

# Vaccination beliefs in older African Americans in Detroit during the Covid-19 pandemic

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## Abstract

**Background:** The COVID-19 pandemic has devastated multiple Countries targeting vulnerable populations. In Michigan there have been over 550,000 confirmed cases and over 14,000 deaths that forced health officials to rapidly develop and distribute COVID-19 vaccines (MDHHS, 2021). As researchers study the COVID-19 virus and vaccines, it is important to understand the educational needs of the public in deciding intent to accept the vaccine.

**Method:** We analyzed factors correlated with generalized anxiety rates in 150 African Americans age 65 and older, recruited from Wayne State Institute of Gerontology Healthier Black Elders Center and surrounding communities. Participants completed telephone questionnaires measuring demographics, stressors associated with COVID-19 pandemic, and emotions. A scale was designed using the Health Belief Model assessing beliefs, susceptibility, severity, conspiracy beliefs of Covid-19 (man-made), and intent to be vaccinated. Applying factor analysis, questions were divided into: fear of COVID-19 (I am worried about the likelihood of getting COVID-19, My chances of getting COVID-19 in next few months is great, I will be very sick if I get COVID-19, Vaccinations decrease chances of infections or complications, I will get the vaccine if I receive adequate information), vaccination safety (I am concerned the vaccine will not work, I am concerned the vaccine will not be safe, Side effects from the vaccine interfere with activities and, Vaccinations make me less worried). Participants responded to these questions on 5-point Likert scale (from "Strongly Disagree" to "Strongly Agree").

**Result:** Of 150 participants, 67% expressed intention to get vaccinated while only 15% were reluctant to vaccinate. Stepwise regression analysis showed that fear of COVID-19 and vaccination safety explained 49% variance of intent to vaccinate. Vaccination safety was predicted by age, loneliness, vulnerability, and positive emotions ( $R^2 = 20\%$ ). Fear of COVID-19 was predicted by anxiety and positive emotions ( $R^2 = 8\%$ ).

**Conclusion:** This study provides a snapshot of urban African American older adults who are generally eager to get vaccinated for COVID-19, and predictors of intent to get vaccinated. More research is needed to understand the scope of educational needs to increase the likelihood of older African Americans to get vaccinated.