

# Exploring a Western Family Medicine Practice-Based Research Network

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with thanks to Tom Freeman, Amanda Terry & Craig Mara

# Faculty / Presenter Disclosure

Presenter: Dr. Sonny Cejic

Relationships with commercial interests:

- **Grants/Research Support: N/A**
- **Speakers Bureau/Honoraria: N/A**
- **Consulting Fees: N/A**
- **Other: N/A**

# Disclosure of Commercial Support

This program has not received financial support from outside organizations.

This program has not received in-kind support from outside organizations.

## Potential for conflict(s) of interest:

- Planning Committee member Dr. Eric Wong has the following relationships:
  - Bayer – Honoraria and Advisory Board member
  - CPSO – Assessor
  - Touchstone Institute – Academic Consultant and Teacher
  - Thames Valley Family Health Team – Medical Director

# Mitigating Potential Bias

Conflicts of interests declared by our speakers are reviewed prior to each faculty development session and content revisions are recommended if necessary.

# Objectives

At the conclusion of this activity, participants will be:

- able to define what constitutes a Practice-Based Research Network
- able to identify the need for a Department of Family Medicine Practice-Based Research Network

# Agenda

- PBRN Overview
- Example of PBRNs
- Poll & Group Questions
- General Questions

# Why a PBRN?

## PBRN Listed Under Research – Strategic Map

- PBRN Listed Under Research of Strategic Map
  - Establish and utilize a practice-based research network, (PBRN), within the Department to facilitate research and quality improvement that is close to practice.

# PBRN Meetings

- May 1, 2019 – Amanda Terry, Tom Freeman, Saadia Jan, Anna Pawelec-Brzychczy, Bridget Ryan, Cathy Thorpe, Sonny Cejic
- Feb 26, 2020 – Joint PBRN group (above) & Delphi members meet



# What are PBRNs – Agency for Healthcare Research and Quality (AHRQ)

## Practice-Based Research Networks

- Groups of primary care clinicians working together to answer community-based health care questions and translate research findings into practice.
- PBRNs link practicing clinicians with investigators experienced in health services research to study processes of care, service delivery, diagnosis, treatment and chronic conditions managed in a "real world" setting.

<https://www.ahrq.gov/research/findings/factsheets/primary/pbrn/index.html>

# Example Structure of PBRNs


Practice Based Research Network Infrastructure	
Component	Common examples
Minimum of 15 ambulatory practices and/or 15 primary care clinicians	Membership roster, list of practices
A formal statement of the PBRN's purpose and mission	Mission statement, vision, strategic plan
Leadership who oversee administrative, financial and strategic planning	PBRN director, research director
At least one support staff	PBRN coordinator, deputy director, research assistants
A mechanism for soliciting input and feedback from the PBRN clinicians and their communities	Board, advisory council, patient advisory board
Organizational structure independent of any single study	Core funding from department or other non-study source
2-way communication with providers	Annual convocation, emails, newsletters, practice site visits
Research and/or quality improvement infrastructure	Institutional review board, statistician, data management

Figure 1. Table of The Components of a PBRN. Adapted from Practice-Based Research Networks: Strategic Opportunities to Advance Implementation Research For Health Equity by Westfall et al, retrieved from <https://www.ncbi.nlm.nih.gov/pubmed> Copyright 2019 Westfall et al

# Reasons for Practice-Based Research

- Guidelines often don't translate into the world of practice
- Clinical trials with necessary inclusion/exclusion criteria may not reflect typical practice
- PBRNs: a) identify problems in everyday practice; b) demonstrate whether treatments of proven efficacy are truly effective; c) provide the laboratory for testing system improvements in practice

# PBRNs - Interface

- PBRNs as the interface between research and practice; between discovery and quality improvement
- Research  Practice

# PBRN- Necessary Elements

- Clinicians willing to share practice data, information and knowledge in defining relevant researchable questions
- Researchable database
- Process for asking and prioritizing research questions
- Capability to analyze data; interpret results
- Dissemination of findings

# Ontario PBRNs

- MUSIC – McMaster University Sentinel and Information Collaboration
- UTOPIAN - University of Toronto PBRN (1700 PCP within 14 academic sites)
- OPEN – Ottawa Practice Enhancement Network
- EON – Eastern Ontario Network (Kingston 150 PCP within 14 clinics)
- NORTHH - Northern Ontario School of Medicine Research Toward Health Hub
- DELPHI – Southwestern Ontario

# DELPHI

Deliver Primary Healthcare Information (DELPHI) research project - 2005

Co-led by Amanda Terry and Bridget Ryan

Researchable database - de-identified EMR data, 60 family physicians from 18 practice sites, 64,377 patients and over 1.9 million patient-practitioner encounters

- Health services research questions (referrals)
- Questions of clinical interest (the presence and natural history of symptoms and conditions among patients)
- Care delivery questions (use of EMRs in clinical practice)
- Methodologic studies (development of new techniques of EMR data analysis, the creation of risk prediction models, and the assessment of EMR data quality).

# MUSIC PBRN

- McMaster University Sentinel and Information Collaboration
- Project Investigator – Dee Mangin (MD, Prof, Associate Chair & Director of Research)



# MUSIC PBRN

- Started small and increased extracted data from multiple EMRs (used passive consent from patients)
- For primary care clinicians (pcc) – questions must be of importance to pcc and academics contributing time as well
- Answers need to be used the next day in practice
- Decline requests from secondary projects not from pcc
- PBRN should not add significant administration to pcc
- MUSIC PBRN funded initial by departmental infrastructure as research for pcc

# MUSIC PBRN examples

- Antibiotic resistance in UTI
  - From Guidelines - Resistance to trimethoprim reached 20% level so first line recommendations were changed
  - PBRN data did not see that failure rate in their clinical practices
    - Resistance was only 8.5%
  - Conclusion was that trimethoprim was a reasonable first line choice for their practices for uncomplicated UTIs

# Other potential questions:

- Lifetime drug starts that should be re-evaluated by seldom do such as:
  - Bisphosphonates
  - PPI
  - antidepressants

# Questions

# 2 Poll Questions

Q1: I would be willing to participate in a PBRN

Q2: I would be willing to share my practice data with our PBRN

# Group Questions

Breakout Room 1: What roles do you see as a necessity for our PBRN to function effectively?

Rm 2: What are the barriers to sharing data with our PBRN?

Rm 3: What are the barriers to forming a PBRN for our department?

~~Rm 4: What should we name our PBRN? (needs to be better than Utopian – ie Pie-In-The-Sky, Paradise, Perfect)~~

# Questions & Next Steps

# Thanks