Practice-Based Research Networks: Laboratories for Primary Care Research

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PBRNs

Definition:
“A group of ambulatory practices devoted principally to the primary care of patients, and affiliated in their mission to investigate questions related to community-based practice and to improve the quality of care.”

AHRQ
PBRNs

• Basic laboratories for primary care research

• Requirements for a PBRN (AHRQ):
  – Organizational structure that transcends individual studies with mission statement
  – >15 practices or clinicians with >50% members in primary care in US.
  – Director (0.2 - 0.5 FTE) with > one support staff
  – Mechanism to solicit advice and feedback from community
  – Process for regular communication with members
AHRQ PBRN Registry (2012)

136 PBRNs (85% primary care)

• 11,500 practices (median 34)
• 44,800 members (median 100 MDs, range 15 - 1,760)
• 48 million patients (50 states)
Characteristics of PBRNs

- National (15%), state (29%), regional (28%), local (28%)
- Mixed (44%), family medicine (35%), pediatrics (13%), internal medicine (5%), APN (3%)
- 75% university affiliated
- 70% used EMR for research
- 73% collaborated with another PBRN
- 1 in 7 “bottom-up,” 1 in 25 “top-down”

Figure. “Blue Highways” on the NIH Roadmap The current National Institutes of Health (NIH) Roadmap for Medical Research includes 2 major research laboratories (bench and bedside) and 2 translational steps (T1 and T2).

Advantages of PBRN Research

• Research is relevant to practice
• Common problems can be studied
• Increased external validity
• Unit of intervention can be the practice
• Efficient patient accrual from community
• D and I Research
  – Qualitative Research:
    • What is current practice?
    • What are barriers to EB care?
  – Intervention Studies:
    • Quasi-experimental design
    • RCTs
Challenges for PBRN Research

• Funding (CTSA)
• Federal and local requirements for protection of human subjects
• Study implementation
  – Competing demands
  – Training
  – Monitoring quality and progress
  – Sustaining recruitment
Keys to working with PBRNs

• Study question is relevant to primary care
• Have a PCP on study team
• Identify incentives to participate. Win/win
  – MOC Part-IV credit
• KEEP IT SIMPLE So it’s feasible in a busy office
• When possible, you do the extra work
• Feedback of practice data if possible
A pilot study: reducing asthma morbidity in children

<table>
<thead>
<tr>
<th>Intervention (EB)</th>
<th>Peer coaching for childhood asthma delivered by phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation Strategy (EB)</td>
<td>3-component model at system level</td>
</tr>
<tr>
<td>Implementation Outcomes</td>
<td>Feasibility, acceptability, fidelity, costs</td>
</tr>
<tr>
<td>Patient outcomes</td>
<td>Medication adherence, parenting skills, asthma visits/year</td>
</tr>
<tr>
<td></td>
<td>Asthma control, QOL, exacerbations</td>
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</tbody>
</table>
Thank You
Clinical and Translational Science Roadmap

- Basic Biomedical Science
  - T1 and T2
    - Proof of concept, Efficacy trials
- New Treatments, Tests
  - T3
    - Effectiveness, CER, cost
- Effective in Clinical Practice
  - T4
    - D and I Research
- Improved Population Health

PBRNs
NIH Roadmap

• 14% of research findings $\rightarrow$ care
• Mean time to clinical practice, 17 years

(Balas, EA, 2000)

• Most research done in academic medical centers that provide care to <1% of population
• Research often not relevant to practice
• Common clinical problems not studied
WU PAARC Practices

Last updated 9/30/2010