

# Strategies for Improving Healthcare Access for Underserved Populations: (Critical Review)

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## Abstract

**Background:** The understanding of components of community engagement (CE) models that are linked to better health outcomes is limited, despite the widespread use of CE in health promotion.

**Aim of Study:** This study sought to assess the extent of the influence of community engagement (CE) on the health and health disparities of marginalized populations. It also aimed to identify the most effective methodological approaches for implementing CE and determine the components of CE that are acceptable, feasible, and effective when applied to disadvantaged populations.

**Methods:** The systematic review adhered to the requirements set out by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses. We conducted methodological evaluations of the papers listed by using rating systems. The investigation concentrated on model synthesis to identify the crucial components of CE that are associated with good research results. It also included a comparative examination of positive study outcomes, methods, and quality indicators of CE.

**Results:** Among the 24 studies that satisfied our inclusion criteria, 21 (87.5%) had a beneficial effect on health behaviors, public health planning, access to health services, health literacy, and other health outcomes. A majority of the studies (58%) were deemed to be of excellent quality, while 71% and 42% of the studies demonstrated strong community engagement in research and reached high levels of CE, respectively. The main components of Community Engagement (CE) that had an impact on health outcomes were: Genuine power-sharing, cooperative partnerships, two-way learning, including beneficiary communities in research protocols by giving them a voice and agency, and using bicultural health professionals to implement interventions.

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**Conclusion:** The results indicate that if CE models are well created and implemented with active community engagement and involvement, they may contribute to enhanced health and health behaviors among marginalized communities. Furthermore, we have identified many deficiencies in the existing assessment of cost-effectiveness (CE) in health intervention studies. This highlights the need for the development of novel methodologies to accurately estimate the influence of CE on health outcomes with greater rigor.

**Key Words:** *Keywords – Community participation – Health, disadvantaged people, ethnic minorities, culturally and linguistically diverse.*

## Introduction

**I**N recent decades, community engagement (CE) has become a more and more successful approach for using the potential of communities, especially in the context of health improvement [1]. Community engagement (CE) has been extensively used by health interventionists to include communities in health promotion, research, and policy making in order to tackle various health challenges such as obesity, cancer, heart disease, diabetes, and mental illness [2-4]. Community engagement (CE) is the act of actively collaborating with groups of individuals who are connected by their physical location, shared interests, or comparable circumstances, in order to address matters that impact their overall welfare [5,9].

Various conceptual frameworks are employed in health studies, such as the Social Ecological model, the Active Community Engagement Continuum, Diffusion of Innovations, and community-based participatory research (CBPR) [6], with the objective of instigating health improvements at the population level by actively engaging the community. CBPR is also used interchangeably with participa-

tory action research (PAR) and action research, all of which include participatory methodologies in health research [7,8]. Unlike the other CE models, CBPR aims to close the divide between research and practice by involving the community in a fair and equal manner to address inequalities in population health [9]. CBPR has accomplished this by resolving disparities in power and facilitating the flow of information, leading to its widespread adoption as an attractive model for community engagement in diverse and disadvantaged contexts [9,10]. Rapid Assessment Response and assessment (RARE), a branch of PAR, is a useful research technique in public health, especially for ethnic communities. It involves the use of datasets, community involvement, and assessment [11]. In Staley's [12] extensive analysis, it was determined that CE has the potential to have a beneficial influence on several aspects of health research. These include determining priorities, ensuring ethical behavior, designing and implementing programs, including the public in projects, and establishing academic collaborations.

Citizen engagement (CE) has been proposed as a means of empowering marginalized individuals and is therefore seen as a viable approach for addressing health disparities [13]. Disadvantaged populations often encounter health disparities and endure an unequal share of illness due to structural, social, and cultural obstacles [8,14,15]. Disadvantaged populations have obstacles in accessing healthcare due to geographical limitations, culturally unsuitable services, financial constraints, limited health literacy, and language hurdles. These factors hinder their ability to effectively use health services. In addition, they often possess elevated risk factors for illnesses, a lack of understanding about available health services, and inadequate eligibility for health insurance, so further restricting their ability to obtain healthcare [15,19,20]. Nevertheless, health interventionists often use CE strategies that have proven successful among privileged populations while working with disadvantaged communities, leading to a lack of expected results [21-23]. Existing research indicates that service providers and health interventionists are not successfully reaching or engaging disadvantaged communities in their attempts to enhance their health [24-26].

In addition, Wallerstein [27] found that marginalized communities lack authority and are unable to participate in conventional health promotion programs that promote individual agency in managing their own health. Significantly, individuals from non-English speaking origins in affluent nations are often not adequately represented in population health research. As a consequence, they are excluded from health promotion policies and programs, leading to unaddressed social and health requirements [28]. Moreover, the omission of marginalized populations from public health policy efforts has the capacity to exacerbate health inequalities [29].

Therefore, it is essential to create CE efforts that are in line with the cultural framework of the community, in order to enhance the social integration of marginalized individuals [30], enhance the quality of research, and tackle health inequalities [31].

#### *Existing knowledge limitations:*

The current body of research indicates that there is an absence of uniformity in the efficacy of CE in enhancing the well-being of marginalized communities. While certain studies have indicated that CE did not enhance health behaviors [32-35] or health outcomes [36,37] among disadvantaged populations, other research have shown that CE had beneficial effects on health behaviors [38-40] and health outcomes [41,42] within these groups. Popay et al. [43] discovered that although Community Empowerment (CE) had a good effect on social capital, cohesiveness, and empowerment in disadvantaged communities, it did not have any beneficial influence on mortality, morbidity, health behaviors, or health disparities. Although health programs have the ability to empower disadvantaged individuals, research has shown that most of these programs use a "top-down" approach rather than a participatory "bottom-up" strategy. This limits their effectiveness in improving health and health behaviors [44,45].

In addition to the intricate nature of this literature, Attree et al. [46] discovered that while CE can lead to improvements in physical health, it can also have unintended negative effects on participants. These effects include exhaustion, financial strain, consultation fatigue, and disappointment. These individuals were repeatedly exposed to consecutive waves of CE, which had a detrimental impact on their well-being. In addition, individuals with disabilities had significant challenges in participating due to the lack of consideration for their specific needs during the design of CE sessions [46]. Chau [47] discovered that using money as incentives for involvement had adverse effects, including the occurrence of bullying and discrimination against ethnic community members by other participants. As a result, confidence in the engagement process was compromised. The majority of these researches primarily used consultation as the main method of engagement, without granting ownership to the community. This approach led to negative feelings of engagement for the participants [46-48]. O'Mara-Eves et al. [45] shown that public health treatments including community engagement (CE) are generally beneficial in many groups and settings. However, there is no clarity on the optimal implementation of CE to achieve the intended results for disadvantaged communities. In general, there is insufficient definitive data about the impact of CE on enhancing the well-being of underprivileged communities and determining whether the observed health gains are a result of the intervention itself, the CE methodology, or both [45,48].

*Aim of work:*

To fill these knowledge gaps, we performed a comprehensive analysis to determine the extent to which Community Engagement (CE) affects the health and health disparities of marginalized communities. Our objective was to examine the most effective methodological techniques for maximizing the efficacy of CE and determining which components of CE are acceptable, practicable, and successful when implemented among disadvantaged people.

**Methods**

We performed a systematic review using the standards of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) [49].

**Discussion**

The results of this comprehensive analysis revealed that in 21 out of 24 studies that satisfied our criteria for inclusion, the implementation of CE techniques resulted in enhancements in health behaviors, public health planning, access to health-care services, health literacy, and many other health outcomes. The results of our analysis indicate that community engagement (CE) has been shown to reduce health inequities in 60% of the studies included in our analysis, which is in line with the existing data [45,46]. However, these findings are not corroborated by other research [47-49]. CE treatments that had excellent outcomes were characterized by the inclusion of indigenous and ethnic groups in the research process, genuine power-sharing, mutual learning, and needs assessment. These components were directly linked to better health and health behaviors. On the other hand, CE models that did not enhance health behaviors were influenced by a lack of community participation in preliminary research and insufficient evaluation of needs. These results align with the research conducted by Israel et al. [50], which emphasizes the crucial role of community engagement in bringing about community transformation. Regarding the use of health services, the inclusion of components such as cooperation with tribal agencies and cultural adaptation of programs played a crucial role in attaining better results.

CBPR has been recognized as the predominant CE model, in line with existing literature that highlights CBPR as the most effective method for including ethnic and racial minority communities in health research investigations [10]. In contrast to claims that CBPR has only proven beneficial in generating high retention rates and not in data processing, interpretation, or dissemination [10], we have identified six studies where community partners were actively engaged in these research phases as well. In addition to CBPR, we have found six additional Community Engagement (CE) models that

have effectively tackled health inequalities among marginalized communities. These models are FOCUS, ANGELO, CDC, community empowerment, the CHW model, and participatory action cycle. While several of these models exhibit resemblances to the CBPR model, they are deficient in three crucial components that played a pivotal role in the development of the CBPR model. The community partners actively participated in every step of research development, including sharing the study results, promoting the flow of information between the community and academic partners, and ensuring a harmonious balance between research and action.

*Components of the ce model that influence research results:*

The existing research on CE indicates that there is now a lack of data about the specific CE components that lead to favorable study findings [45, 48]. This review investigated the degrees of community engagement (CE) ranging from providing information to empowering communities. It discovered a correlation between low levels of CE (information-sharing and consultation) and unfavorable results in three research [51,52]. Conversely, studies that demonstrated high levels of CE, such as cooperation, partnerships, and empowerment, had favorable results. Several studies have shown that Community Health Workers (CHWs) may effectively mitigate health inequalities across ethnic communities [53,54]. Our analysis revealed that the use of Community Health Workers (CHWs) within ethnic groups enhanced the feasibility and effectiveness of the program. This was achieved by increasing the pertinence of health promotion messaging, promoting healthier behaviors, overcoming cultural and accessibility obstacles, and stimulating active participation from participants. O'Mara-Eves et al. [45] shown that the continuous training of Community Health Workers (CHWs) and the caliber of the connections they formed with the participants had an impact on the results of the research. Multiple studies in our study used a blend of Community-Engaged (CE) techniques, such as Community-Based Participatory Research (CBPR), to establish cooperative partnerships and utilize Community Health Workers (CHWs) for the implementation of health interventions. Implementing this technique provided a dual advantage, as the community partners assisted in the recruitment and training of CHWs, while the CHWs were able to reach and retain participants who had health disadvantages and were difficult to contact.

Our review identified collaborative partnerships as another indicator of study success. These partnerships helped academic and other partners gain a better understanding of traditional tribal and ethnic health beliefs. This understanding then facilitated the development of health policy initiatives that were relevant to these groups at the local level. Consistent with the findings of South and Phillips

[55], our study revealed that various mechanisms for community engagement, such as surveys, forums, and photovoice, facilitated the formation of these collaborative partnerships. Our analysis revealed that the establishment of new collaborations among community, government, and academic stakeholders, as well as the use of pre-existing infrastructure such as religious networks, park authority, and tribal organizations, played a crucial role in ensuring the long-term viability of the programs after the intervention. Research conducted among ethnic and tribal communities has demonstrated that the effectiveness of post-programme interventions is closely linked to their cultural acceptability, the presence of a longstanding collaborative partnership, and the active involvement of an influential community partner, such as a government organization or tribal agency, throughout all stages of the research [3,18,24].

The ANGELO model utilized a prioritization process that facilitated “community validation,” an essential factor for engagement in collectivist cultures. This model’s success indicators included the asset-building process employed by the FOCUS model, which aimed to enhance health literacy within ethnic communities. According to South and Phillips [55], assets in a community are regarded as the fundamental components for community health. The CDC approach used participatory health communication tactics to effectively reach socially marginalized populations. The community empowerment model, on the other hand, emphasized the importance of ‘collective agency’ with local tribal agencies, which played a role in promoting beneficial breastfeeding behaviors. The participatory action cycle concept focused on fostering critical awareness, which in turn allowed communities to assert control over their health and solve other challenges stemming from poverty.

In addition, we discovered that the identification of specific demands within each ethnic group during the first study phase had a direct impact on achieving favorable results. Examples of these needs within culturally diverse and tribal communities encompass the absence of childcare, traditional obstacles to maintaining hygienic birth practices, hindrances to accessing health information among homosexual men, apprehension of mortality, reluctance to discuss cancer, and adherence to traditional beliefs impeding the utilization of healthcare services [18,56-60]. The reciprocal translation and assimilation of cultural notions not only facilitated the identification and resolution of community-specific requirements in the intervention design, but also played a crucial role in ensuring program satisfaction and retention. In this research, the CE models that were discovered used collaborative partnerships, bicultural Community Health Workers (CHWs), community engagement, and power-sharing as important elements of health interventions [45,57].

#### *Non-health consequences of CE:*

The systematic review we conducted has discovered other good effects of CE that are not directly connected to health. These include the development of social capital, the enhancement of community capacity, and the empowerment of community members, resulting in community leadership. These results align with the research findings provided by Popay et al. [44]. Our research revealed that the use of CBPR (Community-Based Participatory Research) allowed external partner organizations to successfully accomplish their objectives by fostering the establishment of trust between local communities and academic institutions. The results of Milton et al.’s study [61] confirm our findings that CE has a role in improving the referral process to social services, enhancing the quality of local services, and establishing connections with community resources. Additional beneficial effects of CE include the detection of homelessness among research participants suffering from depression and the creation of health homes based in the community. Our results contradict the literature indicating that participants in CE feel emotional anguish and stress [46]. Instead, our research suggests that most CE participants felt empowered and enhanced their social networking and self-efficacy abilities.

#### *Difficulties related to the implementation of CE models and their adoption:*

Six of the CBPR studies included in the analysis [3,4,60-62] found a conflict between customizing the intervention to meet the community’s needs and adhering to the strict standardization necessary in randomized controlled trials (RCTs). The ongoing conversation with the community led to adjustments in the middle of the program, which impacted the strictness of the randomized controlled trial (RCT). Jensen et al. [63] discovered that when conducting high-quality CE, there is a compromise in the scientific methods used for research. This finding was supported by Balcázar et al. [3], who demonstrated that sharing baseline results with the entire community enhanced community participation but also resulted in contamination of the control group, thereby compromising the evaluation of their intervention. Sanson-Fisher et al. [64] have said that randomized controlled trials (RCTs) are not suitable for properly evaluating complex treatments (CE) owing to many problems such as limited time for follow-up, challenges in ensuring external validity, and the risk of contamination in control groups. Some experts argue that intervention fidelity and adaptability to community needs should not be seen as separate factors. Instead, health interventionists should combine them in interventions and allow for some flexibility in peripheral community elements [65,66].

While the majority of studies in our systematic analysis used CBPR methodologies, only a limit-

ed number were able to attain significant levels of community control and empowerment (CE). This was mostly owing to limitations in financing and inadequate ability of social and welfare services to adequately meet the needs of the community. According to Swainston and Summerbell [48], the main obstacles to CE are conflicts of power between stakeholders and insufficient financing and infrastructure. Non-effective community engagement may be attributed to several factors, including inconsistent community receptiveness, a lack of shared goals among stakeholders, limited community mobility, and divergent agendas across advisory councils for resource allocation. Israel et al. [62] suggest that successful ways for addressing these problems include ensuring the presence of appropriate individuals in discussions, using a mix of structured and flexible norms for partnerships, and adhering to CBPR principles in collaborative efforts.

The implementation of CE in disadvantaged areas has brought attention to many obstacles, such as inadequate health system infrastructure and service provision, insufficient personnel and resources, and restricted availability of health care. These problems often lead to unfulfilled community needs, which may cause community partners and research participants to feel demoralized, ultimately undermining the possibility for community engagement. Research indicates that empowering ethnic and indigenous groups, especially, might undermine the trust and relationship-building goals of community engagement projects if the system's architecture remains unchanged. This can lead to unfavorable individual health outcomes [46]. The social stratification encountered by marginalized groups continues to be a substantial obstacle. The CDC concept, which aimed to target socially marginalized people, had little backing from the hierarchical health education system in China [64]. Similarly, the participatory action approach, which involves the use of non-health personnel to implement the intervention among tribal women in India, runs the risk of not being acknowledged by the Indian health institutions [65]. An obesity intervention coordinated by CBPR revealed that even after the intervention, the prevalence of obesity remained greater among black and Hispanic children in comparison to white or Asian children [67]. These findings indicate that when using CBPR in multi-ethnic populations, it is necessary to customize the technique for each specific ethnic community.

#### *Conclusion:*

Our study has shown that CE (Community Engagement) has a positive impact on the health of marginalized groups. It also increases their involvement and continued engagement in health programs, particularly among ethnic minority, indigenous, and immigrant communities who are often overlooked in research and creative initiatives. Although marginalized groups have a social hierarchy,

using a collaborative and non-hierarchical strategy like Community-Based Participatory Research (CBPR) has shown to be effective in establishing partnerships and attaining research objectives. After conducting an analysis, we have determined that power-sharing, community involvement, bicultural Community Health Workers (CHWs), and collaborative partnerships are crucial factors for obtaining favorable results in the CE models studied.

While we have made efforts to separate the impacts of community engagement (CE) components on health outcomes from those of community development improvements, there may still be some overlap of these effects owing to the positive influence of engagement spreading to the wider community. While CE may be helpful in addressing health disparities, it requires significant investment of labor, resources, and time. Its efficacy also depends on the specific intervention and CE model used. Our study has shown that the excellence of CE is often undermined by a subpar research technique. Furthermore, owing to several methodological difficulties, randomized controlled trials (RCTs) are not the most efficient way for assessing CE therapies. The existing assessment of cost-effectiveness (CE) in health intervention studies has identified many gaps, indicating the need for the creation of creative frameworks and methodologies. These new methods aim to illustrate the impact of CE on health outcomes in a clear and rigorous manner.

#### **References**

- 1- BUTTERFOSS F.D., KEGLER M.C., DICLEMENTE R., CROSBY R. and KEGLER M.C.: *Toward a comprehensive understanding of community coalitions: Moving from practice to theory. Emerging theories in health promotion practice and research*, San Francisco, CA: Jossey-Bass. 157-93. 2<sup>nd</sup> ed., 2002.
- 2- NICE. *Community engagement to improve health*. London: NHS National Institute for Health and Clinical Excellence, 2008.
- 3- BALCÁZAR H.G., DE HEER H., ROSENTHAL L., AGUIRRE M., FLORES L., PUENTES F.A., et al.: A promotores de salud intervention to reduce cardiovascular disease risk in a high-risk Hispanic border population. *Prev. Chronic Dis.*, 7: A28, 2010.
- 4- WELLS K.B., JONES L., CHUNG B., DIXON E.L., TANG L., GILMORE J., et al.: Community-partnered cluster-randomized comparative effectiveness trial of community engagement and planning or resources for services to address depression disparities. *J. Gen. Intern. Med.*, 28: 1268-78, 2013.
- 5- Centers for Disease Control and Prevention (CDC). *Principles of community engagement*. CDC/ATSDR Committee on Community Engagement. 1997. Available from: <http://www.cdc.gov/phppo/pce/> [cited 10 March 2015].
- 6- CDC/ATSDR. *Principles of community engagement* CDC/ATSDR committee on community engagement. 2013.

- Available from: [http://www.atsdr.cdc.gov/community-engagement/pdf/PCE\\_Report\\_508\\_FINAL.pdf](http://www.atsdr.cdc.gov/community-engagement/pdf/PCE_Report_508_FINAL.pdf) [cited 6 July 2015] 2<sup>nd</sup> ed.
- 7- WALLERSTEIN N., DURAN B., MINKLER M. and WALLERSTEIN N.: The conceptual, historical, and practice roots of community-based participatory research and related participatory traditions. *Community-based participatory research for health*. San Francisco, CA: Jossey-Bass, 27-52, 2003.
  - 8- HOLKUP P.A., TRIPP-REIMER T., SALOIS E.M. and WEINERT C.: Community-based participatory research: An approach to intervention research with a Native American community. *ANS Adv. Nurs. Sci.*, 27: 162, 2004.
  - 9- WALLERSTEIN N. and DURAN B.: Community-based participatory research contributions to intervention research: the intersection of science and practice to improve health equity. *Am J Public Health*, 1(100 Suppl 1): S40-6, 2010.
  - 10- LAS NUECES D., HACKER K., DIGIROLAMO A. and HICKS L.S.: A systematic review of community-based participatory research to enhance clinical trials in racial and ethnic minority groups. *Health Serv. Res.*, 47 (3 Pt 2): 1363-86, 2012.
  - 11- TROTTER R.T., NEEDLE R.H., GOOSBY E., BATES C. and SINGER M.: A methodological model for rapid assessment, response, and evaluation: The RARE program in public health. *Field Methods*, 13: 137-59, 2001.
  - 12- Staley K. *Exploring impact: public involvement in NHS, public health and social care research*. 2009; Eastleigh, UK: INVOLVE.
  - 13- WHITEHEAD M. and DAHLGREN G.: *Levelling up (part 1): a discussion paper on concepts and principles for tackling social inequities in health*. 2006; Copenhagen: WHO.
  - 14- RENZAHO A., POLONSKY M., MELLOR D. and CYRIL S.: Addressing migration-related social and health inequalities in Australia-call for research funding priorities to recognise the needs of migrant populations. *Aust Health Rev.*, 2015. <http://dx.doi.org/10.1071/AH14132>.
  - 15- BALCAZAR H., ROSENTHAL L., DE HEER H., AGUIRRE M., FLORES L., VASQUEZ E., et al.: Use of community-based participatory research to disseminate baseline results from a cardiovascular disease randomized community trial for Mexican Americans living in a US-Mexico border community. *Educ Health*, 22: 279, 2009.
  - 16- BURHANSSTIPANOV L., DIXON M. and ROUBIDEAUX Y.: *Cancer: A growing problem among American Indians and Alaska Natives. Promises to keep: Public health policy for American Indians and Alaska Natives in the 21<sup>st</sup> century*. Washington, DC: American Public Health Association, 223-51, 2001.
  - 17- RIGGS E., DAVIS E., GIBBS L., BLOCK K., SZWARC J., CASEY S., et al.: Accessing maternal and child health services in Melbourne, Australia: Reflections from refugee families and service providers. *BMC Health Serv. Res.*, 12: 117, 2012.
  - 18- ENGLISH K.C., FAIRBANKS J., FINSTER C.E., RAFFELITO A., LUNA J. and KENNEDY M.: A socioecological approach to improving mammography rates in a tribal community. *Health Educ Behav.*, 35: 396-409, 2006.
  - 19- National Center for Health Statistics. *Health, United States 2009: with specific feature on medical technology*. Hyattsville, MD: Department of Health and Human Services, 2010.
  - 20- FAWCETT S.B., COLLIE-AKERS V., SCHULTZ J.A. and CUPERTINO P.: Community-based participatory research within the Latino health for all coalition. *J. Prev. Interv. Community*, 41: 142-54, 2013.
  - 21- GARCIA-DOMINIC O., WRAY L.A., TREVINO R.P., HERNANDEZ A.E., YIN Z. and ULBRECHT J.S.: Identifying barriers that hinder onsite parental involvement in a school-based health promotion program. *Health Promot Pract.*, 11: 703-13, 2010.
  - 22- GIBBS L., WATERS E., MAGAREY A., BOOTH M., GIBBONS K. and SWINBURN B.: *Fun 'n' healthy in Moreland! Final Report to Victorian Department of Human Services*. Melbourne: DHS, 2011.
  - 23- TOVAR A., RENZAHO A.M.N., GUERRERO A.D., MENA N. and AYALA G.X.: A systematic review of obesity prevention intervention studies among immigrant populations in the US. *Curr. Obes.Rep.*, 3: 206-22, 2014.
  - 24- CHARANIA N.A. and TSUJI L.J.: A community-based participatory approach and engagement process creates culturally appropriate and community informed pandemic plans after the 2009 H1N1 influenza pandemic: Remote and isolated First Nations communities of sub-arctic Ontario, Canada. *BMC Public Health*, 12: 268, 2012.
  - 25- SHEIKH A.: Why are ethnic minorities under-represented in US research studies?. *PLoS Med.*, 3: e49, 2006.
  - 26- COCHRAN P.A., MARSHALL C.A., GARCIA-DOWNING C., KENDALL E., COOK D., MCCUBBIN L., et al.: Indigenous ways of knowing: Implications for participatory research and community. *Am. J. Public Health*, 98: 22-7, 2008.
  - 27- WALLERSTEIN N.: *What is the evidence on effectiveness of empowerment to improve health?*. Copenhagen: WHO Europe, Health Evidence Network, 2006.
  - 28- RENZAHO A., RENZAHO C. and POLONSKY M.: Left out, left off, left over: why migrants from non-English speaking backgrounds are not adequately recognised in health promotion policy and programs. *Health Promot J. Aust.*, 23: 84-5, 2012.
  - 29- WAHEED W, HUSAIN N. and CREED F.: Psychiatric services for ethnic minority groups: A third way?. *Br. J. Psychiatry*, 183: 562-3, 2003.
  - 30- AIRHIHENBUWA C.O.: *Health and culture: Beyond the western paradigm*. Thousand Oaks, CA: Sage, 1995.
  - 31- AHMED S.M. and PALERMO A.S.: Community engagement in research: Frameworks for education and peer review. *Am. J. Public Health*, 100: 1380-7, 2010.

- 32- BARANOWSKI T., SIMONS-MORTON B., HOOKS P., HENSKE J., TIERNAN K., DUNN J.K., et al.: A center-based program for exercise change among black-American families. *Health Educ. Behav.*, 17: 179-96, 1990.
- 33- POSTON W.S<sup>2nd</sup>, HADDOCK C.K., OLVERA N.E., SUMINSKI R.R., REEVES R.S., DUNN J.K., et al.: Evaluation of a culturally appropriate intervention to increase physical activity. *Am. J. Health Behav.*, 25: 396-406, 2001.
- 34- DEDOBBELEER N. and DESJARDINS S.: Outcomes of an ecological and participatory approach to prevent alcohol and other drug abuse among multiethnic adolescents. *Subst Use Misuse*, 36: 1959, 2001.
- 35- CONWAY T.L., WOODRUFF S.I., EDWARDS C.C., HOVELL M.F. and KLEIN J.: Intervention to reduce environmental tobacco smoke exposure in Latino children: Null effects on hair biomarkers and parent reports. *Tob Control*, 13: 90-2, 2004.
- 36- FARIDI Z., SHUVAL K., NJIKE V.Y., KATZ J.A., JENNINGS G., WILLIAMS M., et al.: Partners reducing effects of diabetes (PREDICT): A diabetes prevention physical activity and dietary intervention through African-American churches. *Health Educ. Res.*, 25: 306-15, 2010.
- 37- DANIEL M., GREEN L.W., MARION S.A., GAMBLE D., HERBERT C.P., HERTZMAN C., et al.: Effectiveness of community-directed diabetes prevention and control in a rural Aboriginal population in British Columbia, Canada. *Soc. Sci. Med.*, 48: 815-32, 1999.
- 38- Anand SS, Davis AD, Ahmed R, Jacobs R, Xie C, Hill A, et al. A family-based intervention to promote healthy lifestyles in an aboriginal community in Canada. *Can J Public Health*. 2007; 98: 447-52.
- 39- HAYASHI T., FARRELL M.A., CHAPUT L.A., ROCHA D.A. and HERNANDEZ M.: Lifestyle intervention, behavioral changes, and improvement in cardiovascular risk profiles in the California WISEWOMAN project. *J. Womens Health*, 19: 1129-38, 2010.
- 40- HUNTER J., DE ZAPIEN J.G., PAPPENFUSS M., FERNANDEZ M.L., MEISTER J. and GIULIANO A.R.: The impact of a promotora on increasing routine chronic disease prevention among women aged 40 and older at the US-Mexico border. *Health Educ. Behav.*, 31: 18-28S, 2004.
- 41- AVILA P. and HOVELL M.F.: Physical activity training for weight loss in Latinas: A controlled trial. *Int. J. Obes. Relat. Metab. Disord.*, 18: 476-82, 1994.
- 42- BLACK M.M., HAGER E.R., LE K., ANLIKER J., ARTEAGA S.S., DICLEMENTE C., et al.: Challenge! Health promotion/obesity prevention mentorship model among urban, black adolescents. *Pediatrics*, 126: 280-8, 2010.
- 43- POPAY J., ATTREE P., HORNBY D., MILTON B., WHITEHEAD M., FRENCH B., et al.: Community engagement in initiatives addressing the wider social determinants of health: A rapid review of evidence on impact, experience and process. Lancaster: University of Lancaster, 2007.
- 44- LAVERACK G. and RONALD L.: A planning framework for community empowerment goals within health promotion. *Health Policy Plan*, 15: 255-62, 2000.
- 45- O'MARA-EVES A., BRUNTON G., MCDAID D., OLIVER S., KAVANAGH J., JAMAL F., et al.: Community engagement to reduce inequalities in health: A systematic review, meta-analysis and economic analysis. *Public Health Res.*, 1: 1-140, 2013.
- 46- ATTREE P., FRENCH B., MILTON B., POVALL S., WHITEHEAD M. and POPAY J.: The experience of community engagement for individuals: A rapid review of evidence. *Health Soc Care Community*, 19: 250-60, 2011.
- 47- CHAU R.C.M.: The involvement of Chinese older people in policy and practice: aspirations and expectations. York: University of Sheffield and the Joseph Rowntree Foundation, 2007.
- 48- SWAINSTON K. and SUMMERBELL C.: The effectiveness of community engagement approaches and methods for health promotion interventions. 2008. Available from: <http://www.nice.org.uk/guidance/ph9>.
- 49- MOHER D., LIBERATI A., TETZLAFF J. and ALTMAN D.G.: The PRISMA Group. Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Med.*, 6: 1000097, 2009. <http://dx.doi.org/10.1371/journal.pmed>.
- 50- RENZAHO A., ROMIOS P., CROCK C. and SONDERLUND A.L.: The effectiveness of cultural competence programs in ethnic minority patient-centered health care – a systematic review of the literature. *Int. J. Qual Health Care.*, 25: 261-9, 2013.
- 51- SCHULZ K.F., ALTMAN D.G., MOHER D., CONSORT Group. CONSORT 2010 statement: Updated guidelines for reporting parallel group randomised trials. *BMC Med.*, 8: 18, 2010.
- 52- VON ELM E., ALTMAN D.G., EGGER M., POCOCK S.J., GÖTZSCHE P.C., VANDENBROUCKE J.P., et al.: The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: Guidelines for reporting observational studies. *PLoS Med.*, 4: 296, 2007. <http://dx.doi.org/10.1371/journal.pmed.0040296>.
- 53- LETTS L., WILKINS S., LAW M., STEWART D., BOSCH J. and WESTMORLAND M.: Guidelines for critical review form: Qualitative studies (Version 2.0). Ontario, Canada: McMaster University Occupational Therapy Evidence-Based Practice Research Group, 2007.
- 54- SOUTH J. and PHILLIPS G.: Evaluating community engagement as part of the public health system. *J. Epidemiol Community Health*, 68: 692-6, 2014.
- 55- LONG A.F., GODFREY M., RANDALL T., BRETTE A. and GRANT M.J.: Developing evidence based social care policy and practice. Part 3: Feasibility of undertaking systematic reviews in social care. Leeds: Nuffield Institute for Health, 2002.
- 56- IAP2. IAP2 Public Participation Spectrum. 2015. Available from: <https://www.iap2.org.au/resources/iap2s-public-participation-spectrum>.

- 57- RIFKIN S.B., MULLER F. and BICHMANN W.: Primary health care: On measuring participation. *Soc. Sci. Med.*, 26: 931-40, 1988
- 58- WALLERSTEIN N., OETZEL J., DURAN B., TAFOYA G., BELONE L. and RAE R.: What predicts outcomes in CBPR. San Francisco, CA: Jossey-Bass, 2008.
- 59- PARKER E.A., ISRAEL B.A., ROBINS T.G., MENTZ G., LIN X., BRAKEFIELD-CALDWELL W. and LEWIS T.C.: Evaluation of community action against asthma: A community health worker intervention to improve children's asthma-related health by reducing household environmental triggers for asthma. *Health Educ Behav.*, 35: 376-95, 2008.
- 60- NÁPOLES A.M., ORTÍZ C., SANTOYO-OLSSON J., STEWART A.L., GREGORICH S., LEE H.E., et al.: *Nuevo Amanecer*: results of a randomized controlled trial of a community-based, peer-delivered stress management intervention to improve quality of life in Latinas with breast cancer. *Am. J. Public Health*, 105 (Suppl 3): e55-63, 2015.
- 61- MILTON B., ATTREE P. FRENCH B., POVALL S., WHITEHEAD M. and POPAY J.: The impact of community engagement on health and social outcomes: A systematic review. *Community Dev. J.*, 47: 316-34, 2011. <http://dx.doi.org/10.1093/cdj/bsr043>.
- 62- ISRAEL B.A., SCHULZ A.J., PARKER E.A. and BECKER A.B.: Review of community-based research: Assessing partnership approaches to improve public health. *Ann. Rev. Public Health*, 19: 173-202, 1998.
- 63- JENSEN P.S., HOAGWOOD K. and TRICKETT E.J.: Ivory towers or earthen trenches? Community collaborations to foster real-world research. *Appl. Dev. Sci.*, 3: 206-12, 1999.
- 64- SANSON-FISHER R.W., BONEVSKI B., GREEN L.W. and D'ESTE C.: Limitations of the randomised controlled trial in evaluating population-based health interventions. *Am. J. Prev. Med.*, 33: 155-61, 2007.
- 65- BENDER M.S., NADER P.R., KENNEDY C. and GAHAGAN S.: A culturally appropriate intervention to improve health behaviors in Hispanic mother-child dyads. *Child Obes.*, 9: 157-63, 2013.
- 66- PAZOKI R., NABIPOUR I., SEYEDNEZAMI N. and IMAMI S.R.: Effects of a community-based healthy heart program on increasing healthy women's physical activity: A randomized controlled trial guided by Community-based Participatory Research (CBPR). *BMC Public Health*, 7: 216, 2007.
- 67- BAQUI A.H., EL-ARIFEEN S., DARMSTADT G.L., AHMED S., WILLIAMS E.K., SERAJI H.R., et al.: Effect of community-based newborn-care intervention package implemented through two service-delivery strategies in Sylhet district, Bangladesh: A cluster-randomised controlled trial. *Lancet*, 371: 1936-44, 2008.



## الاستراتيجيات لتحسين الوصول إلى الرعاية الصحية للضئات السكانية غير المخدومة: مراجعة نقدية

الخلفية: الفهم الكامل لمكونات نماذج المشاركة المجتمعية (CE) المرتبطة بتحسين نتائج الصحة محدود، على الرغم من الاستخدام الواسع للـ CE في تعزيز الصحة.

الهدف من العمل: سعت هذه الدراسة لتقييم مدى تأثير المشاركة المجتمعية (CE) في الصحة وفجوات الصحة للفئات السكانية المهمشة. كما هدفت أيضاً إلى تحديد النهج النهائى الأكثر فاعلية لتنفيذ CE وتحديد مكونات CE التى تكون مقبولة وقابلة وفعالة عند تطبيقها على السكان المحرومين.

الأساليب: تمثل المراجعة النظامية لمتطلبات التي حددها تقرير البنود المفضلة للمراجعات النظامية والتحليلات النوعية. قمنا بتقييم منهجي للأوراق المدرجة باستخدام أنظمة التصنيف. تركز الدراسة على توليف النماذج لتحديد المكونات الحاسمة من CE المرتبطة بنتائج الأبحاث الجيدة. كما تضمنت فحصاً مقارناً لنتائج الدراسات الإيجابية، والأساليب، ومؤشرات الجودة لـ CE.

النتائج: من بين ٢٤ دراسة تفي بمعايير الاختيار لدينا، كانت ٢١ (٨٧٪) لها تأثير إيجابي على سلوكيات الصحة، وتخطيط الصحة العامة، والوصول إلى الخدمات الصحية، والوعي الصحي، وغيرها من نتائج الصحة. اعتبرت غالبية الدراسات (٥٨٪) من جودة ممتازة، فى حين أظهرت ٧٨٪ و ٤٢٪ من الدراسات مشاركة المجتمع القوية فى البحث والوصول إلى مستويات عالية من CE، على التوالي. المكونات الرئيسية للمشاركة المجتمعية (CE) التي كان لها تأثير على نتائج الصحة كانت: المشاركة الحقيقية، الشراكات التعاونية، التعلم الثنائى، وتضمين المجتمعات المستفيدة فى بروتوكولات البحث عن طريق منحهم صوتاً ووكالة، واستخدام المهنيين الصحيين ثنائى الثقافة لتنفيذ التدخلات.

الاستنتاج: تشير النتائج إلى أنه إذا كانت نماذج CE مصممة ومنفذة بشكل جيد مع مشاركة مجتمعية فعالة ومشاركة، فقد تسهم فى تعزيز الصحة وسلوكيات الصحة بين المجتمعات المهمشة. علاوة على ذلك، قد قمنا بتحديد العديد من النقاط الضعيفة فى التقييم الحالى لكفاءة التكلفة (CE) فى دراسات التدخل الصحى. وهذا يبرز الحاجة إلى تطوير طرق منهجية جديدة لتقدير تأثير CE على نتائج الصحة بأكثر دقة وصرامة.