

Improving the Heart Health of African Immigrants through Community-Engaged Research

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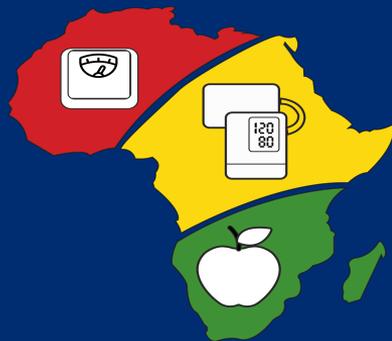
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Objectives

1. Describe current research on heart disease risk factors in African immigrant in the U.S.
2. Share lessons learned in engaging African immigrants in community engaged research.

My journey



Call to disaggregate on Blacks in the US

Review > [Ethn Dis.](#) 2015 Aug 7;25(3):373-80. doi: 10.18865/ed.25.3.373.

Cardiometabolic Health in African Immigrants to the United States: A Call to Re-examine Research on African-descent populations

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Affiliations + expand

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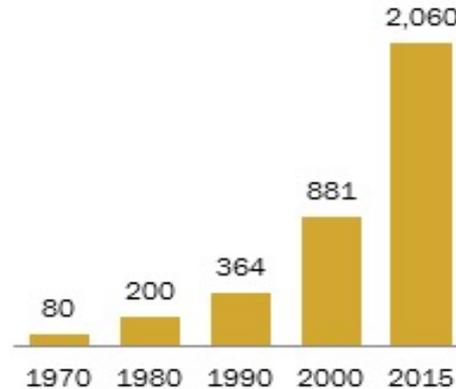
Abstract

In the 20th century, Africans in Sub-Saharan Africa had lower rates of cardiometabolic disease than Africans who migrated. However, in the 21st century, beyond infectious diseases, the triple epidemics of obesity, diabetes and hypertension have taken hold in Africa. Therefore, Africans are acquiring these chronic diseases at different rates and different intensity prior to migration. To ensure optimal care and health outcomes, the United States practice of grouping all African-descent populations into the "Black/African American" category without regard to country of origin masks socioeconomic and cultural differences and needs re-evaluation. Overall, research on African-descent populations would benefit from a shift from a racial to an ethnic perspective. To demonstrate the value of disaggregating data on African-descent populations, the epidemiologic transition, social, economic, and health characteristics of African immigrants are presented.

African Immigrant Population in the US

Immigration from Africa surges since 1970

Total U.S. foreign-born population from Africa, in thousands



Note: Africa includes North African and sub-Saharan African countries as defined by IPUMS.

Source: Pew Research Center analysis of the 2015 American Community Survey (1% IPUMS). Trend data based on U.S. Censuses 1970-2000.

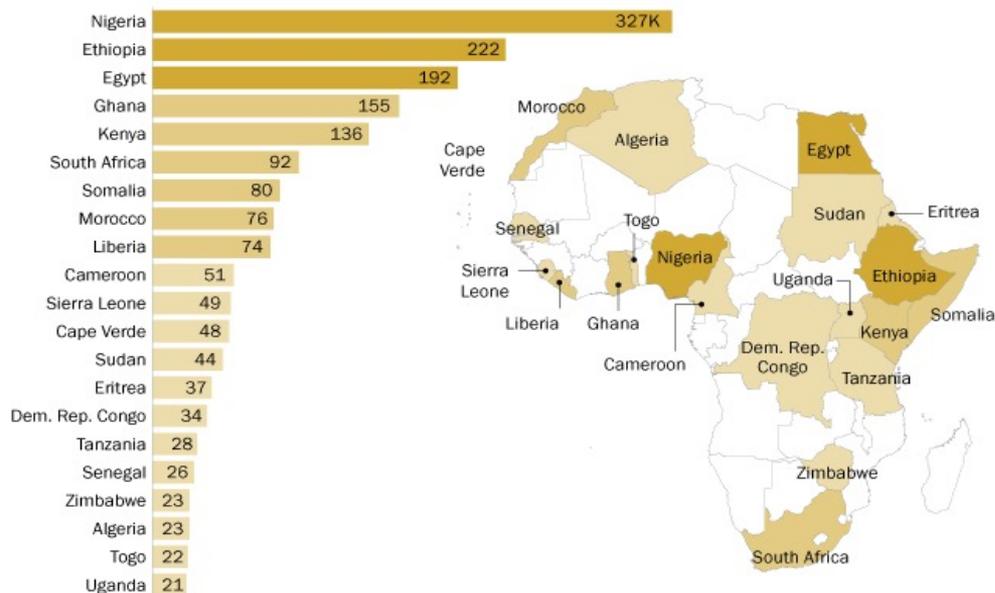
PEW RESEARCH CENTER

Monica Anderson. African immigrant population in U.S. steadily climbs. Migration Policy Institute Web site. <https://www.pewresearch.org/fact-tank/2017/02/14/african-immigrant-population-in-u-s-steadily-climbs/> Updated 2017. Accessed July 8, 2019

Regions of Birth of African Immigrants

Nigeria, Ethiopia, Egypt are top birthplaces for African immigrants in the U.S.

Leading countries of birth for the foreign-born population from Africa in the U.S. (2015, in thousands)



Note: Africa includes North African and sub-Saharan countries as defined by IPUMS. Does not include unspecified or uncategorized areas.

Source: Pew Research Center tabulations of 2015 American Community Survey (1% IPUMS).

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AFRO-CardiAC Study

**Cardiovascular Disease Risk and the
Association with Acculturation in
West African Immigrants (WAI)
Residing in the United States**

Methods

- **Study Design:** Cross-sectional
- **Setting:** 7 Churches in the Baltimore/Washington, DC
- **Target population:** 1st generation African immigrant adults
- **Sampling:** Convenience sampling
- **Inclusion criteria:**
 - Adults 35-74 years
 - Self identify as Ghanaian or Nigerian WAI
 - Reside in the Baltimore/Washington, D.C. metro area
 - Able to read and write English and provide informed consent
- **Exclusion criteria:**
 - Pregnancy
 - Born in the US or in another African country

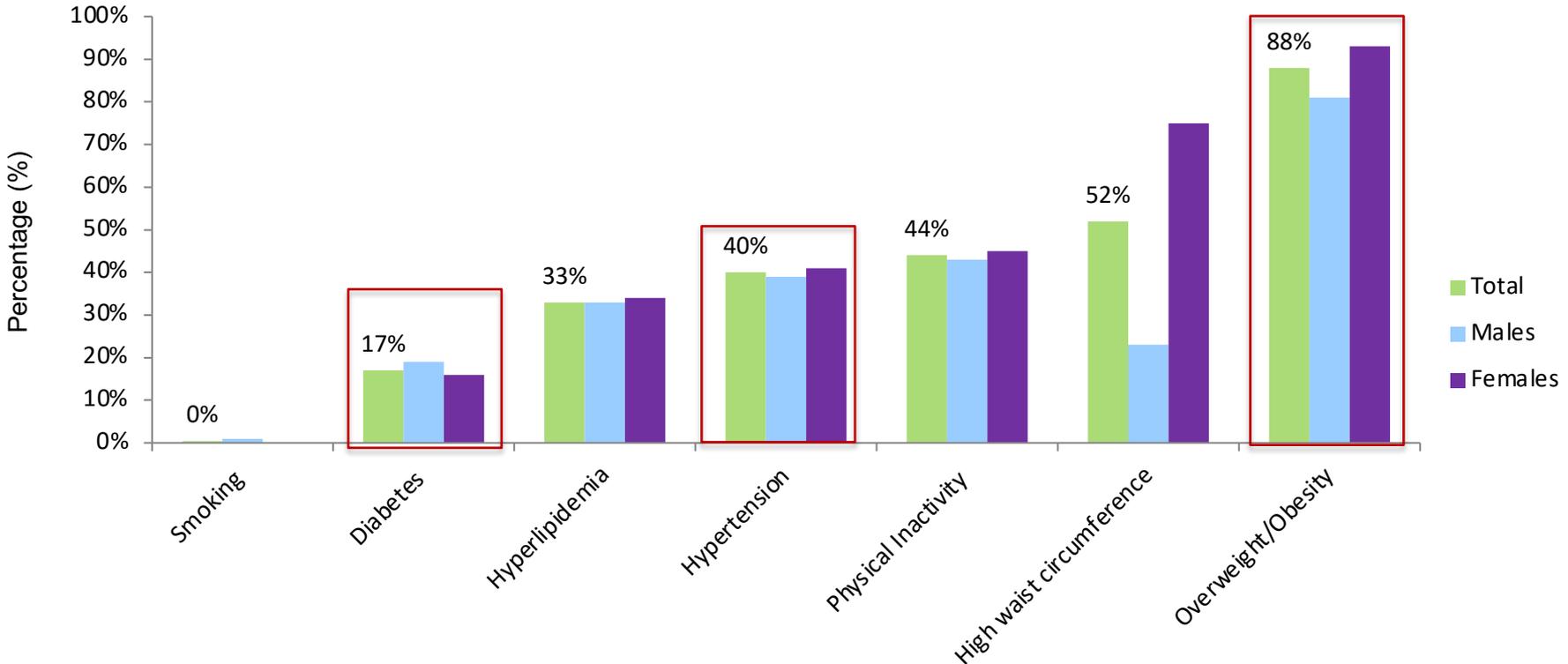


Sociodemographic Characteristics

Characteristic [Mean \pm SD or N (%)]	Total (N=253)	Males (n=106)	Females (n=147)	p-value
Age	49.5 \pm 9.2	49.7 \pm 9.2	49.3 \pm 9.2	0.7196
Educational status				
<High school	61(25)	19(18)	42(29)	0.055
High school	38(15)	14(13)	24(17)	
\geq College	150(60)	72(69)	77(54)	
Employed	181(79)	81(90)	100(72)	0.001**
Married	193(76)	94(90)	99(67)	0.001**
Household income				
<\$25,000	44(18)	16(15)	28(20)	0.007**
\$25,000-\$50,000	113(46)	39(38)	74(52)	
>\$50,000	88(36)	49(47)	39(28)	
Health insurance, Yes	127(52)	56(55)	71(49)	0.387
\geq 10 years of US residence (%)	170(67)	81(76)	89(61)	0.008**
Green-Card/US-citizen	194(77)	84(80)	110(75)	0.385

**p<0.05

Prevalence of Heart Disease Risk Factors by Sex, N=253



Research Team

1. Dr. Sally Peprah
2. Dr. Kojo Amoakwa
3. Dr. Maame Sampah
4. Audrey Addaquay-Corey
5. Dr. Felicia Sam
6. Dr. Nancy Abu-Bonsrah
7. Dr. Jonathan Aboagye
8. Tran Hong
9. Selase Agudu-Morgan
10. Loretta Odro
11. Dr. Mercy Baffour
12. Dr. David Nartey
13. Grace Onayiga
14. Dr. Charles Berko



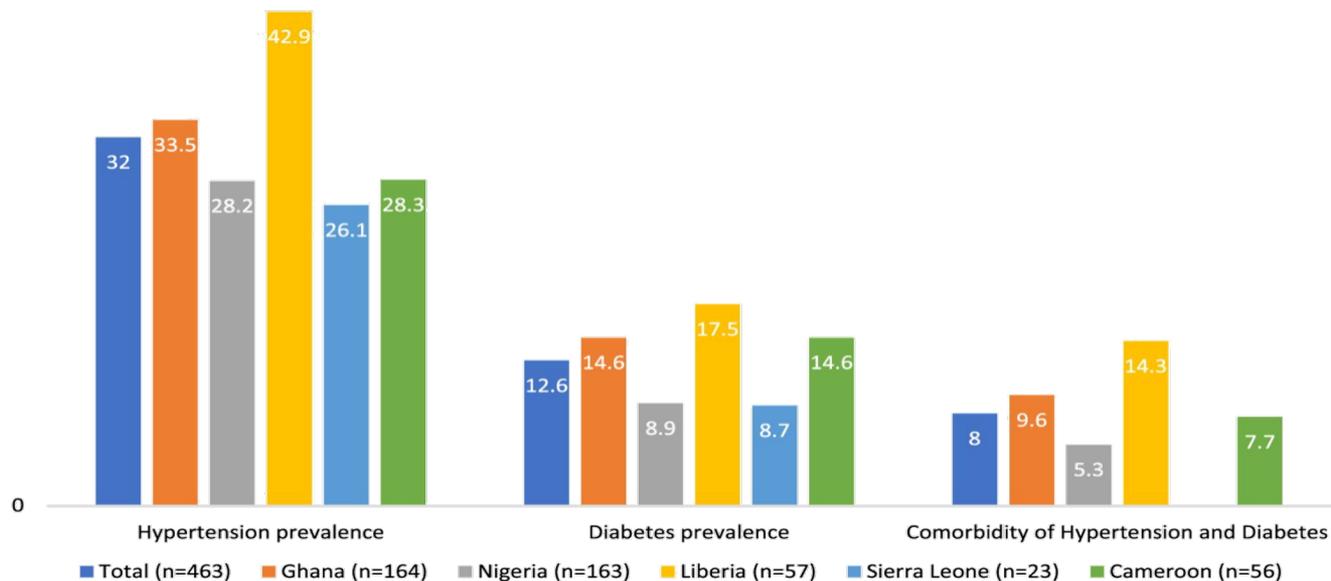
African Immigrant Health Study

- ▶ Survey on sociodemographic background, health history, health-related behaviors, cultural preferences, stress, physical function
- ▶ Blood pressure, height, and weight measurement
- ▶ Inclusion criteria:
 - Participants must be at least 30 years old
 - Live in the Baltimore-Washington, DC
 - Able to read, write and speak English.



Social Determinants of Hypertension and Diabetes, N=456

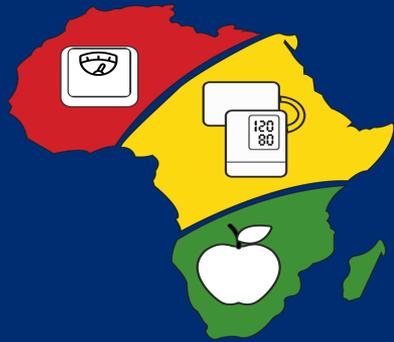
- ▶ Odds of diabetes 5 times higher among unemployed (aOR: 5.00, 95% CI: 2.13, 11.11)
- ▶ Odds of hypertension 73% higher among insured (aOR:1.73, 95% CI: 1.00, 3.00)



**Original Report:
Cardiovascular Disease
and Risk Factors**

DISCRIMINATION IS ASSOCIATED WITH ELEVATED CARDIOVASCULAR DISEASE RISK AMONG AFRICAN IMMIGRANTS IN THE AFRICAN IMMIGRANT HEALTH STUDY

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A Virtual Cardiometabolic Health Program for African Immigrants: The Afro-DPP Program

Study Purpose

- ▶ To examine whether a virtual, culturally-tailored lifestyle intervention with remote monitoring of blood pressure and body composition (***The Afro-DPP Program***) improves blood pressure, body weight, body mass index among African immigrants.

Intervention



1st intervention group: Will *immediately* begin 6 months of lifestyle intervention with a Lifestyle Coach and remote monitoring of blood pressure and body composition



Delayed intervention group: Will receive remote monitoring of blood pressure and body composition for the 1st 6 months and then will receive lifestyle intervention after 6 months.



The Afro-DPP Program

- ▶ Research study visits and Afro-DPP sessions:
 - **5 research study visits**
 - Blood pressure measurements, body weight, and study questionnaires will be obtained
 - **31 DPP curriculum sessions**
 - Sessions will take place via Zoom with Lifestyle Coach
- ▶ Research study materials:
 - Bluetooth Omron blood pressure device
 - Bluetooth Omron digital scale
 - REDCap link for questionnaires

Achieve a heart healthy diet:

- Eat a lot of fresh fruits and vegetables
 - Decrease the amount of palm oil in meals.
 - Eat fish, especially oily fish (like salmon, trout, herring), at least twice a week.
 - Choose whole-grain foods (like whole wheat bread, oatmeal, brown rice). You may still have jollof rice, however, your plate should look like:
- Limit intake of beverages and foods with added sugars.
 - Learn about how to avoid foods with too much salt.
 - If you want to snack, go nuts! A serving size is a small handful or 1.5 ounces of whole nuts or 2 tablespoons of nut butter.
 - Drink water instead of sugary drinks. Try adding slices of fruit to beverages instead of sweetening with sugar
 - Choose low-fat dairy products (Nido, Milo, or Nesquick)



- Decrease the amount of foods with **bad fat**.
 - Bad fat is harmful to your body. Food items like butter, margarine, pork or beef fat are examples.
- Decrease the amount of red meat you eat (i.e. goat, beef, pork, etc.)





Lessons Learned

COMMENTARY: ENGAGING AFRICAN IMMIGRANTS IN RESEARCH – EXPERIENCES AND LESSONS FROM THE FIELD

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COMMENTARY



Recruiting African Immigrant Women for Community-Based Cancer Prevention Studies: Lessons Learned from the AfroPap Study

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Lessons learned

- **Building Trust with African immigrant communities**
 - Be transparent
 - Explain the purpose of research
 - Engage trusted community leaders
 - Ensure team reflects the target population
- **Immigration status and study participation**
 - Use oral consent as appropriate
 - Collect minimal identifiers



Lessons learned

- **Religious considerations**
 - Consider religious leaders as gatekeepers
 - Observe religious practices
- **Logistics of study implementation**
 - Strive for efficiency(such as online surveys)
 - Recruit a diverse and competent team
 - Consider social media for recruitment
- **Fostering long-term partnerships**
 - Offer before you take
 - Stay connected to the community



Thank you!

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