Mapping Vaccine Hesitancy: Roots, determinants and scope

Eve Dubé
September 23, 2014
Objective

• To define vaccine hesitancy and its scope
• To illustrate the role of qualitative research in better understanding vaccine hesitancy
WHO SAGE WG on Vaccine Hesitancy: Vaccine Hesitancy refers to delay in acceptance or refusal of vaccine despite availability of vaccine services.
The Scope of Vaccine Hesitancy

- Strong anti-vaccination beliefs / vaccine refusers
  - Lack of vaccines;
  - Lack of competent staff;
  - Distance to vaccination services;
  - Poor vaccine communication program, etc.

Lack of opportunities to accept or refuse vaccine(s)

Vaccine Hesitancy

- Refuse all, but unsure
- Refuse some, accept some
- Accept all, but unsure
- Delay vaccination

Vaccine demand

Individuals and communities understand the value of vaccines and demand immunization as both their right and responsibility (GVAP)
An example from the field

Qualitative longitudinal study
- 56 mothers were interviewed during pregnancy and when babies were aged ≈6 months old
- Half mothers were under the care of physicians and half under the care of midwives

First interviews
Main themes: Perception of health in general and of role and responsibilities of parents regarding child’s health as well as perception regarding VPD and vaccination.
Examples of questions:
- What do you think is your role, as a parent, to keep your baby healthy?
- Do you think that young babies are more or less likely to catch infectious diseases, like flu or measles, than older children? Why?
- What are the first words that come up to your mind when I say “vaccines”?
- What, if anything, do you know about vaccines?
- Do most parents you know of have their children vaccinated?
- Do you think you will vaccinate your baby? Why? What does your partner think about it?

After 1st interview, mothers were classified according to their vaccination attitudes:
- Favourable, hesitant, defavourable

After 2nd interview, mothers were classified according to their vaccination decisions:
- Accept all according to schedule, refuse and/or delay one or +, refuse all

Second interviews
Main themes: Mothers’ decision about vaccination and mothers’ rationale behind their decision. We also elicited information regarding the influence of health professionals, the father and the broader social network on the decision to vaccinate or not, mothers’ satisfaction with their decision and intention regarding future vaccination.
Examples of questions:
- When we first talk, you told me that you planned to (accept / delay / refuse) the shots for your child, what did you finally have decided?
- What things have you thought about while making your decision about your child’s first shots?
- How comfortable are you with your decision?
- Have you ever received or heard negative information about vaccination? If yes, did this negative information influence your decisions?
- Did the professional that followed your pregnancy ever talk to you about vaccines? What do you remember about it?

An example from the field

Vaccination Attitude (1st interview)

- Motivated by the desire to protect their child
- Trusted public health recommendations
- Well-informed
- Strong 'natural or alternative' beliefs regarding health

Vaccination Decision (2nd interview)

- Accept all n=35
- Choose or delay n=12
- Refused all n=9
- Favorable n=24
- Hesitant n=12
- Unfavorable n=9

- Vaccine Hesitancy is not transitory

I’m still unsure. I always wonder if I’ve made the right choice . . . I think that if I get her vaccinated one of these days I’ll feel a bit better and I’ll tell myself, well, everyone does it, so I’m joining the crowd; I will have done my best. But at the same time, in 50 years, if they realize that there are problems with vaccination, with certain vaccines. I’m not really comfortable with the decision (Vaccine-hesitant, primipara, 28 years old)

An example from the field

Mothers under the care of physicians* n=26
- Accept all n=22
- Choose or delay n=3
- Refused all n=1

Mothers under the care of midwives* n=29
- Accept all n=13
- Choose or delay n=8
- Refused all n=8

As highlighted by this study and others*

• Vaccine hesitancy is complex
• Measuring the prevalence of vaccine hesitancy is difficult
  – Because there is no validated indicator of vaccine hesitancy
  – Vaccine hesitancy varies across time, places and vaccines
• Being able to recognize vaccine hesitancy is essential to develop appropriate intervention

Determinants of Vaccine Hesitancy

**Contextual influences**
- Traditional or religious leaders in some settings, celebrities in others, can all have a significant influence on vaccine acceptance or hesitancy
- Negative encounters with vaccine providers, feeling pressure to vaccinate, fear of needle, or pain or fear of AEFI can result in vaccine hesitancy

**Individual and Group influences**
- Risk/Benefit (perceived, heuristic)
- Immunisation as a social norm vs. not needed/harmful
- Knowledge/awareness
- Health system and providers-trust and personal experience

**New vs. old vaccines**
- Introduction of a new vaccine or new formulation
- Mode of administration
- Design of vaccination program/Mode of delivery
- Reliability and/or source of vaccine supply
- Vaccination schedule
- Costs
- Role of health-care professionals

**Factors related to the broad influences (historic, political, socio-cultural)**
- Health-care professionals play a key role, but they can be vaccine-hesitant themselves

An example from the field

- **Structured interviews with immunization managers**: 14 open-ended questions to assess IMs’ opinions regarding vaccine hesitancy in their countries.

**Examples of questions:**
- Have you heard reports of people hesitating around whether or not to accept one or all vaccine(s) in your country?
- Is it focused in any specific areas of the country?
- Is it related to any particular group of people (i.e., ethnic or religious group, other marginalized group? Philosophical group? Education level? etc.)?
- Is it focused on any specific vaccine or strategy (i.e., route of administration, immunization schedule, age of immunization, etc.)?
- What do you consider to be the causes of vaccine hesitancy?
- Does vaccine hesitancy impact on the immunization programme?

Available at: [http://www.who.int/about/regions/en/](http://www.who.int/about/regions/en/)

Definition of Vaccine Hesitancy

• 4 IMs explicitly defined their understanding of vaccine hesitancy.
• Most IMs associated (implicitly or explicitly) vaccine hesitancy with parental refusal.

An example from the field

'Someone who does not believe vaccines are working and are effective and that vaccines are necessary.'

Impact of Vaccine Hesitancy

• Vaccine hesitancy was identified as an issue in all countries.
• However, 11 IMs considered the impact of vaccine hesitancy on immunization programs as a minor problem.

Characteristics of Vaccine Hesitancy

• Some IMs associated vaccine hesitancy to particular religious or ethnic groups.
• However, most agreed that vaccine hesitancy is not exclusively clustered to specific communities, and exists across all socioeconomic strata of the population.

To sum up

CONTEXTUAL INFLUENCES
- Religion/culture/gender/socio-economic
- Influential leaders and anti- or pro-vaccination lobbies
- Communication and media environment

INDIVIDUAL AND GROUP INFLUENCES
- Risk/benefit (perceived, heuristic)
- Health system and providers – trust and personal experience
- Knowledge/awareness

VACCINATION SPECIFIC ISSUES
- Introduction of a new vaccine
- Role of health-care professionals
- Vaccination schedule
- Risk/benefit (scientific evidence)
Take home messages

• Vaccine hesitancy exists worldwide

• Vaccine hesitancy is an individual behaviour, but is also the result of broader political, social, cultural and historical influences

• Qualitative research approaches are well-suited to understand the complex causes and determinants of vaccine hesitancy
Many thanks to....

- The organizing committee for inviting me!

And to

- Maryline Vivion, INSPQ, (mothers study)
- Melanie Schuster, WHO secretariat, (IMs survey)
- Dominique Gagnon, INSPQ (IMs survey)
- SAGE WHO Working Group on Vaccine Hesitancy for great discussion and 2 years of interesting work