

# Understanding Dynamics Underlying Racial Disparities in Influenza Vaccination

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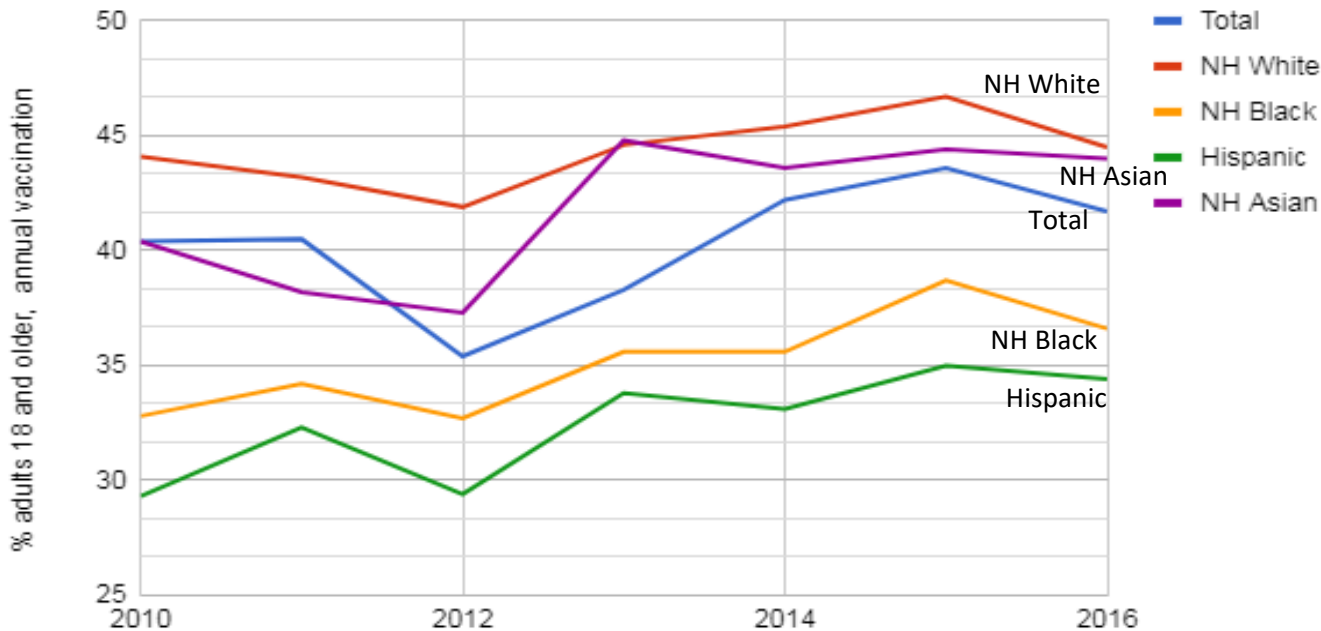


## Today's topics

1. What are the trends in influenza vaccine uptake over time and why are disparities important?
2. What factors interact to affect vaccine decision-making?
3. How can we increase vaccine uptake?

# Flu Vaccine Uptake By Race/Ethnicity

## Seasonal Influenza Vaccination



## Why are flu vaccine disparities so important?

- Significant racial and ethnic disparities in chronic conditions place too many at high risk for complications.
- Previous research during H1N1 found that minorities are at greater risk due to inability to reduce exposure to the virus (Quinn et al, 2011 and Kumar, Quinn et al, 2012).

# What factors interact to affect vaccine decision-making?



Photo credit: Quinn, 2017

## Survey Methods

- Drawn from The GfK Group's online panel of US adults
  - Developed through address-based probability sampling
- Nationally representative sample
- Completion rates:  
Whites: 63.1%; African Americans: 51.2%

	<b>Overall US Sample (N=1643)</b>	<b>White Non-Hispanic (N=834)</b>	<b>Black Non-Hispanic (N=809)</b>
	%	%	%
% Female*	52.3	49.5	55.3
Education*			
% High School or less	38.5	37.0	40.0
% Bachelor degree or higher	31.7	36.8	26.5
Income*			
% Income < 20K	19.8	11.9	28.1
% Income ≥ 75K	33.5	43.3	23.4
% Married/Living with partner*	54.3	66.0	42.3
Mean age (SD)*	51.2 (17.2)	52.7 (17.8)	49.7 (16.4)
Flu Shot Behavior/Intentions*			
% Got Flu Shot	49.0	53.4	44.4
% Did Not Get Flu Shot	51.0	46.6	55.6

All percentages are unweighted; \* = Significance level  $p \leq .05$

## Risk Perception

- Perceived disease risk was significant predictor of vaccine uptake for all
- African Americans had higher perceived risk of vaccine side effects and believed side effects were more serious
- Higher disease risk, higher uptake; however, when perceived risk of vaccine side effects increased, uptake decreased for both groups



# Trust in the Vaccine and Vaccine Process

- AA lower trust in all organizations but rank order is same as whites: doctors, CDC, FDA and drug companies last
- Higher trust in the vaccine & vaccine process associated with higher vaccine uptake



## Racial Factors in Health Care Context

- Racial fairness: Is treatment in health care or by government fair to one's race?
- Racial consciousness: How conscious are you of your race in a health care setting?
- Experience of discrimination: How often experienced discrimination in health care?
- Impact of discrimination on access: Has discrimination impacted your ability to get good health care?

## Impact Of Racial Factors

- Higher perceived racial fairness associated with more trust and higher vaccine uptake
- Higher racial consciousness associated with lower trust in vaccine and process, higher perceived risk of side effects, less knowledge, greater use of naturalism, belief in conspiracies, greater vaccine hesitancy
- For AA, higher perception of discrimination, higher perceived side effect risk and lower uptake

# Measures for Flu Vaccine Hesitancy Model

- Includes general vaccine hesitancy items
- Flu vaccine hesitancy-how much thought about getting vaccine and how much concern about getting flu vaccine
- Trust in flu vaccine
- Complacency-necessity, importance; Confidence- safety, effectiveness; Convenience-convenience & affordability

# What Do These Results Mean For Vaccine Uptake?

- Trust in flu vaccine was positively associated with confidence & convenience but negatively associated with complacency & hesitancy.
- Adults with higher confidence in flu vaccine are more likely to get the flu vaccine this season & in the past five years.

## Importance Of Social Norms

- Believing that people close to you want you to be vaccinated was a predictor of vaccine uptake.
- Among African Americans who were vaccinated every year or most years, believing “it is my moral obligation to other people to get a flu vaccine” was a significant predictor.

## Other Important Results

- Knowledge of the flu vaccine and knowledge of vaccine recommendation positively associated with vaccine uptake.
- Barriers were a significant predictor of vaccine behavior.

# How can we increase uptake of the flu vaccine?





## Role Of Public Health Agencies

- Strengthen health communication about flu vaccine by addressing:
  - ✓ Knowledge about influenza, the vaccine including the vaccine production process and recommendations;
  - ✓ Perceived risk of the disease and and of vaccine side effects;
  - ✓ Barriers.

# Role of Communities and Families

- Work with community organizations & their social media to promote vaccination to protect the broader community (moral norm).
- Talk about getting the vaccine as a means to protect family members.
- Change social norms by talking about the importance of flu vaccine with friends & family.



*"By protecting myself  
I am protecting her."*

**If you're 65 years or older,  
getting a flu shot is the  
best way to protect  
yourself and those around  
you from flu.**

The flu benefit is a covered service for Medicare  
and for children enrolled in Medicaid and CHIP.

<http://www.cdc.gov/flu> | 1-800-CDC-INFO



# Role Of Health Care Professionals

- Improve professional preparation to work with racial and ethnic minorities
- Recommend *and* offer vaccine in same visit
- Take the vaccine themselves



**I won't spread flu to my patients or my family.**

Even healthy people can get the flu, and it can be serious.

Everyone 6 months and older should get a flu vaccine. This means you.

This season, protect yourself—and those around you—by getting a flu vaccine.

For more information, visit: <http://www.cdc.gov/flu>



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## Goal 3: Increase Community Demand

- Vaccine disparities and decision-making occur in complex environment.
- Increasing uptake will require multi-level interventions.
- NVAC can assist by calling for more dedicated resources for research.

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**Thank you**

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## Flu Vaccine Production Process

### Step 1: Tracking and Yearly Virus Satisfaction

The World Health Organization (WHO) tracks flu cases and predicts the flu viruses that will appear each season. Scientists use this information to decide what goes into the vaccine.

### Step 2: Producing the Vaccine

Pharmaceutical companies produce vaccines based on the flu viruses that scientists select.

### Step 3: Testing the Vaccine

Pharmaceutical companies and the Food and Drug Administration (FDA) test the vaccine to make sure it works and is safe. FDA approves the vaccine.

### Step 4: Recommending Who Needs the Vaccine

Based on advice from an independent board of scientists, the Centers for Disease Control and Prevention (CDC) recommends who should get the vaccine.

### Step 5: Making the Vaccine

Pharmaceutical companies make and inspect doses of vaccine before shipping.

### Step 6: Distributing the Vaccine

Vaccines are sent to doctor's offices, pharmacies, public health departments and other medical facilities around the country.

### Step 7: Giving the Vaccine

Doctor's Offices, hospitals, health clinics and pharmacies give flu vaccines.