Implementation Research: Teams, Networks, Funding, Training

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Disclosures

I receive financial support from the following company or companies related to the products listed below. These relationships may lead to bias in my presentation.

<table>
<thead>
<tr>
<th>Entity</th>
<th>Type(s) of relationship(s)</th>
<th>Product name(s)</th>
<th>Relevant disease(s) or condition(s)</th>
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K01TW009218  
R01HL125487  
U01HL114200  
U01HL138636  
U01HL142099  
R01MH118075  
R21HL140474  
14SFRN20490315
Implementation Research—Transdisciplinary Team Science

Vedanthan (2011) MSJM
Working Across Disciplines

• Vocabulary
  – Multi-disciplinary
    • Sequential, independent
  – Inter-disciplinary
    • Interactive, joint
  – Trans-disciplinary
    • Integrative, synthesis

Working Across Disciplines

• Vocabulary
  – Mediation
  – Interaction
  – Structure
  – Power
The PRagmatic-Explanatory Continuum Indicator Summary 2 (PRECIS-2) wheel

- **Eligibility**: Who is selected to participate in the trial?
- **Recruitment**: How are participants recruited into the trial?
- **Setting**: Where is the trial being done?
- **Organisation**: What expertise and resources are needed to deliver the intervention?
- **Primary analysis**: To what extent are all data included?
- **Primary outcome**: How relevant is it to participants?
- **Follow-up**: How closely are participants followed-up?
- **Flexibility: adherence**: What measures are in place to make sure participants adhere to the intervention?
- **Flexibility: delivery**: How should the intervention be delivered?
Working Across Disciplines

- Velocity of engagement
- Planning vs. Implementation
- Scientific “purity” vs. Implementation reality
- “My team” vs. “Our team”
Working Across Countries and Cultures

- Communication
- Decision-making
- Balance of responsibilities
- Role expectations
- Implementation vs. Research
- Equity
- Allocation of Time and Salary
- Mutual benefit
- Capacity building
Working Across Countries and Cultures

- “Absentee” Researcher
- Mobility of staff
- Ownership of data, specimens
- Authorship
- Research ethics
  - Institutional Review Board
- Budget decisions
  - Grants Management Office
- Money/Power
- Historical legacies/vestiges
Working Across Countries and Cultures

- Management approaches
- Alignment of incentives
- Competing obligations
- Which funders
- Indirect costs
- Trainees
- Cost recovery for research infrastructure
- Standard Operating Procedures
  - Minimize confusion, conflicts, disruptions
Authorship ethics in global health research partnerships between researchers from low or middle income countries and high income countries

Elise Smith¹,²*, Matthew Hunt³,⁴ and Zubin Master⁵,⁶
The Science of Team Science: A Review of the Empirical Evidence and Research Gaps on Collaboration in Science

Kara L. Hall
National Cancer Institute, Rockville, Maryland

Amanda L. Vogel
Leidos Biomedical Research, Inc., Frederick, Maryland

Grace C. Huang
Westat, Rockville, Maryland

Katrina J. Serrano and Elise L. Rice
National Cancer Institute, Rockville, Maryland

Sophia P. Tsakraklides
Westat, Rockville, Maryland

Stephen M. Fiore
University of Central Florida

Team Functioning
• Cognitive—shared models
• Motivational/Affective—trust
• Behavioral—face-to-face

Institutional Factors
• Built environment
• Organizational structures
• Resources
The Team Science Toolkit is an interactive website that provides resources to help users support, engage in, and study team-based research.
# How Can the Toolkit Help You?

<table>
<thead>
<tr>
<th>If you are:</th>
<th>And you want to:</th>
<th>Use the Toolkit to find resources such as:</th>
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<tbody>
<tr>
<td>A leader or member of a science team</td>
<td>Find practical tools and strategies to help support</td>
<td>• Publications on effective team science approaches</td>
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<td>successful team science</td>
<td>• Pre-collaboration discussion guides addressing issues such as data ownership,</td>
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<td>authorship, and patents</td>
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<td></td>
<td></td>
<td>• Strategies for team communication and data sharing</td>
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<td>• Training resources to build team science competencies</td>
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<tr>
<td>A team science evaluator or researcher</td>
<td>Evaluate or study team science processes, outcomes, and</td>
<td>• Survey instruments and interview guides</td>
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<td></td>
<td>contextual influences</td>
<td>• Measures, metrics and algorithms</td>
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<td></td>
<td></td>
<td>• Reliability, validity and scoring methods</td>
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<tr>
<td>An administrator at an academic institution, business, or other organization</td>
<td>Support team science approaches and scholarship at your institution</td>
<td>• Promotion and tenure policies recognizing team science</td>
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<td></td>
<td>• Collaboration techniques to bridge departments and organizations</td>
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<tr>
<td>A funding agency official</td>
<td>Provide support for team science</td>
<td>• Funding announcements</td>
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<td>• Protocols for data sharing and co-authorship</td>
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</tbody>
</table>
Eight Ways to Build Collaborative Teams

by Lynda Gratton and Tamara J. Erickson

FROM THE NOVEMBER 2007 ISSUE

• Executive support
  – Signature relationship
  – Model collaboration
  – Gift culture

• Focused HR
  – Collaboration skills
  – Community

• Team leaders
  – Task and relationship

• Team formation
  – Heritage relationships
  – Role and task clarity
Research Co-operation between Developed and Developing Countries in the Area of Climate Change Adaptation and Biodiversity
In a learning health care system, research influences practice and practice influences research.

**Evaluate**
Collect data and analyze results to show what does and does not work.

**Implement**
Apply the plan in pilot and control settings.

**Design**
Design care and evaluation based on evidence generated here and elsewhere.

**Adjust**
Use evidence to influence continual improvement.

**Disseminate**
Share results to improve care for everyone.

Internal and External Scan
Identify problems and potentially innovative solutions.
Global Research Network—GACD
**Task-shifting for cardiovascular risk factor management: lessons from the Global Alliance for Chronic Diseases**

Rohina Joshi, Amanda G Thrift, Carter Smith, Devarsetty Praveen, Rajesh Vedanthan, Joyce Gyamfi, Jon-David Schwalm, Felix Limbani, Adolfo Rubinstein, Gary Parker, Olugbenga Ogedegbe, Jacob Plange-Rhule, Michaela A Riddell, Kavumpurathu R Thankappan, Margaret Thorogood, Jane Goudge, Karen E Yeates

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<table>
<thead>
<tr>
<th>Table 3</th>
<th>How to implement an intervention involving task-shifting?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Process</strong></td>
<td><strong>Why?</strong></td>
</tr>
<tr>
<td>Audit the health system</td>
<td>To understand the various factors which need to be considered in the implementation of the intervention from a health system's perspective. For example, are medicines available in the health centre?</td>
</tr>
<tr>
<td>Understand the regulatory framework</td>
<td>To ensure that the intervention is in accordance to the country's policy/regulation. For example, can NPHWs prescribe essential medicines?</td>
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<tr>
<td>Conduct qualitative assessment of key stakeholders</td>
<td>To gain a better understanding of the perception of key stakeholders. For example, will the community members accept the new role of the NPHW?</td>
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<tr>
<td>Pilot the intervention</td>
<td>To better understand enablers and barriers to the implementation of the intervention.</td>
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<tr>
<td>Train the NPHWs and assess training using a broad framework</td>
<td>To ensure NPHWs have gained the knowledge and skills required of them</td>
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<tr>
<td>Supervise/monitor the implementation*</td>
<td>To ensure good quality healthcare to the community</td>
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<tr>
<td>Check fidelity of intervention</td>
<td>To ensure that the intervention is being implemented in accordance to the protocol</td>
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<tr>
<td>Conduct a process evaluation</td>
<td>To get a better understanding of what worked and why</td>
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NPHW, non-physician health workers.
Global Alliance for Chronic Disease researchers’ statement on multimorbidity

The Global Alliance for Chronic Disease (GACD) is an alliance of health research funders whose research teams form a network of multidisciplinary health-care professionals and researchers. We aim to reduce the impact of non-communicable diseases (NCDs) through a focus on implementation research in low-income and middle-income countries (LMICs) and vulnerable populations in high-income countries (HICs).

The GACD has commissioned research on hypertension, diabetes, chronic respiratory diseases, mental health, and in 2018, the scale up of hypertension and diabetes interventions. We particularly recognise the importance and challenge of coexisting physical and to manage patients with multimorbidity leading to undertreatment, mistreatment, and overtreatment (in part driven by the absence of primary evidence due to exclusion of many people with multimorbidity from efficacy trials); (4) the need to provide greater access to expert, proactive holistic primary care that integrates NCDs; (5) the need for improved integration of health-care education, both to health-care providers and to patients and their families, specifically in relation to multimorbidity and including how to best access current models of care; and (6) the need for further research assessing interventions that address the challenge of multimorbidity in LMIC settings (eg, low-
GACD—Joint Publications

Figure 9. Collaboration network of GACD researchers from Asia Pacific (n=39 papers)

Figure 10. Collaboration network of GACD researchers from Africa (n=56 papers)

Figure 11. Collaboration network of GACD researchers from Latin America (n=10 papers)

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Global Network

• OUR VISION
  – A generation of change: a world where all people have the opportunity to lead healthy and productive lives.

• OUR MISSION
  – To mobilize a global community of young leaders to take action against social injustice driven by NCDs.

www.ncdaction.org
Funding
Funding

• USA (NIH)
  – Dissemination and Implementation Research in Health
  – HyTREC/TREIN
  – BLOODSAFE
  – HLB SIMPLe
  – Other “Implementation Science” RFAs
    • Fogarty International Center/NIH
    • Global Brain and Nervous System Disorders Across Lifespan
    • USAID PEER
Funding

Implementation science news, resources and funding for global health researchers

Implementation science is the study of methods to promote the adoption and integration of evidence-based practices, interventions and policies into routine health care and public health settings. Implementation research plays an important role in identifying barriers to, and enablers of, effective global health programming and policymaking, and leveraging that knowledge to develop evidence-based innovations in effective delivery approaches.

As outlined in the Center’s Strategic Plan, Fogarty aims to support research and research training in implementation science using a distributed approach across its programs. Also, projects coordinated by the Center for Global Health Studies (CGHS) at Fogarty support implementation science research methods and frameworks, and use innovative approaches to supporting implementation science. These projects address a wide variety of critical global health research areas, such as HIV prevention, transmission and treatment; household air pollution; mobile health; and brain disorders.

Top News

- Consortium of Universities for Global Health (CUGH) annual meeting examines implementing solutions for impact Mar / Apr 2019 Global Health Matters
- Implementation research: new imperatives and opportunities in global health The Lancet, November 17, 2018
Funding

- Canada

Canadian Institutes of Health Research

IHSPR Knowledge translation

Knowledge translation (KT) is vital to the work of IHSPR. We are committed to supporting researchers who engage in knowledge translation best practices and the development of new approaches, methods and tools to facilitate effective research uptake among the research community, health care professionals, policy makers and the general public.

We work with key partners to generate and enhance strategic and long-term interactions between researchers and knowledge users, in the ongoing development of health services and policy KT activities.

Our strategic research initiatives emphasize the importance of knowledge translation to inform the decision making of health care professionals, managers and policy makers. In addition, IHSPR has funded and partnered on a number of integrated and end of grant KT programs.

KT awards and funding opportunities

Awards

- IHSPR Rising Star Award
- IHSPR Article of the Year Award
Funding

- Australia (NHMRC)
  - bilateral agreements with partner funding agencies (e.g. Vietnam, Singapore, India)
  - flagship "project" scheme - about 30% of funded projects have an international linkage
  - involvement in GACD calls for research
  - Early Career Fellowships program
Collaborative Awards in Science

Collaborative Awards promote the development of new ideas and speed the pace of discovery. We fund teams of researchers, consisting of independent research groups, to work together on the most important scientific problems that can only be solved through collaborative efforts.

Scheme at a glance

Career stage: Leading a research programme

Where your host organisation is based: UK, Republic of Ireland.

Key dates

We consider applications three times a year.

April 2019 round

Preliminary application deadline
30 April 2019, 17:00 BST

Full application deadline
25 July 2019, 17:00 BST
Training

GACD Implementation Science Workshops

Each year the GACD holds an Implementation Science Workshop adjacent to the Annual Scientific Meeting as part of its capacity-building mandate. In response to increasing demand for training in this area, these previously once-a-year offerings have been ramped up to include an additional workshops in locations around the world.

With the objective of building capacity amongst researchers in the local context, the workshops are supported by the co-hosting GACD funding agency for each Annual Scientific Meeting, making use of their networks to identify potential participants. This model gives each event a distinctive flavour and allows participants to gain a deeper understanding of the host country’s health care and research context. The GACD Implementation Workshops have been facilitated since 2014 by GACD researcher, Prof Brian Oldenburg. Brian has taken the workshop offerings from modest beginnings of 25 participants at the first event in Xi’an to up to numbers upwards of 60 in the last two years, with novel and innovative approaches for engaging with policymakers and funders.
Training

Welcome

One of the most critical issues impeding improvements in public health today is the enormous gap between what we know can optimize health and health care and what actually gets implemented in everyday practice. The science of dissemination and implementation (D&I) seeks to address this gap by understanding how best to ensure that evidence-based strategies to improve health and prevent disease are effectively delivered in clinical and public health practice.

- D&I research draws from a variety of behavioral and social science disciplines and employs approaches and methods that in the past have not been taught comprehensively in most graduate degree programs.
- Though this field of research has gained incredible momentum in recent years, the need remains to grow a cadre of both new and established scientists who are prepared to (1) address the complex process of bridging research and practice in a variety of real-world settings and (2) conduct research that balances rigor with relevance and employs study designs and methods appropriate for the complex processes involved in D&I.

What is Dissemination and Implementation (D&I) Research?

Dissemination Research
Training

11th Annual Conference on the Science of Dissemination and Implementation in Health

Scaling up Effective Health and Healthcare: Advancing the Research Agenda and Necessary Infrastructure
Training

Webinars

Register for upcoming webinars and view archived sessions from the Implementation Science Webinars series and Research to Reality.

Upcoming Webinars

A Jury of Peers: Untangling D&I Grant Reviews with the People Who Chair Them

November 2019

On Thursday, November 14, 2019, from 3:00 - 4:00pm ET, Dr. David Chambers will be joined by Drs. Bartels, Brownson,...

Presenter(s): Dr. Melissa Simon, Dr. Ross C.
Training

• Implementation Research Institute

people ▾

The IRI is an innovative program where Fellows are trained by a combination of Core Faculty, Expert Faculty, and Alums. Learn more.

process ▾

products ▾
Massive open online course (MOOC) on implementation research: infectious diseases of poverty

Implementation research (IR) is important for designing strategies or solutions to overcome bottlenecks that prevent proven and innovative public health interventions from reaching the people who need them. This ensures that these interventions are used in a manner that results in the outcome for which they were intended. Such solutions include how to overcome barriers to adoption of drugs, diagnostics or preventive measures that improve health for people at risk of malaria, tuberculosis, NTDs or other infectious diseases. IR can help to ensure that health solutions reach the people who need them and are used in ways that generate intended results.

This course is a step-by-step online training for public health researchers and decision-makers, disease control programme managers, academics and others that focuses on how to design and demonstrate robust IR projects to improve control of infectious diseases of poverty and generate better health outcomes.

To find out about upcoming courses, please contact Dr Pascal Launois.
Mentorship and Sponsorship

Have you tried applying to speak at conferences and meetups already?

I recommended you for this speaking gig! Can you do it?

MENTORSHIP.

SPONSORSHIP.
Mentorship vs. Sponsorship

**Mentorship**
- Career development
- Focused on personal and professional development
- Transformative relationship
- Usually longitudinal
- Critical early in career

**Sponsorship**
- Key professional relationship
- Both participants benefit
- Multiple are desired
- Mentor may serve as sponsor
- Trust, respect, and loyalty

- Career advancement
- Focused on specific career-advancing opportunities
- Transactional relationship
- Often episodic
- Critical later in career

Mentor
- Talks with you
- Advises
- Helps to prepare you to move up
- Identifies strengths and areas of growth you may not see in yourself
- Helps you navigate the corporate ladder (the unwritten rules)
- Provides a sounding board, shoulder to cry on, support, and guidance
- Little is expected in return

Sponsor
- Talks about you
- Acts
- Makes sure you have all the right roles
- Connects you to important players and assignments
- Offers guidance and critical feedback because they believe in you
- Expects stellar performance
- Expects your loyal support (trust is at the heart)
- Benefits from your success (no one gets to the top alone)
- More risky than mentoring (spend political capital)
THANK YOU