Studying and Addressing Urban Immigrant Restaurant Worker Health and Safety in San Francisco's Chinatown District: A CBPR Case Study

Charlotte Chang, Meredith Minkler, Alicia L. Salvatore,
Pamela Tau Lee, Megan Gaydos, and Shaw San Liu

ABSTRACT *With its emphasis on empowerment, individual and community capacity building, and translating research findings into action, community-based participatory research (CBPR) may be particularly advantageous in work with urban immigrant populations. This paper highlights eight ways in which CBPR has been shown to add value to work with urban underserved communities. It then describes the background, context, and methods of an ecological CBPR project, the Chinatown Restaurant Worker Health and Safety Study, conducted in San Francisco, California, and draws on study processes and outcomes to illustrate each of the eight areas identified. Challenges of using CBPR, particularly with urban immigrant populations, briefly are described, drawing again on the Chinatown study to provide illustrative examples. We discuss lessons learned, through this and other studies, for the effective use of CBPR with urban immigrant populations. We conclude that despite its challenges, this transdisciplinary, community-partnered and action-oriented approach to inquiry can make substantial contributions to both the processes and the outcomes of the research.*

KEYWORDS *Community-based participatory research, Urban immigrant worker health, Community capacity, Community partnerships, Transdisciplinary partnerships*

INTRODUCTION

Community-based participatory research (CBPR) holds substantial value for work with urban immigrant populations in the USA and globally.¹⁻⁶ An *orientation to research*, rather than a particular research method, CBPR is concisely defined as “systematic inquiry, with the participation of those affected by the problem, for the purposes of education and action or effecting change”.⁷ Unlike most investigator-driven approaches, CBPR emphasizes equitable engagement of all partners throughout the research process, from problem definition through data collection and analysis, to dissemination and use of findings to help effect change.^{8,9}

The emphasis of CBPR on empowerment, individual and community capacity building, and translating research findings into interventions and other actions promoting health equity¹⁰ makes this approach particularly advantageous in work with urban immigrant populations. These groups tend to have disproportionate health needs, to be understudied and underserved,^{11,12} to have limited education

Chang and Minkler are with the University of California, Berkeley, Berkeley, CA, USA; Salvatore is with Stanford University, Palo Alto, CA, USA; Lee and Liu are with the Chinese Progressive Association, San Francisco, CA, USA and Gaydos is with the San Francisco Department of Public Health, San Francisco, CA, USA.

Correspondence: Charlotte Chang, University of California, Berkeley, Berkeley, CA, USA. (E-mail: cychang@berkeley.edu)

and second language proficiency, and to be economically and politically disadvantaged,¹³ with these challenges often exacerbated by undocumented status in the host country.⁶ Traditional “outside expert-driven” research approaches also frequently have proven ill-suited to work with urban immigrant populations, whose members may be distrustful of research and fearful of disclosing information or participating in interventions due to immigration status, fear of retaliation, or earlier life experiences.^{1,4,6,14}

In this article, we highlight the value that may be added to urban immigrant health research when CBPR is utilized. We then describe the Chinatown Restaurant Worker Health and Safety Study, an ecologic CBPR project undertaken in San Francisco and use it to illustrate each of CBPR’s potential benefits. We review the challenges and limitations that frequently arise when a CBPR approach is used, particularly with urban immigrant populations, as well as some ways in which these problems may be mitigated. Finally, we highlight lessons learned for other CBPR efforts with immigrant communities and implications for creating positive change through the active dissemination and use of research findings.

CBPR and Urban Immigrant Worker Health: What’s the Value Added?

Numerous authors have elucidated the ways in which CBPR can add value to health research in underserved communities, including, importantly, urban immigrant communities.^{3,15–18} Briefly, these include: (1) helping ensure that the research question comes from, or is of genuine importance to, the local community; (2) increasing trust and credibility with the community, which can in turn improve participation in research; (3) enhancing the cultural acceptability of study instruments, often improving their validity; (4) improving the design and implementation of interventions, increasing the likelihood of success; (5) improving data interpretation; (6) identifying and using new channels for dissemination; (7) helping translate the findings into action that will benefit the community; and (8) building individual and community capacity and leaving behind a community better able to study and address other health and social issues of local concern. Each of these is illustrated in the case study below.

OVERVIEW OF THE CHINATOWN RESTAURANT WORKER HEALTH AND SAFETY STUDY

As in the nation as a whole, restaurants are the single largest employer of immigrants in San Francisco’s Chinatown, with one third of its workers employed in this sector.¹⁹ Restaurants have historically had among the highest numbers of reportable injuries and illnesses and accounted for the largest percentage among private industry in the nation.²⁰ Injuries from burns, cuts, and falls, as well as elevated rates of psychosocial problems related to on-the-job stress²¹ are common in the industry. Of even greater concern to many immigrant restaurant workers, however, are such economic vulnerabilities as wage violations (detailed below) and lack of job security.^{13,22,23}

The Chinatown Restaurant Worker Health and Safety Study began in 2007 with the overarching goal of conducting and evaluating an ecologic CBPR research effort to examine and address the occupational health conditions of immigrant restaurant workers in one San Francisco neighborhood. From the outset, worker concerns were a primary focus of study, key among them wage theft, including payment of below

minimum wage, denial or delay of back wages, theft of tip money, lack of paid sick leave, and other wage violations.

The Partnership

The Chinatown Restaurant Worker Health and Safety Study partnership was a transdisciplinary collaboration involving both practitioners and scientists.²⁴ Partners included a community-based organization, the Chinese Progressive Association of San Francisco (CPA); two universities (the University of California, Berkeley School of Public Health and its Labor Occupational Health Program (LOHP), and the University of California San Francisco School of Medicine); and the Occupational and Environmental Health Section of the San Francisco Department of Public Health (SFDPH). Nine immigrant restaurant worker partners were hired and extensively trained in worker health, participatory research, survey methods, public speaking, and other areas important to the action phases that followed the research.²⁵ Partners from CPA facilitated a process through which workers tapped into their own expertise and experience in restaurant work and community issues and became comfortable working with the other institutional partners.²⁵ Bi-weekly meetings with CPA staff and follow-up trainings on data interpretation and other related areas helped facilitate worker partners' in-depth participation throughout the project. A Steering Committee comprised of all project partners and several subcommittees with representatives of each partner organization also met regularly to provide project oversight and decision making.

The Study

Study activities included (a) initial focus groups with workers, (b) a community-based survey of current and former Chinatown restaurant workers, and (c) standardized observations of working conditions in Chinatown restaurants.²⁶ The partnership evaluation consisted of observations, interviews, and surveys with study partners.²⁷ Study protocols and data collection instruments were approved by UC Berkeley's Institutional Review Board.

All partners actively participated in working groups to develop study protocols and instruments. In regular meetings and trainings, worker partners provided feedback that helped refine study instruments, developed a recruitment plan for surveys, and helped pilot test instruments'.³ The questionnaire developed for the community-based survey assessed workers' perceptions of working conditions and experiences with occupational injuries and other health conditions. The checklist tool developed for the restaurant-level observations assessed compliance with labor laws and other worker health and safety standards. The checklist was developed not only for this study but also for potential use as a part of regular restaurant inspections.

The nine worker partners and 17 additional members of the Chinese immigrant community were trained as study interviewers. A total of 433 workers participated in the community-based survey, of which 405 had useable data. An SFDPH partner conducted observations in all but two of the 108 Chinatown restaurants in operation at the time of data collection. Although university and health department partners led data cleaning and analysis, all partners participated in analysis through routine consultations and monthly data interpretation workshops with worker partners.

An initial grant from the National Institute for Occupational Safety and Health (NIOSH) supported the partnership development, the multi-faceted study, and a participatory evaluation of the partnership. A subsequent grant to the community

partner from The California Endowment supported dissemination and action activities.

Study Findings

Although a detailed presentation of the study findings is beyond the scope of this paper and is available elsewhere,^{3,14,25–27} we highlight here those of most relevance to workers, particularly in relation to their primary concerns, wage theft, and other basic worker rights violations. Survey results ($n=405$) indicated that almost 60 % of participants had experienced wage theft in at least one of its forms. One in two participants reported minimum wage violations; 76 % received no overtime pay; and 42 % had pay deducted when sick.²⁸ Eight percent of participants reported being owed back wages and 13 % having had their initial pay withheld for one or more pay period. Many workers reported occupational injuries and incidents in the previous 12 months with 48 % burned, 40 % cut, 17 % who had slipped or fallen at work, and 64 % who had not received any training on how to perform their jobs. Forty percent of workers reported getting no rest or meal breaks, and 45 % reported that when breaks were allowed, nonsmokers were called in earlier from breaks than smokers.^{25,28}

Results of the restaurant level observations indicated that only 35 % of the restaurants observed had any of the required labor law signs posted. Of those that did, moreover, the great majority had the posting only in English in this largely monolingual Chinese neighborhood.²⁶

Dissemination and Use of Findings for Action

The health department led the dissemination of findings on the utility of the observational checklist tool for gauging restaurant worker health and safety. The final tool was immediately made available on the SFDPH Website for use by other health departments and stakeholders around the country (<http://www.sfpdph.org/component/jdownloads/finish/34-chinatown-restaurant-workers/65-restaurant-health-and-safety-checklist/0?Itemid=0>) and was discussed with other health departments in various regional, state, and national settings. The SFDPH and partners published an article in a public health journal with wide dissemination to local and state health departments and practitioners.²⁶ Finally, the SFDPH partner also followed up with action, writing a number of letters to relevant government regulatory agencies such as the California Division of Occupational Health and Safety citing the findings, encouraging greater enforcement of existing laws, and offering the health department's assistance. These experiences contributed to the health department's examination of internal practices and the subsequent exploration of withholding health permits to restaurants found to be in violation of minimum wage laws and requiring verification of workers' compensation insurance when issuing business operating licenses.²⁹

University partners led other publication efforts,^{14,25,27,30} and all partners presented on the project at local, national, and international professional and community meetings. It was, however, the community partners—CPA and the worker partners—who led the dissemination of survey and other study findings to the wider community and public and used the findings in support of the central action component of the study. As discussed below, they organized a widely attended press event in which they unveiled key study findings in their report, *Check, Please! Health and Working Conditions in San Francisco Chinatown Restaurants* (http://www.cpasf.org/sites/default/files/CPA%20full%20report_ENG.pdf),²² and a data-driven action plan. Along with subsequent base building and organizing, these efforts played a key role in the

development and passage of a municipal Anti-Wage Theft Ordinance in September 2011, only the second such act in the USA. While the sharing of study findings through both scientific and lay channels continues, the creation of a new, cross-ethnic and cross-industry coalition involving many other immigrant and low-wage workers, and the adoption of the action plan are among the high points of the work's outcomes to date.

VALUE ADDED FOR URBAN HEALTH RESEARCH: ILLUSTRATIONS FROM THE CHINATOWN IMMIGRANT WORKER HEALTH STUDY

The Chinatown Restaurant Worker Health and Safety Study clearly illustrates each of the ways in which CBPR can add value to research processes and outcomes:

1. *Helping ensure that the research question comes from, or is of genuine importance to, the local community.* For 40 years, the community partner, CPA, has organized campaigns for worker rights in Chinatown restaurants and other venues. CPA had become particularly concerned about the problem of "wage theft" both in the community and across the city and realized that scientific data were needed to help "make the case" for policy-level action. By adopting a broader definition of health³¹ and expanding the traditional research topic (i.e., health and safety conditions in restaurants) to more heavily emphasize wage theft and related issues, the university and health department partners validated the community partner's concern and helped facilitate its investigation.³
2. *Establishing trust and credibility with worker partners and in the community, which can in turn improve research participation.* Previous collaborative work by some of the partners, and the bridging role played by the university-based project director who has maintained a lifelong connection to San Francisco Chinatown and was a founding member of CPA, helped provide important groundwork for the establishment of trust. Also of major importance was CPA's long track record of successful organizing campaigns for worker rights in Chinatown and across San Francisco. Yet even with these advantages, much front-end trust building had to occur between the community, university, and health department partners as well as between community partners and the broader Chinese immigrant community.

Establishing trust between partnership members included early and candid discussions of the various partner groups' excitement and concerns about working together.³² the development and adaptation of active partnership subcommittees to facilitate equitable partnership²⁷ and open discussions facilitated by trusted bridging partners about the advantages and challenges of conducting rigorous scientific research to advance community change goals.²⁵ Trust building between community partners and the broader community when conducting the survey was essential due to the vulnerability of workers and the sensitive nature of the research questions, some of which required participants to reveal substandard conditions and poor treatment on the job. On this front, the hiring and intensive training of over two-dozen community members, including the active involvement of a core group of current and former restaurant workers throughout the research process, greatly increased community trust, and in turn, participation. The collection of detailed (103 items) survey data from 433 workers, a task originally

viewed by worker and other partners as daunting, in little over a month, can be attributed in large part to this active community engagement and the partnership-trust building that it entailed.

3. *Improving the cultural acceptability of study instruments, often enhancing their validity.* Both the CPA and the worker partners made substantial improvements to the initial draft worker survey developed by the university researchers. This review and revision process greatly increased the survey's cultural relevance and ensured that "the right questions" were asked. New worker-recommended items were added, such as whether or not workers who did not smoke were called in earlier from breaks and whether workers had experienced a variety of forms of wage theft, including failure to get minimum wage, delayed or nonpayment of wages, experiences with unpaid "probationary periods," and bosses taking a portion of tip money. Validated scale items which did not translate well into Chinese (i.e., the idiom "butterflies in my stomach" in a depression scale) were also flagged by worker partners and brief explanations were subsequently included to make them more easily understandable to participants who were taking the survey in Chinese.¹⁴ Such culturally and socially appropriate additions resulted in a final product that was far more likely to achieve both accurate responses and to include issues that were of key interest in the community.
4. *Improving the design and implementation of interventions, increasing the likelihood of success.* As Minkler and Salvatore,³³ (p. 200) note, "In keeping with its CBPR orientation, the Chinatown project kept the 'final' phases of CBPR—dissemination and translation of findings into action—at the forefront of planning from the study's onset." Although this preliminary study was not designed to develop and test an intervention, "laying the groundwork" for subsequent community-level action or interventions was among study aims. Ideas considered included a possible city-backed program to incentivize "good employers" by giving them "seals of approval" and encouraging diners to patronize these establishments. However, CPA, in exploring these options, found that while some restaurants would like such recognition, there was also the concern among many of being singled out or "risking the wrath" of fellow restaurant owners. CPA instead used study findings to "build the case" for an ambitious city-wide policy intervention. A key step in this process was CPA's creation of a report of the research findings for public audiences and for the purposes of organizing for future policy change, discussed below. Similarly, SFDPH provided invaluable feedback on the sorts of health department level interventions that were both within its purview and realistic, particularly in a time of severe budget and staffing cutbacks.
5. *Improving data interpretation.* Worker partners greatly enhanced other research team members' understanding of the study data. The workers pointed out, for example, that the proportion of study participants reporting that they got "paid sick leave" (58 %) was likely quite inflated, reflecting the fact that for many in this community, sick leave can mean that one can take a day off when ill or caring for a sick relative and make it up later with no pay.³³ Such lessons from community interpretation of data suggest the potential for future revision of survey questions about job benefits for immigrant worker populations. These concepts may have both a formal, legal meaning as well as a common community interpretation based on

norms experienced in the local industry. Improved definition of such terms in survey questions may improve instrument validity in the future, and new national data suggesting that workers who receive paid sick leave are 28 % less likely to be injured at work than those without³⁴ emphasizes the importance of obtaining accurate findings.

6. *Identifying and using new channels for dissemination.* Although traditional academic and professional channels for dissemination are important and tensions among collaborators sometimes arise related to different dissemination goals (discussed below), community partners can play a critical role in determining how best to reach community “end users” of findings, including policy makers. CPA held monthly “worker teas” in the community to help provide education and training that were often based on study findings. They also worked with another community organization, the Data Center, to package study findings, highlight quotes from workers, and advance recommendations for action in the eye-catching booklet, *Check, Please!* As mentioned above, the report was released at a press conference attended by a crowd of 170 people, including almost two-dozen representatives of the mainstream and ethnic press, four of the city’s 11 supervisors, and representatives from various other city and state agencies. These and other events such as rallies at City Hall and worker testimony at hearings helped disseminate findings in ways that made a profound impact on community practices and policies long before journal articles appeared in print.
7. *Helping ensure the translation of findings into action of benefit to the community.* Since its inception, the Chinatown study was focused on developing policy and practice-relevant data that could help promote change. The health department partner played an important role in communicating with other key agencies, verifying workers’ compensation insurance,²⁶ and continuing collaboration with LOHP to explore possible roles for food safety inspectors in promoting worker health. Concurrently, the community partner co-created a new coalition, the Progressive Workers Alliance (PWA) and together crafted a “low-wage worker bill of rights.” Building on study findings that resonated with other low-wage workers’ experiences across the city, CPA and the PWA ultimately pushed for an ordinance that would codify a key element of the “bill of rights”—improved protection against wage theft—into law. Through effective partnership building, rallies and testimony, and considerable work with policy allies in government, the legislation was unanimously passed by the Board of Supervisors and signed by the mayor in Fall 2011. To further promote sustainable change, CPA, PWA, and other partners continued working with the bill’s key backers for the unanimous passage in June 2012 of a second bill creating a Wage Theft Ordinance Task Force to ensure that the law is indeed enforced, and additionally supported efforts to increase the capacity of the municipal Office of Labor Standards and Enforcement. The City’s growing emphasis on wage theft was highlighted by the recent awarding of over a half million dollars in back wages for workers in a Chinatown pastry shop whose workers were receiving about \$4 an hour.³⁵ At the press event, low-wage workers from across San Francisco testified on the importance of the case in addressing a broadly acknowledged city-wide problem.
8. *Building individual and community capacity, leaving behind a community better able to study and address other health and social issues of local*

concern. A major outcome of the Chinatown study was the individual, organizational, and community capacity built through the training and active engagement of two-dozen immigrant restaurant workers in the study and action components of the work.^{25,27} Meetings and trainings conducted in Chinese by CPA staff and the project coordinator, with participation of university and SFDPH partners, spoke to workers' life experiences and connected the study to their vision of a better future for themselves and their children. These sessions enabled co-learning between all partners, with worker partners acquiring skills in data interpretation and providing other partners with many insights into the data that were not originally apparent. While CPA gained new visibility and benefited from a major new grant, of greater importance was the cultivation and training of a new generation of worker leaders, many of whom remain active with the organization and in other community efforts. In the words of one core leader, "When I first got involved in this survey project, I thought it was impossible to change anything in Chinatown. But now that we have done so much work in the community and helped other workers recover wages, I see that change is possible. We can improve things. We must!"

CHALLENGES AND LIMITATIONS IN CBPR WITH IMMIGRANT WORKERS

Many challenges and obstacles are encountered by partners engaging in CBPR, and these often are intensified when immigrant community partners are involved. Key among these challenges are:

1. *The time and resource intensive nature of the work.* Building and maintaining partnerships take substantial time and resources both early on and throughout the research and action process.^{18,36,37} This often is compounded when partnering with immigrant workers who frequently work long hours and return home to serve as primary caregivers across generations. Major time and financial investments in professional, high-quality language access services (interpretation at meetings and translation of documents ahead of time) are essential, and relying on bilingual community-based organization partners to meet these needs limits their own ability to participate in the process. Yet these sizable investments are challenging for partnerships to consistently provide given the extra planning required and when facing resource constraints.

The added research training and collaborative process entailed in working with partnerships that vary dramatically in education, social class, and racial/ethnic background, also add to the time and costs incurred.³ Finally, CBPR's call to include action as part of the research process itself often requires the engagement of outside researchers and their partners well beyond the funded project period.

2. *Conflict and power dynamics as part of the CBPR process.* Partners who engage in a CBPR project must be comfortable in dealing with conflict. Struggles over power, the just allocation of resources, and elements of the study design and implementation are part of the process itself. Developing initial ground rules and memorandums of understanding

(MOUs), as well as being clear about such fixed parameters as institutional review board requirements, may help address such concerns early on. Furthermore, a strong process evaluation, with evaluators reporting back to the group periodically and “calling time” when project process needs to be attended to more directly, can be of significant value.²⁵

Some immigrant community partners may initially be hesitant to openly air their concerns or push back on others’ arguments when doing so means challenging partners with more education and better command of English, particularly in areas related to research. Contexts of reception, or opportunity structures immigrant communities face in terms of labor market constraints and economic vulnerability,³⁸ as well as experiences with racial or linguistic prejudice and exposure to a hostile immigration discourse, can shape a community’s level of preparation for and confidence to participate fully in civic and political activities, including CBPR.²⁷ Demonstrated openness and valuing of the immigrant partners’ contributions on the part of the university and other partners and having strong community-based organization partners able to help amplify worker perspectives are important strategies. Similarly, small group meetings incorporating popular education elements of critical reflection and action which allow immigrant (and other) partners to first talk among themselves, and then speak to the larger body, also has demonstrated utility.

3. *Trade-offs between scientific and community concerns and priorities regarding research instruments and interventions.* The enhanced cultural sensitivity and relevance of research instruments made possible by high-level community collaboration may also at times conflict with outside research partners’ desires for the most rigorous possible research designs and study instruments. Community partners may question the relevance and length of certain validated scales, or may oppose, on the grounds of fairness, intervention designs such as randomized controlled trials since not all gain equal benefit.^{3,17,39,40} Early and continuing discussions about the meaning of concepts like “validity” from a science and a community perspective, as well as discussions of the need for both scientifically strong data and findings that matter locally and reflect local knowledge, can help address these conflicts.
4. *Disagreements over the dissemination and use of findings to help bring about change.* Not infrequently in CBPR and related approaches, community partners may wish to move more quickly from preliminary findings to action, including advocating for changes in programs, practices, and policies, while academically trained research partners may wish to move more slowly, insuring the accuracy of any findings put forward and in some cases, waiting for peer review.²⁴ Conversely, findings may emerge which could cast the community in an unfavorable light which community partners do not want to have “go public”.⁴¹ As others have described,^{18,24,42–44} continued dialogue and MOUs may be helpful in anticipating such “what ifs” and deciding on ways to deal with them early on. Such methods are not likely to preclude all unanticipated issues from arising which require the utmost care as they are addressed. Establishing trusting relationships and involving key bridging partners (discussed below) are critical in helping partnerships

weather these and other tensions, and may at times require all to make a “leap of faith” in their fellow partners.

Challenges to evaluation. Although a strong process and outcomes evaluation is integral to effective CBPR, this component of the work will also take time and resources that may be in short supply. Discussing early and often the importance of evaluation to the project’s continued progress and achievement of its goals, and where possible, having a designated evaluator and creating an evaluation subcommittee with members representing different partnership groups, may increase both the appreciation and efficacy of the evaluation component of the work.

DISCUSSION

CBPR adds unique value to research with urban, immigrant communities in improving its “relevance, rigor, and reach.”⁴⁵ It also involves many challenges, from the substantial time and labor involved to the compromises that must sometimes be reached over research design and other key aspects of the work.^{18,36,37,39} As suggested above, these challenges may be intensified when immigrant community partners, often with limited English skills and severe time and income constraints, are involved as key partners. Yet as illustrated through the Chinatown study described above, the potential benefits of CBPR may well outweigh the limitations involved. An example of what Stokols²⁴ refers to as a transdisciplinary collaboration between community practitioners and scientific researchers, this and other CBPR case studies add to our understanding of how such collaborative efforts operate and translate scientific findings into community-problem solving strategies within urban immigrant populations.²⁴ We present several key lessons learned and their implications for research, policy, and practice.

The involvement of multiple stakeholders, including, where possible, a strong and respected community partner with deep roots in the urban immigrant community of concern, can lay important groundwork for success. Additionally, as illustrated in the Chinatown case study, having as a partner a local health department can also be important for gaining entrée into the community and to environments (i.e., urban immigrant worksites) that otherwise would likely be “off limits.”

Engaging “bridge people” who can help build “alliances across differences”⁴⁶ can also be of critical importance⁴⁰. Different partners on the Chinatown project served as vital “bridges” between the community and university and health department professionals, and between the community-based organization and the community. These bridging individuals facilitate collaboration as partners are still getting to know each other.

Whether through secondary grants or other means, it is critical to ensure from the outset substantial funds for translation and interpretation so that non-English speaking urban immigrant partners may be actively involved. Conducting partnership meetings in languages other than English allows for more spontaneous participation by urban immigrant partners with limited English skills and can provide some counterbalance to language power dynamics within the partnership. Providing high-quality language services is essential to addressing this need.

Collaboratively developing ground rules, MOUs, or other approaches (e.g., subcommittee meetings or explicit discussions) can also play an important role in helping ensure equitable participation, especially when difficult or contentious issues are being discussed. Emphasizing co-learning throughout, including discussion of topics such as research rigor and validity and different ways of knowing, merit far more than lip service if genuine partnerships are to be achieved and maintained. Frank conversations about how to balance and accommodate the need for strong science with the equally important need for action, and balancing “stories and statistics” for maximum policy impact, also should be part of such communications.^{18,39,45}

In data collection and analysis, as well as dissemination and use of findings, primary attention should be paid to issues of greatest relevance to urban immigrant and other community partners. In the Chinatown study, although data were collected on problems such as slips and falls which also were of concern to workers, “wage theft” was by far the topic of greatest local importance, and many questions therefore were added in this area. Similarly, the policy measure developed as a key part of the action phase of the project focused on wage theft and was successful in passing and helping implement important new legislation to address this primary priority.³³

Devoting adequate time and resources for in-depth, participatory project evaluation from the outset is also critical for maximizing effective project functioning and learning from the experience. This should include a well-trained lead evaluator who can effectively engage the full team, and ideally a representative evaluation subcommittee, throughout the process.³

Planning for sustainability through continued support of training and leadership development of urban immigrant community partners also is of key importance in living up to the principles of CBPR⁹. Having a community-based organizational home for workers and community members to continue participation can be an important factor for sustained capacity building. Additionally, this may include helping community partners find new funding streams that help address limitations of traditional research funding to support community capacity building and critical dissemination activities and social action,³⁷ seeking out policy mentors and cultivating those relationships, and having all partners commit “to the long haul” by being present and active as needed beyond the funded project period.⁴⁷

The importance of expanding the power base in urban immigrant health research must receive continued and serious attention. Whether through training new community members to help build the original community partner organization, identifying new policy and other stakeholders, or helping create new, cross-worker, and community organizations, such base-building is a critical step toward ensuring the sustainability and impact of the work.

CBPR has gained greater recognition in recent years as a promising way to close the “chasm”⁴⁸ between research and practice, improving the relevance of research to communities and stakeholders and ensuring that research results are effectively disseminated and translated into programs and policies to promote health.²⁴ Community partnering is considered a critical component of a comprehensive, integrated framework for health promotion,⁴⁹ as approaches like CBPR focus on broader contexts and systems approaches for health promotion while emphasizing the effectiveness of interventions in real-world settings.^{49–51} Although not without challenges, studies like the Chinatown Restaurant Worker Health and Safety Study in San Francisco hold promise for urban health research and research translation with the growing urban immigrant populations in the USA and globally.

ACKNOWLEDGMENTS

This study was supported by a grant from the NIOSH and Health/Centers for Disease Control and Prevention (CDC; R219081) and The California Endowment. The first author was further supported by the University of California Berkeley Fellowship and the Occupational Health Internship Program. The authors acknowledge the partners and participants of the Chinatown Restaurant Worker Health and Safety Project, and particularly worker partners Rong Wen Lan, Li Li Shuang, Li Zhen He, Hu Li Nong, Michelle Xiong, Zhu Bing Shu, Christy Wu, Huang Pei Yu, and Gan Lin. The authors are also grateful to their CPA, university, and health department partners Robin Baker, Rajiv Bhatia, Feiyi Chen, Niklas Krause, Alvaro Morales, and Alex Tom for contributions to the research and its implementation. The contents of this article are solely the responsibility of the authors and do not necessarily represent the official views of the funding agencies. None of the authors have any financial interests or affiliations that may cause conflicts of interest. Portions of this paper were adapted from Minkler and Chang [3] with permission of the publisher.

REFERENCES

1. Farquhar SA, Michael YL, Wiggins N. Building on leadership and social capital to create change in 2 urban communities. *Am J Public Health*. 2005; 95(4): 596–601.
2. Fleischman A. Community engagement in urban health research. *J Urban Health*. 2007; 84(4): 469–71.
3. Minkler M, Chang C. Community-based participatory research: a promising approach for studying and addressing immigrant worker health. In: Castañeda X, Rodriguez-Lainz A, Schenker MB, eds. *Migration and health research methodologies: a handbook for the study of migrant populations*. Berkeley, CA: University of California Press. In press.
4. Marais F. Participatory public health research: the process of community engagement in research partnerships. *Pimatisiwin*. 2007; 5(2): 77–106.
5. Rhodes SD, Hergenrather KC, Montañó J, et al. Using Community-based participatory research to develop an intervention to reduce HIV and STD infections among Latino men. *AIDS Educ Prev*. 2006; 18(5): 375–89.
6. Tandon DS, Kwon SC. Community-based participatory research. In: Trinh-Shevrin C, Islam N, Rey MJ, eds. *Asian American communities and health: context, research, policy, and action*. San Francisco, CA: Jossey-Bass; 2009: 464–503.
7. Green LW, George MA, Daniel M, et al. *Study of participatory research in health promotion: review and recommendations for the development of participatory research in health promotion in Canada*. Vancouver, BC: Royal Society of Canada; 1995.
8. Israel BA, Schulz AJ, Parker EA, Becker AB. Review of community-based research: assessing partnership approaches to improve public health. *Annu Rev Public Health*. 1998; 19: 173–202.
9. Israel BA, Eng E, Schulz AJ, Parker EA. Introduction to methods in community-based participatory research for health. In: Israel BA, Eng E, Schulz AJ, Parker EA, eds. *Methods in community-based participatory research for health*. San Francisco, CA: Jossey-Bass; 2005: 3–26.
10. Wallerstein N, Duran B. Community-based participatory research contributions to intervention research: the intersection of science and practice to improve health equity. *Am J Public Health*. 2010; 100(S1): S40–6.
11. Abe-Kim J, Takeuchi DT, Hong S, et al. Use of mental health-related services among immigrant and US-born Asian Americans: results from the National Latino and Asian American Study. *Am J Public Health*. 2007; 97(1): 91–8.

12. Takeuchi DT, Alegria M, Jackson JS, Williams DR. Immigration and mental health: diverse findings in Asian, Black, and Latino populations. *Am J Public Health*. 2007; 97(1): 11–2.
13. Bernhardt A, Milkman R, Theodore N, et al. *Broken laws, unprotected workers: violations of employment and labor laws in America's Cities*. New York, NY: National Employment Law Project; 2009.
14. Minkler M, Lee PT, Tom A, et al. Using community-based participatory research to design and initiate a study on immigrant worker health and safety in San Francisco's Chinatown restaurants. *Am J Ind Med*. 2010; 53(4): 361–71.
15. Cargo M, Mercer SL. The value and challenges of participatory research: strengthening its practice. *Annu Rev Public Health*. 2008; 29(1): 325–350.
16. O'Fallon LR, Dearry A. Community-based participatory research as a tool to advance environmental health sciences. *Environ Health Perspect*. 2002; 110(Supplement 2): 155–9.
17. Israel BA, Parker EA, Rowe Z, et al. Community-based participatory research: lessons learned from the centers for children's environmental health and disease prevention research. *Environ Health Perspect*. 2005; 113(10): 1463–71.
18. Minkler M. Community-based research partnerships: challenges and opportunities. *J Urban Health*. 2005; 82(2 Supp 2): ii3–12.
19. U.S. Census Bureau. Summary file 3: P49: sex by industry for the employed civilian population over 16+years. 2000. http://factfinder.census.gov/servlet/CTTable?_bm=y&-context=ct&-ds_name=DEC_2000_SF3_U&-mt_name=DEC_2000_SF3_U_P049&-tree_id=403&-all_geo_types=N&-geo_id=14000US06075011400&-search_results=01000US&-dataitem=DEC_2000_SF3_U_P049.P049001|DEC_2000_SF3_U_P049.P049026|DEC_2000_SF3_U_P049.P049053&-format=&-_lang=en. Accessed 22 April 2008.
20. Webster T. Occupational hazards in eating and drinking places. *Compens Work Cond*. 2001; 2001(2001): 27–33.
21. Woo SC, Krause N. *Working conditions and health of hotel kitchen workers in San Francisco*. San Francisco, CA; 2003.
22. Chinese Progressive Association. *Check, Please! Health and Working Conditions in San Francisco Chinatown*. San Francisco; 2010.
23. Restaurant Opportunities Center of New York. *Behind the kitchen door: pervasive inequality in New York City's thriving restaurant industry*. New York, NY: Restaurant Opportunities Center of New York; 2005.
24. Stokols D. Toward a science of transdisciplinary action research. *Am J Community Psychol*. 2006; 38(1–2): 63–77.
25. Chang C, Salvatore A, Lee PT, Liu SS, Minkler M. Popular education, participatory research, and community organizing with immigrant restaurant workers in San Francisco's Chinatown: a Case Study. In: Minkler M, ed. *Community organizing and community building for health and welfare*. 3rd ed. Piscataway: Rutgers University Press; 2012.
26. Gaydos M, Bhatia R, Morales A, et al. Promoting health equity and safety in San Francisco's Chinatown restaurants: findings and lessons learned from a pilot observational survey. *Public Health Rep*. 2011; 126(Suppl. 3): 62–9.
27. Chang C, Salvatore A, Lee P, et al. Adapting to context in community-based participatory research: “participatory starting points” in a Chinese Immigrant Worker Community. *Am J Community Psychol*. 2013; (in press).
28. Salvatore AL, Krause N. Health and Working Conditions of Restaurant Workers in San Francisco's Chinatown: report of Survey Findings: UC Berkeley and UC San Francisco; 2010.
29. Bhatia R, Gaydos M, Yu K, Weintraub J. Protecting Labor Rights: roles for Public Health. *Public Health Rep*. 2013; (in press).
30. Minkler M, Salvatore A. Participatory approaches for study design and analysis in dissemination and implementation research. In: Brownson RC, Colditz GA, Proctor EK, eds. *Dissemination and implementation research in health*. New York, NY: Oxford University Press; 2012: 192–212.

31. World Health Organization. Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, NY: 19–22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948; 1948.
32. Becker AB, Israel BA, Allen AJ. Strategies and techniques for effective group process in CBPR partnerships. In: Israel BA, Eng E, Schulz AJ, Parker EA, eds. *Methods in community-based participatory research for health*. San Francisco, CA: Jossey-Bass; 2005: 52–72.
33. Minkler M, Salvatore A. Participatory Approaches for study design and analysis in dissemination and implementation research. In: Bronson R, Colditz G, Proctor E, eds. *Dissemination and implementation research in health: translating science to practice*. Oxford, UK: Oxford University Press; 2012.
34. Asfaw A, Pana-Cryan R, Rosa R. Paid sick leave and nonfatal occupational injuries. *American J Public Health*. 2012; 102: 5.
35. Coté J. Wage theft payment sets S.F. record. *San Francisco Chronicle*. 2013;E1.
36. Israel BA, Krieger J, Vlahov D, et al. Challenges and Facilitating factors in sustaining community-based participatory research partnerships: lessons learned from the Detroit, New York City and Seattle Urban Research Centers. *J Urban Health*. 2006; 83(6): 1022–40.
37. Seifer SD. Building and sustaining community-institutional partnerships for prevention research: findings from a national collaborative. *J Urban Health-Bull NY Acad Med*. 2006; 83(6): 989–1003.
38. Portes A, Rumbaut RG. *Immigrant America*. 3rd ed. Berkeley, CA: University of California Press; 2006.
39. Buchanan DR, Miller FG, Wallerstein N. Ethical issues in community-based participatory research: balancing rigorous research with community participation in community intervention studies. *Prog Community Health Partnersh*. 2007; 1(2): 153–60.
40. McQuiston C, Parrado EA, Olmos-Muniz JC, Bustillo Martinez AM. Community-based participatory research and ethnography: the perfect union. In: Israel BA, Eng E, Schulz AJ, Parker EA, eds. *Methods in community based participatory research for health*. San Francisco, CA: Jossey-Bass; 2005: 210–29.
41. Flicker S, Travers R, Guta A, McDonald S, Meagher A. Ethical dilemmas in community-based participatory research: recommendations for institutional review boards. *J Urban Health*. 2007; 84(4): 478–93.
42. Lee P, Krause N, Goetchius C, Agiesti JM, Baker R. Participatory action research with hotel room cleaners in San Francisco and Las Vegas: from collaborative study to the bargaining table. In: Minkler M, Wallerstein N, eds. *Community-based participatory research for health: from process to outcomes*. 2nd ed. San Francisco, CA: Jossey-Bass; 2008.
43. Israel BA, Schulz AJ, Parker EA, Becker AB, Allen AJ, Guzman JR. Critical issues in developing and following community-based participatory research principles. In: Minkler M, Wallerstein N, eds. *Community-based participatory research for health: from process to outcomes*. 2nd ed. San Francisco, CA: Jossey-Bass; 2008: 47–62.
44. Udoh I, Minkler M, Dillard Smith C, Chopel A, Walton S, et al. Developing and using a partnership covenant to guide a study of late stage HIV diagnosis. *Prog Commun Health Partnerships*. 2013; (in press).
45. Brown P, Morello-Frosch R, Brody J, et al. Institutional review board challenges related to community-based participatory research on human exposure to environmental toxins: a case study. *Environ Health*. 2010; 9(1): 39.
46. Chavez V, Duran B, Baker QE, Avila MM, Wallerstein N. The dance of race and privilege in community-based participatory research. In: Minkler M, Wallerstein N, eds. *Community-based participatory research for health*. 1st ed. San Francisco, CA: Jossey-Bass; 2008.

47. Minkler M. Linking science and policy through community-based participatory research to study and address health disparities. *Am J Public Health*. 2010; 100(S1): S81–7.
48. Am. IMCQHC. *Crossing the Quality Chasm: a New Health System for the 21st Century*. Washington, DC: National Academy Press; 2001.
49. Best A, Stokols D, Green LW, Leischow S, Holmes B, Buchholz K. An integrative framework for community partnering to translate theory into effective health promotion strategy. *Am J Health Promot*. 2003; 18(2): 168–76.
50. Green LW, Glasgow RE. Evaluating the relevance, generalization, and applicability of research: issues in external validation and translation methodology. *Eval Health Prof*. 2006; 29(1): 126–53.
51. Hawe P, Shiell A, Riley T. Theorising interventions as events in systems. *Am J Community Psychol*. 2009; 43(3–4): 267–76.