



CHALLENGING MINDS, CHANGING LIVES

Building state, academic, and community partnerships to improve health outcomes for racial and ethnic minorities

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Abstract

In 2007, the Ohio Commission on Minority Health (OCMH) created the Local Offices of Minority Health in Ohio. At present there are six such offices functioning in Ohio: Akron, Cleveland, Columbus, Dayton, Toledo, and Youngstown. These offices have been charged with implementing the Core Competencies established by the National Association of State Offices of Minority Health. The present paper documents the results from the participatory evaluation of these six offices done in 2014 conducted by Research and Evaluation Enhancement Program (REEP) Panel of OCMH in the form of a case study. The evaluation was structured around the five competencies of: (1) monitoring and reporting the health status of minority populations; (2) informing, educating and empowering people; (3) mobilizing community partnerships and action; (4) developing policies and plans to support health efforts; and (5) sustaining efforts. In the area of monitoring and reporting the health status of minority populations, all offices prepared and disseminated several reports. In the area of informing, educating and empowering people, the offices organized several presentations and media events. In the area of mobilizing community partnerships and action, the offices expanded advisory committees and formed formal and informal partnerships. In the area of developing policies and plans to support health efforts, half of the offices have been successful in changing internal policies. Finally, in the area of sustenance of efforts, the offices were not very successful in obtaining external funds but made several efforts. These offices are a model for other states to replicate.

Key words: minorities, disparities, partnerships, participatory





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Introduction

Ethnic and racial health disparities are a global crisis. The prevalence of disparities has the strength to decimate entire communities. The Commission on Social Determinants of Health (2008) proposed to the world that health equity could be achieved within one generation of time. Though this is a lofty challenge, it does stress the need to take immediate and sustained action to improve the health destinies for people around the world.

The National Partnership for Action to End Health Disparities (NPAEHD) defines health disparity as "a particular type of health difference that is closely linked with social and economic disadvantage" (NPAEHD, 2011, p.3). Health disparities can transcend all ascriptions including gender, however, the focus on this particular work is ethnic and racial minorities as defined by the United States Census Bureau (Humes, Jones, & Ramirez, 2011): American Indian and Alaska Native; Asian; Black/ African American; Hispanic /Latino, Native Hawaiian and Other Pacific Islander and Some Other Race.

Though the health disparity dilemma has been researched by global, national, state and municipal entities for decades, racial and ethnic minorities continue to be disproportionately impacted by poor health outcomes. Despite comprehensive plans and strategies, health disparities continue to progressively persist for minority populations.

As a major factor in the trajectory of life, health is often the primary element indicating whether an individual is thriving or at risk. In general, health outcomes are determined by five determinants and a multitude of influencing factors. Most strategies to reduce and eliminate health disparities concentrate on positively aligning individual health determinants, along with community/population interventions. Table 1 below illustrates the health determinant categories and critical influencing factors.

Table 1

Health determinants and influencing factors

Health Determinant	Influencing Factors
Economic Stability	Poverty, Employment, Food Security Housing Stability
Education	High School Graduation, Enrollment in Higher Education, Language, and Literacy, Early Childhood Education and Development
Social and Community Context	Social Cohesion, Civic Participation, Perceptions of Discrimination, and Equity Incarceration/Institutionalization
Health and Health Care	Access to Health Care, Access to Primary Care, Health Literacy





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Neighborhood and Built Access to Healthy Foods, Quality of Housing, Crime and Violence, Environmental Conditions

Source: Healthy People 2020 (United States Department of Health & Human Services, 2010)





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When influencing factors are impacted by negative variables, the historical pattern of health disparities in the United States continues to define life expectancy for minorities and the nation's financial resources. In 2009, 23.9 billion was spent on conditions influenced by health disparity factors. If health disparities are not reduced and consequently spending curtailed, by 2018 the nation is projected to spend 337 billion (Russell, 2011).

In addition to an economic disaster, nothing is more illustrative than the loss of life as seen through diminished quality of life and expectancy because of health disparity influences. For example, a White infant born today is expected to live 79.5 years of age whereas an African American infant may live to 75 years of age. Life expectancy is an individual's ability to experience wellness over the course of life while navigating other mitigating life experiences critically impacts life expectancy (United States Census Bureau, 2012).

Garnering attention and action on a national level has not been easy. However, in 1985, Secretary of Health and Human Services, Margaret Heckler convened a task force to examine minority health concluding with a pivotal and poignant piece report of the Secretary's Task Force on Black and Minority Health. This 10 volume report revealed to the nation the burden of health disparities which inevitably impact minority mortality rates. At this juncture in the nation's history, the report did not focus on any policy agenda, however, emphasized improving education, research, data, and communications. As a result of this report, the Office on Minority Health was established (OMH). Later, the OMH created the National Partnership for Action to End Health Disparities plan and the Office of Minority Health Resource Center. These efforts have greatly furthered interest and action in the health disparity arena.

Eventually, as the issue of racial and ethnic disparities received substantive attention, minority health/health equity offices were established and exist in each state with an emphasis on improving each state's health. For the most part, the work of the offices is achieved through addressing the core competencies of monitoring health status; informing, educating, and empowering people; mobilizing community partnerships and action; and developing policies and plans to support health efforts.

As the issue of health disparities continued to plaque the nation, additional governmental entities were designed and tasked with examining health disparities, defining solutions, making recommendations and conducting strategies to relieve the nation of health disparities. In addition to the Office of Minority Health, the NIH National Institute on Minority Health and Health Disparities is another governmental division tasked with eliminating health disparities. The Federal Collaboration for Health, a 55 member group representing over 25 governmental partners was also established in 2006 as an interdisciplinary governmental partnership to address ethnic and racial disparities (Rashid et al., 2009).

Most recently in 2010, The Patient Protection and Affordable Care Act (ACA), P.L. 111-148, mandated the establishment of Offices of Minority Health (OMH) within six agencies of HHS: the Agency for Healthcare Research and Quality (AHRQ); the Centers for Disease Control and Prevention (CDC); the Centers for Medicare & Medicaid Services (CMS); the Food and Drug Administration (FDA); the Health Resources and Services Administration (HRSA); and the Substance Abuse and Mental Health Services Administration (SAMHSA) (National Partnership for Action, 2015).





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States continue to provide leadership with proposing legislation in an effort to combat health disparities in their perspective states. Interestingly, proposed bills to reduce and ultimately eliminate racial and ethnic disparities have mixed results. Here are some examples:

- **Ohio SB 131:** Requires certain health care professionals to complete instruction in cultural competency. Requires state boards to adopt rules that establish requirements around cultural competency. To Senate Committee on Medicaid, Health and Human Services.
- Connecticut SB 466: Concerns continuing education for physicians. Requires physicians earn at least one contact hour of training or education in cultural competency, among others, at least once every six years. Enacted. Public Act No. 13-217.
- California- AB 496: Amends existing law that creates the Task Force on Culturally and Linguistically Competent Physicians and Dentists. In Senate. Read second time. To third reading. National Conference of state legislators (2015).
- **Hawaii-SB 1140:** Establishes the infant mortality reduction advisory board; requires the department of health to develop and publish a statewide, comprehensive infant mortality reduction strategic plan, including strategies to address social determinants of health as they relate to infant mortality.

It is in this context that in 1987, the Ohio Commission on Minority Health (OCMH) was the first effort of its kind in the nation with the creation of a state agency focused on addressing the health disparities of Ohio's racial and ethnic populations. With the increasing growth State Offices of Minority Health, in 2005 the OCMH piloted the creation of the National Association of State Office of Minority Health – (NASOMH) to promote and protect the health of racial and ethnic minority communities, tribal organizations and nations, by preventing disease and injury and assuring optimal health and well-being. Having a national strategy established, in 2007 the OCMH moved to create an infrastructure and presence at the local level through the establishment of the Local Offices of Minority Health (LOMH) within urban areas in Ohio. These offices are located in Akron, Cleveland, Columbus, Dayton, Toledo and Youngstown. The purpose of this article is to discuss in the form of a case study, the local offices of minority health, and elaborate their accomplishments and partnerships collected through a participatory evaluation done in 2014.

Case study: Local Offices of Minority Health (LOMH) in Ohio

This initiative of having local offices of minority health in the State of Ohio became the first of its kind by a state agency in the nation. In an effort to develop a model for the nation, the OCMH spearheaded the creation of national performance standards and/or core competencies for Local Offices of Minority Health in collaboration with NASOMH. The four competencies of the local offices of minority health are as follows:

1. Monitor health status.

- Attentively monitor the vital statistics and health status of racial/ethnic minority communities disproportionately at higher risk than the total population for disease and injury.
- Assess and monitor health care workforce diversity.
- Identify existing structural and systemic barriers/threats to quality public health and health care delivery, receipt and utilization for racial/ethnic minority communities.
- Develop health status and service utilization database on/for racial/ethnic minority communities.





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- Regularly disseminate information on health status, access, utilization, costs and outcomes of healthcare for racial and ethnic communities.
- Publish fact sheets; use website for data, analysis, etc., link to pertinent documents developed by others)
- Gather, stimulate, coordinate, and analyze health status and then translate solutions through action via the remaining three competencies.

2. Inform, educate, and empower people about health issues.

- Enhance community awareness strategies to address the health and health related issues of racial/ethnic minorities.
- Ensure the development of culturally and linguistically appropriate health promotion/education, materials, messages, and social marketing campaigns for racial/ethnic minorities.
- Facilitate appropriate assessment and evaluation of health promotion/disease strategies tailored for racial/ethnic minority communities.

3. Mobilize community partnerships and action to identify and solve health problems.

- Engage racial/ethnic communities in planning, development, and evaluation of beneficial programming designed for the communities.
- Seek potential federal, state, local and private funding sources to support the development and implementation of relevant programs and services for minority communities.
- Provide training and ongoing technical assistance to ensure the fiscal, programmatic and administrative viability for minority and minority serving organizations to provide relevant services.
- Establish strategic and mutually beneficial alliances with public/private entities that further federal, state, local racial/ethnic minority communities, and nation's goals for good health.
- Facilitate the development of multi-cultural coalitions to adequately address the health of racial/ethnic communities.

4. Develop policies that support individual and community health efforts.

- Develop public health policies and practices that are culturally and linguistically appropriate based on on-going monitoring of health status and needs of racial/ethnic minority communities.
- Develop mechanisms by which public health program and service resources are allocated based on multiple data sources (quantitative and qualitative).
- Establish demonstrable strategies and measurable objectives (as a component of quality improvement) to ensure the health needs and perspectives of racial/ethnic minority communities are integrated into all domains of the public health and human service systems.

A fifth area has also been added that of work related to sustainability of the offices. In addition, each LOMH is required to develop an advisory council that is responsible for the administration of the LOMH activities. This council must have representation of the racial and ethnic populations that are the primary focus on the Ohio Commission on Minority Health: African American, Latino, Asian American Pacific Islander, and American Indian. The Advisory council must support efforts to achieve the four core competencies which were developed by the National Association of State Offices of Minority Health. Given the content and policy level focus of the core competencies, it is essential that the advisory council has representation from the systems which impact health.





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The Ohio Local Offices of Minority Health (LOMH), a program extension of the Ohio Commission on Minority Health, are dedicated to eliminating health disparities in minority communities through monitoring and reporting the health status of minority populations, informing, educating and empowering people, mobilizing community partnerships and actions, and developing policies and plans to support health efforts. In 2014 the Research and Evaluation Enhancement Program (REEP) Panel of Ohio Commission on Minority Health conducted a participatory evaluation of the offices. Here are the results of this evaluation.

Results of the participatory evaluation of LOMHs

Demographics

Local Offices of Minority Health served a total of 30,414 individuals during fiscal year 2013/14.Of those served, nearly two-thirds were females (62%) and 38% were males. This is shown in Table 2. The racial/ethnicity composition indicated the local offices served the intended target audience of minority populations, nearly three-fourths (72%) of individuals served represented minority populations. It is noteworthy, however, that the local offices served more people than those accounted for here. The 30,414 excludes those reached via other media (e.g. radio, T.V, website, literature distribution) for whom demographics could not be determined

Table 2

Distribution of people served by local offices of minority health in Ohio in 2013-14

		Number	Percent
Gender	Male	11,592	38%
	Female	18,822	62%
Race/Ethnicity	American Indian	817	3%
	Asian	1,584	5%
	Black/African American	13,729	46%
	Caucasian	8,426	28%
	Hispanic/Latino	5,337	18%
	Other	234	1%

Persons Served by Local Office

Table 3 shows the distribution of people served by each local office of minority health. The Columbus Office of Minority Health had been the most productive location in terms of number served. Of the 30,414 persons served by all the LOMH, 13,383 or 44% were served through the Columbus LOMH. The Youngstown office was next with over 7,000 individuals or 25%. The Akron office served over 5,000, while Dayton and Toledo served 5% or 1,500 each. The Cleveland office served the least number of people at 1,217. Reasons for the variations in number served vary, but may include staff turnover, and the quality of relationship between the local office and the health department within which the local office is housed.





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Table 3

Persons served at each local office of minority health

		Number	Percent
By Local Offices of Minority	Columbus	13,382	44%
	Youngstown	7,604	25%
Health	Akron	5,170	17%
	Dayton	1,521	5%
	Toledo	1,521	5%
	Cleveland	1,217	4%

Number Served by Competency Area

Table 4 depicts the number served in each of the five areas. Local offices reported serving the most people (16,999 or 55%) through information, education, and empowering of people or competency 2. Over 7,000 people were served under competency 1 through monitoring and reporting of the health status of minority populations; 4,261 individuals were served through community mobilization and partnership building, competency 3; 2,268 through policy development and plans to support health efforts, competency 4, and 216 through sustaining efforts.

Table 4

Distribution of number served by competency area

		Number	Percent
Core Competency	1.Monitor Health Status	7,158	23%
	2.Inform, Educate &		55%
	Empower 16,999		
	3. Mobilize Community		
	Partnerships & Actions	4,261	14%
	4.Develop Policies & Plans	2,268	7%
	5.Other- sustaining efforts	216	1%

1. Monitor health status

The six (6) Local Offices of Minority Health (LOMH) monitored and reported the health status of minority populations through collection, compilation, creation, and dissemination of reports. For example, during Fiscal Year 2014, LOMHs collected death data and compiled reports on the 5 leading causes of death for minority populations and related risk factors. In addition, reports were produced and disseminated on health issues affecting local minority populations. For example, the Akron office produced and shared a report titled, *Diabetes, Call to Action Volume II.* Multiple sources were used to generate these reports including Community





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Health Assessment data, State-wide data, U.S. Census data, Robert Wood Johnson Foundation, and other secondary data sources. The offices also utilized various forums to disseminate these reports including face-to-face presentations, websites, press releases, local media outlets, and minority-oriented publications. Through direct efforts, local offices report serving over 7,000 people in this competency area. This did not include publication readership or audiences reached via radio or television.

2. Inform, educate, empower

Local offices were proactive in fulfilling this goal by sponsoring community-based activities during which the community was educated about health disparities among minority groups. Similar to the first competency, face-to face presentations were also utilized to inform, educate, and empower individuals. For example, the Cleveland office conducted 9 presentations on the Affordable Care Act to community members and service provider groups. The Columbus office conducted 66 educational events to 1,729 community members and 162 community partners. They sponsored/organized 15 community-based events related to Minority Health Month and Somali Health Issues, and participated in 24 community-based events sponsored by partners. Similarly, electronic media outlets were used to increase awareness among the general public of minority health issues and services. Local offices provided brochures and flyers that outlined community-based services that could be accessed by minority populations. These materials were provided in both English and Spanish. Local offices also worked with providers of community-based services to improve outreach to minority populations and offered opportunities to learn about cultural competency. Going by the numbers served, it seems the greatest investment of time and effort were expended towards fulfilling this goal area. Nearly 17,000 were informed. educated, and empowered under this competency. It might also be due to the fact that it was easier to capture data from captive audiences such as when making presentations. Short surveys were also conducted to measure satisfaction and to gauge knowledge acquisition in the subject area. Overall satisfaction ratings were high. An increase in knowledge was also reported following educational presentations. Through presentations and literature, individuals were also empowered by increasing their awareness about available community services.

3. Mobilize community partnerships and actions

The goal of the 3rd competency was achieved primarily through the recruitment of individuals representing diverse community organizations to serve on the local offices' advisory boards. Partnerships were also established with community-based organizations through signing of formal Memorandum of Understanding. Through these efforts, local offices forged sustainable partnerships with academia, health care institutions, minority-serving organizations, and faith-based organizations. Local offices also provided capacity-building training or technical assistance to community-based organizations by offering services such as grant writing. The Columbus office, for example, assisted several community agencies identify their health service barriers among the Somali community in Columbus.

4. Develop policies and plans to support health efforts

Coordinators or directors of local offices were members of boards, participated in or led meetings/coalitions in which policy discussions related to minority health issues took place. For example, the director of the Akron office worked throughout the year with the Health Equity Now team to develop a health and wellness policy called "Health in All Policy" for Summit County. Once developed, the health charter will ensure healthy choices in all planning and decision making processes in the County. In support of passage of city/county resolutions and/or legislation in support of minority health, local offices also reviewed and shared existing policies, and presented to decision makers and other stakeholders. Dayton, Columbus, and Youngstown





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have been successful in impacting internal policy regarding the: framing of community assessments from a disparity lens, development of sub population assessments on Somali and Latino communities, and the regular reporting on Years of Productive Life Loss highlighting racial and ethnic minorities.

5. Sustainability

Directors of the local offices identified and recruited individuals to serve on resource/sustainability workgroups. The role of the workgroups is to assess need and determine the source and dollar amount needed to sustain the work. The Ohio Office on Minority Health provided grant writing training to directors of local offices in order to strengthen their grant seeking and writing skills to enable them to find other sources of funding. While not overall successful in attracting resources, a few offices were able to get additional funding in addition to the main funding from the Ohio Office on Minority Health. For example, the Akron office was awarded grant funding towards their efforts in addressing infant mortality. However, all the local offices have established sustainability workgroups who are proactively looking for ways to financially support the work of local offices.

Discussion: Strengths, weaknesses, opportunities and threats for Ohio LOMH's

From its onset, the OCMH was concerned with the issue of capacity building and sustainability of the LOMH's. Research on social determinants of long term health partnerships suggests that two areas of challenge to sustainability for these initiatives are maintaining good morale and generating perceptions of benefit to the community among partner organizations. One of the ways to foster these positive feelings and momentum was to work toward concrete achievements in early phases of the project so that partners could see a clear and immediate beneficial effect on the target community. For instance, the OCMH provided funding for specific training around capacity-building and sustainability sessions for LOMH directors. Some topics included trainings on coalition building, outcome evaluation, assessing needs, social justice, and grant writing, which provided them with tools for planning, implementing, sustaining, and enhancing their local partnerships.

The LOMH's also established advisory boards that were racially and ethnically reflective of the communities in which they served, and embarked on projects that reflected the needs of the community. This allowed them to link public health services with identified community needs, established community partnerships that built capacity and sustainability, and allowed them to enter racial and ethnic neighborhoods to address health disparities.

Also important was assessing the effectiveness of the LOMH's. To address this issue, OCMH provided specific funding for independent evaluators to objectively assess the LOMH's progress towards shared goals. Utilizing one rubric has allowed the OCMH to collect aggregate data to be collected and analyzed in a comprehensive manner, thereby establishing a more realistic Return on Investment (ROI) and impact of the LOMH offices in their local communities. For instance, LOMH were able to reach over 16,000 individuals in various communities through information, education, and empowerment so that they were able to ask about their health status and given referrals to expert resources.

Another strength of the OCMH endeavor was to geographically house the LOMH's in Public Health organizations. As we know, bringing change to systems is a major challenge. When the LOMH's were created, it was with the knowledge that they would succeed because they were a part of the daily functioning of public





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health organizations. This allowed for the intersectionality of their missions, which would ensure greater and more seamless collaborations. Conversely however, it has been a major weakness of the LOMH's. For instance, while the LOMH's are funded by the OCMH, the initial plan was to be absorbed fiscally by the organizations in which they were housed. Specifically, it was believed that they would be seen as adding value to the organizations in reaching hard-to-serve populations. The reality is that years later, only one of the six LOMH's is funded by public health. The other five LOMH's are still being supported by the OCMH, and have not been absorbed by the public health. This of course speaks to building capacity and sustainability. In fact, it is an investment in the community to engage in their long-term change.

This case study of the OCMH and LOMH provides a useful model on ways to engage community partnerships in community change. However, it is important to understand that successful partnerships are dependent on effective relationships. As with any vital relationship, the partnerships must be actively nurtured to recreate and maintain the synergy with which they began. Based on established relationships, the OCMH has done an effective job in ensuring that the LOMH continue to function through sustained funding. However, a significant threat remains to the sustainability of the LOMH's. For instance, if and when funding support is not provided to the LOMH by OCMH, will they be maintained? In an era of funding cuts due to budget shortfalls, the writing appears to be on the wall as it relates to reduced funding. As such, OCMH actively encourages the LOMH's to explore other funding streams in the event that they can no longer support the LOMH offices. Also, they encourage them to build sustainability within their organizations that will allow them to exist when funding decreases or goes away.

The OCMH embarked on a process to involve communities statewide in developing a roadmap to achieve health equity for racial and ethnic minorities. To this end, the LOMH's were established to engage and enact social determinants of health initiatives in their communities which were culturally relevant, feasible, and empowering. Despite challenges to build ongoing capacity and sustainability, there remain opportunities to grow for the LOMH's as well as promising evidence of the establishment of a strong foundation for continuation of community engagement beyond the life of the OCMH funding. Regular periodic monitoring of sustainability potential will continue to keep projects on track for becoming institutionalized. Future measurement of project outcomes will need to include assessment of the health effects of partnership activities. LOMH's currently describe their motivation for participating in this OCMH as a long term process of engagement to improve health in their communities. To maintain this motivation, they will need to see concrete results on health status changes in the priority areas that are being addressed and sustainable ways in which the OCMH and LOMH partnerships can build upon its current successes.

Conclusions

In this case study, we have presented the case of six local offices of minority health in Ohio, the first such effort in the nation. Based on the participatory evaluation shared in this case study, it can be said that these local offices are viable entities and provide useful service to the communities they serve. In the area of monitoring and reporting the health status of minority populations, all offices prepared and disseminated several reports that ranged from three to seventy three. In the area of informing, educating and empowering people, the offices organized several presentations and media events. In the area of mobilizing community partnerships and action, the offices expanded advisory committees and formed formal and informal partnerships. In the area of developing policies and plans to support health efforts, half of the offices have been successful in changing





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internal policies to drive an increased focus on health disparities within community wide assessments, sub population assessments and examining years of productive life loss. All offices undertook several process tasks with regard to policy work. Finally in the area of sustenance of efforts, the offices were not very successful in obtaining external funds but made several efforts. This model needs to be replicated in all states of the nation. The Ohio model is easily replicable and must be emulated in other states as well.

References

- Commission on Social Determinants of Health (CSDH) (2008). Closing the gap in a generation:

 Health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva: World Health Organization.
- Heckler, M. M. (1985). *Report of the Secretary's Task Force on black and minority health.* Washington, DC: United States Department of Health and Human Services.
- Humes, K., Jones, N., & Ramirez, R. (2011). Overview of race and Hispanic origin, 2010. Washington, D.C.: U.S. Dept. of Commerce, Economics and Statistics Administration, U.S. Census Bureau.
- National Partnership for Action. (2015). /Offices of Minority Health in HHS Agencies. Retrieved from http://minorityhealth.hhs.gov/npa/templates/browse.aspx?lvl=1&lvlid=35
- National Partnership for Action to End Health Disparities. (2011). National Partnership for Action: Toolkit for Community Action. Retrieved from http://minorityhealth.hhs.gov/npa/files/Plans/Toolkit/NPA Toolkit.pdf
- Rashid, J. R., Spengler, R. F., Wagner, R. M., Melanson, C., Skillen, E. L., Mays Jr., ... Long, J. A. (2009). Eliminating health disparities through transdisciplinary research, cross-agency collaboration, and public participation. *American Journal of Public Health*, 99(11) 1955-1961.
- Russell, L. M. (2011). *Reducing disparities in life expectancy: What factors matter?* A background paper prepared for the workshop on Reducing Disparities in Life Expectancy held by the Roundtable on the Promotion of Health Equity and the Elimination of Health Disparities of the Institute of Medicine. Retrieved from
 - http://www.iom.edu/~/media/Files/Activity%20Files/SelectPops/HealthDisparities/2011-FEB-24/Commissioned%20Paper%20by%20Lesley%20Russell.pdf
- United States Census Bureau. (2012) Statistical Abstract of the United States. Retrieved from https://www.census.gov/compendia/statab/2012edition.html
- United States Department of Health & Human Services. (2010). *Healthy People 2020*. Retrieved from https://www.healthypeople.gov/