Pragmatic Approaches for Dissemination and Implementation (D&I) Research to Enhance Population Impact

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Acknowledgements and Conflicts of Interest

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Overview

• Why do we need pragmatic D&I research?
• How are pragmatic research and designs different from ‘research as usual’?
• Examples:
  ✓ Pragmatic models
  ✓ Pragmatic methods
  ✓ Pragmatic measures
• Tools and Resources
• Conclusions, discussion; Q & A
Need for Pragmatic D&I Research

Usual Research is Slow

• Traditional RCTs are slow and expensive
• Most common reason for non-adoption...research not seen as relevant
• Rarely produce findings that are easily put into practice

It takes an average of 17 years before 14% of research findings lead to widespread changes in care.
Need for Pragmatic D&I Research

- Traditional RCTs study the effectiveness of treatments delivered to carefully selected populations under ideal conditions.
- Even when we do implement a tested intervention into everyday clinical practice, we often see a “voltage drop”... a dramatic decrease in effectiveness.

"If we want more evidence-based practice, we need more practice-based evidence."

Green LW
Am J Pub Health 2006

Rothwell PM. External validity of randomised controlled trials...Lancet 2005;365:82-93.
“The significant problems we face cannot be solved by the same level of thinking that created them.”

Albert Einstein
A Big Tent of D&I Science Terms (and ovals)

Health (and Community) Services

Health Services Research

Dissemination Research

Health Communication Research

Implementation Research

Quality Improvement Science

Implementation Science

Pragmatic Research

Adapted from Mitchell S, Chambers, D. https://doi.org/10.1200/JOP. 2017.024729;
A Different Approach: Pragmatic Research for Population Health

Explanatory (Efficacy) trial: Specialized experiment in a specialized population

Pragmatic trial: Real-world test in a real-world population

Pragmatic designs emphasize:

- Participation or reach
- Adoption by diverse settings
- Ease of Implementation
- Maintenance

Generalizability


# Key Differences Between Traditional RCTs and Pragmatic Controlled Trials (PCTs)

<table>
<thead>
<tr>
<th></th>
<th>A traditional RCT tests a hypothesis under ideal conditions</th>
<th>A PCT compares treatments under everyday clinical conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOALS</strong></td>
<td>To determine causes and effects of treatment</td>
<td>To improve practice and inform clinical and policy decisions</td>
</tr>
<tr>
<td><strong>DESIGN</strong></td>
<td>Tests the intervention against placebo using rigid study protocols and minimal variation</td>
<td><em>Tests two or more real-world using flexible protocols &amp; local customization</em></td>
</tr>
<tr>
<td><strong>PARTICIPANTS</strong></td>
<td>Highly defined and carefully selected</td>
<td>More representative because eligibility criteria are less strict</td>
</tr>
<tr>
<td><strong>MEASURES</strong></td>
<td>Require data collection outside routine clinical care</td>
<td>Brief and designed so data can be easily collected in clinical settings</td>
</tr>
<tr>
<td><strong>RESULTS</strong></td>
<td>Rarely relevant to everyday practice</td>
<td>Useful in everyday practice, especially clinical decision-making</td>
</tr>
</tbody>
</table>
Pragmatic D&I Models: RE-AIM
Other D&I Models

91 Frameworks: http://dissemination-implementation.org/index.aspx

Most Common at NIH: RE-AIM and DOI (now also CFIR)

Many commonalities across models and theories
## Pragmatic Use of RE-AIM for D&I

<table>
<thead>
<tr>
<th>RE-AIM Dimension</th>
<th>Key Pragmatic Questions to Consider and Answer for Population Health Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach</td>
<td>WHO is (was) intended to benefit and who actually participates or is exposed to the intervention?</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>WHAT is (was) the most important benefits you are trying to achieve and what is (was) the likelihood of negative outcomes?</td>
</tr>
<tr>
<td>Adoption</td>
<td>WHERE is (was) the program or policy applied and WHO applied it?</td>
</tr>
<tr>
<td>Implementation</td>
<td>HOW consistently is (was) the program or policy delivered, HOW will (was) it be adapted, HOW much will (did) it cost, and WHY will (did) the results come about?</td>
</tr>
<tr>
<td>Maintenance</td>
<td>WHEN will (was) the initiative become operational; how long will (was) it be sustained (Setting level); and how long are the results sustained (Individual level)?</td>
</tr>
</tbody>
</table>

Glasgow R and Estabrooks P. *Preventing Chronic Disease*, 2018: Jan 4;15:E02. doi: 10.5888/pcd15.170271
Why Is This Important for Population Health? Impact of Loss at Each RE-AIM Step

Example of Translation of Interventions into Practice

<table>
<thead>
<tr>
<th>Dissemination Step</th>
<th>RE-AIM Concept</th>
<th>% Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% of clinics use intervention</td>
<td>Adoption</td>
<td>50.0%</td>
</tr>
<tr>
<td>50% of clinicians/staff take part</td>
<td>Adoption</td>
<td>25.0%</td>
</tr>
<tr>
<td>50% of patients identified accept</td>
<td>Reach</td>
<td>12.5%</td>
</tr>
<tr>
<td>50% follow regimen correctly</td>
<td>Implementation</td>
<td>6.2%</td>
</tr>
<tr>
<td>50% benefit from the intervention</td>
<td>Effectiveness</td>
<td>3.2%</td>
</tr>
<tr>
<td>50% continue to benefit after 6 months</td>
<td>Maintenance</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

www.re-aim.org
<table>
<thead>
<tr>
<th>Dissemination Step</th>
<th>Concept</th>
<th>% Impacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.8% of weight management sites participated</td>
<td>Adoption</td>
<td>8.80%</td>
</tr>
<tr>
<td>5.9% of members participated</td>
<td>Reach</td>
<td>0.52%</td>
</tr>
<tr>
<td>91.4% program components implemented</td>
<td>Implementation</td>
<td>0.47%</td>
</tr>
<tr>
<td>43.8% of participants showed weight loss</td>
<td>Effectiveness</td>
<td>0.21%</td>
</tr>
<tr>
<td>21.2% individuals maintained benefit (individual)</td>
<td>Maintenance</td>
<td>0.04%</td>
</tr>
</tbody>
</table>

Abildso CG, Zizzi SJ, Reger-Nash B. *Prev Chronic Dis* 2010 May;7(3):A46
Moral of this Story?

• All steps or phases in translation are important and provide opportunities to improve population health

• It is about the DENOMINATOR
Evolution of RE-AIM

- Reviews documenting use over time
- Applicability to many different content areas - over 300 articles
- Used for both planning and evaluation
- Underreporting of key components
- Setting level factors reported much less often (e.g., adoption)
- Maintenance (sustainability) reported least often

Harden, S. et al Fidelity to and comparative results... through the RE-AIM framework. *Systematic Reviews*, Nov 8;4:155.

RE-AIM Summary Points

• RE-AIM is an outcomes framework that can be used for planning and evaluation at T2-T4 research stages
• Each RE-AIM dimension is an opportunity for intervention
• RE-AIM can be used for observational, efficacy, effectiveness, and D&I science projects
• All dimensions can be addressed within a given study (though likely not all intervened upon)
• Methods exist to combine and summarize RE-AIM outcomes
All Models (and methods) are Wrong...
Some are useful

“To every complex question, there is a simple answer… and it is wrong.”

~H. L. Mencken
Pragmatic D&I Design Issues

KEEP CALM AND BE PRAGMATIC
Pragmatic Experimental Designs for D&I Research

- Individual RCT
- Cluster randomized RCT
- Natural experiment
- Stepped wedge
- Preference design
PCTs: Fewer Exclusions Allow for a Broader Subset of Settings, Staff, and Participants

- **Eligible population, settings and staff**
- **Exclusions, non-response, etc.**
- **Efficacy, among a defined subset**

- **Eligible population, settings and staff**
- **Exclusions, non-response, etc.**
- **Effectiveness, in a broad subset**

Figure provided by Gloria Coronado, PhD, Kaiser Permanente Center for Health Research
The Pragmatic-Explanatory Continuum Indicator Summary (PRECIS) Planning Tool

• How pragmatic is your study?
• Not all or none (no completely pragmatic study)
• Tool to help in planning and reporting (see next slide)


The 5 Rs to Enhance Pragmatism and Likelihood of Translation

Research that is:

- Relevant
- Rapid and Recursive
- Redefines Rigor
- Reports Resources Required
- Replicable


Reporting Resources Required

• Reporting on cost and other resources in a standardized manner is useful in:
  ✓ Demonstrating value
  ✓ Promoting rigor, transparency and relevance to stakeholders

• Present from perspective of multiple stakeholders and decision makers

• Simple is fine – sophisticated economic analyses are not needed
  ✓ Report costs of conducting or replicating interventions
  ✓ Beyond money, costs can include clinician and staff time, training, infrastructure, startup costs, opportunity costs

EXAMPLE PRAGMATIC D&I STUDY: My Own Health Report (MOHR) Study

Cluster randomized pragmatic trial of web-based, brief health behavior and mental health assessment and intervention in nine diverse pairs of primary care practices to test whether they could implement My Own Health Report (MOHR).

Outcomes included:

- **Reach** of the MOHR program across patients
- Whether practices would **adopt** MOHR
- How practices would **implement** MOHR
- **Effectiveness** of the MOHR program


Basic patient and clinician goal advice

Electronic or paper goal setting

<table>
<thead>
<tr>
<th>Health Behaviors and Mental Health</th>
<th>Recommended Score</th>
<th>Your Score</th>
<th>Level of Concern</th>
<th>Ready to Change?</th>
<th>Want to Discuss?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Health Rating</td>
<td>Good to Excellent</td>
<td>Poor</td>
<td>A Lot</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reason: I am working too hard at my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Mass Index</td>
<td>20-25</td>
<td>27.7</td>
<td>Some</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Behaviors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruit/Vegetable Intake</td>
<td>5+/day</td>
<td>Less than 2/day</td>
<td>A Lot</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fast Food Intake</td>
<td>Less than 1 time/week</td>
<td>1-3 times/week</td>
<td>Some</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Soda/Sugary Beverage Intake</td>
<td>Less than 1/day</td>
<td>1 to 2/day</td>
<td>Some</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Activity Participation</td>
<td>150+ minutes/week</td>
<td>175 minutes/week</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep</td>
<td>Never/rarely sleepy</td>
<td>Often sleepy</td>
<td>Some</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol Intake</td>
<td>Never</td>
<td>Never</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco use</td>
<td>No</td>
<td>Yes</td>
<td>A Lot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illegal Drug/Prescription Use</td>
<td>Never misuse</td>
<td>Never misused</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td>Less than 5</td>
<td>8</td>
<td>A Lot</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Anxiety/Worry</td>
<td>Not at all/rarely</td>
<td>Not at all/rarely</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>Not at all/rarely</td>
<td>Not at all/rarely</td>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = Most important to you
Adoption

18 practices agreed to adopt MOHR

- 30 practices approached (adoption 60%)
- 7 of 9 sites recruited, first practices approached
  - Decliners were doing other studies, worries about workload, or doing HRAs
- Participating practices represented a diverse spectrum of primary care
Overall **Reach**
1768 of 3591 patients (49.2%)

**Mailed (patient complete)**
- Site 1: 100 of 344 (29.1%)
- Site 3: 11 of 420 (2.6%)
- Site 4: 138 of 444 (31.3%)
- Site 5: 115 of 248 (46.4%)

**Phone (nurse complete)**
- Site 3: 291 of 453 (64.2%)

**Lobby (patient + MD complete)**
- Site 2: 192 of 437 (43.9%)

**Lobby (MA or coordinator)**
- Site 6: 265 of 287 (92.3%)
- Site 7: 211 of 306 (69.0%)
- Site 8: 247 of 323 (76.5%)
- Site 9: 198 of 329 (60.2%)
Implementation

Practices used four main implementation strategies:

- Web at home (n=3), called patients (n=1), completed in office on paper (n=1) or electronically in office (n=4)
- 4 asked patients and 5 asked staff to complete MOHR with patients
- 8 needed research team or health systems help
- 8 asked clinicians to counsel patients, 4 had some follow-up, 1 had no counseling or follow-up

Delivery of MOHR took 28 minutes (16-31), including assessment and feedback
Effectiveness:
Did anyone help you set a goal?

<table>
<thead>
<tr>
<th>Topics</th>
<th>% Yes</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intervention</td>
<td>Control</td>
</tr>
<tr>
<td>Eating/Diet</td>
<td>51.7</td>
<td>34.1</td>
</tr>
<tr>
<td>Physical Activity/Exercise</td>
<td>49.5</td>
<td>37.9</td>
</tr>
<tr>
<td>Tobacco/Smoking</td>
<td>22.6</td>
<td>19.7</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>17.1</td>
<td>13.1</td>
</tr>
<tr>
<td>Drug Use</td>
<td>13.5</td>
<td>11.4</td>
</tr>
<tr>
<td>Stress Level</td>
<td>31.2</td>
<td>22.2</td>
</tr>
<tr>
<td>Anxiety/Depression</td>
<td>32.1</td>
<td>23.1</td>
</tr>
<tr>
<td>Sleep</td>
<td>29.6</td>
<td>24.4</td>
</tr>
</tbody>
</table>
**Effectiveness:**
Have you made any positive changes?

<table>
<thead>
<tr>
<th>Topics</th>
<th>% Yes</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intervention</td>
<td>Control</td>
</tr>
<tr>
<td>Eating/Diet</td>
<td>62.9</td>
<td>49.9</td>
</tr>
<tr>
<td>Physical Activity/Exercise</td>
<td>55.1</td>
<td>48.2</td>
</tr>
<tr>
<td>Tobacco/Smoking</td>
<td>17.3</td>
<td>16.6</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>15.2</td>
<td>14</td>
</tr>
<tr>
<td>Drug Use</td>
<td>11.5</td>
<td>11.2</td>
</tr>
<tr>
<td>Stress Level</td>
<td>31.2</td>
<td>25.1</td>
</tr>
<tr>
<td>Anxiety/Depression</td>
<td>29.2</td>
<td>24.6</td>
</tr>
<tr>
<td>Sleep</td>
<td>30.2</td>
<td>24.4</td>
</tr>
</tbody>
</table>
## Pragmatic Features of MOHR (ala 5Rs)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant</td>
<td>Diverse, real-world primary care settings, and staff who do all the interventions</td>
</tr>
<tr>
<td>Rigorous</td>
<td>Cluster randomized, delayed intervention design</td>
</tr>
<tr>
<td>Rapid</td>
<td>One year from concept, planning, and execution, low cost, and cost informative</td>
</tr>
<tr>
<td>Resources</td>
<td>Low cost; studying costs and cost-effectiveness under different delivery conditions</td>
</tr>
<tr>
<td>Reported</td>
<td>Report on adaptations, failures, lessons learned</td>
</tr>
</tbody>
</table>
Moral of this Example?

Success demands tailoring and customization at the levels of:

☑ Patient
☑ Clinician
☑ Setting

Future Directions: Contribute to patient centered behavioral data for precision health that are not available currently, adding in social determinants of health; and customizing to diverse settings
IF AN INTERVENTION WORKS

AND NOBODY CAN USE IT.....

DOES IT STILL MAKE AN IMPACT?
Pragmatic D&I Research Design Questions and Comments
D&I Outcomes and Measures
## Types of Outcomes in Implementation Research (Proctor, et al., 2010)

**Implementation Outcomes**
- Acceptability
- Adoption
- Appropriateness
- Costs
- Feasibility
- Fidelity
- Penetration
- Sustainability

**Service Outcomes**
- Efficiency
- Safety
- Effectiveness
- Equity
- Patient centeredness
- Timeliness

**Client Outcomes**
- Satisfaction
- Function
- Symptoms

Pragmatic Measures

1. Required Criteria
   - Important to stakeholders
   - Brief, Burden is low to moderate
   - Broadly applicable, has norms to interpret
   - Sensitive to change

2. Additional Criteria
   - Actionable
   - Low probability of harm
   - Addresses public health goal(s)
   - Related to theory or model
   - “Maps” to “gold standard” metric or measure

## Pragmatic EHR Measures for Primary Care

<table>
<thead>
<tr>
<th>Domain</th>
<th>Final Measure (Source)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overall Health Status</td>
<td>1 item: BRFSS Questionnaire</td>
</tr>
<tr>
<td>7. Smoking/Tobacco Use</td>
<td>2 items: Tobacco Use Screener [Adapted from YRBSS Questionnaire]</td>
</tr>
<tr>
<td>10. Demographics</td>
<td>9 items: Sex, date of birth, race, ethnicity, English fluency, occupation, household income, marital status, education, address, insurance status, veteran’s status. Multiple sources including: Census Bureau, IOM, and <em>National Health Interview Survey (NHIS)</em></td>
</tr>
</tbody>
</table>
Evidence-Based...on what?
External Validity and Pragmatic Criteria Are Often Ignored

- Participant **Representativeness**
- **Setting** Representativeness
- **Context** and Setting
- Community/Setting Engagement
- **Adaptation/Change**
- **Sustainability**
- **Costs/Feasibility** of Treatment
- Comparison Conditions
Enrollment

Assessed for eligibility (n= )

Randomized (n= )

Excluded (n= )
  " Not meeting inclusion criteria (n= )
  " Declined to participate (n= )
  " Other reasons (n= )

Allocated to intervention (n= )
  " Received allocated intervention (n= )
  " Did not receive allocated intervention (why?) (n= )

Lost to follow-up (give reasons) (n= )
Discontinued intervention (why?) (n= )

Allocated to intervention (n= )
  " Received allocated intervention (n= )
  " Did not receive allocated intervention (give reasons) (n= )

Lost to follow-up (give reasons) (n= )
Discontinued intervention (give reasons) (n= )

Analysed (n= )
  " Excluded from analysis (give reasons) (n= )
Adoption: Setting and Staff Issues

1. Setting Level Adoption Factor Settings
   a. Which settings are invited/excluded
   b. Participation rate
   c. Which sites participate and how representative
   d. Reasons for participating/declining

2. Staff Level Adoption Factors
   a. Who is invited/excluded
   b. Participation rate
   c. Who participates and how representative are they
   d. Reasons for participating/declining
Expanded CONSORT Diagram

Total number of potential settings (n)

- Settings eligible (n, %)
- Excluded by investigator (n, %, reasons)

- Settings and agents who participate (n, %)
- Settings and agents who decline (n, %)
- Other (n, %)

- Staff who participate (n, %)
- Staff who decline (n, %)
- Other (n, %)

Total potential participants (n)

- Individuals eligible (n, %)
- Excluded by investigator (n, %)
- Not contacted/Other (n, %)

https://goo.gl/xLWid7
Why is it Important to Use the Expanded CONSORT? (or similar reporting approach)

- To enhance transparency and indicate generalizability factors
- To increase the frequency and quality of external validity reporting
- To address the replication failure crisis
- To succinctly and visually summarize key reporting issues
- To align with evolving D&I reporting criteria (StaRI)

Important to report conditions under which program was delivered

To what extent is the program replicable:

✓ In similar settings and conditions?
✓ In different settings and conditions?

ULTIMATE USE QUESTION: “What program/policy components are most effective for producing what outcomes for which populations/recipient when implemented by what type of persons under what settings and conditions, with how many resources and how/why do these results come about?”
Questions? Comments?

I’m all ears!
“Key New Pragmatic Resource from NIH Collaboratory on Pragmatic Trials”

http://www.rethinkingclinicaltrials.org/
Evidence-Based Program and RE-AIM Resources

http://re-aim.org/resources_and_tools/index.html

http://rtips.cancer.gov/rtips/index.do
Where do I find pragmatic measures? Sample sites to visit!

PROMIS website [http://www.healthmeasures.net/explore-measurement-systems/promis](http://www.healthmeasures.net/explore-measurement-systems/promis)


My own health report (MOHR) project. [http://myownhealthreport.org/](http://myownhealthreport.org/)
Implementation Science Funding Opportunities

• PCORI—and “true” patient/family-centered research
• “Team Science” and collaborative approaches to care transformation
• Guidelines implementation, especially across networks
• Patient Health Records—patient portal to EHR
• Collection and meaningful use of patient report measures for care and research
• Efficiency, CEA and CER on care planning, etc.
General Resources


• re-aim.org

• https://rtips.cancer.gov/rtips/index.do

• www.ucdenver.edu/accords/implementation

• www.Dissemination-Implementation.org
ACCORDS D&I Program, University Colorado School of Medicine

• Collaborative learning partnerships to translate research into practice more quickly and successfully
• Interactive resources and support for patients, medical and public health students, and faculty researchers
• Frequently updated information on D&I related articles, grant opportunities, events, webinars, talks, and training
• Local consultation on D&I related research to increase funding and publication success
• Cutting edge research on: adaptation of interventions, self-management, pragmatic research and measures, shared decision making, planning for and evaluation of reach, implementation and dissemination

www.ucdenver.edu/accords/implementation
Effectiveness/Implementation Hybrids

Clinical Effectiveness Research

Implementation Research

Hybrid Type 1
Test clinical intervention, observe/gather information on implementation

Hybrid Type 2
Test clinical intervention, test implementation intervention

Hybrid Type 3
Test implementation intervention, observe/gather information on clinical intervention and outcomes

Pragmatic RE-AIM Precision Science and Health Questions

Determine:

• What percentage and what types of patients are Reached;

• For whom is the intervention Effective, in improving what outcomes, with what unanticipated consequences;

• In what percentage and in what types of settings and staff is this approach Adopted;

• How consistently are different parts of it Implemented at what cost to different parties;

• And how well are the intervention components and their effects Maintained?

Pragmatic D&I Considerations for RE-AIM Framework

- Intended to facilitate translation of research to practice
- Internal and external validity, and emphasizes representativeness
- Individual and organizational factors - experimental and observational
- Public health impact depends on all elements (reach x effectiveness, etc.)
Maintenance or Sustainability Level or Step

- **Patient Level**: longer term follow-up than usual
  - When do you lose patients?
  - Who is lost?
  - Why are they lost or stop benefitting?

- **Setting Level Sustainability or Maintenance**
  - Do settings continue after research is completed?
  - Do they discontinue program entirely?
  - Do they modify/adapt the program or policy?
  - Why??

Practical, Robust Implementation and Sustainability Model (PRISM)

We Need Evidence that is:

**MORE**

- Contextual
- Practical, efficient
- Robust, generalizable
- Comparative
- Comprehensive

**LESS**

- Isolated, de-contextualized
- Abstract, intensive
- Singular (Setting, staff, population)
- Academic
- Single outcome

Representative

From ideal settings