Canadian Guidance on Addressing Vaccine Hesitancy to Help Foster Vaccine Demand and Acceptance

Section 1. Vaccine Hesitancy and Vaccine Demand: Definitions and Determinants

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Building Resilient Pro-Vaccine Communities

Building the capacity to improve vaccine acceptance and uptake

The Canadian Vaccination Evidence Resource and Exchange Centre (CANVax) is an online database of curated resources to support immunization program planning and promotional activities to improve vaccine acceptance and uptake in Canada. As an online resource centre, CANVax aims to increase access to evidence-based products, resources, and tools to inform public health professionals in immunization program planning and promotion.

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PREFACE

This document was adapted from the **Western Pacific Regional Guidance on Addressing Vaccine Hesitancy to Help Foster Vaccine Demand** document, drafted in 2017 in response to the recommendation at the meeting of the Technical Advisory Group (TAG) on Immunization and Vaccine-Preventable Diseases in the Western Pacific Region (WPR), in July 2016.

Purpose and Specific Objectives of the Guidance as per WPR

The main purpose of the regional guideline on vaccine hesitancy is to help Member States to:

1. Identify the extent of vaccine hesitancy in the country.
2. Identify vaccine-hesitant population subgroups.
3. Diagnose the demand- and supply-side immunization barriers and enablers.
4. Design evidence-informed strategies to address hesitancy appropriate for the subgroup setting, context and vaccine.
5. Receive and provide support for regional coordination to successfully address vaccine hesitancy in the country.

The initial WPR draft, including the two Aide Memoires, was written by Noni E MacDonald, Dalhousie University, Halifax Canada, with input from Eve Dubé, Institut national de santé publique du Québec, Québec, Canada, Lisa Menning and Melanie Marti, Immunization, Vaccines and Biologicals, World Health Organization (WHO), Geneva, Switzerland and Sarah Long, Dalhousie University.

Canadian Guidance

The WPR document was then re-crafted by Noni E MacDonald and Eve Dubé to address the Canadian context, and sections were updated.

Each section has been written to integrate with the other sections but also to be able to stand alone. The main emphasis is on the diagnosis of hesitancy and focuses on interventions that can increase vaccine uptake at the program and individual levels.

For the full report of the Canadian Guidance on Addressing Vaccine Hesitancy to Help Foster Vaccine Demand and Acceptance, please visit https://canvax.ca/canadian-guidance-addressing-vaccine-hesitancy-help-foster-vaccine-demand-and-acceptance-full.

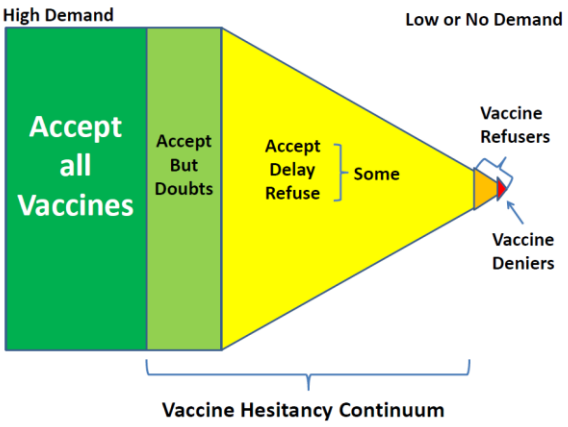
World Health Organization Definition of Vaccine Hesitancy and its Determinants

While vaccine acceptance is the norm in the vast majority of populations globally, a minority hesitates to accept some or all vaccines recommended in their country's immunization program schedule. The Strategic Advisory Group of Experts (SAGE) on Immunization of the World Health Organization defined vaccine hesitancy in 2014[1] (see box) and Figure 1.1.

SAGE retained the term 'vaccine' rather than 'vaccination' hesitancy – although the latter more correctly implies the broader range of immunization concerns – as vaccine hesitancy is the more commonly used term.[2]

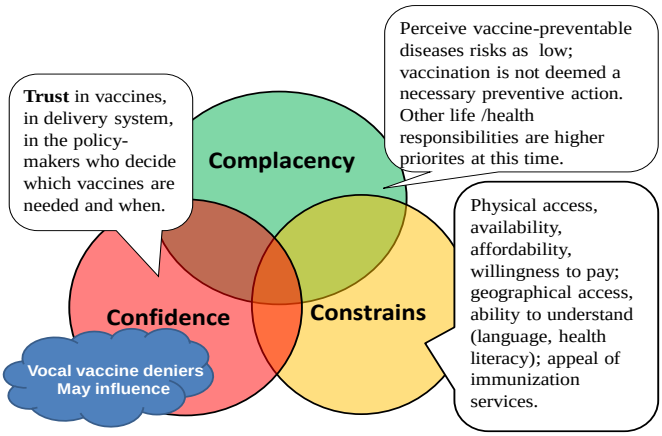
> ***SAGE Definition of Vaccine Hesitancy:***
> *Vaccine hesitancy is the delay in acceptance or refusal of vaccination despite availability of vaccination services. SAGE also notes that "vaccine hesitancy is complex and context specific, varying across time, place and vaccines." It is influenced by factors such as complacency, constraints and confidence. (2014)*

Figure 1.1 Vaccine Hesitancy Continuum



While there are a number of models for grouping the determinants of vaccine hesitancy, SAGE selected the "3 Cs" model that highlights complacency, constraints and confidence (Figure 1.2) to include in the definition.

Figure 1.2 Vaccine Hesitancy 3Cs Determinant Model



This 3Cs model emphasizes the complexity of factors influencing hesitancy. Within a subgroup or an individual, more than one determinant may influence the decision to hesitate in accepting a specific vaccine at a given time.

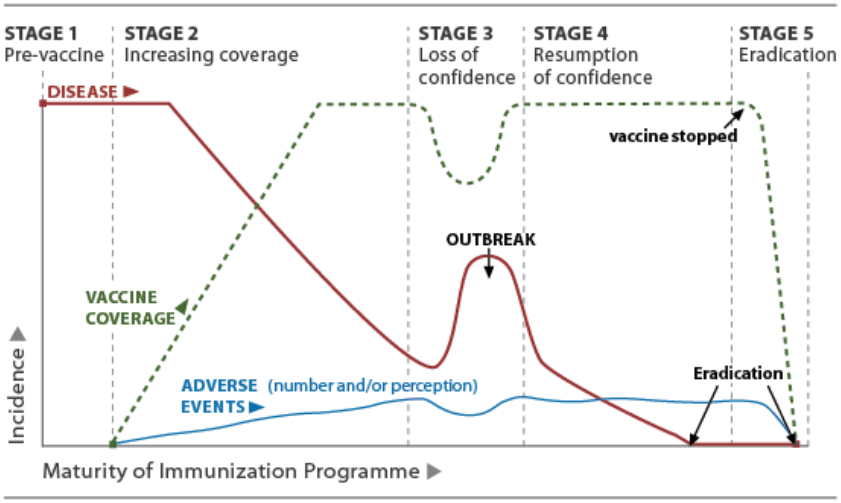
The SAGE Working Group Vaccine Hesitancy also proposed a more comprehensive Matrix of Determinants (see Table 1.1).[1,3]

Table 1.1 SAGE Working Group on Vaccine Hesitancy Matrix of Determinants

CONTEXTUAL INFLUENCES Influences arising due to historic, socio-cultural, environmental, health system/institutional, economic or political factors	**a.** Communication and media environment **b.** Influential leaders, immunization program gatekeepers and anti- or pro-vaccination lobbies. **c.** Historical influences **d.** Religion/culture/ gender/socio-economic **e.** Politics/policies **f.** Geographic barriers **g.** Perception of the pharmaceutical industry
INDIVIDUAL AND GROUP INFLUENCES Influences arising from personal perception of the vaccine or influences of the social/peer environment	a. Personal, family and/or community members' experience with vaccination, including pain b. Beliefs, attitudes about health and prevention c. Knowledge/awareness d. Health system and providers-trust and personal experience. e. Risk/benefit (perceived, heuristic) f. Immunisation as a social norm vs. not needed/harmful
VACCINE/ VACCINATION–SPECIFIC ISSUES Directly related to vaccine or vaccination	a. Risk/ Benefit (epidemiological and scientific evidence) b. Introduction of a new vaccine or new formulation or a new recommendation for an existing vaccine c. Mode of administration d. Design of vaccination program/Mode of delivery (e.g., routine program or mass vaccination campaign) e. Reliability and/or source of supply of vaccine and/or vaccination equipment f. Vaccination schedule g. Costs h. The strength of the recommendation and/or knowledge base and/or attitude of healthcare professionals

The lived experience of the population with respect to specific vaccine-preventable diseases also varies and changes over time, as illustrated in Figure 1.3. This figure highlights that confidence, complacency or constraints determinants may be more or less prominent at the same time.[4]

Figure 1.3 Variation in Vaccine Coverage over Time as Polio Vaccine is Introduced



After in 2014 when the 3Cs and Matrix of Determinants Vaccine Hesitancy models were presented, a 2016 model proposed by Thomson and colleagues centered on the 5As: Access, Affordability, Awareness, Acceptance and Activation (Table 1.2).[5] This encompasses components of both hesitancy and demand (see Demand, below).

Table 1.2 Determinants of Vaccine Uptake

Root Causes	Definition
Access	Ability of individuals to be reached by or to reach recommended vaccines
Affordability	Ability of individuals to afford vaccination both in terms of financial and nonfinancial costs (time)
Awareness	Degree to which individuals have knowledge of the need for and availability of recommended vaccines
Acceptance	Degree to which individuals accept, question or refuse vaccination
Activation	Degree to which individuals are nudged towards vaccination uptake

A 2016 consultation study of Canadian experts and health professionals concerning the definition, scope, and causes of vaccine hesitancy in Canada revealed that the majority saw confidence as the main issue.[6] The Canadian proposed definition therefore emphasizes this aspect: "*Vaccine hesitancy in Canada has been defined as the reluctance to receive recommended vaccination because of concerns and doubts about vaccines that may or may not lead to delayed vaccination or refusal of one, many or all vaccines."*[7] However, complacency and constraints are also known factors causing hesitancy in Canada.

Definition of Vaccine Demand and its Determinants

The Global Vaccine Action Plan (GVAP) Strategic Objective 2 (SO2) differs from the other Strategic Objectives as it does not focus on the supply-side of immunization programs, but on public demand for vaccines and immunization services. Demand, as expressed in SO2, encompasses more than hesitancy and is defined in terms of behaviours rather than attitudes, using verbs like ***seeking*** (individual behaviour)***, supporting*** (expressing a social norm), and ***advocating*** (organizing action to claim rights and influence decision makers). The definition is supplemented with accompanying statements that emphasize the responsibility of programs to promote and sustain vaccination demand, as well as the recognition of the variability in manifestations and determinants of demand according to context. [8]

SAGE Decade of Vaccines Working Group Definition of Vaccine Demand

Demand is the actions of individuals and communities to seek, support, and/or advocate for vaccines and immunization services. Demand is dynamic and varies by context, vaccine, immunization services provided, time, and place. Demand is fostered by governments, immunization program managers, public and private sector providers, local leadership, and civil society organizations hearing and acting on the voices of individuals and communities. (2017)

KEY POINTS

- Vaccine hesitancy is complex and context specific, varying across time, place and vaccines.
- Vaccine hesitancy is influenced by factors such as complacency, constraints and confidence, and falls in the middle of the spectrum between strong vaccine demand and acceptance, and vaccine refusal and anti-vaccination.

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