Commentary

The Community Health Model (CHM): A Conceptual Framework for Understanding Racial/Ethnic Community Change

Joyce Buckner-Brown, PhD, MHS, RRT
Jackson State University School of Public Health

Introduction

Over the last several decades, numerous processes and programs aimed at improving the health of communities have been proposed (Wallerstein, Yen, & Syme, 2011; Merzel & D'Afflitti, 2003; Kesler & O'Connor, 2001). Complex, multi-sectoral interventions that promote community ownership are now the norm, rather than the exception, with an increased emphasis on changing policies and the environment to facilitate the adoption of healthier behaviors. Building on the successes of anti-tobacco legislation has led to further empowerment of communities to create opportunities for healthy living.

The Centers for Disease Control and Prevention (CDC), other governmental agencies, and foundations have funded large community-based programs that have put these concepts into practice and experienced some success at eliminating health disparities and reducing risk behaviors related to chronic disease. A unifying model of community health was needed that was not only grounded in the scientific literature, but that also considered the experiences and programmatic successes observed in the field. It is useful, if not essential, to look back at the key lessons learned from this knowledge, theory, and practice, to extract the factors and processes needed to promote the health of a community.

In 2010, the CDC, with input from its internal and external partners, proposed a model for community health that reflected the experiences of its programs, focused on eliminating health disparities, improving health behaviors, and achieving policy and environmental level change. The Community Health Model (CHM) borrowed frameworks from other community-based conceptual models, including, Minkler and Wallerstein's Community organization and community building typology (Minkler & Wallerstein, 2005), the Action Model to Achieve Healthy People 2020 Overarching Goals, and the Racial and Ethnic Approaches to Community Health (REACH) logic model. REACH is a national program administered by the (CDC) to reduce racial and ethnic health disparities. Awardee and partners implement culturally and linguistically appropriate strategies that address a myriad of health issues affecting African Americans, American Indians, Hispanics/Latinos, Asian Americans, Alaska Natives, and Pacific Islanders. To learn more about REACH, see the website: https://www.cdc.gov/nccdphp/dch/programs/reach/.

In the CHM (see Figure 1), there is a functioning coalition composed of community members and leaders, stakeholders, decision-makers, and partners well-versed in the community context. This is essential to the process. The model represents how coalitions engage in the community change process, impacting the social determinants of health throughout, and identify effective characteristics of each of these stages, with

continued feedback and evaluation. As the coalition proceeds through the community change process, the model highlights that there is a continuous process of negotiations. This mix of consensus, conflict, and empowerment is essential to create community change, reducing barriers, and achieving improvements in behaviors and risk factors, the elimination of health disparities, and achieving health equity.

The CHM illustrates the continuous process of evaluation and sustainability of coalition efforts, which informs the operation of the coalition in a cyclical loop of learning and improvement. This iterative process increases community capacity.

Figure 1. The Community Health Model
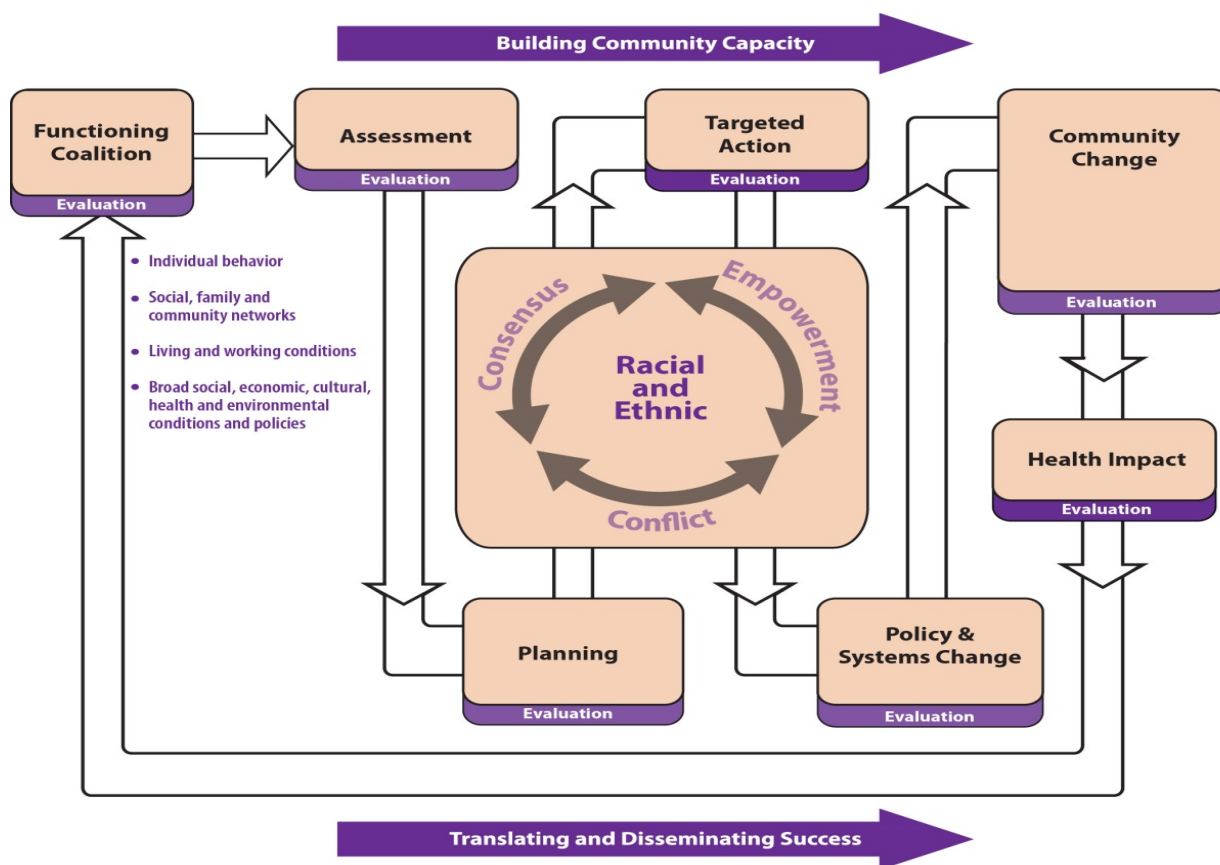
Community capacity is defined as "characteristics of communities that affect their ability to identify, mobilize, and address social and public health problems" (Goodman et al., 1998).

Organically, or through design, communities that experience success over time translate and disseminate that success to other communities. It is important to note that although this progression through the action stages can occur in a linear fashion, a nonlinear progression is common. Often, communities regress to earlier stages based on member attrition, evaluation findings, etc. In addition, stages are not isolated, e.g., identifying new partners works in tandem with planning. As the figure denotes, evaluation is systematic, constant, and **cyclical** to assure successful **program implementation.** Furthermore, in the ideal situation, issues pertaining to sustainability will be addressed and fostered throughout the process.

The next sections describe different components of the CHM and provide examples of REACH program successes that align with respective stages of the CHM model.

Building Community Capacity

All communities have assets. Community capacity may appear to be largely latent in communities, until they are provoked into action because of imminent threats or evolving needs. The community functioning and social capital literature suggests that the four fundamental characteristics of community capacity consist of: (1) a sense of community; (2) a level of commitment among community members; (3) mechanisms of problem solving; and (4) access to resources (Chaskin, 1999). Note: In the context of a community setting, the term social capital refers to the "specific processes among people and organizations, working collaboratively in an atmosphere of trust, that lead to accomplishing a goal of mutual social benefit" (Fulbright-Anderson & Auspos, 2006, p. 20).

These are characteristics that all REACH communities shared. REACH communities responded by leveraging social capital to collectively solve problems and improve the health of their communities. Their successes demonstrate that building community capacity is tied to long-term outcomes and the elimination of health disparities. Local capacity building is essential in changing the social and economic determinants of health; improving the physical or community environment; impacting health behaviors, literacy, and knowledge; and improving clinical care. Capacity building trainings were commonly provided to high-risk community members, or businesses and community organizations that served a racial/ethnic population.

Building Community Capacity Examples from REACH Programs:

- The Institute for Urban Family Health in New York, established a youth nutrition education program in churches.
- Southeast Chicago Development Commission, Inc. conducted capacity building workshops to build communication skills of members of the Southeast Diabetes Community Action coalition.
- The University of Arizona conducted a cervical cancer prevention training workshop for "promotoras" (community health workers).

Functioning Coalition

A functioning coalition is characterized by a collaborative history, a sense of community ownership and understanding, and representation of the community of interest. It is made up of members representing

constituencies or organizations that adequately and diversely embody the community of interest, which helps to establish credibility of the partnership by the wider community (Granner & Sharpe, 2004). Striving for open communication and welcoming participatory and collaborative processes, members experience a high level of agreement regarding collective vision and goals (Butterfoss, 2007; Potapchuck, 2007). Members are committed to strengthening and sustaining the coalition and leveraging the financial, human, and social capital of their organizations (Graber, Huang, Drum, Chin, Walters, Heuer et al., 2008; Kegler, Twiss, & Look, 2000).

REACH coalition partners have included a rich mix of community-based organizations, state and local health departments, universities and other research institutions, faith-based organizations, tribal organizations, groups focused on older adults, local chapters of national voluntary health organizations, and national and regional minority organizations. REACH recognizes that achieving widespread community change to improve health requires engaging organizations beyond those focused on health.

Functioning Coalition Examples from REACH Programs:
- After examining the lack of physical activities for adult African Americans, Community Health Councils of Los Angeles engaged a multi-sector consortium to research and evaluate strategies to: (1) promote land-use management and urban design policy, (2) increase physical activity opportunities and improve existing food venues through regulatory practices and policy development, and (3) develop policies and promote investments that support new nutrition sources. This collaboration has led to environmental improvements.
- The Community Redevelopment Agency of Los Angeles developed an incentive package to attract grocery stores and sit-down restaurants to under-resourced communities. The Los Angeles City Council unanimously approved a proposal that prohibited new fast-food restaurants in South L.A. Council Districts 8 and 9 for at least 1 year.

Assessment

The collection of local data is important to provide baseline data for evaluation, to inform intervention strategies, and to encourage local ownership of the community change process. To determine the actual assets and needs of a community, both quantitative and qualitative data should be collected. A community assessment can be most effective when it involves multiple methods of data collection, respects both empirical data and stories, and places an emphasis on empowerment through community participation. This is especially true in underserved communities where ethnographic methods, such as focus groups and key informant interviews, have proven effective in providing locally relevant and culturally appropriate information relevant for change (Braithwaite et al., 1994; Merzel & D'Afflitti, 2003).

Assessment Example from a REACH Program:

- The Medical University of South Carolina and the REACH Charleston and Georgetown Diabetes Coalition conducted a community needs assessment to improve diabetes self-management. The Coalition discovered that people with diabetes had high interest in using the Internet to find important information about managing their diabetes. However, 50% of older community members and 40% of

people with less than 12 years of formal education needed help using the Internet. The coalition built a library partnership to support and sustain diabetes education across the community. The library partnership promotes use of online health information in the context of support systems already in place for the African American community.

Planning

Community planning is a deliberate action approach for involving those directly and indirectly affected by critical problems to effectively and collectively address social, political, economic, and environmental forces that adversely influence health and health outcomes. This is a synergistic and an open system that fosters active and sustainable community coalitions that are based on mutual respect. All REACH awardees developed community action plans that were directly related to the organizations' goals, objectives, and day-to-day activities.

Planning Example from a REACH Program:

- The goal of the Chicago REACH 2010–Lawndale Health Promotion Project was to eliminate disparities related to heart disease and diabetes experienced by African Americans and Latinos in two contiguous Chicago neighborhoods using a community-based prevention approach. The awardee used multiple data sources that informed its community action plan. The triangulation of data sources from the planning phase enriched interpretation and led to more creative and feasible suggestions for programmatic interventions across the four levels of the ecological framework. Multisource data yielded useful information for program planning and a better understanding of the cultural differences and similarities between African Americans and Latinos (Levy, 2004).

Targeted Action

Targeted action stems from the planning process of a community coalition. It must be in alignment with the goals and priorities of the community action plan, and leverage community assets. Targeted action is responsive and flexible to community needs, and promotes interventions that are sustainable, practice- and evidence-based. Targeted action, as borrowed from the REACH 2010 logic model, is defined as "planned, identifiable, and discrete activities to produce change in the population of focus" (Tucker, Liao, Giles, & Liburd, 2006). Feedback from REACH grantees suggested that the actions conducted by the coalition must be flexible enough to be responsive to the needs of the community and must take advantage of unanticipated opportunities to garner successful outcomes. This term is expanded in this model to include not only change to the population of focus, but also change in the surrounding environment.

Targeted Action Example from a REACH Program:

- As a CEED, New York University School of Medicine (NYU School of Medicine) conducted the B Free CEED program to eliminate Hepatitis B Virus (HBV) disparities in Asian and Pacific Islander (API) communities. The NYU School of Medicine educated API community members and social and health service providers about the risks and prevention of HBV in New York City. Additionally, B Free Centers of Excellence in the Elimination of Disparities engaged in concerted efforts to

disseminate HBV information and intervention tools. To date, NYU School of Medicine B Free CEED has developed and maintains student mentor programs, and an online library of HBV resources aimed at researchers, health

and social service providers, and API community leaders. This REACH grantee contributed to long-term improvements in HBV data collection.

Policy, Systems & Environmental (PSE) Change

PSE change strategies have been a cornerstone of CDC's efforts to prevent chronic diseases and promote health. REACH community-based programs have shown that there are different ways to achieve this type of change. Some coalitions have employed a grassroots strategy that unveiled the needs and injustices of a community that have shown the need for policy change. In this instance, community-driven political action occurs in order to change the community infrastructure. Other coalitions have instituted a "grasstops" strategy where community-based coalitions educated local decision-makers on community needs; thus serving as a catalyst for policies that support healthier living.

PSE Changes Examples from REACH Programs:

- Hidalgo Medical Services created policy change locally by partnering with various community agencies to reduce the number of vending machines in area schools.
- The University of Illinois at Chicago has worked to prevent and reduce diabetes and cardiovascular disease among the Latino and African American populations of the Chicago metropolitan area. Key PSE changes included developing a policy that provides data on food items sold in Chicago stores, and creating a collaborative of agencies to employ and train community health workers.
- The Inter-Tribal Council of Michigan worked to reduce the burden of chronic disease specific to cardiovascular disease and diabetes among three federally recognized communities in Michigan. The REACH awardee grantee awareness of chronic disease in communities and conducted cultural trainings at the state level, implemented a variety of worksite wellness policies, and revitalized the community environment to include more accessible recreational areas.

Community Change

Community change is about altering the status quo of neighborhoods. Strategies are implemented that target the physical, economic, institutional, and social factors that cause neighborhoods to become unstable or to decline. While the evidence base is neither strong nor robust enough to provide definitive answers to some of the most vexing questions about community change, the public health literature shows that positive community outcomes occur when community building strategies emphasize safety, education, employment, economic

development, housing, youth development, and social services issues (Fulbright-Anderson & Auspos, 2006). However, a growing body of literature has documented promising lessons about interventions and factors that contribute to positive changes in communities (Blanchard, Narle, Gibbs, Ruddock, Grady, Brookes, et al, 2013; Jenkins, Myers, Heidari, Kelechi, & Buckner-Brown, 2011; Fouad, Partridge, Dignan, Holt, et al, 2010; Giles, Holmes-Chavez, & Collins, 2009; Findley, Irigoyen, Sanchez, Guzman, et al., 2004). For example, the

use of community collaborations to prevent violence, rather than relying solely on a law enforcement approach, is a strategy that has gained national acceptance (CDC, 2007).

Community Change Examples from REACH programs:

- In Boston, Massachusetts, nearly 1,000 African American and Latino children with asthma had 80% fewer hospitalizations, 56% fewer emergency department visits, and 41% fewer missed school days after participating in a 5-year comprehensive case management program led by Boston Children's Hospital Community Asthma Initiative (CAI). The majority of these children live in low-income communities. CAI is replicating the programs in Alabama, Tennessee, and Ohio.
- In Brownsville, a low-income African-American and Latino neighborhood in Brooklyn, New York, the REACH U.S. Brooklyn Perinatal Network in New York supported two community health centers in putting into action an enhanced perinatal risk assessment (PRA) system and a community-based navigation system to link women with social services. As of December 2012, the health centers had screened an estimated 840 women using the PRA system and referred about half of these women to social service providers.
- In North Carolina, approximately 1,200 students in the Eastern Band of Cherokee Indians school system received 150–225 minutes of physical education each week, which meets the National Standards for Physical Education for grades K–12. At least half of this time is spent on moderate to vigorous physical activity.

Health Impact

Public health logic typically asserts that PSE change and community changes will lead to demonstrable positive community health outcomes.

Health Impact Example from a REACH Program:

- The Institute for Family Health/Bronx Health REACH/Center of Excellence for the Elimination of Disparities was awarded REACH funding under two initiatives, REACH 2010 and REACH U.S. Bronx Health REACH and partners were instrumental in eliminating whole milk and reduced the availability of sweetened milk in New York City, the largest school district in the country with 1,579 schools. In 2009, the City's Department of Health and Mental Hygiene conducted an analysis of the impact of the implementation by comparing annual milk purchases from 2004 through 2009. The data analysis suggest that per student per year, almost 5,960 calories and 619 g of fat were eliminated, or more than a pound of weight per child per year.

Evaluation

Program evaluation is essential to public health. Evaluation can be used to assess the value and impact of programs. Data improve program functions, can help redirect program activities when needed, and support appropriate education and messaging for the future. REACH communities often used qualitative and/or qualitative approaches to evaluate their programs.

Local Evaluation Examples from REACH Programs:

- The Charlotte REACH community-based interventions were created to eliminate rates of heath disparities in cardiovascular disease and diabetes. Interventions targeted all five levels of influences: intrapersonal, interpersonal, organization, community, and policy. Charlotte REACH conducted a qualitative assessment using 10 focus groups. The results of this assessment provided feedback for improving community health promotion activities and developing program sustainability (Debate, Plescia, Joyner & Spann, 2004).
- The REACH Detroit partnership used a community-based participatory approach at multiple levels to reduce risk factors for type 2 diabetes in African-Americans and Latinos residing in low-resource neighborhoods in east and southwest Detroit. They assessed whether the REACH Detroit community-based diabetes lifestyle intervention delivered by trained community residents to Africans and Latinos with type 2 diabetes resulted in significant diabetes-related knowledge and behavioral changes and glycemic control. Using a mixed-methods approach, REACH Detroit concluded that their program initiative resulted in significant improvement in dietary and diabetes self-car related knowledge and behaviors as well as important metabolic improvements (Two Feathers, Kieffer, Palmisano, Anderson, Sinco, et al., 2005).

Translating and Disseminating Success

Developing a translation and dissemination plan is an integral part of the collaborative planning process. Collecting data on intervention programs, practices, and services, and sharing this knowledge is beneficial because it increases the availability of program information within formal (e.g., stakeholders) and informal (e.g., the community at large) networks.

REACH communities adapted the ecological perspective in their messaging (i.e., influencing multiple social, economic, and political environments). Audience is an important criteria to consider when designing and implementing dissemination strategies. REACH examples included tailored messages at the individual level, targeted messages at the group level, social marketing at the community level, media advocacy at the policy level, and media campaigns at the population level. For example, REACH Detroit Michigan developed separate culturally and linguistically appropriate intervention curricula for African American and Latino adults with type 2 diabetes. Moreover REACH Detroit trained community residents to deliver the curriculum designed to improve dietary, physical activity and diabetes self-care behaviors (Two Feathers et al., 2016).

In addition, public health communication strategies were often intertwined with ongoing intervention efforts such as coalition building, networking, and community organizing. REACH awardees continue to engage in multiple dissemination activities—e.g., articles in peer reviewed journals, success stories, white papers, and technical reports. Dissemination activities varied by funding level.

Translating and Disseminating Success Examples from REACH Programs:

- REACH US CEEDS significantly produced more peer-reviewed journal articles than Action communities. Between 2008 and 2011, REACH US grantees disseminated 1,414 culturally tailored products.
- Grantees also used digital media to interact with consumers and stakeholders. Internet communications methods, including email, websites, blogs, Facebook, twitter, YouTube and webinars, were the most frequently reported method of distribution.

Conclusion

The value of community coalitions in working to improve population health has widely received affirmation. They operate through collaborative partnerships and community stakeholders [using social capital] to build community capacity. As in predominantly white communities, to address the social determinants of health and associated risk factors, a community health model requires a comprehensive approach to sustained racial/ethnic community engagement. However, the tension experienced by racial/ethnic communities may be heightened in the conflict, empowerment, and finally consensus building as depicted in Community Health Model (CHM). This tension is intrinsic and cyclical, and never fully abated. This characteristic is unique and peculiar to racial/ethnic communities; it is the one salient distinguishable attribute that differs from other community action models.

Acknowledgements

References

Blanchard, C., Narle, G., Gibbs, M. Ruddock, C., Grady, M., Brookes, C., Hopkins, T., & Norwood, J. (2013). Improving policy and practice to promote equity and social justice - a qualitative comparative analysis building on key learnings from a twinning exchange between England and the US. *Global Health Promotion*, *20*(4), 45-56.

Braithwaite R. L. & Lythcott N. (1998). Community empowerment as a strategy for health promotion for Black and other minority populations. *The Journal of the American Medical Association*, *261*(2), 282-283.

Butterfoss, F. D. (2007). *Coalitions and partnerships in community health*. San Francisco, CA: John Wiley and Sons

Centers for Disease Control and Prevention (2007). Community engagement: Definitions and organizing concepts from the literature, Part 1. Retrieved from http://www.cdc.gov/phppo/pce/part1.htm

Chaskin, R.J. (1999). Defining community capacity: A framework and implications from a comprehensive community initiative. The Chapin Hall Center for Children at the University of Chicago. Retrieved from http://www.chapinhall.org/sites/default/files/old_reports/41.pdf

Debate, R., Plescia, M., Joyner, D., & Spann, L. (2004). A qualitative assessment of Charlotte REACH: An ecological perspective for decreasing CVD and diabetes among African Americans. *Ethnicity & Disease*, *14*(Supplement 1), S1-77-82.

Findley, S., Irigoyen, M., Sanchez, M., Guzman, L., Mejia, M. Sajous, M., Guzman, L.,… Chen, S. (2004). Community empowerment to reduce childhood immunization disparities in New York City. *Ethnicity & Disease*, *14*(Supplement 1), 135 -142

Fouad, M. N., Partridge, E., Dignan, M., Holt, C., Johnson, R., Nagy, C., Person, S.,…, Scarinci, I. (2010). Targeted intervention strategies to increase and maintain mammography utilization among African American women. *American Journal of Public Health*, *10*0, 2526–2531. doi:10.2105/AJPH.2009.167312)

Fulbright-Anderson, K., & Auspos, P. (Eds.). (2006). *Community change: Theories, practice, and evidence*. Washington, D.C.: Aspen Institute.

Giles, W. H., Holmes-Chaves, A., Collins, J. L. (2009). Cultivating healthy communities: The CDC perspective. *Health Promotion Practice*, *10*(Supplement 2), 86S-87S. doi: 10.1177/1524839909336105

Goodman, R.M., Speers, M.A. McLeroy, K., Fawcett, S., Kegler, M. Parker, E., Smith, S. R. …, Wallerstein, N. (1998). Identifying and defining dimensions of community capacity to provide a basis for measurement. *Health Education and Behavior*, *25* (3), 258-278.

Graber, J. E., Huang, E. S., Drum, M., Chin, M., Walters, A, & Heuer, L. (2008). Predicting changes in staff morale and burnout at community health centers participating in the health disparities collaboratives. *Health Services Research*, *43*, 1403-1423.

Granner, M. L., & Sharpe, P. A. (2004). Evaluating community coalition characteristics and functioning: a summary of measurement tools. *Health Education Research*, *19*(5), 514-53

Jenkins, C., Myers, P., Heidari, K. Kelechi, T. J., & Buckner-Brown, J. (2011). Efforts to decrease diabetes-related amputations in African Americans by the Racial and Ethnic Approaches to Community Health Charleston and Georgetown Diabetes Coalition. *Journal of Family & Community Health*, *Supplement 1*, S64-S78.

Kegler, M. C., Twiss, J. M., & Look, V. (2000). Assessing community change at multiple levels: The genesis of an evaluation framework for the California Healthy Cities Project. *Health Education & Behavior*, *27*, 760-779.

Kesler J.T. & O'Connor D. (2001). The American communities' movement. *National Civic Review*, *90*(4), 295-305.

Levy, S.R., Anderson, E. E., Issel, L.M., Willis, M. A., Dancy, B. L., Jacobson, K. M. Fleming, S. G., …. Hebert-Beirne, J. (2004). Using multilevel, multisource needs assessment data for planning community interventions. *Health Promotion Practice*, *5*(1), 59-68.

Merzel C.M., & D'Afflitti J. (2003). Reconsidering community-based health promotion: Promise, performance, and potential. *American Journal of Public Health*, *93* (4), 557-574.

Minkler, M., & Wallerstein, N. (2005). Improving health through community organization and community building: A health education perspective. In M. Minkler (Ed.). *Community organization and community building for health* (2nd ed., pp. 26-50). New Brunswick, NJ: Rutgers.

Potapchuck, M. (2007). Community changes processes and progress in addressing racial inequities. M. P. Associates and Aspen Roundtable. Retrieved from http://www.aspeninstitute.org/site/c.huLWJeMRKpH/b.612045/k.4BA8/Roundtable_on_Community_Change.htm

Tucker P., Liao, Y., Giles, W.H., Liburd, L. (2006). The REACH 2010 Logic Model: An illustration in expected performance. Preventing Chronic Disease; 3(1), 1-6. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1500948/pdf/PCD31A21.pdf

Two Feathers, J., Kieffer, E., Palmisano, G., Anderson, M., Sinco, B., & Janz, N. et al. (2005). Racial and Ethnic Approaches to Community Health (REACH) Detroit Partnership: Improving diabetes-related outcomes among African American and Latino Adults. *American Journal of Public Health*, *95*(9), 1552-1560. http://dx.doi.org/10.2105/ajph.2005.066134.

Two Feathers, J., Kieffer, E., Palmisano, G., Anderson, M., Janz, N., Spencer, M.S. …. James, S. A. (2007). The development, implementation, and process evaluation of the REACH Detroit Partnership's Diabetes Lifestyle Intervention. *The Diabetes Educator*, *33*(3). 509-520. doi: 10.1177/0145721707301371

Wallerstein, N.B., Yen, I.H. & Syme, S.L. (2011). Integration of social epidemiology and community-engaged interventions to improve health equity. *American Journal of Public Health*, *101*(5), 822-30. Retrieved from http://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2008.140988. doi: 10.2105/AJPH.2008.140988