An Overview of Vaccine Acceptance

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Four Areas

- The concept
- Issues and challenges
- CDC efforts and activities
- Efforts by others
The Concept

A targeted population’s belief, confidence and voluntary intentions with respect to...

- vaccines in general, or
- immunizations, or
- a recommended vaccination
- all of the above

...coupled with their trust, beliefs and confidence in those making the recommendation
An Important and Appealing Concept

- Recognizes that seeing high value and benefits in a health-related recommendation often drives behavior

- A necessary foundation for achieving and maintaining high immunization rates
  - Public, provider, and parent attitudes and perceptions an important component of vaccination success (e.g., public often doesn’t accept expert recommendations without reflection)

- When adoption or coverage is low or less than desired, vaccine acceptance may be contributing or primary factor
Vaccine acceptance correlated or believed to be associated with...

- High “vaccine confidence”
- Low or little “vaccine hesitancy”
- Greater/faster adoption of new vaccines and/or new immunization recommendations
- Attitudes/beliefs toward vaccines and vaccination
- Dialogue (e.g., with parents, targeted populations)
“Acceptance” provides a helpful framework

Active Vaccine Refusal
[All – Some – One]

Non-vaccination due to lack of awareness of recommendation

Vaccine Delay

Much concern but no delay

Strong vaccine acceptance

Vaccine Hesitancy

Weak Acceptance
If only it were that simple😊
Four issues and challenges related to “Vaccine Acceptance” concept
1. Much underlying complexity

- “Acceptance” can and does vary
  - Vaccines as a product category
  - Immunization as a medical intervention
  - By vaccine
  - By immunization recommendation

- Health system factors (e.g., cost, access, availability)
  - Also foster or impede vaccine use and vaccination uptake
  - Impact “acceptance” and are impacted by “acceptance”
Vaccine-related Factors

Health Systems Factors

Active Vaccine Refusal
[All – Some – One] Non-vaccination due to lack of awareness of recommendation

Vaccine Delay

Much concern but no delay

Strong Vaccine Acceptance (high confidence)

Vaccine Hesitancy
Weak Acceptance
2. Identifying the best measure(s) or indicator(s) of ‘vaccine acceptance’
(e.g., how do you know you have high acceptance or whether acceptance is a problem?)
Suggested measures, outcomes include.

- Coverage rates
- Adherence/compliance to recommended immunization schedules
  - Low non-medical exemption rates
  - Few purposeful delays or deferrals
  - Few refusals
- Speed of adoption of new immunization recommendation
- High confidence/trust in a) vaccines, b) immunization recommendations, and c) both
- High recognition of immunization as “a personal and collective community responsibility”
- (Great/greater) Public/government support for immunization recommendations and/or vaccine development
- “Consumer demand”
- Some combination of the above
3. Determining when or whether “acceptance” is a problem, a potential problem, or not a problem
Some recent U.S. data

- Record high infant and toddler immunization rates
  - Most vaccines at or over 90% coverage for kids 19-35 months
  - Less than 1% zero-dose children
- Kindergarten vaccination coverage
  - Median coverage levels for DTaP, polio, HepB vaccines at or above HP 2020 target of 95%; MMR was 94.8%, two doses of varicella was 93.2%
  - Some variability across states, including for vaccine exemptions (which ranged from 0.1% to 7.0%)
- Adolescent/teen coverage increased from 2006 to 2011
  - From 68.7% to 78% for one dose Tdap and from 62.7% to 70.5% for MenACWY
  - HPV vaccination coverage relatively low
  - Considerable variability by state
- “Plateau” in many adult vaccination rates
Confidence in Vaccine Safety

Percent of parents of at least one child 6 years of age or younger who reported that they were confident or very confident in the safety of routine childhood vaccines

(Source: PN HealthStyles and ConsumerStyles Surveys)
Which of the following best describes your plans for vaccinating your youngest child?

My child has already received all of the recommended vaccines..................68.8%

I intend to have my child receive all of the recommended vaccines as scheduled........................................................................................................17.1%

I intend to have my child receive all of the recommended vaccines but will space-out or delay them.................................................................7.4%

I intend to have my child receive some but not all of the recommended vaccines...............................................................5.1%

I intend to have my child receive none of the recommended vaccines..............1.7%

2011 Consumer Styles survey, 453 parents w/ at least one child <=2 years old
4. Determining how best to maintain, extend or build “acceptance”

- Education campaigns (e.g., public, parents)
  - Value and benefits of vaccines / immunization
  - Value and benefits of schedule
  - Value and benefits of specific vaccine(s)
- Scale and focus
  - Targeted efforts/interventions?
  - Broad efforts/interventions?
- Policies
  - Health systems factors to reduce/eliminate barriers
  - Ones that facilitate or foster immunization
CDC/NCIRD taking a Multi-faceted Approach to “Acceptance”

- Working to foster, strengthen understanding of concept
  - Literature/research review
  - Developing and assessing survey measures
- Collaborations with NVPO
  - Vaccine confidence expert consultation (May 2011)
  - Planned longitudinal study of mothers
- Provider resources to foster effective vaccine communications
- Ongoing work to improve web presence
- Proactive media work around, before disease outbreaks (e.g., press conferences, ethnic media roundtables, working w/ states)
- New “Champions of Immunization” awards
Direct to parent/public communications

- Often note getting vaccinated is social norm
- New English TV and radio public service announcements and print ads
  - “Immunization. Power to protect”
- New Spanish-language TV and radio public service announcements and print ads
  - “Con salud, todo es posible. Vaccine a sus hijos”
  - (“With health, all is possible. Vaccinate your children”)
English TV PSA:
Immunization. Power to Protect.

http://www.cdc.gov/vaccines/cdcmediaresources/
Spanish TV PSA

Con salud, todo es posible.
Vacune a sus hijos.

http://www.cdc.gov/espanol/vacunas
1-800-232-4636

http://www.cdc.gov/vaccines/cdcmediaresources/
Learning from Others

- Washington state efforts
- Research by others into vaccine refusal, delay, hesitancy
  - Dr. Saad Omer (Emory University)
  - Baruch Velan (Gertner Institute, Israel)
  - Gary Freed, Amanda Dempsey (University of Michigan)
  - Alison Kempe (CO School of Public Health)
- International efforts related to vaccine confidence and acceptance
  - Robb Butler, WHO
  - Global Vaccine Action Plan
  - Heidi Larson, London
Looking Forward

- Continue efforts to understand role that "acceptance" plays, e.g.,
  - determinants of acceptance, different types of acceptance
  - relationship between acceptance and adoption of immunization recommendations, consumer demand
- Address challenges, e.g.,
  - Best measures and indicators
  - How best to track and assess over time
- Collaborations
  - Research and studies
  - Projects, efforts to build, extend acceptance
Thanks!