

2. Specific Aims

Among the numerous health disparities disproportionately burdening people of color, sexually transmitted infections (STI) and HIV/AIDS are among the highest.[1] The Centers for Disease Control and Prevention (CDC) estimates that nationally, 48% of all Chlamydia cases and 70% of all gonorrhea cases occurred among African Americans, more than 8 to 19 times greater, respectively, than whites.[2] African Americans are also disproportionately affected by HIV/AIDS: African Americans account for 13% of the adult and adolescent general population, but 51% of new HIV/AIDS cases. Limited access to birth control methods,[3] inadequate prenatal care,[4] and higher infant mortality rates[5] among African Americans are further evidence of these disparities. These national data highlight the urgent need to better understand what can be done to eliminate HIV/AIDS health disparities.

Community-based organizations (CBO) are typically in direct, daily contact with individuals most at risk for STI/HIV infection. However, CBO members often express frustration both at having researchers approach them in a perfunctory manner to provide access to participants for studies that were not relevant to their community's needs, and at not having access themselves to the research process, including investigation of the issues they identified as most pressing [6]. Accomplishing the goal of reducing STI/HIV disparities requires that community partners be involved in every aspect of the science, from formulating research questions to evaluating interventions in real life settings and disseminating findings. We must facilitate strong partnership and collaboration between health science investigators and the communities most impacted by STI/HIV. To respond to the STI/HIV epidemic in general and reduce health disparities in STI/HIV prevalence specifically, we propose to build a sustainable infrastructure that facilitates significant and innovative health science research and ultimately improves public health. By bringing the skill of scientists to the service of HIV prevention and the knowledge of service providers into the domain of research, we can more adequately understand and address the contexts and factors that result in STI/HIV health disparities among African Americans.

We propose building a consortium of health sciences investigators at UCSF (academic researchers), community-based organizations that serve the African American community (CBO researchers), and community members (community researchers) to answer significant scientific STI/HIV research questions. Through a partnership between the UCSF Center for AIDS Prevention Studies (CAPS) and the AIDS Project East Bay (APEB), a stable, well-respected community-based organization in Oakland, CA (a community heavily impacted by STI/HIV and the first city to declare a state of emergency due to the high incidence of HIV/AIDS among African Americans), the consortium of researchers and community partners will develop strong, long-term relationships that bridge the gap between research and communities by developing trainings and forums to build the capacity of research partners to engage in community-involved research, leveraging existing electronic infrastructure to build support mechanisms for community-involved research, and seeding the next generation of STI/HIV research. Therefore, this application proposes a model for building a sustainable research consortium to develop and implement authentic community engagement via collaborative research projects, as opposed to a model where the academic researcher conducts a study with the CBO mainly providing access to clients and being excluded from involvement in the research process. The proposed grant aims to:

1. Develop a research consortium of academic researchers, CBO researchers, and community researchers to identify significant research questions, and design, implement and disseminate appropriate and scientifically rigorous research projects, that address STI/HIV health disparities in the African American community;
2. Increase the capacity of the members of the research consortium to participate in community collaborative research projects through relationship building activities, specialized trainings, and forums;
3. Develop an electronic infrastructure to support, grow and ensure sustainability of the consortium and activities by archiving consortium trainings and forums, facilitating communication among consortium members, and providing a forum for support and problem-solving among the subgroups of the consortium; and
4. Stimulate and develop innovative research by providing funding to conduct pilot research that will yield data for collaborative presentations at national conferences and provide preliminary data for use by academic and CBO researchers when submitting future R01 grant proposals to NIH.

5. Research Design and Methods

5.1. Background/Preliminary Studies

5.1.a. Broad and immediate goals of the project. The broad goal of the proposed project is to build a consortium of health sciences investigators at UCSF Center for AIDS Prevention Studies (CAPS; academic researchers), community-based organizations that serve the African American community (CBO researchers), and community members (community researchers) to design and implement research aimed at answering significant and relevant STI/HIV research questions. If successful, this project will transform the way in which health science research is conducted in communities, and accelerate the pace, productivity, dissemination, and implementation of HIV-related health research, whereby closing the large, well-documented, [7] and alarming gap between research and practice. As a result, we will be better positioned to improve the health and well-being of African Americans by providing culturally competent, population-specific interventions and services.

To accomplish our broad goal, a number of immediate goals have been identified as crucial in building, maintaining and sustaining an academic-community consortium committed to conducting research that addresses health disparities. The consortium will be participatory, cooperative, collaborative, long-term, sustainable and equitable with shared decision-making power and ownership. Given the differing backgrounds of the partners involved in the consortium, our first immediate goal involves strategies that address the process for consortium building: engagement, formalization, mobilization and maintenance of the academic-community partnerships [8]. This process has been identified in a recent review of participatory research, which also indicates the process must include activities that build: 1) mutual respect and trust, 2) capacity, empowerment, and ownership, and 3) accountability and sustainability. This foundation of strong, mutually beneficial partnerships will stimulate the development of significant, innovative, and relevant STI/HIV research.

Our second immediate goal is to develop the infrastructure necessary for building the capacity of the academic, CBO, and community researchers to initiate and implement innovative community collaborative research. We will develop workshops and forums that promote a co-learning process, where there is a mutual exchange of expertise from all partners. Academic researchers at CAPS and UCSF will attend workshops and trainings where researchers will develop core competencies in working with communities. CBO and community researchers in Oakland and other parts of Alameda County (the county in which Oakland is a city) will develop core competencies in research. These activities will also mobilize support in the larger community, help to demystify research, and solidify collaborative partnerships.

Our third immediate goal is to build the infrastructure that will foster capacity-building, communication, and sustainability of the consortium. We propose leveraging the existing CAPS website (www.caps.ucsf.edu) to add web pages and content that will encourage interaction and discussion between academic, CBO and community researchers. The website will also serve as a vehicle for social support and feedback among consortium members. To facilitate dissemination of the collaborative model and sustainability, the website will serve as an online archive for training and workshop materials, including videos of trainings and forums.

Our final immediate goal is to activate the consortium to address the relevant and pressing issues that contribute to and reduce the significant health disparities in STI/HIV among African Americans by providing pilot funding to support formative research. The pilot funds will be used to harvest existing data sets from academic and CBO researchers or for the collection of new data. It is expected that the pilot studies will lead to larger grant proposals to the NIH and will provide data for the preliminary studies section of these proposals. In addition, collaborative partnerships can present these data at scientific and service conferences where they will receive invaluable feedback on their work that will help refine the design of their NIH research proposals.

5.1.b. Research and development innovations. Through the long-term, sustained partnerships, our broad and immediate project goals can be effectively linked to long-term improvements and growth in the research enterprise, public health and health care delivery. As identified by initial planning meetings for this project between researchers and CBOs, the primary outcome of the proposed project is collaborative research grant proposals submitted by academic and CBO partners sharing roles at PI. These applications will propose significant and innovative research whose development was supported by an innovative process. By bringing the skill of scientists to the service of HIV prevention and the knowledge of service providers into the domain of research, we can more adequately understand and address the contexts and factors that result in STI/HIV health disparities among African Americans. All parts of the collaborative team

come to ear on the problem. By building the capacity of academic, CBO, and community researchers to participate and leverage collaborative partnerships, the development of relevant and innovate science is possible.

5.1.c. Research-CBO partnership. The leadership of the proposed partnership is Dr. Marguerita Lightfoot from CAPS and Dr. Alvan Quamina from APEB.

Dr. Lightfoot is an Associate Professor in Medicine at UCSF and the co-director of CAPS. She has an established research career conducting community involved research, receiving along with her community partner, the Ann C. Rosenfield Distinguished Community Partnership Prize in 2007. She has conducted community participatory research with communities addressing the health of youth involved in the juvenile justice system, runaway/homeless youth, and youth living with HIV. Dr. Lightfoot will facilitate the engagement and involvement of CAPS faculty in the consortium and provide mentoring and training to academic researchers as they develop academic-community partnerships.

CAPS faculty have conducted community involved research primarily with agencies in San Francisco. The proposed infrastructure grant will build and strengthen collaborations with CBO and community researchers in Oakland to address the health disparities in the African American community. We have identified two junior faculty who have initiated research in Oakland and will be leaders in developing the consortium: Drs. Emily Arnold and Megan Comfort. Drs. Arnold and Comfort will have dedicated time on the proposed project to establish and build the proposed research consortium. Establishing junior faculty in this role will facilitate the development of the next generation of academic researchers dedicated to community involved research. Dr. Arnold, an Assistant Professor in Medicine, received a K01 grant from NIMH to conduct research with young African American MSM and transgender members of the ballroom community in the Bay Area. The ballroom community predominantly consists of African American gay, lesbian, bisexual, and transgender communities, who form houses that then, organize and host elaborate balls. Community collaboration is essential to the success of this study, which is dedicated to examining social networks and HIV-related forms of social support. For this project, Dr. Arnold has consulted with Dr. Quamina to ensure the research is responsive to the community. Dr. Comfort, an Assistant Professor in Medicine, conducts research to examine how incarceration affects sexual behavior and HIV risk among jail and prison inmates, former inmates, and their intimate partners. She currently has her first R01 to conduct a mixed-methods study, based in Oakland, of men who were recently released from state prison and their female partners. Prior to receiving her doctorate, Dr. Comfort was an employee of a community-based organization providing direct services to women visiting prisoners at northern California's San Quentin State Prison.

Faculty at CAPS have a history of community collaborative research. A high percentage of CAPS research projects (77%) involve community in some capacity, with 108 community partners. [9] One research partnership that began in 1994 between a CAPS scientist and a service provider working in prisons, has resulted in eight projects with two NIH-funded intervention trials and a total annual budget of nearly \$1 million.[10] One of the trials was designated an evidence-based intervention and is currently being replicated across the US through the CDC. In addition, the program manager who conducted the original project at the prison was so impressed with the collaboration that she went on to get her PhD and is now a faculty member of CAPS conducting research with incarcerated populations (Dr. Comfort). However, a needs assessment of CAPS faculty indicated the need for researchers conducting community collaborative projects to network with each other and additional capacity for conducting collaborative projects was desired. In addition, there was an identified need to expand existing partnerships to outside of San Francisco, particularly in the African American community where significant STI/HIV disparities exist. Therefore, the UCSF team and CAPS are well positioned to assemble and foster the academic researchers and infrastructure to support collaborative research in Oakland, CA.

Dr. Alvan Quamina is the community Principal Investigator and Community Research Associate (CRA) for the proposed project. Dr. Quamina is Executive Director of APEB. Dr. Quamina has worked in CBOs in the fields of HIV and housing for over fifteen years. He has been active in advocating for HIV services and human rights for his community of black gay men for over twenty years. Dr. Quamina is well-known and respected in the African American community, particularly with local health officials, leaders of community-based organizations, and community health care providers. He has a successful track record in community-based programs and projects. Dr. Quamina has also managed federal grants from the CDC, SAMHSA, HRSA, and HUD. He currently serves as Principal Investigator on a HRSA research grant targeting HIV positive young men of color

who have sex with men, to link them into treatment and supportive services. Dr. Quamina holds a Ph.D. in Human Services, a J.D., and a B.A. in Economics. Given Dr. Quamina's experience and expertise, he is credible in the community and can represent the community's needs. He also has basic knowledge of the research process and can serve as an excellent translator between UCSF faculty and community partners and will be able to work closely with research partnerships on the conceptualization and implementation of the sustainable infrastructure apparatus developed in the proposed grant.

APEB is also well positioned to support the proposed project. APEB, founded in 1983 by Dr. Robert Scott, is a non-profit, community-based organization, dedicated to preventing the spread of HIV and providing support services to individuals infected with the virus (see www.apeb.org). APEB has over twenty years of experience providing a wide array of client-centered services that are both culturally and linguistically appropriate to the populations they serve. APEB has an exceptional reputation for its HIV prevention, care and treatment, and support programs. The agency has strong linkages and a long history of providing culturally competent services to African Americans and underserved communities of color with particular expertise in providing services to high risk African Americans. APEB is located in the heart of downtown Oakland and its HIV/STI education and prevention services include: *HIV Counseling, Testing and Referral services*, including anonymous and confidential, rapid HIV antibody testing at various community venues; *HIV/HCV/STI Education*, including street and community outreach where high-risk populations reside and/or convene; *Health Education/Risk Reduction Counseling*, including individualized HIV/STI risk reduction counseling provided to African American MSM; *Comprehensive Risk Counseling Services* for African American MSM and their sexual partners; *HIV/HCV/STI Care and Treatment Services* through the Wellness Clinic equipped with a licensed, on-site medical clinic offering a culturally competent, holistic, community-based care system. APEB also provides the *Ryan White Case Management*, including entitlements and benefits assistance, treatment advocacy and adherence support, and emergency financial and housing assistance. APEB has been funded through the Alameda County Office of AIDS for a project that connected the HIV positive African American men who were recently released from incarceration to care and treatment services. Currently, APEB is the lead agency in a HRSA-funded Special Project of National Significance (SPNS): "*The Community Involvement Project*"- *Retaining Young African American MSM in Care through Community Participation*, in collaboration with other CBOs. The goal of this project is to improve the health, well-being, quality and length of life of young, HIV-positive African American MSM by developing and testing an intervention model for reaching, linking, and maintaining this population in HIV/AIDS primary care and prevention with comprehensive services. Given the leadership position APEB holds in providing services to the African American community in Oakland, they have strong connections and relationships with other CBOs in Oakland.

APEB has also been involved in CAPS research endeavors in the past, both as a collaborating institution and in a community advisory role. In 1998, Dr. Diane Binson, a faculty member at CAPS, worked with APEB on a project funded by the Northern California Grantmakers to conduct a community assessment on HIV risk behavior, testing and counseling in Alameda County. The project involved a street survey assessing HIV-related risk taking, including drug use and sexual risk behavior, in conjunction with a subsample of qualitative interviews. The project also incorporated 'HIV 101' talks at different community forums to encourage people to learn more about HIV and to get tested. Dr. Binson met with APEB staff onsite weekly to discuss the survey design and then to implement the survey and interviews in the field. In addition to collaborating with CAPS on the community assessment, APEB staff have acted as advisors for CAPS researchers. Bongane Nyathi, the former Deputy Director of APEB, served on the Community Advisory Board of CAPS representing community agencies servicing MSM of color in Oakland and the East Bay. Although Mr. Nyathi has since returned to his native South Africa, his experience on the CAB helped APEB gain institutional knowledge and a level of comfort with research and its implications to and for the community. He also provided invaluable advice and insight for CAPS-based researchers on ways to improve their studies and make them more accountable to the needs of the community. Thus, APEB is well positioned to assemble and foster the CBO and community researchers and infrastructure to support collaborative research with UCSF faculty in Oakland, CA.

5.2. Opportunity and Potential Impact

5.2.a. Significant health disparity. The HIV/AIDS epidemic is among the most urgent public health issues in the African American community. While comprising just 13% of the total national population, African Americans accounted for 51% of all new HIV/AIDS diagnoses from 2001 to 2005 in data collected from 33 states using name-based reporting [11]. African Americans are more likely to experience AIDS-related mortality compared to other ethnic/racial groups: In 2004, 55% of AIDS-related deaths were among African

Americans, and HIV-related illness was the fourth leading cause of death for African American men and the third leading cause of death for African American women [12]. AIDS diagnoses are ten times higher in African Americans are disproportionately impacted compared with whites, and three times higher compared with Hispanics. African Americans in all known risk groups: 66% of heterosexual women living with HIV are African American, 69% of HIV-positive teens are African American, 65% of HIV-positive infants are African American, and 41% of HIV-positive men are African American. Researching the determinants of HIV risk and developing empirically and theoretically based HIV interventions for African Americans are national public health priorities [13]. Therefore, the proposed project will address the health disparities that exist in STI/HIV.

5.2.b. Potential broad impact. The proposed project would significantly impact our understanding of and strategies for reducing health disparities in STI/HIV. Through the infrastructure built in the proposed project, the consortium would formulate novel, innovative research and methods to gain a better understanding of the forces driving the high STI/HIV prevalence in African American communities. The project also has the potential for broader impact. The lessons learned in building the consortium and the infrastructure to support the consortium can be applied to other health areas, such as substance use and mental health. Further, if successful, the model for participatory research developed in this project can be widely disseminated. Finally, increasing the capacity of agencies to conduct research and build partnerships allows them to address the other issues experienced by the clients they serve. Other health issues significantly impact the African American community and through the activities of the proposed project, the agencies and wider community will be positioned and better able to build the partnerships and conduct the research necessary to address those various concerns.

5.2.c. Affected community. California accounts for 15% of AIDS cases reported nationwide through November 2005 [14]. Furthermore, California continues to have a larger proportion of its AIDS cases emerging among MSM populations (66%) versus the proportion nationwide (31%)[15]. Although African Americans make up 7% of California's population, they accounted for 18% of total AIDS cases reported in California and 19% of HIV diagnoses. Within California's African American male AIDS cases, 45% identified as MSM. When compared to other populations, the AIDS incidence rates for African American men were 2.5 times the rates of Latino men and more than 6 times the rates for white men in California.

The San Francisco Bay Area is particularly impacted by HIV, with Alameda County (which includes Oakland) being ranked in the top 10 counties with the highest concentrations of AIDS cases in the state. In Alameda County, AIDS case rates have been increasing among African Americans, who suffer from rates 8 times those of whites and 4 times those of Latinos living in the county. MSM account for the majority of the AIDS cases by exposure category (61%). Also alarming, there has been a recent rise in HIV prevalence and incidence rates among African American women, which has been observed in both Alameda and Contra Costa Counties [16]. In AIDS cases through 2005 reported in Alameda County, 56% of African American women reported heterosexual contact as their likely transmission source and 6.2% reported unknown transmission sources, possibly due to the unknown drug use or sexual contact with men of their male sexual partners. Indeed, HIV/AIDS is such a serious public health issue that the Alameda County Board of Supervisors declared a State of Emergency regarding HIV/AIDS so that greater attention would be drawn to it; the State of Emergency remains in effect. Civic leadership in Oakland has mobilized around the issue of HIV/AIDS, with US Representative Barbara Lee working on multiple levels to encourage HIV testing among her African American constituents, and the active engagement of Mayor Ron Dellums on issues pertaining to HIV/AIDS. The proposed project focuses on strengthening partnerships between UCSF and Alameda County, particularly Oakland. The potential impact of the partnerships is major in that it can transform the way in which health science research is conducted in this heavily burdened community in order to accelerate the pace, productivity, dissemination, and implementation of HIV health research, and more specifically, improving the health and well-being of African Americans.

5.3. Approach

5.3.a. Proposed infrastructure. A key strength of participatory research collaboration is the integration of the researcher's expertise in methodology and theory with the real world knowledge and experiences of community-based organizations and community members. This integration of knowledge and expertise enables a more comprehensive and coordinated response to public health issues than each group could achieve on their own. [17]. We propose an infrastructure that will facilitate the formation and maintenance of an academic-community consortium; build the capacity of the researchers, community-based

organizations and community members to engage in collaborative research; mobilize the partnerships to design and implement significant, innovative, and relevant research; and leverage existing electronic infrastructure to support, enable the growth of, and ensure sustainability of the research consortium (see Table 1). We propose a set of activities that will build mutual respect and trust; facilitate capacity building, empowerment and ownership; and maintain accountability and sustainability. These are essential elements that form the foundation of the process for establishing the academic-community consortium. The process we will engage in include four distinct phases [8]: 1) building an academic-community consortium, 2) capacity-building via workshops and forums, 3) electronic infrastructure for maintenance and sustainability, and 4) stimulate and develop innovative research.

Table 1. Proposed Infrastructure				
<i>Academic-Community Consortium</i>		<i>Capacity-building Workshops and Forums</i>	<i>Electronic Infrastructure for Maintenance and Sustainability</i>	<i>Develop innovative research</i>
Target	Infrastructure	<ul style="list-style-type: none"> • Research 101 • Community 101 • Respect and Partnership • Clients as research participants and staff • Ethical issues 	<ul style="list-style-type: none"> • Electronic archive • Social support & networking • Blog 	<ul style="list-style-type: none"> • Pilot funding • Community Feedback Groups • Grant development support • Methodological & statistical support
Engagement	<ul style="list-style-type: none"> • Awareness building • Monthly meetings • Retreat • Community forum 			
Formalization	<ul style="list-style-type: none"> • Monthly meetings • Support groups 			
Mobilization	<ul style="list-style-type: none"> • Monthly meetings • Site visits • Finalization of research projects 			
Maintenance	<ul style="list-style-type: none"> • Feedback of results • Secure additional funding • Refine partnerships and research plans 			

5.3.b. Academic-Community Consortium. We will engage in a number of activities to build the proposed academic-community consortium. The process will include activities to foster engagement, formalization, mobilization and maintenance. [8]

5.3.b.1. Engagement. Drs. Lightfoot and Quamina will develop a list of invitees to an initial meeting. Dr. Lightfoot will personally invite faculty to the meeting and Dr. Quamina will personally invite CBO and community members. They will invite individuals who have previously expressed interest in community collaborative research and are committed to examining health disparities in the African American community. In preparation for this proposal, a number of Oakland-based CBOs have expressed interest in being involved (see letters of support), including the California Prevention and Education Project (CAL-PEP) and Women Organized to Respond to Life Threatening Disease (WORLD). Community members will be identified through the CBOs, including volunteers, peer advocates, and clients. The initial meeting will serve to introduce the project and its leadership, build awareness of the project and its aims, develop a plan for identifying and inviting other key constituents to participate in the consortium, discuss the markers of success for the project, establish a regular monthly meeting schedule for the group (with locations of the meeting alternating among CAPS and the Oakland CBOs involved) and encourage commitment for involvement in the project. All interested community members will be asked to participate in the consortium. After the initial meeting, the consortium will meet monthly. The monthly meetings will identify community interests, allow partners to get to know each other, establish a shared purpose, and establish the process for communication.

Once the consortium membership is finalized (we anticipate this taking approximately 6 months), Drs.

Lightfoot and Quamina will organize the first consortium retreat. We will identify a skilled facilitator to guide the group in communicating and bridging the academy and community cultures, navigating and negotiating how decisions will be made, fostering understanding and discussion of relationship dynamics, assisting in managing potential conflicts, and developing a sustainable and collaborative culture. During the retreat, the nature of collaborative research, capacity building needs, and current community needs will be discussed. The outcome of the retreat will be the identification of key community issues that address HIV/AIDS disparities and initial formations of collaborative partners. Importantly, the retreat will also include a discussion to decide on a methodology for obtaining community support and involvement. We anticipate one method will be a community forum. Following the retreat APEB will organize a community forum, in which community members will be invited to discuss what they see as the main issues in the community driving the HIV/AIDS disparities in the African American Community. This will provide valuable information to the consortium as the collaborative relationships begins to formulate research questions. It is through these activities that the collaborative relationships will become formalized.

5.3.b.2. Formalization. Through continued monthly consortium meetings, initial collaborative partnerships will be finalized. Every collaborative partnership will include an academic, CBO and community partner. These partnerships will form organically based on interests, expertise, and synergy. Drs. Lightfoot and Quamina will be active in identifying common interests across individuals to facilitate the formation of partnerships. During this phase, the consortium meetings will address ethical concerns; establish joint decision-making agreements; build leadership within the collaborative partnerships; overcome power imbalances; discuss ethnic, cultural, social and organizational differences; establish milestones and deliverables for the collaborative partnership and maintain trust and respect. Collaboration agreements will also be negotiated and formalized, which include consensus on authorship, data ownership, intellectual property issues, and how credit for the project is shared. With participation in capacity-building workshops and forums (see Section 5.3.c), the collaborative partnerships will also develop research questions, begin to design significant and innovative research studies, and devise pilot studies that will provide direction and preliminary data for a larger grant proposal.

5.3.b.3. Mobilization. The activities during this phase will focus on the development and submission of community collaborative grant proposals. To support the development of these proposals, capacity-building workshops and training will focus on topics essential for conducting community collaborative research, such as research methodology and staffing for community collaborative projects. It will also be important to allow time for academic researchers to maintain their current research activities while developing local capacity and maintaining a local presence. Consequently, a small portion of faculty time will be covered by the proposed project. Similarly, we will ensure time for CBO researchers to support research while continuing to deliver services and programs. As such, a small portion of staff time is covered by the proposed project and resources are included for CBO and community researchers. Providing resources for all partners ensures equitable support for the people doing the work. Therefore, participation in workshops and meetings will be negotiated within the collaborative partnerships.

Consistent with the experience of others [8], our prior experience suggest that in some situations, CBO and community partners will have limited time, expertise, or interest to contribute to some of the technical and labor-intensive components of the research process, but will want to shape the research questions, review and approve the research protocol, and participate in the interpretation and uptake of results. These issues will be discussed during the monthly consortium meetings. Through the meetings, we will also work toward equitable distribution of resources in the collaborative partnerships as well as to clarify the direction and governance of the proposed projects. We anticipate the direction of the projects may change as members become more familiar with their roles, their partnerships, and participation in capacity-building activities. Drs. Lightfoot and Quamina working together with the larger consortium, will respond to these changes by initiating dialogue to develop solutions during the monthly consortium meetings. In addition, Dr. Quamina will conduct individual interviews with all community members and Dr. Lightfoot will conduct individual interviews with the academic researchers to assess their satisfaction with the project and their collaborative partnership, as well as opinions about future activities. Any potential challenges will be identified and addressed by Drs. Lightfoot and Quamina individually, within the collaborative partnership, or among the larger research consortium.

Collaborative partnerships will also conduct site visits to each other's respective worksites. During the site

visit, individuals will spend a half day shadowing their research or community partners to gain a more complete understanding of their colleagues' experiences and realities. These meetings are intended to further build mutual respect and trust, foster understanding and empathy, and provide a realistic picture of one another's contexts. The monthly meeting during this time will focus on report-backs from these experiences.

5.3.b.4. Maintenance. During this phase, the consortium will work towards a plan for the next round of research projects; leverage the collaborative partnership to respond to other funding opportunities (e.g., Office of AIDS); review milestones and deliverables and modify as appropriate; review consortium membership and identify other potential partners; review the electronic infrastructure to ensure content is maximized for sustainability; and articulate a dissemination plan for the collaborative model developed in the project. We will also pursue other potential UCSF funding mechanisms that support academic-community partnerships to maintain momentum on research development until research proposals could be developed and funded, such as the UCSF Office of University Community Partnerships, the CTSI Community Engagement Program, the UCSF AIDS Research Institute/Center for AIDS Research (CFAR) grants program, the CFAR Creative and Novel Ideas in Research Awards Program, and the California HIV/AIDS Research Program within the University of California.

5.3.c. Capacity-building via Workshops and Forums. We will conduct a series of workshops and forums intended to assist the collaborative partnerships design significant and innovative research that balances scientific excellence with social and cultural relevance; fosters ownership, capacity building, and empowerment of CBO and community partners; and translates research knowledge into action. In addition, we aim to build the capacity of the community, so that the community is left with something tangible after any given research project is complete. We anticipate that the workshops will be responsive to the reasons and motivations that the collaborative partners have for conducting research. The CBO and community researchers will learn to collect, synthesize and present data in a way that would effectively influence public opinion and policy; gain credibility with funders; and receive validation of community concerns. Academic researchers will learn about, become partners in, and be able to undertake collaborative research.

The structure, length, and focus of these workshops will be determined by the consortium during the monthly meetings. Once a topic is identified, the consortium will also discuss potential speakers and workshop leaders. Workshop leaders will include academic, CBO, and community researchers, but we will also draw upon local experts from CAPS, other UCSF departments, affiliated local institutions (e.g., San Francisco State University, University of California at Berkeley), other CBOs, and community leaders. The audience for the workshop will also be determined by the consortium. Some workshops will target only consortium members, while others will include a broader audience such as all CAPS faculty or the broader HIV community. By broadening the audience for the workshops, we increase capacity and build a culture of conducting community collaborative research. For example, in order to increase the number of faculty conducting such research it will be important for academic researchers to learn the benefits of collaborative research, such as higher response rates with hard to reach populations, higher success at maintaining participants in longitudinal studies [18], as well as the benefit that this research allows for the development of culturally appropriate measurement instruments, data collection procedures, and interpretation of data. We anticipate conducting a workshop that breaks down myths sometimes held by academic researchers about community collaborative research, such as every study should include all elements of a model of community-based participatory research; collaborative research leads to compromised and weak research methodologies (sacrifices in internal validity is balanced with gains in increased external validity and generalizability of results, and more sustainable and effective programs); and collaborative research helps community members more than researchers when it in fact facilitates innovative research. The broader community will also learn the benefits of participating in collaborative research, including how such research leads to action to improve the health and well-being of the community members [19], as well as learning the benefits of working with researchers, not only in learning new ways to tackle health issues, but also gaining valuable transportable research-related skills such as organization, data collection, writing, and oral presentation. See Table 2 for examples of potential workshop topics.

Table 2
Proposed Workshops and Trainings

Formalization Topic (Leadership)	Mobilization Topic (Leadership)	Maintenance Topic (Leadership)
<ul style="list-style-type: none"> • Respect and Partnership • How to Collaborate • Research v. Service Delivery • Negotiating ownership of data and research products • Building responsive and responsible research • Benefits of community involved research • “Tales from the Field” stories from community partners in implementing research or evidence-based interventions • Voices from the community, what factors surround (and constrain) health and health-related decisions? 	<ul style="list-style-type: none"> • Community Research 101 • Research Methodology • Developing a research question • Clients as research participants and staff • Qualitative and quantitative methods • Survey research and measurement issues • Ethics in collaborative research • Forming community institutional review boards (IRB) • Peer review of proposals and manuscripts • Forums on hot topics identified by the consortium 	<ul style="list-style-type: none"> • Responding to review summaries • Recruitment and retention • Analysis and interpreting data • Forums on research findings

5.3.d. Electronic Infrastructure for Maintenance and Sustainability. We propose leveraging the existing CAPS website (www.caps.ucsf.edu) to add web pages and content that will encourage interaction and discussion between academic, CBO and community. The website will also serve as a vehicle for social support and feedback among consortium members. To facilitate dissemination of the collaborative model and sustainability, the website will also serve as an online archive for training and workshop materials, including videos of trainings and forums, link to other relevant websites (e.g., community-campus partnerships for Health www.ccpb.info), and serve as an organized depository for information and resources identified by the consortium. The consortium will explore a number of internet based strategies for encouraging interactive information sharing and collaboration between academic, CBO, and community researchers. To encourage interaction, the website will add a consortium blog (allowing users to add monitored comments), RSS feed (to provide timely updates), and archive of videos from trainings and conference presentations. To further encourage interaction, we will explore developing and managing potential a social networking site (e.g., Ning, Facebook). Strategies will be modified or prioritized based on the needs of the consortium. Finally, we will also conduct online trainings and forums. The sessions will be presented via WebEx, a technology for online meetings where people anywhere in the country can meet in a virtual online classroom and simultaneously view materials (e.g., Power Point slides, documents) and interact with others through the telephone. This technology will also be available to the collaborative partner teams to set-up their own individual meetings. Dr. Lightfoot is very familiar with these technologies, having used them successfully to deliver interventions [20] and as principal investigator of a training program for investigators conducting research in minority communities that utilizes these technologies for mentoring and training.

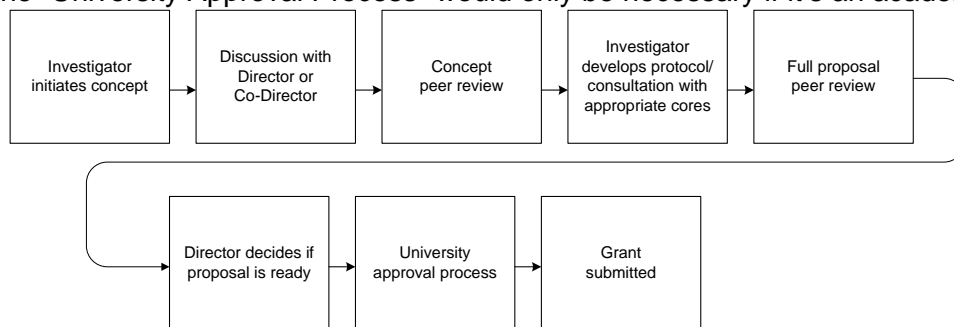
5.3.e. Develop innovative research. The collaborative teams will develop, design, and implement research aimed at answering significant and relevant STI/HIV research questions. Through the process of monthly meetings and capacity building activities, the collaborative teams will design significant research proposals that address the health disparities in STI/HIV. To support the development of this research, the proposed project will provide funding for pilot grants to the collaborative teams. The collaborative team would develop a short proposal outlining the specific aims, proposed methods, and partnership agreement that outlines each partners’ responsibilities. The goal of these pilot awards will be to conduct theory building, measurement development, formative research, and feasibility studies in support of future extramural funding applications. The pilot funds will likely be used to harvest existing data sets from academic and CBO researchers or for the collection of new data. The data from the pilot studies will be used for preliminary studies for the larger research proposal.

To provide oversight and ensure projects progress, twice yearly, the collaborative partnership will submit to the consortium a progress report outlining the extent to which the project activities are meeting specific aims, recruitment, and timelines. These discussions will be collaborative and constructive, intended to enable problem-solving of any challenges in conducting the pilot study.

In developing their research proposals, the partnerships will also have access to the CAPS infrastructure cores and peer review process. CAPS consists of six infrastructure cores. The cores most likely to be accessed by the collaborative partnerships are: *Methods Core* (T. Neilands, Director) which promotes state-of-the-art research design, rigorous quantitative and qualitative analysis strategies and interpretation, and technological strategies for data collection and management; *Policy and Ethics Core* which ensures that science is conducted according to the highest ethical principles and in accordance with the law, works with scientists to examine the ethical and policy implications of their work, and stimulates, supports, and conducts policy and ethics research; and *Technology and Information Exchange (TIE) Core* (M. Lightfoot, Director) synthesizes and disseminates CAPS science to domestic community stakeholders—providers, funders, and policy makers—in innovative ways, brings community perspectives to CAPS, stimulates collaborative research, and provides technical assistance to CAPS investigators and community stakeholders.

The supportive, rigorous peer review system is where content-area experts and research methodologists review grant proposals, enabling researchers to enhance the quality of their work before submitting it for review at funding agencies and publication outlets. Effective peer review ensures scientific excellence in several ways. First, the scientific product is strengthened. Second, all participants—reviewers and reviewees—learn from each other. Third, peer review increases communication and collaboration. When a collaborative team is ready to pursue a new research concept, they will be guided by Dr. Lightfoot through a several-step process to develop it into a formal proposal. This process includes discussion an initial concept peer review and development of a protocol in consultation with as many resources as appropriate (see Figure 1).

Figure 1. (Note: the “University Approval Process” would only be necessary if it’s an academic PI)



In addition, there will be a community review of the research concept and subsequent proposal. Community feedback groups of at least 10 community members will be organized to provide feedback to the academic-community partnerships regarding proposed research questions, directions, and study design. The research partnership can access a group when identifying an area for further research, conceptualizing a research question, or obtaining reactions and input on study design and methods. Depending on the needs of the research partnership (e.g., men who have sex with men, women, youth), we will convene community feedback groups - a group of community members to provide input, similar to a community advisory board. The feedback group members will be recruited from CBOs (clients and volunteers) and the advocacy community.

5.3.g. Transformative nature of project. By strengthening the partnership between CAPS and CBOs, subsequent research will be more responsive to the needs of community and create the commitment to overcome the existing challenges to conducting research in the African American community in Oakland. In addition, by building the capacity and infrastructure of CBOs to participate in research, they will become empowered to answer their own research queries, particularly in an era of evidence-based interventions, medicine, and policy making. By community members becoming more savvy about the kinds of questions that are being asked and the kinds of research that is being done, they have the opportunity to bring awareness to and perhaps change the factors that contribute to poor health outcomes in their communities.

Building the proposed consortium relationships will result in a level of capacity building and sustainability that will endure beyond the life of the project. Through the process and activities of the proposed project,

CBO and community researchers will have increased capacity with regards to research, and become empowered to identify important questions for their community, to engage in advocacy with policy makers, and to advance an agenda for greater social justice. The proposed project is transformative in that it has the potential to build a social movement and create a true sense of community empowerment for better health, particularly for reducing health disparities in STI/HIV.

Further, the proposed model inverses the traditional approach to research, which is driven by a scientific investigator who develops a research question and then seeks a community collaborator to help accomplish data collection. It transforms the research enterprise into one that is grounded in the expertise of CBOs, and responds to the needs they and their clients identify as being most pressing. This enables research to grow from the core of the epidemic, rather than to attempt to come from the periphery. Because CBO members will themselves be responsible for each stage of the development of a proposal, they will gain the capacity to undertake a similar process again whenever they determine another need to address. As researchers are able to share the labor of the grant writing process, and eventually the study itself, they will expand their own capacity to be involved in multiple projects in a meaningful and collaborative way. Likewise, as CBOs go through this process together, they will develop capacity as a group, which will lead to opportunities for partnership and collaboration in the future.

5.4. Timeline, Milestones, Expected Measurable Outcomes and Deliverables. Ultimately, the success of this project will be determined by the number of collaborative research proposals and collaborative manuscripts that are developed, submitted to, and funded by NIH. Therefore, measurable outcomes include number of partnerships that successfully identified a research question, developed an appropriate design, and submitted a grant proposal. While these are primary outcome measures, they will also be examined quarterly to assess overall progress of the project and provide feedback for ongoing quality improvement. We propose a number of process measures of intermediate objectives, including recruitment and retention of consortium members (researchers, CBO, community members), participation in the various elements of the proposed infrastructure (e.g., attendance at monthly meetings, attendance at workshops and forums, participation in online networking), and satisfaction with the proposed activities and infrastructure.

Our three year project will begin in July 2010 and will proceed according to the following timeline:

July 2010: Convene initial planning meeting facilitated by the Principal Investigators. We anticipate the first meeting will include UCSF researchers interested in conducting research in Oakland, community-based providers from the Oakland area, representatives from the Alameda County Office of AIDS. The purpose of this meeting will be to welcome and update everyone to the project, develop a plan for identifying and inviting other key constituents to participate in the consortium, discuss the purpose and markers of success for the project, and establish a regular monthly meeting schedule for the group (with locations of the meeting alternating among the Oakland CBOs involved and CAPS). Milestone: Commitment to consortium, develop meeting schedule

September 2010: Define the roles of each participant in the consortium, particularly Dr. Quamina's role as the Community Research Associate (CRA). In addition, we will orient the consortium to the role of CRA, who will facilitate the activities initiated and overseen by the consortium, including coordinating workshops, retreats, forums, and responding to the requests of the consortium members and the needs of the project. Drs. Quamina and Lightfoot will work collaboratively with the consortium members to develop a detailed Project Plan during this period. In addition, the current consortium will assess the group's membership needs and Dr. Quamina will recruit added participation, as needed. Deliverable: Detailed Project Plan

November 2010: The consortium will host its first annual retreat with community and researcher members. The retreat will be a full day event in the Oakland area and the purpose will be to build rapport among members, understand the language and motivations of both community providers and prevention researchers, discuss leadership and decision-making within the consortium and learn about issues in collaborative research. We will schedule sessions based on the CAP manual "Working Together: a Guide to Collaborative Research" and will utilize the skills and resources of UCSF's Community Translational Science Institute to help organize and facilitate sessions. In addition, this month we will institute process evaluation by tracking consortium member participation, number of meetings attended and by surveying consortium members regarding satisfaction with participation and direction of the project. Milestones: Full day retreat for consortium members; Deliverable: Meeting agenda and minutes, Retreat report, process

evaluation report developed by Dr. Quamina.

January 2011: By this month, we will have implemented our workshop series for CBOs and researchers designed to build capacity in collaborative research and research skills that will lead to a certificate. The workshops will include pre-and post-test evaluation that will be used for continuous quality improvement of the workshops and forums. We anticipate that partnerships between academic researchers, CBO researchers and community researchers will have formed and process of identifying a research question would have begun. Drs. Quamina and Lightfoot will be active in identifying common interests across individuals in facilitating the formation of partnerships. In addition, during the monthly meetings, consortium members will discuss possible content for the website designed to support collaborative research. Following these planning discussions, the electronic infrastructure will be developed and launched. Milestones: Initiation of workshop series, research partnerships formed, establishment of on-line platform to support consortium members. Deliverables: Meeting agenda and minutes, detailed workshop plan, evaluation reports, continued consortium process evaluation, list of partnerships, detailed plan to implement on-line support.

March 2011: We will continue with consortium meetings and the workshop series. At this point, we anticipate the direction of the project may change as members become more familiar with their roles, their partnerships, and the process of implementing capacity-building activities. Drs. Quamina and Lightfoot, working together with the larger consortium, will respond to these changes by initiating discussions to develop solutions during the monthly consortium meetings. Partnerships will visit each other's respective worksites and spend a half day shadowing their research or community partners to gain a more complete understanding of their colleagues the experiences and realities. These meetings are intended to build mutual respect and trust, and provide a realistic picture of one another's contexts. The monthly meeting will focus on report-backs from these experiences. Milestones: site visits/shadowing implemented. Deliverables: Meeting agenda and minutes, evaluation reports.

May 2011: This will be a maintenance period in which the consortium is meeting monthly, workshops are held, on-line systems are up and running, site visits/ shadowing are continuing, and evaluation is proceeding. We will begin two bi-monthly "support groups:" one for researcher partners facilitated by Dr. Lightfoot and one for community provider partners facilitated by Dr. Quamina. Dr. Quamina will conduct individual interviews with all community members and Dr. Lightfoot will conduct individual interviews with the academic researchers to assess their satisfaction with the project and opinions about future activities. Milestones: all major systems for the project are up and running, support groups begin. Deliverables: Meeting agendas and minutes, evaluation reports, individual interview reports

July 2011: This month marks the end of the first year and the transition from building a cohesive, mutually respectful, and knowledgeable consortium and functioning research partnerships, to the identification of a research question and the development of a study design. Drs. Lightfoot and Quamina will coordinate the second annual retreat for research partnerships that will be 2 full days at an San Francisco location. The focus of this retreat will be to define research questions that the community research partnerships can pursue that will be useful and feasible, and to define topics for workshops for the coming year. Workshop certificates will be awarded. Milestones: Transition from capacity-building to research design. Deliverables: Meeting agendas and minutes, evaluation reports, retreat agenda.

October 2011: The retreat will have taken place during this past quarter and the schedule of workshops will have been determined. The workshop topics will be based on the skills needed for research partnerships to participate in the coming phase of the project and will involve support from the CTSI. Milestones: Definition of research question. Deliverables: Meeting and Retreat agenda and minutes, workshop plan and schedule evaluation.

January 2012: During this period the study designs will be determined and the process for soliciting IRB approvals will have been begun by Drs. Lightfoot and Quamina. Roles and responsibilities for carrying out the major tasks involved in the research will have been assigned. In addition, the consortium will present forum for the community on hot topics in HIV prevention research. Milestones: Study design developed, forum initiated. Deliverables: Meeting agenda and minutes, task assignment, evaluation, evaluation of forum, study design.

April 2012: This will be an implementation period in which data will begin to be collected as overseen by the academic, CBO, and community PIs and the partnerships. Monthly meetings will focus on the details of

implementation and quality control. Instruments will be developed and reviewed. Activities including workshops, monthly meetings, forums, and visits will continue as needed and will be evaluated. Milestones: Study designs implemented. Deliverables: Meeting agenda and minutes, evaluation, instruments developed.

July 2012: This month marks the start of the third and final year of the project. Data collection will continue and the group will plan the third annual retreat. The purpose of this retreat will be to assess the state of the community research collaboration, assess the progress with study implementation, discuss preliminary findings, and to begin to formulate questions for a proposal for another study. In addition, membership will be assessed to see what needs still have to be met and to respond to any turnover in the consortium membership. Workshop series certificates will be awarded. Milestones: Retreat. Deliverables: Meeting and agenda and minutes, evaluation.

September 2012: By this period the third retreat will have taken place and community research partnerships will have assessed the progress of their studies. As is often the case in community-based research, the research question or methods may need to change or be refined. Partnerships that make changes will be supported and monitored by Drs. Lightfoot and Quamina, who will analyze and write a brief report on why the changes were needed. Data collection continues. Milestones: Research assessment, change in research direction, if needed. Deliverables: Report on research re-assessment, revised research designs, if needed

January 2013: This will be the period in which the pilot studies will be completed, data analyzed, and findings disseminated. Community research partnerships will present study results to the consortium during monthly meetings. Possible consortium-wide dissemination will be discussed. Dr. Quamina will set up a community forum to present findings. Milestones: Analysis and dissemination. Deliverables: Meeting and agenda and minutes, evaluation, research findings, community forum.

May 2013: This will be the period in which work on proposals for larger grants will continue. Dr. Quamina and APEB assistant will continue compile potential grant opportunities, working with the CTSI for the community research partnerships. Milestones: Completion of pilot research projects. Deliverables: Dissemination products, project proposals submitted.

July 2013: Completion of project.

5.5. Long Term Sustainability Plan: We recognize that supporting researcher– community linkages or partnerships may require additional funding to keep them sustained until research proposals could be developed and funded. Potential internal funding for such linkages will be identified through existing programs that support academic-community partnerships, such as the UCSF Office of University Community Partnerships, the CTSI Community Engagement Program, the UCSF AIDS Research Institute/Center for AIDS Research (CFAR) grants program, the CFAR Creative and Novel Ideas in Research Awards Program, and the California HIV/AIDS Research Program within the University of California. The consortium will also explore the inclusion of evaluation research and data collection within currently funded service projects at each CBO. In addition, the CBO/researcher partnerships can continue (if final proposal is funded, or other proposals are developed and funded); CBOs may also form collaborative relationships and use their track record and new capacity to apply for research and/or service funding.

The sustainability of the consortium will also continue to receive support by CAPS. CAPS will continue to support the additional community collaborative content on the website, including continuing to update information on the website.

The consortium itself is also key in the long-term sustainability of the infrastructure. During the final year of the project, the consortium will focus on the three dimensions of sustainability[21]: 1) relationships and commitments between all partners, 2) knowledge, capacity, and values of the partnership, 3) funding, staff, and programs. The consortium will review the workshops and trainings that have been conducted, ensuring the key workshops are on the website and identifying any additional topics that will be important for sustainability. The consortium will also review its own capacity to sustain consortium activities, while also reviewing the benefits each member has received from participating. Finally, the consortium will review and strengthen plans for new research proposal submissions. We anticipate that if the consortium endeavors have been useful, members will want to stay engaged[21]

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