An Examination of the Role of Advertising and Promotion in Adult Immunization Disparities

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Disclaimer: This presentation reflects the views of the presenters and should not be construed to represent FDA’s views or policies.

The presenters have no conflicts of interests or disclosures.
Background

- In February 2014, CDC released immunization coverage estimates.

- Vaccination rates for ethnic/racial minorities (Asian, Latino, Black) fell well below Healthy People 2020 targets for adult vaccination.
Background

- There was a disproportionately lower coverage rate among non-Caucasian vaccine recipients for six vaccines routinely recommended for adults including:
  - Herpes zoster (shingles)
  - Pneumococcal
  - Tetanus and Tdap (Tetanus, Diphtheria, Pertussis)
  - Hepatitis A
  - Hepatitis B
Background

- Considerations in Health Communication
  - Advertising and Promotion
  - Health Literacy
  - Cultural Competence
- Advertising and Promotional Labeling – Adult Immunization Health Disparities: Is there a link?
Objectives

- Recognize the changing demographics of the U.S. population
- Describe differences between the original Culturally and Linguistically Appropriate Services (CLAS) standards and the revised CLAS standards
- Explain the stages along the Cultural Proficiency Continuum
- Identify barriers to vaccine-seeking behavior
- Present strategies for vaccine-uptake among minority populations
Gathered information on the advertising and promotion campaigns for products that have the lowest rate of vaccination among elderly racial/ethnic minority populations.

Aimed to provide information and suggestions for increasing vaccination rates among this population and factors that impact their uptake of vaccines.

Examined the cultural competence, health literacy, and overall messaging targeted toward this population from a promotional standpoint.
That was then

1970
- African American: 11%
- Hispanic: 5%
- Asian: 1%
- White: 83%

This is now

2014
- Non-Hispanic White: 62%
- Hispanic: 17%
- Black: 12%
- Asian: 5%
- Other: 4%


The Changing Landscape of U.S. Demographics

- In 2014, Non-Latino Caucasians made up 62% of the population
- In 2060, Non-Latino Caucasians will make up only 44% of the population
- The population that is Asian is expected to increase by 86% from 2014 to 2060
  - Many different cultures encompassed within this demographic such as Chinese, Japanese, Korean, Phillipino, etc.

What is culture?

“...the accumulated store of shared values, ideas (attitudes, beliefs, values, and norms), understandings, symbols, material products, and practices of a group of people”¹

Non physical traits, such as values, beliefs, attitudes, and customs, that are shared by a group of people and passed from one generation to the next


What factors affect culture

- Religion
- Ethnicity (race)
- Origin
  - Language
- Gender
- Age

What is cultural competence in health care?

- The understanding of diverse attitudes, beliefs, behaviors, practices and communication patterns that are impacted by a variety of factors including race, ethnicity, historical context, age, and socioeconomic status.

- A culturally competent health provider is able to provide appropriate care to patients with a wide range of cultures.

CLAS Standards: Defined

- CLAS: Culturally and Linguistically Appropriate Services
- Promulgated by the Office of Minority Health in 2000
- Have 15 standards to help guide the provision of culturally appropriate care to patients with a variety of cultures, health literacy levels and languages
- Office of Minority Health CLAS enhancement initiative
  - Launched 2010

Source: National Standards for CLAS in Health and Health Care: A blueprint for advancing and sustaining CLAS policy and practice
CLAS Standards: Components

1: Principal Standard

2 to 4: Governance, Leadership and Workforce

5 to 8: Communication and Language Assistance

9 to 15: Engagement, continuous improvement and accountability

Source: National Standards for CLAS in Health and Health Care: A blueprint for advancing and sustaining CLAS policy and practice
## CLAS Standards: Proposed Goals

<table>
<thead>
<tr>
<th>2000 CLAS Standards</th>
<th>Updated CLAS Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal/objective: Decrease health disparities and have healthcare practices to become more culturally and linguistically appropriate</td>
<td>Goal: To promote health equity, improve quality and help eliminate health and health care disparities</td>
</tr>
<tr>
<td>Culture defined through racial, ethnic, and linguistic groups</td>
<td>Culture defined through racial, ethnic, linguistic, geographical, spiritual, biological, and sociological characteristics</td>
</tr>
<tr>
<td>Target audience: Health care organizations</td>
<td>Target audience: Health and health care organizations</td>
</tr>
<tr>
<td>Definition of health is implied</td>
<td>Definition of health includes physical, mental, social and spiritual well being</td>
</tr>
</tbody>
</table>

Source: National Standards for CLAS in Health and Health Care: A blueprint for advancing and sustaining CLAS policy and practice
The current goal of Culturally and Linguistically Appropriate Services (CLAS) Standards are:

A. To decrease health disparities and have healthcare practices to become more culturally and linguistically appropriate
B. To imply the definition of cultural health
C. To promote health equity, improve quality and help eliminate health and healthcare disparities
D. To categorize culture services by the ability to speak a given language
Challenge Question 1 Answer:

C. To promote health equity, improve quality and help eliminate health and health care disparities
Cultural Proficiency Continuum

Harmful behaviors and attitudes

Incapacity

Destructiveness

Blindness

Pre-Competence

Competence

Helpful behaviors and attitudes

The belief that certain cultures are superior and behave in ways to take power away from another culture, makes any culture other than mainstream subordinate

A. Cultural Blindness
B. Cultural Incapacity
C. Cultural Destructiveness
D. Cultural Proficiency
B. Cultural Incapacity

- Believes certain cultures are superior and behave in ways to take power away from another culture, makes any culture other than mainstream subordinate

Examples:

- Well everyone knows that Caucasians should be receiving vaccines more anyway. Don’t they always just have better outcomes?

- I have been practicing Medicine the same way for 20 years and it has always worked. There is no way I am going to change just because she has different cultural beliefs.
Objectives Systematic Literature Review:

- Conducted a systematic review
  - To explore the extent and contributors to the health disparities

- To examine culturally sensitive advertising and promotional labeling as potential contributors to disparate vaccination rates
Methods of Systematic Review

- Search Conducted According to PRISMA Guidelines
- Utilized PUBMED database from National Library of Medicine
### Methods/Search terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S2</strong></td>
<td>&quot;Mass Vaccination&quot;[Mesh]) OR &quot;Immunization&quot;[Mesh]) OR &quot;Vaccination&quot;[Mesh]</td>
</tr>
<tr>
<td><strong>S3</strong></td>
<td>&quot;Middle Aged&quot;[Mesh] OR &quot;Aged&quot;[Mesh] OR &quot;Adult&quot;[Mesh]</td>
</tr>
<tr>
<td><strong>S4</strong></td>
<td>United States</td>
</tr>
<tr>
<td><strong>S5</strong></td>
<td>S1 and S2 and S3 and S4</td>
</tr>
</tbody>
</table>
Inclusion/Exclusion criteria

Inclusion:
- English Language
- Vaccination rates for minority populations > 60 years old

Exclusion:
- Lacked data on vaccination rates in minority populations
- Influenza-only
# Herpes Zoster Vaccination Rates Among Adults ≥ 60

<table>
<thead>
<tr>
<th></th>
<th>2011 %</th>
<th>2012%</th>
<th>2013%</th>
<th>2014%</th>
<th>2015%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>15.8</td>
<td>20.1</td>
<td>24.2</td>
<td>27.9</td>
<td>30.6</td>
</tr>
<tr>
<td>Caucasian</td>
<td>17.6</td>
<td>22.8</td>
<td>27.4</td>
<td>32.0</td>
<td>34.6</td>
</tr>
<tr>
<td>Black</td>
<td>7.9</td>
<td>8.8</td>
<td>10.7</td>
<td>11.6</td>
<td>13.6</td>
</tr>
<tr>
<td>Latino</td>
<td>8.0</td>
<td>8.7</td>
<td>9.5</td>
<td>14.6</td>
<td>16.0</td>
</tr>
</tbody>
</table>
Challenge Question 3

Which were inclusion criteria for the Adult Immunization Literature Analysis?

A. Information was presented in a manner conducive to determining vaccination rates among minority populations ≥ 60 years old.

B. Articles were included if they had no data documenting vaccination rates in minority populations.

C. Articles focused solely on influenza and did not have any data regarding 6 adult vaccinations we were looking at. (Tdap, Hep A, Hep B, Pneumococcal, herpes zoster)

D. Articles presented in languages other than English.
A. Contained sufficient information to determine vaccination rates for minority populations ≥ 60 years old
Systematic Review: Observations

The causes of the disparities is multifactorial:

- patient’s knowledge, beliefs, and attitudes regarding the vaccine.
- frequency with which physician visits
- the presence of health insurance
- educational levels
- cultural competence
- health literacy levels of the advertising and promotional messaging around these vaccines
Focus Group: Recruitment

- Mixture of older persons at a senior center
- Youngest client was 65 years of age
- The oldest client was 92 years of age
### Demographic Characteristics of Focus Group Participants

Table 1: Demographic and Clinical Characteristics of Focus Group Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>6 (33.3%)</td>
</tr>
<tr>
<td>Females</td>
<td>12 (66.7%)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>60-70</td>
<td>9 (50.0%)</td>
</tr>
<tr>
<td>71-80</td>
<td>7 (38.9%)</td>
</tr>
<tr>
<td>81-90</td>
<td>1 (5.6%)</td>
</tr>
<tr>
<td>91-100</td>
<td>1 (5.6%)</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>5 (27.8%)</td>
</tr>
<tr>
<td>Married</td>
<td>2 (11.1%)</td>
</tr>
<tr>
<td>Divorced</td>
<td>2 (11.1%)</td>
</tr>
<tr>
<td>Widowed</td>
<td>6 (33.3%)</td>
</tr>
<tr>
<td>NA</td>
<td>1 (5.6%)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>High School/ Less than High School</td>
<td>7 (38.9%)</td>
</tr>
<tr>
<td>High School Degree and Vocational Training</td>
<td>3 (16.7%)</td>
</tr>
<tr>
<td>Some College or Associate’s Degree</td>
<td>5 (27.8%)</td>
</tr>
<tr>
<td>Bachelor’s Degree or Higher</td>
<td>3 (16.7%)</td>
</tr>
</tbody>
</table>
### Health Utilization Related Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of insurance</strong></td>
<td></td>
</tr>
<tr>
<td>Public only</td>
<td>10 (55.6%)</td>
</tr>
<tr>
<td>Private insurance only</td>
<td>2 (11.1%)</td>
</tr>
<tr>
<td>Private and public insurance</td>
<td>4 (22.2%)</td>
</tr>
<tr>
<td>Not available</td>
<td>2 (11.1%)</td>
</tr>
<tr>
<td><strong>Have Primary Care Provider</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>14 (77.8%)</td>
</tr>
<tr>
<td>No</td>
<td>4 (22.2%)</td>
</tr>
<tr>
<td><strong>Had Chicken Pox as Child</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>8 (44.4%)</td>
</tr>
<tr>
<td>No</td>
<td>5 (27.8%)</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>4 (22.2%)</td>
</tr>
</tbody>
</table>

Table 2: Health Utilization Related Characteristics of Focus Group Participants
Existence of Primary Care Provider

- Yes: 14
- No: 2

Have Primary Care Provider
Types of Vaccines Received

Types of Vaccines Received in Focus Group Participants

- Shingles
- Pneumonia
- Influenza

Number of Elderly Receiving Vaccine

Yes
No
Primary Care Provider Recommended Shingles Vaccine

![Bar Chart: Primary Care Provider Recommended Shingles Vaccine]

- Yes
- No
- Not available
Vaccines

- Focus Group Participants were familiar with the following vaccines:
  - Influenza
  - Pneumococcal
  - Shingles

- Participants Vaccine Beliefs
  - Not aware of the tetanus or hepatitis vaccines
  - Herpes vaccines not for older people
  - Boosters were for “the young ones”
  - Home remedies would work better for them than vaccines.
Practitioner-Patient Encounters

- Participants stated that during Health Care Encounters:
  - Practitioners had not advised them to be vaccinated
  - They felt that they were “bothering” their practitioner
  - They felt rushed and underinformed by practitioners
Advertisement Impressions

- Focus Group Participants stated that:
  - They do not pay attention to advertisements in magazines or television.
  - They do not trust most advertisements.
  - They pay more attention to advertisements in their neighborhood grocery stores.
Focus Groups: Reasons for Disparities

- Common reasons for vaccination hesitancy:
  - Lack of knowledge regarding importance of vaccinations
  - Lack of knowledge regarding need for vaccination
  - Lack of access to the vaccine
  - Feelings of mistrust for healthcare professionals
  - Not finding a need for the vaccination/not believing vaccination is necessary
  - Failure of health care professional to recommend/educate clients on vaccinations
  - Venue where advertisement appears i.e. local grocery store versus magazine
Knowledge Gaps

Additional studies needed:

- To assess causes of vaccine seeking and vaccine hesitancy for Tdap vaccine.
- With analysis for potential confounding variables as well as interventional studies are needed to determine means of increasing Tdap vaccination.
- To analyze vaccine seeking behaviors for Hepatitis A and Hepatitis B vaccines.
- Using multivariate models so that the independent role of race in receipt of these vaccines can be delineated.
Recommendations from Focus Groups

- Pneumococcal vaccine, future study to examine the potential impact of vaccine knowledge and awareness interventions on various ethnic populations.
- Shingles vaccine, future study to examine the impact of culturally competent marketing on the immunization rates in racial/ethnic minorities.
Implications and Strategies in Practice:

- There is a need to provide health care providers with the common reasons vaccine hesitancy and avoidance in racial/ethnic elderly minorities:
  - Lack of knowledge regarding vaccine importance and need
  - Lack of access to vaccinations
  - Feelings of mistrust for healthcare professional
  - Failure of healthcare professional to recommend/educate clients on vaccinations
  - Women feel their healthcare professional ignore their concerns
Thank You! Questions?