

LNCT Vaccine Hesitancy Workshop Report: *Supporting LNCT Countries in Assessing and Addressing their Vaccine Hesitancy*

18-19th November 2019
Geneva, Switzerland



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Executive Summary

On November 18-19th 2019, delegates from six countries from the Learning Network for Countries in Transition (LNCT) participated in a vaccine hesitancy workshop in Geneva, Switzerland. The meeting brought together 12 actively engaged LNCT members from the vaccine hesitancy workstream from Armenia, Georgia, Ghana, Lao PDR, Uzbekistan and Vietnam with experts from the London School of Hygiene & Tropical Medicine (LSHTM), Gavi, Curatio International Foundation, WHO, UNICEF, Common Thread, and Results for Development. LNCT member participants included key representatives from ministries of health, EPI managers as well as global and country-level partners.

This two-day workshop built upon the in-depth interviews, focus group discussions and preparatory work done by LSHTM and Curatio with relevant LNCT countries, and aimed to strengthen skills in the specific areas requested by the countries to better assess and address vaccine hesitancy, with a focus on building trust, social media monitoring, managing safety perceptions, health worker hesitancy, and engaging minority and vulnerable populations, participants shared experiences, identified global and regional tools to address challenges, and develop action plans for their implementation.

Among their experiences and expertise shared during the workshop, a few key takeaways emerged, including:

- LNCT countries face a wide variety of challenges related to vaccine hesitancy. Issues of low confidence and trust are a common driver of vaccine hesitancy among the LNCT countries. Confidence in vaccination is important to achieve high uptake and efforts to build and maintain public trust are needed.
- The influence of the spread of misinformation on social media has been a particularly important challenge across LNCT countries.
- While adverse events and other hesitancy challenges are often inevitable, preparedness, planning and resilience are key. Activities to address concerns and mitigate rumors need to take place on an on-going basis.
- Hesitancy among healthcare workers (HCWs) was highlighted as a particular concern by LNCT countries. With appropriate training, support, education, mentoring and coaching, HCWs can help maintain or rebuild confidence in vaccination. Efforts to address vaccine hesitancy among HCWs should include information and training programs to address their concerns and knowledge gaps, training to support communication between providers and patients – including managing difficult questions, and stronger accountability mechanisms.
- Specific vulnerabilities of minority populations should be addressed with strategies that are based on inclusion and trust-building. Collecting and analyzing “social data” on the social and economic characteristics of under-vaccinated populations may help countries identify at-risk groups and better understand the specific barriers they face when accessing services.
- A wide variety of global and regional tools are available for countries to adapt. As a starting place, countries can look at UNICEF ECARO’s Communication for Immunization Resource Pack, which provides brief descriptions of over 100 resources.

Countries also shared innovative and successful strategies they have used to address hesitancy challenges, which may provide helpful learning experiences for others. For example,

- **Armenia** significantly increased its HPV coverage by launching a large communications campaign, which included, among other strategies, training and addressing hesitancy issues amongst many types of health care workers, including gynecologists and neonatologists, recognizing that parents get information from medical sources not directly involved in immunization.
- **Georgia** conducted a healthcare worker Knowledge, Attitudes and Practices (KAP) survey as part of its HPV demonstration, which it used to develop a national communication strategy and conduct interpersonal communication (IPC) trainings for health workers prior to national introduction, with UNICEF support. The IPC trainings included videos demonstrating effective and ineffective communication techniques and on-the-job training components.
- **Ghana** created a communications group to engage traditional media and look at social media’s influence on the spread of information on vaccines. They also added an immunization course to the HCW curriculum

and created a new hire orientation (with CDC) that includes immunization topics, including administering multiple vaccines and how to communicate with caregivers.

- **Lao PDR** formed an AEFI committee to address public safety concerns proactively and they plan to review their risk communications strategy for the HPV vaccine before its introduction. They have developed job aids for EPI staff on AEFIs and vaccine preventable diseases to help HCWs communicate more effectively.
- **Uzbekistan** developed a strong hesitancy response plan in advance of its highly successful HPV introduction, drawing on the experience of its neighbors and allowing it to respond quickly when hesitancy issues arose. Among other strategies, they found holding town halls that allowed caregivers to talk through their concerns face-to-face with experts to be particularly effective in addressing rumors spread over social media.
- **Vietnam** held communications workshops with journalists to address persistent AEFI concerns and help them better understand the science of vaccines and AEFIs.

Workshop Aim and Objectives

The overall aim of the workshop is to build skills and strategies to assess and address vaccine hesitancy and to manage complex communication and trust-building challenges in vaccination.

The objectives of the workshop were for participants to:

1. Learn from one another’s challenges and successes in addressing vaccine hesitancy;
2. To become familiar with the range of tools and resources available to measure and address vaccine hesitancy and determine which are most appropriate for their settings;
3. To draft country plans to address specific vaccine hesitancy using relevant tools and other resources.

Key Themes and Challenges

LNCT countries are facing a range of challenges related to vaccine hesitancy and are seeking tools and strategies to help them assess and address these. The following sections summarize key discussions, themes and challenges of vaccine hesitancy that emerged during meeting activities.

Welcome and Introductions

Country	Country Discussion – Expectations for the Workshop
Armenia	<ul style="list-style-type: none"> • A national workshop called “Vaccines Save Lives” will take place 22nd November 2019 and will include how to improve vaccine coverage and vaccine hesitancy challenges. 150 people including GPs, primary healthcare providers, nurses, and parents will attend. This will dictate the plan for the next 5 years and the hope is to get new ideas from this workshop including other countries’ experiences to take to this national workshop. There will be a separate meeting with journalists the following week. • Requesting help with action planning.
Georgia	<ul style="list-style-type: none"> • Vaccine hesitancy is a challenge. HPV is an issue in particular. • Social media was identified as a challenge. There are large groups (>10,000 members) that are sharing incorrect information on vaccines online. • They want to find solutions and mechanisms to respond to opinions and misinformation spread online.
Ghana	<ul style="list-style-type: none"> • How to address/manage hesitancy among healthcare workers was identified as a priority for the workshop.
Lao PDR	<ul style="list-style-type: none"> • To date, their approach to address vaccine hesitancy has been piecemeal and they now aim to take a more holistic approach. • There is desire to create an action plan for the next five years, including how to increase community demand for immunization. • Addressing health worker hesitancy and increasing confidence – especially among ethnic minority communities - was discussed.

	<ul style="list-style-type: none"> • Strategies on how to deal with AEFI was identified as a need; this is a commonly cited explanation for vaccine refusal ('fear of AEFI') • Overall, they want to increase community confidence in vaccines and demand for immunization.
Uzbekistan	<ul style="list-style-type: none"> • In October 2019, the HPV vaccine was introduced and there has been success already (>91% coverage rate). However, new hesitancy challenges have been revealed, which they do not feel prepared for. • Overall, vaccine hesitancy has not been a major issue. However, social media has become an increasingly big challenge for them. • There is desire to prevent similar situations as experienced with the HPV rollout and to find shared solutions with other workshop participants.
Vietnam	<ul style="list-style-type: none"> • Want to learn from other countries' experiences. • They need more resources for responding to hesitancy and want to learn about new models, policies and action plans (they have prepared a five-year plan for next year and try to advocate support from the central government and international organizations). • They are planning to conduct research on vaccine hesitancy and expressed need for tools to conduct research and to stay up to date with the latest data. • They would like new evidence for solutions and interventions to respond to vaccine hesitancy, particularly in contexts of increased urbanization leading to more hesitancy.

Key Takeaways

- There is interest in hesitancy among healthcare workers and how to address it.
- The importance of developing action plans and how to integrate within the national plan was highlighted.
- There is need for ideas around community level interventions.
- Participants expressed a desire for information on how to advocate for support from partners to address hesitancy.
- Social media and how to respond to negative messages were highlighted as a particular concern.

Session 1: Understanding hesitancy, building confidence

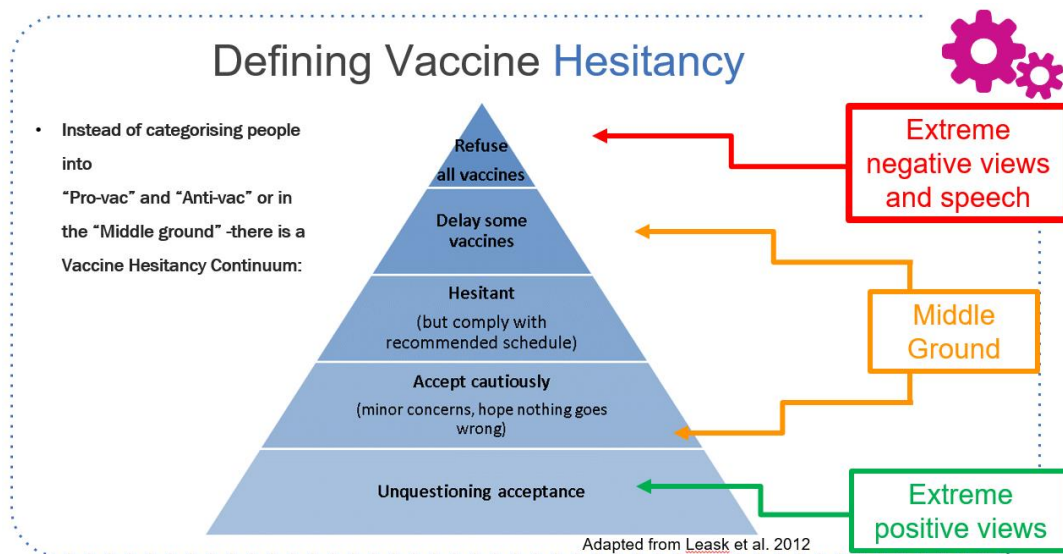
Issues of low confidence and trust can impact immunization programs. In-depth interviews and focus group discussions with LNCT countries revealed a lack of public confidence was the most common driver of vaccine hesitancy. Different approaches to measuring confidence, detecting early signals of issues, identifying drivers of distrust and building capacity for identifying potential crises related to confidence in vaccines were covered in the first session. In this first session, a discussion on defining and understanding vaccine hesitancy was facilitated and participants shared their understanding. The WHO Strategic Advisory Group of Experts (SAGE) definition of vaccine hesitancy was presented to the group and discussed. Service delivery, including who is delivering the service, was highlighted by participants as missing from the SAGE definition of vaccine hesitancy that was shared. Participants heard from WHO that a new definition that includes individual motivations and intentions (related to knowledge, values and beliefs) will be proposed.

During this session, participants engaged in a discussion on defining vaccine hesitancy. Participants shared their understanding of vaccine hesitancy, including:

- Delay or refusal of vaccines
- A lack of confidence in vaccines
- Suggestion to add service delivery including who is delivering the service (related to convenience)

There has been initial work to refine the thinking and concept of vaccine hesitancy as the evidence and literature has evolved. The WHO will go back to SAGE to update definitions to include motivations and intentions (related to knowledge, values and beliefs) and convenience in relation to service quality and access.

Participants shared their experiences with challenges for clinicians communicating vaccine information with patients and who the thought leaders are that influence vaccination decisions.



Country	Country Discussion: <ol style="list-style-type: none"> 1. What are the challenges for clinicians and others communicating with parents, carers and the community? 2. Who are the thought leaders and influencers driving discussions?
Armenia	<p>Challenges:</p> <ul style="list-style-type: none"> • Lack of communication skills among HCWs; lack of knowledge to address questions • Highlighted that hesitancy exists on a continuum from more to less organized. For example, some HPV anti-vaccination groups were organized enough to visit schools. <p>Thought leaders</p> <ul style="list-style-type: none"> • Well-known doctors (gynecologists, oncologists, etc.), social media (patient groups, parents’ groups), grandmothers <p>Armenia has addressed challenges through training HCWs (including those not formally engaged in immunization but who have frequent contact with caregivers, such as gynecologists or neonatologists) and hosting workshops as well as through a nationwide HPV awareness campaign that featured videos from famous Armenians. They conducted a doctors’ conference that included doctors from Armenia’s diaspora to share messages and information about immunization. Armenia also found it beneficial to vaccinate anyone who requested the HPV vaccine, despite the focus being on 13-14-year-old girls, in order to increase coverage and people’s familiarity with the vaccine.</p>
Georgia	<p>Challenges:</p> <ul style="list-style-type: none"> • Hesitancy can be vaccine-specific (HPV) <p>Thought leaders:</p> <ul style="list-style-type: none"> • Mothers groups • Doctors • Family and neighbors
Ghana	<p>Thought leaders:</p> <ul style="list-style-type: none"> • Ghana – traditional leaders (chiefs), religious leaders, “self-styled pastors”, traditional healers, journalists, political leaders, grandmothers, mothers-in-law
Lao PDR	<p>Challenges:</p> <ul style="list-style-type: none"> • Language is a particular challenge (due to cross border movement)

	<ul style="list-style-type: none"> Limited communication skills especially around multiple injections at same time and do not know how to explain the risks and benefits to parents HCWs (as well as village health volunteers) lack confidence and training/information to sufficiently address parental concerns Decision making on vaccination is often for husband and/or grandparent; mother may not be empowered to vaccinate her child without permission <p>Thought leaders:</p> <ul style="list-style-type: none"> Mother / father groups and community leaders Engage in participatory learning with these thought leaders
Uzbekistan	<p>Thought leaders:</p> <ul style="list-style-type: none"> Mothers and mothers-in-law Leadership within communities (<i>mahallas</i>) Women's committees (play a big role in driving discussions about immunization) Bloggers and local influencers on social media
Vietnam	<p>Challenges:</p> <ul style="list-style-type: none"> HCWs do not have the knowledge or skills to answer questions. In particular, HCWs are unprepared to answer questions after AEFI (highlighted that AEFI after Hep B led to decreased coverage of this vaccine). There have been focused efforts to rebuild trust and more rigorous protocols on responding to AEFI. <p>Thought leaders:</p> <ul style="list-style-type: none"> Families have different influencers when child is healthy vs unhealthy <ul style="list-style-type: none"> Healthy – Family Unhealthy – Doctors and nurses Ethnic minorities – Community leaders

Key Takeaways

In this session, most participants highlighted challenges faced by healthcare workers. These challenges included:

- Not knowing how to communicate about risk
- Time constraints
- Lack of knowledge and communication skills
- Language barriers

Thought leaders from the local to national level can and should be engaged to support immunization messages. Important thought leaders may exist outside the field of immunization (for example, non-immunization health workers, celebrities, social media influences, and community groups, for example). The most relevant thought leaders may change depending on context. For example, families are important when a child is healthy, but HCWs become more important when the child falls ill.

Session 2: How social media monitoring can support your vaccine program

New modes of communication, including social media, speed up information sharing and can contribute to vaccine hesitancy and refusals. LNCT countries have suggested that the media, including social media and foreign media, play a role in whether people delay or refuse vaccines. The influence of the spread of misinformation on social media has been a particularly important challenge across LNCT countries. Media monitoring and analysis of vaccine concerns over time can help immunization programs to tailor more effective and timely strategies to address specific public concerns. This session on how social media monitoring aimed to give participants an understanding of concepts in strategic communication, how to listen for cues to inform messages and delivery strategies, strategies to manage negative online discourse and case studies to highlight the importance and effectiveness of social media monitoring to support their vaccine programs. The session highlighted the importance of listening and tracking public sentiment towards vaccines on social media and the need to stay vigilant.

Country	Country Discussion
Armenia	<ul style="list-style-type: none"> • Armenia started social media monitoring in 2016. • A working group was established and is comprised of mainly national CDC immunization department focal points, pediatricians, and epidemiologists who monitor social media to determine types of public vaccine concerns. • A ‘frequently asked questions and answers’ document was developed and has been posted on popular social media groups. • NCDC has a special group working mainly on social and media monitoring using key words (vaccines, Gardasil, HPV, etc.). This group develops messages to improve a vaccine awareness campaign. • Ahead of HPV vaccination roll out, videos were shared one month prior to implementation.
Ghana	<p>Ghana shared their experience with the malaria vaccine pilot:</p> <ul style="list-style-type: none"> • A few days before introduction of the pilot, they were taken by surprise as one person with misinformation had almost derailed the entire project. • Continuous engagement of the media was hugely helpful in the response. • There was a knock-on effect from the pilot of negative public sentiment towards other vaccines (decrease in vaccine acceptance and coverage of other vaccines).
Lao PDR	<ul style="list-style-type: none"> • Facebook is active, twitter is not widely used • WhatsApp and Line messenger are used and difficult to monitor • Potential for anti-vax information to come into country from Lao living abroad, for moment there is little in the way of formal/organized anti-vax groups in Lao PDR
Uzbekistan	<ul style="list-style-type: none"> • Generally their immunization program is successful and there is not much hesitancy with other vaccines other than the HPV vaccine. • Facebook groups are hard to monitor - how do you monitor all the groups and is there need to comment on each post? How do you monitor groups that have nothing to do with health? • Official WHO, UNICEF, MOH sites are producing content and giving information on vaccines. • ‘Telegram’ (WhatsApp) is widely used in Uzbekistan. Someone spread a fake message on WhatsApp about HPV and spread rumors about HPV causing cancer. This message spread like wildfire. <p>Uzbekistan shared their experience with HPV and noted that although they heavily invested in crisis communications planning in advance, taking time to learn from the experience of their neighbors, they were still not fully prepared for the crises that unfolded. There was a well-organized “attack” of anti-vaccination and misinformation messages spread on social media. The Ministry of Health activated their crisis communication plan in response. As a result, they have managed to achieve 91% coverage.</p> <p>Uzbekistan’s successful response included:</p> <ul style="list-style-type: none"> • Hundreds of face-to-face meetings with parents with physicians present to answer questions • Face-to-face engagement was the most impactful - speaking personally to parents, addressing questions, concerns, and myths • Live talk shows on TV – session with blogger moms (Q&A format) • Hearing calm, professional answers • Main myth was about infertility – brought in some of the mothers who had already received HPV vaccine (received in 2010, has a child, she would tell a story, PSAs with them)

Official (Ministry of Health) social media accounts used to communicate about immunization:

- **Armenia** – have a special Facebook group called ‘everything about vaccines’ where professionals respond to posted questions. The WHO country office has a professional page. UNICEF and the MOH use Telegram, Facebook, Twitter and Instagram. There is a special program to monitor all platforms using key words.
- **Georgia** – social media accounts for the NCDC and MOH, there is a Facebook page on immunization, but it is not popular (the mother’s group is more popular). Facebook is the most popular social media platform.
- **Ghana** – there is a communication group that engages traditional media and a new group has been constituted to look at social media. There is a website but no official Facebook or Twitter.
- **Lao PDR** – does not have much social media presence other than Facebook for EPI. The EPI has a USB they provide to healthcare providers when they have event that includes resources and information. They provide information to the media but do not actively respond to negative information posted online.
- **Uzbekistan** – there is a WHO Facebook page and every institution has a Telegram account/channel. Instagram is very active but there are no official accounts on this platform.
- **Vietnam** – intensive communication activity through different channels including key messages on TV and different social media platforms. Every year they host a workshop with journalists where simple clear messages are shared. Twister (free software for peer-to-peer microblogging, similar to Twitter) is now being used.

Social media listening and engagement can be overwhelming. Participants were concerned about how to monitor social media groups that have nothing to do with health and how to interact or not interact with them. It was highlighted that it is important to listen to the nature of the issues overall and to work that into a response strategy. Broadening searches beyond vaccine related posts to track public sentiment can strengthen the effectiveness of listening and tracking public sentiment towards vaccines on social media.

Session 3: Managing risk and rumors: Addressing safety concerns and mitigating rumors

Understanding the importance of confidence building around vaccine safety and how to implement strategies to build public confidence in immunization safety are important components in addressing vaccine hesitancy. During this session, participants were presented with common vaccine concerns and components of adverse event following immunization (AEFI) management, including distinguishing real vaccine risks from rumors. Approaches to addressing public concern about vaccines from real safety issues to rumors were discussed.



Building Trust, Managing Risk: Vaccine Confidence and the Human Papillomavirus Vaccination |

Visit: <https://www.vaccineconfidence.org/hpv-symposium/>

Country	Country Discussion – experiences addressing safety concerns
Armenia	<ul style="list-style-type: none"> To address public safety concerns with the HPV vaccine, the NITAG made a public announcement on TV about the decision to expand the target age group for immunization. Alongside this announcement, there was a press release with the head of NITAG that included information about how the decision was made. Clinicians were engaged to ensure their understanding that the decision was evidence-based and informed by other countries' experiences.
Georgia	<ul style="list-style-type: none"> ICC (more practical) and NITAG recommendations are used. There is a general crisis management plan included in the communication strategy. However, there is need to make a concrete and specific crisis plan.
Ghana	<ul style="list-style-type: none"> Try to anticipate risks and put in measures to address concerns. Work to ensure people understand the benefits vis-à-vis the risk to health. Put in activities to be able to work out and inform people about the benefit vis-à-vis the threat. Learning from Ebola, they engaged Parliament, the Ghana Academy of Science, and various committees. Crisis communication planning needs to be strengthened. There is an AEFI committee and a strong pharmacovigilance system that includes a causality assessment, based in the Food and Drugs Authority. The FDA systems works through EPI and they collect data and send it to the national level. They work with them to develop frequently asked questions. The committee responds in cases of death. MOH has no credibility to lose as public confidence is very low. A third party responds on behalf of the MOH and they are given the information to address concerns. The NITAG is recently constituted, and therefore has no formal engagement with the public yet.
Lao PDR	<p>Important to communicate in local language beyond Lao to reach ethnic communities and effectively address rumors</p> <ul style="list-style-type: none"> AEFI committee is new re-formed and needs strengthening. This is a useful and appropriate forum for addressing safety concerns proactively; i.e. they will review risk communication for HPV vaccine before introduction in Q1.
Uzbekistan	<ul style="list-style-type: none"> Have dedicated Facebook, Telegram, WhatsApp groups where questions can be discussed and answered by a reputable source. Crisis communication plan/strategy needs to be strengthened. HPV experience - formative research showed negative views in Uzbekistan. However, until the last moment, they did not fully understand the influence of social media. Public concerns need to be addressed in advance. They activated the crisis communication plan (informed by formative research and in parallel with a communication plan). The held a workshop to develop a crises communication strategy with an addendum of key messages on HPV. These are used throughout all print materials and communication. All partners were engaged, including the head of the NITAG (on TV, giving interviews) and other members (giving interviews at the regional level). There were meetings with top relevant government institutions and all the heads were on TV and radio constantly, answering questions.
Vietnam	<ul style="list-style-type: none"> Use Facebook to give positive information. Mass media representatives attend AEFI causality assessment meetings and as a result, they actively inform the public with positive information.

Key Takeaways

- Preparedness, planning, and resilience are key since adverse events and other challenges are inevitable
- Activities to address concerns and mitigate rumors need to take place on an on-going basis
- It is important to think about where people go for information
- Lesson from the case studies on the Ebola trial in Ghana and the Polio experience – there is usually an ounce of truth in the rumors. Therefore, it is important to explain and balance the messages. Also,

regarding concerns around AEFIs, although the AEFI may not be caused by the immunization, the concerns are real and need to be addressed.

Session 4: Addressing hesitancy among healthcare workers

Vaccine hesitant healthcare workers (HCWs) can have a powerful influence on vaccination decisions as they are considered a trusted source of vaccine-related information in most contexts. Vaccine hesitancy among HCWs was highlighted as a particular concern by LNCT countries. National vaccination programs should consider identifying local determinants of vaccine hesitancy among HCWs and then developing strategies to address these determinants. This session aimed to identify some of the key issues driving hesitancy among HCWs and to understand strategies to build confidence.

Country	Country Discussion
Armenia	<ul style="list-style-type: none"> • Described a transition grant with WHO and LSHTM support to implement research. This includes a National workshop involving all stakeholders to understand gaps, challenges of vaccine hesitancy. • There is a plan to start country-wide activities targeting HCWs, but it was postponed. They are hoping for Gavi support in 2020 (transition grant) for this. • Surveys identified that HCWs are influenced in 3 major areas: <ol style="list-style-type: none"> 1. Motivation 2. Opportunities 3. Capacity (most important factor to convince parents to get vaccination. HCWs lacked knowledge and expertise, which resulted in them not giving adequate information to parents. There is a lack of competence in addressing side effects.) • Used the research and sent it to the Ministry of Education for it to be incorporated into the curriculum for HCWs.
Georgia	<ul style="list-style-type: none"> • With HPV, they used an interpersonal mechanism of support for HCW (with colleagues from CDC). Safety, importance of vaccine and confidence to encourage HPV vaccination were included in this mechanism. Lack of time and personnel makes it hard to roll out for the whole country. • May introduce some incentives for primary healthcare doctors to spend more time talking to parents.
Ghana	<ul style="list-style-type: none"> • To date, Ghana has not conducted formal research and they have anecdotal information only. • Main worry is frontline workers (they themselves don't believe in what they are doing). • One of the issues is the introduction of the RTSS (malaria vaccine). HCWs are confident about routine vaccines but not about the new ones. • Engaged with the nursing training college (most vaccines are given by community health nurses) – vaccination is now a course within the curriculum with the help of CDC. • In-service trainings for HCWs are also done • There are updated policy guidelines. • Developed job aids, including catch-up applications on mobile phones, to help HCWs understand schedules and adverse events • Piloting a new hire orientation (with CDC) in some regions – they sometimes have up to 200 new people starting work without proper orientation. • Multiple injections – HCWs think there are too many vaccines given at the same time and parents are also concerned. Caregivers are reassured if the HCWs speak about it confidently and communicated that multiple injections are safe. • There is a gap between clinicians and community health workers.
Lao PDR	<ul style="list-style-type: none"> • Multiple injections are a concern among HCWs and parents (but this may be related to HCW lack of confidence and concerns). • Measles, pertussis and diphtheria outbreaks – developed EPI model to conduct training for EPI managers and HCWs. Not only EPI staff but central hospital HCWs.

	<ul style="list-style-type: none"> • Quarterly community meetings (QCM) in the catchment areas are useful to build trust and communication between health center and communities (Hmong ethnic group – experience hesitancy issues especially around multiple injections and refusals). • Microplanning guide used by HCW now includes guidance on organizing and running QCM • Developed job aids for EPI on AEFIs and VPD to help HCW communicate more effectively.
Uzbekistan	<ul style="list-style-type: none"> • Some HCW hesitancy among general practitioners and neuropathologists (medical assessment before vaccination is needed) – they often find contraindications and delay vaccination. To tackle this, a training course was developed in 2018 for GPs, pediatricians and neuropathologists on false contraindications and vaccine safety. During the training, the trainers discovered the doctors have a very low level of knowledge on vaccines in general and the diseases they prevent. They counter the low level of knowledge through the course by providing information on the 13 antigens and contraindications. Expanded to other areas.
Vietnam	<ul style="list-style-type: none"> • Vaccine hesitancy among HCWs after serious adverse events is a challenge. • In 2007, they introduced Hepatitis B Vaccine and coverage decreased to 20% following the introduction. In 2013, they experienced a cluster of adverse events and the coverage went down again. • AEFI with pentavalent (experienced 40 serious AEFIs) and HCWs were punished (2013 – 2014). This caused a crisis among HCWs. Not only HBV and pentavalent, but other vaccines as well. Years later, they saw a very big outbreak of measles nation-wide (more than 17,000 cases and more than 100 deaths). Used the outbreak data to inform the community about vaccination, immunity and safety of vaccines. Came from the Prime Minister (not MOH). Developed new decree on immunization. HCWs want higher quality vaccine. They don't trust vaccines from India or China, and it creates or fuels further mistrust among the community when these vaccines are used. • Comprehensive training to strengthen the capacity of the HCWs in delivering the pentavalent vaccine. • Recently, they provide support to the lower level HCW and to train the hospital workers on screening and immunization safety. Vaccine coverage has increased with this intervention and the data has been shared with other provinces. • HCWs are reluctant to provide vaccines to vulnerable children (premature and low birth weight). There are new guidelines on when to give vaccines pre-discharge to vulnerable children. In 2019, they have disseminated these new guidelines with technical support from WHO. • There is a house-to-house vaccination strategy to reach those in mountainous areas to provide vaccines to the neonates.

Key Takeaways

- Hesitancy among HCWs was highlighted as a particular concern by LNCT countries.
- With appropriate training, support, education, mentoring and coaching, HCWs can help maintain or rebuild confidence in vaccination.
- Important to tailor services to meet local needs (well-timed, friendly, in local language, etc.)
- HCWs are part of the community and you need to design interventions for them just like you would for the community.
- Mistrust and rumors circulate between HCWs and communities.
- Trust for the health system can never be delinked from what is going on in the environment (for example, conflict or politics). There are many examples where vaccines have been politicized.
- Understand the context that HCWs are working in (supervision, remuneration, training opportunities, etc.)

Session 5: Addressing hesitancy among minority populations

The session aimed to give participants an understanding of the specific vulnerabilities of minority populations, the data that help identify minority groups and their vulnerabilities and the importance of compassion and empathy

when designing for minority populations. Participants used case studies to explore the contextual factors that may be driving low immunization demand in vulnerable populations.

Country	Country Discussion
Lao PDR	<ul style="list-style-type: none"> Ideally would develop materials and media specifically targeting ethnic groups. Media campaign could feature Hmong (ethnic group in East and Southeast Asia) vaccinators.

Key Takeaways

- Discussion on barriers for vulnerable populations:
 - Knowledge and awareness
 - Access to medicine
 - High costs of healthcare and limited access to low income populations
 - Lack of community engagement in decision-making
 - Issues of language and literacy
- Parental concern about vaccination is only one of several potential reasons for lower immunization uptake: Immunization coverage may be affected by many social determinants (e.g. where children grow up and live, their ethnicity, income, culture, etc.).
- Social data can help you understand who is most affected by inequity (disaggregating coverage by income of parent, geographical region, age, ethnicity); and what the specific barriers are to immunization (e.g. lack of service, lack of or misinformation, social norms, etc.).
- Coverage data can tell us how many children were vaccinated, and where the under-immunized children are.
- Data and spreadsheets don't tell the whole story. Try to put yourselves in the shoes of minority/vulnerable groups and think about how they may be experiencing immunization services.
- People connect with stories. We can also leverage story telling (example, video of someone talking about their own personal experience) to understand people and bring that understanding to people.
- Design strategies and interventions for minority populations, based on key principles of inclusion: make it easy, call attention to supportive social norms, build trust, and go beyond a cost-effective framework.

Session 6 & 7: WHO EURO tools, guidance and training on vaccine acceptance and demand and UNICEF resources and initiatives to strengthen demand for immunization

LNCT countries have expressed interest in tools and resources to assess and address vaccine hesitancy. These two sessions presented WHO EURO tools, guidance and training on vaccine acceptance and demand and UNICEF resources and initiatives to strengthen demand for immunization.

The WHO tools presented included:

- Vaccine safety and crisis communication - <http://www.euro.who.int/en/health-topics/disease-prevention/vaccines-and-immunization/publications/vaccine-safety-communication-library>
- The Guide to Tailoring Immunization Programs (TIP) - <http://www.euro.who.int/en/health-topics/communicable-diseases/poliomyelitis/publications/2013/2013-guide-to-tailoring-immunization-programmes>
- A field guide for qualitative research for new vaccine communication - <http://www.euro.who.int/en/health-topics/disease-prevention/vaccines-and-immunization/publications/2017/field-guide-to-qualitative-research-for-new-vaccine-introduction>
- New vaccine introduction: strengthening health literacy to increase health equity - <http://www.euro.who.int/en/publications/public-health-panorama/journal-issues/volume-5,-issue-23,-juneseptember-2019/original-research2>
- How to respond to vocal vaccine deniers in public - https://www.who.int/immunization/sage/meetings/2016/october/8_Best-practice-guidance-respond-vocal-vaccine-deniers-public.pdf

Responding to vaccine deniers

A good speaker
A good listener
Dos and don'ts

Best practice guidance //
How to respond to vocal vaccine deniers in public

World Health Organization

The five key topics

- Threat of diseases
- Alternatives
- Effectiveness
- Trust
- Safety

Training workshops

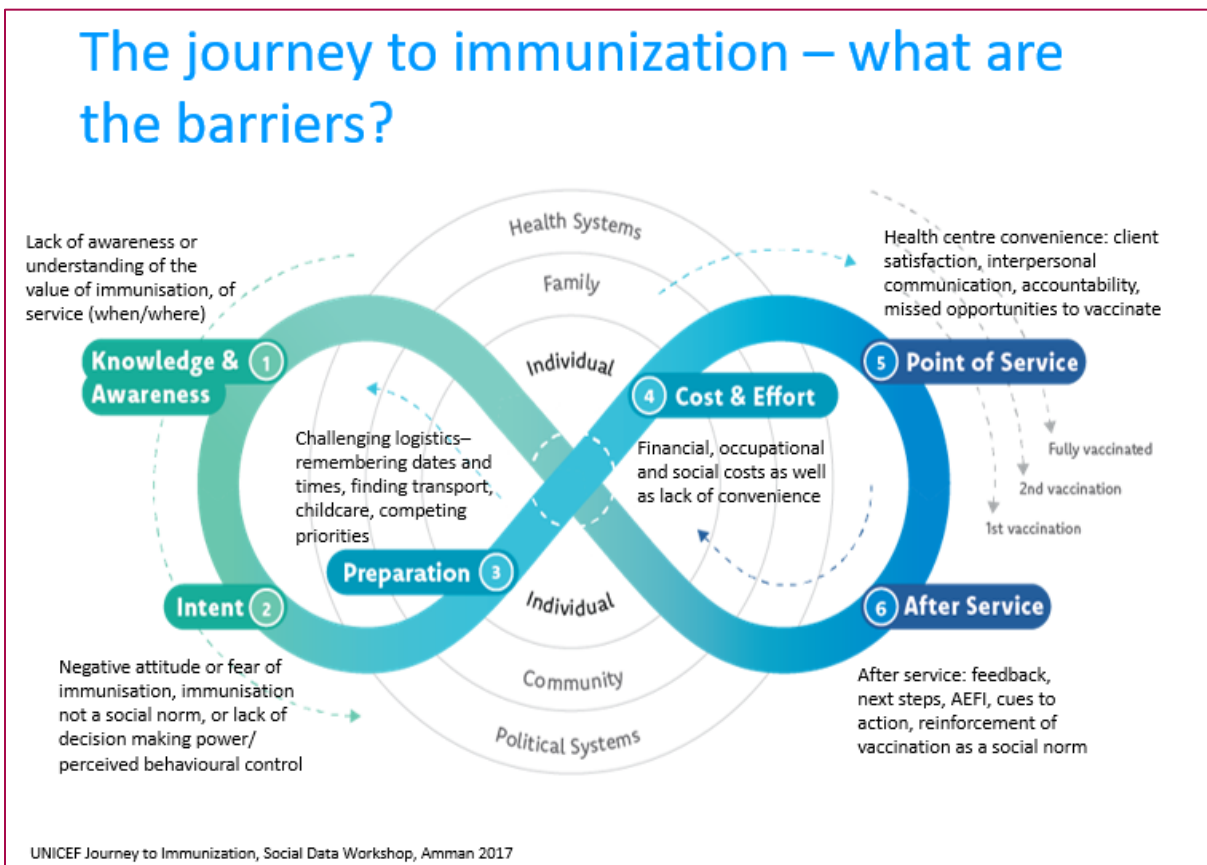
The five key techniques

Conspiracies

- Fake experts
- Selectivity
- Impossible expectations
- Misrepresentation and false logic

www.euro.who.int/vaccinedeniers

UNICEF presented a [resource pack](#) compiled to support immunization program specialists, EPI managers, and communication experts to design, implement, monitor and evaluate programs and activities to improve immunization coverage, reach un- and under-immunized groups, strengthen preparedness for and response to immunization-related outbreak and crises, build and strengthen partnerships through comprehensive and evidence-based advocacy, communication for behavior and social change, social and community mobilization programs. The resource pack is available on the LNCT website to provide quick and easy access to various types of materials to help identify the right set of resources to support immunization efforts.



LSHTM has created a catalogue of tools for assessing and addressing vaccine hesitancy that will be made available for LNCT countries to use within their country.

Session 8: Development of Action Plans

Country teams leveraged what they learned during the workshop to develop action plans to assess and address vaccine hesitancy (see Annex 4). The action plans include identifying up to three priority actions and the following for each: steps needed to achieve action, stakeholders to involve, technical assistance required, coordination, resource mobilization and monitoring and evaluation. The priority actions are defined by LNCT country delegations.

Guidance Notes

Principles:

- Make getting vaccinated easy
- Call attention to supportive social norms
- Build trust
- Go beyond cost-effectiveness
- Understanding what is highest priority

Questions to think about:

- Do you have budget for these actions? Or do you know ways to convince decision-makers who influence the budget holders?

Areas of best practice:

- Crises communication – Armenia, Ghana, Lao PDR and Uzbekistan have a crisis communication plan (Vietnam and Georgia do not)

Recurring themes from the workshop:

- Social media
- Hesitancy among healthcare providers
- Building trust

Country	Country Priority Action(s)
Armenia	<ol style="list-style-type: none"> 1. Understanding hesitancy 2. E-Health – adding a form to collect reason for refusals and social data <ul style="list-style-type: none"> • WHO, UNICEF, World Vision – stakeholders • NCDC Armenia – coordinating all activities • Steering committee – established already • Funded by NCDC (planned activity done one year ago with MOH approval – implementing according to that proposal) • Procedure to find social barriers – plan to continue this monitoring but to incorporate this into the E-Health records (information about refusals).
Georgia	<ol style="list-style-type: none"> 1. Increase knowledge and awareness of vaccines among HCW and population: short-term - update curriculum for healthcare workers (has started); long-term – modernize curriculum and introduce knowledge for children within civil education sessions at the school level and introduce knowledge for the journalists (how to publicize immunisation challenges) 2. Establishment of social media monitoring: identify solution (MOH to be involved for suitable software), justify this for financing (dedicated person identified for monitoring) and institutionalize 3. Create conducive working environment for HCWs: link to new wave reform primary healthcare (underway) improvement of the working environment for the village health workers – some refurbishment is needed; more time dedicated for HCWs to explain risks/benefits of vaccination <p>Ministry of Education, MOH in-house technical assistance and will have a leading role, working group meetings to sensitize partners.</p>

<p>Ghana</p>	<ol style="list-style-type: none"> 1. Social data collection: point of service and community service – build rationale, develop proposals and seek funding. 2. Strengthen media monitoring system for decision-making: get buy-in from stakeholders <p>LNCT group members, EPI manager and the team at the national level, representatives from the regions</p> <p>Communication group that is dedicated for immunisation Traditional: UNICEF, WHO, PATH, CDC</p> <p>Technical assistance: in house support for proposal development (health research division will be of use)</p> <p>Coordination: director of health promotion division (director of communication) and supported by EPI manager</p> <p>Resources: no funding available yet, potential for GAVI TC funding – UNICEF has made a case for supporting communication activities</p> <p>M&E: survey reports</p> <p>https://www.gavi.org/country-documents/ghana</p>
<p>Lao PDR</p>	<ol style="list-style-type: none"> 1. Identify high risk group and area (mapping) 2. Improve interpersonal communication: quarterly meeting with village leaders with HCWs and stakeholders to involve local government. Develop information for social media. Community participation – conduct group discussions in high risk areas (with support of the community and HCWs). 3. Make use of participatory learning action (PLA), bottom-up approach that has been useful and effective in the past <p>Identify “champion” in the community – target families who have expressed concerns around vaccination.</p> <p>Instability and resistance in one particular area – military accompany HCWs – come up with better ways to increase trust, compassion and respect.</p> <p>More time tailoring messages that HCWs are equipped with to engage with counterparts.</p>
<p>Uzbekistan</p>	<ol style="list-style-type: none"> 1. Second dose of HPV (April 2020) – don’t lose momentum, dedicate to finalize the programme and ensure success; strengthen current approach with social media monitoring (already implemented but needs to be more structured and formal) 2. Maintain strong partnerships and develop further 3. Hesitancy among specialists HCW (gynecologists) more training and materials for this particular group. Gynecologist’s association partnership. Interpersonal Communication (IPC) skills development by HCWs. <p>Not a lot of hesitancy issues, but HPV has revealed a lot of issues. Strengthen and implement communication plan. Lessons learned here will be incorporated in the communication strategy.</p> <p>HCW, GPs, Pediatricians who are not directly involved in immunisation – will look deeper into this</p> <p>WHO, UNICEF, MOH, all structures in MOH, Women’s Committee, Family Centre, Ministry of Public Engagement</p> <p>Will use guides and tools mentioned in the workshop.</p>

	<p>Use existing funds as part of existing programme.</p> <p>M&E – level of coverage of second dose nation-wide (focus on capital city where the problem was)</p>
Vietnam	<ol style="list-style-type: none"> 1. HCW: learning from the experience of HBV first dosing and AEFI. Training - TOT and education in order to increase confidence of HCWs. Key people to educate and communicate with the parents and the community in general. Guidelines for children with chronic disease (vaccination in hospital). Quick response to AEFIs 2. Address the anti-vaccine groups and movement: to ensure that it does not have spillover effects to the broader population. Broadcasts on social network and mass media on the importance of vaccines <p>Stakeholders: MOH, department of health to respond swiftly to AEFIs to prevent rumours</p> <ol style="list-style-type: none"> 3. Risk communication and management – improve the AEFI system and training for HCW and focus on journalists, community and mothers on risk communication. <p>Educate mothers about what to do in the case of reactions or side effects after immunisation.</p>

Reflections and Next Steps

The vaccine hesitancy workshop provided a valuable opportunity for LNCT members of the vaccine hesitancy workstream to engage in learning, networking and action planning to assess and address vaccine hesitancy challenges. Participants were actively engaged in discussions and willing to share their experiences and challenges.

Workshop Key Takeaways

- LNCT countries face a wide variety of challenges related to vaccine hesitancy. Issues of low confidence and trust are a common driver of vaccine hesitancy among the LNCT countries. Confidence in vaccination is important to achieve high uptake and efforts to build and maintain public trust are needed.
- The influence of the spread of misinformation on social media has been a particularly important challenge across LNCT countries.
- While adverse events and other hesitancy challenges are often inevitable, preparedness, planning and resilience are key. Activities to address concerns and mitigate rumors need to take place on an on-going basis.
- Hesitancy among healthcare workers (HCWs) was highlighted as a particular concern by LNCT countries. With appropriate training, support, education, mentoring and coaching, HCWs can help maintain or rebuild confidence in vaccination. Efforts to address vaccine hesitancy among HCWs should include information and training programs to address their concerns and knowledge gaps, training to support communication between providers and patients – including managing difficult questions, and stronger accountability mechanisms.
- Specific vulnerabilities of minority populations should be addressed with strategies that are based on inclusion and trust-building. Collecting and analyzing “social data” on the social and economic characteristics of under-vaccinated populations may help countries identify at-risk groups and better understand the specific barriers they face when accessing services.
- A wide variety of global and regional tools are available for countries to adapt. As a starting place, countries can look at UNICEF ECARO’s Communication for Immunization Resource Pack, which provides brief descriptions of over 100 resources.

LNCT’s hesitancy work in 2020 will be designed to address specific issues raised by countries during this workshop. LSHTM will be building on UNICEF’s resource plan, including highlighting which tools will meet LNCT countries’ needs and identify any gaps. Country delegations will be followed up by LSHTM and resource partners to discuss action plans and progress. A webinar will be held in February 2020 to share information with LNCT country members who did not participate in this workshop and to facilitate further knowledge exchange among the learning network. The webinar will be open to all LNCT member countries. Armenia and Uzbekistan have been invited to explain their roll out of HPV vaccination, challenges (including on social media), what worked, and lessons learned. Ghana and Vietnam have been invited to share lessons learned in building healthcare worker confidence to address questions and concerns.


Annex 1. Agenda

DAY1		
	Time	Session leader(s)
Welcome and introductions	0930 - 1000	Kristen De Graaf (LSHTM) and Grace Chee (R4D)
Session 1: <i>Understanding hesitancy, building confidence</i>	1000 - 1200	Susan McKay (GAVI)
Lunch	1200 - 1300	
Session 2: <i>How social media monitoring can support your vaccine programme</i>	1300 – 1445	Heidi Larson and Pauline Paterson (LSHTM)
Coffee break	1445 – 1515	
Session 3: <i>Managing risk and rumours: Addressing safety concerns and mitigating rumours</i>	1515 – 1645	Heidi Larson (LSHTM)
Drinks reception	1700 - 1900	LNCT, Gavi
DAY 2		
Session 4: <i>Addressing hesitancy among healthcare providers</i>	0900 - 1030	Pauline Paterson and Heidi Larson (LSHTM)
Coffee break	1030 - 1100	
Session 5: <i>Addressing hesitancy among minority populations</i>	1100 - 1230	Sherine Guirguis (Common Thread)
Lunch	1230 - 1330	
Session 6: <i>WHO EURO tools, guidance and training on vaccine acceptance and demand</i>	1330 - 1350	Katrine Habersaat (WHO EURO)
Session 7: <i>UNICEF resources and initiatives to strengthen demand for immunisation</i>	1350 - 1410	Sergiu Tomsa (UNICEF Europe and Central Asia)
Session 8: <i>Action planning</i>	1410 - 1550	Heidi Larson (LSHTM) and Lisa Menning (WHO)
Meeting close	1550 - 1600	Country participants, LSHTM, LNCT

Annex 2. Meeting Participants

Name	Title
Armenia	
Ms. Gayane Sahakyan	National Immunization Program Manager, Ministry of Health of Armenia
Dr. Svetlana Grigorian	National Center for Disease Control and Prevention, Armenia Ministry of Health of the Republic of Armenia & Immunization and Epidemiology of Vaccine-Preventable Diseases
Georgia	
Ms. Ekaterine Adamia	Chief Specialist of Health Care Policy Division at Policy Development of the Ministry
Ms. Nona Beradze	Chief Specialist of Immunization Division of Communicable Diseases Department at the LEPL National Center for Disease Control and Public Health
Ghana	
Dr. Luiz Octaviano Amoussou-Gohoungo	Deputy Director of Public Health for Greater Accra Region
Dr. Kwame Amponsa-Achiano	Senior Public Health Physician Specialist (New Vaccines & Vaccine Safety Coordinator), EPI Ghana Health Service
Lao PDR	
Dr. Panome Sayamoungkhoun	Deputy Director of Mother and Child Health Center, Immunization Supervisor
Dr. Chansay Pathammavong	Deputy Chief of Immunization Services
Uzbekistan	
Ms. Yekaterina Totskaya	Communications consultant, WHO
Dr. Kamoliddin Davlatov	Ministry of Health Republic of Uzbekistan, head specialist
Vietnam	
Assoc.Prof Dương Thị Hồng	NIHE Vice Director, EPI Deputy Manager
Dr. Dang Thi Thanh Huyen	National Expanded Program on Immunization

Annex 3. Country Profiles

 Armenia											
Workshop priorities: social media monitoring; building trust and managing risk; managing safety issues and perceptions; addressing hesitancy among healthcare providers; discussing mandatory immunisation as a strategy											
Vaccination coverage:											
Vaccines	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
BCG	-	99	99	99	99	99	96	96	95	99	98
DTP1	-	97	97	97	97	97	98	98	98	97	96
DTP3	-	94	94	94	93	95	95	95	94	93	89
IPV1	-	92	34	-	-	-	-	-	-	-	-
MCV1	-	96	97	97	97	97	97	97	97	96	94
MCV2	-	97	97	97	97	97	97	98	97	96	94
PCV3	-	94	94	44	-	-	-	-	-	-	-
Pol3	-	96	96	96	95	96	96	96	96	94	91
RCV1	-	96	97	97	97	97	97	97	97	96	94
RotaC	-	94	94	93	91	33	-	-	-	-	-
WHO vaccine-preventable diseases: monitoring system coverage time series Armenia											
Vaccine confidence levels:											
2018 Vaccine Confidence Index questions	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly Disagree	Don't know/refused	Total				
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are important for children	41%	32%	10%	6%	6%	5%	100%				
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are safe	21%	21%	26%	13%	8%	11%	100%				
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are effective	28%	27%	20%	7%	5%	13%	100%				
Main reasons for vaccine hesitancy	<ul style="list-style-type: none"> Mistrust of new vaccines and including concerns about new products and manufacturers. For example, parents believe the pentavalent vaccines manufactured in Europe are of higher quality than the ones manufactured in Korea. 										

	<ul style="list-style-type: none"> • Participants from Armenia highlighted the political environment, which impacts public trust in vaccines. For example, one participant noted that some people who facilitate the spread of negative rumours about vaccines are also engaged in political affairs. • Spread of misinformation on the internet • Challenges with healthcare providers (including attitudes to vaccination, insufficient education on vaccines)
How vaccine hesitancy is being monitored and measured	<ul style="list-style-type: none"> • A survey of parents, teachers, and school-aged children on HPV was conducted two years ago however only the preliminary results and draft report are available. • Questionnaires and surveys • Media monitoring of social networks
How vaccine hesitancy is being addressed	<ul style="list-style-type: none"> • Armenia engage and host training workshops with the media, including with journalists • Strengthening strategies of communication with parents • Training on HPV for healthcare providers and meetings is in the development stages • WHO has recommended an emergency communication plan • Facebook group with information on vaccines
Requests for support	<ul style="list-style-type: none"> • To learn about the experiences of other countries, who have had similar challenges including what interventions they have successfully used • Attract international experts to assist with interventions to address this new phenomenon of vaccine hesitancy



Georgia

Workshop priorities:

Vaccination coverage:

Vaccines	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
BCG	96	98	96	96	95	95	96	96	95	95
DTP1	98	97	97	99	99	94	98	99	99	99
DTP3	91	92	94	91	93	92	94	92	88	92
MCV1	95	93	96	92	97	93	91	94	83	97
MCV2	90	85	91	87	89	79	77	84	71	87
PCV3	80	75	16	–	–	–	–	–	–	–
Pol3	91	92	91	91	94	93	88	88	93	90
RCV1	95	93	96	92	97	93	91	94	83	97
RotaC	76	75	72	69	41	–	–	–	–	–

WHO vaccine-preventable diseases: monitoring system [coverage time series Georgia](#)

Vaccine confidence levels:

2018 Vaccine Confidence Index questions	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly Disagree	Don't know/ refused	Total
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are important for children	78%	12%	3%	2%	2%	3%	100%
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are safe	52%	18%	15%	6%	3%	6%	100%
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are effective	60%	17%	11%	2%	3%	6%	100%
Main reasons for vaccine hesitancy	<ul style="list-style-type: none"> • Lack of confidence in vaccines • Issues with healthcare staff, including healthcare provider attitudes to vaccination, lack of education on vaccines, not spending time communicating the importance of immunisations (due to competing time-demands, lack of motivation and weak regulations) and giving incorrect information on side effects • Parental concerns about vaccine safety, side effects, and fear of AEFIs • More trust in private sector vaccines compared to those offered free of charge • Fear of manipulation • Anti-vaccination and misinformation spread on social media • No perceived need for vaccination, but also concerns about potential side effects • Inconvenience and regulations around where a patient is registered 						
How vaccine hesitancy is being monitored and measured	<ul style="list-style-type: none"> • A mixed method study was conducted that revealed public concerns about the quality and safety of vaccines and highlighted hesitancy among healthcare workers • There is no measurement and response system that monitors the media and responds accordingly 						
How vaccine hesitancy is being addressed	<ul style="list-style-type: none"> • Focus groups, communications with doctors, communication with parents of children under 5 years old, and engaging with the education system 						
Requests for support	<ul style="list-style-type: none"> • Sharing successful experiences from different countries 						



Ghana

Workshop priorities: addressing rumours; addressing hesitancy among healthcare providers; addressing vaccine hesitancy among well educated, affluent populations; social media monitoring

Vaccination coverage:

Vaccines	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
BCG	99	94	97	99	98	98	98	99	99	99
DTP1	99	94	97	99	94	92	94	96	96	96
DTP3	99	93	88	98	90	92	91	94	94	93
IPV1	–	–	–	–	–	–	–	–	–	–
MCV1	95	89	89	92	89	88	91	93	93	86
MCV2	83	75	63	67	54	52	–	–	–	–
PCV3	99	93	88	99	89	43	–	–	–	–
Pol3	94	95	88	94	91	91	91	94	94	92
RCV1	95	89	89	92	89	–	–	–	–	–
RotaC	97	94	88	98	87	49	–	–	–	–
YFV	86	88	88	92	87	88	91	93	93	86

WHO vaccine-preventable diseases: monitoring system [coverage time series Ghana](#)

Vaccine confidence levels:

2018 Vaccine Confidence Index questions	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly Disagree	Don't know/refused	Total
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are important for children	87%	8%	1%	1%	1%	1%	100%
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are safe	78%	10%	7%	1%	2%	2%	100%
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are effective	78%	10%	4%	3%	3%	2%	100%

Main reasons for vaccine hesitancy	<ul style="list-style-type: none"> • Lack of understanding of the need for vaccination • Spread of rumours on social media (for example, misinformation about the Malaria vaccine pilot was spread on social media)
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	<ul style="list-style-type: none"> Hesitancy among healthcare workers, in relation complaints about administering multiple injections
How vaccine hesitancy is being monitored and measured	<ul style="list-style-type: none"> Social mobilization strategy that includes various committees that do media monitoring on social, traditional and international media platforms
How vaccine hesitancy is being addressed	<ul style="list-style-type: none"> Community engagement (going house to house to engage in health promotion activities) Give information to schools before mass campaigns to ensure Media engagement prior to the launch of new vaccine introduction Training healthcare workers
Requests for support	<ul style="list-style-type: none"> Media monitoring support Learning from other countries to gain a unique perspective on how other LNCT countries are addressing vaccine hesitancy



Lao PDR

Workshop priorities: addressing hesitancy among healthcare worker and building their confidence; need to be more creative and innovative in reaching ethnic groups

Vaccination coverage:

Vaccines	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
BCG	81	78	83	82	82	81	77	72	67	68
DTP1	89	85	93	94	89	87	83	81	76	73
DTP3	85	82	89	88	87	79	78	74	67	61
IPV1	77	59	13	–	–	–	–	–	–	–
MCV1	82	76	88	87	82	72	69	64	59	52
MCV2	–	–	–	–	–	–	–	–	–	–
PCV3	83	78	77	72	–	–	–	–	–	–
Pol3	85	83	89	88	86	78	79	76	67	60
RCV1	82	76	88	87	82	72	–	–	–	–
RotaC	–	–	–	–	–	–	–	–	–	–

WHO vaccine-preventable diseases: monitoring system [coverage time series Lao PDR](#)

Vaccine confidence levels:

2018 Vaccine Confidence Index questions	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly Disagree	Don't know/refused	Total
Do you strongly or somewhat agree, strongly	80%	18%	0%	0%	1%	1%	100%

or somewhat disagree: Vaccines are important for children								
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are safe	72%	20%	3%	1%	1%	2%	100%	
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are effective	71%	20%	3%	1%	0%	4%	100%	
Main reasons for vaccine hesitancy	<ul style="list-style-type: none"> • Some parents did not perceive the need for vaccination, but they also expressed concerns about potential side effects • Few healthcare workers are comfortable with giving more than two immunisations at a time (oral vaccines are well received) • Confidence in vaccine safety • If there are AEFI, this further reduced confidence in the safety of the vaccines, even if there is no association between event and vaccination • Impact of rumours and misinformation • Hesitancy among ethnic groups 							
How vaccine hesitancy is being monitored and measured	<ul style="list-style-type: none"> • The National Immunisation Program (NIP) team is looking at how social media is used by the public with regard to immunisation activities 							
How vaccine hesitancy is being addressed	<ul style="list-style-type: none"> • Use of media, including cartoon animation, translated into local languages, in health facilities and on local TV • The Ministry of Health and NIP each manage their own social media accounts to disseminate positive and correct information about vaccines • Recent Measles outbreak has underscored the need to be more creative, innovative in reaching ethnic groups – recruitment of ethnic-language speaking healthcare workers has proven useful and effective • Working with community leaders of ethnic groups has been helpful • Recent EPI training with support from Thailand has been helpful to build healthcare workers comfort in administering vaccines 							
Requests for support	<ul style="list-style-type: none"> • Addressing hesitancy and develop confidence among healthcare workers to the level that parents and carers are comfortable to bring and return with their child to be fully immunized and as timely as possible • Support in accessing existing research Support for developing information, education and communication (IEC) materials • More on 'closing the communication loop' after AEFI and informing the communities of the outcome of the AEFI investigation 							



Uzbekistan

Workshop priorities:

Vaccination coverage:

Vaccines	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
BCG	99	99	99	99	99	99	99	99	99	96
DTP1	99	99	99	99	99	99	99	99	99	99
DTP3	99	99	99	99	99	99	99	99	98	98
IPV1	–	–	–	–	–	–	–	–	–	–
MCV1	99	99	99	99	97	99	99	98	95	98
MCV2	99	99	99	99	99	99	99	54	8	26
PCV3	99	99	–	–	–	–	–	–	–	–
Pol3	99	99	99	99	99	99	99	99	99	98
RCV1	99	99	99	99	97	99	99	98	95	98
RotaC	99	99	95	52	–	–	–	–	–	–

WHO vaccine-preventable diseases: monitoring system [coverage time series Uzbekistan](#)

Vaccine confidence levels:

2018 Vaccine Confidence Index questions	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly Disagree	Don't know/refused	Total
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are important for children	95%	3%	1%	0%	0%	1%	100%
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are safe	84%	9%	2%	2%	1%	2%	100%
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are effective	89%	6%	2%	1%	0%	1%	100%

Main reasons for vaccine hesitancy

- Parental concerns about side effects including fever, crying and pain of injection (particularly around the pentavalent vaccine)
- Healthcare provider attitudes to vaccination and lack of education on vaccines
- Negative and misinformation spread on media, including social media

	<ul style="list-style-type: none"> • The role and important of journalists in reporting on vaccination and AEFIs influenced vaccine perceptions. Challenges experienced after the publication of a newspaper reporting false information about vaccines • Difficulties with the introduction of the HPV vaccine • There was a case where a child died soon after receiving the pneumococcal and polio vaccines and the public blamed this on the doctor and the vaccine
How vaccine hesitancy is being monitored and measured	<ul style="list-style-type: none"> • A UNICEF study among healthcare workers showed high confidence in vaccines in this population • WHO qualitative study that included focus group discussion with mothers • Interventions and activities to support the introduction of the HPV introduction have not been evaluated
How vaccine hesitancy is being addressed	<ul style="list-style-type: none"> • Developed and used a few promotional videos, but would like to further develop this intervention and translate videos from other countries to use in Russian • Healthcare workers were trained in 2019 to address the issue of the amount of medical exemptions from receiving vaccines • Plans to co-develop with UNICEF and WHO a website for healthcare workers however, no specific plans have been made yet • Along with the introduction of the HPV vaccine at a national level, research was conducted, and a communication plan was developed as part of National Immunisation Programme (NIP) • Key messages for HCWs to respond to HPV vaccine safety events were included in the Crises Management Plan • Prior to the introduction of the HPV vaccine, trainings were conducted with family doctors, pediatricians, and nurses • TV appearances and media articles developed to support HPV vaccine introduction
Requests for support	<ul style="list-style-type: none"> • Media monitoring support (systematic monitoring does not happen) • Learn how other countries are addressing vaccine hesitancy • No HCW online training courses available • The communication plan is available however the actions are still ad hoc and there is no systematic way to respond to vaccine hesitancy issues



Vietnam

Workshop priorities: to discuss with experts and learn about guidelines to create recommendations for assessing and addressing vaccine hesitancy; assistance with setting up social media monitoring system; managing safety issues and perceptions (in urban areas in particular); how to respond to misinformation spread on social media (Facebook) and responding to anti-vaccine groups

Vaccination coverage:

Vaccines	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
BCG	97	95	97	96	95	98	98	94	97	92
DTP1	98	96	98	95	83	99	97	93	97	97
DTP3	94	96	97	95	59	97	95	93	96	93
IPV1	–	–	–	–	–	–	–	–	–	–
MCV1	97	99	97	97	98	96	96	98	97	92

MCV2	93	95	92	94	86	83	93	98	96	97
PCV3	–	–	–	–	–	–	–	–	–	–
Pol3	94	95	97	96	93	97	96	94	97	93
RCV1	97	99	97	–	–	–	–	–	–	–
RotaC	–	–	–	–	–	–	–	–	–	–

WHO vaccine-preventable diseases: monitoring system [coverage time series Vietnam](#)

Vaccine confidence levels:

2018 Vaccine Confidence Index questions	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly Disagree	Don't know/refused	Total
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are important for children	70%	22%	5%	1%	0%	2%	100%
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are safe	35%	36%	12%	7%	1%	9%	100%
Do you strongly or somewhat agree, strongly or somewhat disagree: Vaccines are effective	46%	27%	9%	3%	1%	14%	100%

Main reasons for vaccine hesitancy

- Impact and fear of AEFI
- Lack of trust in healthcare workers
- Issue of anti-vaccination and misinformation spread on social media, including foreign social media
- Impact of rumours
- Mistrust of new vaccines and concerns about new products and manufacturers
- Reluctancy among HCWs to administer vaccines at the community health centre to children with health issues
- Hesitancy among minority populations –some mobile population groups that live in mountainous areas are hard to reach with immunisation. There is a lack of understanding of the dosing schedule for vaccines – children often miss out on subsequent doses.
- In some remote areas, the religious and community leaders promote misinformation and these communities refuse vaccines (this is not common but has occurred among the Hmong people)

How vaccine hesitancy is being monitored and measured	<ul style="list-style-type: none"> • Not currently doing – requesting advice and support for this
How vaccine hesitancy is being addressed	<ul style="list-style-type: none"> • Training workshops with journalists on how to report on AEFI and how to communicate the benefits of vaccines • Social and mass media campaigns (support national EPI but are concerned about AEFIs) • Healthcare workers training – regular workshops with staff who vaccinate in the community health centres; online workshops • Public education about vaccines • Work with MOH to develop the new guidelines on health screening before vaccination and will pilot hospital-based vaccination for vulnerable children (set up a system for hospital based vaccination – only available for Hep B and not other vaccines) Communication plan with Gavi for healthcare workers – will pilot
Requests for support	<ul style="list-style-type: none"> • Learning from other countries • Developing information, education, and communication materials to help increase the public’s understanding o and confidence in vaccines and immunisation • Strategies to more effectively engage with social media, and other forms of media, including how to set up media monitoring

The State of Vaccine Confidence

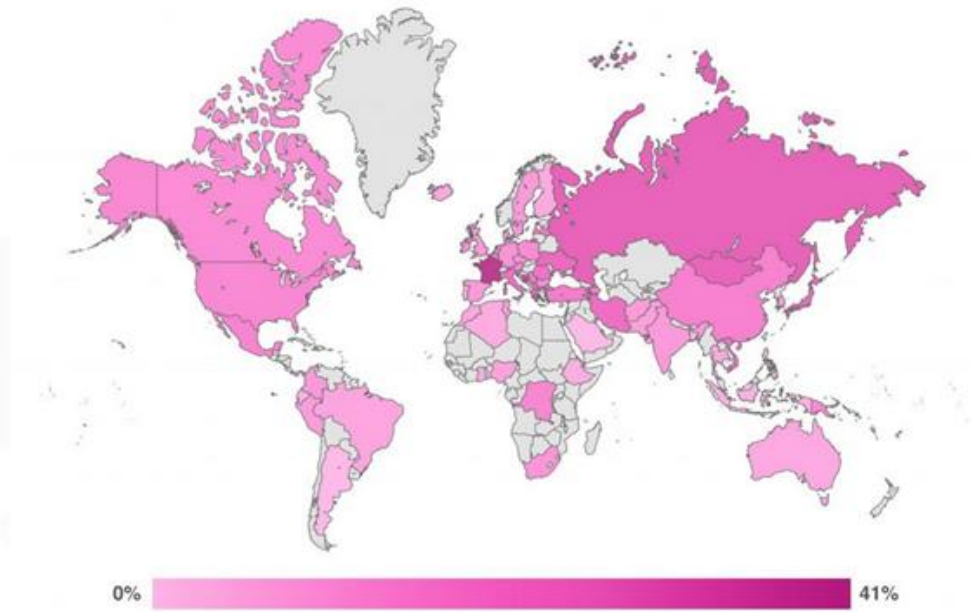
A key goal of the Vaccine Confidence Project™ at the London School of Hygiene and Tropical Medicine is to build our understanding of the broader global picture, while also delving deep into local dynamics through case studies, using both qualitative and quantitative methods. The Vaccine Confidence Index™ (VCI) is a set of survey questions to characterize vaccine confidence.

In 2016, the State of Vaccine Confidence study surveyed 65,819 individuals across 67 countries, investigating confidence in vaccine safety and effectiveness, as well as perceptions of vaccine importance and compatibility with religious beliefs.

Overall sentiment towards vaccine importance is positive across all 67 countries, however there is wide variability between countries and across world regions.

Although in certain countries particular religious groups were more vaccine-skeptical than other groups, no one religion was globally predictive of negative attitudes. This indicates that the effect of faith on vaccine attitudes is dependent on local context, and that these attitudes are not necessarily driven by religious doctrine in itself, but mediated by political, socio-cultural and other factors.

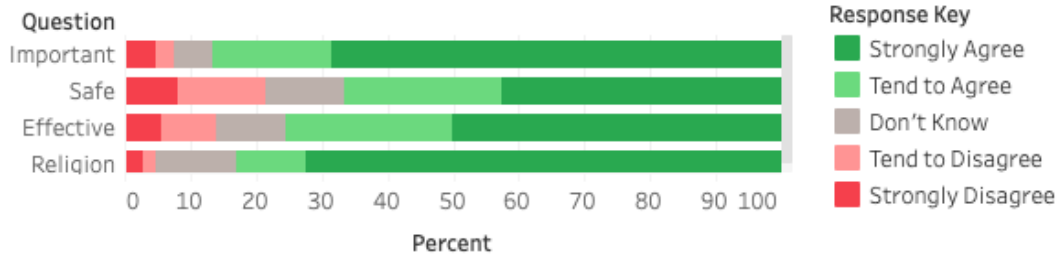
Percent Disagreeing with the Statement, "Overall I think vaccines are safe"



*Highest recorded value was 41%, gradient has been scaled to maximise visibility within this range. This map represents percentage disagreement with the statement, "Overall I think vaccines are safe," by combining the two disagree responses (Tend to Disagree and Strongly Disagree) and dividing by the total number of responses, including Don't Know/No Response as well as the two Agree options. Countries in grey were not included in this survey.

<https://www.vaccineconfidence.org/research/the-state-of-vaccine-confidence-2016/>

Armenia



How to Use

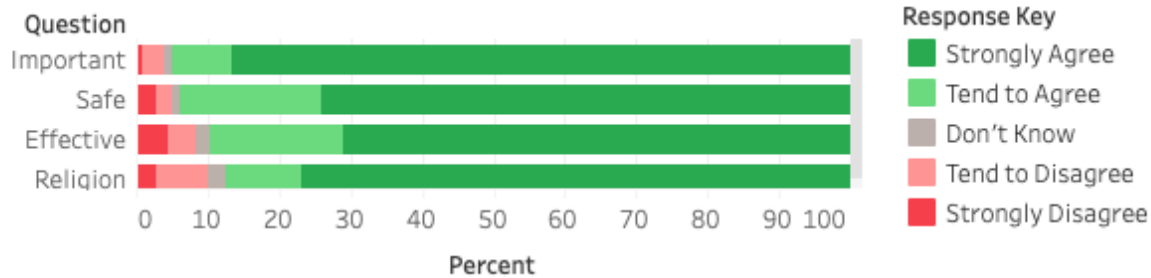
To view data, select a country from the drop-down list, or use the arrow buttons to cycle through the list. Each horizontal bar shows responses to each of the prompts:

- 1) "Vaccines are important for children to have."
- 2) "Overall I think vaccines are safe."
- 3) "Overall I think vaccines are effective."
- 4) "Vaccines are compatible with my religious beliefs."

Colours distinguish between each of the five possible responses – Strongly Agree, Tend to Agree, Don't Know/No Response, Tend to Disagree, and Strongly Disagree.

Note: Data presented here may differ from statistics quoted in the published paper, in which "Don't Know" responses were removed for some aspects of the analysis.

Ghana



How to Use

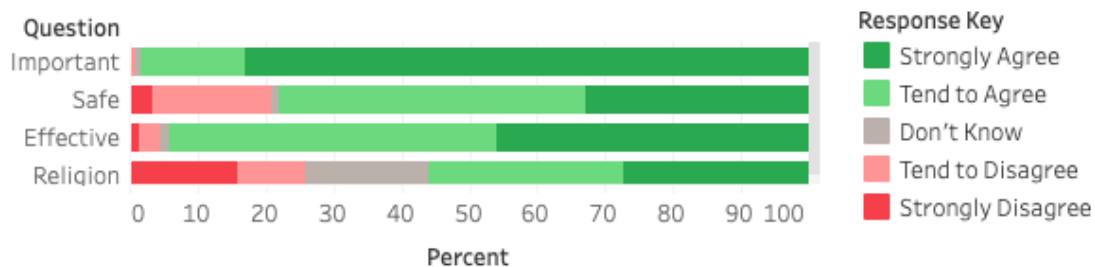
To view data, select a country from the drop-down list, or use the arrow buttons to cycle through the list. Each horizontal bar shows responses to each of the prompts:

- 1) "Vaccines are important for children to have."
- 2) "Overall I think vaccines are safe."
- 3) "Overall I think vaccines are effective."
- 4) "Vaccines are compatible with my religious beliefs."

Colours distinguish between each of the five possible responses – Strongly Agree, Tend to Agree, Don't Know/No Response, Tend to Disagree, and Strongly Disagree.

Note: Data presented here may differ from statistics quoted in the published paper, in which "Don't Know" responses were removed for some aspects of the analysis.

Vietnam



How to Use

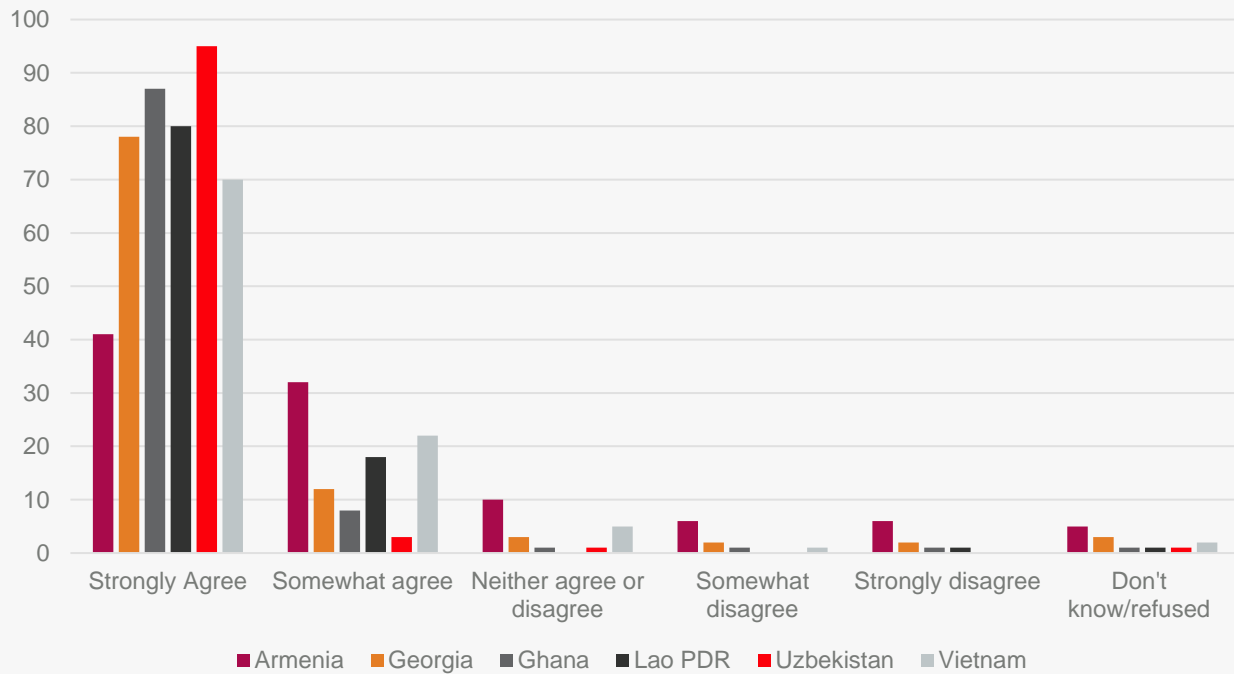
To view data, select a country from the drop-down list, or use the arrow buttons to cycle through the list. Each horizontal bar shows responses to each of the prompts:

- 1) "Vaccines are important for children to have."
- 2) "Overall I think vaccines are safe."
- 3) "Overall I think vaccines are effective."
- 4) "Vaccines are compatible with my religious beliefs."

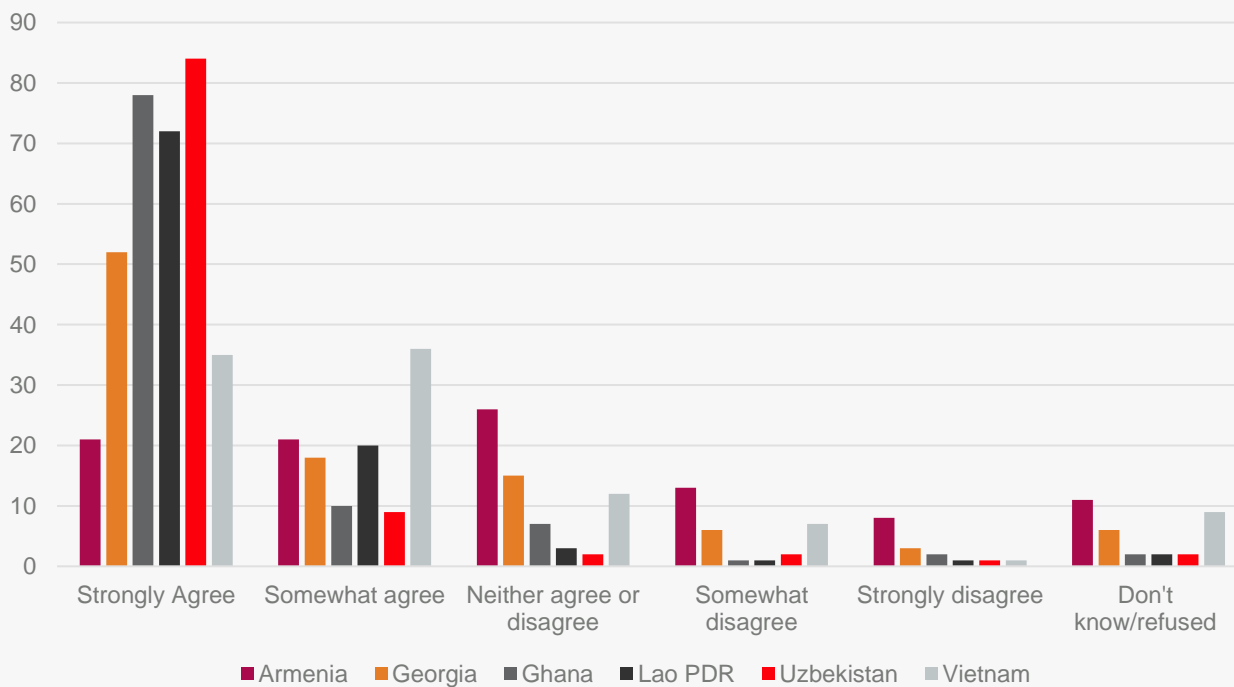
Colours distinguish between each of the five possible responses – Strongly Agree, Tend to Agree, Don't Know/No Response, Tend to Disagree, and Strongly Disagree.

Note: Data presented here may differ from statistics quoted in the published paper, in which "Don't Know" responses were removed for some aspects of the analysis.

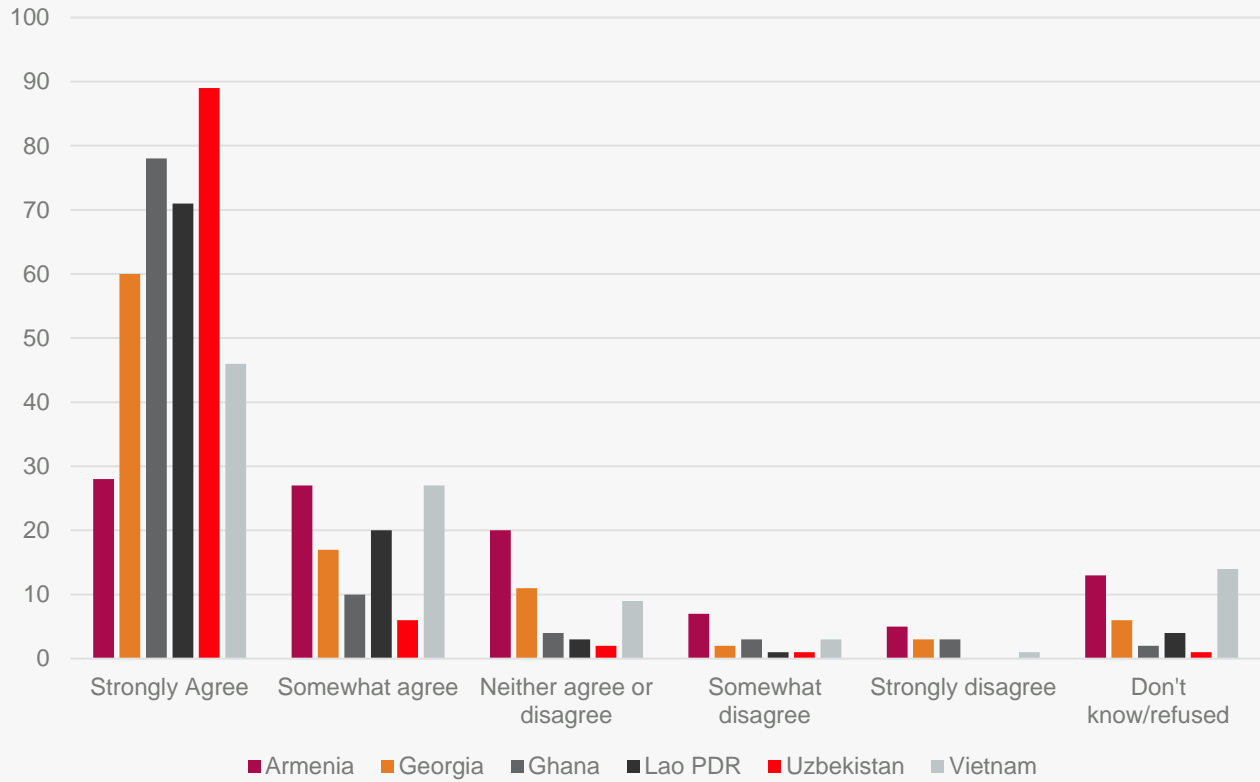
Do you strongly or somewhat agree, strongly or somewhat disagree: **Vaccines are important for children**



Do you strongly or somewhat agree, strongly or somewhat disagree: **Vaccines are safe**



Do you strongly or somewhat agree, strongly or somewhat disagree: **Vaccines are effective**



Annex 3. Reading List

Session 1: *Understanding and defining hesitancy, building confidence*

- Cooper LZ, Larson HJ, Katz SL (2008) Protecting Public Trust in Immunization. *Pediatrics*;122;149-153.
- Black S and Rappuoli R, A Crisis of Public Confidence in Vaccines. *Science Translational Medicine*. 2010; 2(61): 61mr1. DOI: 10.1126/scitranslmed.3001738
- Larson et al. Measuring vaccine confidence: introducing a global vaccine confidence index. *PLOS Current Outbreaks*. 2015. [Vaccine](#). 2015 Aug 14;33(34):4165-75. doi: 10.1016/j.vaccine.2015.04.037. Epub 2015 Apr 18.
- [Larson HJ](#) et al. for SAGE Working Group on Vaccine Hesitancy. [Measuring vaccine hesitancy: The development of a survey tool](#). [Vaccine](#). 2015 Aug 14;33(34):4165-75. doi: 10.1016/j.vaccine.2015.04.037. WHO. SAGE working group on vaccine hesitancy. Report of the SAGE working group on vaccine hesitancy. October 2014. http://www.who.int/immunization/sage/meetings/2014/october/1_Report_WORKING_GROUP_vaccine_hesitancy_final.pdf

Session 2: *How social media monitoring can support your vaccine program*

- Larson et al. Measuring vaccine confidence: analysis of data obtained by a media surveillance system used to analyse public concerns about vaccines. *The Lancet Infectious Disease*.
- [Kummervold](#) PE, et al. Controversial Ebola vaccine trials in Ghana: a thematic analysis of critiques and rebuttals in digital news. *BMC Public Health* volume 17, Article number: 642 (2017)
- Larson HJ. The biggest pandemic risk? Viral misinformation. *Nature* 2018; 562: 309.
- Larson HJ, et al. Tracking the global spread of vaccine sentiments: The global response to Japan's suspension of its HPV vaccine recommendation. *Human Vaccines & Immunotherapeutics* (2014):1-8. DOI: 10.4161/21645515.2014.969618; PMID: 25483472 PMC

Session 3: *Managing risks and rumors: Addressing safety concerns and mitigating rumors*

- Larson et al. Vaccine confidence plummets in the Philippines following dengue vaccine scare: why it matter to pandemic preparedness. *Human Vaccines & Immunotherapeutics*. 2018. https://www.researchgate.net/publication/328251601_Vaccine_confidence_plummets_in_the_Philippines_following_dengue_vaccine_scare_why_it_matters_to_pandemic_preparedness
- Simas C, et al. HPV vaccine confidence and cases of mass psychogenic illness following immunization in Carmen de Bolivar, Colombia. *Human Vaccines & Immunotherapeutics*, 15:1, 163-166, DOI: 10.1080/21645515.2018.1511667
- Kummervold et al. Controversial Ebola vaccine trials in Ghana: a thematic analysis of critiques and rebuttals in digital news. *BMC Public Health*. 2017.
- Enria et al. Power, fairness and trust: understanding and engaging with vaccine trial participants and communities in the setting up the EBOVAC-Salone vaccine trial in Sierra Leone. *BMC Public Health*. 2016.
- European Centre for Disease Prevention and Control. Communication on immunisation – building trust. Stockholm: ECDC; 2012. <https://ecdc.europa.eu/sites/portal/files/media/en/publications/Publications/TER-immunisation-and-trust.pdf>
- WHO. E-learning Module 6 – Rumours and crises - WHO Vaccine Safety Basics. <https://vaccine-safety-training.org/rumours-and-crises.html>
- UNICEF. Building Trust and Responding to Adverse Events Following Immunisation in South Asia. [https://www.unicef.org/cbsc/files/Immunisation_report_17May_05\(final_editing_text\).pdf](https://www.unicef.org/cbsc/files/Immunisation_report_17May_05(final_editing_text).pdf)

Session 4: *Addressing hesitancy among healthcare providers*

- Herzog R, et al. Are healthcare workers' intentions to vaccinate related to their knowledge, beliefs and attitudes? A systematic review. *BMC Public Health* (2013) 13:154
- Karafillakis E, et al. Vaccine hesitancy among healthcare workers in Europe: A qualitative study. *Vaccine*. (2016) 34: 5013-5020
- Paterson P, et al. (2016). Vaccine hesitancy and healthcare providers. *Vaccine*. 34; 6700-6706.

Session 5: *Addressing hesitancy among minority populations*

- Letley et al. Tailoring immunisation programmes: using behavioural insights to identify barriers and enablers to childhood immunisations in a Jewish community in London, UK. *Vaccine*. 2018
- WHO (2013) A guide to tailoring immunization programs (TIP). Increasing coverage of infant and child vaccination in the WHO European Region. Accessed 15th September 2014.
http://www.euro.who.int/_data/assets/pdf_file/0003/187347/The-Guide-to-Tailoring-Immunization-Programmes-TIP.pdf

Annex 4. Action Plan Worksheet

Action Plan

LNCT Vaccine hesitancy workshop

Supporting countries in assessing and addressing vaccine hesitancy

Name:	
Country:	

Priority actions	1.	2.	3.
1. Steps needed to achieve action <i>Near term and long term</i>	•	•	•
2. Stakeholders to involve	•	•	•
3. Technical Assistance <i>What technical assistance do you anticipate requiring?</i>	•	•	•
4. Coordination / Ownership <i>How will you coordinate with other partners? How will you involve, inform and engage partners, stakeholders and organizations? The community?</i>	•	•	•
5. Resource Mobilization <i>What funding is available? Who will you speak to and what kind of documentation/proposal is required?</i>	•	•	•
6. Monitoring and Evaluation <i>What metrics will you use to measure your success? How will you monitor the intervention?</i>	•	•	•