

Ghana, less than 20% of researchers are women; in Guinea, only 6% of researchers are women. The African Research Academies for Women (ARA-W) is a non-profit organization founded in 2013 to tackle STEM gender disparities found in many African nations. Our mission is to expose young women to research careers and equip them with skills necessary to succeed academically and in the workforce. We aim to accomplish this by organizing career fairs for high school students and sponsoring research fellowships for university and post-baccalaureate students.

Structure/Method/Design: In the spring of 2014, we raised \$8,000 and established relationships with Ghanaian research institutions. In the summer of 2014, ARA-W fully supported 5 Ghanaian fellows as they completed summer internships; the following summer 10 new fellows were funded. Beyond summer research exposure, we pair each fellow with a mentor in a related research field and encourage fellows to serve as ambassadors to young women in their respective hometowns.

Outcome & Evaluation: Our team is composed of dedicated university students across the United States, professionals from around the world, and numerous faculty advisors. Regarding our initiative, 2014 Nobel Laureate May-Britt Moser said “training one may change the lives of hundreds of women at the next stage.” ARA-W attended the Clinton Global Initiative in 2014 and 2015, was invited to the US-Africa Leaders’ Summit at the White House in 2014, and was selected as the African Youth Excellence Organization of the Year.

Moving Forward: We are currently developing a Research Track for the mandatory one-year service after college in Ghana. This track will be available in 2016. We are also establishing partnerships to launch an International Exchange Program in 2017 to provide fellows with a breadth of research experiences. Emory University, the University of Pennsylvania, and John Hopkins University have confirmed their interest in hosting students. After developing the necessary relationships, we hope to expand our program to Nigeria by the summer of 2017.

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O Dia de Dona Maria – Using technology and community based participatory research to improve healthcare delivery in a Brazilian urban slum

Robert E. Snyder¹, Laurimar A. Lopes², Leandro C.C. Tavares², Guilherme S. Storch³, Renata G.P. de Almeida³, Claudete A. Cardoso³, Fabio A. Alves³, The Preventório Urban Health Team², Lee W. Riley¹; ¹University of California, Berkeley, ²Fundação Municipal da Saúde de Niterói, Programa Medico da Família, ³Universidade Federal Fluminense

Background: Residents of urban slums are at increased risk for both communicable and non-communicable disease (NCD). As the diabetes prevalence rapidly increases in low-and middle-income countries the burden of communicable and NCD in slums has also increased in parallel. Multimedia from community-based participatory research (CBPR) has been used to overcome barriers to healthcare in vulnerable communities, but is not universally incorporated into epidemiologic research. Here we highlight how CBPR was

used to improve study quality and improve healthcare delivery in a study of diabetes burden in a Brazilian urban slum.

Methods: We conducted a cross-sectional study in an urban slum of Niterói, Brazil to assess diabetes burden and included an adaptive community-participation arm that allowed for stakeholders to identify gaps in care and design solutions. Stakeholders identified nutrition as a major concern, and hosted events with healthy food from local stores, with accompanying recipes and pamphlets. As research progressed, the bidirectional learning process of CBPR identified illiteracy and vision problems as barriers to interacting with or understanding study material, in addition to material from healthcare providers. In response, stakeholders produced a music video recounting a fictional pre-diabetic’s experience as she learns to cook and incorporate healthy habits into her routine. The video was distributed to stakeholders and available on YouTube.

Findings: The average age of the 373 participants was 54.4 years; 67.8% (n = 253) were female. There were 165 (44.2%) diabetics, and 208 non-diabetics. Among the diabetics, 59 (35.8%) reported illiteracy or incomplete primary school (grades 1-4), compared with 52 (25.0%) non-diabetics. Of the 262 beyond this education, 68 (25.9%) reported vision problems. The mean age of those with vision problem was 56.1 years compared to 52.6 years for those without.

Interpretation: The bidirectional nature of CBPR allowed for stakeholders to adapt the study design and materials to the local context. Production of the video resulted in reports by participants of greater satisfaction with their care. Further, health professionals adapted pre-existing protocols to include more spoken and visual material.

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Transforming project effectiveness with a simplified wealth questionnaire paired with an easy-to-use mobile platform

K. Fry¹, A. Sprockett², N. Chakraborty³, J.C. Negrette²; ¹Independent Consultant, ²Metrics for Management, ³Population Services International, Oakland, CA, USA

Program/Project Purpose: Government and donor-supported social programs in developing countries prioritize serving the poor: those most in need, most at risk, or most marginalized. However, most programs never learn how well they have done, let alone being able to assess how they’re doing at the time of service provision. A simple, easy-to-use, easy-to-interpret, tool to survey program beneficiaries to determine their relative wealth is needed.

Structure/Method/Design: Supported by an expert panel, we selected a standard of reliability to compare a short questionnaire against the full Demographic & Health Surveys (DHS) questions that is replicable, of low administrative burden, and highly correlated with original DHS results. We created simplified, country-specific versions of the DHS wealth index questions, reducing