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Taking a Community-Based Participatory Research Approach in the Development of Methods to Measure a Community Health Worker Community Advocacy Intervention

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Abstract

Background: Public health advocacy is by necessity responsive to shifting sociopolitical climates, and thus a challenge of advocacy research is that the intervention must by definition be adaptive. Moving beyond the classification of advocacy efforts to measurable indicators and outcomes of policy, therefore, requires a dynamic research approach.

Objectives: The purposes of this article are to (1) describe use of the CBPR approach in the development and measurement of a community health worker (CHW) intervention designed to engage community members in public health advocacy and (2) provide a model for application of this approach in advocacy interventions addressing community-level systems and environmental change.

Methods: The Kingdon three streams model of policy change provided a theoretical framework for the intervention. Research and community partners collaboratively identified and documented intervention data. We describe five research methods used to monitor and measure CHW advocacy activities that both emerged from and influenced intervention activities.

Discussion: Encounter forms provided a longitudinal perspective of how CHWs engaged in advocacy activities in the three streams. Strategy maps defined desired advocacy outcomes and health benefits. Technical assistance notes identified and documented intermediate outcomes. Focus group and interview data reflected CHW efforts to engage community members in advocacy and the development of community leaders.

Application of Lessons Learned: We provide a model for application of key principles of CPBR that are vital to effectively capturing the overarching and nuanced aspects of public health advocacy work in dynamic political and organizational environments.

Keywords

Community advocacy, community health workers, community-based participatory research; policy development, methodological studies

Community-based participatory research (CBPR) is an approach guided by principles of community engagement in the collaborative production of knowledge¹ that encompasses a range of research designs and methods.² The fundamental characteristic of CBPR is the partnership between the researcher and those affected by the issue under study.³ Co-governance of the research process between researchers and community members improves the

identification of relevant and culturally appropriate research questions, enhances data collection and interpretation, and facilitates translation of research findings into social change.⁴⁻⁷ Herein, we have described the use of a CBPR approach to cultivate a public health advocacy intervention led by CHWs and to collaboratively develop measures of community member engagement in CHW-driven public health advocacy efforts. We argue that the CBPR approach stimulates an evolution

of research methods that is responsive to developing strategies and emerging outcomes of a community-level advocacy intervention addressing systems and environmental change.

ADVOCACY RESEARCH

Application of research findings to promote social change is intrinsic to CBPR,^{8,9} and there are several examples in the literature on partnerships that use participatory research results to drive policy change.¹¹⁻¹³ However, there are few instances in which policy change is the intervention being researched. Consequently, there is minimal guidance about how to achieve and measure policy outcomes.^{10,11} A challenge of advocacy work is that the intervention and desired outcomes must by definition be adaptive.¹² Standard evaluation methods set a priori to an advocacy intervention may fail to capture the nuanced aspects of the advocacy process. Moving beyond classification of advocacy efforts to measurable indicators and outcomes of policy change, therefore, requires a dynamic approach.

THE PARTNERSHIP

The community organizations and academic institution represented in this article have partnered for more than 15 years on research, program development, and capacity building in communities along the southern Arizona border. The Arizona Prevention Research Center (AzPRC) provides an umbrella for university-community partnership research activities guided by a Community Action Board (CAB) of

organizational representatives from four border counties. In 1999, we received a federal appropriation to focus on chronic disease prevention, and CAB members selected diabetes as the priority issue, with CHWs as the driving force for the intervention.¹³⁻¹⁶ Over time, AzPRC/CAB members began looking at chronic disease within the context of the social determinants of health, and we shifted our focus from behavioral interventions to environmental and systems changes. Our current study, *Acción Para La Salud* (Action for Health), seeks to determine the effectiveness of a CHW intervention designed to engage community members in advocating for community-driven policy change within organizations, systems, and the broader social and physical environment.

Acción is governed by a research committee composed of a university-based team and representatives from a range of health organizations in which CHWs are core to health efforts. The research committee is responsible for guiding development of the intervention and how it is documented and measured. Partners from two community health centers, a grassroots clinic, and a grassroots organization self-selected to participate directly in the research and identified two or three experienced CHWs on their staff to work on *Acción*. Approximately one third of the *Acción* budget supports CHW time to train on, engage in, and document community advocacy activities. Although the research committee oversees research methods, the *Acción* CHWs and their supervisors are integral in providing direct feedback regarding the utility of data collection strategies.

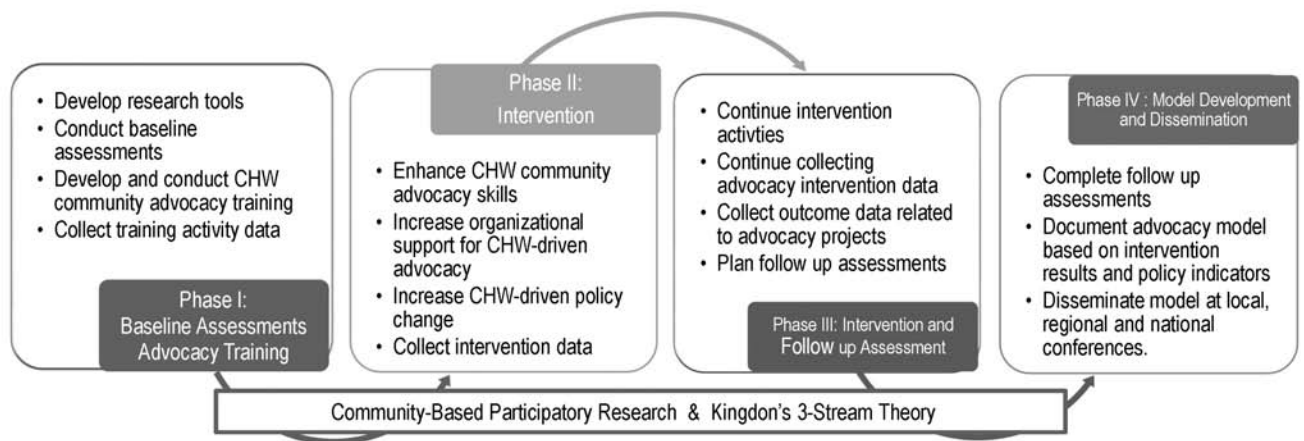


Figure 1. Acción Research Plan

METHODS

In this section, we describe the process of developing methods to monitor and measure CHW advocacy activities that both emerged from and influenced intervention activities.

Acción Advocacy Intervention

Acción has four phases (Figure 1). In the first, the AzPRC/CAB training committee developed and implemented CHW community advocacy training. We introduced *Acción* CHWs to Kingdon’s three streams concept¹⁷ in which policy change results from the coalescence of a defined problem, a policy alternative, and a supportive political climate. Between trainings, CHWs collected information related to the streams, first on the social, economic, and political history of their communities; second on issues identified by community members; and third in documenting who has the power to make change. We are currently in the intervention phase, in which CHWs are planning, carrying out, and documenting advocacy projects with ongoing technical assistance from the AzPRC team. The third phase will focus on follow-up on baseline measures and policy outcomes, and the fourth on the development of a CHW community advocacy model.

Monitoring and Measurement

In the original research plan, AzPRC partners identified

potential data sources to track CHW advocacy efforts and policy outcomes, including advocacy plans, CHW activity logs, media accounts, policy proposals, new policies, and resource allocations. In practice, this exhaustive list overwhelmed the CHWs who were beginning to apply advocacy strategies and had not yet envisioned concrete policy or health outcomes. Responding to their feedback, we transitioned to collaboratively developing tools that both assisted CHWs in the intervention and identified and documented intermediate advocacy outcomes. Fundamental to this method was the willingness of all partners to allow the intended intervention outcomes and measurements to evolve, with findings from one research method influencing the further development of the intervention and documentation. Table 1 outlines five instruments we used to measure advocacy outcomes and/or to follow the intervention, when they were introduced, whether they emerged from the research or intervention, the role they played in advancing both the intervention and measurement, and the intermediate advocacy outcome that was measured by each tool. All methods were approved by a human subjects internal review board.

Encounter Forms

The research committee developed the encounter forms before the intervention to document CHW interactions with

Table 1.
Evolution of *Acción* Intervention Activities and Measurement

Intervention Month	Evolution of <i>Acción</i> Intervention Activities and Measurement				
	Research Tool	Emerging From	Original Purpose	Alternative Role of Tool	Intermediate Advocacy Outcome Measured by Tool
1	Encounter Form	Research Committee	Measurement: Document CHW activity in 3-streams	Intervention: Encourage CHWs to consider next steps	<ul style="list-style-type: none"> Evolution of CHW activities to the political stream; Variance in approaches to advocacy by organization
6	Strategy Map	AzPRC Team	Intervention: Provide assistance to CHWs in advocacy planning	Measurement: Document desired advocacy outcome & long-term health benefits	<ul style="list-style-type: none"> Advocacy outcome identified Long term health benefit New partners identified
12	TA Notes	AzPRC Team	Intervention: Provide support to CHWs in advocacy activities	Measurement: Identify and document intermediate advocacy outcomes	<ul style="list-style-type: none"> Changes in organizational capacity Strengthened alliances Changes in social norms Strengthened base of support
18	Focus Group	Research Committee	Measurement: Clarify community advocacy definition & document training impact	Intervention: Collaboratively reflect on community advocacy experience	<ul style="list-style-type: none"> Application of CHW community advocacy Engagement of community members.
18	Joint Interview	AzPRC Team	Measurement: Impact of intervention on community engagement.	Intervention: Identify next steps in advocacy process	<ul style="list-style-type: none"> Engagement of community members Development of community leaders

community members. The encounter forms were grounded in the Kingdon framework to enable the identification of opportunities or “windows” for policy change by tracking issues of concern to community members, potential solutions, and the political climate for change. CHWs indicated on a single page the number of participants in the encounter activity, whether the encounter was formal or informal, and which stream(s) the contact addressed. The CHWs provided a narrative regarding the purpose of the encounter, what they discussed, and planned next steps. Thus, although it was developed as a research tool, the encounter form also encouraged CHWs to develop advocacy projects.

Strategy Maps

CHWs found the encounter forms useful for documenting activities, but expressed frustration with their capacity to construct advocacy objectives and corresponding strategies. In response, the AzPRC team identified strategy maps¹⁸ as a technical assistance tool. Strategy maps helped CHWs to identify the what, who, how, and when of an advocacy project and encouraged them to identify potential allies. During technical assistance visits, the AzPRC team facilitated an exercise to develop strategy maps based on issues CHWs had identified in the problem stream in their communities. The CHWs then developed their own strategy maps and updated them quarterly. Thus, the map also engaged the CHWs in defining and documenting measurable progress. On each map, the CHWs (1) defined their desired advocacy outcome, (2) identified the long-term health benefits of a health advocacy intervention, and (3) identified intermediate outcomes, such as creating new partnerships or developing community leaders.

Technical Assistance Notes

Technical assistance meetings between the AzPRC team, CHWs, and their supervisors were conceived as an exchange of ideas about how to develop advocacy efforts. As the AzPRC team became aware of the difficulty of identifying intermediate outcomes of the advocacy process and the complexity of capturing differences in approach between agencies, the conversations evolved as opportunities to describe specific achievements resulting from CHW activities. Although we found few examples in the literature of standardized outcomes related to policy work that we could use to structure these

discussions, *The Guide to Measuring Advocacy and Policy* provided us with a means to couple the strategy map with intermediate outcomes toward long-term policy change. The guide recommends a process through which those involved in implementing and evaluating advocacy efforts apply a theory of change that connects activities with a collective vision, develop outcome categories related to advocacy and policy, and finally identify an approach for measurement.¹⁹ The AzPRC team chose four relevant outcome categories from the guide (1) changes in social norms, (2) strengthened organizational capacity, (3) strengthened alliances, and (4) strengthened base of support. The AzPRC team modified the framework to a 1-page menu of intermediate outcomes and translated it into Spanish. In the meetings, we systematically discussed these areas and identified examples of intermediate outcomes and the strategies used to achieve them. Through this lens, the CHWs began to consider the impact of their advocacy work on building community capacity.

CHW Focus Group

As the intervention evolved, the research committee struggled to determine how CHWs were applying the concept of community advocacy and whether they found Kingdon’s framework useful in moving their efforts forward. The committee decided to hold a researcher-facilitated focus group to give the CHWs an opportunity to discuss their understanding and application of community advocacy, along with their views of the *Acción* training and technical assistance on this experience. The objective of the focus group was to clarify these key aspects of the intervention. CHW efforts to engage community members in advocacy and the development of community leaders emerged as key outcomes for future study.

Joint Interviews

To further explore concepts of community engagement identified in the focus group and gather the community perspective on advocacy, a member of the AzPRC team developed a method called the CHW–researcher conversation team (CHWRCT). The CHWRCT sought to situate the CHW and researcher as coinvestigators to understand the experiences and transformations of community members involved in *Acción*. The CHWRCT method created a safe and conversational environment that enabled the participant and

the CHW to reflect on their personal experiences in advocacy. The AzPRC team developed a general interview guide and a CHW who was involved in the advocacy effort worked with an AzPRC team member to modify the template based on what they were most interested in knowing about the project’s impact on the participant. Although specific questions varied by organization, instrument constructs were the same across interviews and included descriptions of personal impact and transformation, plans for sustainability, or momentum of existing or new project identification. The AzPRC team member allowed the CHW to lead the conversation as the expert in the advocacy project and to ask specific questions to jog the memory of the participant regarding opportunities and challenges of the advocacy project. An informal debriefing followed between CHW and researcher to allow the CHW to reflect on and make meaning of the interview and perhaps identify next steps in the advocacy process.

DISCUSSION

The evolution of methods to assess advocacy from the various perspectives outlined in this paper demonstrates the inherent value of CBPR in developing and measuring an advocacy intervention. The reciprocal and iterative nature of the CBPR approach allowed for collaborative identification of intermediate advocacy outcomes, or stepping stones toward actual policy targets and health outcomes. We present preliminary data from each method below with discussion of the influence of findings on the intervention.

Encounter Forms

A systematic content analysis of 1 year of forms indicated that the CHWs were comfortable working in the problem stream, using various strategies to talk generally about community issues with clients and program participants.²⁰ As they began to formulate ideas for advocacy projects, some CHWs began facilitating community meetings or forums to discuss identified problems, indicating a shift into the policy or solution stream. A small sample of the forms documented activity in the political stream—for example, meeting with the mayor to discuss transit infrastructure—and compiling information about patient preference for clinic hours to be communicated to the CEO. Although the encounter forms served as a standardized data collection tool to measure

the application of Kingdon’s three stream theory to CHW community advocacy activities, the format did not provide sufficient guidance to the CHWs in planning their next steps or how do follow-up on what they documented on the form.

Strategy Maps

The encounter forms fell short in illustrating the emergence of concrete plans to achieve an advocacy objective, and the strategy map marked a turning point in the progress of the intervention and measurement. Desired advocacy outcomes and health benefits indicated on the initial maps included:

- Extended clinic hours to increase access to health care for farmworkers;
- Public transportation infrastructure to increase communities’ access to services;
- Establishment of safe routes to school to increase physical activity levels of youth; and
- Prohibiting the sale of energy drinks to minors to reduce related morbidity/mortality.

Content analysis of four strategy maps identified four common advocacy strategies across the four organizations designed to meet desired advocacy outcomes. (1) CHWs in three of the four organizations designed strategies to engage community members to discuss the issue and develop a solution through neighborhood meetings, parent/youth meetings, civic education, and a patient petition. (2) CHWs in three agencies developed strategies to collect more information regarding their issue. Two involved canvassing the community served by the agency, one used coalition partners to identify what current efforts, and the fourth relied on secondary data. (3) CHWs in two organizations identified partners to engage in their advocacy effort, including law enforcement, city officials, social service providers, school districts, parks and recreation, and local business. (4) CHWs in three organizations included plans to publicize their issue through the media, community forums, and a community awareness campaign. CHWs in two agencies used the strategy map as a tool for communicating with stakeholders, reformatting them and adding graphics.

Technical Assistance Notes

The technical assistance notes moved partners into the next stage of identifying intermediate outcomes of strategies out-

lined on the strategy maps. Changes in social norms involved the increased support for the issue resulting from CHW door-to-door education campaigns and community events. Changes in organizational capacity related to acceptance of CHW advocacy within the organization. One organization was cautious about advocacy because CHW efforts to identify community issues might result in client dissatisfaction. The CHWs carefully framed the issue of clinic hours as a mechanism for “positive improvement” and garnered support of decision makers. In another agency, the CHWs trained other CHWs in their organization in advocacy skill and expanded their job focus to include a broader scope of social and environmental issues impacting health. CHWs strengthened alliances through new partnerships with county health and transportation departments. In one agency, they collaborated with the police on community events to improve the cultural saliency of police conduct in the community. To strengthen their base of support, CHWs in two organizations mentored community members who then mobilized neighbors. In one case, CHWs used the binational radio station, newspapers, and public libraries to communicate their success in establishing a transportation route from the U.S. port of entry to the hospital.

Focus Groups

The focus group revealed that Kingdon’s theory did not capture a theme of central importance to the CHWs, namely, that of identifying community members historically excluded or marginalized from decision-making processes and providing a structure in which they could exercise leadership. As one CHW explained, community advocacy “is to give our community the tools so that they are their own advocates, that they represent their communities more, so that in the future when we are no longer there we have taught them to defend themselves.” Another CHW was specific in saying, “It is to teach them their rights as citizens and that we can enforce our rights. At times we need to form leaders, because people tell me that they go to city council meetings but that no one pays attention to them. We need to give them the tools and teach them how to be heard so they can achieve their goal.” The focus groups also helped to clarify that, although many of the advocacy strategies described in the strategy map and technical assistance meetings were familiar activities, the *Acción* intervention was crucial in helping CHWs to organize

their efforts. In the words of one CHW, “We have greater possibilities of achieving our goal. With more structure and organization there is much more possibility of achieving what will benefit the community or the patient, or what is favorable for them.” CHWs in two agencies emphasized a more profound impact of the intervention; “We have gone out of our comfort zone really. . . . We have a broader scope of action.”

Joint Interviews

The CHWRCT method created an opportunity to triangulate in real time the impact of the *Acción* intervention on community engagement from CHW, community member, and researcher perspectives. To date, the AzPRC team has interviewed six community members who worked with CHWs from two partner agencies. Although the results are preliminary, themes of personal transformation and leadership development emerged. Community members reflected on changes in knowledge, belief, and skill they gained through working with a CHW. They described increased self-confidence, power, and skills to make change in their communities. They were less intimidated by decision makers and people in “powerful positions.” They felt their voice mattered and represented those of others who may not have such an opportunity. In one case, a leader said she felt “*realizada*” or “complete” as a human being after her participation. Another now represents her parent-teacher organization at the state level. One community leader organized her exercise group to attend and present their views on the city’s proposal to eliminate the public space in which they held their classes.

APPLICATION OF LESSONS LEARNED

Our experiences in *Acción* lead us to conclude that key principles of a CBPR approach are vital to effectively capturing the overarching and nuanced aspects of public health advocacy work in dynamic political and organizational environments. Figure 2 describes a model for applying basic tenets of CBPR that are crucial to advocacy intervention development. These concepts occur in stages and build upon one another, but are also overlapping and iterative. The examples below describe each stage.

Development of Research Within the Contexts of Communities and Organizations

Context is central to the CBPR approach^{21,22} and an essen-

tial consideration in organizations with varied orientations toward advocacy work. Each CHW interpreted the encounter form differently, based on previous advocacy experience and the culture of their organization. After 1 year, the forms revealed patterns within each agency. In one organization, the forms documented the influence of *Acción* in encouraging CHWs to take their clients' issues up the decision-making ladder, in another how CHWs had expanded their role to work in new arenas, and in a third the ways CHWs were initiating conversations with clients about community issues in the context of their other job activities.

The Iterative and Interdependent Development of Both Intervention and Measurement

Consistent with the CBPR approach, intervention and evaluation research methods unfolded simultaneously, and in some cases the CHWs' needs drove the development of the data collection tool. The strategy map was a response to CHWs' request for technical assistance on initiating an advocacy effort. They were thrilled with the map because it displayed graphically on 1 page the self-determined steps of an advocacy project. In the words of one CHW, "With the map we have learned how to organize ourselves. . . . We were already doing it, but we didn't really know how to start, how

to follow up, who to contact, who we should include. So this strategy map has been really useful."

Integrate Theories and Frameworks That Respond to Partner Feedback and Emerging Data

We integrated two additional contributions to our theoretical framework to understand and describe how CHWs were using community advocacy as a form of community engagement. *The Guide to Measuring Advocacy and Policy* provided us with a way to link CHW activities with concrete intermediate outcomes toward long-term policy change. The second is based on a meta-analysis of international development projects that provides a framework for CHW community engagement activities that have implications for public policy development.²³

CONCLUSION

Although policy has the potential to substantively alter conditions that impact health, achieving policy change is complex and the current literature provides little in the way of evidence-based practices. We recommend the development of methods within a CBPR approach to build skills at an advocacy level and to link those skills to the process of policy development and policy change.

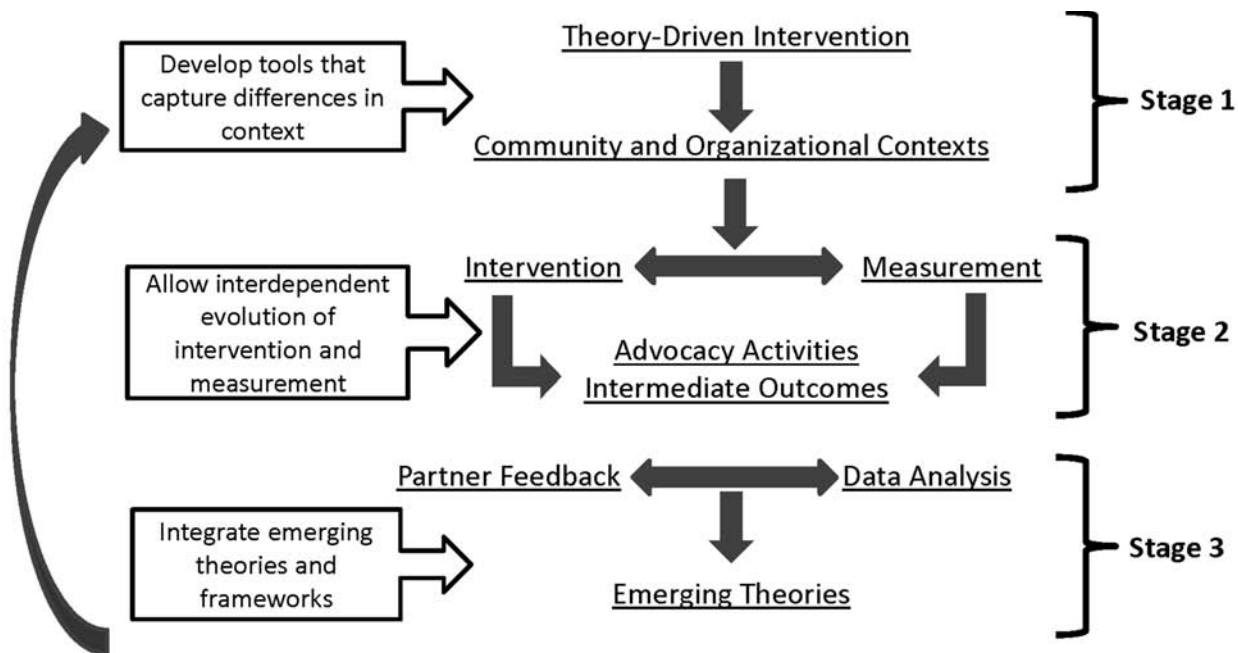


Figure 2. CBPR Approach in the Development of Methods to Measure Community-Level Advocacy Interventions

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REFERENCES

1. 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.
2. Jagosh J, Macaulay AC, Pluye P, Salsberg J, Bush PL, Henderson J, et al. Uncovering the benefits of participatory research: implications of a realist review for health research and practice. *Milbank Q*. 2012;90(2):311–46.
3. Green LW, George MA, Daniel M, Frankish CJ, Herbert CJ, Bowie WR. Study of participatory research in health promotion. Ottawa: The Royal Society of Canada; 1994.
4. 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 Suppl 1:S40–6.
5. Arble B. Participatory research in development of public health interventions. Madison: University of Wisconsin, Population Health Institute; 2006.
6. Hicks S, Duran B, Wallerstein N, Avila M, Belone L, Lucero J, et al. Evaluating community-based participatory research to improve community-partnered science and community health. *Prog Community Health Partnersh*. 2012;6(3):289–99.
7. Viswanathan M, Ammerman A, Eng E, Garlehner G, Lohr K, Griffith D, et al. Community-based participatory research: assessing the evidence. Rockville (MD): Agency for Healthcare Research and Quality; 2004.
8. Themba MN, Minkler M. Influencing policy through community based participatory research. San Francisco: John Wiley & Sons; 2003.
9. Israel BA, Coombe CM, Cheezum RR, Schulz AJ, McGranaghan RJ, Lichtenstein R, et al. Community-based participatory research: a capacity-building approach for policy advocacy aimed at eliminating health disparities. *Am J Public Health*. 2010;100(11):2094–102.
10. Izumi BT, Schulz AJ, Israel BA, Reyes AG, Martin J, Lichtenstein RL, et al. The one-pager: a practical policy advocacy tool for translating community-based participatory research into action. *Prog Community Health Partnersh*. 2010;4(2):141–7.
11. Ritas C. Speaking truth creating power: a guide to policy work for community-based participatory research practitioners. Available from: <http://www.ccpn.info/>: Community Campus Partnerships in Health; 2003.
12. Devlin-Foltz D, Fagen MC, Reed E, Medina R, Neiger BL. Advocacy evaluation: challenges and emerging trends. *Health Promot Pract*. 2012;13(5):581–586.
13. Cohen SJ, Ingram M. Border health strategic initiative: overview and introduction to a community-based model for diabetes prevention and control. *Prev Chronic Dis*. 2005;2(1):A05.
14. Ingram M, Gallegos G, Elenes J. Diabetes is a community issue: the critical elements of a successful outreach and education model on the U.S.-Mexico border. *Prev Chronic Dis*. 2005;2(1):A15.
15. Staten LK, Scheu LL, Bronson D, Peña V, Elenes J. Pasos Adelante: the effectiveness of a community-based chronic disease prevention program. *Prev Chronic Dis*. 2005;2(1):A18.
16. Teufel-Shone NI, Drummond R, Rawiel U. Developing and adapting a family-based diabetes program at the U.S.-Mexico border. *Prev Chronic Dis*. 2005;2(1):A20.
17. Kingdon J. Agendas, alternatives, and public policies. New York: Longman; 2003.
18. Zacoks R, Dobson N, Kabel C, Briggs S. Framework and tools for evaluating progress toward desired policy and environmental changes: a guidebook informed by the NW community changes initiative. NW Community Changes Guidebook; 2010. Available from: http://static.squarespace.com/static/52b20be1e4b09f7904dfa46f/t/52e1481be4b0d50c518498d1/1390495771680/NW_Community_Changes_Guidebook_2010.pdf
19. Reisman J, Gienapp A, Stachowiak S. A guide to measuring advocacy and policy. Baltimore: Annie E. Casey Foundation; 2007.
20. Ingram M, Shachter K, Sabo SJ, Reinschmidt KM, Guernsey de Zapien J, Carvajal SC. A community health worker intervention to address the social determinants of health through policy change. *J Prim Prev*. 2014;35(2):119–23.
21. Ibanez-Carrasco F, Riano-Alcala P. Organizing community-based research knowledge between universities and communities: lessons learned. *J Community Dev*. 2011;26(1):72–88.
22. Goins RT, Garrouette EM, Fox SL, S DG, Manson SM. Theory and practice in participatory research: lessons from the native elder care study. *Gerontologist*. 2011;51(3):285–294.
23. Gaventa JK, Barrett G. So what difference does it make? Mapping the outcomes of citizen engagement. Working Paper. Brighton (UK): Institute of Development Studies; 2010.