



• EDITORIAL •

The Use of Community Engaged Research Principles to Improve Health: Community Academic Partnerships for Research

Health-related-research in the last 50 years led to substantial health improvements in the health of patients and communities (1). Nonetheless, it takes a number of years for the benefits of research findings to translate into clinical practice and the community setting. Therefore, the National Institutes of Health (NIH) created the “Roadmap for Medical Research” to address new pathways for scientific discovery for research teams of the future and suggestions to re-engineer clinical research highlighting the importance of public-private partnerships and translational research (2). Public-private partnerships promote research collaborations between academic, government, and private partners. Clinical and translational science (CTS) has four main phases along a research spectrum (3). T1 research strives to move basic science research into “candidate health application” and is the precursor to the creation of new diagnostics, devices, and treatments in human trials. However, if the research fails to move forward, it falls into “the valley of death” lack of funding to conduct preclinical trials that might ultimately advance the patient care and wellness (3, 4). The next phase in the spectrum, T2 phase, determines the value of the T1 research. During this phase, the clinical practice guidelines are developed and tested in medical practice. T3 examines the evidence-based clinical guidelines using delivery, dissemination, and diffusion research. The last phase in the spectrum, T4 research, evaluates the effectiveness of the CTS by exploring health outcomes in the population and community. The Puerto Rico Clinical and Translational Research Consortium (PRCTRC), as a leader in translational science, works to increase community-engaged research to eliminate the “valley of death”.

In 2013, the Institute of Medicine’s CTS Report focused on NIH’s National Center for Advancing Translational Science (NCATS) funded programs and provided goals that most academic institutions should adopt to improve health. These goals included engaging in mutually beneficial research collaborations that enhance team-based science opportunities. The Institute of Medicine (IOM) recognized that community-engaged research must occur during all phases of the CTS (1).

This means determining stakeholders and end-users of the research process.

Community-engaged research is “the process of working collaboratively with groups of people affiliated by geographic proximity, special interests, or similar situations with respect to issues affecting their well-being” (5, 6). This research has many forms and includes a multitude of stakeholders including medical centers, community members, community-based organizations, institutes, and agencies. The goal is to build trusting bi-directional relationships that take into consideration all partners while determining the research foci (5). Community-engaged research encompasses all aspects of research from development, implementation, data analysis and interpretation, dissemination and works in tandem with a variety of research study designs (5). The most recognized form is Community-Based Participatory Research (CBPR).

CBPR is an equal partnership that builds on the strengths of the community and the research team to ignite social change to improve health (5). Common features of CBPR are the focus of a specific geographic location, the use of shared decision-making process and the development of an advisory group with community members and researchers (5).

The papers in this special section follow the spirit of community-engaged research and CBPR by providing information on successful community-academic research partnerships to improve health in Puerto Rico and Hawaii. One article describes the process of creating a community alliance coalition and three additional ones present implementation research at several levels of development: two community initiated interventions and one co-developed intervention. All included efforts focused on health disparities and health equity (e.g. HIV, cardiovascular disease, drug use) and employ several engagement strategies.

García et al., focus on the use of community health needs assessment to create a community participatory action plan to reduce health disparities (7). They describe the development of the community-academic partnership between the School of Medicine (University of Puerto Rico) Campus and the

Piñones community. Orellano and collaborators address cardiovascular health in elderly in a rural community (8). The community-engaged research team described the development of a community-designed coalition (Coalition for the Health and Wellbeing of Older People of Quebrada Arriba) to address general health of the rural elderly community. Noboa-Ortega and colleagues give an overview of an HIV/AIDS randomized controlled trial with a CBPR framework (9). The manuscript contains lessons from a personalized community-developed HIV/AIDS prevention-intervention trial for women who have sex with men. “Arte con Salud” intervention incorporates art and intergenerational communication as part of the program delivery strategies to promote sexual negotiation skills and safer sexual practices. Helm and colleagues present a similar experience following a “deep culture” culturally grounded drug prevention pilot intervention called Puni Ke Ola developed in a community-academic partnership (10). The collaboration provides an overview of lessons learned and an invitation to honor values in collaborations.

The lessons learned in this issue are the multifaceted engagement tools each stakeholder brought to the table. The overall message from these studies is that each partner had a different perspective of collaboration, determined their roles up front, took the time to build trust, and worked collaboratively to complete a shared vision of health improvement. We are hopeful that more research institutions examine the value of community-engaged research to enhance the planning, action, and dissemination of the research. One particular limitation of this type of research, as many others expressed in this section, is that community academic collaborations takes additional time in order to build trust, commit and sustain efforts. However, this type of research reduces the “valley of death” by ensuring that researchers actively encourage community to collaborate and partner in research, hear the voice of the community, address community needs in a culturally appropriate manner, disseminate information sooner, and engage with the community to develop future research projects and disseminate their experiences.

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Joyce E. Balls-Berry, PhD, MPE, Assistant Professor of Epidemiology and Program Manager, Center for Clinical and Translational Science Office for Community Engagement in Research, Mayo Clinic, United States of America;

Edna Acosta-Pérez, PhD, MSc, Assistant Professor, Graduate School of Public Health, University of Puerto Rico Medical Sciences Campus, San Juan, Puerto Rico

References

1. IOM (Institute of Medicine), The CTSA Program at NIH: Opportunities for advancing clinical and translational research 2013, Washington, DC: The National Academies Press.
2. Kantor LW, NIH Roadmap for Medical Research. *Alcohol Research & Health* 2008;31:12-13.
3. Pienta KJ. Successfully accelerating translational research at an academic medical center: The University of Michigan-Coulter Translational Research Partnership Program. *Clinical and translational science* 2010;3:316-318.
4. Collier BS and RM. Califf, *Traversing the Valley of Death: A Guide to Assessing Prospects for Translational Success*. *Science translational medicine* 2009;1:10cm9-10cm9.
5. Centers for Disease Control and Prevention, *Principles of Community Engagement*. Second Edition ed2011, Washington, DC: NIH Publication.
6. Centers for Disease Control and Prevention, *Principles of community engagement*, ed. 11997, Atlant, GA: CDC/ATSDR Committee on Community Engagement.
7. García-Rivera EJ, Pacheco P, Colón M, Mays MH, Rivera M, González, MdelR, Rodríguez M, & Rodríguez R. Building bridges to address health disparities in Puerto Rico: The “Salud para Piñones” project. *P R Health Sci J* 2017;36:92-100.
8. Noboa-Ortega P, Figueroa-Cosme WI, Miranda-Díaz C, Feldman-Soler A. Implementing a Randomized Controlled Trial through a Community-Partnered Participatory Research: Arte con Salud research-informed intervention. *P R Health Sci J* 2017;36:86-91.
9. Orellano-Colón E, González-Laboy Y, & De Jesús Rosario A. Creation of the Quebrada Arriba Community and Academic Partnership: An effective coalition for addressing health disparities in older Puerto Ricans. *P R Health Sci J* 2017;36:107-114.
10. Helm S, Davis K, & Haumāna. Challenges and lessons learned in implementing a community-academic partnership for drug prevention in a Native Hawaiian community. *P R Health Sci J* 2017;36:101-106.