

# Factors Associated with African Americans' Utilization of Influenza Vaccination

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## INTRODUCTION

- African Americans obtained fewer influenza vaccinations in comparison to non-Hispanic whites.
- Scant research has explored factors that could influence African Americans use of influenza vaccinations

## OBJECTIVE

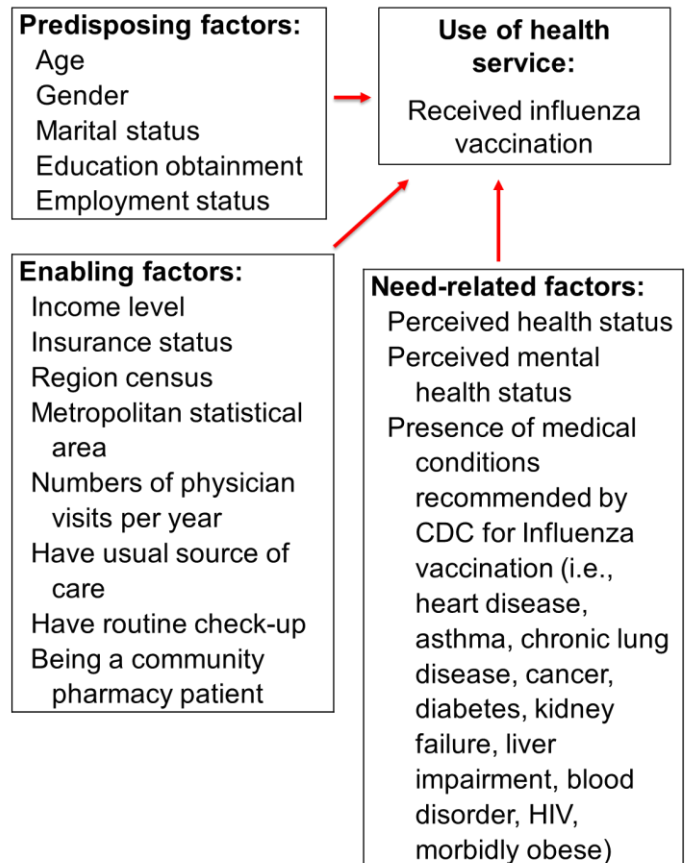
- To determine factors associated with receiving influenza vaccination among African American adults 18 and older

## METHODS

- **Research design:** Retrospective, Cross-sectional study.
- **Database:** Medical Expenditure Panel Survey (MEPS) 2010 and 2011 were used. The survey is administered every year by the Agency for Healthcare Research and Quality to the non-institutionalized US population.
- **Study population:** African Americans age 18 and older
- **Model and study variables:** The Andersen's Behavioral Model of Health Services Use – predisposing, enabling and need factors (see Figure 1).
- **Statistical analysis:** The complex survey design of MEPS was adjusted by using sample weights for stratum, cluster and individual persons. Logistic regression was used to examine factors related to the receipt of an influenza vaccination. The level of statistical significance was  $p < 0.05$  and STATA version 13 was used to analyze results.

## METHODS

**Figure 1:** a conceptual model of utilization of influenza vaccination based on the Andersen Behavioral Model of Health Services Use



## RESULTS

- Prevalence of influenza vaccination: among 25,197,409.7 African Americans, 39.16% reported that they had influenza vaccination in the past year

## RESULTS

Variables	Frequency (%)	OR (95% CI)
<b>Predisposing variables</b>		
Age Range		
Below 25 (ref)	10.7	1.00
25-49	41.58	1.07 (0.79-1.45)
50-64	29.99	1.61 (1.11-2.33)*
65 or older	17.72	2.26 (1.58-3.23)*
Gender		
Male	37.19	1.13 (0.95-1.34)
Marital status		
Single	65.57	1.03 (0.85-1.22)
Education Year		
< 12 years (ref)	20.77	1.00
12-16 years	71.26	1.03 (0.85-1.25)
> 16 years	7.98	1.05 (0.75-1.47)
Employment status		
Unemployed	37.79	0.80 (0.66-0.96)
<b>Enabling Factors</b>		
Income		
Poor (ref)	23.63	1.00
Near poor	6.08	0.95 (0.70-1.29)
Low	16.17	0.99 (0.76-1.29)
Middle	28.93	0.87 (0.69-1.09)
High	25.18	0.83 (0.62-1.11)
Insurance status		
Uninsured (ref)	11.59	1.00
Private	56.8	1.66 (1.25-2.20)*
Public	31.61	1.28 (0.96-1.71)
Region census		
Midwest (ref)	18.31	1.00
Northeast	15.39	1.58 (1.21-2.06)*
South	57.55	0.95 (0.74-1.22)
West	8.75	1.43 (0.74-2.26)
Numbers of physician visits per year		
0 (ref)	16.84	1.00
2-3	45.4	1.03 (0.80-1.33)
> 4	37.76	1.27 (0.98-1.65)
Metropolitan statistical area		
Have usual source of care	83.7	1.54 (1.22-1.96)*
Have routine check-up	82.47	2.15 (1.75-2.63)*
Being a community pharmacy patient	96.77	1.09 (0.73-1.61)
<b>Need-related factors</b>		
Perceived health status		
Poor (ref)	4.3	1.00
Fair	17.44	1.06 (0.71-1.59)
Good	33.5	1.05 (0.71-1.55)
Very good	29.5	1.04 (0.68-1.61)
Excellent	15.27	0.95 (0.56-1.60)
Perceived mental health status		
Poor (ref)	2.53	1.00
Fair	8.52	1.52 (0.91-2.55)
Good	28.45	1.33 (0.79-2.23)
Very good	26.24	1.36 (0.79-2.35)
Excellent	34.25	1.44 (0.83-2.50)
Presence of medical conditions that are recommended by CDC to obtain flu vaccine	47.05	1.64 (1.39-1.93)*

## CONCLUSIONS

- African Americans with access to the health care system are more likely to receive influenza vaccinations.
- About half of individuals with particular medical conditions that are sensitive to influenza (e.g. heart disease) had received influenza vaccine in the past year.
- Future research should identify and examine alternative methods to improve the utilization of influenza vaccinations in African Americans.

## LIMITATIONS

- The study utilized a cross-sectional design and only represent variables measures at one point in time.
- Self-reported data may be subject to a number of possible bias.

## REFERENCES

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