The Vaccine Trust Survey Guidebook

This guide provides context and usage instructions for The Vaccine Trust Survey – a tool for measuring trust in vaccines and the systems surrounding them.

Users interested in using the questions, or broader framework, in their own work can find key information here, along with a short-form questionnaire.

RED ASSOCIATES

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Allan Martínez Venegas
Anamta Ghur
Charles R. Strong
Christie Sampson
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Doa M. H. Al-Tewaj
Emma Varley
Emilie K. Heide
Emilie Lindeburg
Evelyne Musanga
Fatima Idris Sani
Grace Katee
Iqra Ejaz
Jackline Kivunaga
Jacquelyne Anyango
James Ainea Mumbo
Jefferson Mwaisaka
Josephine Kabutu
Ken Ondeng'e
Lara Casciola
Lucille Akelo Onyango
Mads Holme
Mathias Rigbolt
Muhammad Yahya Aftab
Nazia Bilal
Philip Y. Kao
Rhoda Maina
Sebastian Barfort
Segun Alex Fayomi
Shahek Baloch
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Wajiha Farooq
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Introduction & Context

Trust is a critical ingredient in public health. Communities need to trust health interventions like vaccinations in order to accept them. But while most people agree that trust is important, it is difficult to define – and even more difficult to work with.

The Vaccine Trust Framework offers a solution: an accurate definition of trust in health contexts, and practical tools for measuring and building trust. The Vaccine Trust Framework is the result of 4+ years of mixed-methods research, and survey validation in two countries (Pakistan and Kenya, n = 7530).

Trust, as measured using the Vaccine Trust Framework, can be clearly linked with the likelihood of having been vaccinated. In other words: building trust in vaccines is likely to increase vaccine uptake.

Document Purpose

This document aims to provide readers with a short introduction to the information and tools needed to *use* trust, for example in intervention design, implementation, or monitoring, through the use of the Vaccine Trust Framework.

In the following pages, The Vaccine Trust Framework is introduced and explained, along with an associated survey. Guidance is included for how to approach fielding this survey, analysing this data, reporting findings, and determining trust-building measures.

This document is designed to provide a broad introduction. Where relevant, additional resources are linked for further exploration. Much more information (including practical use cases from around the world, up-to-date tools and ongoing project updates) can be found on the Vaccine Trust Framework website.

thevaccinetrustproject.com

The Trust Framework

What is Vaccine Trust?

Communities feel trust in public health systems – and specific health interventions, like vaccines – when they believe these systems or interventions have the potential to provide social and personal benefit (that they hold *promise*), and, critically, that are able to *deliver* on this potential benefit.

Trust requires people to believe many things: for example, that they will be treated fairly when they access health services, and that specific vaccines are beneficial and safe.

In other words, trust is best understood as a *combination of components.*

And these beliefs don't exist in a vacuum. Trust in a public health context depends on how people see and experience the world – including their understanding and experiences with healthcare. It is therefore key, when measuring trust or designing interventions to build it, to not only look at trust in specific vaccine benefits but also trust in the broader health system surrounding it.

These ideas are central to the Vaccine Trust Framework, which defines 'trust dimensions' (beliefs that underlie trust), and groups these dimensions into four major quadrants (the promise and delivery of both the health system and a specific vaccine). Each 'trust quadrant' contains a key question:

Health system promise:
Does the health system in general have my and my community's best interests at heart?

Healthcare delivery:
Does the health system generally work for me and my community?

Vaccine promise:
Do I believe that this specific vaccine has value for me and my community?

Vaccine delivery:
Do I feel this specific vaccine is available and accessible to me and my community?

Taken together, the four quadrants help explain community behaviour and allow for effective, targeted trust-building interventions which drive vaccine uptake.

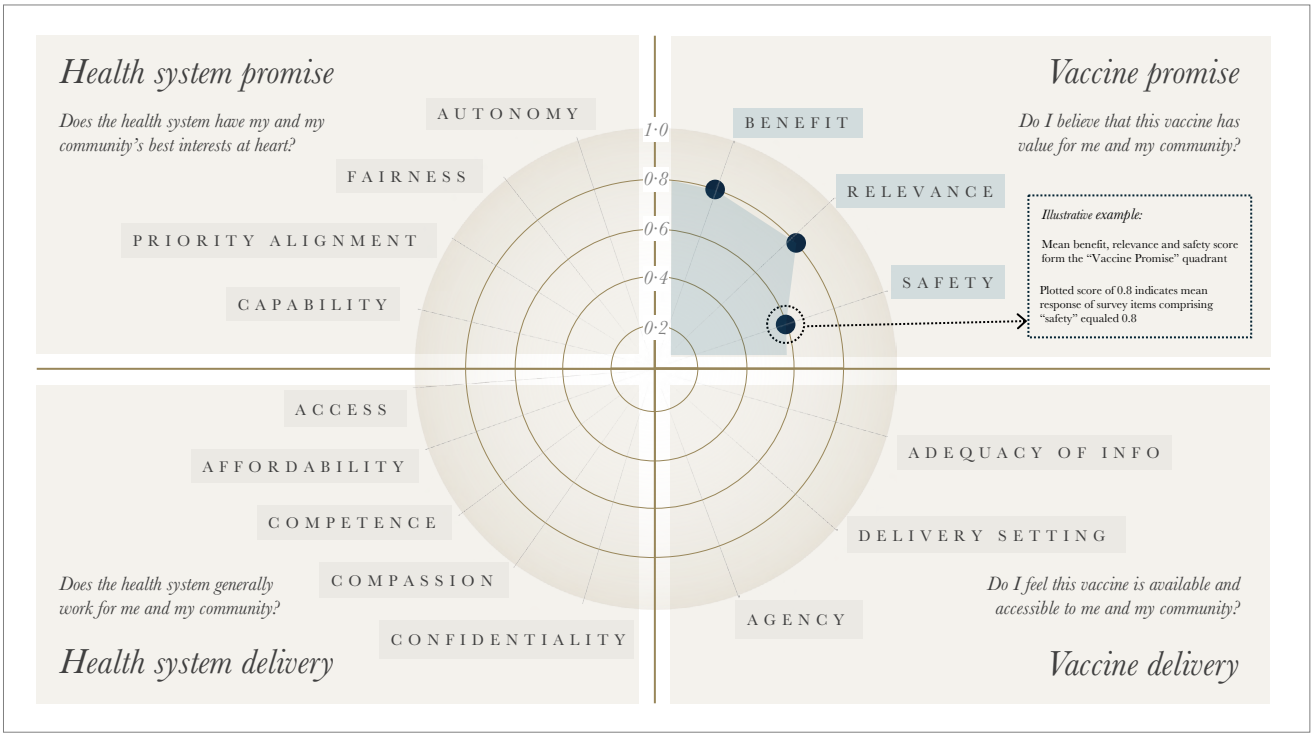

Figure 1: The Vaccine Trust Framework

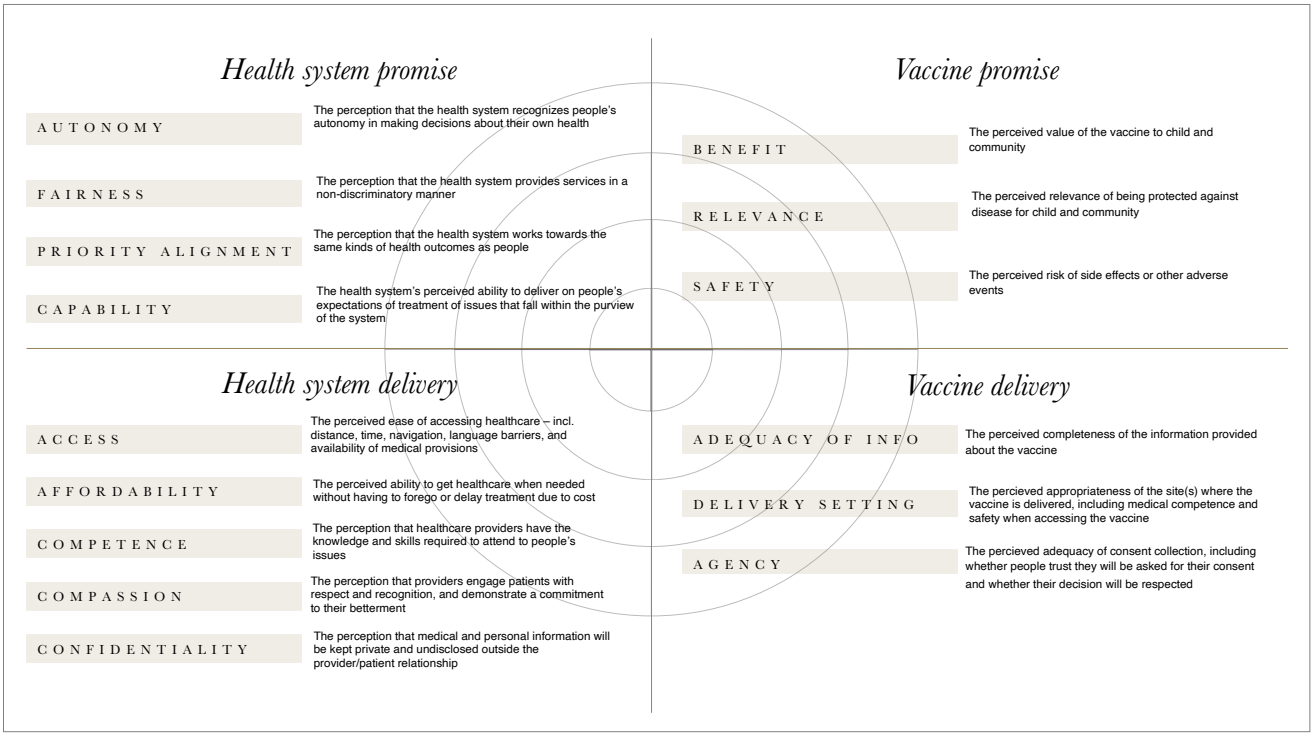

Figure 2: Vaccine Trust Framework: Dimensions Defined

The Trust Surveys

The dimensions of the Trust Framework can be measured through a short- or long-form survey. These survey batteries provide data which allows for the identification of individual dimensions where trust is low, and which can be combined to develop a unique trust score.

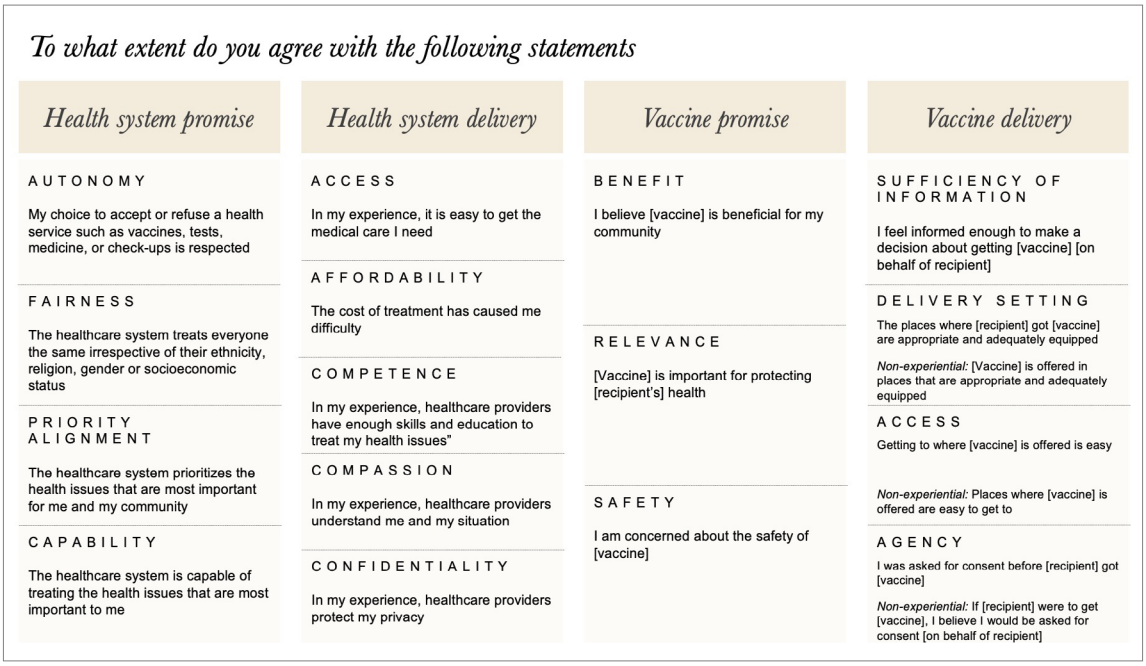

Figure 3: Short-Form Vaccine Trust Survey

In the vaccine delivery quadrant, respondents are exposed to one of two question sets. If they have been vaccinated, they answer *experiential* questions, and if not, they answer *non-experiential* questions.

Experiential questions are designed for respondents who have direct experience with vaccination – either they have been vaccinated themselves or have had their children vaccinated. These questions ask about actual experiences the respondent has had with the vaccination process.

Non-experiential questions are designed for respondents who have not been vaccinated or have not had their children vaccinated. Since these respondents cannot report on actual vaccination experiences, these questions instead ask about their perceptions, beliefs, or expectations about the vaccination process.

FRAMEWORK & SURVEY DEVELOPMENT

The Vaccine Trust Framework was developed through multiple rounds of mixed-methods research. Ethnographic fieldwork was conducted in Nigeria, Kenya, and Pakistan to define trust in the context of Childhood, HPV, and COVID-19 vaccines. This research served as the foundation for developing the Trust Framework, which guided the development of the Trust Survey. Survey items were created to measure various trust dimensions, supplemented with items capturing demographic information, family composition, vaccine behaviours, health-seeking behaviours and HPV related questions. Validated items from the literature were incorporated to build on best practice and facilitate cross-study comparisons. The survey was then fielded to nationally representative samples of caregivers of 10-to-14-year-old girls in Kenya and Pakistan. Psychometric properties of the survey and associations between trust and vaccination behaviours were assessed.

For more details see project methods paper pre-print here: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5164451

INTENDED USERS & USE CASES

An understanding of trust and a quantitative measure of trust is useful for a range of potential users. Primarily, however, this tool is intended for immunization programme decision-makers at all levels, and others collecting, analysing and using data for vaccine programme planning and evaluation.

Below is a non-exhaustive overview of potential use cases.

The Vaccine Trust Framework & Survey: *Example Use Cases*

Measurement — *Diagnosis* — *Action*

To measure trust changes pre & post intervention, or to monitor trust over time

To assess caregivers' or HCWs' trust in health systems and/or a vaccine or intervention

To perform on-the-go trust diagnoses of individuals or families and develop strategies to fill specific trust gaps

To organize data and build strategy. E.g. as used by Common Thread and UNICEF to revisit the Polio Eradication Strategy in Pakistan

To select relevant initiatives targeting specific trust dimensions

Using the Trust Survey

SURVEY DESIGN

The Trust Survey functions best when additional questions outside those used to generate the framework are included. These questions are either required for skip-logic within the survey (i.e., *vaccination status*, which determines whether respondents are shown the experiential vs. non-experiential versions of the vaccine delivery questions), or helpful in determining exactly how trust is impacting respondent behaviour.

Important additional questions include:

Basic demographic variables
Age, gender, location, urban/rural, income, employment status, household type

Vaccine awareness
For all vaccines, and for any specific vaccines in-focus

Vaccination status (own and/or children's) (*Note*: critical for skip-logic)
For all vaccines, and for any specific vaccines in-focus

Health decision-making
Head of household, role in health decision-making, caregiving responsibilities

Health context
Most-used health facility types, most-used HCP types

Researchers can also consider including behavioural questions such as the following. These questions will provide data that aid intervention design, or more precisely answer other research questions. Useful additional batteries to consider include:

Media consumption habits
E.g. channel preferences, media preferences, online behaviour

Sources of health information
E.g. key influencers, perceived authorities

Experiences with specific health services
E.g. experiences and perceptions of vaccinators, community health workers, local clinics

Health experiences
E.g. own or family experiences with specific conditions

…

The survey should also be adapted for local needs, including:

Updated response options for ethnicity, education, religion

Local healthcare structures (e.g. community health worker types) and terminology

Community norms, e.g., around decision-making autonomy, religious beliefs

Teams must also carefully consider sampling strategy and fielding strategy (including how best to ensure that respondents are offered privacy while answering questions, etc.). These considerations will depend on the precise research questions being explored, and the intended uses of survey results.

SURVEY DATA ANALYSIS

Despite thorough data collection in the field, errors can occur during data entry. Cleaning survey data before data analysis is essential. Users should systematically check for responses out of range of what is expected, impossible to have obtained (i.e. Unvaccinated individuals report having experienced vaccine side-effects) and missing data.

Once cleaned trust data can be analysed. The analytical approach to construct trust scores consists of five key steps:

1. Convert survey responses to a scale from 0-1. As some items are scored the opposite way around, certain survey items need to be reversed

2. Calculate the mean score for sub-dimensions that form each dimension*

3. Calculate the dimension score by taking the mean of the corresponding sub dimensions

4. Calculate the quadrant score by taking the mean of the corresponding dimensions

5. Calculate total trust score by taking the

We advise against weighting the different quadrants in the calculation of the trust score. However, with good reasons users are of course able to experiment with different calculations.

*In step 2 we have found it best practice to allow missing data in the individual survey items forming a sub-dimension. Above this level (i.e., If sub-dimension data is missing) we do not recommend calculating a dimension score for that individual. The reason for that missingness should also be examined by the user.

Acting on Trust Survey Data

The Vaccine Trust Framework provides a clear perspective on how best to build trust through the targeting of its subcomponents – with great potential for utility in resource allocation and intervention design. Work is ongoing to formalize concrete guidelines, but ongoing exploration across various organizations indicates that trust interventions can be accurately mapped to Trust Framework dimensions. This is key, as it allows for precise targeting of trust gaps.

Below is an example from work with zero-dose focused collaborators, where interventions at the Vaccine Promise and Delivery levels are mapped to trust dimensions. Types of interventions are distinguished using the Behaviour Change Wheel (2011). This exercise was designed to allowed organizations to assess ongoing interventions for efficacy in targeting specific vaccine promise and delivery components.

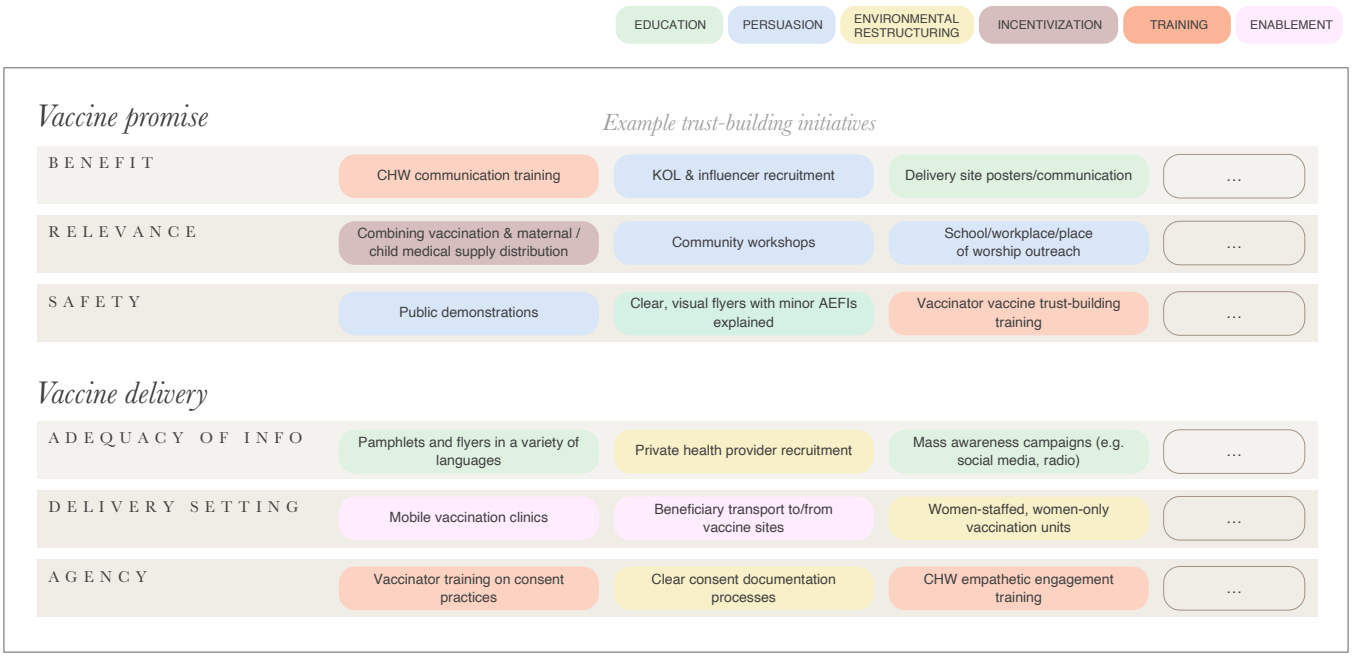

Figure 5: Example Mapping: Interventions to Vaccine Trust Dimensions

Appendix: Short-Form Survey

I will proceed to list some statements around the healthcare system in general. You should answer the questions based on your own experiences, and there are no right or wrong answers.

For each statement, please tell me if you strongly disagree, disagree, agree or strongly agree

Key

Q TYPE

QUADRANT

FRAMEWORK DIMENSIONS

The healthcare system prioritizes the health issues that are most important for me and my community.

Single Choice | Health System Promise | Priority Alignment

My choice to accept or refuse a health service such as vaccines, tests, medicine, or check-ups is respected

Single Choice | Health System Promise | Autonomy

The healthcare system treats everyone the same irrespective of their ethnicity, religion, gender or socioeconomic status

Single Choice | Health System Promise | Fairness

The healthcare system is capable of treating the health issues that are most important to me

Single Choice | Health System Promise | Capability

I will proceed to list some statements around your experience when you seek healthcare. You should answer the questions based on your own experiences, and there are no right or wrong answers.

For each statement, please tell me if you strongly disagree, disagree, agree or strongly agree

In my experience, it is easy to get the medical care I need

Single Choice | Healthcare Delivery | Access

The cost of treatment has caused me difficulty

Single Choice | Healthcare Delivery | Affordability

In my experience, healthcare providers have enough skills and education to treat my health issues

Single Choice | Healthcare Delivery | Competence

In my experience, healthcare providers understand me and my situation

Single Choice | Healthcare Delivery | Compassion

In my experience, healthcare providers protect my privacy

Single Choice | Healthcare Delivery | Confidentially

I will proceed to list some statements around vaccines. You should answer the questions based on your own experiences, and there are no right or wrong answers.

For each statement, please tell me if you strongly disagree, disagree, agree or strongly agree

I believe [vaccine] is beneficial for my community

Single Choice | Vaccine Promise | Benefit

[Vaccine] is important for protecting [recipient's] health

Single Choice | Vaccine Promise | Relevance

I am concerned about the safety of [vaccine]

Single Choice | Vaccine Promise | Safety

I will proceed to list some statements around the experience of getting vaccines. You should answer the questions based on your own experiences, and there are no right or wrong answers.

For each statement, please tell me if you strongly disagree, disagree, agree or strongly agree

Continued on next page

I feel informed enough to make a decision about getting [vaccine] [on behalf of recipient]

Single Choice | Vaccine Delivery | Sufficiency of information

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[VERSION 1: EXPERIENTIAL]

The places where [recipient] got [vaccine] are appropriate and adequately equipped

Single Choice | Vaccine Delivery | Delivery Setting

[VERSION 2: NON-EXPERIENTIAL]

Vaccines are offered in places that are appropriate and adequately equipped

Single Choice | Vaccine Delivery | Delivery Setting

Continued from last page

[VERSION 1: EXPERIENTIAL]

Getting to where [vaccine] is offered is easy

Single Choice | Vaccine Delivery | Access

[VERSION 2: NON-EXPERIENTIAL]

Places where vaccines are offered are easy to get to

Single Choice | Vaccine Delivery | Access

[VERSION 1: EXPERIENTIAL]

I was asked for consent before [recipient] got [vaccine]

Single Choice | Vaccine Delivery | Agency

[VERSION 2: NON-EXPERIENTIAL]

If [recipient] were to get a vaccine, I believe I would be asked for consent [on behalf of recipient]

Single Choice | Vaccine Delivery | Agency
