*How Collaboration Contributes to Combating Obesity:*

*A Growing Healthy Communities Model*

Abstract

Globally obesity is an epidemic that continues to impact the overall quality of life for many in various communities. A contributing factor of this disparity is the built environment of communities and their lack of ability to provide integral resources needed to support health and wellness to members who are born, live, and age there. As a way to address this concern, the Arkansas Coalition for Obesity Prevention (ArCOP) Growing Healthy Communities (GHC) initiative is emerging as an exemplary best practice model in providing community health workers with effective strategies to help address these health inequities of obesity through prevention and intervention measures to improve health behaviors. The GHC initiative encourages community health workers, health education specialists, government officials and other stakeholders to embrace community collaboration in efforts to improve built environments by equipping them with resources that increases community access to healthy foods and physical activities to help combat the obesity epidemic.

There is no consensus on the precise causes of the obesity epidemic, more likely culprits are changes in societal and environmental conditions that have led to changes in diet and physical activity (Havranek, Mujahid, Barr, Blair, Cohen, Cruz-Flores, & Rosal, 2015). Yet, such disparities will continue to impact overall quality of life if action is halted in addressing the environmental conditions that impact our communities. Healthy environments, particularly ‘built environments and healthy neighborhoods’ are among the five key areas included in the approach towards meeting Healthy People 2020 goals of ‘creating physical and social environments that promote good health for all’ (Healthy People, 2020). At the national level, Centers for Disease Control and Preventions’ ‘Built Environment and Health Initiative’, the only existing federal program has the noble purpose of improving the health of all Americans through evidence-based changes in built environment.

The key tenets of the program revolve around factors such as support towards health impact assessments, forging relationships with local governments, providing scientific expertise and training to local officials and monitoring various environmental indicators (Centers for Disease Control and Prevention, 2016). In models such as ecological model and structural model of health behaviors`, the role of environments, such as food environment, physical environment and recently the built environment contribute largely towards healthy outcomes across the population health spectrum (Cameron et al., 2012; Diclemente, Salazar & Crosby, 2013). Food environment, particularly in the socio-economically disadvantaged populations, can influence chronic diseases such as obesity and other non-communicable diseases (Pessoa, Mendes, Gomes, Martins, & Velasquez-Melendez, 2015). Built environments such as parks, pavements, buildings, walkability are important determinants for risk of being obese and creating an obesogenic environment along with unhealthy diets, physical inactivity and gene-lifestyle interactions (Hruby et al., 2016). Such factors continue to impact the quality of life for many and obesity is definitely a contributing factor.

Obesity is not just a problem that is occurring in the United States of America, obesity is a global epidemic. The worldwide prevalence of obesity more than doubled between 1980 and 2014 (World Health Organization (WHO), 2016). According to Blumenthal & Levin (2017) “Every country included in the World Health Organization’s data repository experienced an increase in adult obesity rates from 2010 to 2014. None of these nation’s obesity rates stayed the same or declined during this time period” (p. 1). Many of the indicators found by these authors that played major roles in the increase of global obesity is lack of education, eating more processed foods, and physical inactivity. Obesity is a serious concern because it is often associated with poorer mental health outcomes, reduced quality of life, and the leading causes of death in the United States and worldwide, including diabetes, heart disease, and some types of cancer (CDC, 2016). Social determinants of health are clearly related to health outcomes including obesity and have for many decades contributed to the disparities that impact quality of healthy life for many who reside in our communities.

*Role of Built Environment and Positive Health Outcomes*

Globally, there is a consensus on the need to help combat the obesity epidemic. According to Caballero (2007) we still tend to regard obesity as a disorder of individual behavior, rather than highly conditioned by the socioeconomic built environment. However, this perception must change in order to recognize that the threat of obesity and its comorbidities is affecting communities throughout the world.

In a very recent international study which assessed the role of built environment characteristics and their relation to physical activity with varying socioeconomic status, significant differences were found in terms of playground/play areas, public open spaces, marked road crossings across various neighborhoods (Brazdova et al., 2015). In a comprehensive study which assessed the relationship between multiple built environment factors and individual characteristics of people on long term physical activity, results revealed that no long term physical activity for significantly associated with community factors such as commute time, urban residence but not with population density and distance to recreational facilities. Although this was a good cross-sectional study, it suggested future use of spatial analyses for improved understanding of the relationship between population health and built environmental characteristics (Yang, Spears, Zhang, Lee, & Himler, 2012). A deeper understanding of the relationship between built environments and physical activity was studied using latent profile analyses of seven GIS (geographic information system) measured built environment features. This study concluded that walkability along with transit and recreation access did contribute to healthy aging among older populations (Todd et al., 2016).

 Although the above literature suggests that built environment contributes largely to positive health outcomes and positive health behaviors, recent studies show a mixed picture particularly due to variations in study designs and heterogeneous reporting of results (Schule & Bolte, 2015). The current challenges to derive any significant correlation or for that matter inference to a causal pathway between built physical environments and positive health outcomes exist and point to intermediary variables such as associations between diet, physical activity and built environments (Drewnowski et al., 2016), high income vs. middle income countries (Blay, Schulz, & Mentz, 2015), younger populations vs. older populations (Siu, Lambert, Fu, Hillier, Bosworth, & Michael, 2012). Hence, it has become extremely important that in addition to choosing specific built environment variables, better tools need to be designed and implemented which could assess large amounts of spatial data covering wider geographic extent (Kroeger, Messer, Edwards, & Miranda, 2012). Such actions will help align best approaches to improving the built environments to foster positive health outcomes.

*Healthy Communities*

Healthy Communities results from healthy choices and environments that support shared responsibility (Norris & Pittman 2000). Everyone who resides in a community has a very important role and interest in wanting a healthier community. However, only a few are willing to embrace collaborating with others to work toward making positive change happen. Like efforts of Drs. Len Duhl and Trevor Hancock who were instrumental to the development of the Healthy Communities initial movement which began in the mid 1980s, and first implemented via the Healthy Cities initiative spearheaded by the World Health Organization; since that time, the movement has spread to more than 3,000 communities in more than 50 countries on every continent (Norris & Pittman, 2000). The movement has contributed to the development of the Arkansas Coalition of Obesity Prevention (ArCOP) Growing Healthy Communities (GHC) initiative, which is emerging to be a potential best practice model that is helping address the obesity epidemic.

Prevention is key to combating obesity and as community health workers our roles and responsibilities in helping to promote, increase awareness and encourage fellow community members to embrace positive health behaviors is of extreme importance. Reshaping people’s economic, physical, social, and service environments can help ensure opportunities for health and support healthy behaviors (Rudolph, Caplan, Ben-Moshe, & Dillion, 2013). Collaborating with community partners will help make change happen at a greater scale, as no one entity can be as impactful alone in addressing this global obesity epidemic. This has been the focus of the Arkansas Coalition for Obesity Prevention (ArCOP) Growing Healthy Communities (GHC) model. This grant funded project, (GHC) was established in 2009 and has contributed to helping ArCOP increase access to physical activity and healthy foods, and implement environmental and policy changes to support combating obesity among diverse communities in Arkansas.

*Arkansas Coalition for Obesity Prevention*

The Arkansas Coalition for Obesity Prevention was established in 2008. The coalition has been supported with secured funding from the Blue & You Foundation for a Healthier Arkansas, the Arkansas Department of Health, and the University of Alabama at Birmingham Midsouth Transdisciplinary Collaborative Center for Health Disparities Research (ArCOP, 2017). This financial support has contributed to efforts and the success of the coalition for over a decade and helping local Arkansas communities contribute to combating obesity within the state. In 2003, Arkansas Act 1220 became the first law in the nation with comprehensive multi-pronged approaches that bring families, schools, and communities together to combat the epidemic of obesity (ArCOP, 2017).

The coalition’s mission is focused on helping community residents increase their physical activity and improve their consumption of healthier foods with an overarching goal of combating obesity among Arkansans. This collaborative coalition consists of diverse partners including but not limited to: stakeholders of local communities, government agencies, community health workers, health educators, non-profit organizations, businesses, and advocates for schools. The coalition has made concentrated efforts in working towards its vision of improving lifestyles of Arkansans by helping communities increase access to physical activity and healthy foods as a way to help combat and prevent obesity. With secured funding the coalition has been able to provide financial support in the mode of grants to communities that submit successful proposals. In 2009, ArCOP collaborated with community partners which included: the Blue & You Foundation for a Healthier Arkansas, the Arkansas Department of Health’s CDC Cooperative Agreement, UAMS Partners for Inclusive Communities, UAMS College of Public Health, and the Winthrop Rockefeller Institute to launch its Growing Healthy Communities project that has for the past 8 years has contributed to making positive change happen to grow healthier communities in the state of Arkansas as a way to help combat obesity.

*Growing Healthy Communities (GHC) Initiative: An Emerging Best Practice Model*

The Arkansas Coalition for Obesity Prevention has been extremely ambitious in encouraging communities to apply for coalition grant funding to become a selected GHC which then allows them to plan and implement community projects not limited to (e.g. farmers markets, walking/bike trails, community health fairs, physical activity programs at local elementary schools, healthy cooking classes, complete street projects, and joint use agreements etc.) that will benefit their communities. Funded communities are then required to participate in a 3-day immersion training that includes participation of the Mayor and other community stakeholders from each GHC community team. A representative(s) of each GHC team presents a photovoice presentation; this presentation highlights the strengths and weaknesses of the selected community, which serve as catalyst for the work plan each team develops. Throughout the training, community work teams develop, network, and participate in lecture presentations from state, local, and national leaders about effective policy and environmental changes. Each community is provided assistance in creating a work plan to address the specific weaknesses of their community. Upon agreement of the work plan each GHC team is granted a 12-month cycle to work toward the implementation of their community projects. There is a mid year report that is due within the initial 6 month period that requires a summary from each GHC team about the GHC projects their team implemented to date and detailed outcomes. At the conclusion of the 12-month cycle an end of the year report is due that also requires a summary about the GHC projects implemented to date and detailed outcomes along with the submission of photos capturing project activities. *Sustainability of GHC Communities* After the initial year of funding GHC teams are invited and encouraged to attend an ArCOP annual regional state training summit usually hosted in a funded GHC community. The summits provide additional training opportunities for GHC teams, which allows them to learn more about sustaining their current GHC projects as well as learn about new projects that could be implemented within their communities. The summit consists of various training topics not limited to: (e.g. farmers market, Cooking Matters cooking classes, grant writing, and community gardening). For example, a GHC team could attend a farmers’ market session and learn all they need to learn about the planning, development, and implementation of a farmers market. In addition, for attending the farmers’ market training session they would be eligible to submit a grant proposal to ArCOP for funding based off their proposed plan they developed after attending the training. This allows for GHC team members to stay active in your efforts of sustaining or implementing new projects to continue growing their community. Communities are often rewarded annually for their efforts in helping to improve their communities. For the GHC projects conducted each year, ArCOP extends a request for GHC teams to complete a recognition application after their initial year. This application requests highlights, summary of activities the GHC teams implemented throughout the year including policy changes, environmental changes, research conducted, and evaluations. Successes of the GHC teams efforts are recognized annually. The following descriptions highlight the 3 levels of recognition that communities can strive to be: An “Emerging Community” is a community within the phase of 1 to 3 Years, building a foundation, and recruiting and converting stakeholders to the cause for life through education and awareness; “Blossoming Community” is a community within the phase of 5 or more years, is transitioning into a strategic action plan, setting reachable goals and implementing projects, engaging GHC team members and utilizing their skills, network, and available resources; “Thriving Community” is a community beyond 6 years and is keeping community excited and engaged by celebrating each completed project, sustaining projects, and implementing environmental and policy changes, and tracking improvements with data collection (ArCOP, 2017). ArCOP provides this recognition at an annual conference celebration that GHC teams are invited to attend to be recognized and celebrated. *Growing Healthy Communities Successes* ArCOP’s GHC initiative compliments the efforts of the World Health Organization (WHO) in increasing awareness about obesity and the importance of collaboratively striving to combat it. Supportive environments and communities are fundamental in shaping people’s choices, by making the choice of healthier foods and regular physical activity the easiest choice (the choice that is the most accessible, available and affordable), and therefore preventing overweight and obesity (WHO, 2016). There are several communities in the state of Arkansas that are being proactive in such efforts. The Arkansas Coalition for Obesity Prevention has recognized the city of Hot Springs, Arkansas as a “Thriving community”. Hot Springs has been successful in increasing access to healthy affordable fruits and vegetables. This city has developed two community gardens and currently participating in a farmers market nutrition assistance program with a doubling incentive for customers who are recipients of the Supplemental Nutrition Assistance Program (SNAP), which provides nutrition assistance to millions of eligible, low-income individuals and families and serves as the largest program in the domestic hunger safety net (United States Department of Agriculture, 2017). This supported GHC nutrition assistance project saw a tremendous increase in SNAP customer participation. According to ArCOP (2017) in 2014, there were 61 transactions with total sales of $732.05 in 13 weeks and in 2015 there were 377 SNAP transactions with total SNAP sales of $4,743.28 in 24 weeks. This project has helped increase access and consumption of healthy whole foods to community members as a way to help combat obesity. Another “Thriving Community” that has been recognized by the Arkansas Coalition for Obesity for Prevention for its GHC success is the city of Bryant, Arkansas for implementing community projects focused on increasing access to engagement in physical activity as a way to help combat obesity. These have included the city having roads painted to encompass bike lanes as well as the creation of natural mulch trails at community parks to increase community access to physical activity resources (ArCOP, 2017). There have been other communities also praised for their efforts in growing healthier communities. The School District of Lamar, Arkansas has been recognized as a “Blossoming Community” because of their efforts in helping to cultivate an environment that is focused on making the whole child healthy. With funding from ArCOP they have contributed to the establishment of school gardens. The school district has also been a recipient of 6 Joint Use Agreement grants to offer the school and community more options to get physical activity. The district is also involved with the Farm to School program and has partnered with a community farmer who grows peaches and offers fresh locally grown peaches to students during lunch time (ArCOP, 2017). The University of Arkansas at Little Rock’s University District Community, which located in Little Rock, Arkansas is also considered a “Blossoming Community”. This community has collaborated with local community partners for the past 5 years to help sustain their GHC project efforts. These projects have included: annual gardening classes that granted raised bed gardens to over 100 residents homes, annual community wellness fairs to grant residents free annual gym memberships to the UofA Little Rock campus fitness center to increase residents access to physical activity. Another project has included: Garden to Grill cooking classes in which class participants are granted a free stove top grill pan to help reinforce healthy cooking and eating at home, community farmers market days(University of Arkansas at Little Rock, 2016). A newly added GHC community has been rewarded by ArCOP for its’ emerging efforts to grow a healthier community. The Arkansas Coalition for Obesity Prevention has recognized the Southside Bee Branch (SSBB) School District community that resides in Bee Branch, Arkansas as an “Emerging Community”. According to ArCOP (2017) this community’s GHC efforts have included: the Southside Bee Branch Wellness Committee recognizing a need for local Health care services in the Bee Branch area due to limited access to healthcare services and the SSBB School Board approving the use of district funds to renovate the superintendent’s former house into a school based health center, Hornet Health Care for the community members to utilize for services. Such GHC efforts of this community and the many others will continue to help grow healthier communities. The Arkansas Coalition for Obesity Prevention efforts in supporting the growth and successes of over 100 Growing Healthy Communities will continue to be a great reinforcer that communities need to sustain their efforts in striving to combat obesity. *Conclusion* Environmental factors are crucial in impacting overall quality of healthy life and the Healthy Communities movement is transforming communities across the nation. Its goal is ambitious: to achieve radical, measurable improvements in health status and long-term quality of life. And by many measures of health and well-being it’s working (Norris & Pittman, 2000). With continued support of grassroots efforts in encouraging community partners to collaboratively work for the purpose of helping their communities combat obesity by emerging them into blossoming and thriving communities that are effectively being the catalyst of the ripple effect of improved health outcomes and overall quality of healthy life for many globally. According to Malik Willett & Hu (2013) due to the scope and complexity of the obesity epidemic, prevention strategies and policies across multiple levels are needed in order to have a measurable effect. Changes should include high-level global policies from the international community and coordinated efforts by governments, organizations, communities and individuals to positively influence behavioral change**.**

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