

Reaching Hard to Reach Populations: A Panel Presentation and Discussion

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Workshop Learning Objectives

By the end of this session participants will be able to:

- State the adult vaccines for which ethnic disparities exist and share successes in bridging the gaps
- Review the CLAS Standards and describe how they have been integrated in to outreach strategies
- Describe provider-based and systems-based actions that can reduce these vaccine disparities using collaborative approaches along with local boards of health, ambulatory care settings and community health centers

Presenters Disclosures Information:

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Consultants	No relevant conflicts of interest to declare or relevant conflict
Grant Research/Support	No relevant conflicts of interest to declare or relevant conflict
Speaker's Bureau	No relevant conflicts of interest to declare or relevant conflict
Major Stockholder	No relevant conflicts of interest to declare or relevant conflict
Other Financial or Material Interest	No relevant conflicts of interest to declare or relevant conflict
Off Label Use of Vaccines	Will be discussed, but in accordance with current ACIP recommendations

Key Adult Immunization Facts

- ❑ **Vaccine coverage among adults is unacceptably low**
- ❑ **Substantial differences in coverage by race and ethnicity**
- ❑ **Limited patient awareness about need for vaccines among adults**
- ❑ **Patients willing, for the most part, to get vaccinated when recommended by medical providers**
- ❑ **Systemic offering and recommendations from clinicians result in higher uptake**
- ❑ **Primary care providers believe that immunizations are an important part of the services they provide to patients**

Sources:

1. Hurley, et al. Annals of Internal Medicine, 2014.
2. Guide to community preventive services: www.thecommunityguide.org/vaccines/index.html
3. Adult non-influenza vaccine coverage: www.cdc.gov/mmwr/preview/mmwrhtml/mm6305a4.htm.



Vaccinating Adults in Community Health Centers A Building Block for Healthy Communities

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Background and Educational Interventions

Initiative Background

Immunizations can prevent needless morbidity and mortality associated with vaccine preventable disease and are often overlooked during adult primary care visits. The Massachusetts Department of Public Health (DPH), Massachusetts League of Community Health Centers (The League), and JSI Research and Training Institute focused efforts during 2011-2013 on:

- increasing adult vaccination rates
- increasing the number of health centers inputting vaccine information into the Massachusetts Immunization Information System (MIIS)
- increasing the use of evidence-based strategies to improve immunization rates (i.e., standing orders and provider reminders about vaccines due)

Location of Community Health Centers in Massachusetts



What Are Community Health Centers?

In 1965, the nation's first community health center opened its doors in Boston, MA. Health centers care for patients of all ages and racial and ethnic backgrounds; represent a major source of care for the medically underserved; and provide care to anyone in need regardless of their insurance status or ability to pay. Health centers represent one of the largest primary care networks in the state; 50 health centers provide health care to more than 820,000 state residents through more than 285 sites statewide.

What Are the 10 Recommended Adult Vaccines?

- Hepatitis A
- Hepatitis B
- HPV
- Influenza
- Meningococcal
- MMR
- Pneumococcal
- Td / Tdap
- Varicella
- Zoster

Educational Interventions

In May 2012, health centers provided baseline data identifying opportunities for improvement. *The Community Guide* was used as a foundation for education and training. The *Guide* cites strong evidence of effectiveness in increasing vaccination rates through the use of standing orders, client reminder/recall, provider assessment and feedback, especially when implemented in combination. Content for educational interventions was developed into the following priority areas:

- 1.) Advisory Committee on Immunization Practices (ACIP) adult immunization recommendations
- 2.) Strategies to raise adult immunization rates
- 3.) Processes for maximizing private and public insurance reimbursement
- 4.) Purpose and benefits of the MIIS
- 5.) Enrolling and using the MIIS

Health Center Staff Providing Patient Education About Vaccinations



Education was provided through webinars, meetings with key health center groups, training/technical assistance and through the distribution of information, templates and policies. More than 30 community health centers participated in one or more interventions. A baseline and post-intervention survey measured changes.

Evidence-based Strategies to Improve Adult Vaccination Rates

- ✓ Assess and review your vaccination rates regularly
- ✓ Understand your electronic health records' recall and reminder capabilities
- ✓ Utilize Best Practices
 - ✓ Providers recommend and offer vaccines on the same day
 - ✓ Rely on policies and standing orders
 - ✓ Offer incentives to patients for vaccinating

Findings from Survey Analysis Comparing Baseline and Endline

Comparing baseline and endline health center responses on evidence-based strategies for improving vaccination rates, there were increases in two areas:



78% of health centers using adult vaccine standing orders to ensure health care quality. Up from 67%.

75% of health centers using medical records to alert providers of vaccinations due. Up from 54%.

Community Health Center Paired Analysis of Baseline and Endline Survey Responses (n=40 centers)

Question	Baseline n (%)	End Line n (%)	Chi-Square Test p-value*	Fisher's Exact Test p-value*
Administer flu vaccine?	100% (16)	100% (16)		
Administer Hepatitis A vaccine?	94% (15)	100% (16)		
Administer Hepatitis B vaccine?	100% (16)	100% (16)		
Administer MMR vaccine?	98% (16)	100% (16)		
Administer Pneumococcal vaccine?	100% (16)	100% (16)		
Administer Td vaccine?	98% (16)	100% (16)		
Administer Total Vaccine?	98% (16)	100% (16)		
Administer Zoster vaccine?	72.5% (12)	87.5% (14)	0.4306	0.3000
Administer Male HPV vaccine?	62.5% (10)	62.5% (10)	0.8383	0.6799
Administer Female HPV vaccine?	62.5% (10)	62.5% (10)	0.8383	0.6799
Administer HgA vaccine?	95.0% (15)	100% (16)	0.5123	0.2468
Administer Varicella vaccine?	82.5% (13)	87.5% (14)	0.6462	0.6863
Use Adult Vaccine Standing Orders?	66.7% (11)	77.5% (13)	0.2828	0.2054
Use End Line?	53.9% (9)	75.0% (12)	0.0084*	0.0414*
Use Patient Reminders?	48.7% (8)	50.0% (8)	0.9304	0.5459
Passive Vaccination Info in EMR?	100% (16)	95.0% (15)	0.5862	1.0000
Active Vaccination Info in EMR?	45.0% (7)	68.7% (11)	0.1678	0.5652

* The p-value indicates whether the baseline and endline percentages are statistically different from each other. A p-value of <0.05 is an indication of statistical difference in values. The Chi-Square and Fisher's tests are conservatively different, but both generally considered results to be the same. If the percentages are statistically different, Fisher's is a more valid test when some questions have small numbers (in this case when there is a very low number of patients and the number of sites).

* Some questions (1 and 6) respondents did not answer this question.

Community Health Center Data Reported to the MA Immunization Information System (MIIS) – the State Lifespan Immunization Registry



265,246 adult vaccinations in the Massachusetts Immunization Information System (MIIS). Baseline was "0".

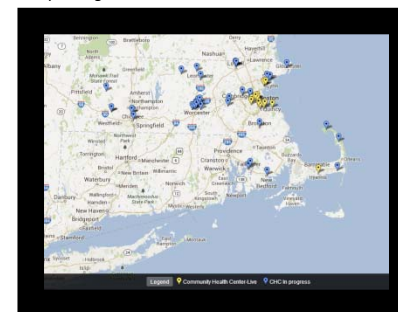
52,802 adult patients in the MIIS. Baseline of "0".

Community Health Center Flu Clinic



Massachusetts Immunization Information System (MIIS) - Usage of the State Lifespan Immunization Registry

There are currently 5 health centers with 11 sites reporting vaccination data daily through the MIIS. Baseline of "0".



Main Outcome Measures: Adult Vaccination Rates From Four Community Health Centers, 2011 and 2013

Obtaining data on vaccination rates has been an important part of understanding to what extent health centers can improve their rates. Below are the vaccination rates identified at baseline in 2011 and endline in 2013.

Vaccine	2011	2013
HPV – females 3 doses, 18-26 y/o	15%	32%
HPV – males, 3 doses, 18-26 y/o	0%	3%
Influenza, 18+ y/o**	25%	32%
PPSV23, 65+ y/o	44%	48%
Tdap, 18+ y/o	15%	32%
Zoster, 65+ y/o	8%	14%

* Percentages based on the number of patients in the year of the survey. The reporting dates of June 30, 2011 and June 30, 2013.
** Percentages based on the number of patients in the year of the survey. The reporting dates of June 30, 2011 and June 30, 2013.

Areas and Opportunities for Further Improvement

- Continue sharing best practices and procedures among health centers
- Post pertinent information on The League's website - evidence-based strategies, templates of policies and procedures, standing orders
- Promote and encourage all health centers to enroll and use the MIIS
- Integrate adult immunization examples into The League's process improvement training sessions
- Identify ways for the continuation of educational interventions including replaying webinars, sharing updated vaccination rate data, DPH vaccine program updates and updates to ACIP recommendations
- Continue to identify ways to support health centers in obtaining maximum reimbursement for providing the 10 recommended adult vaccines through Medicaid and Medicare
- Support legislation which would reduce the costs associated with administering vaccines by expanding medical assistants' ability to administer vaccines

Adult Vaccination Rates from Four Community Health Centers, 2011 and 2013*

Vaccine	2011	2013
HPV – females, 3 doses, 18-26 y/o	15%	32%
HPV – males, 3 doses, 18-26 y/o	0%	3%
Influenza, 18+ y/o**	25%	32%
PPSV23, 65+ y/o	44%	48%
Tdap, 18+ y/o	15%	32%
Zoster, 60+ y/o	4%	14%

* Patients had ≥ 1 visit to health center in the year of time prior to reporting dates of 6-30-11 and 6-30-13

** Patients had ≥ 1 visit to health center in the year of time prior to reporting dates of 6-30-11 and 6-30-13 and a flu shot during prior season

Source: MDPH and MA League of Community Health Centers Adult Immunization Quality Improvement Project, 2013

The Massachusetts Department of Health
Immunization Equity Initiative Targeting
Underserved Populations
2009-2012



Massachusetts Department of Public Health
Office of Health Equity
July 2013

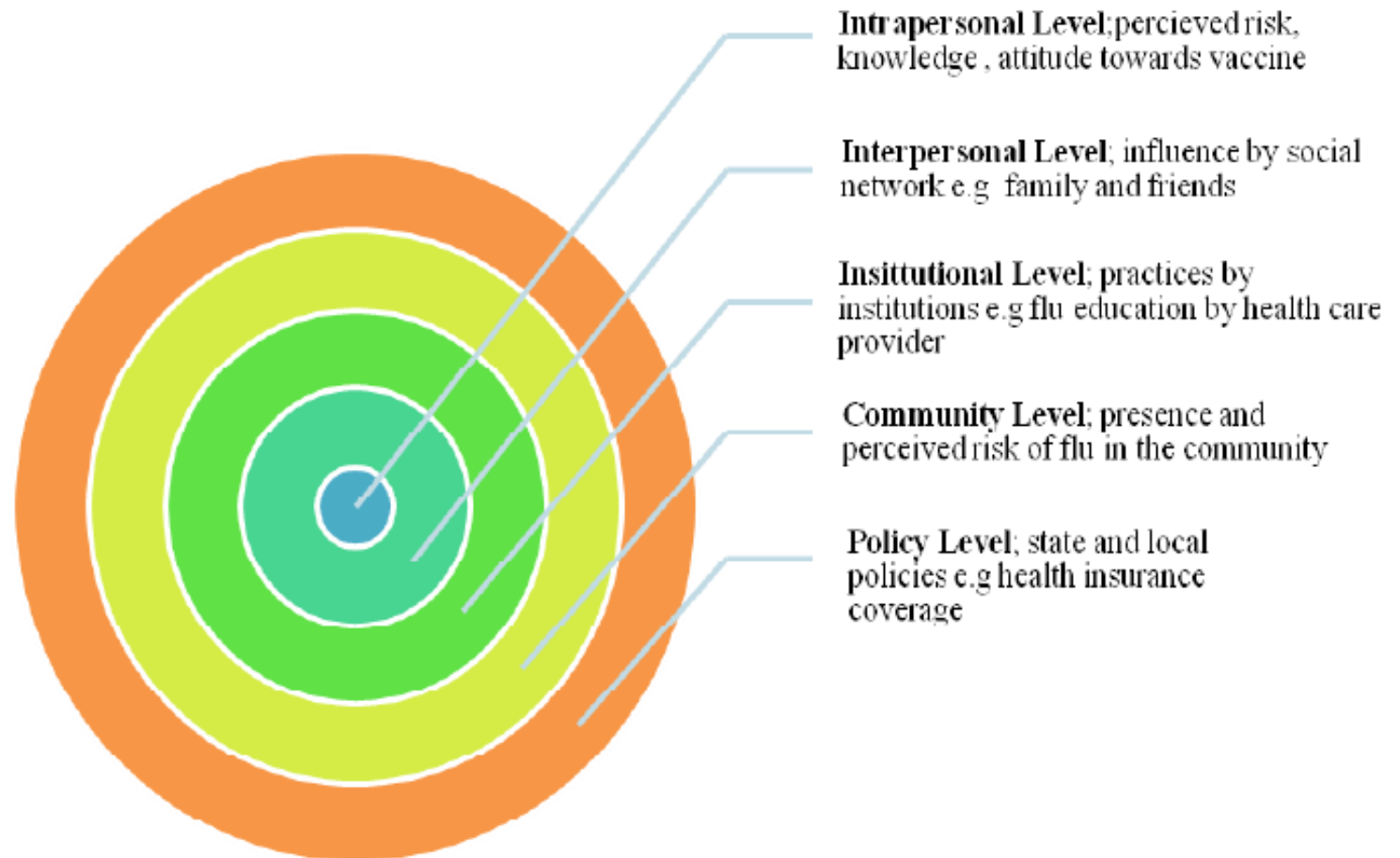
Key Findings

- Grantees were community-based programs that had demonstrated experience in reaching out to the target populations and had established trust and partnerships within the community.
- Grantees targeted unique population categories
- The most common languages spoken by the target populations were English, Spanish, Arabic, Amharic, Bengali, Cape Verdean, Chinese, Haitian Creole, Portuguese and Vietnamese.
- Grantees reached out and educated community members both traditional and non-traditional settings
- Data:
 - Gradual increase in the numbers of individuals reached and vaccinated from Year 1 to Year 2
 - Marked increase in numbers in Year 3.
 - 96% increase in total number of individuals vaccinated from Year 2 to Year 3.

Lessons Learned

- Flu prevention strategies are most effective when implemented prior to the onset of the flu season.
- Sustainability of community flu immunization activities targeted at R/E/L populations depends on improved coordination of immunization efforts at the state and local level; building on previously successful strategies and continued engagement of community partners especially “non-traditional” partners with expertise in community norms, practices, values and have relationships within the community.
- Community residents – those who actually live in the neighborhoods – should be involved in all phases of the design, planning, implementation and evaluation of immunization efforts since they have the most valuable insights into the challenges, barriers and/or beliefs within their communities.
- Immunization activities are most successful when held in conjunction with other on-going events and at times and locations that are convenient for R/E/L populations.
- It is important to have a designated “community champion,” for example a church leader, elder, community activist or community health worker who has been immunized to participate at outreach and immunization events and clinics.
- Communities are rapidly evolving and flu prevention strategies and messages need to be adapted to the culture and beliefs of new and emerging populations.

A Social Ecological Framework for Influenza Uptake



Recommendations

- *Improving coordination of immunization activities at the state level.* This resulted in the formation of the Immunization Equity Team whose purpose is to develop long-term goals and strategies to guide flu immunization efforts and, establish a sustainable infrastructure for the elimination of racial, ethnic and linguistic disparities in immunization.
- *Development of a uniform guidance* which contains information including but not limited to relevant flu facts, answers to commonly asked questions, strategies for addressing myths, as well as referrals to appropriate materials and websites. This led to the development of the flu guide: *Flu Vaccine for Everyone! A Guide for Reaching and Engaging Diverse Communities.*
- *Development of more refined flu immunization goals and strategies.* This resulted in the development of goals and strategies based on national Healthy People 2020 goals, state and community data and funded grantee feedback.

Centers for Disease Control and Prevention Health Disparities and Inequalities Report – United States, 2011

III. Health-Care Access and Preventive Health Services

- *Health Insurance Coverage — United States, 2004 and 2008*

Insurance coverage is strongly related to better health outcomes. Substantial disparities in uninsured rates were observed among all the demographic and socioeconomic groups. Disparities by sex existed during both 2004 and 2008, with a higher percentage of males being uninsured. The uninsured rate for young adults aged 18–34 years was approximately double the uninsured rate for adults aged 45–64 years. Hispanics and non-Hispanic blacks had substantially higher uninsured rates, compared with Asian/Pacific Islanders and non-Hispanic whites. Increased access to health care with or without insurance will reduce the importance of disparities in uninsured rates.

- *Influenza Vaccination Coverage — United States, 2000–2010*


During the 2009–10 influenza season, lower influenza vaccination coverage was observed for non-Hispanic blacks and Hispanics, compared with non-Hispanic whites among all persons aged ≥6 months. Although racial/ethnic disparities in childhood vaccination coverage have improved throughout the past decade, substantial disparities among adults aged ≥65 years have persisted. Evidence-based interventions targeted at reaching minority populations — including use of reminder/incentive systems, standing orders for vaccination, regular assessments of vaccination

Health Disparities Affecting African Americans

"HEALTH EQUALITY FOR ALL"

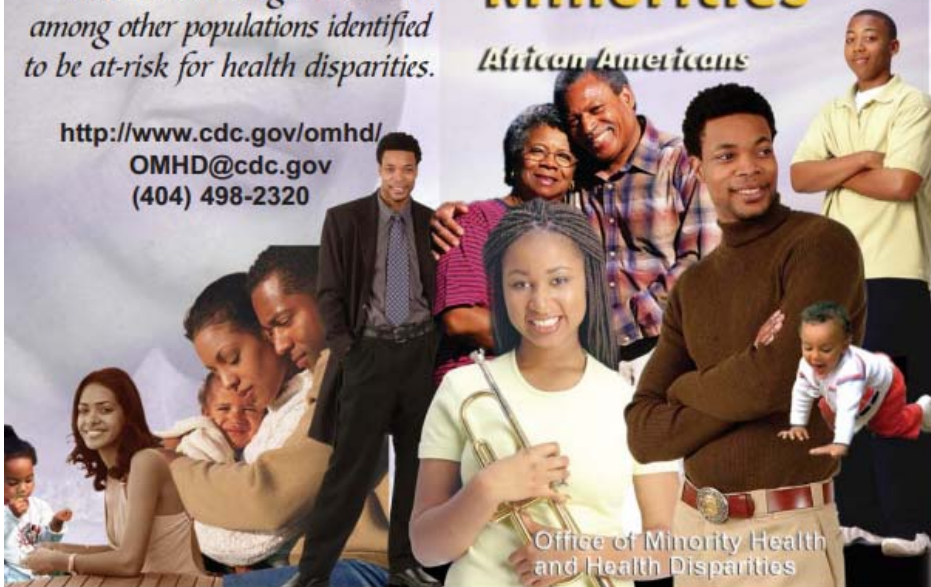
OMHD aims to accelerate CDC's health impact in the U.S. population and to eliminate health disparities for vulnerable populations as defined by race/ethnicity, socio-economic status, geography, gender, age, disability status, and risk status related to sex and gender, and among other populations identified to be at-risk for health disparities.

<http://www.cdc.gov/omhd/>
 OMHD@cdc.gov
 (404) 498-2320



Health Disparities Affecting Minorities

African Americans



Office of Minority Health and Health Disparities

EXAMPLES OF DISPARITIES

According to the 2000 U.S. Census, **African Americans** account for 13% of the U.S. population or 36.4 million individuals.

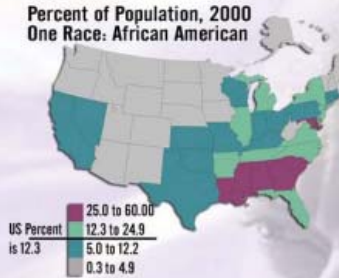
Heart Disease and Stroke:
 In 2001, the age-adjusted death rate for heart disease was **30.1% higher for African Americans** (316.9 per 100,000) than for white Americans (243.5). The age-adjusted death rate for stroke was **41.2% higher for African Americans** (78.8 per 100,000) than for white Americans (55.8).

Adult Immunization:
 In 2001, influenza vaccination coverage among adults 65 years of age and older was 70.2% for whites and **52.0% for African Americans**. The gap for pneumococcal vaccination coverage among older adults was even wider, with 60.6% for whites and **36.1% for African Americans**.

HIV/AIDS:
 While **African Americans** account for 13% of the U.S. population, they account for more than **50% of all new HIV infections** reported in 2001.

Cancer:
 In 2001, the age-adjusted death rate for all cancers was **25.4% higher for African Americans** (243.1 per 100,000) than for white Americans (193.9).

Diabetes:
 In 2001, the diabetes age-adjusted death rate for **African Americans** was more than twice that for white Americans (49.2 per 100,000 vs. 23.0).



Percent of Population, 2000
One Race: African American

US Percent is 12.3

Percent Range	States
25.0 to 60.0	Mississippi, Louisiana, Alabama, Georgia, South Carolina, North Carolina, Virginia, West Virginia, Kentucky, Tennessee, Mississippi, Louisiana, Alabama
12.3 to 24.9	Arkansas, Missouri, Illinois, Indiana, Ohio, Michigan, Wisconsin, Minnesota, Iowa, Kansas, Oklahoma, Texas, New Mexico, Colorado, Utah, Arizona, Nevada, Idaho, Montana, Wyoming, Nebraska, South Dakota, North Dakota, South Carolina, North Carolina, Virginia, West Virginia, Kentucky, Tennessee, Mississippi, Louisiana, Alabama
5.0 to 12.2	Delaware, Maryland, Pennsylvania, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, Maine, New Brunswick, Nova Scotia, Prince Edward Island, New Brunswick, Nova Scotia, Prince Edward Island
0.3 to 4.9	Alaska, Hawaii

AGE-ADJUSTED MORTALITY RATES PER 100,000 PERSONS BY RACE/ETHNICITY FOR SELECTED AREAS: U.S., 2001.

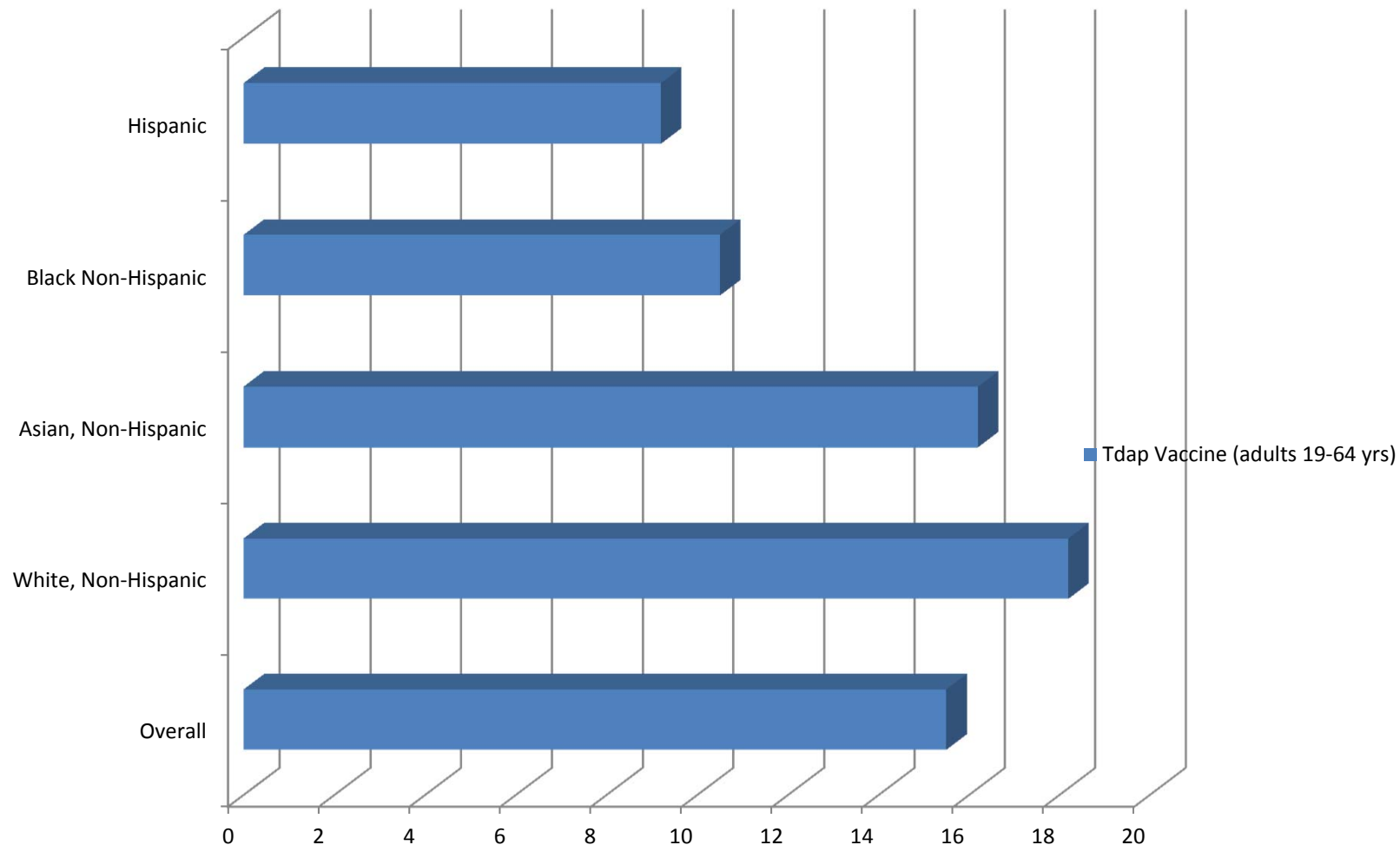
Condition	White	African American	Asian/Pacific Islander
DIABETES	23.0	49.2	16.9
PROSTATE CANCER	26.5	46.1	11.6
HEART DISEASE	243.5	316.9	137.6

2012 National Health Information Survey, US

Race/Ethnicity	Pneumococcal Vaccine (PPSV23) (adults \geq 65)	Tdap Vaccine (adults 19-64 yrs)	Tetanus, 2002-2012 (adults > 65)
Overall	59.9%	15.5%	55.1%
White, Non-Hispanic	64%	18.2%	57.7%
Black Non-Hispanic	46.1%	16.2%	45.8%
Hispanic	43.4%	10.5%	44.6%
Asian, Non-Hispanic	41.3%	9.2%	44.8%

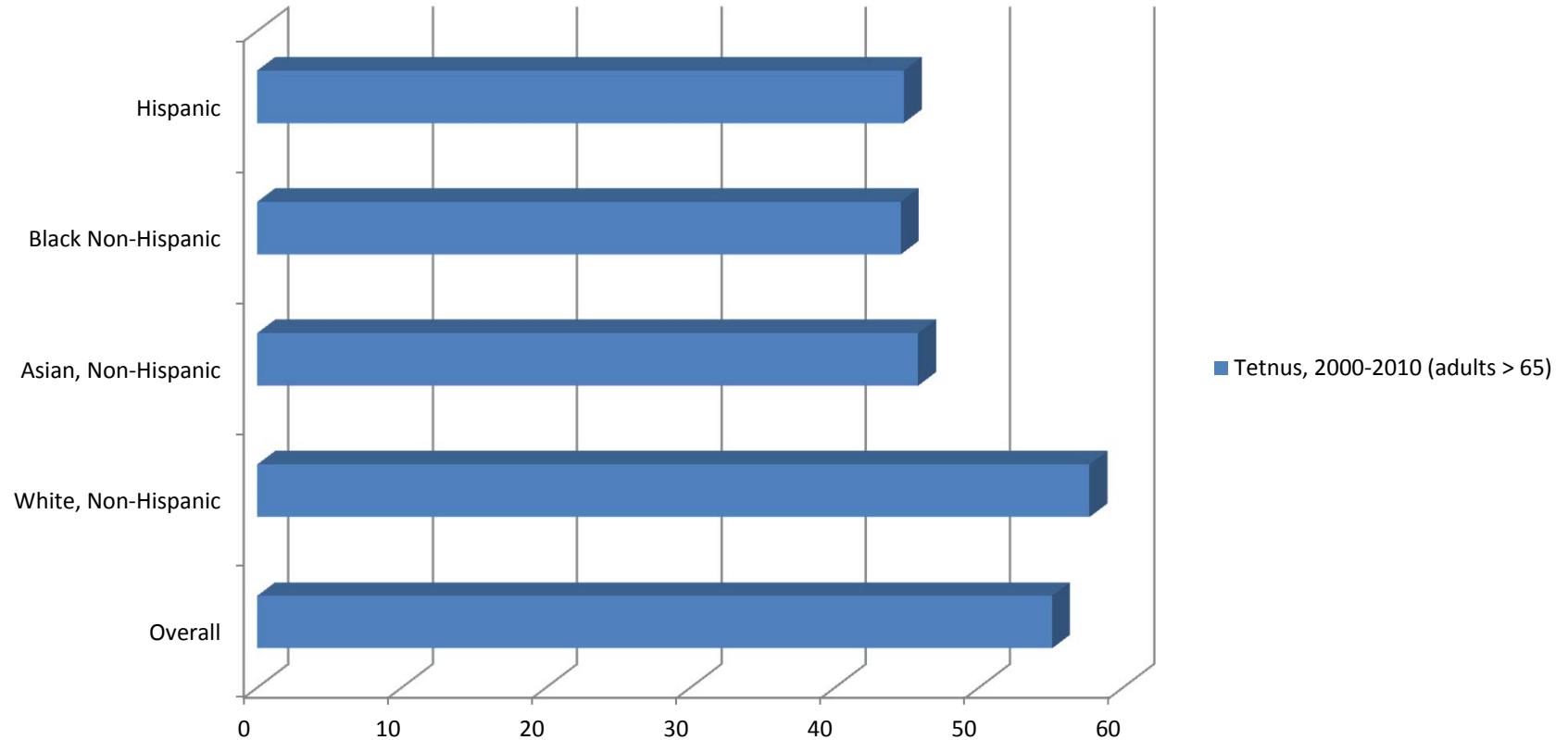
Source: MMWR February 7, 2014 / 63(05):95-102
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6305a4.htm#Tab1>

2012 NHIS Tdap Vaccine (adults 19-64 yrs)

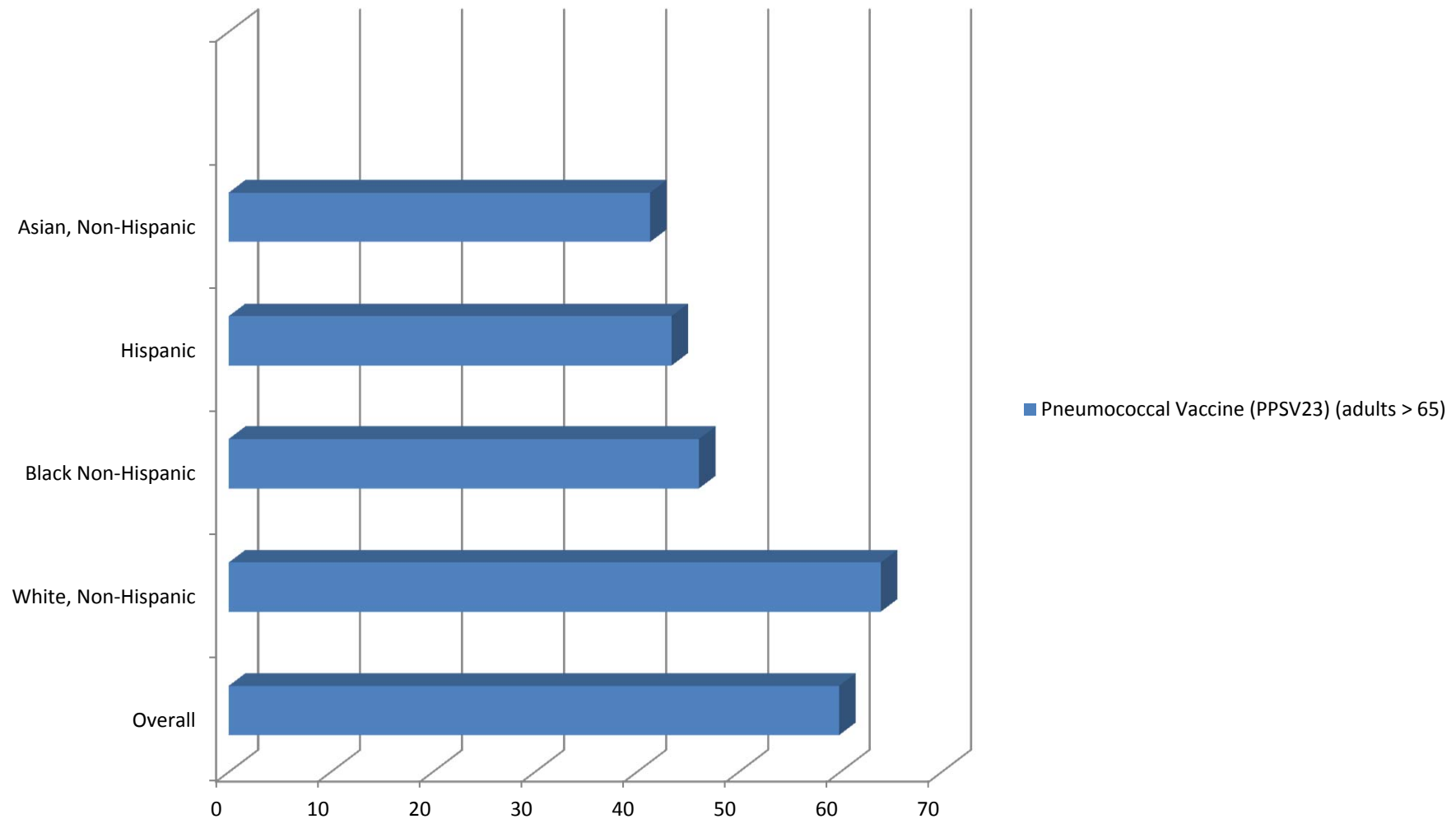


Source: MMWR February 7, 2014 / 63(05);95-102
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6305a4.htm#Tab1>

2012 NHIS Tetanus, 2000-2010 (adults > 65)



2012 NHIS Pneumococcal Vaccine (PPSV23) (adults > 65)



Source: MMWR February 7, 2014 / 63(05);95-102
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6305a4.htm#Tab1>



Questions?

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