

# Addressing Vaccine Hesitancy and Resistance

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## Disclosure: Gregory A. Poland, MD, MACP, FIDSA

	Consultant	Other
Avianax, LLC	X	
Dynavax Technologies Corporation	X	
EMD Serono, Inc.	X	
Emergent BioSolutions™	X	
Liquidia Technologies	X	
Merck & Co., Inc.		X (Chair eDMC)
Novartis Vaccines and Diagnostics	X	
PaxVax, Inc.	X	
Theraclone Sciences	X	

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# Addressing Vaccine Hesitancy and Resistance: Key Points

- Healthcare provider (HCP) recommendation is the single most important and determinative factor in whether a patient receives a vaccine or not
- Patients are exposed on a frequent basis to wrong and misleading information
  - Internet
  - Family and acquaintances
  - Social media
- Language, cultural, and access issues
- The issue of spectrum and cognitive styles



Partnership for Adult Vaccination and Education

## Baseline Vaccination Rates vs Healthy People 2020 Goals: Gaps Persist

Vaccine and Target Group	Baseline Rate (Year)	Healthy People 2020 Goal
Influenza vaccine		
Noninstitutionalized adults 18 to 64 years old	25% (2008)	80%
Noninstitutionalized high-risk adults 18 to 64 years old	39% (2008)	90%
Noninstitutionalized adults 65 years old and older	67% (2008)	90%
Institutionalized adults 18 years old and older	62% (2006)	90%
Healthcare personnel	45% (2008)	90%
Pregnant women	28% (2008)	80%
Pneumococcal vaccine		
Adults 65 years old and older	60% (2008)	90%
High-risk adults under 65 years old	17% (2008)	60%
Institutionalized adults	66% (2006)	90%
Zoster vaccine		
Adults 60 years old and older	7% (2008)	30%
Hepatitis B vaccine		
Healthcare personnel	64% (2008)	90%



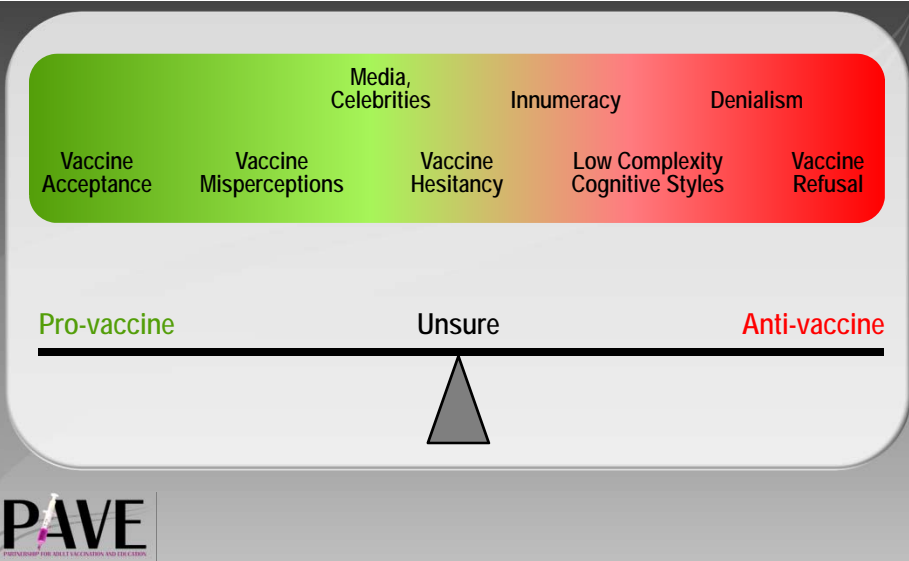
USDHHS. Healthy People 2020. Available at: <http://www.healthypeople.gov/2020/default.aspx>. Accessed July 12, 2011.

“Vaccination is a complex social act that effects both direct perceived **self-interest**, the interest of one’s children, and the broader community. The decision leading to immunization remains a personal summation of ... their **trust** in the institutions that produce, legislate, and deliver vaccines.”



Larson HJ, et al. *Lancet*. 2011. [Epub ahead of print].

# Spectrum of Vaccine Decision-Making



# Cognitive Style-Based Strategies

Style	Examples	HCP Strategy
Denialist	"No data supporting vaccine safety" "No real risk of getting these diseases"	Provide materials, consistent messaging, avoid pressuring/persuading
Innumerate	Lack of understanding of probabilities and risks	Right brain communication methods, emotional appeals
Analytic	"What are the risks and benefits?"	Data-driven educational materials
Fear-based	"I'm just afraid that ... "	Data, reassurance, personalize, strong HCP recommendation
Low complexity	Conspiracy theories, erroneous information	Cognitive-appropriate educational materials, strong HCP recommendation
Heuristic	"I heard of a case of ... "	Face value appeals, strong HCP recommendation

# How to Respond to Common Statements from Hesitant Patients

- Regarding the influenza vaccine
  - “I got the vaccine, and it made me sick”



## Influenza Vaccine Side Effects N=336 Outpatient Veterans Ages ≥65

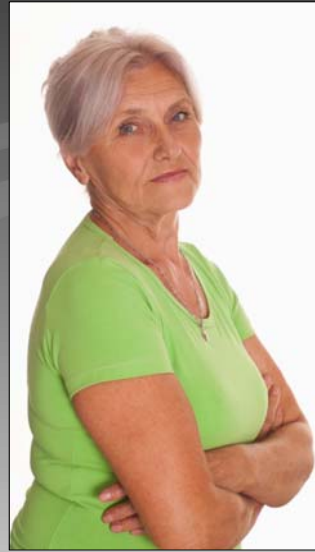
Symptom	Vaccine %	Placebo %	p-Value
Fever	5.7	4.2	.68
Cough	6.6	5.1	.62
Coryza	13.2	10.2	.27
Fatigue	8.0	7.7	.82
Malaise	7.2	6.3	.83
Myalgia	4.8	4.2	.84
Headache	6.9	7.6	.99
Any symptom	27.7	22.9	.21
Sore arm	20.1	4.9	<.001



Margolis KL, et al. *JAMA*. 1990;264(9):1139-1141.

## How to Respond to Common Statements from Hesitant Patients

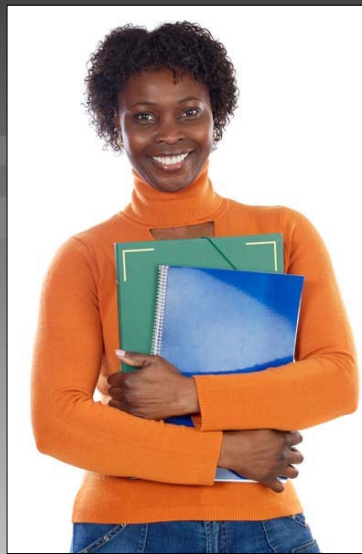
- Regarding the pertussis vaccine
  - “I’ve never heard of this in adults—it’s a kid’s disease”



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## How to Respond to Common Statements from Hesitant Patients

- Regarding the HPV vaccine
  - “Am I really at risk for an STD or cervical cancer?”



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# Strategies For Increasing Adult Vaccination Rates

- Effective strategies that are low cost and easy to implement
  - Standing orders
  - Computerized record reminders
  - Chart reminder
  - Performance feedback
  - Home visits
  - Mailed/telephone reminders
  - Expanding access in clinical settings
  - Patient education
  - Personal health records
- Centers for Disease Control and Prevention (CDC) site provides examples, steps, advantages, disadvantages, and effectiveness of each strategy



CDC. Strategies for increasing adult vaccination rates. Available at: <http://www.cdc.gov/vaccines/recs/rate-strategies/adultstrat.htm>. Accessed July 12, 2011.