Addressing Gaps to Promote Co-learning and Bidirectional Capacity Building in Community Engaged Research: Challenges and Untapped Opportunities

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Addressing gaps to promote co-learning and bidirectional capacity building in community engaged research: Challenges and untapped opportunities

The Cube, 3rd floor, AS3-2119

**Moderator:** Stephenie Lemon, Ph.D., UMass Worcester Prevention Research Center

### Session Titles and Presenters

- **“Learning From Each Other: Other Partnerships, Other Experiences”**  
  Linda Silka, Senator George J. Mitchell Center for Sustainability Solutions, University of Maine
- **“What is Research Literacy?”**  
  Lauren R. Powell, PhD Candidate Clinical & Population Health Research, UMass Medical School
- **“Learning by Doing to Enhance a Community-University Partnership”**  
  TBN, The Puerto Rican Cultural Center  
  Phil Granberry, PhD, The Gaston Institute, UMass Boston
- **“Enhancing Cultural Competency in Research Teams: The Promise of Simulation-based Training”**  
  Marie Boone, Executive Vice President of Planning, Mosaic Cultural Complex

### Session Description

Community engagement is increasingly recognized as an essential approach for the development of a body of health-related research that will ultimately improve population health status and promote health equity. However, this approach poses many challenges as well as untapped opportunities. Specific to this session, co-learning and bidirectional capacity building are widely promulgated core principles of community engaged research. The intent of the principles are for community and academic members to learn from each other in both formal and informal ways, leveraging respective strengths, in order to develop sustainable knowledge, skills and resources. In a community–university, partnerships, researchers and community residents must commit not only to sharing their skills and experiences, but also to learning from and valuing each other’s skills. This requires that both groups engage in a bidirectional learning process. Through this co-learning and capacity building, research partnerships and participation can be improved and ultimately the research itself can potentially have greater impact. The purpose of this session is to provide a series of brief presentations from academia and community organizations that will outline specific issues experienced in promoting co-learning and bidirectional capacity for academic teams, community partners and community members and to describe local efforts to enhance co-learning, bidirectional capacity and community engaged research overall.
Learning From Each Other: Other Partnerships, Other Experiences

Linda Silka
Senator George Mitchell Center for Sustainability Solutions
University of Maine
Science is Changing: How Can We Learn From Each Other?

• Past Research Practices Changing in Many Areas. Democratizing Science to:
  • Strengthen Scientific Outcomes
  • Add Rigor to Participatory Data Collection
  • Ensure Groups Participate in Ways that Enhance Usefulness of Research Findings
  • Link Knowledge to Action
• But Relatively Little Learning from Each Other: Different Journals, Conferences, Topics
Puzzles and Dilemmas in Research Partnerships

- We Want To Learn From Each Other
- We Want to Not Start from Scratch
- But, So Hard Because Our Contexts and Problems Are So Different
- Ex: Lowell, Massachusetts & State of Maine
Urban: Lowell, Massachusetts
Maine: Will the Research Practices that Worked in Local Communities Work for Non Face-to-Face, Spread Out Partnerships, on Different Topics?
Massachusetts Urban Partnerships

Mission:
The Cambodian Community 2010 project is funded by the U.S. Department of Health and Human Services Centers for Disease Control and Prevention. This project was established in 1999 to address the health care needs of the Cambodian population as well as to help eliminate health care disparities in the areas of Cardiovascular Disease and Diabetes. A coalition of Lowell health agencies is implementing actions to modify risk behaviors and educate health care providers regarding the health disparities in the Cambodian community. These agencies have a commitment to providing educational and outreach activities in preventing and managing Diabetes and Cardiovascular Disease.

Goals of CCH2010 Program:
- To identify and implement effective and sustainable ways to improve the health status of Cambodians in Lowell.
- To increase access to the health care delivery system for Cambodians.
- To increase awareness among health providers about Cambodian health care beliefs, practices, and needs relating to Cardiovascular Disease and Diabetes.
- To decrease risk factors and behaviors and enhance protective factors associated with Cardiovascular Disease and Diabetes.
- To increase the capacity of public health researchers to conduct community based research regarding the Cambodian community. This will increase data available regarding Cardiovascular Disease and Diabetes.

For the Cambodian Community:
- Case Management services for Cambodians with Diabetes and/or Cardiovascular Disease.
- Newsletters in Khmer.
- Tours for community residents of health and human service providers in Lowell (such as the police department, Trinity Ambulance, Lowell General Hospital).
- Peer support groups for Cambodians with Diabetes and/or Cardiovascular Disease.
- Tai Chi classes.
- Walking Meditation Programs.
- Khmer Radio, Khmer TV, Khmer newspaper outreach efforts.
- Educational workshops (linguistically and culturally appropriate) Covering Heart Disease, Hypertension, Diabetes, High Cholesterol, Stroke.
- Audio tapes in Khmer about Diabetes, Stroke and Hypertension.
- Community screenings for blood pressure and blood sugar throughout the year.
- Home visits for special concerns.

For more information on services contact:
Cambodian Community Health 2010
Sidney Liang
Lowell Community Health Center
978-798-7929
sidneyl@cchealth.org

For Providers & Community Agencies:
- Medical interpreter training program.
- User friendly guide to Cambodian Health Care Beliefs, Practices and Culture.
- Presentations about Cambodian health beliefs, practices and culture.
- Khmer Medical Terminology Reference Booklet.

Patient Education & Intervention:
- Fact sheets in Khmer about Diabetes, medications and foot care.
- Fact sheets in Khmer about Heart Disease.
- A Diabetes screening tool in English and Khmer.
- Curriculum guide for community education and health promotion about Diabetes and Cardiovascular Disease.
- Audio tapes in Khmer about Diabetes, Stroke and Hypertension.
- American Heart Association’s Six Steps to a Healthier Heart in Khmer.
- Practical Guide to Outreach in the Cambodian Community.

Research:
- Results from a behavior risk factor survey studying adult Cambodians in Lowell.
- Summary data report summarizing available quantifiable data regarding Diabetes and Cardiovascular Disease among Cambodians.
- Community Conversations publication addresses health care needs of the Cambodian community.

Selected Health Indicators - Lowell, MA

- It is estimated that over 25,000 residents of Lowell are of Southeast Asian descent, out of a total population of 105,000 residents.
- At least 72% of Cambodians were born in circumstances such as refugee camps.
- 60% of the adult Cambodian population have no formal U.S. education.
- Close to 97% of Cambodians identify as Buddhists.
- 75% of adults practice traditional medicine and the use of herbs as treatment for illness.
- 45% of the adult Cambodian male population has never had their cholesterol checked.
- Heart disease is the leading cause of death for both Cambodian and MA adults.
- Among adult Cambodians in Lowell, a disproportionate share of adult deaths 45 and older are attributable to stroke, 15.99%, and diabetes, 13.4%, when compared with all MA residents, 6.5% and 2.6% respectively.
Maine Rural Research Partnerships

- Vernal Pools Fauna
- Global Warming & Maine’s Coastal Communities
- Arsenic and Maine’s Private Wells
- Protecting the Saco River Estuary
- Renewable Energy from Tides
- Development of Wind Power
- Emerald Ash Borer Infestation
Approaches to Partnership: CBPR Research Cycle

Issues That Emerge at Each Stage
## Approaches to Partnership: Citizen Science

- Define a question/issue
- Gather information
- Develop explanations
- Design data collection methods
- Collect samples
- Analyze samples
- Analyze data
- Interpret data/conclude
- Disseminate conclusions
- Discuss results/inquire further

(Bonney et al. 2009)
The Centrality of Partnership

- Partnership is Central
- Tools can help us think about how to strengthen partnerships at every stage of research (for ex: who selects focus and hypotheses)
The Centrality of Steps

- Thinking about all steps in research from deciding what problem to study to deciding how the data will be used

Saving Frenchmen’s Bay
- Scallopers
- Clam Diggers
- Shore Home Owners
- Researchers
Maine tribal basket makers and researchers addressing new invasive species threat

Made from native brown ash trees, Maine Indian baskets are functional art forms that have been passed down through generations of the region’s tribal communities. But the future of the art is being threatened by an invasive beetle species — the emerald ash borer — that already has devastated the ash populations in other states.
Questions To Keep In Mind

- What Transferable Lessons Can We Learn?
- Under What Conditions Will Our Models Work?
- Will Approaches Work for Face-To Face and Non Face-to-Face, Scaled Up Partnerships?
- What Kinds of Training Will Scientists Need?
- What Kinds of Training Will Citizens Need?
- How We Will Need to Change the Ways We Engage in Science?
Contact Information

Linda Silka
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Scientific research plays a big role in our lives. We have come to rely on it in so many ways. It seems that every day we hear someone say, “well, research has shown ...”

But we are coming up against the limits of research as it traditionally has been done. The image of science — the one in popular culture of the lone lab-coated researcher hitting upon a brilliant idea — is fast becoming outdated.

Instead, efforts are being made to find better ways of ensuring that research helps solve our increasingly tough societal challenges. Maine is leading the way in developing some of these new forms of science.

Consider several of our problems: poverty, pollution, failing school systems, racism and discrimination, income inequality, elder abuse. Pick up the daily paper and one is beset...
with story after story about these seemingly overwhelming problems. Many such difficulties are referred to as “wicked problems,” which won’t be solved with facts alone.

According to John Camillus, writing in *Harvard Business Review*, environmental degradation, terrorism and poverty are all classic examples of wicked problems. Wicked problems have innumerable causes, are interconnected with other problems and rarely have single acceptable solutions. Hundreds of studies can be carried out, and still the answer can be up in the air as to what should be done.

To solve wicked problems we need to approach science in new, more complex ways. Researchers with different kinds of expertise need to put their heads together. Scientists and decision makers need to interact regularly and become more familiar with each other’s worlds. Citizens and laypeople need to be involved in the research.

This new kind of science goes under various names: citizen science, community-based participatory research, science democratization and participatory action research. But, in each case, science is being transformed in ways all of us need to know about because we have important roles to play in making this new approach succeed.

At the heart of these new approaches is the need to move away from what David Cash, a world leader in science-policy analysis, points to as the all-too-common “loading dock” approach to science. This approach has been likened to scientists following the model of a factory where widgets are produced and then trundled out to the loading dock where someone eagerly waits to pick up the supposedly useful product. But the audience for the science product may not be there. We may be creating a product that people struggling with wicked problems like poverty or hunger, for example, can’t use because it is built on science that does not take into account the full set of complications out there in the real world.

We need stakeholder-engaged, solutions-focused, interdisciplinary work if our scarce science resources are to be mobilized to help solve wicked problems.

The problems are interconnected. We know there is hunger and food insecurity at the same time we struggle to address ever-higher rates of obesity and ever-increasing amounts of food waste ending up in landfills. We know that while we try to address the state’s economic problems by encouraging young entrepreneurs to take up our traditional resource industries, the very resources their future will depend on — such as seafood and shellfish beds — are in decline or threatened by polluted runoff.

Traditional studies provide incomplete tools to understand wicked problems of these sorts. But Maine researchers are changing the ways they do research in order to make inroads on such issues.
Under the framework of sustainability, they tackle research on safe beaches and shellfish, for example, by bringing together stakeholders such as harvesters and policymakers with biologists, economists, engineers and even researchers who study how groups can more effectively solve problems together.

Or they take up declines in major resource industries such as Maine’s blueberries, which face the prospect of collapsing pollinator bee populations, and they work with stakeholders to create tools such as the BeeMapper software to bring together solutions-focused information often treated independently. Researchers working with the University of Maine’s Senator George J. Mitchell Center for Sustainability Solutions are focusing on this style of complex collaborative research, which is leading to many payoffs.

Not all scientists think the democratization of science is a good thing. Some scientists claim anyone who lacks formal training as a scientist can’t do good research. Some insist that only their discipline does the science right. Some view any science built on citizen science or partnership approaches as second rate. To them it smacks of opinions instead of science.

But we are not talking about going back to the era of matters being decided by opinion instead of scientific results. We are not talking about reverting to times when whoever argued loudest and longest won. Instead, as Roger Pielke teaches us in his highly regarded book, The Honest Broker, a big part of the job of scientists in this new era is to learn how to bring data to decisions and to understand that research is but one piece of an increasingly complex puzzle.

*Linda Silka, a social and community psychologist, is a senior fellow at the Senator George J. Mitchell Center for Sustainability Solutions at the University of Maine.*
Working Title: ¡Juntos!: An Undergraduate Student-Community Resident Partnership as a Foundation for Community Engagement in a Research Project

Phillip Granberry & Rosah Clase
The Challenge

▸ Engagement with community residents for research presents a challenge because it requires researchers and community members to change traditional power relationships.

▸ Key to the engagement process is that each partner contributes equally to the research process to produce findings that match community needs.
  ▸ Acknowledging each other expertise
  ▸ Setting the mechanisms for the integration (and translation) of both bodies of knowledge
  ▸ Create a common language to exchange knowledge.
Theoretical Framework

▸ Bi-directional learning can more easily occur when the learning occurs in partnership and through action and reflection (Pablo Freire, Pedagogy of the Oppressed)

▸ Stressed moving beyond the “banking concept” of traditional research training and education in which research concepts are given by professional researchers to community members who lack research literacy to the bi-transfer of skills and discovery of new knowledge.
Bi-Directional learning and Critical Research Literacy

- A university community with its strengths and weaknesses complemented a resident community with its strengths and weaknesses

- Action and reflection supported critical literacy through discovery
  - The university community had research literacy and limited community literacy
  - The resident community had community literacy and limited research literacy
Bi-Directional learning and Critical Research Literacy

- Critical literacy enables team members to go beneath the surface meaning of first impressions and access the shared deep structures of the collective mutual context and life experiences that motivate not only their desire to do public health research but also their desire for community transformation.
Learning By Doing

- Participant observation in which both academic and community partners detail their own understanding of a “phenomenon” such as the “normalization of teen pregnancy” is an ideal task for all members of a research team to develop an understanding of the social context of the research project.
Our Experience

- Ethnographically mapped 100 census blocks
- Conducted a baseline survey with a 77 percent response rate that successfully interviewed 205 Puerto Rican mothers
- Developed a PSA campaign from this baseline survey that was produced with mothers from the community promoting maternal child sexual health communication
Our Experience

- Post-intervention survey that had 82 percent response rate and successfully interviewed 210 Puerto Rican mothers.

- The partners see research as a vehicle for community change.
Ongoing Challenges

▶ A partnership was been developed with strong relationships

▶ Need for future projects to continue community development model

▶ The research schedule and the community schedule move at different paces