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Systematizing Planning and Formative Phases of HIV Prevention Research: Case Studies from Brazil, Mongolia, and Kazakhstan

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Abstract
Objectives International Community-Based Participatory Research (CBPR) is vulnerable to contextual, political, and interpersonal issues that may hamper researchers' abilities to develop and sustain partnerships with local communities. This paper responds to a call for systematizing CBPR practices and to the urgent need for frameworks with potential to facilitate partnership building between researchers and communities in both "developed" and "developing" countries.
Methods Using three brief case examples, each from a different context, with different partners and varied research questions, we demonstrate how to apply the International Participatory Research Framework (IPRF).
Results IPRF consists of triangulated procedures (steps and actions) that can facilitate known participatory outcomes: (1) community-defined research goals, (2) capacity for further research, and (3) policies and programs grounded in research.
Conclusions We show how the application of this model is particularly helpful in the planning and formative phases of CBPR. Other partnerships can use this framework in its entirety or aspects thereof, in different contexts. Further evaluation of how this framework can help other international partnerships, studying myriad diseases and conditions, should be a focus of future international CBPR.

Keywords CBPR · International collaboration · Academic-community partnerships · HIV prevention

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Introduction

In the USA, research partnerships have successfully used the tenets of Community-Based Participatory Research (CBPR) to integrate local knowledge and scientific research, increase community participation in research, strengthen external/ecological validity of research methods, and increase community capacity for future research and programs/services implementation (Viswanathan et al. 2004). CBPR seeks to ameliorate health problems through a transformative process of collaboration wherein research partners (e.g., researchers, residents, and service providers) are involved in several aspects of research, from determining goals to disseminating results. Meaningful community-researcher collaboration can help research partners achieve participatory outcomes, including community-defined research aims, capacity for long-term partnership and research, and policies and programs drawn from research findings. This paper responds to a call for an *international* systematization of Community-Based Participatory Research (CBPR) (Wright et al. 2010) that would facilitate partnered research in developed and developing countries (Pinto et al. 2012a, b) and help overcome challenges, such as communities' suspicions toward research (Baptiste et al. 2006; Lo and Bayer 2003), communication difficulties (e.g., language differences), and breakup of partnerships (Bhutta 2002). Wright et al. (2010) also noted the disparate understandings that exist to characterize CBPR among international research partnerships. Studies vary broadly in their application of CBPR principles and the degree to which they involve their partners as collaborators versus as advisors or participants in research. Thus, having a clear blueprint for forging research partnerships may assist partners particularly in the planning and formative phases of research. Researchers worldwide have begun to develop frameworks to facilitate such work (Bellamy et al. 2008; Griffin and Floyd 2006; Lasker et al. 2001). For example, a framework for

participatory international research showing how procedural triangulation may achieve (1) community-defined research goals, (2) capacity for further research, and (3) policies and programs was published (Pinto et al. 2012a, b). This unifying interpretation views community as its central concept, research as being long-term and involving community members focused on local issues and ecological determinants of health/social outcomes, and methods as being iterative (Wright et al. 2010).

This paper describes three cases in which the International Participatory Research Framework (Pinto et al. 2012a, b) guided the planning of research in three contexts: Brazil, Mongolia, and Kazakhstan. These studies address public health issues through collaboration wherein partners (e.g., researchers, residents, and service providers) are involved in multiple aspects of research, from determining research goals to developing methods and procedures to disseminating findings (Israel et al. 2003). This paper contributes to the development of a common understanding and approach to the practice of international participatory research, with potential to advance participatory theory and practice worldwide.

International Participatory Research Framework

The International Participatory Research Framework (IPRF) includes four participatory steps: (1) contextualizing the host country; (2) identifying collaborators in the host country; (3) seeking advice and endorsement from gatekeepers; and (4) matching partners' expertise, needs, and interests. Grounded in the literature on CBPR (Israel et al. 1998; Lantz et al. 2005; Pinto et al. 2008), we have used participatory actions for becoming familiar with local languages and cultural norms by interacting with local partners and community residents; sharing power, ideas, influence, and resources; gathering oral and written information; defining collaboratively the scope of the research; and resolving differences by communicating openly (For details, see Pinto et al. (2012a, b)). In order to demonstrate how to implement this framework, the descriptions of each case are organized around the International Participatory Research Framework (IPRF) to highlight common steps and actions across projects.

Background

It is estimated that 33 million people globally live with HIV. In 2009, Brazil's estimated prevalence among adults was 0.3–0.6 %. In Mongolia and in Kazakhstan, the estimated prevalence was 0.1 % (UNAIDS 2010). The prevalence in each of these countries is considered low. However, HIV, along with other sexually transmitted infections (STIs), is on the rise, particularly in densely populated areas and among drug users, men who have sex with men, and sex workers (Laruelle 2008; Schwebke et al. 1998). Stigma and criminalization surrounding homosexuality, drug use, and sex work contribute to the rising numbers of new infections in these populations as they did in other global regions that eventually developed epidemics. Low prevalence in each of these country settings suggests an opportunity to implement successful primary and secondary prevention, which, if effective, may avert any future HIV epidemic.

Case One: Integrating HIV Prevention with Primary Care in Brazil

This project was a partnership between researchers at Columbia University in New York City, Catholic University in Rio de Janeiro, Brazil, and Brazil's Family Health Strategy [Estratégia Saúde da Família (ESF)] in two municipalities in the southeast region of Brazil. The partnership included ESF administrators, coordinators, and community health workers (CHWs). The project was funded by Columbia University School of Social Work, the International Association of Schools of Social Work, and by the Institute for Latin America Studies at Columbia University. This project aimed to study the extent to which CHWs, nurses, and physicians integrate HIV and other prevention services into primary care of low-income individuals and families.

Contextualizing the Host Country Once the initial partnership between one US-based researcher, a medical doctor, and a nurse in one ESF clinic, and the local Secretary of Health had been established, a new mayor was elected and withheld his support of our research. Grounded in the collaboration between a professor at Catholic University and the ESF, we developed a partnership with ESF staff at two municipalities, Mesquita (Rio de Janeiro State) and Santa Luzia (Minas Gerais) in order to avoid shutdowns due to political reasons. In each of these municipalities, we included ESF health care providers in deciding study aims, data collection, and dissemination procedures. Although we had command of the native language, we did not have a full understanding of the local cultures. We thus visited several times before starting data collection and shadowed ESF staff in their day-to-day work. In order to help our new partners get to know us, we conducted workshops about research methods and the specific aims of the study. We spent time with participants, talking about local politics, events, and eating local foods. We discussed ethical issues related to research, acknowledging events such as the Tuskegee Syphilis study. We trained seven master's level professionals in qualitative and quantitative analysis who, in turn, taught us how best to recruit and conduct interviews.

Identifying Collaborators in the Host Country In each municipality, we identified staff in the ESF who could serve as the point persons for recruitment and to help access CHWs, physicians, and nurses. Our point persons were usually ESF nurses who also had administrative responsibilities, such as providing supervision and training. Our study aims were perceived as helpful because they had potential to generate data that could be used by ESF coordinators to modify practices and policies. Our ability to speak Portuguese helped partners resolve professional (e.g., formal degrees) and social (e.g., socioeconomic status) differences. For example, we addressed openly the fact that researchers in the USA receive funding for research at a rate much higher than researchers in Brazil.

Seeking Advice and Endorsement Our partnership lasted several years while we collected data from 262 ESF staff. Endorsement from local politicians and ESF staff enhanced our ability to benefit ESF workers. For example, CHWs reported that their supervisors began to respect their skills of communication; physicians and nurses reported using CHWs' techniques to engage patients. Our perspective was enriched by a multidisciplinary team (e.g., social work, psychology, and nursing), students, and ESF staff.

Matching the Expertise, Needs, and Interests of All Partners We held several meetings with community residents and ESF staff until we reached consensus around the research aims. ESF staff had expertise in providing services to low-income families in Brazil while researchers, as former practitioners, had similar experiences in the USA. Discussions around our experiences helped us to agree upon a research question. For example, researchers had an interest in collecting survey data from ESF staff. Our local partners agreed and used these data to advocate for changing some practices and to collect more data from CHWs, physicians, and nurses.

Collaborative Research Aims and Outcomes ESF staff felt that their involvement in this research would prepare them to conduct other types of research, not limited to HIV prevention. Because the ESF is comprised of CHWs, physicians, and nurses, they proposed to examine associations between transdisciplinary collaboration and services integration. We worked with 21 health workers, three administrators, and university partners, in order to develop these aims. Researchers in Brazil usually have 2-month vacations in the summer. Schedules had to be negotiated in order to accommodate US researchers' schedules so that they could travel to Brazil during the summer when students in the USA are on vacation. By sharing power at each phase of the research cycle, we were able to determine important variables, which were used to enhance ESF staff training.

Capacity Building for Research and/or Programs The presence of international researchers, according to ESF staff, helped elevate their professional status. We employed an iterative process in which researchers and ESF staff trained and mentored one another with an emphasis on recruitment, data collection, analysis, and interpretation. We collected data from a total of 262 ESF staff in two municipalities in two different states. We published several papers, including one about CHWs' specific roles in transdisciplinary teams (Pinto et al. 2012a, b) and another about integration of services (Pinto et al. 2013).

Case Two: HIV Prevention with Drug-Involved Couples in Kazakhstan

This partnership is between university-based behavioral researchers in the USA, physicians, nurses, fieldworkers, and both government and civil society in the cities of Almaty and Chu, Kazakhstan (KZ). The pilot project described herein began with funding from a supplemental grant to a National Institute of Health (NIH) R01 grant that aimed to test, through a randomized controlled trial, a heterosexual couples-based HIV prevention behavioral intervention in the USA. The pilot project aimed to adapt and test this intervention with drug-involved heterosexual couples in Chu.

Contextualizing the Host Country Our initial partner, Dr. Assel Terlikbayeva, a medical doctor, native of KZ, was a social work student at Columbia University, on an international scholarship. Dr. Terlikbayeva aimed to build capacity for social work practice in KZ by returning with a social work education to inform training and education for local community health providers and behavioral health researchers. To provide Dr. Terlikbayeva with mentorship that was relevant to the needs of his community, he was engaged, as a social work intern, with our research center, which is focused on studying HIV prevention in the USA and abroad. Dr. Terlikbayeva was committed, through his work with the KZ Ministry of Health, to conducting and expanding behavioral research (e.g., interventions). Since US-based researchers are considered experts in behavioral science, and because of having greater financial resources, our partnership with KZ flourished quickly, with the help of Dr. Terlikbayeva. Epidemiological data from KZ showed that individuals were becoming infected with HIV through heterosexual contact and injection drug use. In KZ, the majority of injection drug users were males, with female sexual partners. Based upon Dr. Terlikbayeva's knowledge and familiarity with the drug-using community and their expressed needs, he suggested that we focus our research on heterosexual couples. We learned that there was an immense need for the expansion of behavioral research initiatives in KZ

through our collaborative work. In order for our partnership to make a sustainable impact, we agreed that in addition to studying this particular intervention, we ought to aim toward building infrastructure for future research in KZ (e.g., by offering training and technical support) and to plan for widely disseminating the intervention to individuals at risk in the drug-using community.

In order to accomplish these goals, we expanded our partnership to include local officials and community advisors (e.g., NGOs and community-based organizations). This was complicated due to language barriers. Whereas Dr. Terlikbayeva was fluent in English, some local agency staff and officials were not, and US-based partners did not speak Russian or Kazakh. As the collaboration progressed, US researchers learned some basic Russian and hired bilingual staff in order to facilitate communication through e-mail, phone conferences, and Skype. Bilingual staff was essential in developing research protocols and forms, resolving IRB-related issues and developing data collection procedures.

To maintain consistent contact, US researchers made several trips to KZ and hosted partners from KZ in the USA. We exchanged daily e-mails and weekly calls. In KZ, US researchers shared meals with local collaborators and visited public spaces in order to gain knowledge of the social environment and cultural norms. Injection drug use is highly stigmatized in KZ. Drug users may be arrested and incarcerated simply for being known to use drugs. Initiatives aimed at engaging drug users in any public health initiative were therefore wrought with challenges, since individuals were deterred from seeking services for fear of prosecution. Therefore, we partnered with the local police department who gave assurances to the public that research participants would not be subject to arrest. Our partnership with the police department was facilitated by our local collaborators, who were able to negotiate and come to an agreement with local law enforcement. Without this partnership, recruitment may not have been possible.

Identifying Collaborators in the Host Country We acquired several partners from local NGOs and community-based organizations that are involved in HIV prevention work with injection drug users through a growing professional network that began with Dr. Terlikbayeva. Through our work with the Ministry of Health and with local organizations, we established connections with our research participants. Staff from local agencies that are trusted by the drug-using community informed drug users about our research, helping researchers to gain access to this population. With NIH funding, we have built a research center in KZ that employs 20 local residents, a response to our initial long-term aim of building research capacity within KZ through our partnership. We engaged in discussions about the funding structure and legal aspects of the project (e.g., the funds are disbursed to US researchers), and we worked within agreed-upon guidelines that reflected the requirements of both the USA and KZ. For example, despite US availability of opiate replacement therapies like methadone, and the clear need for such therapies in KZ, we were sensitive to the legal prohibitions and were therefore unable to provide these medications. By respecting the cultural and legal norms of KZ, our professional and social relationships have flourished. Without a participatory framework, this could not be done.

Seeking Advice and Endorsement from Gatekeepers Our partnership grew to include the Ministry of Health's Republican AIDS Center, a large, centralized government agency charged with managing the AIDS epidemic for all of KZ. The specific gatekeeping role performed by the AIDS Center was crucial to implement this project. This was facilitated by the development of a Community Advisory Board (CAB) that included local stakeholders—police, government, providers, business owners, and local residents. Community residents and providers from diverse ethnic groups on the CAB helped ease mistrust by endorsing our efforts. Showing the community that we have a long-term commitment through consistency, respect, and an iterative approach to developing our research processes was crucial to gaining this endorsement.

Matching the Expertise, Needs, and Interests of All Partners The egalitarian leadership style of partners was essential. KZ-based partners identified fieldworkers (i.e., local residents) who have access to drug users in their communities through their own social networks or their familiarity with the social environment. The population of KZ was generally highly educated, yet there were too few employment opportunities. Therefore, by offering training, we were able to provide a valuable service to the fieldworkers. This resulted in well-trained fieldworkers that continued to work in other research projects after this pilot. To consolidate our agreements around research-related issues, we have built Memoranda of Understanding. For example, we have an agreement with the KZ School of Public Health to combine research training for students and hiring students.

Collaborative Research Aims and Outcomes This project grew out of our initial partnership with a local primary care clinic in the town of Chu. We adapted, with guidance from our partners, including our CAB, and pilot-tested a couples-based HIV prevention behavioral intervention with drug-involved individuals. Our study was in response to the stated needs of our research partners and to the public health problem of high HIV risk among drug users. Our study demonstrated feasibility and acceptability. Data analysis was conducted mostly in the USA. However, results were disseminated to local KZ partners. Papers have been developed jointly (Gilbert et al. 2013). The results of this pilot formed the basis for a National

Institute of Drugs and Alcohol R01 funded to test the intervention through a randomized controlled trial.

Capacity Building for Research and/or Programs This study was one of a series that culminated with the founding of the Global Health Research Center of Central Asia at Columbia University, and the Global Health Research Center of Central Asia, Inc., with a branch office located in Almaty. Our partnership resulted in 20 paid research and administrative staff in Almaty. To develop research capacity and enhance our partnership, we have conducted trainings and mentored one another. Out of the need to protect our study participants and vulnerable or stigmatized populations, we conducted bioethics and human subjects protection trainings with local health professionals and research partners. Local residents have implemented the research while advancing their careers. For example, one fieldworker has earned a master's degree in Public Health. Capacity building will increase the number of scientists who will focus on myriad health problems (HIV, STI, HCV, drug addiction) in Central Asia. Having developed expertise in behavioral research, KZ-based partners are poised to obtain local funding to implement additional research.

Case Three: Preventing HIV Transmission Among Women in Mongolia

The Mongolia Women Wellness Project is a partnership between two US-based Columbia University researchers and community-based organizations offering health promotion services in Ulaanbaatar, Mongolia. The study described herein, funded by a 2-year grant from the US National Institute on Alcohol Abuse and Alcoholism, aimed to test an adapted intervention (Witte et al. 2010, 2011) to reduce HIV risk and reduce harmful alcohol use among female sex workers.

Contextualizing the Host Country This collaboration was between a Mongolian physician returning to school for a master's degree in social work and a university research team. As a program director at an NGO, this physician had implemented an HIV prevention educational program for sex workers and discovered over time that most of the women were drinking alcohol in harmful amounts to cope with their engagement in work. This contributed to both increased risk for HIV and STI transmission, as well as to alcohol dependence. Through a series of discussions about developing a mental health component for the existing HIV prevention program, we decided to help her expand her program by developing and testing an intervention that could address both alcohol abuse and HIV risk.

While HIV prevalence in Mongolia was low, other predictors of HIV infection were high—poverty, high rates of sexually transmitted infections in the general population, disproportionate unemployment among women, alcohol use, and social isolation. Compelled by these data, we collaborated in a planning study to develop and test a culturally informed intervention with 48 sex workers in Mongolia. We had never worked in Mongolia and were unfamiliar with the language, social norms, and history. We relied upon our Mongolian collaborator's information and mentorship. We were best able to integrate all that we had learned and initiate the project after we had visited Mongolia and the community where the project took place. During our first visit, we stayed in a hotel and did most of our activities in the local vicinity (e.g., restaurants, local music, and shopping areas). We used public transportation or walked so as to have a first-hand experience of how urban Mongolians navigated daily living. We observed the differences between Mongolians who were prospering economically from the influx of capital aimed at mining industries and those nomadic Mongolians whose livelihoods as herdsman were dwindling in the face of increasing urbanization.

Identifying Collaborators in the Host Country Our Mongolian collaborator returned to Mongolia after receiving her master's degree to become the executive director of a leading HIV prevention NGO. By the end of this initial project, our network had grown to include her colleagues working for NGOs serving sex workers and other vulnerable populations and providing HIV and STI prevention. Her colleagues served initially as advisors, helping the research team with protocol development and navigating contextual barriers, participated in the early project trainings, and later became partners, collaborating in many aspects of the research. We established verbal agreements on scientific, monetary, and programmatic issues (e.g., salaries, authorship, and data collection procedures). We also documented our partnership, more formally, through the exchange of letters and by conferring certificates of trainings. During our first visit to Mongolia, we provided training to our collaborators on research design, behavioral theory, and motivational interviewing. This was of great value for our partners, as this is an area of practice and research that is lacking in Mongolia. Despite the deferential stance with which we were often approached, we sought to adopt a participatory stance to facilitate mutual learning and building trust. Thus, the training we provided drew on the ideas of the entire team, including US- and Mongolia-based individuals. We used simultaneous translation, in order for all partners to understand one another. All partners agreed to use focus groups to collect data about how to best adapt a US-tested intervention to address alcohol use and HIV risk intervention in the local context.

Seeking Advice and Endorsement from Gatekeepers We agreed from the start that all partners would learn from one

another by communicating frequently and avoiding assumptions, such as assuming that US-tested interventions would necessarily work in Mongolia. US-based partners provided training to Mongolia partners in behavioral randomized trials. Mongolia-based partners organized the training in a culturally appropriate manner (e.g., scheduling, location, and sequence) that helped engage us all and break the awkwardness of working in two languages. By adhering to culturally appropriate social interactions, delivery of training materials, and by respecting one another's pace, we were able to leverage our partnership to include service providers. Several leaders in the alcohol treatment community went on to publicly endorse this research, which was highlighted in the Mongolian National HIV Prevention Plan.

Matching the Expertise, Needs, and Interests of All Partners US-based researchers trained Mongolian partners in research implementation while creating an open forum for discussing the challenges of testing interventions. For example, the facilitators of the intervention were accustomed to delivering educational information didactically, but identified gaps in their skills to help sex workers develop and practice HIV prevention and alcohol harm reduction. Using motivational interviewing, we modeled how to facilitate skills building and established the benefits of working with sex workers to build their own capacity to negotiate these issues. The training that they received responded directly to their stated needs and supported the notion that we value the partnership and aim to sustain it. We were clear about our budget and negotiated staff salary with local leaders. Local salaries reflected the high quality of staff expertise and reflected the funding available rather than local salary norms, which were substantially lower than what was allocated. This helped address fluctuation in the currency of Mongolia money during the life of the project and to foster trust among partners who felt that their work was valued equally to US partners' work.

Collaborative Research Aims and Outcomes Our research aim was solidified based on local epidemiologic data and local expertise of sex workers' difficulties with both alcohol consumption and HIV risk. We were chiefly interested in enhancing existing services and in building service providers' capacity to deliver empirically tested practices. Although US-based researchers developed the overall methods for this research and imported a tested evidence-based intervention (El-Bassel et al. 2003), our local partners contributed in defining best strategies for recruitment and data collection. They also were instrumental in adapting the intervention for local context. For example, they prioritized needed supportive services to sex workers enrolled in the control group, including teaching nutrition, relaxation, and exercise skills, and supported development of a referral protocol. Participating sex workers used drawing exercises, instead of verbal or written strategies typically used for motivational interviewing strategies in the USA. Drawing exercises were more culturally appropriate and sensitive to the varied literacy level of participants, offering an excellent, novel substitute that we may implement in the USA in future intervention studies.

Capacity Building for Research and/or Programs Our key goal was to create a cross-cultural collaboration to bring evidence-based interventions for adaptation to resource-poor areas in Mongolia and to provide capacity building for local health promotion programs. Sex workers described the overall effect of their participation as feeling respected and treated with unconditional regard, and thus feeling less stigmatized (Witte et al. 2010, 2011). This study introduced motivational interviewing to local partners. The Mongolia team now has the necessary capacity to implement a randomized trial. We have worked together to build a broad vision for testing and sustaining evidence-based programs. Consistent with post-study focus group from participating women, we are submitting new grant proposals to test a microfinance intervention for women at risk for HIV and alcohol abuse. Additionally, we are expanding our partners in Mongolia to include NGOs serving injecting drug users and men who have sex with men, in order to reach other vulnerable populations.

Lessons Learned and Conclusion

A summary of the cases is provided in Table 1. The lessons learned are particularly useful in the initial phases of partnership building and formative research when partners may only have seed money. Formative research helps partners to identify relevant research topics.

We contend that ecological issues influenced the projects above and the methods chosen. For instance, in Mongolia, local partners determined that drawing best suited the study participants' educational levels. In KZ, partnering with the local police department was essential for recruitment of participants, and this relationship was facilitated by other local partners with whom relationships were cultivated over time.

The illustrations above suggest that qualitative data are recommended for formative research because their collection and analyses allow for interaction with community representatives and research participants. Data collection mirrors practitioners' practices (e.g., interviewing). Qualitative findings are usually more accessible to lay individuals than are quantitative ones (Israel et al. 2005). Moreover, qualitative data can be used to develop survey instruments and provide direction for other types of research that may include randomization and intervention testing. We learned that by using the recursive strategies of a framework to guide the development of research partnerships, we pursued community-defined goals,

Table 1 Summary of participatory steps, actions, and outcomes

Project	Method	Participatory steps and actions				Outcomes		
		Contextualize host country	Identify collaborators	Seek endorsement	Match needs and interests	Community-defined goal	Build capacity for research	Policies and programs
Brazil ▪ Study how CHWs, physicians, and nurses integrate HIV prevention in primary care	Mixed in-depth interviews and surveys	▪ Becoming familiar with local languages ▪ Interacting with local residents ▪ Becoming familiar with cultural norms ▪ Sharing power, ideas, influence, and resources ▪ Gathering information about potential partners ▪ Sharing bonds of good will Defining the specific scope of the research				▪ Training CHWs, nurses, and physicians to integrate HIV prevention	▪ Elevated status of CHWs ▪ Partners trained in data coding and analyses ▪ Results led to two publications and a 3-year study grant proposal	▪ New content, depth, and delivery of different services
Mongolia ▪ Test the effectiveness of an HIV prevention intervention among IDUs	Qualitative focus groups					▪ Incorporate substance abuse into existing HIV services	▪ Partners trained in RCTs and motivational interviewing ▪ Results led to microfinance proposals	▪ Substance abuse is now addressed in conjunction with HIV services ▪ Providers deliver empirically tested services
Kazakhstan ▪ Identify a contextually and culturally appropriate intervention for this population	Mixed focus groups, in-depth interviews, and surveys					▪ Provide couples-based intervention to address unsafe drug use among couples	▪ Global Health Research Center ▪ 25 staff trained in bio-ethics ▪ Results led to 5-year R01	▪ Established trainings and mentoring programs

CHWs community health workers, *IDUs* injection drug users, *RCTs* randomized controlled trials

built capacity for further research, and developed policies and programs. Having a common framework allowed us to compare projects, in three different contexts, and which used the same participatory steps and actions.

The scientific community is in the beginning phases of documenting the challenges and advantages of using CBPR in the global arena (Pinto et al. 2007). The framework presented here provided a systematized method for pursuing community-defined research, developing capacity for research, and establishing policies and programs. Future research should examine the relative importance of each step and action in the International Participatory Research Framework.

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