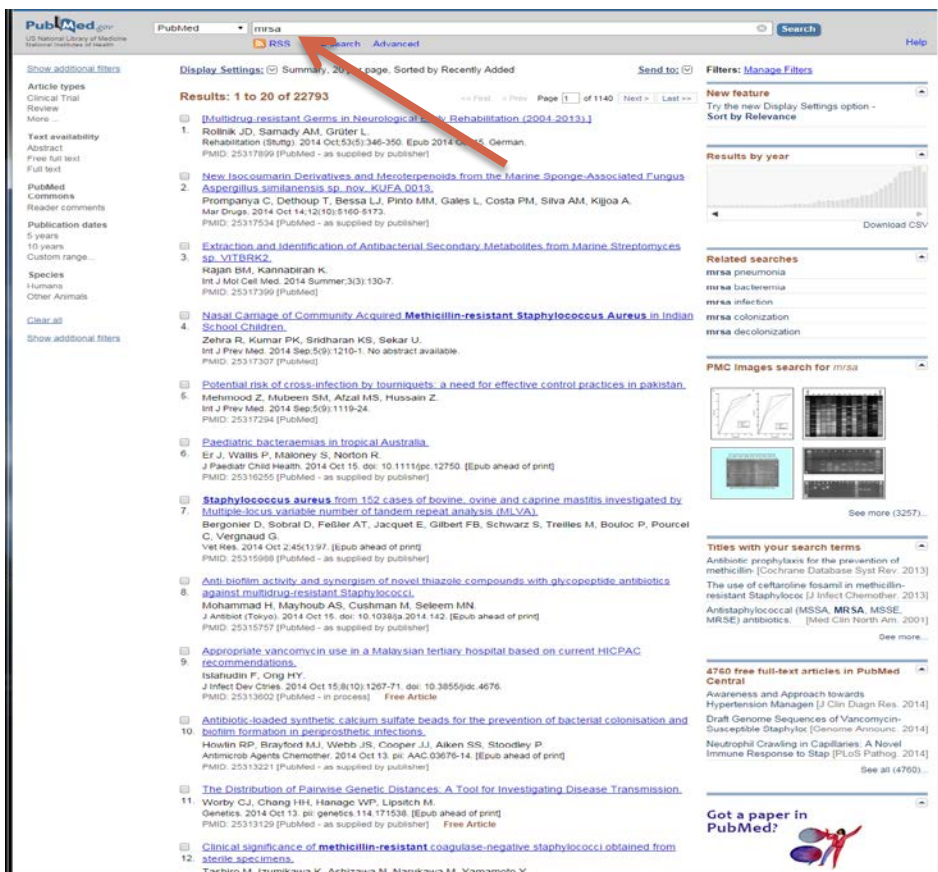
# Exercise # 4

## Identify measures: patient-centered vs. clinical

Example for Skin and Soft Tissue Infections:

|   | Patient Centered   | Clinical  |
|---|--|---|
| Dependent Variable(s)   | Abscess, furuncle, folliculitis, boil, carbuncle, cellulitis (dermatological symptoms)<br>Recurrence on self or family | MRSA+ vs. MSSA+ lab result (microbiology diagnosis) |
| Independent Variable(s)<br>-Environmental Treatment<br>(Home decontamination vs. usual care)    | Prevention self-efficacy<br>Decision-making autonomy   | Environmental contamination                         |
| Independent Variable<br>-Clinical Treatment<br>(Incision and Drainage vs. Antibiotics vs. Both) | Pain<br>Ability to work<br>Quality of life   | Clinical response to treatment                      |
| Covariates / Confounding Variable(s)  | Illness burden<br>Medication adherence   | Comorbidity<br>Antibiotic Treatment                 |

# Introduction to Conducting Literature Searches using NLM PubMed.gov



PubMed.gov  
US National Library of Medicine  
National Institutes of Health

Search: mrsa

Display Settings: Summary, 2014 page, Sorted by Recently Added

Results: 1 to 20 of 22793

1. [Multidrug-resistant \*Germs in Neurologic and Rehabilitation \(2004-2013\)\*](#)  
Rolinik JD, Samady AM, Gruter L, Rehabilitation (Sturg). 2014 Oct;53(5):346-350. Epub 2014 Oct 15. German. PMID: 25317599 [PubMed - as supplied by publisher]
2. [New Isocoumarin Derivatives and Meroterpenoids from the Marine Sponge-Associated Fungus \*Aspergillus simlanensis\* sp. nov. KUFA 0013](#)  
Prompanya C, Oethoup T, Bessa LJ, Pinto MM, Gales L, Costa PM, Silva AM, Kijjoa A. Mar Drugs. 2014 Oct 14;12(10):5160-5173. PMID: 25317534 [PubMed - as supplied by publisher]
3. [Extraction and Identification of Antibacterial Secondary Metabolites from Marine Streptomyces sp. VITBRK2](#)  
Kajan BM, Kannabiran K. Int J Mol Cell Med. 2014 Summer;3(3):130-7. PMID: 25317399 [PubMed]
4. [Nasal Carriage of Community Acquired Methicillin-resistant \*Staphylococcus Aureus\* in Indian School Children](#)  
Zehra R, Kumar PK, Sridharan KS, Sekar U. Int J Prev Med. 2014 Sep;5(9):1210-1. No abstract available. PMID: 25317337 [PubMed]
5. [Potential risk of cross-infection by \*Isomiriquets\*: a need for effective control practices in Pakistan](#)  
Mehmood Z, Mubeen SM, Alzal MS, Hussain Z. Int J Prev Med. 2014 Sep;5(9):1119-24. PMID: 25317294 [PubMed]
6. [Paediatric bacteraemias in tropical Australia](#)  
Er J, Wallis P, Maloney S, Norton R. J Paediatr Child Health. 2014 Oct 15. doi: 10.1111/jpc.12750. [Epub ahead of print] PMID: 25316255 [PubMed - as supplied by publisher]
7. [Staphylococcus aureus from 152 cases of bovine, ovine and caprine mastitis investigated by Multiple-locus variable number of tandem repeat analysis \(MLVA\)](#)  
Bergonier D, Sobral D, Felber AT, Jacquet E, Gilbert FB, Schwarz S, Treilles M, Boulou P, Pourcel C, Vergnaud G. Vet Res. 2014 Oct 2;45(1):97. [Epub ahead of print] PMID: 25315998 [PubMed - as supplied by publisher]
8. [Anti-biofilm activity and synergism of novel thiazole compounds with glycopeptide antibiotics against multidrug-resistant \*Staphylococci\*](#)  
Mohammad H, Mayhoub AS, Cushman M, Seleem MN. J Antibiot (Tokyo). 2014 Oct 16. doi: 10.1038/ja.2014.142. [Epub ahead of print] PMID: 25315757 [PubMed - as supplied by publisher]
9. [Appropriate vancomycin use in a Malaysian tertiary hospital based on current HICPAC recommendations](#)  
Isahudin F, Ong HY. J Infect Dev Ctries. 2014 Oct 15;8(10):1267-71. doi: 10.3855/jidc.4676. PMID: 25313602 [PubMed - in process] Free Article
10. [Antibiotic-loaded synthetic calcium sulfate beads for the prevention of bacterial colonization and biofilm formation in pericardiothoracic infections](#)  
Howlin RP, Brayford MJ, Webb JS, Cooper JJ, Aiken SS, Stoodley P. Antimicrob Agents Chemother. 2014 Oct 13. pii: AAC.03676-14. [Epub ahead of print] PMID: 25313221 [PubMed - as supplied by publisher]
11. [The Distribution of Pairwise Genetic Distances: A Tool for Investigating Disease Transmission](#)  
Worby CJ, Chang HH, Hanage WP, Lipsitch M. Genetics. 2014 Oct 13. pii: genetics.114.171538. [Epub ahead of print] PMID: 25313129 [PubMed - as supplied by publisher] Free Article
12. [Clinical significance of methicillin-resistant coagulase-negative staphylococci obtained from sterile specimens](#)  
Tashiro M, Izumikawa K, Ashizawa N, Narukawa M, Yamamoto Y.

Related searches: mrsa pneumonia, mrsa bacteremia, mrsa infection, mrsa colonization, mrsa decolonization

PMC images search for mrsa

Titles with your search terms: Antibiotic prophylaxis for the prevention of methicillin [Cochrane Database Syst Rev. 2013], The use of ceftriaxone fosamil in methicillin-resistant *Staphylococci* [J Infect Chemother. 2013], Antistaphylococcal (MSSA, MRSA, MSSSE, MRSE) antibiotics. [Med Clin North Am. 2001]

4760 free full-text articles in PubMed Central: Awareness and Approach towards Hypertension Management [J Clin Diagn Res. 2014], Draft Genome Sequences of *Vancomycin*-Susceptible *Staphylococci* [Genome Announc. 2014], Neutrophil Crawling in Capillaries: A Novel Immune Response to Staph [PLoS Pathog. 2014]

Got a paper in PubMed?

www.pubmed.gov

## *Search www.PubMed.gov*

- *The use of asthma drugs in pregnancy*
  - Type in search box *asthma drugs pregnancy*
- Use MeSH
  - with or w/o subheadings
- Combine using *AND, OR*
- Filters
  - limit to dates of publication, language, age, gender, etc.

# Exercise #5

## Engage other Health Center colleagues in Team formation

Lets make a list of other colleagues that might be interested in joining you  
and contact them this week...

Ideally your team would consist of 4-6 individuals from each Health Center: 1-2 clinicians, 1-2 individuals involved in Health IT/EHR work, 1 health educator, and a patient representative

# Exercise #5

| Role in Study | Role In CHC | Name | Credentials | Email | Phone |
|---------------|-------------|------|-------------|-------|-------|
|               |             |      |             |       |       |
|               |             |      |             |       |       |
|               |             |      |             |       |       |
|               |             |      |             |       |       |
|               |             |      |             |       |       |
|               |             |      |             |       |       |
|               |             |      |             |       |       |

# Homework

- Identify research interests
- Develop testable question
- Complete human subjects protection training (collect certificates)
- Begin literature search on PubMed.gov and compile relevant articles
- Engage team members (use template)

Due date October 4, 2014

Email to Project Coordinator:

[rtaylor@CDNetwork.org](mailto:rtaylor@CDNetwork.org)

## Introduction to Collaborative Community-Based Research

[https://cne.memberclicks.net/index.php?option=com\\_mc&view=mc&mcid=72&eventId=365790](https://cne.memberclicks.net/index.php?option=com_mc&view=mc&mcid=72&eventId=365790)

### Presenter:

Jonathan N. Tobin, PhD, FACE, FAHA

President/CEO, CDN, Co-Director for Community-Engaged Research

The Rockefeller University Center for Clinical and Translational Science (CCTS), Professor, Department of Epidemiology & Population Health, Albert Einstein College of Medicine of Yeshiva University



www.PCORI.org



www.icommunityhealth.org



www.aapcho.org



www.SCPHCA.org



www.accesscommunityhealth.net

# How to Sign Up for CDN ListServ

- Visit: [www.CDNetwork.org](http://www.CDNetwork.org)
- Click on “Join Our Mailing List”
- Fill in your information

OR

Send an email to [eLearning@CDNetwork.org](mailto:eLearning@CDNetwork.org)

# How to Get a CE Certificate

- Fill out SurveyMonkey.org link that launches in the window
- Complete survey
- Send an email to [eLearning@CDNetwork.org](mailto:eLearning@CDNetwork.org) with your name, the title of the session, and the date you completed it

# Upcoming Sessions

| DATE                  | SESSION                                       |
|-----------------------|---|
| 10/21/14, 3:30 PM EDT | 1. Introduction to PCOR                       |
| 11/18/14, 2:00 PM EST | 2. Patient Engagement                         |
| 12/16/14, 3:30 PM EST | 3. Community Engagement                       |
| 1/20/15, 3:30 PM EST  | 4. Measurements and Descriptive Statistics    |
| 2/17/15, 3:30 PM EST  | 5. Sample Size and Sampling Methods           |
| TBD                   | 6. Study Design and Clinical Statistics       |
| 4/21/15, 2:00 PM EDT  | 7. Biostatistics and Univariate Data Analysis |
| 5/19/15, 2:00 PM EDT  | 8. Bioinformatics                             |
| 6/16/15, 2:00 PM EDT  | 9. Research Ethics                            |
| 7/21/15, 2:00 PM EDT  | 10. Grant Writing and Fundraising             |
| 8/18/15, 3:30 PM EDT  | 11. Preparing Budgets and Timelines           |
| 9/15/15, 2:00 PM EDT  | 12. Dissemination and Presentation            |

# Suggested Resources

## Primary Text:

- SB Hulley, SR Cummings et al., *Designing Clinical Research: An Epidemiologic Approach* (NY: Lippincott Williams & Wilkins; 2<sup>nd</sup> Ed. 2001)

## Additional/Supplemental Texts & Resources:

- Leon Gordis *Epidemiology* (Philadelphia PA: Saunders Elsevier, 2009 4<sup>th</sup> Ed)
- N Krieger *Epidemiology for the People* (New York NY: Oxford, 2010)
- RS Greenberg, SR Daniels, WD Flanders, JW Eley, JR Boring III *Medical Epidemiology* (4<sup>th</sup> Ed) (New York NY: Lange/McGraw Hill, 2005)
- RM Merrill *Introduction to Epidemiology* (Boston MA: Jones and Bartlett, 2010, 5<sup>th</sup> Ed)
- Univ of Pittsburgh - Epidemiology Super Course [www.pitt.edu/~super1](http://www.pitt.edu/~super1)
- Univ of North Carolina – Epidemiology eText [www.epidemiolog.net](http://www.epidemiolog.net)
- CDN Clinical Research Training Webcast Library [www.CDNetwork.org](http://www.CDNetwork.org)
- Rockefeller University Center for Clinical and Translational Science Webcast Library [www.CDNetwork.org/Rockefeller](http://www.CDNetwork.org/Rockefeller)

## Application Exercises & Web-based Resources

### Key Concepts

[www.pitt.edu/~super1](http://www.pitt.edu/~super1)  
[www.epidemiolog.net](http://www.epidemiolog.net)

- Use Epidemiologic Vocabulary & Concepts

### NLM - PubMed

[www.ncbi.nlm.nih.gov/pubmed](http://www.ncbi.nlm.nih.gov/pubmed)

- Search, Retrieve, Review  $\geq 1$  study  
in your area using the current design

### CDC - NCHS

[www.cdc.gov/nchs/nhanes.htm](http://www.cdc.gov/nchs/nhanes.htm)  
[www.cdc.gov/nchs/nhis.htm](http://www.cdc.gov/nchs/nhis.htm)

- Identify and explore  $\geq 1$  public data-set  
that measures your primary research interest

### Study Design

[www.pitt.edu/~super1](http://www.pitt.edu/~super1)  
[www.epidemiolog.net](http://www.epidemiolog.net)

- Do try this at home (& at work!)
- FOLLOW YOUR OWN NATURAL HISTORY !**



www.PCORI.org



www.icommunityhealth.org



www.aapcho.org



www.SCPHCA.org



www.accesscommunityhealth.net

www.CDNetwork.org



ABOUT US | RESEARCH | EDUCATION | PARTNERSHIPS | CONTACT US



## Translating Research into Practice

Clinical Directors Network, Inc. (CDN) is a not-for-profit clinician membership organization, practice-based research network (PBRN), and clinician training organization, founded to provide peer-instituted activities for clinicians practicing in low income, minority, and other underserved communities. CDN's overall goal is to translate clinical research into clinical practice for the enhancement of health equity and improvement of public health. [MORE](#)

### Research

CDN was designated a "Best Practice" Clinical Research Network by the NIH (2009).

We accelerate research translation. CDN has over 25 years of experience developing, conducting, implementing and evaluating practice-based research with Community Health Centers and other safety-net practices. [MORE](#)

### Education

CDN is an AHRQ designated Center of Excellence for Primary Care Practice-Based Research and Learning (2012).

We provide peer support through training and education that integrates online and on-site didactic and experiential learning. Collaborate with us to meet your training needs. [MORE](#)

### Partnership

CDN has an extensive network of multidisciplinary researchers, clinicians, clinical leaders and policy-makers.

We conduct research and educational activities in partnership with government, academic, not-for-profit, and for-profit organizations. Our national network represents an enormous resource for change. [MORE](#)

## Upcoming Webcasts

Ebola in NYC: What You Need to Know

Presented By: Fabienne Laroque, MD, MPH, Viral Hepatitis/BCD, NYC DOHMH  
Sponsored By: NY PBRN Virtual Training Series (AHRQ, Grant No. 1 P30-HS-021667)  
Thursday, October 23, 2014 9:30-10:30 AM EDT  
[Click here to register](#)



Webcast Library



Download our eLearning Flyer



www.CDNetwork.org



TRANSLATING RESEARCH INTO PRACTICE™

www.CDNetwork.org

Clinical Directors Network, Inc. (CDN) is dedicated to the continuing training and education of clinicians in Health Centers and other practices serving low-income and minority populations.

**Summer/Fall 2014**

Free CME-Accredited Programs available to everyone via webcast at [www.CDNetwork.org](http://www.CDNetwork.org)  
To register for a live webcast, visit [Upcoming Webcasts](#)  
To view an on-demand webcast, click on [Webcast Library](#) and use our tracks to choose from hundreds of archived webcasts

**SUMMER/FALL 2014 WEBCASTS**

**Ebola in NYC: What You Need to Know**  
Presented By: Fabienne Laroque, MD, MPH, Viral Hepatitis/BCD, NYC DOHMH  
Sponsored By: NY PBRN Virtual Training Series (AHRQ, Grant No. 1 P30-HS-021667)  
Thursday, October 23, 2014, 9:30-10:30 AM EDT

**Taking a History of Sexual Health: Opening the Door to Effective HIV Prevention and Care**  
Presented By: Harvey J. Minkovitz, MD, Director, National LGBT Health Education Center, The Fenway Institute, Fenway Health, Clinical Professor of Medicine, Harvard Medical School  
Sponsored By: NY PBRN Virtual Training Series (AHRQ, Grant No. 1 P30-HS-021667)  
Tuesday, August 12, 2014, 1:00-2:00 PM EDT

**State of the Art: Effective Arterial Management in 5 Minutes or Less**  
Presented By: Sam, Samuel, Ph.D., Director, Patient-Centered Research, Global Health Living Foundation, Ito Kaseo-Miller, MD, University of Alabama, Birmingham  
Sponsored By: Global Health Living Foundation  
Wednesday, September 24, 2014, 3:00-3:00 PM EDT

**RECENT WEBCASTS**

**Glycemia Reduction Approaches in Diabetes: Comparative Effectiveness Study (GRADE): Utilizing Novel Approaches for Recruitment and PCT Engagement in a Comparative Effectiveness Study**  
Presented By: M. Doree McKee, MD, MS, Network Director, Paul Metzner, MPhD, Network Development, and Camilla Luchessa, MS, Network Coordinator, New York City Research Improvement Networking Group (NYC RING)  
Sponsored By: NY PBRN Virtual Training Series (AHRQ, Grant No. 1 P30-HS-021667)

**Research Using EHR and Medical Claims Data: Methodological Challenges and Policy-Relevant Answers**  
Presented By: Rachel Gold, PhD, MPH, Investigator, OCHIN, Research & Innovation, Kaiser Permanente Northwest Center for Health Research  
Sponsored By: NY PBRN Virtual Training Series (AHRQ, Grant No. 1 P30-HS-021667)

**Ending LGBT Invisibility in Health Care: Obtaining Data on Sexual Orientation and Gender Identity in Clinical Settings**  
Presented By: Harvey J. Minkovitz, MD, Director, National LGBT Health Education Center, The Fenway Institute, Fenway Health, and Clinical Professor of Medicine, Harvard Medical School  
Sponsored By: NY PBRN Virtual Training Series (AHRQ, Grant No. 1 P30-HS-021667)

**Medical-Legal Partnership: Integrating Lawyers into the Healthcare Team to Address the Social Determinants of Health**  
Presented By: Gillian London, Esq., Lead Research Scientist, Co-Principal Investigator, National Center for Medical-Legal Partnership at GW Milken Institute School of Public Health, Bethany Hamilton, Esq., Community Healthways Program Officer, National Association of Community Health Centers, Martha Ragsdale, PhD, Professor, Department of Health Policy, Milken Institute School of Public Health at George Washington University, Director of Research & Evaluation, National Center for Medical-Legal Partnership  
Sponsored By: National Center for Medical-Legal Partnership at GW Milken Institute School of Public Health

**THE ROCKEFELLER UNIVERSITY CENTER FOR CLINICAL AND TRANSLATIONAL SCIENCE (CCTS) WEBCAST SERIES**

**Diet Versus Bariatric Surgery in Obesity And Type 2 Diabetes Treatment**  
Presented By: Ana Emiliano, MD, Instructor in Clinical Investigation, The Rockefeller University

**Understanding the Research Participant's Experience: Outcome Measures to Improve Clinical Research**  
Presented By: Rhonda G. Kent, MD, Clinical Research Officer, The Rockefeller University Center for Clinical and Translational Science (CCTS)

Visit [www.CDNetwork.org/Rockefeller](http://www.CDNetwork.org/Rockefeller). Funded by The National Institutes of Health - National Center for Advancing Translational Sciences (NCATS) Grant #5U01HL128004-01 & by a 2013 CTA Administrative Supplement Award. Contents are solely the responsibility of the authors and do not necessarily represent the official view of NIH or NCATS.

CDC can help you disseminate your research, conduct your own webcast training, and provide Continuing Education accreditation. Call us at (212) 382-8699 x 742.

**WEBCAST SERIES**

**The Rockefeller University Center for Clinical and Translational Science (CCTS) Series**  
[www.rockefeller.edu/ccts/communityengagement](http://www.rockefeller.edu/ccts/communityengagement)  
[www.CDNetwork.org/Rockefeller](http://www.CDNetwork.org/Rockefeller)

**AIDS Education and Training Center National Multicultural Center**  
Howard University College of Medicine  
[www.CDNetwork.org/ATCCMC](http://www.CDNetwork.org/ATCCMC)

**BCRN Community Health Foundation Webcast Series**  
Hospital Community Benefit Obligations: Implications for Centers and Communities  
[www.bcrnwebcast.org](http://www.bcrnwebcast.org)  
[www.CDNetwork.org/BCRN](http://www.CDNetwork.org/BCRN)

**National Association of Community Health Centers (NACHC) Risk Management Series**  
[www.NACHC.com](http://www.NACHC.com)  
[www.CDNetwork.org/NACHC](http://www.CDNetwork.org/NACHC)

**Health Care Acquired Infection (HCAI) Prevention Training & Collaborative Surgical Centers (ASC) & Train-the-Trainer Workshop**  
[www.CDNetwork.org/HCAI](http://www.CDNetwork.org/HCAI)

**NY PBRN VIRTUAL TRAINING SERIES**  
Funded by the Agency for Healthcare Research and Quality (AHRQ), Grant No. 1 P30-HS-021667

**Relevant Active Vibrant Elders (RAVE): A Community-Engaged Approach to Designing Health Programming for Urban Elders of Color**  
Featured PBRN: Center for Community Health Education Research and Service  
[Preparing for Meaningful Use Stage 2](#)  
Featured PBRN: Alliance of Chicago Community Health Services

**Young African American Men and HIV: An Interactive Response to a Community Health Issue**  
Featured PBRN: Access Community Health Network, Chicago, IL

**Community Research Participation Criteria for Community Health Centers**  
Featured PBRN: Association of Asian Pacific Community Health Organizations

**An Update on Community-Based HIV Prevention Research & Applications**  
Featured PBRN: The Fenway Institute, Boston, MA

**Integrating Patient Reported Outcomes into Clinical Care: HIV as a Case Study**  
Featured PBRN: The Fenway Institute, Boston, MA

**The Bronx Ongoing Pediatric Screening (BOPS) Initiative: Lessons Learned from a Large Scale Initiative to Enhance Screening in Urban Primary Care**  
Featured PBRN: New York City Research and Improvement Group (NYC RING)

**The Research Potential of an EHR-Based Network: Lessons from the OCHIN PBRN**  
Featured PBRN: OCHIN, Portland, Oregon

**Data Management Through the Project Life Cycle**  
Featured PBRN: The Community Health Applied Research Network (CHARN) - Central Data Management and Coordinating Center (CDMCC)

**Using Your EHR to Facilitate Patient-Centered Medical Home**  
Featured PBRN: Alliance of Chicago Community Health Services

5 West 37th St, 10th Fl., New York, NY 10018 USA • Tel: 212-382-8699 ext. 242 • Fax: 212-382-8660  
elearning@CDNetwork.org www.CDNetwork.org



www.PCORI.org



www.icommunityhealth.org



www.aapcho.org



www.SCPHCA.org



www.accesscommunityhealth.net






## Research Training Catalog

Online Training Resources for Federally Qualified Health Centers

[Main](#) | [Getting Started](#) | [Partnership Development](#) | [Asking the Right Question](#) | [Study Design](#) | [Implementation](#) | [Dissemination](#)

SEARCH

Search & Hit Enter

FOLLOW US!

[f](#) [t](#) [y](#)

ARCHIVES

May 2012  
March 2012  
February 2012

### About

Increasingly, Federally-Qualified Health Centers (FQHCs) are engaging in research as a way to achieve higher standards of care, narrow disparities, and improve community health, and many FQHCs are interested in increasing their capacity to conduct community-based research, including Community-Based Participatory Research (CBPR).

CBPR is a collaborative approach to research that engages community stakeholders as equal partners in all phases of the research process. CBPR enables unique partnerships that share interests, resources, and knowledge. Given their community setting, governance and local ownership, FQHCs are uniquely positioned to participate in CBPR. To facilitate FQHC involvement in research including CBPR, this website provides training resources to help FQHCs build the skills needed design, implement, analyze, publish and disseminate research with their community stakeholders.

Both individuals and groups of co-workers at FQHCs can use these resources to build a free, on-demand training program for their team. The website is organized into a series of categories that have several resources which cover a range of topics and stages of engagement, ranging from basic introductory modules to more advanced modules. Resources also vary in length and format. For example, journal articles may only take 10 minutes to read, while webinars/webcasts and online courses may take several hours to complete. Many of these resources also count towards Continuing Education (CE) Credits (users need to confirm that CE credits are still available).

Please feel free to email (or call) Michelle Proser, MPP at [MProser@nachc.org](mailto:MProser@nachc.org) (t: 202-331-4609), Peter Shin, PhD at [PShin@gwu.edu](mailto:PShin@gwu.edu) (t: 202-994-4144) or Jonathan N. Tobin, PhD at [JNTobin@CDNetwork.org](mailto:JNTobin@CDNetwork.org) (t: 212-382-0699 x234) with your feedback, questions, technical assistance, or to suggest both additional resources you have identified or ones you would like to see added in the future to this Research Training Website. We anticipate adding new resources, as well as hosting feedback from users in the future.

FILTER BY LEVEL

All Levels  
Basic  
Intermediate  
Advanced

CE CREDIT

Resources with CE Credit

For additional information, please email:

## CDN

- Jonathan N. Tobin, PhD – [JNTobin@CDNetwork.org](mailto:JNTobin@CDNetwork.org)
- Maria Dziok, PhD – [MDziok@CDNetwork.org](mailto:MDziok@CDNetwork.org)
- Rachel Tayler, MSc – [RTayler@CDNetwork.org](mailto:RTayler@CDNetwork.org)

## NACHC

- Michelle Proser, MPP – [MProser@NACHC.org](mailto:MProser@NACHC.org)
- Michelle Jester, MA – [MJester@NACHC.org](mailto:MJester@NACHC.org)



[www.CDNetwork.org](http://www.CDNetwork.org)  
[www.eClinician.org](http://www.eClinician.org)



www.PCORI.org



www.icommunityhealth.org



www.aapcho.org



www.SCPHCA.org



www.accesscommunityhealth.net