Health-Needs Assessment for West African Immigrants in Greater Providence, RI
AKOSUA BOADIWAA ADU-BOAHENE, MPH; MICHAEL BARTON LAWS, PhD, MA; KWAME DAPA AH-AFRIYIE, MD, MBA

ABSTRACT
African immigrants in the United States may experience barriers to health-care access and effectiveness. This mixed-methods study used paper-based surveys of people (N=101) in the target population from Nigeria, Ghana, and Liberia, recruited through convenience and snowball sampling. Semi-structured interviews were conducted with 3 clergy members who pastor churches with large Nigerian, Ghanian, and Liberian populations, respectively, and five physicians and a clinical pharmacist who serve African immigrants.

RESULTS: Length of stay in the United States was associated with the health status of refugee children. Undocumented immigration status was associated with lack of health insurance. Cardiovascular diseases, uterine fibroids and stress-related disorders were the most prevalent reported conditions. Regardless of English fluency, many immigrants are unfamiliar with medical terminology.

CONCLUSION: African immigrants in the state of Rhode Island need more health education and resources to navigate the US health-care system.

KEYWORDS: African immigrants, refugees, cultural competency, cardiovascular diseases, health insurance

INTRODUCTION
There are approximately 42 million immigrants in the United States, of whom about 1.5 million are estimated to come from Sub-Saharan Africa (SSA).1 There is limited information on the health status and demographics of African immigrants in the United States and in Rhode Island.2,3 They are often included with the African-American population.4,5 Much of the literature has focused on issues related to infectious diseases such as HIV and tuberculosis.5

Though African immigrants are reportedly healthier than their African-American counterparts, their health status tends to approach that of the latter with longer duration in America, due to lifestyle changes.5,6 Health reforms in America have often had limited benefits for immigrants, in general,7,8 and particularly, the undocumented.9

Immigrants are generally prone to psychological health problems due to both pre-migration risk factors such as previous traumatic experiences and post-migration factors such as culture shock, and low socioeconomic status.10 Refugees, however, have a much higher risk of mental health issues during their resettlement due to their past experience,11 and, compared to the general public, they show an elevated risk of psychological ill health.12 However, we know little about the mental health of African immigrants. It has also been reported that, although African immigrants were not as obese as their African American counterparts, they had worse blood glucose levels and were more hypertensive.13 Immigrants have often been observed to be healthier than their socioeconomic status would predict, a phenomenon dubbed the healthy immigrant effect.14,15 This effect has been attributed to relatively healthier lifestyles of recent immigrants before migration, among other reasons.16,17

Based on what little is known, it seemed likely that the health of African immigrants in Rhode Island is related to their duration of stay in the United States. We also expected that they face barriers to health-care access in the United States related to immigration status and socio-economic status. Results from this needs assessment are intended to inform public health initiatives for African immigrants in Rhode Island and in the United States more broadly. There are an estimated 13,100 immigrants from sub-Saharan Africa in Providence County. While immigrants come from all African countries, there is a substantial population in Providence County from the Anglophone countries of West Africa. Indeed, immigrants from Ghana, Liberia and Nigeria comprise 31% of all immigrants from sub-Saharan Africa to the U.S.1 This work focuses on that sub-population.

METHODS
From August 2015 to February 2016, the first author conducted a paper-based survey of people in the study population, and semi-structured interviews with key informants. For the sake of practicality, this mixed-methods approach involved convenience and snowball sampling where research participants assist in recruiting other research participants from their acquaintances. This study was approved by the Brown University Institutional Review Board.

Quantitative
The target populations are predominantly Christian and attend churches which largely serve immigrants from their specific countries. Consequently, churches in Pawtucket...
were principal sites of recruitment. *(Table 1).*

The survey tool included questions about respondents’ background and country of origin, their health status before and after immigrating to the United States, how they obtained preventive care, their healthcare experiences with their personal doctors and their demographic information, including immigration status. Survey participants were offered an incentive of $3.00 for participation.

For statistical analysis, the unweighted frequencies of the exposure variable or race were presented. For each demographic or confounding variable, bivariate analysis was used to examine covariates by race and the unweighted frequencies and weighted column percentages were also presented. All statistical analyses were performed by STATA (StataCorp. 2013 [Stata Statistical Software: Release 13. College Station, TX: StataCorp LP]). Linear regression was employed in the analyses in order to test the possible association between the variables while controlling for other variables and potential confounders.

**Qualitative**

In semi-structured interviews, clergy provided information about the demographics, diseases and other health information of their congregation. We recruited five physicians through networking, including an infectious disease specialist, an obstetrician and gynecologist, a pediatrician, a family medicine specialist, a trauma surgeon, and a clinical pharmacist, who gave information about challenges faced by their African immigrant patients in accessing health care, and their typical health issues.

### QUANTITATIVE RESULTS

The total number of completed surveys filled was N=101. The response rate was 85.60%. Seventeen refused to participate due to privacy concerns and fear of stigmatization, particularly for the undocumented. The proportion of the West African immigrant population which is undocumented may therefore be higher than is reflected in the sample. Seven respondents were from other African countries not targeted in this study. The sample for analyses based on country of origin was n=94, but we retained the full sample for some descriptive purposes. All were fluent in English.

Table 1 shows the distribution of country of origin and health insurance status with demographic and socio-economic information. The population on the whole is relatively young, and well educated. Overall, 77% reported having health insurance. Nigerians respondents were the least likely to be insured [63%].

About half of Ghanaians and Nigerians said their principal reason for coming to the U.S. was for better education; however Liberians were more likely to have come for other reasons, including seeking asylum, and to join family. (Liberia endured a civil war ending in 2003.)

Table 2 shows the distribution of reported present chronic diseases. High blood pressure and joint/back pain were the most reported diseases with percentages of 12% and 13% respectively.

Adjusting for education, Nigerians had 0.15 the odds of having health insurance compared to Ghanaians and Liberians had 0.81 the odds of having health insurance compared to Ghanaians. Although most respondents did have health insurance, many reported not receiving standard preventive care. Of those with insurance, 69% reported having had their blood pressure checked in the last year. Forty-nine

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**Table 1. Country, Health Insurance Status and Demographics N=101**

<table>
<thead>
<tr>
<th>Country</th>
<th>Ghana</th>
<th>Nigeria</th>
<th>Liberia</th>
<th>Total</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;2500</td>
<td>5 (17.86)</td>
<td>9 (10.53)</td>
<td>4 (4.10)</td>
<td>18 (28.13)</td>
<td>0.258</td>
</tr>
<tr>
<td>2500-4999</td>
<td>15 (53.57)</td>
<td>11 (12.31)</td>
<td>6 (6.00)</td>
<td>32 (50.00)</td>
<td></td>
</tr>
<tr>
<td>5000+</td>
<td>8 (28.57)</td>
<td>6 (23.08)</td>
<td>0 (0.00)</td>
<td>14 (21.88)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not graduate high sch.</td>
<td>2 (5.26)</td>
<td>0 (0.00)</td>
<td>0 (0.00)</td>
<td>2 (2.27)</td>
<td>0.01</td>
</tr>
<tr>
<td>Graduated high sch.</td>
<td>6 (15.79)</td>
<td>1 (3.33)</td>
<td>5 (25.00)</td>
<td>12 (13.64)</td>
<td></td>
</tr>
<tr>
<td>Attended college</td>
<td>10 (26.32)</td>
<td>6 (20.00)</td>
<td>10 (50.00)</td>
<td>26 (29.55)</td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>31 (86.11)</td>
<td>28 (93.33)</td>
<td>19 (90.48)</td>
<td>78 (89.66)</td>
<td>0.425</td>
</tr>
<tr>
<td>Monthly Income($)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;2500</td>
<td>5 (17.86)</td>
<td>5 (10.53)</td>
<td>4 (4.10)</td>
<td>14 (21.88)</td>
<td></td>
</tr>
<tr>
<td>2500-4999</td>
<td>15 (53.57)</td>
<td>11 (21.05)</td>
<td>6 (6.00)</td>
<td>32 (50.00)</td>
<td></td>
</tr>
<tr>
<td>5000+</td>
<td>8 (28.57)</td>
<td>8 (21.05)</td>
<td>0 (0.00)</td>
<td>16 (23.11)</td>
<td></td>
</tr>
<tr>
<td>Health Insurance Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.009</td>
</tr>
<tr>
<td>Insured</td>
<td>34 (85.00)</td>
<td>20 (62.50)</td>
<td>17 (77.27)</td>
<td>71 (75.53)</td>
<td></td>
</tr>
</tbody>
</table>
percent reported cholesterol screening, and 54% reported having had a dental exam. People without insurance had much lower rates of receiving preventive care, e.g., only 1 out of 30 respondents without insurance reported having had cholesterol screening or a dental exam. While 2/3 of respondents said their health status was better since coming to the U.S., half reported that their stress level was worse. Half of respondents reported having no chronic diseases. Joint or back pain was the most prevalent reported condition (13%) followed by high blood pressure (12%) and diabetes (10%).

**QUALITATIVE FINDINGS**

Clergy and the six healthcare providers broadly agreed on some key issues. Immigrants from West Africa tend to be unfamiliar with medical terminology and concepts. As one pastor said, “There are some terminologies which never crossed our vocabulary.” “*We didn’t hear about names like cholesterol until we came to this country.*” Physicians concurred. One stated that it may take several follow-up visits to make sure people adequately understand their health and health care and advised that physicians not assume people are knowingly non-adherent. Informants also concurred that African immigrants tend to be slow to seek health care and may present with relatively advanced problems. This was seen in part as a function of unfamiliarity with preventive care, and of concern about cost. However, physicians and clergy also perceived African immigrants as stoical, with a high threshold for pain. Physicians also felt that African immigrants are less engaged in their health care than non-immigrants, reluctant to ask questions or to be assertive about their needs.

Nevertheless, physicians interviewed perceived their African patients as generally healthier than their U.S. born counterparts. The pediatrician, however, said that anxiety and psychosomatic complaints are prevalent among the refugee families she sees. Both clergy and six healthcare providers agree that joint and back pain from working long hours are prevalent, which is consistent with the survey data. Also consistent with survey data, health-care providers perceived a high prevalence of obesity and cardiovascular risk.

Some physicians noted other issues of cultural competency, particularly the interpretation of American body language, and gender role norms. All three clergy interviewed mentioned that the power of faith had healed members of their congregation of cancer and other ailments. Nevertheless, they believed Western medicine is part of the Lord’s plan to heal. Said one, “*When somebody’s faith has not risen to the level of believing in spiritual healing, then limited access to the necessary health care, becomes a great concern.*”

**DISCUSSION**

This study is limited due to the relatively small convenience sample. It is encouraging, however, that the qualitative and quantitative data are consistent on points they both address. The findings support our belief in the importance of outreach to the African immigrant community to raise health literacy, encourage people to seek primary and preventive care, and to be more engaged and assertive in their interactions with health care providers.

**References**


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Disclaimer

The views expressed herein are those of the authors and do not necessarily reflect the views of the Brown University School of Public Health

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