PROJECT MUSE®

A Multigenerational Strategy to Transform Health Education into Community Action

Roma Stovall Hanks, Hattie Myles, Sarah Wraight, Mary C. Williams, Candis Patterson, Barbara M. Hodnett, Alexandria Broadnax, Shannon Shelley-Tremblay, Errol Crook

Progress in Community Health Partnerships: Research, Education, and Action, Volume 12, Special Issue 2018, pp. 121-128 (Article)

Published by Johns Hopkins University Press

DOI: <https://doi.org/10.1353/cpr.2018.0027>

➔ *For additional information about this article*

<https://muse.jhu.edu/article/692858>

A Multigenerational Strategy to Transform Health Education into Community Action

Roma Stovall Hanks, PhD^{1,3,4}, Hattie Myles, PhD^{2,3,4}, Sarah Wraight, BA^{1,3}, Mary C. Williams, BA^{3,4}, Candis Patterson, MS, CHES^{3,4}, Barbara M. Hodnett, MA^{3,4,5}, Alexandria Broadnax, BS^{2,3,6}, Shannon Shelley-Tremblay, JD³, Errol Crook, MD, Principal Investigator^{2,3}

(1) College of Arts & Sciences, Department of Sociology, Anthropology and Social Work; (2) College of Medicine; (3) Center for Healthy Communities—Center of Excellence—University of South Alabama; (4) CHC-COE Community Engagement Core; (5) CHA; (6) *STARS & STRIPES*

Submitted 30 June 2017, revised 02 February 2018, accepted 20 February 2018.

Abstract

Background: The National Institute for Minority Health and Health Disparities funded Centers of Excellence to address health disparities through research, education and professional training, and community engagement. This article summarizes a decade of multigenerational educational programming embedded in the Community Engagement Core (CEC) of the National Institute for Minority Health and Health Disparities-funded Center for Healthy Communities—Center of Excellence at the University of South Alabama.

Objectives: Our objective is to demonstrate how community-based participatory research (CBPR) initiated the multigenerational approach, uniting the community health education and the educational pipeline programs, and transformed a traditional professional symposium into a mechanism to increase community participation and action.

Methods: Community engagement and education adhered to CBPR principles and methods. A 3-year planning process before full funding of the Center of Excellence allowed the CHC to develop community partnerships and implement pilot projects that would assure community access and participation in COE programs. Program innovation was rooted in community suggestions and community priorities.

The annual Regional Health Disparities Symposium (RHDS) was literally transformed through community engagement.

Conclusions: Education programs for adults and youth achieved their goals independently, the *STARS AND STRIPES* (Student Training for Academic Reinforcement in the Sciences and Special Training to Raise Interest and Prepare for Entry into the Sciences) pipeline program has a success rate of 88% for participants' admission to colleges and universities. CHA-led events have documented an outreach to more than 6,500 community members and the COE has funded eight CHA-led projects directly addressing community action plans developed through CBPR methods during the history of the RHDS. But the real story has emerged from transformative multigenerational interaction via CBPR.

Keywords

Community-based participatory research, health advocacy, health disparities, academic pipeline, community engagement, education and training, nonprofessional education, southeastern United States, age groups

The University of South Alabama-Center for Healthy Communities (CHC), funded by a planning grant (2004–2007) and a Center of Excellence grant (2008–present) from the National Institutes of Health–National Institute for Minority Health and Health Disparities, launched two programs—the Community Health Advocacy (CHA) Program and the *STARS AND STRIPES* pipeline program—to address educational needs for community members who had

been identified from U.S. Census data¹ as high poverty and at high risk for health disparities in Mobile, Alabama. Both programs were designed, coordinated and supported by the CEC of the Center of Excellence. Over time, the programs evolved into an integrated, multigenerational model for lessening health disparities; this intersection was largely facilitated by the RHDS, an annual health education seminar that brings researchers and community members of all positions

together to develop action plans from inclusive community conversations.

The CHA Program was created to increase awareness of health disparities and to engage adult community members for advocacy toward health equity. The *STARS AND STRIPES* pipeline was initiated with the objective of developing a new generation of health care providers and researchers by recruiting and supporting rising high school juniors and seniors from underrepresented minority groups. The program enables students interested in health to identify their career goals and transition into post-secondary academic programs. Both programs, now a decade into implementation, use CBPR methods to continually address community priorities.

Initially, the CHA Program and *STARS AND STRIPES* pipeline operated separately, targeting distinct age groups. However, during a 2008 focus group with adult CHAs, some advocates proposed the need to train pipeline participants as youth community health advocates (YCHAs), to extend health outreach with an intergenerational approach. This suggestion resulted in a full-scale initiative to bridge the CHA and *STARS AND STRIPES* pipeline programs. This article reports on the joint community health education initiatives of the CHA and pipeline programs through RHDS, the vehicle that afforded an equal voice platform for youth and adult community leaders.

ADDRESSING SPECIFIC COMMUNITY NEEDS

In recent decades, much public health training in the United States has targeted higher education audiences and adult community liaisons.² Although our community–university (CU) partnership recognizes the importance of these training sectors, our CBPR model focuses just as heavily on promoting an interest in community health in adolescent years, through a pipeline fostering education, financial resources for academic growth, summer and academic-year activities, and social/community support on an intergenerational scale. Our multigenerational CBPR model highlights the opportunistic growth that occurs when a CU partnership extends its health education efforts to support the academic aspirations of adolescents in the same communities. This approach both expands the reach of federal funding and increases opportunities for impact and sustainability.

ALABAMA'S HEALTH DISPARITY CRISIS AND SOLUTIONS FOR EQUITABLE CARE

The disproportionately poor health of minority populations in Alabama is a pervasive issue for social and health researchers alike. Alabama is among the lowest ranking states³ for overall health status, at number 47 of 50 U.S. states, an estimate that depends on factors such as general health disparities, sexually transmitted infections, obesity, cancer deaths, and preventive hospitalizations. In nearly all these categories, severe health inequities exist, notably between African Americans (AA) and European Americans (EA).

In Mobile County, although AA represent about 36% of the population, and EA represent about 58%, AA continually receive poorer health outcomes across a number of issues when compared with their EA counterparts.^{4,5} Mobile communities defined as high poverty by U.S. Census data, which are overwhelmingly AA, are at far higher risk of experiencing the effects of these disparities than those living in more affluent areas, which are largely EA.¹ Zip codes with predominantly AA residents have far more cases of high blood pressure, heart disease, stroke, diabetes, and mental health issues, among others, than those living in majority EA areas.⁶ These inequities are the result of several social factors, such as inadequate health education, a lack of affordable health services, and distrust in the medical community.^{7,8} Strikingly, a 2010 survey conducted by a CU-driven coalition to address these inequities revealed that of 138 participants, 97% reported visiting emergency rooms for nonemergency care.⁹

For decades, researchers have observed that an individual's health and well-being has a linear correlation with the level of education he or she has achieved.^{10,11} Thus, establishing health education and academic assistance programs as early as possible is crucial for breaking poverty cycles that contribute to poor health in future generations.^{12,13} CBPR methods are a demonstrable solution to these multivariate issues,^{9,14,15} especially when they incorporate indigenous members of the community they serve, which our model heavily supports.^{16,17}

OBJECTIVES AND PROGRAM CURRICULA

The CEC of the Center of Excellence focuses its efforts for lessening disparities within the Mobile zip codes whose populations have higher mortality rates and lower socioeconomic

status, with more than 20% of residents live below the poverty line, than counterparts living in healthier geographic areas.¹

The CEC seeks to improve the health of populations at high risk for health disparities via two mechanisms. First, we continue to enhance the dissemination of health information and community-based health advocacy in Alabama. Second, we endeavor to develop a new generation of health care providers and health care researchers who will focus on the reduction of health disparities in their future programs of study.

Our approach to CHA is to empower individuals impacted by health disparities so that they may take the lead in the fight against inequities that they have personally experienced. The CHA program was the primary method to achieve this objective. The second objective was addressed through our pipeline programs, which encourage students from underserved communities to enter career paths committed to reducing health disparities.

Recruitment

The Center for Healthy Communities stresses an inclusive model for CHA enrollment. Any interested individual willing to commit to our training processes and at least 1 year of service is welcome to apply to our program. To date, our strategy is to develop an “army” of CHAs who advocate for a healthy community within their own unique expertise and venues. We started by recruiting community members with whom we had established relationships through community engagement activities in the early years of the CHC (2004–2007) and have continued to maintain these connections. These include, but are not limited to, outreach to the faith-based community, sustained involvement with established local health care groups, and recruitment of members from our early lay health advisor program and from early research projects identifying health disparities and barriers to health equity. The University of South Alabama Medical Center is the primary teaching hospital for the University of South Alabama College of Medicine. The university has deep connections to the community through both education and health care. In addition, over the decade of work by the CHC CEC, the CHA and pipeline programs have established partnerships of more than 10 years with six churches, two

sororities, and six high schools, and 3- to 5-year partnerships with numerous community agencies such as the Prichard Housing Authority, Hands on South Alabama, American Red Cross—Alabama Gulf Coast Chapter, Franklin Primary Health Center, Mobile AIDS Coalition, City of Mobile Neighborhood and Community Services, and Goodwill Easter Seals of the Gulf Coast.

The *STARS AND STRIPES* pipeline program focuses on high schools in communities where health disparities are greatest and challenges to education are great. Annual recruitment targets 15 underrepresented minority students who demonstrate an avid interest in science and medicine, and in pursuing careers in science, technology, engineering, and math. Each year since 2008, *STARS* have earned their promotion to *STRIPES* by participating in health education activities with adult CHAs, providing health education materials to peers, and committing to health advocacy goals and curricula for two sequential summers. These determinations are made in partnership with school principals, guidance counselors, and health educators. All student participants must maintain at least a 3.0 GPA each semester, and have outstanding conduct reports within the school (no suspensions or behavioral problems).

CHA and YCHA Health Education

As mentioned, it became apparent in 2008 that the introduction of an intergenerational approach to health equity would greatly enhance the outreach efforts of our CHA program and would provide unique role models and inspiration for our youth in the pipeline. This intergenerational bonding of the two programs needed a blueprint to ensure its success; thus, an enhanced training curriculum was developed to reach adults and youth.

Both adult and youth CHAs are required to participate in the Health Disparity Online Curriculum through the CHC website, which consists of six training modules with pretests and post-tests administered for each topic.¹⁸ Each module covers a different health-related topic and its relationship to disparities in our locality; the sections are labeled as follows: cardiovascular health, diabetes, nutrition and physical activity, cancer, human immunodeficiency virus/AIDS, and mental health.

Academic Pipeline, Phases I, II, III, and IV

The *STARS AND STRIPES* pipeline involves a rigorous training program beginning the summer before participants' junior year (phase I; *STARS*) and continuing into the summer before their senior year (phase II; *STRIPES*). These summer sessions prepare youth advocates for community health research and hone the skills necessary to succeed in the medical fields. In addition to summer commitments, YCHAs are required to attend academic tutoring and participate in a number of adult CHA activities throughout school years. Upon senior year completion, participants enter phase III (titled *Shadows*) of the program, where they are able to gain first-hand experience shadowing medical professionals in laboratories, research facilities, clinics, and hospitals. Finally, after completion of their freshman year of college, participants have the option to enter phase IV of the pipeline as undergraduate researchers in the undergraduate research program. This phase marks the final extension of the pipeline.

The Mobile County Public School System reports a current overall 4-year graduation rate of 86%; schools targeted by the pipeline have graduation rates ranging from 81% to 93%. The College Readiness Index reported by the Mobile County Public School System may be more relevant to the evaluation of the pipeline program. The College Readiness Index is a weighted score based on advanced placement course participation and performance (maximum value = 100). College Readiness Indexes for the pipeline target schools range from 3.1 to 23.3.¹⁹ Against these contextual indicators, 88% of students who completed the pipeline have entered college.

METHODS

We observed in our decade of community engagement that CBPR not only offers the benefit of multidisciplinary research in health disparities, but also has great potential to bridge intergenerational gaps in health education. With our emphasis on focus groups, round-table discussions, health fairs, and Regional Health Disparities Symposia (RHDS), our CHA–YCHA programs have continued to thrive and generate meaningful community engagement around solutions to local disparities. CHAs have monthly meetings to report on their activities and to discuss any changes in priorities for health education in their communities. The suggestion to begin a YCHA program came from one of these monthly meetings.

CHAs and YCHAs plan their own programs, with support from the health education specialist assigned to the program. Notably, the YCHAs planned and delivered a “One Night Stand against Health Disparities,” an evening health fair to target health concerns they identified as high priorities for teens. They identified and invited health and lifestyle experts, designed T-shirts and flyers, performed skits, and selected the venue and food for the event.

We focus here on the specific methodology that provided opportunities for intersection between the pipeline and CHA programs via the RHDS. The use of CBPR strategies—specifically including focus groups, note-taking and analysis, and roundtable discussions—proved to be most effective in bringing together the adult and youth participants to set priorities for maximizing health information dissemination. The RHDS has created a supportive environment for health advocacy that is age appropriate, culturally sensitive, and highly operative.

Intergenerational Power Through RHDS

The purpose of the RHDS is to bring community members together with researchers and clinicians to engage in proactive learning, discussion, and action planning toward eliminating health disparities. The RHDS is a collaborative effort between the Community Engagement and Research Cores of the CHC. True to the CBPR paradigm, RHDS has developed over time to encompass voices from all ages. Figure 1 presents a timeline of the RHDS evolution. Center of Excellence funding supported an annual RHDS. We launched RHDS in 2005 and through 2007 continued with a traditional conference format in which expert panelists reported research insights on health disparities and community engagement strategies with little to no feedback from attendees. In 2008, RHDS changed format to flexible, community-led discussions. A focus on community involvement became the underlying platform for future RHDS as an equally inclusive environment for researchers, scholars, and community members. Consequently, 2008 marked the first RHDS in which outreach extended to YCHAs, resulting in a more informed, dynamic and intergenerational discussion.

In 2009, reflections from RHDS fostered new community-based training efforts for a joint “workforce” of CHAs and YCHAs. This was ensured by encouraging mutual attendance at training events and workshops and a shared online

Figure 1. Milestones in Evolution of RHDS

curriculum for both adult and youth CHAs. A mini-grant program was also launched to empower adult CHAs to develop unique health information dissemination activities for their communities.

The 2010 RHDS became even more interactive with breakout sessions for community input and a follow-up workshop where community leaders set priority areas for community health education. The Teen Summit (youth-led conversations for adult action plans) grew out of a priority to incorporate specific youth interests into future discussions. The Teen Summit extended YCHA recruitment beyond *STARS AND STRIPES* to magnet school students. In the following years (2011–2014), the research cores and CECs of the CHC joined forces to sponsor alternating conferences to highlight achievements of faculty and community partners in fighting health disparities. These years focused on acknowledgement of community-based efforts, reflection and planning for the next large-scale RHDS.

RHDS 2015, arguably the most productive symposium, witnessed extensive participation by CHAs, YCHAs, and at-large community members, along with university faculty researchers. Again, focus was given to community priorities, and all participants wrote suggestions for action plans to convert priorities into community action. The most notable

exchange of health communication between adult and youth CHAs occurred at the 2015 RHDS. YCHAs suggested action plans to bolster family health, health literacy, mental health, and nutrition in their communities. Action plans became community action when CHA-led projects were implemented in 2016 and 2017 (Figure 1).

RESULTS

A Multigenerational CBPR Model: Benefits of RHDS

The RHDS evolved over time, largely due to increased participation of YCHAs. One community participant remarked that having youth involved in RHDS breakout groups “changed the room.” Youth brought fresh perspectives on community issues. What began as a health education symposium with expert panelists and a largely academic audience became a richly shared experience with youth and adults, community members and university researchers.

CHA-Led Projects. The CHA-led projects responded to the priorities set at the 2015 RHDS. The participation requirements were as follows: CHA in leadership role; specific language describing how the project addressed one of the RHDS priorities and action plans; partnership with a university researcher, if appropriate to project goals; and a plan for evaluating the

project's progress. During two rounds of competitions for CHA-led project awards, eight projects have been funded. YCHAs have participated in various CHA-led projects, most frequently as volunteers at project-related community events. All funded projects have demonstrated benefits to multiple generations in the target communities. Examples of funded CHA-led projects include nutrition-focused projects and multifocused projects.

Nutrition-Focused Projects. Two CHAs submitted projects to address the priority area of nutrition: (1) Community gardening project to build healthy, vibrant, safe communities, and to increase and enhance home based community centered gardening in urban communities, and (2) a container gardening project for people living on low fixed incomes, in blighted food areas, and the land poor, to demonstrate how food is nutrient rich, and can prevent some chronic diseases.

Multifocused Projects. Some CHA-led projects focused on multiple community priority areas, as this one that addressed all four issues—health literacy, nutrition, family health, and mental health—through education at a 5-day summer day camp in low-income communities.

Replicability and Feasibility

The format of the annual RHDS is certainly replicable, even with low resources. The key to our success has been in providing an environment that encourages all ages to speak openly with equal empowerment for their suggestions to be heard and implemented. The CHA/YCHA and *STARS AND STRIPES* programs require considerably more resources. These programs would have been difficult to achieve without grant funding.

LESSONS LEARNED

The intergenerational model could be replicated in any setting where adult CHAs and an academic pipeline exist. The challenge is funding the basic programs. Other challenges are finding compatible schedules for CHAs/YCHAs, combating age segregation and age stereotypes, and discovering innovative ways to sustain the programs when funding ends. We have found different motivation among CHAs and YCHAs. The CHAs demonstrate more group cohesion and commitment over time, whereas YCHAs respond to incentives and

opportunities that they can link directly to future employment or academic success. As our grant funding draws to a close, we have found some interest for sustaining the CHA program among churches, community housing authorities, and other community-based organizations, and even within the College of Medicine's outreach initiatives. The pipeline programs require substantial funding commitment, likely beyond what community-based organizations can afford. We are currently looking at opportunities for external grants or internal funding as part of the College of Medicine minority recruitment initiative. To date, 108 participants in the pipeline programs have graduated from high school. Of those, 95 students have enrolled in universities. This represents an overall success rate of 88% for enrollment in university-level programs, which far exceeds the college readiness data reported by their schools. College readiness for the schools that participate in the pipeline program is calculated by the College Readiness Index, which takes into account student exposure to and pass rates for advanced placement courses. Although graduation rates were greater than 81% for all participating schools, College Readiness Index scores for all of our target schools were less than 25%.

LIMITATIONS AND OPPORTUNITIES IDENTIFIED

This article has focused on the intersection of the CHA and YCHA programs through the vehicle of the RHDS. Reporting specific evaluation methods and findings for the individual programs was beyond the scope of this manuscript. We have reported some success data, specifically related to the pipeline completion rates and college entry, the retention of CHAs, and the long-term success of CU partnerships. We have also identified innovative intergenerational strategies. The cost of the pipeline program was one limitation. We discovered early on that we needed to pay students to attend and instructors to teach; otherwise, summer job opportunities would present major competition. This reality limited the number of participants. CHA were supported with materials but never received stipends. Some recruiting limitation resulted for the CHA program, as we were more successful recruiting retirees or individuals with flexible employment. Differences in schedules of adults and high schoolers created limitations on the intergenerational initiatives. We were successful in

finding opportunities for intergenerational mentoring when we focused on activities of mutual interest where youth and older CHAs could agree on priorities for the health problem, strategy, and outcome. The RHDS encouraged the multigenerational group to voice issues and create action plans.

DISCUSSION

Education pipeline models described elsewhere in the literature rarely report the use of health advocacy as a training mechanism to prepare minority high school students for the health professions.^{18,20} While the health workforce is now considered more diverse than the overall U.S. population²¹ and there is a consensus that diversification of health professionals is an effective strategy for combating health disparities,^{20,21} little attention is given to the importance of arming future health professionals with CBPR approaches at an early age.^{13,20} Furthermore, there are several research implications for providing a platform for adult and youth advocates to discuss community problems side by side. Intergenerational approaches to health have the capacity to change perspectives on disparities for youth and adults, including stereotypes about age in general, health behavior, and cultural ideologies.²² Future research directions may also include the effect of such an approach on retention of health advocates and on the longevity of youth participants in professional health programs and beyond.

CONCLUSIONS

The evolution of our multigenerational approach to health education and equity delineates the input of community members, leaders, and academic researchers. Community voices continue to drive our priority focal points and action plans. Although we have faced a number of challenges in our decision to branch these programs, the benefits for community involvement and empowerment have been numerous. With health disparities largely divided along lines of educational attainment and race/ethnicity, the high graduation rates from our program are a strong source of motivation and self-efficacy for our youth and adult CHAs and for a continued CU partnership. We argue that, when possible, all CHA efforts should include participation from underserved youth, thereby opening a dialogue that will better inform community health education, training, and policy today and in the future.

ACKNOWLEDGMENTS

Research reported in this publication was supported by the National Institute on Minority Health and Health Disparities of the National Institutes of Health under Award Number P20MD002314. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

REFERENCES

1. Arrieta M, White HL, Crook ED. Using zip code-level mortality data as a local health status indicator in Mobile, Alabama. *Am J Med Sci*. 2008;335:271.
2. Tandon SD, Phillips K, Bordeaux BC, Bone L, Brown PB, et al. A vision for progress in community health partnerships. *Prog Community Health Partnersh*. 2007;1:11–30.
3. State Summaries Alabama. 2015 Annual Report. America's Health Rankings [cited 2017 Jun 14]. Available from: www.americashealthrankings.org/learn/reports/2015-annual-report/state-summaries-alabama
4. SHARE Southwest Alabama. Indicators: Disparities dashboard [cited 2017 Jun 8]. Available from: www.shareswal.org/index.php?module=indicators&controller=index&action=dashboard&id=83017070141198395&card=0&localeId=102
5. Office of Disease Prevention and Health Promotion (ODPHP). Health-related quality of life & well-being. Healthy people 2020 [cited 2017 Jun 14]. Available from: www.healthypeople.gov/2020/topics-objectives/topic/health-related-quality-of-life-well-being/objectives.
6. Department of Public Health, Centers for Disease Control and Prevention. 500 Cities Project: Local data for better health: Interactive map [cited 2017 Jun 27]. Available from: https://nccd.cdc.gov/500_Cities/rdPage.aspx?rdReport=DPH_500_Cities.InteractiveMap&islCategories=HLTHOUT&islMeasures=ARTHRITIS&islStates=01&rdRnd=221
7. Corbie-Smith G, Thomas SB, Williams MV, Moody-Ayers S. Attitudes and beliefs of African Americans toward participation in medical research. *J Gen Intern Med*. 1999;14:537–46.
8. Berkman LF. The health divide. *Contexts*. 2004;3:38–43.
9. Bryan V, Brye W, Hudson K, Dubose L, Hansberry S, Arrieta M. Investigating health disparities through community-based participatory research: Lessons Learned from a process evaluation. *Soc Work Public Health*. 2014;29:318–34.
10. Schnittker J. Education and the changing shape of the income gradient in health. *J Health Soc Behav*. 2004;45:286–305.
11. Olshansky SJ, Antonucci T, Berkman L, Binstock RH, Boersch-Supan A, Cacioppo JT, et al. Differences in life expectancy due to race and educational differences are widening, and many may not catch up. *Health Aff*. 2012;31:1803–13.
12. Beckles GL, Truman BI, Centers for Disease Control and Prevention (CDC). Education and income—United States, 2009 and 2011. *MMWR Suppl*. 2013;62:9–19.2.

13. Black IE. Health promoting school: Concept analysis. *Spaces & Flows: An International Journal of Urban & Extra Urban Studies*. 2014;4:27–36.
14. Scarinci IC, Moore A, Wynn-Wallace T, Cherrington A, Fouad M, Li Y. A community-based, culturally relevant intervention to promote healthy eating and physical activity among middle-aged African American women in rural Alabama: Findings from a group randomized controlled trial. *Prev Med*. 2014;69:13–20.
15. Yeary KHK, Cornell CE, Prewitt E, Bursac Z, Tilford JM, Turner J, et al. The WORD (wholeness, oneness, righteousness, deliverance): Design of a randomized controlled trial testing the effectiveness of an evidence-based weight loss and maintenance intervention translated for a faith-based, rural, African American population using a community-based participatory approach. *Contemp Clin Trials*. 2015;40:63–73.
16. Story L, Hinton A, Wyatt SB. The role of community health advisors in community-based participatory research. *Nurs Ethics*. 2010;17:117–26.
17. Mobula LM, Okoye MT, Boulware LE, Carson KA, Marsteller JA, Cooper LA. Cultural competence and perceptions of community health workers' effectiveness for reducing health care disparities. *J Prim Care Community Health*. 2015;6:10–15.
18. US News Education. Mobile County District [cited 2017 Jun 29]. Available from: www.usnews.com/education/best-high-schools/alabama/districts/mobile-county-107265
19. University of South Alabama College of Medicine. Center for Healthy Communities- Community Engagement Core. Community health advocates- Forms & resources [cited 2017 Jun 29]. Online Study Series. Available from: www.usahealthsystem.com/Login-3990
20. Rashied-Henry K, Fraser-White M, Roberts CB, Wilson TE, Morgan R, Brown H, et al. Engaging minority high school students as health disparities interns: findings and policy implications of a summer youth pipeline program. *J Natl Med Assoc*. 2012;104:412–9.
21. Snyder CR, Stover B, Skillman SM, Frogner BK. Facilitating racial and ethnic diversity in the health workforce. University of Washington School of Medicine. Center for Health Workforce Studies [cited 2017 Jun 28]. Available from: depts.washington.edu/uwrhrc
22. Newman S, Ward CR, Smith TB, Wilson JO, McCrea JM. Intergenerational programs: Past, present, and future. Calhoun C, Kingson E, contributors. Washington (DC): Taylor & Francis; 1997.