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MENTORING IN COMMUNITY-BASED PARTICIPATORY RESEARCH: THE RCMAR EXPERIENCE

Community-based participatory research (CBPR) has been identified as a useful strategy to overcome disparities in minority elders. However, little consensus exists with respect to appropriate CBPR training and mentoring mechanisms. In this paper, we summarize the mentoring activities in each of the six currently funded Resource Centers on Minority Aging Research (RCMAR). In addition to mentoring trainees and/or junior faculty, we also explore the bi-directional mentoring that occurs when faculty at academic health centers develop partnerships with members of their target communities. (Ethn Dis. 2007;17[suppl 1]:S1-33–S1-43)

Key Words: Community Based Participatory Research, CBPR, Minority, Elderly, Mentoring

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Introduction

America's elderly population is increasingly more diverse. For example, Latino elders, who currently number 2.2 million, are expected to increase to 13 million by 2050.1 Similarly, American Indians and Alaska Natives who are 60 years and older currently number approximately 233,000. By 2050, this population is expected to increase 3.5 fold. Despite this growth, the health status and health care delivered to minority elders remains poorer than that of older Whites.^{2,3} For example, among enrollees in Medicare health plans, rates of appropriate diabetes, cholesterol and blood pressure control are 7% to 14%, with Black enrollees having lower control rates than White enrollees.4

Although health disparities are complex and a multi-factorial problem, two important strategies from a research perspective for reducing disparities among minority elders are: 1) increasing the number of African American, Latino, and American Indian investigators conducting minority aging research; and 2) increasing research participation among older minorities.^{2,5,6} Without research studies that include minority elders, clinicians and policy makers do not have the knowledge needed to provide the best care. Yet, despite the National Institutes of Health (NIH) Revitalization Act mandating the inclusion of minorities in clinical research, they remain underrepresented in such studies.^{7,8} In addition, the proportion of minority investigators (<5%) remains woefully inadequate.9

To address these shortcomings, the National Institute of Aging created the Resource Centers on Minority Aging Research. 10,11 The current RCMAR sites are Wayne State University Institute of Gerontology/University of Michigan, University of Colorado Health Sciences Center, Columbia University Medical Center, Medical University of South Carolina, University of California at San Francisco, and University of California at Los Angeles. Each RCMAR Center comprises several focused cores, including a Community Liaison Core (CLC) responsible for community outreach and collaborations. At each of the sites, community-based participatory research (CBPR) has been identified as a key strategy to achieve these goals.

CBPR is widely acknowledged as critical for research that will ultimately be successful in reducing health disparities among elders. 12,13 This approach is also important in reducing mistrust of medical research in racial/ethnic communities. 14,15 CBPR links community members with researchers in a partnership for all phases of research including generating the research question, designing the research protocols, recruiting participants, assessing community need, and interpreting and evaluating the results of the research. 16,17 As equal partners, the expertise of each is shared to address health issues of importance to the community and thus, the usability of research findings is enhanced. 16,18,19

Although CBPR is gaining acceptance as a valuable tool, it still remains underused. ¹⁶ Further, although formal training programs and class work in

CBPR are beginning to evolve, ²⁰ little consensus exists regarding appropriate training mechanisms. ^{16,21} In this paper, we address this gap in knowledge by summarizing the CBPR mentoring activities at each of the six RCMAR centers. Unlike narrow definitions of research mentoring that focus on students, trainees and/or junior faculty, we also explore the bi-directional mentoring that occurs when faculty at academic health centers develop partnerships with members of their target communities.

METHODS

In 2004, members of the six CLC cores presented coursework at the Gerontological Society of America (GSA) conference in Washington, DC. At that conference, CLC members prepared a half-day pre-course entitled, "Development of Community-Based Partnerships in Minority Aging." Various academicians and community members gave presentations pertaining to ongoing CBPR initiatives at each site. All RCMARs were also interested in exchanging information on the CBPR mentoring process. To accomplish this, the directors of each CLC core were surveyed via email using an open-ended instrument that asked each RCMAR to summarize the CBPR mentor activities at each site. The results were collected, analyzed and presented by the UCSF RCMAR under the direction of Gina Moreno-John, MD, MPH. Among the results, we found that, while each RCMAR Center had developed unique mentoring initiatives, some thematic processes were similar across the sites. This led to much discussion about documenting these processes and laying out the foundation for future CBPR training and collaborative efforts. As a followup, each site was subsequently asked to expand on the material that was presented. Specifically, center directors were asked to provide a two-page summary providing examples of bidirectional mentoring with community leaders, mentoring of trainees in CBPR and how the community-based activities by each CLC related to the CBPR mentoring process.

RESULTS

I. Wayne State University Institute of Gerontology/ University of Michigan: The Healthier Black Elders Center (HBEC)

Bi-directional mentoring with community leaders

Eleven community advisory board (CAB) members (six of whom are from the community) meet with the Center's staff on a quarterly basis or more frequently when there is a special event to plan. The CAB is represented by multiple agencies including: Adult Well-being Services, Blue Cross and Blue Shield, Detroit Area Agency on Aging, Hannan House, the City of Detroit Senior Citizens Department, and the Wellness Plan. Ten senior aides, from each of Detroit's districts, mentor the CAB members regarding the community health agenda and help HBEC staff enroll minority elders into a research database called the Participant Research Pool (PRP).

The CAB members also mentor the Center's staff regarding development of its formal structures such as philosophy, mission, guidelines, goals, and flow charts to guide its processes for researchers and research participants. The CAB members helped develop an application process for Wayne State University (WSU) and University of Michigan (UM) researchers interested in enrolling community participants into their research studies. In this way CAB members help the center's staff ensure the safety of its database, participants, and the quality of the research that the Center supports. Providing such assurance is critical to

successfully mentor African American elders in reducing and eliminating anxiety associated with their participation in research projects. While recognizing the historical reluctance of many African Americans to participate in health-related research due to past abuses and neglect by prejudicial healthcare and medical systems, HBEC staff and CAB members also coach prospective PRP participants regarding the benefit of engaging in research projects from which they can obtain needed health screenings, interventions, and services that may otherwise be unavailable to them. CAB members also review surveys and other printed materials before dissemination, advise the HBEC on community projects, and help plan the Center's annual Health Reception.

In turn, the HBEC also mentors and supports community-based organization (CBO) leaders by supplying them with information about the infrastructure of academic research. The University's research approval process is reviewed, and community leaders receive written materials used to obtain research approval for research projects and glossaries of common research terms. Whenever community partners request information, advice, or a review of their proposals, the HBEC faculty members provide this assistance. The Center also helps CBO leaders advertise their programs.

Community-based activities; building the foundation for CBPR

Health Education and Outreach. Because community education and outreach are essential to effective implementation of research in minority communities, these efforts continue to be a priority. One strategy for mentoring community partners has been to give community members information about the Michigan Center for African American Aging Research (MCUAAAR) Healthier Black Elders Center through the PRP. The PRP was created in 2002

to help mentor academic investigators toward reaching seniors interested in participating in research. By building rapport and long-term relationships with its community partners, mentoring urban seniors on how to access various resources on aging, and making seniors aware of the caliber of research supported by the HBEC, the pool has recruited approximately 900 adults who are 55 years of age and older, close to the Center's initial goal of recruiting 1000 older adults.

In educational efforts, the HBEC staff, in conjunction with CAB members and senior aides, distribute an HBEC brochure, newsletters, health forum information and event flyers. In this way, HBEC staff members mentor community members on how to access available health programs sponsored by the University. The bi-annual HBEC newsletter disseminates information to ~1,000 seniors via direct mail, email, event hand-outs and postings on the HBEC website. Education materials outlining the prevention and treatment of the most prevalent illnesses challenging older minorities (ie, cancer, hypertension, and diabetes) are obtained from reliable sources and distributed at community presentations.

Another venue for building trust, disseminating information, and recruiting participants into the PRP, is the annual HBEC Heath Reception. Nearly 2500 African American seniors have attended this annual event during the last four years, sharing their wisdom and celebrating their participation in health research. In attendance are the CAB and senior aides, Michigan Center for African American Aging Research (MCUAAAR) staff, Regional Center for Minority Aging Research (RCMAR) summer scholars, National Council Advisory Board Members, university administrators, and urban seniors > 55 years of age, their families and elected representatives. Events for the day include health education presentations by the Institute of Gerontology faculty and invited guest; more than 20 vendors providing services including blood pressure, cholesterol and diabetes screening, cancer and HIV education, and a senior exercise program. All of these services are offered free of charge. In addition, this event provides an opportunity to disseminate information about research and the activities of the MCUAAAR and the HBEC. These events also increase the Center's exposure and allows it to teach and mentor additional seniors through mailings, radio, television, and print media coverage.

Overall, the Center participates annually in several health fairs and sponsors more than 30 community presentations including topics such as tax preparation and crime prevention. Thus, the Center helps mentor seniors on how to navigate aging as well as how to deal with health problems. The center also sponsors regular, free community health forums at various urban locations throughout the city. These sessions are designed to reduce the effects of health problems, such as cancer, that negatively and disproportionately affect Detroit's seniors. As of winter 2005, the HBEC's community forums had expanded to include new locations with a broader list of speakers and topics (eg, prostate cancer, diabetes, and healthy aging).

Research. A 57-item demographic survey was developed to gather health information and to record community members' satisfaction with their participation in the PRP. This data collection tool was developed with the help of the CAB and senior aides. In addition, the experience of participants recruited to any research project was carefully evaluated by an oversight committee comprising CAB and HBEC staff members. This information helps mentor and inform members of the HBEC oversight committee regarding the Center's research and health agendas. Recently, a 27-item evaluation tool was developed to obtain feedback regarding participants' satisfaction with the information, services, and interactive activities provided at the annual HBEC Health Reception. The evaluation was distributed to more than 800 seniors and their families who participated in the annual half-day event. Such data is vital to the Center's success in connecting science and research with seniors working as partners to positively affect their health.

Mentoring Trainees in CBPR

The HBEC is strategically located in the Institute of Gerontology (IOG) where multi-year programs seek to reduce health disparities in older adults by mentoring junior colleagues pursuing graduate education and careers in aging and urban health. The IOG created the first funded training grant program in the behavioral and social sciences at Wayne State University. The IOG's programs to educate pre- and post-doctoral students from a wide range of disciplines about gerontology include exposing them to training in CBPR. Many of these trainees assist with tasks and activities required to conduct the five yearly HBEC community health forums and its annual Health Reception. By attending IOG colloquia where CBPR research is presented and discussed and by participating in, and observing the administration of these programs, IOG trainees learn the basics of community-based participatory research. These experiences help to enrich their understanding of the importance of making innovative connections with the community to enhance their knowledge of aging and urban health issues. In the first five years of National Institute of Aging funding, 20 IOG trainees earned PhDs and 17 of them went on to become faculty at distinguished universities worldwide where all but one has continued to focus their research on aging. Since that time the IOG Training Program has graduated numerous PhDs and has helped to push gerontology into the scientific mainstream.

II. University of Colorado Health Sciences Center: Native Elder Research Center (NERC)

Bi-directional mentoring with community leaders

Community Liaisons. Community partners often are tribal sovereign nations located at great distance from the NERC. The two-way exchange of ideas happens largely through a research field office located within boundaries of the tribal partner's reservation. The field office is staffed with one or more tribal members whose role is to meet regularly with formal and informal leaders within the tribal nation. The field staff presents resolutions for the tribal governing body to consider, field questions from various community sectors for the NERC staff, and provide information to the NERC staff about the community context.

In addition to communication through the research field office, members of the NERC travel regularly to the tribal communities and meet with community leaders directly to enhance communication and trust.

Community-based activities; building the foundation for CBPR

Health Education and Outreach. The university-based researchers are invited to local tribal forums addressing health research issues and the use of videoconferencing allows for participation when travel to the distant community is not possible. Piloting the delivery of clinical services by university health providers to remote sites within the tribal nations has been a recent innovation intended to fill a gap and to enhance the partnership in research endeavors.

Research

The field staff are trained to locate and recruit study participants, collect data, and participate in the interpretation of results. They also review written products summarizing the research outcomes that are tailored for specific groups within the community, including the research participants themselves.

Mentoring trainees in CBPR

This area experiences a critical shortage of well-trained AI/AN researchers who can advance knowledge development and transformation activities that address the health of Indian elders. To address this need, the NERC AI/AN Investigator Development Core trains AI/AN postdoctoral junior faculty from the social, behavioral, and health sciences to grow toward independent scientist status. The training approach includes a combination of didactic, experiential, and mentored instruction. Since its beginning in 1999, four cohorts of investigators (14 individuals) have successfully completed this intensive 2-year program. Because of the unique and complex demands of obtaining approvals to conduct research in AI/AN communities, the training program has aggressively integrated the substantive and procedural matters related to community-based participatory research within the relevant elements throughout the two-year training peri-

III. Columbia University Medical Center: Center for the Active Life of Minority Elders (CALME)

Bi-directional mentoring with community leaders

The Community Liaison Core has established a CAB, featuring community leaders and members of community-based organizations (CBOs) serving the minority elder population in Northern Manhattan. The CAB includes representatives from senior citizen centers, nursing homes, and other community-based programs caring for the elderly, as well as CLC faculty, staff and minority aging researchers. The CAB meets with the CLC faculty twice a year and has been instrumental in helping to identify community issues and developing strat-

egies to confront these issues particularly with respect to community health outreach projects. In addition, the CLC faculty offers CAB members information on the currently funded research projects and their status. The purpose is not only to inform the CAB about the nature of these projects but for our trainees to obtain valuable feedback, ideas and suggestions directly from community representatives.

Community-based activities; building the foundation for CBPR

Health Education and Outreach. CLC projects implemented from CAB suggestions include a community health education lecture series, community resource directory, participation of Columbia healthcare students in health screenings and education at senior centers, a community outreach health van, and a dental van. Research trainees also present health lectures at senior centers, participate in community-based health events and prepare health education material for dissemination to the community through the CLC. The CAB is instrumental in planning and hosting CALME's annual Clinical Research Information Day in which university-based investigators (CALME trainees, as well as any interested Columbia investigator) present research posters using lay language in a community-based setting. At these sessions, 30-40 investigators display posters and ~100-150 community members attend. We attribute the success of these activities to the fact that CALME investigators have received and used suggestions and advice of the CAB.

Research

As a result of these evolving partnerships, CLC faculty and CAB members have also developed joint grant applications. Recent academic-community collaborations have included a Center for Medicare & Medicaid Services grant proposal on Part D Medicare, a state CBPR grant for a randomized trial of a senior center-based hypertension program, and a recent NIH-funded CBPR pilot study on senior center-based walking clubs. In each of these grants, a CBO has been the lead applicant and has brought valuable information about the community context to CLC members. In return, CBO members have obtained substantial CLC faculty technical and administrative support, such as grant writing and issues related to the institution review board (IRB). This rich learning experience for both partners has created an evolving trust and relationship where many members of the CAB come to CLC faculty members whenever they are approached by other university investigators on a research proposal. The CAB sees the CLC core as a trusted partner who can provide unbiased advice on research projects.

Mentoring trainees in CBPR

To date, CALME has funded 38 minority investigators to conduct minority aging research projects. In addition to regular meetings, each trainee is required to meet with their designated research mentor. They also need to present at quarterly CALME research meetings, attended by faculty from all CALME cores such as methodologists, statisticians, as well as faculty from the CLC. At the meeting, time is devoted to each project, following a standardized flow sheet algorithm that was developed by the methods core. Topics where the CLC faculty lead the discussion include identification of potential community partners, cultural sensitivity issues, feedback on problems relating to recruitment and/or retention, and identification of dissemination strategies that are community relevant.

Although community-based studies are not required to be CBPR, the importance of having community partner input at each stage of such projects is emphasized. For instance, prior to putting up recruitment flyers or individually approaching senior centers, some trainees are asked to present their

study to elders at the senior centers during a lunch session. Investigators who are identified as requiring additional CLC assistance are then assigned to a CLC faculty who will followup with the trainee until the identified area of concern has been satisfactorily addressed. In the past, CLC faculty have assisted in areas such as coordinating meetings between trainees and potential community partners, and preparing and translating recruitment materials. Lastly, selected trainees present their findings at the annual national advisory meeting, which is attended by several community members. This serves as another mechanism for trainees to obtain feedback on their project from the community.

IV. Medical University of South Carolina (MUSC): Cooperative for Healthy Aging in Minority Populations Resource Center for Minority Aging Research (CHAMP/RCMAR)

Bi-directional mentoring with community leaders

In 2002 CHAMP/RCMAR formed a community advisory group (CAG) of community members and leaders who advise MUSC administrative leaders on community issues. Because of mentoring by CHAMP/RCMAR members, the CAG members have developed greater understanding of the research process, how principal investigators are chosen and funded, and how grants are developed. These issues were of great concern when the CHAMP/RCMAR grant first began and CAG members wondered why they were not principal investigators and why funding had to support research rather than serviceoriented programs. As the CAG members have had their concerns addressed, they have communicated this information to members of their communities, thus allaying similar concerns on the part of other community members.

CAG members also expressed concern about the shortage of minority healthcare providers in South Carolina and of minority faculty at MUSC. Working with MUSC administrators, the CAG continually focused attention on the problem of minority faculty and student recruitment and developed a constructive plan to assist our administrators with recruitment. While not all suggestions were adopted, the CAG helped keep the issue on the table and there has been a subsequent increase in recruitment of minority faculty and students. CAG members have also expressed concern about how medical students and other health professional students receive training with respect to interacting with minority patients. This has become a new action item for the Center. While these issues are not directly related to CHAMP/RCMAR research, addressing the issue of training will also help CHAMP/RCMAR investigators continue to maintain credibility with community members, help enrich the pool of potential investigators by interesting students in issues of minority health and aging, and may improve the health of older community members if the training in culturally appropriate interactions with minority patients is successful.

Community-based activities; building the foundation for CBPR

Health education/outreach. CHAMP/ RCMAR staff members participate in numerous community events designed to impart evidence-based health information to community members and to announce opportunities for community members to participate in research projects at MUSC. Examples include Senior Research Day, which took place on April 7, 2006. Staff and seniors from local community-based organizations were invited to interact with investigators from MUSC, review posters, and hear research outcomes. The forum allowed for extensive interaction between investigators and community members. Investigators benefited from this interaction because it assisted them in contemplating the

application of their research results in "real-world" settings. Community members benefited from learning the outcomes of research projects in which they may have taken part.

Additionally, CHAMP/RCMAR staff members make presentations at community-based organizations such as African American churches, sorority and fraternity meetings, barber shops and beauty salons, nursing homes, senior centers, healthcare agencies, grocery stores, and shopping malls. The presentations are designed to increase the awareness of community members regarding research projects at MUSC and also serve as an opportunity to impart health information to community members that they might not otherwise receive.

Mentoring trainees in CBPR. Since its inception in 2002, CHAMP/RCMAR has funded 13 minority scholars to conduct minority aging research projects. CHAMP investigators and scholars are involved in many research projects in the community that use principles of CBPR. Training in CBPR takes place as part of a monthly seminar series offered to the scholars and to others at MUSC with an interest in minority aging research. Topics have included factors associated with health care screening, treatment interventions preferred by minorities, and issues regarding racial disparities in health. The seminars include descriptions of methods used to involve community participants in the research process, as well as information designed to enhance the scholars' cultural competence levels in working with participants. The scholars also receive one-on-one mentoring from the CLC member from the local community.

V. University of California at San Francisco: Center for Aging in Diverse Communities (CADC)

Bi-directional Mentoring with Community Leaders

To lay the foundation for CBPR, UCSF CLC members created a database

of all community agencies working with African American and Latino elders in the San Francisco Bay Area. Attempts were made to contact leaders from every agency and representatives from pivotal CBOs were invited to serve as CAB members for the UCSF RCMAR Center. CAB members mentor UCSF's CLC staff by helping to set the research and community outreach agenda. In a reciprocal fashion, UCSF RCMAR researchers joined the advisory boards of several CBOs at their invitation and those researchers mentor CBOs regarding the process of academic research. UCSF researchers also hold regular meetings with other community leaders to identify potential areas of shared interest. These community leaders mentor UCSF CLC members on how to help CBOs continue to best serve their target populations. For instance, community leaders have let UCSF researchers know that grant writing is a critical need for CBO directors. In turn, UCSF researchers are organizing a symposium on this topic for CBO leaders.

UCSF also receives mentoring from community leaders on the development of grant applications and evaluation measures. In addition, community leaders provide critical information on the status of collaborative efforts, community resources, and potential impediments to conducting research. In turn, UCSF provides technical support to agencies for community and fundraising events. For instance, several CBOs received assistance in the preparation of grants for projects such as nutrition seminars for minority residents, and for a church program entitled "HIV/AIDS Project of Compassion," developed to educate a predominantly older African American congregation. Another community-based senior center was successfully nominated for an international competition by a UCSF researcher. The center serves mostly Spanish-speaking low-income seniors and received \$50,000 to expand their services. UCSF's collaborations with community programs serving African American and Latino elders have been featured in the local and national lay press.

Community-based activities; building the foundation for CBPR

Health education and outreach. Another strategy for building CBPR elements has been for researchers, clinicians and educators, to provide clinical services and health information. In doing so, UCSF researchers mentor community members about UCSF's available services and how to access them. UCSF RCMAR researchers have worked with African American and Latino older adults by volunteering in health fairs and health forums. Activities included distributing educational brochures in English and Spanish, enrolling women for free mammograms, performing clinical exams, and offering prostate, cancer, diabetes, and hypertension screening. Lectures to elder community members, in English and/ or Spanish, included topics such as asthma care, diabetes and hypertension awareness, alternative medicine use, and the benefits of nutrition and exercise. Recently, CLC started a multi-year influenza vaccination and education program in African American and Latino churches.

Research. At the start of the first grant cycle, a formal survey was developed for CBO members regarding community needs and their attitudes toward research. One study confirmed that many community members have a great deal of distrust toward medical research. One way to overcome this distrust is by sharing research results. Two symposia were organized to announce the results of the UCSF study on African American and Latino attitudes on research. Members of the African American and Latino communities, UCSF investigators, and academic leaders, including the dean of the medical center, attended. Both academicians and community leaders spoke so information

and insights were shared in a bi-directional manner. Time was allotted for a dialogue between these two constituencies, which resulted in the continued mentoring of each group by the other. Additionally, an executive summary of the study, in English and Spanish, was published and distributed to CBO members who participated in the study.

As a result of the trust built between UCSF and the community, there was an increase in participation by minority older adults in several research projects. Latinos were successfully recruited for a survey of community leaders, part of "Redes En Acción," a national initiative to combat cancer among Latinos. The results of these surveys are forming the basis for a national agenda of cancer issues affecting Latinos. Latino elders were recruited from CBOs to participate in two UCSF focus groups entitled "Elderly Latino Perspectives on the Quality of Health Care" and "Always Active." Other projects that benefited from the recruitment expertise of UCSF's researchers include: "Lesbians and Risk Factors for Breast Cancer," a study on breast cancer among lesbians, "The Pathfinders' Project," a study of women with abnormal mammograms and "Community Healthy Activities Model Program for Seniors," a community-based study to identify beliefs about exercise benefits and barriers, and facilitators to exercise. UCSF RCMAR members have had success with increasing minority accrual in studies outside UCSF as well. UCSF researchers provided technical assistance to a Veterans Administration hospital research staff for a study entitled Project REACH (Resources for Enhancing Alzheimer's Caregiver Health) and to the National Cancer Institute's Cancer Information Service program to increase minority participants into cancer research

Mentoring Trainees in CBPR

Mentoring trainees in the program is done by RCMAR members from different cores. In addition to the CLC

core, the Investigator Development Core and the Measurement Core help train junior UCSF researchers in every aspect of minority aging research from statistical methods to building trust with community leaders to best methods of recruitment and retention of ethnic minority elders. CLC members are available to answer questions and mentor RCMAR investigators as well as UCSF researchers when needed. Technical assistance is also offered to junior researchers for the translation and review of research materials for cultural appropriateness.

UCSF CLC members also mentor researchers and administrators from outside UCSF regarding CBPR. Several researchers and program coordinators, interested in working in minority elder communities, have attended USCF CLC meetings to find out about the principles of CBPR. CLC members have educated these attendees on how to develop trust with community elders, how to educate and recruit minority elders into research studies, how to perform a needs assessment, and about the importance of sharing data with community members. Attendees leave these meetings with the tenets of CBPR and UCSF resources whenever applicable.

VI. University of California at Los Angeles and Charles R. Drew University: Center for Health Improvement for Minority Elders (CHIME)

Bi-directional mentoring with community leaders

Although Los Angeles is a very heterogeneous multi-ethnic community, UCLA/CHIME has mainly focused on improving health and health care for African American and Latino elders. Since 2002, our CAB has had balanced representation from both communities and has been co-led by African American and Latino representatives. Our members represent a diverse set of stakeholders who are committed to

improving the health of minority elders. Examples of organizations represented on our CAB include: the Los Angeles County Department on Aging; key senior center leaders in South Los Angeles; leaders from churches in both communities; and leaders from the Los Angeles Department of Health Services. Members from the latter city services are responsible for the delivery of health services in Service Planning Area 6, one of the areas in Los Angeles with the greatest minority health disparities and where a large proportion of minority elders live and seek health care.

The philosophy of both the academic and community CHIME leadership has been to integrate the CAB and therefore, the community voice in all aspects of our Center. To this end, the CAB members review all applications for CHIME pilot studies and have an equal voice as the academic leadership in the selection of minority faculty who are supported by and conduct research with CHIME. The leadership of CHIME feels strongly that regular face-to-face interactions across a wide array of both informal and formal venues with community members and the minority faculty scholars supported by the Center is the best method for the development of a sustainable, bi-directional mentorship model. To facilitate these interactions CAB members and minority scholars supported by the Center meet at regularly scheduled social events where there is both structured and unstructured one-onone conversations to:

- share research priorities;
- collaborate needs, both in terms of community members' need for information and technical support to conduct research and the need for faculty to refine research ideas to enhance their relevance to communities; and
- enhance the feasibility of recruiting and retaining the needed participants for each project supported by the Center.

These meetings provide a critical opportunity for our RCMAR scholars to network and partner with several of our CAB members to strengthen their work in our community.

Community-Based Activities: Building the Foundation for CBPR

Health education and outreach. CHIME academic and community leaders, scholars, and staff, have melded our community-based activities to work in tandem with, and to support, our research activities. For example, our Center has recently assisted with the recruitment of Latino and African American seniors with diabetes into group empowerment sessions as part of a NIH-funded trial. During the recruitment phase, academic leaders, community liaison core research staff, and scholars participated in health fairs, community talks at senior centers, churches, and clinics on a number of topics related to improved diabetes selfmanagement. We have also worked with our CAB members who are the directors of senior centers to establish nutritional interventions such as "Fresh Fruit Day" on Wednesdays at each center.

Two large community-based efforts, in which many of the UCLA/Drew RCMAR faculty, staff, and scholars have participated, focus on community engagement around two conditions of great interest to our Center: depression and diabetes. Both of these conditions disproportionately affect minority elders and have substantial health disparities associated with them. One of these projects co-led by one of our long-term community partners is Witness for Wellness (W4W), a project designed to build community capacity to overcome the burden of depression in South Los Angeles. W4W sponsored a health coalition that hosted a Kick-Off Conference leading to three Working Groups that developed and implemented action plans with community feedback. 22,23 The second project, Building Bridges to Optimum Health - Diabetes Throughout

the Lifespan (DTL), addresses diabetes in the greater Los Angeles community using a similar community-based approach. The UCLA/Drew CHIME Community Liaison Core supported the initial conference and the ongoing collaboration with multiple academic and community stakeholders including the conference planning committee of more than 120 organizations (about 40 regular attending members) who planned the diabetes kick-off conference and coordinated and provided assistance to the subsequent working groups. Two of the post-conference Working Groups are led by current RCMAR scholars: 1) Practical Tools for Healthy Living, Media and Environmental Influences, conducted by Dr. Arleen Brown; and 2) Supporting and Taking Care of the Elders: A Community Approach, conducted by Dr. O. Kenrik Duru. More than 60 dedicated members representing a very diverse group of community members and healthcare professionals consistently attend the monthly meetings to discuss the development of feasible, community-driven action plans that will address diabetes.

Research. As noted above, the UCLA/Drew CHIME has combined our community activities with our research agenda. With this model, we have supported the Witness for Wellness project and the CBPR Diabetes project described above, a NIH-funded randomized evaluation of a communitybased empowerment intervention designed to improve the self-management skills of older Latinos and African Americans with diabetes, 24 and a number of smaller pilot studies led by our minority faculty scholars. These studies are developing interventions designed to enhance physical activity among older African American women, to provide better support family caregivers for disabled Latino elders, to enhance the ability of primary care doctors' detection of elder abuse in the community, to improve the detection of harmful drinking in the elderly, and to better integrate the detection and treatment of depression in community clinics. Some examples of our descriptive research partnering with communities include scholar-led projects that are providing a more comprehensive understanding of how perceptions of ones' neighborhood affects chronic diseases in the elderly and an investigation of specific neighborhood-level environmental barriers to walking for exercise among elderly African-Americans in Los Angeles.

Mentoring Trainees in CBPR

The UCLA/Drew CHIME strategy for CBPR mentorship of RCMAR scholars is grounded in an apprenticeship model combined with didactic seminars on the theory and practice of partnered research. The majority of our CHIME core faculty and community partners have a long history of working together on extramurally funded research in the community. Each newly funded pilot project and scholar is linked to a multidisciplinary mentorship team that always has a CAB member and a core faculty member. These two individuals "lead by example" and model what a respectful partnership is for the scholar who may be conducting partnered research for the first time. Additionally, each scholar presents his or her research to the whole CAB for feedback and input on the project during the design, implementation, and presentation of results phases. Often times in these meetings, CAB members will discuss project-specific suggestions in the areas of study design, ethics, and recruitment strategies that enhance the partnered nature of the work.

The UCLA/Drew CHIME seminars on community-focused research are led by faculty in the Community Liaison Core. These seminars focus on the unique challenges of balancing the interests of the investigator with the needs and perspectives of the participants in the community. Topics covered include:

 Community-Focused Research: Viewing the Community as a Living Entity

- Research Methods in Community Settings
- Community Perspectives-Community Participants
- Community Needs and Benefits: Participatory-Action, Community-Driven
- Community-focused Methods of Information Dissemination for Diverse Ethnic Groups
- Ownership of Information and Proprietary Relationships
- Barriers to Community Participation in Research
- Recruitment, Retention and Education on Clinical Research for Minority Elderly
- Special Ethical Considerations in Performing Research in Community Settings

In summary, through a combination of apprenticeship, experiential learning, substantive input from community members in all phases of the research, and didactic training in CBPR topics, we hope to prepare the minority faculty supported by the Center to conduct future independent research with minority elders that will ultimately provide the needed information to lead to improvements in health and a decrease in health disparities over time.

DISCUSSION

This paper details the various approaches being used by the six NIAfunded RCMARs, each working in different ethnic minority elder communities, to establish a collaborative relationship with community members. Common methods of building trust among the RCMARs include seeking out community leaders for discussions on community priorities and inviting community leaders to sit on advisory boards. Central to this approach is that the community members have real input into the activities of the RCMAR. As documented above, suggestions by community members are often followed through by the RCMARs. In particular, under the advice and guidance of community partners, most of the RCMARs have developed the delivery of community-based services such as health education or even clinical services as part of the process for developing the requisite trust and buy-in from the community. RCMAR members are also frequently asked to participate in events sponsored by the communities such as health fairs or community celebrations, and seem to view this as yet another method for continuing to promote trusting relationships with their respective communities. This provision of services or giving something back to the communities in return for their partnership or participation in research is increasingly being recognized as an important component in the design and execution of large research projects in minority communities.²⁵ As part of the trust-building process, some centers have also served as champions for issues and agendas not directly tied to the RCMARs, such as student diversity at their universities.

Our paper also provides a qualitative overview of how RCMARs are providing CBPR training to junior investigators. This documentation fills an important gap, as there is very little in the literature regarding how to mentor junior faculty in CBPR. In each of the RCMARs, training in CBPR is built into the overall formal mentoring process developed for their junior researchers. At many centers, this includes having CBPR seminars as part of the formal course work or lectures series for trainees. CBPR topics covered at these didactic sessions include building trust with community leaders, performing a needs assessment based on community members' priorities, and the importance of sharing data with community members. We also highlight how a significant component of CBPR training at all RCMARs involves experience interacting with community members. Key among these are the delivery of service activities such as having junior investigators participate in health fairs, deliver health education lectures at senior centers, or provide vaccination services to their community. Such activities are often referred to as "service learning." Service learning is an educational experience in which students provide community service in response to communityidentified concerns and learn about the context in which service is provided.²⁶ Combined with adequate preparation and reflection, it has long been recognized as a crucial element of developing cultural awareness and competence for students. Thus, it is not surprising that such activities have evolved as a key component of CBPR training at all of the RCMARs. Lastly, as with all research training, mentoring is crucial for success at all RCMARs. In most centers, junior researchers attend scheduled meetings to discuss their research projects with a senior RCMAR member. They also have one-on-one meetings with additional research faculty with a particular expertise, including the opportunity to obtain substantial input into their research projects from CLC faculty.

Less is known about successful ways to mentor community members in CBPR or how such members can provide mentorship to established universitybased faculty. For most academic investigators, mentoring community members includes the provision of technical assistance, eg, helping community groups with grantwriting and the provision of local demographic or epidemiologic data that community leaders can use to set their agendas. Academics also consider having community members sit on community advisory boards as an important mentorship activity. By participating in these boards, community members learn more directly about the structure and operation of academic centers, the academic research process, resources available via the academic centers to community members, and how to become more vocal partners in CBPR projects. The RCMAR centers are also able to articulate important mentoring they receive from community members. Community leaders provide important real-world feedback to the academic groups on the needs, priorities and existing services in the community. RCMAR members also better understand the dynamics of their respective communities when community leaders sit on academic advisory boards. Such feedback is felt to be key in setting the research agenda and guiding existing research projects. The RCMAR investigators also are keenly aware that without the mentoring of community leaders, researchers would not make headway in gaining trust or successfully recruiting targeted minority elders into ongoing research studies. We also found that these bi-directional mentoring processes are based on ongoing and evolving partnerships. In this context, the mentoring that occurs is less of a formalized process and more akin to bi-directional information exchange that occurs between trusted and valued partners.

CONCLUSION

More learning is needed on how to teach and mentor interested parties in CBPR. In this article, we have provided the real world experience of the RCMARs. All the RCMARs have demonstrated that successful initiatives in training and mentoring in CBPR are possible within six racially and ethnically distinct communities. With respect to trainees, most RCMAR centers have formal mentoring programs. Thus, the didactic components of CBPR mentoring are built into that process. However, service learning type activities also play a major role in the CBPR training of junior investigators. The bi-directional mentoring between academicians and community leaders is less formal. Nevertheless, the information exchange has resulted in a mutually beneficial collaboration. As CBPR continues to gain popularity as a mechanism to address disparities, it is important that university leaders and funders understand the mentorship process in CBPR. While some aspects of the CBPR mentorship are quite similar to those in more traditional forms of research, in many ways CBPR mentoring is unique. An example would be the critical importance of service delivery that most RCMARs include as part of the CBPR training. The importance of provision of services to community members is also emphasized in the early part of the bi-directional mentoring relationship between university faculty and community members. Without ongoing support and commitment for these types of CBPR mentoring activities, the field of minority health and health disparities research would suffer a major setback.

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