

SAGE Working Group on Vaccine Hesitancy

Summary of Findings

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SAGE Meeting

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**World Health
Organization**

Vaccine Hesitancy Working Group Methods

- 1) Systematic reviews vaccine hesitancy, review of reviews: determinants, interventions.
- 2) Models of vaccine hesitancy: literature, WG experience, etc.
- 3) Working Group Matrix of Determinants of Vaccine Hesitancy.
- 4) Immunization Managers' Survey (2013).
- 5) Vaccine hesitancy survey questions based on literature, WG member input.
- 6) Pilot testing of vaccine hesitancy indicators in JRF (2012, 2013) and at African Regional Immunization Managers' meeting (2013).

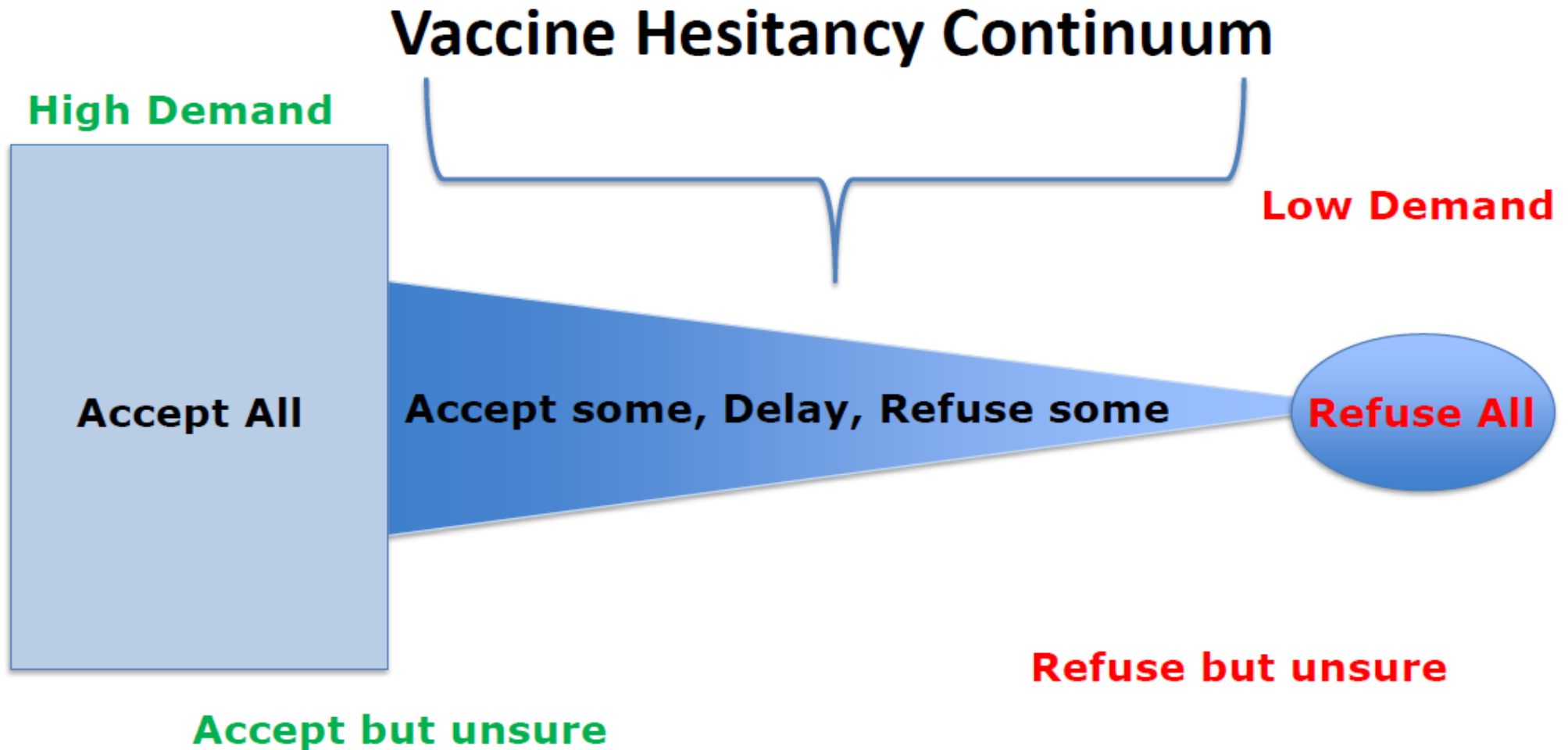
Vaccine Hesitancy Working Group Methods

7) Diverse consultations:

WHO HQ departments and regional offices, UNICEF (HQ and regional offices), GPEI, US National Vaccine Advisory Committee. Communications/demand creation experts from industry (International Food & Beverage Association) & other organizations. Working Groups and Advisory Committees: GVAP WG, MR WG, GACVS, IVIR-AC. Research groups; Expertise beyond immunization and health fields.

8) WG arrived at conclusions & recommendations by consensus.

Vaccine Hesitancy



Definition of Vaccine Hesitancy

Vaccine hesitancy

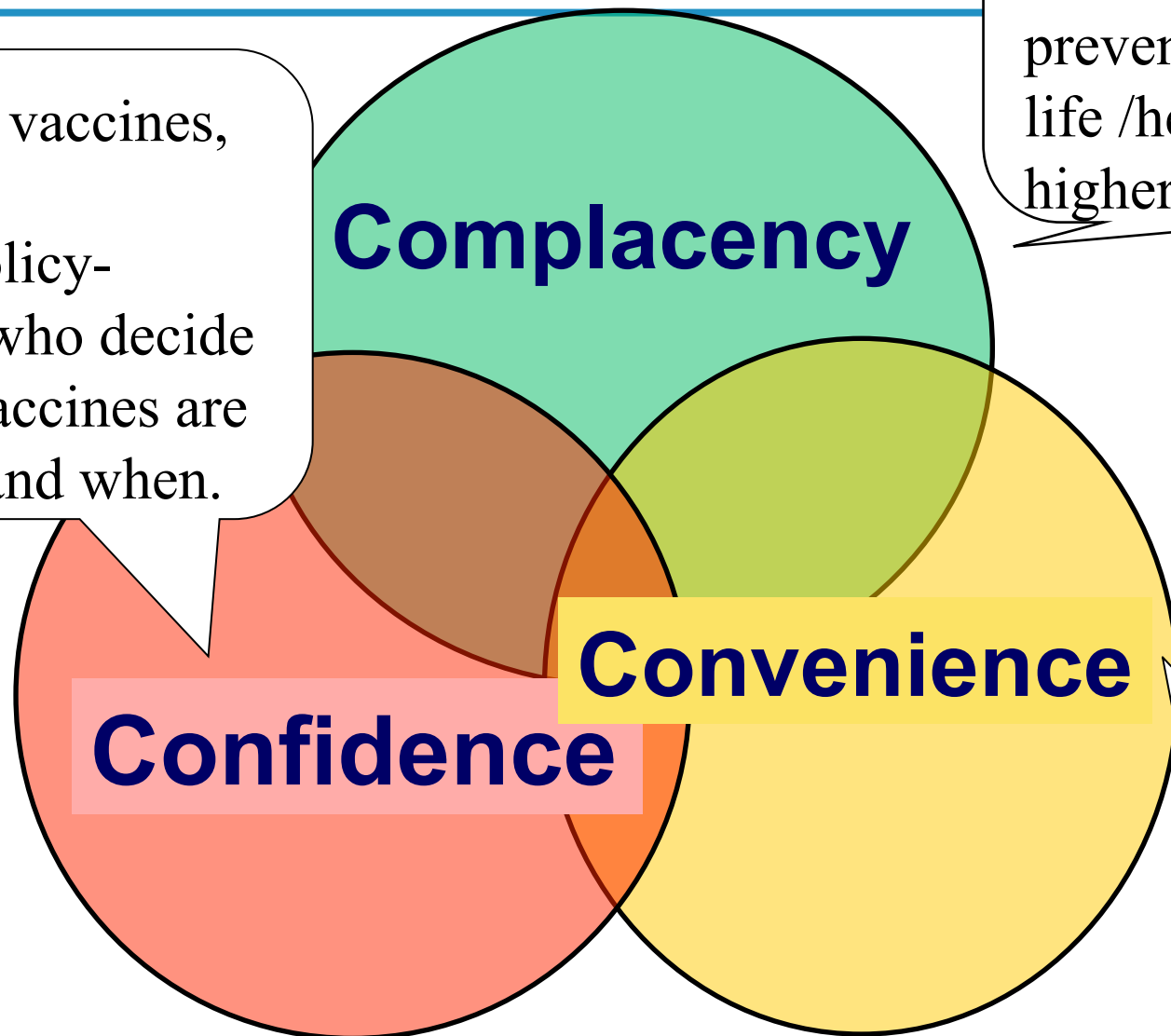
- Refers to delay in acceptance or refusal of vaccines despite availability of vaccine services.
- Is **complex** and **context specific** varying across **time**, **place** and **vaccines**.
- Is influenced by factors such as **complacency**, **convenience** and **confidence**.

Scope of Vaccine Hesitancy

- Does ***not* apply** to situations where low vaccine uptake because:
 - Poor availability e.g. lack of vaccine (stock outs),
 - Lack of offer of vaccines,
 - Lack of access to vaccines,
 - Unfeasible travel/distances to reach immunization clinic,
 - Poor vaccine program communication, etc.

Vaccine Hesitancy Model

Trust in vaccines,
in the policy-
makers who decide
which vaccines are
needed and when.



Perceived risk of VPD
low; vaccination not
deemed a necessary
preventive action. Other
life /health responsibilities
higher priority at time

Physical access-
availability,
affordability,
willingness to pay;
geographical access,
ability to understand
(**language, health**
literacy); **appeal of**
immunization
services

Vaccine Hesitancy Working Group

Determinants Matrix

I. Contextual influences

environmental,
social,
cultural,
economic or
political factors

II. Individual/ social group influences

personal perception
or perception of the
individual, social,
environment factors

III. Vaccine and vaccination- specific issues

factors directly
related to vaccine(s)
characteristics

Example Factors from Matrix of Determinants

CONTEXTUAL INFLUENCES

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

Communication and media environment

Influential leaders, immunization program gatekeepers and anti- or pro-vaccination lobbies.

Historical influences

Religion/culture/ gender/socio-economic

Politics/policies

Geographic barriers

Perception of the pharmaceutical industry

Influence of determinants vary

| | | ALL REGIONS | | AMERICAS | | EURO | | WPR | | AFRICA | | GLOBAL | | SEAR | | EMRO | |
|-----------------------|-------------------------------------|---|---|----------|---|------|---|-----|---|--------|---|--------|---|------|---|------|---|
| | | B | P | B | P | B | P | B | P | B | P | B | P | B | P | B | P |
| Contextual influences | Socio-economic group | Age (Adult/Caregiver) | | | | | | | | | | | | | | | |
| | | Age (Physician) | | | | | | | | | | | | | | | |
| | | Race/Ethnicity | | | | | | | | | | | | | | | |
| | | Birthplace | | | | | | | | | | | | | | | |
| | | Income / SES | | | | | | | | | | | | | | | |
| | | Marital status (M) / family composition | | | | | | | | | | | | | | | |
| | | Education | | | | | | | | | | | | | | | |
| | | Occupation | | | | | | | | | | | | | | | |
| | | Language Proficiency | | | | | | | | | | | | | | | |
| | | Family decision making | | | | | | | | | | | | | | | |
| | | Access to health care | | | | | | | | | | | | | | | |
| | | Health status | | | | | | | | | | | | | | | |
| | | Age (Child) | | | | | | | | | | | | | | | |
| | | Birth Order | | | | | | | | | | | | | | | |
| | | Birth interval | | | | | | | | | | | | | | | |
| | | Birthweight | | | | | | | | | | | | | | | |
| | | Birth Environment | | | | | | | | | | | | | | | |
| | | Number of births given (parity) | | | | | | | | | | | | | | | |
| | | Family Size | | | | | | | | | | | | | | | |
| | Religion / Culture / Gender | Religious affiliation | | | | | | | | | | | | | | | |
| | | Cultural | | | | | | | | | | | | | | | |
| | | Gender (Child) | | | | | | | | | | | | | | | |
| | | Gender (Adult) | | | | | | | | | | | | | | | |
| | Politics / policies (eg. Mandates) | Politics | | | | | | | | | | | | | | | |
| | | Policies | | | | | | | | | | | | | | | |
| | Influential leaders and individuals | Influential leaders and individuals | | | | | | | | | | | | | | | |
| | Communication and media environment | Access to information | | | | | | | | | | | | | | | |
| | | Mass Media (Use and influence) | | | | | | | | | | | | | | | |
| | Pharmaceutical Industry | Pharmaceutical Industry | | | | | | | | | | | | | | | |
| | Historical influences | Historical influences | | | | | | | | | | | | | | | |
| | Geographic barriers | Place of residence | | | | | | | | | | | | | | | |



World Health Organization

Hesitancy and Demand

- GVAP Strategic Objective 2 states: that *individuals and communities understand the value of vaccines and demand immunization as both their right and responsibility.*
- **Vaccine hesitant individual:** on continuum between high vaccine demand and complete vaccine refusal, no demand
- **Vaccine hesitant community:** not accept vaccines at rate expected given available services i.e. lower vaccine demand than expected.
- At both the individual and community level, **if vaccine hesitancy is present it undermines personal and community responsibility for immunization.**

Hesitancy and Demand

Having communities and individuals **demand** current or new vaccines is a **step beyond addressing vaccine hesitancy** and increasing vaccine acceptance.

Uttar Pradesh, India; 2006: Community demanded, through the courts, public access to JEV to curb annual disease outbreaks.

Calgary, Canada; 2008: Access to HPV vaccine in Catholic schools precluded by a religious ban on in school delivery. 2013 Citizen demand lead to a successful intervention that overturned this religious ban.



Hesitancy and Demand

- High vaccine hesitancy → low vaccine demand
- BUT low vaccine hesitancy does NOT mean high demand
- Strategies to address vaccine hesitancy may NOT increase vaccine demand
- Strategies to address demand need to go beyond addressing vaccine hesitancy
 - Communities and individuals must be supported:
 - *in seeing value in vaccines,*
 - *in conveying their vaccine needs & perspectives on program delivery to key decision makers*
 - *in integration with other high demand areas*

Vaccine Hesitancy

Complex, rapidly changing global problem

- **Systematic review of determinants of vaccine hesitancy**
 - Studies retrieved from all regions
 - No determinants detected beyond those outlined in the Matrix
- **Immunization Program Managers' Survey (2013)**
 - 13 managers, 6 WHO regions; HIC, MIC, LIC
 - Concern in all 13 countries; 8/13 undertook interventions
 - Impact on vaccine uptake varied from minor to major

JRF Hesitancy Indicators: Revised 2012-2013

Indicator 1: Reasons for *vaccine hesitancy*.

Question 1: What are the top three reasons for hesitancy to accept vaccines according to the national schedule in the last year?

Question 2: Is this response based or supported by some type of assessment, or is it an opinion based on your knowledge and expertise?

Indicator 2: % of countries that have assessed the level of *hesitancy* in vaccination at a *national or subnational level*.

Question 1: Has there been some assessment (or measurement) of the level of confidence in vaccination at national or subnational level in the past (<5 years)?

Question 2: If yes, please specify the type and the year and provide assessment title(s) and reference(s) to any publication/report.

Vaccine Hesitancy

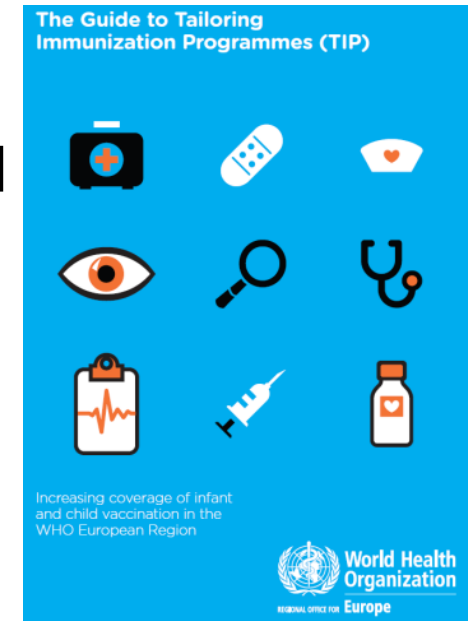
Compendium of Survey Questions

- Requested by many countries,
- 3 different types of general survey questions,
 - Core Closed, Likert Scale, Open Ended,
- Majority aimed at identifying vaccine-hesitant individuals not at identifying determinants,
- Caution in question selection and interpretation,
- Examples of questions related to WG Matrix of Determinants of Vaccine Hesitancy.

Vaccine Hesitancy: WHO EUR: The Guide to Tailoring Immunization Program- “TIP”

TIP framework helps to

- 1) **Identify** and **prioritize** vaccine hesitant populations and subgroups.
- 2) **Diagnose** the demand and supply–side barriers to vaccination in these populations.
- 3) **Design evidence–informed responses** to vaccine hesitancy appropriate to the setting, context and hesitant population.
- 4) **Evaluate** impact and outcomes.



Working Group Review of TIP

Working Group agreed: principles upon which TIP is based are applicable to all WHO regions.

For **TIP to be a useful tool globally**, the following changes are needed:

1. Reshape 2013 TIP to better fit the varied needs and levels of expertise in the different regions.
2. Resources/expertise/training are needed to support implementation in WHO regions.
3. A means to share TIP successes, failures and lessons learned is needed across regions and globally.

Systematic Review of Strategies to Address Vaccine Hesitancy

Systematic review of strategies peer-reviewed and grey literature (2007-2013) & **Review of Reviews**



Identified:

- no strategies to specifically overcome hesitancy in all populations*
- strategies that improved vaccine uptake*
- multicomponent more effective than single*

Based on the Systematic Review of Strategies to Address Vaccine Hesitancy

Most Effective Interventions Addressing the Outcome of Vaccination Uptake

| Design | Multi-component more effective than single-component |
|-------------------------|---|
| Features | <ul style="list-style-type: none">• Dialogue-based• Directly targeted<ul style="list-style-type: none">○ unvaccinated or under-vaccinated populations;○ Specific populations: e.g., local community, HCW○ Specific issues |
| Strategies / mechanisms | <ul style="list-style-type: none">• engage religious or other influential leaders to promote vaccination in the community• Social mobilisation• Mass media• Improve convenience and access to vaccination• Mandate vaccinations / sanctions for non-vaccination• Employ reminder and follow-up• Communications training for HCW• Non-financial incentives• Aim to increase knowledge, awareness about vaccination |

Examples Other Strategies: Need Further Exploration

Immunization Pain Mitigation:



- Pain and fear of needles can underlie hesitancy: patient, parent and health care providers:
 - 44% parents concerned about pain with immunization
- Evidence based guidelines on pain mitigation with immunization

Vaccine Education for children and youth

- May help shape future vaccine acceptance behaviour of parents and adults
- May minimize the development of hesitancy
- Evidence is needed but parallels in other areas e.g. environment

Industry, Organizational Approaches to Shaping Behaviour: Social Marketing, Communication

- Major points resonated with Working Group.
- Anti-vaccination lobby very sophisticated .
- Focus on benefits of immunization .
- Draw on emotional values – e.g. child health.
- Try to focus on one or two key messages.
- Proactive messaging preferred to negative /combative/ reactive.
- World Immunization Week – global branding opportunity.

Moving Forward.....

Vaccine hesitancy: complex, many factors, no magic “bullet”

1. Immunization Programs need to use effective strategies to increase overall vaccine uptake.
2. Monitoring for and effectively addressing vaccine hesitancy is part of good housekeeping for a quality immunization program.
3. TIP strategy for hesitancy: one of several potentially promising tools.
4. Civil society mobilization can help address hesitancy.
5. Rapidly evolving field, need for standardization/validation of tools, monitoring for best practices.