Vaccine Uptake, Missed Opportunities and Provider Response

Saad B. Omer
Departments of Global Health, Epidemiology, and Pediatrics
Emory University, Schools of Public Health & Medicine
&
Emory Vaccine Center
Why Healthcare Providers are Important?

• Cited by parents as the most frequent source of vaccine information
  • Including parents of unvaccinated children

• Community opinion leaders

• Knowledge gaps for provider interventions in developing countries
  • Building blocks of interventions

Omer, et al., New Eng Journal of Medicine, 2009
National Family Health Surveys (India), 1993 & 1998
Provider Communication

Public Health Entities → Provider → Parent/"Patient"
Knowledge, Attitudes, & Practices of Providers Regarding Immunization in India
Specific Aims

• To assess KAPs among a national sample of Indian Academy of Pediatrics (IAP) members

• To assess KAPs among a regional sample of public healthcare workers (PHC physicians, ANMs and ASHA workers)
Most Important Services for Protecting the Children’s Health (ANM)
Most Important Services for Protecting the Children’s Health (ASHA)
Barriers in promoting/administering vaccines (ANM)
Strategies important for raising immunization rates (ANM)
Strategies important for raising immunization rates (ASHA)
Have you ever been threatened while vaccinating/promoting vaccination?

ANMs
- Yes; 24%
- No; 76%

ASHA Worker
- Yes; 20%
- No; 80%
Response When Identify a Child with No or Incomplete Vaccination – PHC Physicians

- Vaccinate them yourself: 51.0%
- Refer them to another PHC physician for vaccination: 20.0%
- Refer them to another private physician for vaccination: 11.0%
- Advise the parents to get their child vaccinated at facility of their choice: 55.5%
- Refer to the ANM for vaccination on the same day: 57.4%
- Refer to the ANM for vaccination on a designated vaccination: 57.4%
- Do nothing: 32.3%
Lessons from Indian Health Care Providers

• Vaccines not a top priority for a significant proportion of ANMs & ASHA workers
• Parental awareness & illiteracy perceived as major barriers to increasing coverage
• Missed opportunities to vaccinate
  • Particularly by PHC physicians
Correct Misinformation Regarding Vaccine Safety?
Disconfirmation bias

“When people are faced with evidence for and against their beliefs, they will be more likely to accept the evidence that supports their beliefs with little scrutiny yet criticize and reject that which disconfirms their beliefs.”

Source: changingminds.org
Correction of vaccine misinformation (CDC)
Disease danger: Text (VIS)
Disease danger: Images (Illinois DPH)
Disease danger: Narrative (CDC)
Control group
Nyhan et al. 2013
Countering antivaccination attitudes

Zachary Horne\textsuperscript{a,1,2}, Derek Powell\textsuperscript{b,1}, John E. Hummel\textsuperscript{a}, and Keith J. Holyoak\textsuperscript{b}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{vaccine_change_score.png}
\caption{Vaccine Attitude Change Score by Condition}
\end{figure}
Frame Immunization as the Default Choice?
The Architecture of Provider-Parent Vaccine Discussions at Health Supervision Visits

- **Who initiated the vaccine recommendation or plan specifically? (n = 111)**
  - No plan verbalized (3%; n = 3)
  - Parent (13%; n = 15)
  - Provider (84%; n = 93)

- **How does the PROVIDER initiate the vaccine recommendation? (n = 93)**
  - Presumptive (74%; n = 69)
  - Participatory (26%; n = 24)

- **How does PARENT respond to the provider’s initiation?**
  - Accepts (74%; n = 51)
  - Resists (26%; n = 18)
  - Accepts (4%; n = 1)
  - Provides own plan (13%; n = 3)
  - Resists (83%; n = 20)
Measles, Mandates, and Making Vaccination the Default Option

The tension between individual choice and public health is both long established and enduring. It also appears to be at a breaking point. With Ebola still crisp in our collective consciousness, health care professionals, public health practitioners, and the public have been captivated by a domestic measles outbreak and confounded by the variation on this timeless tension that it embodies: more parents are exercising their choice to refuse or delay vaccination for their child, yet continued widespread acceptance of vaccination is critical to maintain herd immunity and protect the community from diseases that still circulate.

Protecting individual choice and promoting public health are seemingly at odds. However, an impasse is not inevitable. Achieving a balance between these two com-
counseled regarding the risks of remaining unimmun-
ized. Exemptions and the ease with which they can be claimed are known to be associated with an increased risk of disease in the exempted child and the child’s community. Moreover, exemptors tend to cluster. These clusters provide the critical mass of susceptible individuals, which can further propagate disease. As such, the appropriateness of philosophical exemptions is the subject of an ongoing debate.

State legislatures constantly reevaluate vaccination policy and are often the setting for this debate. Already this year, lawmakers in Mississippi and Colorado have considered or are considering bills that expand the ability of parents to opt their children out of required school-entry vaccinations, while legislation to eliminate philosophical...
Campaign Vaccinorm
What is Campaign VacciNorm?

- **Premise**: to make clinical and promotional changes that emphasize seasonal influenza vaccine receipt is the norm

- Uses evidence-based strategies derived from:
  - Behavioral economics
  - Heuristics
## VacciNorm strategies and descriptions I

<table>
<thead>
<tr>
<th>Strategy &amp; Description</th>
<th>Theoretical/Scientific Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standardization of work:</strong> Establish processes to make vaccination routine at every primary care encounter</td>
<td>Changing clinical operations to facilitate vaccination will “nudge” patients towards vaccination.(^3-5)</td>
</tr>
<tr>
<td><strong>Vaccination rate feedback:</strong> Provide weekly feedback to providers on clinical unit coverage</td>
<td>Fosters healthy competition and motivates providers to achieve higher rates.(^6,7)</td>
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<tr>
<td><strong>Provider ID badge pins (and possibly patient stickers):</strong> Create provider pins that advertise physician receipt and stickers acknowledging patient receipt</td>
<td>Building off of “I voted” stickers, these buttons advertise provider receipt, promote group participation and endorse the new norm.(^8,9)</td>
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## VacciNorm strategies and descriptions II

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<tr>
<td><strong>Presumptive communication resources for providers and front desk staff:</strong></td>
<td>A provider’s recommendation to vaccinate is one of the strongest predictors of vaccine receipt. When a provider confidently presumes a patient will vaccinate, the likelihood of acceptance increases.¹⁰⁻¹²</td>
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<tr>
<td>Develop evidence-based resources to assist providers and staff in communicating that vaccination is the clinical default</td>
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<td><strong>Identify vaccine champions:</strong> Designate clinical “cheerleaders” to promote routine vaccination through <em>Campaign Vaccinorm</em></td>
<td>Having a clinical staff person maintain enthusiasm about vaccination can stimulate and sustain awareness vaccine promotion among other staff.¹³, ¹⁴</td>
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Campaign lapel pins

• Will be provided to all Healthcare employees
  • During employee vaccination campaign
• To be pinned on ID badges
• Why? Power in provider endorsement

Did you know?
Telling patients that YOU got your flu shot is one of the BEST ways to promote patient vaccination.
Place this pin on your Emory ID badge and tell patients that you got vaccinated.
Help us make flu vaccination the norm at Emory!
Provider talking points

- Campaign VacciNorm promotes strategies that presume vaccination will occur during visit
- Key points:
  1. Talk about vaccination as the healthy default; it’s the standard at Emory
  2. Focus on the disease, not the vaccine
  3. Don’t try too hard to correct misinformation

<table>
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<th>Instead of saying:</th>
<th>SAY THIS:</th>
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<td>“Would you like to get your flu shot today?”</td>
<td>“It’s time to get your flu shot!”</td>
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<tr>
<td>“I think flu shots are good, so you should get one.”</td>
<td>“I got my flu shot; you should too.”</td>
</tr>
<tr>
<td>“Don’t forget to get your flu shot.”</td>
<td>“If you don’t get a shot here, be sure to get one at your local grocery store or pharmacy.”</td>
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Front desk talking points

• Front desk personnel are often the first staff patients encounter
• Front desk staff will initiate simple discussion:

_Upon check-in, please make it a habit to ask every patient:_

“Have you received a flu shot yet this fall?”

_If no, please say: “Well then we’ll get you vaccinated today. Your nurse or doctor will follow-up.”_
**Campaign VacciNorm summary**

- Emphasize that vaccination is the norm
  - Engage all Healthcare employees
- Provider endorsement is especially important
  - Wear lapel pins and reference evidence-based communication tips
- Presume vaccination
  - Use language with patients that presume they will vaccinate
- Strive to vaccinate every eligible patient!
Possible Interventions

Summary
Summary

• Focus on health care providers
• Leverage defaults to nudge
• Frame immunization as the default choice
• Development of a robust evidence base of effective interventions
Emory University
Saad Omer, MBBS, MPH, PhD
James M. Hughes, MD
Walt Orenstein, MD
Lisa M. Gargano, PhD
Paul Weiss, MS
Dianne Miller

NPSP
Hamid S. Jafari, MBBS
Sunil Bahl, MBBS, MD

IAP
Naveen Thacker, MBBS, MD
Panna Choudhury, MBBS, MD
Anand Prakash Dubey, MBBS, MD
Vipin M. Vashishtha, MBBS, MD

Johns Hopkins
Dan Salmon, PhD
Thank You!

Twitter: @SaadOmer3