



Published in final edited form as:

*Sex Transm Dis.* 2021 January ; 48(1): 49–55. doi:10.1097/OLQ.0000000000001267.

## Critical elements of community engagement to address disparities and related social determinants of health: The CDC Community Approaches to Reducing STDs (CARS) initiative

Scott D. Rhodes<sup>1</sup>, Jason Daniel-Ulloa<sup>2</sup>, Shauntá S. Wright<sup>3</sup>, Lilli Mann-Jackson<sup>1</sup>, David B. Johnson<sup>3</sup>, Norman A. Hayes<sup>3</sup>, Jo A. Valentine<sup>3</sup>

<sup>1</sup>Department of Social Sciences and Health Policy and the CTSI Program in Community Engaged Research, Wake Forest School of Medicine, Winston-Salem, North Carolina, USA;

<sup>2</sup>University of Washington, Bothell, School of Nursing and Health Studies, Bothell, WA

<sup>3</sup>Division of STD Prevention, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

### Abstract

**Background:** Community Approaches to Reducing STDs (CARS), a unique initiative of the U.S. Centers for Disease Control and Prevention, promotes the use of community engagement to increase STD prevention, screening, and treatment and address locally prioritized STD-related social determinants of health within communities experiencing STD disparities, including youth; persons of color; and sexual and gender minorities. We sought to identify elements of community engagement as applied within CARS.

**Methods and Materials:** Between 2011–2018, we collected and analyzed archival and in-depth interview data to identify and explore community engagement across eight CARS sites. Five to 13 interview participants (mean=7) at each site were interviewed annually. Participants included project staff and leadership; community members; and representatives from local community organizations (e.g., health departments; lesbian, gay, bisexual, transgender, and queer [LGBTQ]-serving organizations; faith organizations; businesses; and HIV-service organizations) and universities. Data were analyzed using constant comparison, an approach to grounded theory development.

**Results:** Twelve critical elements of community engagement emerged, including commitment to engagement; partner flexibility; talented and trusted leadership; participation of diverse sectors; establishment of vision and mission; open communication; reducing power differentials; working through conflict; identifying and leveraging resources; and building a shared history.

**Conclusions:** This study expands the community engagement literature within STD prevention, screening, and treatment by elucidating some of the critical elements of the approach and provides guidance for practitioners, researchers, and their partners as they develop, implement, and evaluate strategies to reduce STD disparities.

## Short summary:

A study of eight CARS sites identified 12 elements of community engagement that provide guidance for the development and implementation of strategies to reduce STD disparities.

---

Sexually transmitted diseases (STDs) remain a critical public health challenge in the United States (U.S.). They are among the most frequently reported diseases in the country, and they cause severe and costly complications that are largely preventable. STDs also facilitate the sexual transmission of HIV. Persons infected with some STDs may be two to five times more likely than uninfected individuals to acquire HIV infection if they are exposed to the virus through sexual contact; and if a person living with HIV who is not virally suppressed has another STD, that person is more likely to transmit HIV through sexual contact.<sup>1</sup>

Adolescents and young adults, persons of color, and sexual and gender minorities, including gay, bisexual, and other men who have sex with men (GBMSM) and transgender persons, carry disproportionate burdens of STDs. Although adolescents and young adults (ages 15–24) comprise about a quarter of the sexually active population, they account for half of the nearly 20 million new STDs in the U.S. annually. Adolescents account for over 75% of reported chlamydia cases and over 50% of all gonorrhea cases. Of persons diagnosed with HIV in 2018, 41% were ages 29 and under.<sup>2</sup>

Persons of color also experience higher rates of STDs than their White counterparts. For example, the overall rate of chlamydia among Blacks was 5.6 times the rate among non-Latinx Whites; among Latinxs, the rate was 1.9 times the rate among non-Latinx Whites.<sup>2</sup>

Although gay communities in the U.S. are credited with reducing behaviors that put them at risk for STDs and HIV during the 1980s and early 1990s,<sup>3</sup> the incidence of STDs and HIV is increasing among GBMSM and transgender women. GBMSM accounted for nearly 65% of all newly reported primary and secondary syphilis cases in 2018.<sup>2</sup> Furthermore, while GBMSM represent approximately 4% of the adult male population in the U.S.,<sup>4</sup> in 2017, they accounted for about 82% of new HIV infections among men.<sup>5</sup> If current HIV diagnosis rates persist, one in two African American/Black GBMSM and one in four Latino GBMSM may be diagnosed with HIV during his lifetime.<sup>6</sup> Young GBMSM of color are particularly affected by STDs and HIV.<sup>2,5</sup>

Available data suggest that transgender persons also carry disproportionate burdens of STDs and HIV. Current estimates suggest that about 14% of transgender women and 3% of transgender men in the U.S. are living with HIV.<sup>7</sup> Furthermore, transgender persons are less likely to be screened for STDs or HIV,<sup>8,9</sup> and less than half of all transgender women with HIV know their status.<sup>10</sup>

STD rates among young GBMSM and transgender women are influenced by multilevel determinants of health, including individual (e.g., awareness and knowledge of STD transmission and prevention); interpersonal (e.g., social and sexual networks and social support); sociocultural (e.g., religion, acculturation, stigma, homophobia, and transphobia); and environmental and system (e.g., poverty, violence, discrimination, and immigration status) factors. There is a clear need for novel approaches to reduce STD disparities within

communities disproportionately affected and address these multilevel determinants of health, while harnessing existing community assets.<sup>11–13</sup> Community engagement has emerged as one such approach to improve public health outcomes, including STD disparities, and address relevant multilevel determinants of health among marginalized communities, including youth, persons of color, and sexual and gender minorities.

## Community Engagement

Community engagement harnesses the experiences, perspectives, and insights of diverse stakeholders. These stakeholders include community members with their real-world experiences and perspectives; outside experts (e.g., administrators, practitioners, and clinicians from governmental and nongovernment institutions, including public health departments and clinics) with their broad experiences and perspectives based in ongoing service delivery; and research partners with their understanding of theory, research, and program evaluation.<sup>14–17</sup> Community engagement can ensure more informed understandings of health and health-related phenomenon, including the determinants of health that underlie disparities, and more authentic community-driven strategies to promote health and prevent disease. These strategies may be more innovative, effective, and sustainable than approaches that are not inclusive of perspectives from diverse stakeholders.<sup>12,16,18–21</sup> Successful community engagement helps to ensure that outside experts work *with* rather than merely *in* communities affected by health disparities, can bolster and harness community assets, and may strengthen individual and community capacity to problem-solve through ongoing participation in the process.<sup>16,21,22</sup>

Despite its potential to reduce disparities, community engagement has received little attention within STD prevention, screening, and treatment.<sup>12,16,21,23</sup> We sought to qualitatively identify and explore elements of community engagement applied within Community Approaches to Reducing STDs (CARS), a unique initiative of the U.S. Centers of Disease Control and Prevention (CDC). CARS promotes the use of community engagement to increase STD prevention, screening, and treatment and address locally prioritized STD-related social determinants of health within communities experiencing STD disparities (e.g., youth, persons of color, and sexual and gender minorities) through the identification and delivery of novel community-driven strategies that harness existing community assets (<https://www.cdc.gov/std/health-disparities/cars.htm>).

## Community Approaches to Reducing STDs (CARS)

Since 2011, the CDC Division of STD Prevention has funded 12 CARS projects in communities across the U.S. Each includes partnerships with community members, community organizations, public health departments, and in some cases universities. CARS has completed two three-year funding cycles. Table 1 lists the CARS sites by cycle.

Descriptions and outcomes of projects from the eight CARS sites funded in cycles 1 and 2 have been reported. Briefly, using a variety of ongoing empowerment-based community events, meetings, and activities, each site developed multi-sectoral partnerships and collaboratively identified, developed, and implemented strategies to identify and address

local priorities related to STD disparities. Strategies included (1) cultural competence and cultural humility trainings for providers to increase their success working with youth, persons of color, and sexual and gender minorities; (2) peer navigation to increase social support and link community members to youth-, GBMSM-, and transgender-friendly STD providers and other needed services (e.g., job readiness training and GED, literacy, and computer classes); (3) individual- and community-level STD- and HIV-related stigma reduction programming; and (4) community-based STD screening and treatment in high-incidence communities and settings (e.g., housing communities, high schools, neighborhood/community centers, drop-in centers, and businesses). CARS sites saw increases in the distribution of STD prevention information and resources (e.g., condoms) and awareness of the disproportionate rates of STDs and their prevention, screening, and treatment; greater rates of STD screening and treatment; and increased STD positivity rates as a result of targeted screening within communities at disproportionate risk, including youth, persons of color, GBMSM, and transgender persons.<sup>24</sup>

## Materials and Methods

We identified and explored elements of community engagement across the eight CARS sites from cycles 1 and 2. We abstracted archival data from project documents from each CARS site to understand the local context, including priorities identified through needs assessments; the history of partnership and working collaboratively among members; and each site's project and scope (e.g., what the partnership aimed to accomplish within each community and their strategies to reduce STDs locally). We examined grant applications, logic models, memoranda of understanding (MOU), partnership/community advisory board (CAB) meeting minutes, intervention and program implementation manuals, and other available materials (e.g., summaries of interventions and interim progress reports) from each site.

We conducted individual and small-group in-depth interviews at each site during each year of their funding period, either in person or by telephone, depending on availability of each participant at each site. Our objective was to identify and explore elements of community engagement in the real-world setting of STD prevention, screening, and treatment. Table 2 lists sample domains and abbreviated items from the in-depth interview guide. Participants included project staff and leadership; community members; and representatives from local organizations (e.g., public health departments; lesbian, gay, bisexual, and transgender [LGBT]-serving organizations; faith organizations; businesses; and HIV-service organizations) and universities.

Detailed notes were taken by one of two interviewers. After each interview, the interviewers read through their notes and formulated initial impressions. Subsequently, digitally recorded interviews were transcribed and verified. Archival and in-depth interview data were triangulated iteratively. Abstracted archival materials from the same site were reviewed simultaneously to provide context for the interviews. Each interview transcript was coded by two analysts. Themes were identified through constant comparison, an approach to developing grounded theory, combining inductive coding with simultaneous comparison.<sup>25</sup> Analysts reviewed project documents and interview transcripts, coded text, and came

together to identify, refine, and interpret themes iteratively. Matrices were used to identify similarities and differences within and across sites, participants, and participant categories.

Human subject approval and oversight for this study were provided by the Wake Forest School of Medicine's Institutional Review Board.

## Results

Five to 13 participants (mean=7) were interviewed at each CARS site for a total of 144 interviews. We identified 12 critical elements of community engagement within CARS; these elements and illustrative quotations are presented in Table 3 with additional details below.

### **1. Knowledge of and unflagging commitment to community engagement as an approach to reduce local STD disparities.**

First, community engagement within CARS sites relied on leadership and staff within local partner organizations who were knowledgeable about and committed to community engagement processes, including overcoming territoriality and engaging in multidirectional dialogue. They also recognized the potential value of community engagement to reduce STD disparities, acknowledged that engagement could be difficult and took time, and were not easily discouraged.

### **2. Commitment to understanding and addressing social determinants of health and how they relate to STDs.**

Partners at each CARS site were committed to increasing their understanding of and addressing STD-related social determinants of health. Identification and ongoing discussions of the “upstream” and multilevel factors that affect local STD rates (e.g., food insecurity, discrimination, inadequate housing, immigration policy, and unemployment) helped partners develop mutual understanding and think creatively about how to address these factors. Participants noted that some partners had not previously considered how these factors influence STD risk and acquisition.

### **3. Partner flexibility.**

All partners had to be flexible and revise organizational policies to ensure engagement. For example, staff at a health department had to revise protocols to facilitate the inclusion of adolescent partners to participate on a CARS CAB. The adolescents could not attend daytime, weekday meetings; thus, CAB meetings were held early evenings or during the weekend. One site had success holding CAB meetings on Friday nights. In addition, staff from organizations, such as health departments, were less comfortable supporting community-driven outreach efforts in untraditional places like bars or clubs. To be successful in engaging and partnering with the populations carrying the most STD burden, organization partners had to accommodate working after hours and outside the walls of their organizations.

#### **4. Talented and trusted leadership.**

Community engagement at CARS sites relied heavily on leadership that assessed the environment, identified new partners, built a team to implement the project, sparked action, and strategically led the next steps. While the partnership at each CARS site was engaged in these activities, one or two leaders were needed to focus on the project and its implementation. These leaders served as catalysts. They allowed opportunities for trust building, discussion, and careful decision-making processes among partners, but they also spurred action; they reminded partners that in addition to an authentic, inclusive community engagement process, favorable health-related outcomes were important. All sites agreed that, while leaders need not belong to the community targeted by a project, to be successful, leaders had to be trusted by members of the partnership and the local community.

#### **5. Participation of partners representing diverse sectors.**

Partners representing diverse sectors helped to ensure a more informed understanding of STD-related phenomena and an appreciation of available community assets that could be harnessed. Through the inclusion of diverse partners, perspectives, decisions, and approaches reflected both insider (emic) and outsider (etic) perspectives. Without such inclusion, it could be easy to rely on assumptions (including stereotypes and biases) regarding communities and STD risk and focus on community deficits, thus reducing innovation to reduce disparities. For example, the inclusion of multiple transgender women of color as partners ensured that their perspectives were heard without interpretation by others (e.g., GBMSM representing an HIV-service organization). Furthermore, innovative strategies to address STD-related social determinants of health require coordination and leveraging of assets across diverse sectors.

#### **6. Collaborative establishment of a vision and mission.**

Establishing a vision and mission promoted a shared understanding and buy-in of each partnership's direction. Participants noted that developing a shared vision and mission allowed partners to identify priorities that reflect community needs, overcome potential separate self-interests, focus what they can contribute, and apply their collective power to affect STD disparities. Several sites also used the process of establishing a vision and mission to identify and engage new partners. Examples of such partners were representatives from public transportation offices, businesses, housing authorities, youth and career training centers, and homeless shelters.

#### **7. Sharing power.**

While sharing power was identified as critical, it was difficult for partnerships to ensure that all partners felt that they held power, particularly when one partner was awarded the CARS grant. Participants noted the importance of partners talking openly about funding and establishing mechanisms to share funding and other resources. For example, at many CARS sites, steps were taken to ensure CABs maintained oversight of financial resources. This way, the partner that was awarded the CARS grant could not dictate how the funds would be spent or allocated; decisions were made by the CAB, and members understood the

requirements of the funding award. Some CARS sites also went beyond MOU and included subcontracts to share grant funds with partners contributing to the work.

Other ways of power sharing included compensating community member partners for participating on CABs through stipends, mileage reimbursement, and shared meals during meetings; and partner involvement in dissemination activities. Partners presented at conferences, meetings, webinars, workshops, and hearings and coauthored publications. Participants noted that it is critical to fully acknowledge and credit the partnership's collective efforts and contributions.

#### **8. Open communication, respecting various ways of communicating, and the diversity of voices.**

Participants reported that each partner's voice must be heard. However, participants noted that it can be difficult for some newer partners and those representing sectors not traditionally engaged in STD control to express their points of view, especially when they differed from what was expressed by more established partners (e.g., health department and clinic staff). It was important for these more established partners who hold more perceived power to be intentional about asking for feedback, attending to body language, and being comfortable with silence. Furthermore, partners learned to assume "best intentions" as a partner's tone or word choice may imply frustration or anger but may more accurately reflect discomfort with their new role as a partner or with public speaking. Participants also recognized the need for all partners to remember that communities do not speak in one united voice. There are multiple perspectives within communities, and as participants reported, no voice speaks for everyone or is infallible.

#### **9. Shared decision-making.**

Sites used various decision-making processes to ensure all partnership voices were heard and included. Some used formalized voting structures that gave one vote to each representative of each partner organization; however, participants reported that this strategy had to be applied carefully to ensure that some partner categories were not outnumbered by others. For example, when youth participated in partnership with adults, it was important that youth voices were heard and given appropriate weight. Other sites used consensus-building approaches. In one successful approach to consensus building, the partnership asked whether each participant could get behind a decision by at least 70%. This unique approach has been described within the community-based participatory research (CBPR) literature.<sup>26</sup>

#### **10. Embracing and working through conflict.**

Partners had different levels of perceived trust and their own histories and perceptions of power. CARS sites prioritized learning from the perspectives, insights, and experiences of diverse partners for the "greater good" of STD prevention, screening, and treatment. The process of learning was prioritized. Sites did not avoid difficult decisions and issues, and participants noted that conflict requires clarification, explanation, learning, and rethinking, all of which can benefit STD prevention, screening, and treatment.

## 11. Identifying and leveraging talents, strengths, and resources.

All sites noted the importance of partners identifying and leveraging their collective talents, strengths, and resources. Partners at each site described sharing information and ideas, collaborating on events, providing in-kind support to one another, collectively developing strategic plans, and organizing and advocating on critical community issues with one another, among other ways of working together. Participants also noted that by working together, they grew and developed their own skills and capacities. Many participants indicated that their work with CARS enhanced their networking, critical thinking, problem-solving, public speaking, and leadership skills.

## 12. Building a shared history of success.

Community engagement was characterized by participants as “slow and steady,” as partners at each CARS site incrementally built histories of success. Reasonable scopes of work helped to ensure early successes, which, in turn, developed capacities for the next steps and promoted enthusiasm and ongoing involvement among partners.

## Discussion

There is profound need to reduce the burden on STDs on disproportionately affected communities, particularly youth, persons of color, and sexual and gender minorities. Partnering with members of these communities through engagement has emerged as a promising approach to reduce such disparities.<sup>12,14–17,23</sup> However, while the rationale and theories supporting community engagement are well developed, what it takes to engage communities within real-world settings has received less attention.<sup>27–29</sup> We identified 12 community engagement elements within CARS. Several elements deserve highlighting.

First, partners were committed to working together even when working together seemed “too difficult.” Similarly, partners were committed to identifying, prioritizing, and addressing STD-related social determinants of health. This focus on upstream determinants of health can be daunting; however, as participants noted, novel strategies to reduce STD rates require new ways of thinking about STD control. Further, flexibility to overcome barriers, and talented and trusted leadership are also critical.

Partnering with representatives from nontraditional and diverse sectors, such as public transportation offices, businesses, housing authorities, youth and career training centers, and homeless shelters, emerged as critical to obtain unique perspectives and identify untapped community resources and assets. For example, because gas stations were identified as places where some community members naturally congregate, one CARS site partnered with and provided STD prevention and screening services at gas stations within a community with high STD infection rates. Subsequent efforts to reduce STDs will benefit similarly from identifying and partnering with nontraditional and diverse sectors.

Developing a vision and mission together cultivated buy-in among partners and helped to identify and engage new yet critical partners. While communication is fundamental for engagement,<sup>14,15,17</sup> participants identified the challenges faced in open communication, the



need to understand different ways of communicating, and the importance of focusing on ongoing improvements in engagement.

Furthermore, while participants agreed it can be difficult to reduce power differentials, a first step can be acknowledging potential perceived and actual differentials and then working together to create strategies to overcome them. Strategies to do so included using democratic processes, consensus-building, and equitable disbursement of resources. Our findings also suggest that community engagement is more than recruiting representatives from communities and organizations to serve on CABs or steering committees to “rubber stamp” pre-existing plans. Instead, CAB members should be heavily involved throughout all stages of planning, implementation, and evaluation of efforts to reduce STD disparities. Working together throughout the process can yield a more informed understanding of the underlying factors contributing to STD disparities and more authentic approaches to reduce disparities.

Conflict also emerged as critical to community engagement. Participants stressed the importance of learning from differences among partners, rather than seeking ways to avoid conflict. Conflict requires clarification, explanation, and rethinking, all of which can eventually create progress.

Participants also noted the importance of leveraging talents, strengths, and resources of partners. This may be particularly relevant in resource-limited settings. For example, health departments and clinics that are un- or underfunded may need little more than staff resources to conduct community engagement given the potential to leverage existing resources to meet community needs and priorities. Finally, incrementally building a history of success based on reasonable scopes of work helped ensure early successes. These early successes then developed capacities and built enthusiasm among partners.

## Limitations

While each of the sites experienced challenges related to community engagement, themes presented are based on what was learned within and across sites, which adds to this study’s potential generalizability. However, longitudinal studies are needed to determine the cost-benefit of community engagement compared to non-engaged approaches and the sustainability and scalability of community engagement processes, and to assess the longer-term impact of community engagement on reducing STD disparities as well as individual and community capacity.

## Conclusions

It has been suggested that to reduce health disparities we must respond to immediate community needs and priorities and address relevant social determinants of health.<sup>30</sup> While community engagement is promoted as an approach to do this, it has received little attention within in the real-world practice of STD prevention, screening, and treatment.<sup>12,16,21,23</sup> This study fills this gap, elucidates some of the critical elements of community engagement, and provides guidance for public health practitioners, researchers, and their partners as they develop, implement, and evaluate strategies to reduce STD disparities.

## References

1. Wasserheit JN. Epidemiological synergy. Interrelationships between human immunodeficiency virus infection and other sexually transmitted diseases. *Sex Transm Dis.* 1992;19(2):61–77. [PubMed: 1595015]
2. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2018. Atlanta, GA: US Department of Health and Human Services; 2019.
3. Bloom FR, Whittier DK, Rhodes SD. Gay community involvement in HIV and STD prevention: Where we have been, where we are, and where we should be going In: Rhodes SD, ed. *Innovations in HIV Prevention Research and Practice through Community Engagement.* New York, NY: Springer; 2014:55–76.
4. Purcell DW, Johnson CH, Lansky A, et al. Estimating the population size of men who have sex with men in the United States to obtain HIV and syphilis rates. *Open AIDS J.* 2012;6:98–107. [PubMed: 23049658]
5. Centers for Disease Control and Prevention. HIV Surveillance Report, 2017. Available at: <http://www.cdc.gov/hiv/library/reports/surveillance/>. 2018;29.
6. Hess K, Hu X, Lansky A, Mermin J, Hall I. Estimating the lifetime risk of a diagnosis of HIV infection in the United States. Conference on Retroviruses and Opportunistic Infections (CROI) Available at: <http://www.croiconference.org/sessions/estimating-lifetime-risk-diagnosis-hiv-infection-united-states>. Boston, MA; 2016.
7. Becasen JS, Denard CL, Mullins MM, Higa DH, Sipe TA. Estimating the prevalence of HIV and sexual behaviors among the US transgender population: A systematic review and meta-analysis, 2006–2017. *Am J Public Health.* 2018:e1–e8.
8. Lippman SA, Moran L, Sevelius J, et al. Acceptability and feasibility of HIV self-testing among transgender women in San Francisco: a mixed methods pilot study. *AIDS Behav.* 2016;20(4):928–38. [PubMed: 26511864]
9. Habarta N, Wang G, Mulatu MS, Larish N. HIV testing by transgender status at Centers for Disease Control and Prevention-funded sites in the United States, Puerto Rico, and US Virgin Islands, 2009–2011. *Am J Public Health.* 2015;105(9):1917–25. [PubMed: 26180964]
10. Herbst JH, Jacobs ED, Finlayson TJ, McKleroy VS, Neumann MS, Crepaz N. Estimating HIV prevalence and risk behaviors of transgender persons in the United States: A systematic review. *AIDS Behav.* 2008;12(1):1–17. [PubMed: 17694429]
11. Institute of Medicine. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.* Washington, DC: National Academy Press; 2003.
12. Leichliter JS, Seiler N, Wohlfeiler D. Sexually transmitted disease prevention policies in the United States: Evidence and opportunities. *Sex Transm Dis.* 2016;43(2 Suppl 1):S113–21. [PubMed: 26779683]
13. Frieden TR. A framework for public health action: the health impact pyramid. *Am J Public Health.* 2010;100(4):590–95. [PubMed: 20167880]
14. Clinical and Translational Science Awards Consortium Community Engagement Key Function Committee Task Force on the Principles of Community Engagement Principles of community engagement. Second edition ed: Washington Department of Health and Human Services; 2011.
15. Centers for Disease Control and Prevention, Agency for Toxic Substances and Disease Registry Committee on Community Engagement Principles of Community Engagement. Atlanta, GA: US Department of Health and Human Services; 1997.
16. Rhodes SD, Tanner AE, Mann-Jackson L, et al. Promoting community and population health in public health and medicine: a stepwise guide to initiating and conducting community-engaged research. *J Health Dispar Res and Pract.* 2018;11(3):16–31. [PubMed: 31428533]
17. Rhodes SD, Mann L, Alonzo J, et al. CBPR to prevent HIV within ethnic, sexual, and gender minority communities: Successes with long-term sustainability In: Rhodes SD, ed. *Innovations in HIV Prevention Research and Practice through Community Engagement.* New York, NY: Springer; 2014:135–160.

18. Rhodes SD. Authentic engagement and community-based participatory research for public health and medicine In: Rhodes SD, ed. *Innovations in HIV Prevention Research and Practice through Community Engagement*. New York, NY: Springer; 2014:1–10.
19. South J, Phillips G. Evaluating community engagement as part of the public health system. *J Epidemiol Community Health*. 2014;68(7):692–6. [PubMed: 24671849]
20. Dankwa-Mullan I, Rhee KB, Williams K, et al. The science of eliminating health disparities: summary and analysis of the NIH summit recommendations. *Am J Public Health*. 2010;100 Suppl 1:S12–8. [PubMed: 20147660]
21. Centers for Disease Control and Prevention. *Strategic Realignment of Funding to Support Priorities in Sexual Health and STD Disparities Among Racial and Ethnic Minorities*. Atlanta, GA: Department of Health and Human Services; 2010.
22. Rhodes SD, Malow RM, Jolly C. Community-based participatory research: a new and not-so-new approach to HIV/AIDS prevention, care, and treatment. *AIDS Educ Prev*. 2010;22(3):173–183. [PubMed: 20528127]
23. Barrow RY, Newman LM, Douglas JM Jr. Taking positive steps to address STD disparities for African-American communities. *Sex Transm Dis*. 2008;35(12 Suppl):S1–3.
24. Centers for Disease Control and Prevention. *Community Approaches to Reducing Sexually Transmitted Diseases: Phase 1 Lessons Learned*. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Division of STD Prevention, Office of Health Equity; 2017.
25. Miles MB, Huberman AM. *Qualitative Data Analysis: An Expanded Sourcebook*. 2 ed. Thousand Oaks, CA: Sage Publications; 1994.
26. Israel BA, Lichtenstein R, Lantz P, et al. The Detroit Community-Academic Urban Research Center: Development, implementation, and evaluation. *J Public Health Manag Pract*. 2001;7(5):1–19.
27. Wallerstein N, Oetzel JG, Sanchez-Youngman S, et al. Engage for equity: a long-term study of community-based participatory research and community-engaged research practices and outcomes. *Health Educ Behav*. 2020;47(3):380–90. [PubMed: 32437293]
28. Hoekstra F, Mrklas KJ, Khan M, et al. A review of reviews on principles, strategies, outcomes and impacts of research partnerships approaches: a first step in synthesising the research partnership literature. *Health Res Policy Syst*. 2020;18(1):51. [PubMed: 32450919]
29. Rhodes SD, Tanner AE, Mann-Jackson L, et al. Community-engaged research as an approach to expedite advances in HIV prevention, care, and treatment: A call to action. *AIDS Educ Prev*. 2018;30(3):243–53. [PubMed: 29969308]
30. Gupta GR, Parkhurst JO, Ogden JA, Aggleton P, Mahal A. Structural approaches to HIV prevention. *Lancet*. 2008;372(9640):764–75. [PubMed: 18687460]

**Table 1.**

CARS awardees and sites by cycle

<b>Cycle 1: Awardees (2011–2014)</b>	<b>Project Location</b>
Richmond City Health District, Virginia State Department of Health	Richmond, VA
University of Southern California/Sentient Research	Los Angeles, CA
University of Texas Health Science Center	San Antonio, TX
Urban Affairs Coalition/Youth Outreach Adolescent Community Awareness Program	Philadelphia, PA
<b>Cycle 2: Awardees (2014–2017)</b>	
AIDS Foundation of Chicago	Chicago, IL
Baltimore City Health Department	Baltimore, MD
Public Health Management Corporation	Philadelphia, PA
University of Michigan	Detroit, MI
<b>Cycle 3: Awardees (2017–2020)</b>	
Cacitelli Associates, Inc.	Buffalo, NY
New Mexico Capacity Builders	Farmington, NM
San Diego State University	San Diego, CA
Wake Forest School of Medicine	Greensboro, NC

**Table 2.**

Domains and abbreviated items from the CARS in-depth interview guide

Author Manuscript	<p><b>History of project</b></p> <p>What was the impetus for creating this project?</p> <p>What community needs and priorities are addressed?</p>
	<p><b>Stakeholders</b></p> <p>Whom is it serving? What community or population?</p> <p>How does it serve this community/these people?</p> <p>How well does the community know about this project?</p> <p>Who works on this project: paid and unpaid?</p> <p>Who are other key stakeholder currently involved?</p> <p>Tell me about the policymakers who are involved.</p> <p>How well do these stakeholders get along?</p> <p>Tell me about the collaborative atmosphere.</p> <p>What about the partnership works, what doesn't work?</p>
	<p><b>Project design</b></p> <p>What is this project all about?</p> <p>What is its goal? Among whom?</p> <p>What would you say the objectives are?</p> <p>What steps are taking place or what actions are occurring or will occur?</p> <p>How do they relate to the objectives?</p> <p>What services are provided?</p> <p>What other resources does this project rely on?</p>
	<p><b>Partnership</b></p> <p>How diverse is this partnership would you say? How so?</p> <p>How well would you say this process works?</p> <p>Who are the formal and informal leaders?</p> <p>How are decisions made?</p> <p>Tell about how conflict is handled.</p> <p>What new collaborations have sprung up as a result of this project?</p> <p>How are resources allocated?</p> <p>What are the expectations of partners in engaging in this project?</p> <p>How tough or easy would you say this process is?</p> <p>What are you most proud of?</p> <p>What about trust?</p> <p>How comfortable are you speaking your mind?</p> <p>How comfortable do you think others are in speaking their minds?</p> <p>How would you describe communication?</p> <p>How do you learn about decisions?</p>
<p><b>Funding/Sustainability</b></p> <p>How are resources allocated?</p> <p>How sustainable is this project?</p>	

How do you think this project or its activities will be sustained in the future?

**Evaluation**

How would you define success for this project?

How could these successes be best measured or documented?

How would you know whether your goals and objectives were met, how would you suggest it be evaluated?  
What mechanisms currently exist for evaluation?

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

**Table 3.**

Characteristics and strategies of successful community engagement that emerged across the 8 CARS sites that have completed the 3-year projects

<p><b>1. Knowledge of and unflagging commitment to authentic community engagement as an approach to reduce local STD disparities</b></p> <p>“There are ups and downs with getting everyone to work together, but you have to be vigilant. You have to be committed to it [engagement]. You have to be steadfast and not waiver in your commitment to it no matter what.” - Community organization participant</p> <p>“It hasn’t been easy, but I know that this is an important strategy if we want to make more of a difference.” - Health department participant</p> <p>“Working together makes sense, but it is not easy. In fact, this is very hard, but what we have done in the past [to reduce STDs] didn’t work. We see high STD rates in our communities, and we know that working together and doing something different. This is the only hope we have for making a dent in disease rates.” - Community organization participant</p>
<p><b>2. Commitment to understanding and addressing social determinants of health and how they relate to STDs</b></p> <p>“We do this work because we believe in the same thing – equality. It shouldn’t matter if you are rich or poor; everyone deserves the same level of health and no one deserves this [STDs]. Working together we can make a difference for those who are most impacted.” - Community organization participant</p> <p>“STDs are influenced by so many upstream factors, yet we tend to point blame on the person who gets it [an STD]; that’s easier. But what I have learned through this process, and I think we have made some success with, is identifying, considering, and intervening on some of the structures that affect STDs.” - Health department participant</p>
<p><b>3. Partner flexibility</b></p> <p>“We [health department] couldn’t order t-shirts easily. Our procurement policies and systems were too inflexible. So we gave the money to a partner organization that could order the exact t-shirts we needed for community distribution. But I think this is a lesson for state and local organizations like ours – the goal should be our work in the community, not the bureaucratic systems that limit what we can do.” - Health department participant</p> <p>“We developed a strong steering committee for this work that included youth, but we had to do this after school, so we met as a committee on Saturdays. That’s why we were so successful, and the youth attended meetings; we held meetings when they could be there.”</p> <p>“This work, this is hard work, and it takes all of us. But you know what? It also takes a leader who can lead, you know, who can make things happen, sees the big picture and can help us see it while still focusing on the day-to-day tasks.” - Community organization participant</p> <p>“We all have to be committed but someone has to be responsible, smart, and gung-ho.” - Health department participant</p>
<p><b>4. Talented and trusted leadership</b></p> <p>“This work, this is hard work, and it takes all of us. But you know what? It also takes a leader who can lead, you know, who can make things happen, sees the big picture and can help us see it while still focusing on the day-to-day tasks.” - Community organization participant</p> <p>“We all have to be committed but someone has to be responsible, smart, and gung-ho.” - Health department participant</p>
<p><b>5. Participation of partners representing diverse sectors</b></p> <p>“Our partnership can’t do much without the other partners onboard. I can design an evidence-based intervention to get people to use condoms consistently or get screened for STDs, but I am not going to affect transportation or where clinics are placed. But working together as a team, including the housing authority like we did, we might be able to do the things it takes to support people and reduce STD rates locally. It takes more than just me or my research colleagues or health department practitioners waving a finger at community members and saying ‘use a condom.’ It takes interviewing skills to get a better job. It takes not experiencing so much discrimination as one makes their way in the world. It takes the clinic being accessible within the community and being [a] friendly place.” - University partner</p>
<p><b>6. Collaborative establishment of a vision and mission</b></p> <p>“This is about getting on the same page as a team; it is not about being invited to sit at someone else’s table to do what someone else decided should be done.” - Community organization participant</p>
<p><b>7. Sharing power</b></p> <p>“Funding always seems to go to the health departments, but in this case, we talked about this history as a team and what we could do about sharing the wealth, so to speak.” - Community organization participant</p> <p>“Other people are paid to be at the table; why shouldn’t I be paid?” - Community organization participant</p>
<p><b>8. Open communication, respecting various ways of communicating, and the diversity of community voices</b></p> <p>“Communication isn’t always easy and what is said can be misconstrued, but to be successful, to be efficient, you just have to assume the best intentions and get to the bottom of it.” - University partner</p>
<p><b>9. Shared decision-making</b></p> <p>“Our partnership, well, we made decisions through consensus. It took time, but I think our decisions were better. It required us to consider all options and refine and refine and refine.” - Health department participant</p>

**10. Embracing and working through conflict**

“This is really hard work. Emotions can get high; arguments about resources, approaches, arguments about systems and bureaucracies can be intense. We have to work through the intensity and the conflict. We come to a better understanding on the other side.” - Health department participant

**11. Identifying and leveraging talents, strengths, and resources**

“There aren’t enough resources. Planning our work together can help us build on and use each other’s resources as wisely as possible.” - Community organization participant

“I know so much more about the local community because I am involved with CARS. Before I just knew about those who happened to come into our building, but now I know more about the lives of community [members]. I can share these perspectives with others, especially with others I work within the health department. My colleagues are all good people, but some can be uninformed. And I know more about why STDs are rampant, and I can explain how we might do something beyond what we used to do.” - Health department participant

**12. Building a shared history of success**

“This work takes time, and Rome wasn’t built in a day, as they say. We won’t knock out this STD epidemic overnight, but we can make steps that build our partnership, increase our trust with one another, see how we can overcome obstacles and be productive, and make a dent in this epidemic. One step at a time, we grow as a partnership; one step at a time we increase success, and we increase impact.” - Health department participant

“We are building a foundation as a team, as a partnership, as a network; with each success, each time we overcome a challenge we are stronger and have something more to build on.” - Community organization participant