

Determinants of Vaccine Hesitancy in a Low Income Urban Population

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Background

“Vaccine Hesitancy”

- Well-established personal and public health benefits of routine vaccinations¹
- Many adults decline or delay indicated vaccinations²
- Multi-factorial causes
- Vaccine coverage disparities among ethnicities³

World Health Organization (WHO) SAGE Working Group

- Task force on determinants of vaccine hesitancy in various settings and groups
- Developed example survey questions

Limited improvement in adult vaccination coverage in recent years

- Need to better understanding the reasons behind vaccine hesitancy⁴

Objectives

To utilize the survey questions developed by the SAGE Working Group to characterize determinants of vaccine hesitancy in an urban, low-income setting

Methods

Descriptive, single-site, prospective survey study (N=48)

- Urban, low-income patients at University Family Medicine in Baltimore, MD
 - Pilot-tested survey on 5 members of target population
- In-person surveys were administered to a convenience sample of patients seen for primary care visits
 - Multi-component survey administration

Survey Domains⁵

Contextual Influences

Influences arising due to historic, socio-cultural, environmental, health system/institutional, economic or political factors

Individual and Group Influences

Influences arising from personal perception of the vaccine or influences of the social/peer environment

Vaccine/Vaccination

Specific issues directly related to vaccine or vaccination

Demographics and Results

Table 1. Demographics

Characteristics	n	(%)
Gender		
Female	29	69.1
Male	13	30.9
Age		
18-40	23	50.0
40-60	18	39.0
60-65	5	11.0
Ethnicity		
African-American	35	72.9
Caucasian	7	14.6
Native American	3	6.2
Hispanic/Asian/Oher	3	6.3
Schooling		
No School to High School	5	10.4
High School Graduate	15	31.3
Trade School/Some College	19	39.6
Bachelor's Degree	5	10.4
Professional or Doctorate Degree	4	8.3
Insurance		
Medical Assistance/Medicare	26	63.4
Private	15	36.6

Table 2. Survey Responses

Likert Scale Responses (1=strongly disagree, 5=strongly agree)	Mean	StdDev
I believe that vaccines are still needed when diseases are rare	4.2	0.97
I trust the information I receive about shots	4.1	0.95
It is important for everyone to get the recommended vaccines...	4.57	0.65
The fear of pain or of the needles make me hesitate to be immunized.	2.02	1.14
The cost of a vaccine will prevent me from getting it, even if I feel I need it.	2.17	0.95
My local community has declined to accept certain vaccines in the past.	2.57	0.95
I trust that my government is making decisions in my best interest...	3	1.13
Yes/No Responses	Yes (%)	% of Participants Responding
Have you or someone you know ever had a bad reaction to a vaccine...	37.5	100
Do you believe that there are other (better) ways to prevent diseases...	47.9	100
Would you prefer to receive more information on vaccination...	62.5	100
Do you think this would change your choice in favor of a vaccine?	25.6	89.5
Has your religious community ever advocated against vaccination?	2.1	100
Did you follow their advice?	0	100
Do you trust pharmaceutical companies to provide safe and effective vaccines?	78.7	98
Before administering a vaccine, my health care worker always...	93.5	95.8
Did healthcare professionals ever treat you without respect...	13	95.8

Discussion

- Religion, pharmaceutical companies, pain of needles, and cost were not found to significantly influence the likelihood of vaccine hesitancy
 - Respondents polarized with regards to the government with responses either strongly for or strongly against the statement
- Patients' greatest trust is in their PCP for immunization information
- Respondents desire to understand more about vaccines and may become more favorable to receive their indicated vaccines when provided additional information on the safety and efficacy of vaccines
- Fear of the adverse effects to vaccinations as well as a belief in alternative strategies to prevent disease may contribute vaccine hesitancy in our population

Conclusions

Creating vaccine-related information disseminated via phone calls, advertisements, mail, or hand-outs may simultaneously reduce hesitancy while allowing patients convenience to become informed

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