

We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

6,900

Open access books available

186,000

International authors and editors

200M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com



Addressing the Under-Representation of African American Public Health Researchers: The Flint Youth Public Health Academy

Kent Key

Abstract

In order to meet the health needs of a culturally diverse population, the United States public health workforce must become ethnically diversified to provide culturally competent care. The underrepresentation of minority, specifically African American public health professionals may be a contributing factor to the high rates of preventable health disparities in the African American community. Studies have shown that racial/ethnic communities bear the highest disparities across multiple health outcomes. African Americans, when compared with European Americans, suffer the greatest rates of health disparities, thus providing the justification to increase minority public health professionals. In addition, studies suggest that minorities are more likely to seek medical and health services from individuals of the same ethnicity. This will assist in decreasing language and comprehension barriers and increase the cultural competence of the health providers who serve populations from their ethnic/cultural origin. This chapter will highlight a 2014 study designed to explore and identify motivators for African Americans to choose public health as a career. African American public health professionals and graduate students were engaged to discuss their career and educational trajectories and motivators for career choice. Using qualitative research methods, this study was guided by the following research question: what are the motivating factors to engage African Americans into careers in public health? The study was approved by the Walden University Institutional Review Board and was conducted in 2014. The results of this study have served as the blueprint for the creation of the Flint Public Health Youth Academy (FPHYA). Coincidentally the 2014 study was wrapping up at the genesis of the Flint Water Crisis (FWC). The FWC impacted residents of all ages in Flint. Specifically, the youth of Flint were exposed to lead (a neuro-toxin) and other contaminants through the water system which impacted them physically and cognitively. National media outlets disseminated headlines across the world that Flint youth would have behavioral (aggression) issues and struggle academically as a result of their exposure to lead. The FPHYA was designed to provide positive messages to and about Flint youth. It is an introduction to careers in public health, medicine, and research for Flint Youth. It creates a space for Flint youth to work through their lived experience of the FWC while learning the important role public health and research plays in recovering from an environmental public health

crisis. More importantly, it is a pathway to public health careers providing didactic sessions, local mentors and internships.

Keywords: Youth Engagement, Public Health Careers, Health Disparities, Career Pipeline, Public Health Workforce, African American

1. Introduction

In the United States (US) and in other parts of the world, people have been classified and identified by various factors. These factors include race, socio-economics, gender, sexual orientation, and religious belief to name a few. Once categorized, these groups of people are often compared with one another, and in many instances are treated differently causing disparities. In the US, these disparities have historically been supported by systems, structures and laws. Thus, racism, sexism and many other “isms” have manifested both overtly and covertly and have impacted generations of people. These systems, structures and laws have made it easier for some groups to excel, while at the same time, making it difficult for others. For example, even in 2019, men generally make more money than women who are doing the exact same job. African Americans and other people of color are accepted and graduate from college at lower rates than European Americans. African Americans make up some of the lowest percentages of medical doctors, public health professionals, researchers, dentists and nurses when compared to European Americans. Ironically, the health disparities rates of the African American community are the highest when compared to those of European Americans. The motivators for this project are racial and ethnic health disparities and the under-presentation of African American and other minority health professionals. In this chapter we will explore key challenges (barriers) for African Americans to pursue careers in public health, and motivators and strategies used to offset those challenges [1–10].

1.1 The problem

This chapter will focus on the Wicked Problem: the underrepresentation of African Americans and other minority public health professionals which contributes to health disparities in communities of color; and the negative impact the FWC has had on Flint youth.

African Americans are grossly underrepresented in public health, medicine and research disciplines [1–5]. A national panel of experts commissioned by the federal government posits that the underrepresentation of African Americans and other minority public health professionals contributes to health disparities in communities of color [2, 3]. Understanding the impact of cultural nuances, beliefs and norms, trust, historical experiences and communication methods play important roles in engaging marginalized minority communities, particularly in engaging them in seeking health care [2, 3, 5–10]. In addition, early exposure to careers is critical for career trajectory. Youth of color, specifically, African American youth typically are not exposed to these careers [11]. Furthermore, Flint youth were exposed to lead and other bacteria through their drinking water. Scientists have shared that Flint youth will have issues with cognitive and behavioral development due to exposure to poisoned water. News headlines stated that Flint youth would have behavioral and cognitive issues which could result in poor academic performance due to the exposure to lead and the effect that the neurotoxin has on the body. This could negatively impact pursuing post-secondary education [12].

The hypothesis and rationale for this study which served as the precursor to the FPHYA is lifted from the Sullivan Commission Report. This report entitled, *Missing Persons: Minorities in the Health Professions* provided an overview of diversity in the nation's healthcare workforce (<https://campaignforaction.org/wp-content/uploads/2016/04/SullivanReport-Diversity-in-Healthcare-Workforce1.pdf>). This commission was named after the former US Secretary of Health and Human Services, Dr. Louis Sullivan, and was composed of a cross-sector team of professionals who at the conclusion of their study proposed new approaches and a new model for making the health professions workforce more diverse to improve the overall health of our nation. One crucial recommendation from this report's conclusion is: in order to decrease health disparities in communities of color we must increase public health, medical and researchers from communities of color [2, 3].

1.2 Addressing the problem

In order to address racial and ethnic disparities a multifaceted approach must be enacted. Cross-sector collaboratives and policy changes must occur to institutionalize this effort. The 2014 study in Flint is one small contribution towards working to address health disparities. It was designed to identify motivators to engage African Americans in careers in public health. This is one step towards addressing the racial and ethnic health disparities plaguing the African American community. Furthermore, the results of this study (found in the next sections of this chapter) served as a guidance and precursor to inform the creation of a Flint youth empowerment program designed to engage Flint's (a majority African American city) youth into careers in public health. The FPHYA, will empower Flint youth to pursue careers in public health, medicine and research; serve as a catalyst for early career exposure, mentoring and role modeling for African American youth; and create a pathway to careers while addressing the underrepresentation of African American and other people of color in public health, medicine and research. The FPHYA utilizes the Flint Water Crisis as a real-life scenario to create an interest in public health and research. Finally, the FPHYA will engage African American and other minority youth in interactive didactic educational sessions, science-based exploratory projects, and research-based inquiry.

2. Methods

The methods used in this study included two critical phases: first those used to conduct the 2014 study, and second, those used to create the FPHYA. The 2014 study was conducted as part of Dr. Key's dissertation research prior to his participation in the Culture of Health Leadership Program. Out of this research arose recommendations, motivators and barriers for minorities, particularly African Americans, pursuing careers in public health and medicine. Data from this research was used to develop the curriculum for FPHYA, which was launched in the third year of the Culture of Health program.

2.1 Phase one: the 2014 study

The study was designed to explore and identify motivators and barriers for African Americans to choose public health as a career. African American public health professionals and graduate students, who had attained or were pursuing a Bachelors, Masters, DrPH or PhD degree in public health, were engaged to discuss their career and educational trajectories and motivators for career choice.

Qualitative methods were chosen for this study to gain a critical in-depth understanding of experiences shared by participants through extensive exploration [13, 14]. Grounded theory was used to complement the qualitative process. Grounded theory is derived from observational interviewing in which themes and codes are captured through dialog via interviews, focus groups and community dialogs. This method allowed for questions to be used that focus on how individuals experienced the process of career choice, while identifying motivators, barriers and other critical steps to the process. Focus groups were used to engage participants in dialog and to collect data for this study. The motivators discussed during the focus groups answered two key grounded theory questions: what was central to the process; and what influenced or caused the phenomenon to occur [15].

A sample size of 20 participants was used for this study. Creswell posits that a sample between 20 and 30 participants is appropriate to reach a point of saturation when developing a theory [14]. Three focus groups were conducted consisting of faculty, staff, and students from a local university in the state of Michigan; also faculty, staff, and interns of a local county health department also in Michigan. After receiving permission to recruit from the Dean and the County Health Officer, recruitment invitations were emailed electronically via listservs. The recruitment invitation clearly listed eligibility criteria and explained the purpose of the study. A follow-up email provided logistics for focus groups to all who replied to the recruitment invitation.

The research instrument (interview guide) was developed by the researcher for this study. Prior to use during focus groups, the research instrument was reviewed by two researchers, one an expert specializing in health disparity research, and the other an expert in qualitative research. The research instrument was used to conduct the focus group dialogs and was guided by the literature concerning career motivators. The questions in the interview guide covered a range of topic areas to identify motivators for career choice. The questions provided a platform for participants to answer freely and honestly without any leading prompts from the researcher. The interview guide covered four main domains: 1) participants' initial engagement into public health; 2) career trajectory experiences; 3) motivators to maintain trajectory; and 4) barriers encountered and methods used to overcome set barriers. The focus groups began with introductions, explaining focus group ground rules, reminding participants of their right to withdraw from the study at any time, and sharing that the focus groups would be digitally recorded, and all records would be kept confidential. A general demographic questionnaire was then distributed to ascertain the demographics of the sample (i.e. gender, age, employment status, educational status).

To ensure trustworthiness (credibility, transferability, and dependability) in this study, triangulation was used [14, 16–18]. Two digital audio recorders were used to record each focus group (Device A and Device B). Device A was used to generate transcripts. Once the transcripts were generated, Device B was used to verify the accuracy of the transcripts to ensure reliability/dependability and validity/credibility. The researcher also took notes during each focus group, recording words as well as any emphasis or change in tone as conveyed by participants. Once transcription was complete and themes were identified, they were shared with study participants to ensure that the message was captured and interpreted accurately and to identify any discrepant responses. The researcher also kept a journal to aid in self-reflection to address any possible past experiences, prejudices, and orientations of potential issues of bias and prejudice. This journaling process ensures credibility, reliability and objectivity [14, 16, 18]. Utilizing a purposeful sampling strategy along with a thick description of the phenomena in this study ensured transferability [16, 18, 19].

The interview data is presented using verbatim statements from study participants in the following five discussion topics: (a) introduction to public health, (b) public health as a career choice, (c) career motivators, (d) barriers to career

obtainment, and (e) African American students' exposure to public health careers. Discussion frequencies were tabulated by dividing the total number of responses per identified theme by the total number of responses per that discussion topic yielding the percentile reflected in the interview data.

2.2 Phase two: the FPHYA

As a Culture of Health Leader from the Robert Wood Johnson Foundation, health equity, interdisciplinary and cross-sector collaboration, and policy are critical components of the methodology used to establish the FPHYA. Beginning in 2017, two years were spent creating an interactive curriculum which includes didactic sessions, experiential learning, mentoring and role modeling experiences, community assessment activities, and youth ambassador policy training. This was completed with the guidance of a team of professionals which included: Community Based Organization (CBO) leaders, Faith-Based leaders, Academicians/Researchers, local Public Health Professionals, Public School Officials, local Water Crisis Activists, Policy Makers, Flint ReCast leaders, parents and most importantly youth. In 2019 we expanded our stakeholder collaborative to include two new partners, the City of Flint- Office of the Mayor and the YouthQuest program. The curriculum was tested and piloted at a local high school in the spring of 2019. The stakeholder team met and discussed process evaluation recommendations, implemented those recommended changes and two subsequent summer camps were conducted in the summer/early fall of 2019.

Moving forward, the youth from the FPHYA will connect to other national youth groups focused on community health and well-being. The FPHYA conducted community assessments and will submit for presentation at the 2020 American Public Health Association's (APHA) Community Based Public Health Caucus (CBPHC). The CBPHC has a youth department comprised of youth from across the country doing public health work in their city. The FPHYA youth participants will be encouraged to join this youth caucus to continue their journey of engagement into careers in public health.

3. Outcomes

The outcomes in this section will be discussed in two-phases: first the outcomes of the 2014 study which guided the development of the FPHYA; and second the outcomes of the first year of FPHYA programming.

3.1 Phase 1: the 2014 study

Across 3 focus groups, participants identified both motivators and barriers for African Americans pursuing a degree in public health. The demographic information was based on self-reported data (see **Table 1**). There were 20 participants total, 16 females and 4 males. The majority of participants were females affiliated with the university either as faculty, staff, or graduate students. For both women and men, degree levels were equally distributed among Master's and Doctoral degrees.

3.2 Discussion topic 1: introduction to public health

Two main questions were asked in this discussion topic: When were you introduced to public health? How did you become involved in public health? Seventy five

Participants Demographic Profile (N = 20)				
	Female		Male	
	N	%	N	%
	16	80	4	20
Organization type:				
Academia	14	70	2	10
Government	2	10	2	10
Other	0	0	0	0
Education level:				
Bachelor	2	10	0	0
Master	7	35	2	10
Doctoral	7	35	2	10

Table 1.
Demographic profile of participants.

percent of study participants reported they were introduced to public health during their undergraduate studies. Fifteen of the participants shared they were introduced to public health while in high school, while ten percent of participants were introduced to public health while in their graduate program.

Participants identified key events and activities that initiated their involvement into public health. Over half of the participants were introduced to public health through community projects. Others (15%) were introduced to public health via job/internship; yet another fifteen percent were introduced by taking a public health related course. Ten percent of the participants were introduced to public health through interaction with a public health professional. Finally, five percent of participants were introduced via career fair, and likewise, and the remaining five percent through a family member or parent.

3.3 Discussion topic 2: career choice

Discussion Topic 2, career choice was centered on the question: at what point did participants choose public health as their career choice? An overwhelming majority of participants (15 out of 20) chose a career in public health as a career choice during the end of their undergraduate school years.

3.4 Discussion topic 3: career motivators

Career motivators were the focus of discussion topic three. Participants shared their experiences along their educational and career trajectories while identifying key motivators that aided them in reaching their career choice and obtaining a degree in public health. The Facilitator began the discussion by asking participants if they experienced any educational or career motivators, what those motivators were and if any motivators were more significant than others. Noteworthy, many participants shared they experienced several motivators throughout their trajectory so motivators were not always experienced singularly.

The following motivators were identified by participants during the focus group discussions: helping others/helping the community, race/racial identity, mentor(s), social support, family/parental support, social justice/health disparities, lived sickness/injury and job/finances. Discussion frequencies were calculated by taking the

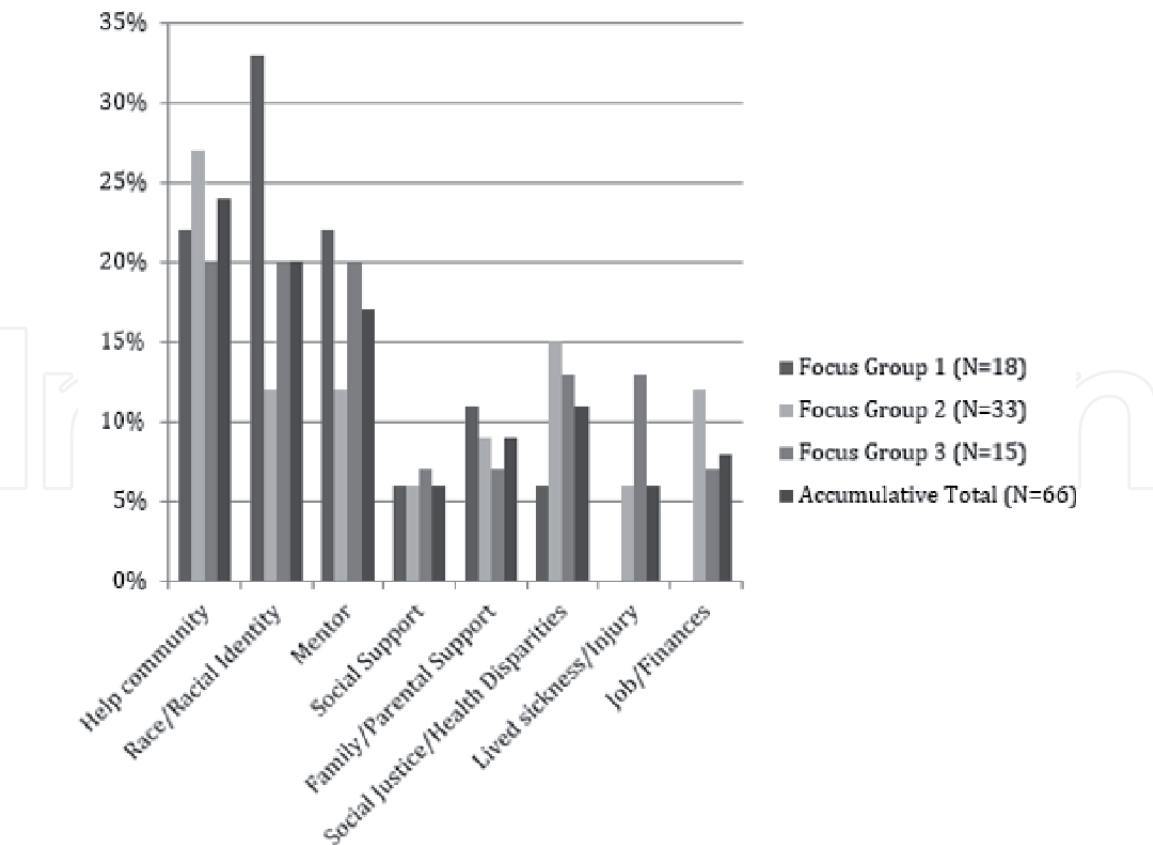


Figure 1.
Motivator frequency discussed.

number of responses per motivator/theme and dividing that number by the total number of responses for all motivators (See **Figure 1**). Representative quotes of participant motivations for their career choice are presented in **Table 2**.

3.5 Discussion topic 4: barriers

The focus of discussion topic four was the career barriers experienced by participants. Barriers that discouraged or negatively impacted success in achieving their career choice and obtaining a degree in public health were identified. This discussion began by asking participants if they experienced any barriers, what those barriers were and what helped them to overcome those barriers? Similarly to motivators, the participants shared that barriers were not always experienced singularly but at times may have been coupled with other barriers as they continued on their career trajectory.

The following barriers were identified by participants during the focus group discussions: first generational college ignorance, race/racism/stereotyping, lack of social support, lack of mentor(s), lack of networking, self-esteem/confidence, lack of family support, and job/finances. Discussion frequencies were calculated by taking the number of responses per identified barrier and dividing that number by the total number of responses for all barriers (See **Figure 2**).

3.6 Discussion topic 5: African American students exposure to public health careers

Discussion Topic 5 focused on African American students’ exposure to public health. This discussion explored how early should African American students be introduced to careers in public health and how should that introduction to public

Motivator Quotes	Barrier Quotes	Feedforward Model
<i>Race</i> <p>“Well, my motivation for public health was because I did not see anybody who looked like me. I was doing work in a field where primarily the people who were most impacted were African-American, but the people who were doing all the services and providing all the help were not African-American. So I did not think that they were – it was my opinion that some of the services or some of the things that were offered were not the most appropriate resources or means for folks of color.”</p>	<i>Funding and Faculty Support</i> <p>“So I went to speak with my first year advisor and we were talking about classes. “Oh that’s great. That’s good. I’m glad you are succeeding. You’re doing great.” And then as soon as the word funding came out of my mouth he said, “Well you know, grad school funding – you just have to go and find what you can.” Not once – And he was the head of the department – of my department. I’m like, “You are the top. Like at the top it’s just us. You’re supposed to be helping me out. I’m your – You were assigned to me.””</p>	<i>Forethought</i> <p>“In order for African American youth to consider public health as a profession, they must be exposed to it. We know this does not happen often in our community. We need afterschool programming, summer internships, and youth engaged research activities to create this interest so they will think about public health as they choose their college trajectories.”</p>
<i>Social Justice</i> <p>“So that was kind of my area as a undergrad in history, was looking at social movements. And many of the social movements that I looked at actually had health components. You know, so you can look at this later on and realize that. But at the time, I did not realize that. And when I was community organizing, the community organizing I saw as part of the social movements, but it was also the place and space in which people are. So the history of a place has an impact and implication for the health of that place. And so for me, it all kind of tied, and I probably did not know of tied, and I probably did not know it at the time, that that’s kind of where I was headed. So really talking a lot about place when I was community organizing, and empowerment, how communities organize, so community organization, and a lot of it was always tied to health issues.”</p>	<i>Racism/Prejudice</i> <p>“And – well, I went to a private school in Georgia, so – and there were about six of us in my particular public health program. So we had to be a unit if we wanted – we had to support each other. So I – and we – to this day, we talk about how there would be group assignments, and of course, we would gravitate towards each other, and do presentations in front of the class And there were a few times when we had to have meetings with our professor and the dean because it was clear that we were scored more harshly, or we – things were not fair. So there were – there were plenty of barriers, and I think that’s why we are so close to this day, because we all had to go through the same thing.”</p>	<i>Planning</i> <p>“Because I was exposed early to public health, I knew the type of classes in high school that I would need to pursue public health. I went to youth public health retreat, this happened one time in my city. It changed my life. From that time, I had a plan, volunteered at the health department while in high school and war on my way. I was one of the lucky ones.”</p>

Motivator Quotes	Barrier Quotes	Feedforward Model
<i>Parent/Family Support</i>	<i>First Generation College Ignorance</i>	<i>State of being proactive</i>
<p>“My dad’s always been a motivator for me. He’s an environmental health scientist and I’ve always grown up knowing that that was his field but it never occurred to me that that was public health until maybe a year ago. Just seeing the effect that he has – He’s always been – how can I put this? He’s never been like, “have to go into public health.” But I think he saw in me that I was interested so he constantly would put public health in front of me.”</p>	<p>“I did not know about public health, so I, you know, let us say I stumbled upon it. But just navigating things, you do not know what you do not know. And if you did not have someone, whether you are first generation, who kind of helped pave the path before you, it’s – it makes it difficult, or it takes you longer to get there, because you do not have that support or knowledge to help you get there.</p>	<p>“Once I understood while in undergrad that I wanted to be an epidemiologist, I applied for a scholarship to attend the American Public Health Association. My experience at APHA was a game changer. I met others across the country and networked with other students and presenters to prepare for my graduate application to the School of Public Health. Many of those contacts I met at APHA wrote me letters of support for my application for SPH.”</p>

Table 2.
Quotes: Motivators, barriers, feedforward model.

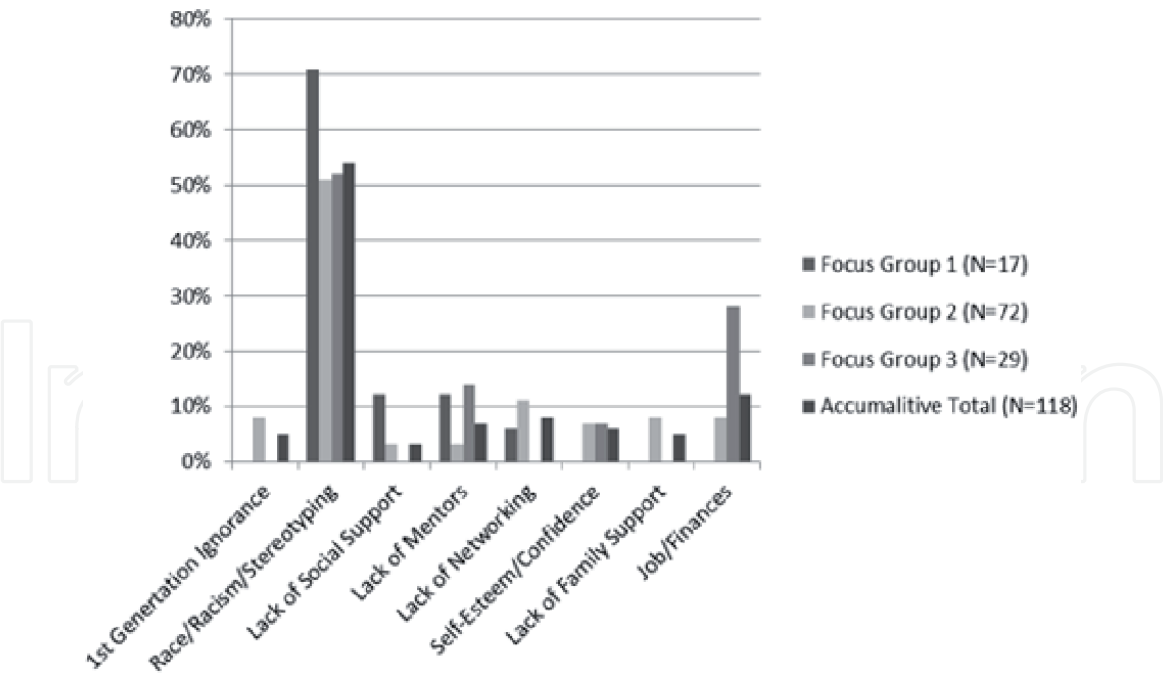


Figure 2.
Barrier frequency discussed.

health be packaged and presented to them. Over half of the participants (55%) felt that African American students should be introduced to public health careers while in elementary school. A strong thirty percent (30%) of participants felt African American students should learn about it in middle school. The remaining participants (15%) felt like high school years were the critical years when African American students should be exposed to public health careers.

As participants discussed critical issues regarding exposure and visibility, six recommendations were identified as effective ways to package and present public health to African American students. Those six recommendations were:

1. *Visibility through branding and marketing:* Develop marketing and branding campaigns to promote careers in public health to youth of color; promote representation of people of color in public health by highlighting individuals working in the field and the types of positions available.
2. *Caped warrior/celebrity approach:* Engage celebrities (music artists, actors, athletes, etc.) who are people of color to be public health ambassadors and use their platforms to bring national awareness to specific public health causes.
3. *Framing as social justice:* Recognize the intersectionality of public health issues and apply existing frameworks (social determinants of health, socio-ecological model) to address issues like racism systemically and advance health equity. The Community-Based Participatory Research approach, for example, seeks to improve the health of communities through a social justice lens.
4. *Role models/mentors:* Identify local public health professionals working in academia, government, or with local CBOs and connect them with youth through organized events like talks, webinars and workshops. Young people need to first know and see local mentors working in this space; these connections can then lead to opportunities for professional development and pathways to employment in public health.

5. *Packaging public health with behaviors*: Understand that public health is a science, but also involves observing and understanding people's behaviors. Mental health issues like trauma, depression and stress contribute to overall health and should be embedded in public health interventions.
6. *Summer employment with a public health focus*: Connect students with internships at public health organizations where they have the opportunities to make substantive contributions to public health research and projects in their communities.

3.7 Phase 2: the FPHYA

Two important outcomes have risen from the first two years of FPHYA programming. Approximately 70 youth participants were engaged in 2019. As a result, the YouthQuest program (who provides afterschool programming to the Flint Community Schools) has invited the FPHYA to partner with summer camp programming and to partner to provide afterschool programming during the 2019–2020 calendar school year to Flint Schools and some local area charter schools. In addition, the City of Flint and the ReCast program partnered with the FPHYA for an additional summer cohort. This cohort resulted in the creation of the new youth initiative, Youth Unlimited Productions (YUP) a program of the FPHYA, Flint ReCast and the Mayor's office and have submitted a grant application for \$120,000.00 to fund 2020 activities for YUP. Currently program assessments from program participants are being analyzed and data will be shared through future dissemination efforts.

4. Discussion

The 2014 study participants had a sophisticated understanding of the motivators to engage African American students into careers in public health. They identified motivators and recommendations that, if used in a feedforward model (explained below), would be promising for increasing the number of African American students in public health. Their comments related to motivators such as race/racial identity, role models/mentors, family support and social support were consistent with the literature regarding African Americans and career choice. Concerns around the common barriers that participants experience, such as: racism/prejudice, lack of social support, lack of family support, and the lack of mentors were also consistent with the literature regarding African Americans and career choice. **Table 2** shares quotes that speak to the motivators, barriers and Feedforward model lifted from the transcripts of the 2014 study.

The following section discusses the Feedforward model in Ref. to the 2014 study and finally in the context of the FPHYA.

4.1 Feedforward model and the 2014 study

The feedforward model served as the conceptual framework for the 2014 study. This model is a decision-making framework that is based on the feedforward concept. The feedforward concept utilizes knowledge and planning which produces action based on the knowledge acquired [20–22]. The premise of the feedforward model consists of three stages: (a) forethought, (b) planning, and (c) state of being proactive; in layman's terms, motivation leads to behaviors, and those behaviors lead to actions [11, 21]. The findings of this study can offer support for the three stages of this model. The eight motivators identified by participants in this study were fluid and could be found in one or all of the stages of the feedforward model.

The findings in this study suggest that forethought for career choice begins with the participants' introduction to public health and careers in public health. In this study, 75% of participants were introduced to public health while in undergraduate school; 15% were introduced to public health while in high school; and 10% were introduced to public health while in graduate school. Furthermore, study participants suggested that African American students should be introduced to public health and careers in public health in elementary school.

In the planning stages of the feedforward model, participants identified many planning activities that were initiated as a result of the forethought stage. The planning activities identified by participants in this discussion varied. Participants identified applying for graduate school as a result of their plans to pursue a degree in public health. Participants who were introduced to public health and public health careers while in high school were motivated to apply for undergraduate school and enroll in courses that would either result in a bachelor's degree in public health or to enroll in classes that would prepare them to pursue a master's degree in public health. In addition, participants attributed their ability to maintain their educational trajectory of obtaining a degree to many of the motivators identified in this study. Other participants attributed pursuing and applying for public health positions, jobs and promotions based on the motivators that they received in the forethought stage. Participants also attributed preparing for and taking the GRE test to get into graduate school based on the motivators and information they received in the forethought stage. Study participants shared their actions that resulted from the planning and the forethought stages as it related to choosing a career in public health. Participants took several courses of action in their experiences in the proactive stage. Study participants identified maintaining class enrollment and overcoming barriers to their educational attainment as proactive steps to secure their career. Taking classes to fulfill the course requirements, maintaining passing grades, securing employment in public health job positions, working in internship and fellowship programs, connecting with other African American students to form networks and group accountability were all cited as proactive steps taken by participants. Finally, accountability to their mentors and role models and following through on their advice and guidance proved to be key proactive steps as identified by several of the study participants.

4.2 The feedforward model and the FPHYA

As a result of the 2014 study. The FPHYA administration and stakeholder team wanted to ensure that all three phases of the feedforward model were incorporated in FPHYA programming. In the forethought stage: FPHYA participants (many of them for the first time) were introduced to the field of public health. Through active engagement activities, online games, real life case studies and the lived experience of the Flint Water Crisis, students were provoked to consider public health as a career and the impact that this career could have on them, their community and the nation. FPHYA participants were also exposed to local minority public health professionals who will serve as role models and mentors to guide them towards subjects to take in high school that will prepare them for a career in public health.

In the planning phase, FPHYA participants shared how they would like to be engaged. The FPHYA participants developed the Youth Unlimited Productions to merge and marry public health and health communication (messaging) with music, arts, and pop culture. In addition, participants are exploring what college courses and prerequisites are needed to complete a public health degree. Others are exploring how to connect other degree disciplines like social work, communications

and history and how to utilize those in a public health capacity to impact population health.

In the state of being proactive, FPHYA participants are actively seeking funding to support future programming and projects. FPHYA participants have created a set of policy recommendations based on their youth photo voice project to keep parks and other recreational spaces safe for youth. Their current focus is youth diabetes and obesity. They are engaged in creating a campaign to keep Flint City parks clean, efforts to provide summer jobs for Flint youth to monitor and clean the parks and an inventory of youth serving organizations in Flint who could benefit from the FPHYA's YUP.

5. Recommendations

Participants offered six recommendations to increase the number of African American students engaged in public health careers. Although study participants identified and shared the motivations that began their career trajectory in public health, what remains still is the lack of knowledge of public health among African Americans, little to no visibility of minority professionals in the field and relatively low enrollment of African American and other minority groups in Schools of Public Health across the country. Based on the data collected from focus group participants in this study, it is recommended that future researchers focus on the following: (a) visibility through branding and marketing, (b) utilizing a caped warrior/celebrity model, (c) framing public health with social justice, (d) the effectiveness of role models/mentors, (e) packaging public health with behaviors, and (f) creating summer employment centered around public health.

These six recommendations for future research may prove to be successful in recruiting African American and other minorities into public health. They can also inform workforce planners how to curtail effective strategies, create effective marketing strategies, and engage the interest of African American and other minority students at a young age in careers in public health. Furthermore, these recommendations could be implemented into current pipeline and recruitment programs for researchers and modified to be public health specific.

For *public health research*, these recommendations may inform future research initiatives. Implications for future research based on these recommendations could include measuring the effectiveness of public health marketing and branding initiatives. Using an ecological model to assess the effectiveness on personal, family, and community levels is most strongly recommended. As an example research project to test marketing and branding effectiveness: Implement a city-wide billboard campaign while concentrating on specific zip code areas to implement the socioecological tailored intervention and compare the results of the zip codes (with similar demographic and SES factors) between those with and those without the intervention.

More specifically for *public health practice*, creating opportunities for current African American public health professionals to be paired with students can create both role/modeling and mentoring relationships. Visibly exposing African American students to African American public health professionals may generate interest in the field, become the genesis of network development, and possibly provide the opportunity for internships and other employment opportunities. Another example of an intervention in public health practice includes designing and implementing programs that package public health with behaviors. Research projects, programs and interventions centered on connecting behaviors to health

outcomes could be implemented and testing this approach could be used to assess if the intervention was successful in reducing unhealthy behaviors and increasing health outcomes, while simultaneously introducing African Americans to public health and exposing them to the field.

5.1 Implementing the 2014 study recommendations

As a result of the 2014 study, the six recommendations were used to guide the development of the Flint Public Health Youth Academy (FPHYA) in Flint Michigan. The FPHYA will continue to draw from the recommendations of the study in the following three main domains: 1) Community Assessment, 2) Learning Academy, and 3) Advocacy and Policy. Flint youth will be equipped to share their perspective regarding the water crisis, exposed to careers and mentors in public health and medicine and empowered to advocate for policy change to prevent future possible public health and environmental health disasters in Flint.

In conclusion, there are many implications of the 2014 study highlighted in this chapter and the development of the FPHYA. Most importantly are the social changes as shared below.

5.1.1. Implications for social change

The results of this study identified key motivators that have proven to aid African Americans in securing a career in public health. The results also identified key barriers that negatively impact the progression of African Americans pursuing a career in public health. Participants generated a list of recommendations for presenting public health to African American youth to engage them early on and possibly pique their interest to pursue public health as a career. The anticipated social change as a result of this study is the awareness of the motivators that may effectively engage African American students into careers in public health, and the identified barriers to obtaining those careers. This study was designed to provide insight for addressing the underrepresentation of African American public health professionals, with broader implications for serving as a blueprint for designing pathways to careers for other ethnic minority groups, keeping in mind that each minority group may have variance in cultural norms and cultural values, yet, this study could serve as a blueprint for tailoring and adapting similar research, interventions and programs specific to that minority population. Secondly, this study may be used to address a larger effort to reduce/eliminate the negative impact of racial and ethnic health disparities and the preventable deaths and illnesses that these disparities cause yearly. Implications for social change will result from a greater understanding of the motivators to increase the number of African American public health professionals. The results of this study may lead to (a) establishing best practices in diversifying the public health workforce, (b) creating educational pipelines or pathways for African Americans and other minority students, and (c) the increase of African American public health professionals may play a critical role in the reduction of health disparities the negatively affect the social, economic, and physical health of the African American community.

Findings from this study can be incorporated into existing programs by adding the identified motivators as components into those programs to increase the chances for effectively recruiting African Americans into careers in public health positively impacting the current social trend of underrepresented African Americans in public health, thus creating social change. A broader social change implication, as supported by the Sullivan Report and other national reports, may also be experienced by increasing the number of African American students

introduced to public health and thus increasing the number of African American public health professionals. It is predicted that there will be a decrease in health disparities in African American communities after achieving a change in the make-up of the workforce to reflect the composition of those communities. This may also result in a decrease in the number of African Americans who die from preventable diseases as a result of health disparities.

6. Tool kit


- Additional resources:
 - a. Community Engagement Studio Flint: Flint Public Health Youth Academy Website

Author details

Kent Key
Division of Public Health, College of Human Medicine, Michigan State University,
Michigan, United States

*Address all correspondence to: kent.key@hc.msu.edu

IntechOpen

© 2021 The Author(s). Licensee IntechOpen. Distributed under the terms of the Creative Commons Attribution - NonCommercial 4.0 License (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits use, distribution and reproduction for non-commercial purposes, provided the original is properly cited. 

References

- [1] U.S. Census Bureau. U.S. Census News: Nation's population one third minority. 2012. Retrieved from: <http://www.census.gov/PressRelease/www/2012>
- [2] Sullivan LW, Mittman IS. The state of diversity in the health professions a century after Flexner. *Academic Medicine*. 2010;85(2):246-252.
- [3] Sullivan Commission. Missing person: Minorities in the health professions: A report of the Sullivan Commission on diversity in the healthcare workforce. 2004. Retrieved from: <http://www.aacn.nche.edu/media/pdf/sullivanreport.pdf>.
- [4] Mitchell DA, Lassiter SL. Addressing health care disparities and increasing workforce diversity: The next step for the dental, medical, and public health professions. *American Journal of Public Health*. 2006; 96(12):2093-2097.
- [5] Annang L, Richter DL, Fletcher FE, Weis MA, Fernandes PR, Clary LA. Diversifying the academic public health workforce: strategies to extend the discourse about limited racial and ethnic diversity in the public health academy. *Association of Black Nursing Faculty Journal*. 2010; 21(2):39-43.
- [6] Calender A. Recruiting underrepresented minorities to chiropractic colleges. *Journal of Chiropractic Education*. 2006;20(2): 123-127.
- [7] Gabard, DL. Increasing minority representation in the health professions. *Journal of Allied Health*. 2007;36(3):165-175.
- [8] U.S. Department of Health and Human Services (USDHHS), Bureau of Health Professions. (2009, April). *Evaluating Programs to Recruit Minorities into Health Professions*. Retrieved from <http://www.bhpr.hrsa.gov/healthworkforce/.../EvalHealthCareerCollegeEnrichmentProgApril2009.pdf>.
- [9] Grumbach K, Mendoza R. Disparities in human resources: Addressing the lack of diversity in the health professions. *Health Affairs*. 2008;27(2):413-422.
- [10] Smith SG, Nsiah-Kumi PA, Jones PR, Pamies RJ. Pipeline programs in the health professions, Part 1: Preserving diversity and reducing health disparities. *Journal of the National Medical Association*. 2009;101(9):836-847.
- [11] Gibbons MM, Shoffner MF. Prospective first-generation college students: meeting their needs through social cognitive career theory. *Professional school counseling*. 2004;8(1):91-97.
- [12] Hanna-Attisha M, LaChance J, Sadler RC, Champney Schnepf A. Elevated blood lead levels in children associated with the Flint drinking water crisis: a spatial analysis of risk and public health response. *American Journal of Public Health*. 2016;106:283-290.
- [13] Polkinghorne, D. Language and meaning: Data collection and qualitative research. *Journal of Counseling Psychology*. 2005;52(2):137-145. DOI:10.1037/0022-0617.52.2.137
- [14] Creswell JW. eds. *Qualitative inquiry & research design: Choosing among five approaches*. 2nd ed. Thousand Oaks, CA: Sage; 2007.
- [15] Creswell JW. eds. *Research design: Qualitative, quantitative, and mixed methods approaches*. 3rd ed. Thousand Oaks, CA: Sage; 2009.
- [16] Lincoln YS, Guba EG. *Naturalistic Inquiry*. London, England: Sage; 1985

[17] Guba EG, Lincoln YS. Fourth Generation Evaluation. London, England: Sage; 1989

[18] Shenton AK. Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*. 2004;22:63-75.

[19] Tuckett AG. Part II. Rigour in qualitative research: complexities and solutions. *Nurse Researcher*. 2005;13(1): 29-42.

[20] Agarwal R, Umphress D. A flexible model for simulation of software development process. *Proceedings of the 48th Annual Southeast Regional Conference*. 2010;40:204-218.

[21] Basso D, Belardinelli MO. The role of the feedforward paradigm in cognitive psychology. *Cognitive Process*. 2006;7:73-88.

[22] Capelo C, Dias JF. A feedback learning and mental models perspective on strategic decision making. *Education Technology Research Development*. 2009;57(5), 629-644.