

## Module 2. Cultural Knowledge - Topic 1. Policies and strategies

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### 1. INTRODUCTION

Vaccine hesitancy has escalated and is increasingly recognized as a complex global threat. According to the WHO, vaccine hesitancy is context-specific, depending for example on the time, place and vaccine (Barbieri et al. 2022). Spikes in vaccine hesitancy are commonly related to misinformation, political polarization, belief-based extremism and other contextual factors, including a wider decline in the public's trust of experts and authorities. New vaccines and new vaccine policies commonly raise concerns, as do population-wide vaccine campaigns, such as those to eradicate poliomyelitis and to control the 2009 H1N1 and the Covid-19 pandemics (Larson et al. 2022).

In this context, different policies and strategies aim to deal with relevant difficulties and lead to more effective immunization services both in more or less developed countries. Some authorities proceed to changes in legislation or other direct or indirect measures aiming to control the vaccination hesitancy and increase the vaccination uptake. At an international level, there is a wide range of measures addressing vaccine hesitancy in each specific context. For example, such measures may include a stronger engagement with health professionals and members of the public alike (Ali and Celentano, 2017). The health professionals' role to mitigate vaccine hesitancy is crucial, as they are among the most trusted persons for health care issues. If they are well informed on the nature and scope of circulating concerns in their communities, they will be able to respond appropriately at individual or community level (Larson et al. 2022). Yet, if an intervention is to be delivered by health professionals or other well-known trusted messengers of health information, we should take into consideration that they may need additional training to undertake this role and that there may be a burden of time (Fadda et al. 2017).

Strategies aiming to deal with vaccine hesitancy have to take into consideration not only on individual-level drivers of vaccine confidence but also on community-level factors, such as the societal level trust in science and scientists or social, economic and psychological factors that encourage or inhibit vaccine uptake (Sturgis et al. 2021).

Vaccination policies seem to be an important mean in order to promote the right to health, but they have to be proportionate and appropriately designed in order to achieve the predefined goal (Bardosh et al. 2022). Well-intentioned vaccine promotion content can actually increase vaccine hesitancy due to a backfire effect. A backfire effect is when a correction actually leads to someone increasing their belief in the very misconception to be rectified. This is why it is suggested vaccine promotion strategies to be designed based on behavioural and social evidence, appropriated for the target group, and continually assessed for both efficacy and safety (*Vaccine misinformation management field guide*, 2020).

In order to promote vaccination, we need strong community engagement and communication approaches and strategies to address misinformation and hesitancy. Coercive measures are to be used as a last effort to promote vaccination after less restrictive and trust promoting measures (Tuckerman et al. 2022). The *Vaccine misinformation management field guide* (2020) has created a useful guide to help practitioners implement evidence-based interventions to address misinformation. This guide includes tips, case studies and examples. You could find the guide [here](#).

## 2. AIMS

The aim of this learning unit is the understanding of the components of the strategies and policies that have been proved effective or ineffective to tackle vaccine hesitancy.

## 3. LEARNING OUTCOMES

*At the end of this training the participants will be able to:*

- Identify the strategies and policies considered effective in tackling vaccine hesitancy, based on evidence.
- Realize the importance of taking into consideration the evidence before implementing any strategy or policy to tackle vaccine hesitancy.

## 4. THEORETICAL FRAMEWORK

### 4.1. Concepts and definitions

- Vaccine confidence:** refers to the belief that vaccines are effective, safe and part of a trustworthy health system. Some vaccine confidence is needed in order people to be vaccinated and to vaccinate their children (NCIRD, 2022).
- Vaccine uptakes:** correspond to the proportion of the population that has been vaccinated (NCIRD, 2022).
- Strategy:** a detailed plan for achieving success in situations such as war, politics, business, industry, or sport, or the skill of planning for such situations, or a way of doing something or dealing with something (Cambridge dictionary, 2022, available at: <https://dictionary.cambridge.org/dictionary/english/strategy>).
- Policy:** a set of ideas or a plan of what to do in particular situations that has been agreed to officially by a group of people, a business organization, a government, or a political party or a document showing an agreement you have made with an insurance company (Cambridge dictionary, 2022, available at: <https://dictionary.cambridge.org/dictionary/english/policy>).
- Backfire effect:** A backfire effect occurs when an evidence-based correction is presented to an individual and they report believing even more in the very misconception the correction is aiming to rectify (Lewandowsky et al. 2012).

### 4.2. What the research says on the topic

1. **European Centre for Disease Prevention and Control. (2017). *Catalogue of interventions addressing vaccine hesitancy.* Publications Office. <https://data.europa.eu/doi/10.2900/654210>**

This catalogue aims to provide a useful tool for public health organisations and immunization stakeholders in the EU/EEA to address vaccine hesitancy. The catalogue includes interventions developed in EU/EEA countries or in other regions to measure and tackle vaccine hesitancy and showcases examples of practices that can be adapted according to national and local needs and strategies. You can find this catalogue [here](#).

2. **Vogel, J., & Burni, A. (n.d.). *Why rebuilding trust in governments is key to end COVID-19.* German institute of Development and Sustainability (IDOS). Retrieved 10 February 2023, from <https://www.idos-research.de/en/the-current-column/article/why-rebuilding-trust-in-governments-is-key-to-end-covid-19/>**

To increase vaccine uptake, it is priority to establish or reestablish public trust to authorities. Four main pillars can increase public trust in the intentions and motives of the government,

namely: humanity, transparency, capability and reliability. Regarding vaccine hesitancy humanity could be seen when the authorities show respect and empathy to those unwilling to get the vaccine. In this case distant laws, bureaucracy and regulations are not the main pathways to increase vaccine uptake.

Transparency is also very important. Governments should share information on the motives and evidence behind each measure, whenever possible. The information has to be shared in appropriate for the target group ways. Additionally, governments should ensure among others capability to deliver effectively good quality health services and whatever is promised. Finally, the reliability of the governments refers to its perception as consistent and trustworthy. Referring to the vaccination policies the reliability of a government could refer inter alia to the fair distribution of the available vaccines.

3. Singh, P., Dhalaria, P., Kashyap, S., Soni, G. K., Nandi, P., Ghosh, S., Mohapatra, M. K., Rastogi, A., & Prakash, D. (2022). Strategies to overcome vaccine hesitancy: A systematic review. *Systematic Reviews*, 11(1), 78. <https://doi.org/10.1186/s13643-022-01941-4>

According to the findings of a systematic review on strategies to overcome vaccine hesitancy, community-based interventions, monetary incentives, and technology-based health literacy were found associated with significant improvement in the utilization of immunization services. Yet, media-based interventions were not found effective in dealing with vaccine hesitancy. This systematic review included 33 descriptive or analytic studies including interventions directed at vaccine hesitancy. The authors conclude that the strategies aiming to deal with vaccine hesitancy should focus on the need and its reasons for the specific target group. They mention that a multidimensional approach involving community members, families, and individuals is needed in order a strategy to be really successful.

4. Larson, H. J., Gakidou, E., & Murray, C. J. L. (2022). The Vaccine-Hesitant Moment. *The New England Journal of Medicine*, NEJMr2106441. <https://doi.org/10.1056/NEJMr2106441>

The authors underline the importance of taking into consideration the local data when designing a strategy to deal with vaccine hesitancy. Their analyses show that there is a substantial widespread variation of vaccine hesitancy rates even within a county in all U.S. states. They add that spatially refined estimates of vaccine hesitancy are useful in increasing the vaccine uptake locally. The authors also describe the different ways that local information on vaccine hesitancy of the target group could be proved useful. Such information has been used, inter alia, to tailor efforts to local areas that have the greatest need and to monitor the effect of local interventions.

5. Demeke, J., McFadden, S. M., Dada, D., Djimetio, J. N., Vlahov, D., Wilton, L., Wang, M., & Nelson, L. E. (2022). Strategies that Promote Equity in COVID-19 Vaccine Uptake for Undocumented Immigrants: A Review. *Journal of Community Health*, 47(3), 554–562. <https://doi.org/10.1007/s10900-022-01063-x>

This review concludes that vaccine uptake in vulnerable communities may be increased when it is based on existing, trusted, culturally intelligent community-based organizations and local sociocultural processes. The strategies described useful to promote equity include the use of trusted for the target population leaders as well as direct communication styles. Other strategies entered informational messaging from government agencies and the medical

community, trying to coalescing broad engagement of the community and taking into consideration language and cultural issues.

- 6. Olson, O., Berry, C., & Kumar, N. (2020). Addressing Parental Vaccine Hesitancy towards Childhood Vaccines in the United States: A Systematic Literature Review of Communication Interventions and Strategies. *Vaccines*, 8(4), 590. <https://doi.org/10.3390/vaccines8040590>**

This systematic literature review led to the creation of a catalogue of health communication interventions and strategies to ultimately address and prevent parental vaccine hesitancy in the long term. The communication interventions were further divided into specific components and themes perceived to be factors related either to the success or to the failure in preventing and addressing parental vaccine hesitancy towards childhood vaccines. They found -inter alia- that if vaccination is presented as the default approach and health professionals discuss with parents about vaccines openly, early and often, parents are more likely to proceed to the vaccination of their children. Moreover, when vaccination is viewed as the social norm, social pressure and responsibility increase vaccine uptake. For specific populations, it would be important to identify religious and community influences in order to promote vaccination information and tailor specific interventions. In this systematic review 75 articles were included for analysis (systematic reviews, quantitative surveys, experimental designs, ethnographic and qualitative studies etc). The authors used a taxonomy to present the communication interventions according to their intended purpose.

- 7. Li, L., Wood, C. E., & Kostkova, P. (2021). Vaccine hesitancy and behaviour change theory-based social media interventions: A systematic review. *Translational Behavioural Medicine*, 12(2), 243–272. <https://doi.org/10.1093/tbm/ibab148>**

This systematic review highlights the need to use a multitheory framework and tailoring social media interventions to the specific context. Its aim is to investigate the breadth and effectiveness of behaviour change theories and social media tools. The authors found that the most frequently deployed theory was the Health Belief Model and that the most common social media tool was educational posts, followed by dialogue-based groups, interactive websites, and personal reminders. Theory-based interventions were more measurable and comparable and lead to some evidence of the positive behaviour change. Fifteen studies assessed the effectiveness in knowledge gain, intention increase, or behaviour change. Educational messages were proved to be effective in increasing knowledge but less in triggering behaviour change. A dialogue-based social media intervention was found helpful in improving people's intention to vaccinate. Interventions informed by behaviour change theory and delivered via social media platforms were found generally more effective in addressing vaccine hesitancy. Twenty articles were included in this systematic review, 12 of which were referred to theory-based interventions.

- 8. Rutten, F.L. J., Zhu, X., Leppin, A. L., Ridgeway, J. L., Swift, M. D., Griffin, J. M., St Sauver, J. L., Virk, A., & Jacobson, R. M. (2021). Evidence-Based Strategies for Clinical Organizations to Address COVID-19 Vaccine Hesitancy. *Mayo Clinic Proceedings*, 96(3), 699–707. <https://doi.org/10.1016/j.mayocp.2020.12.024>**

This review summarizes effective strategies to address vaccine hesitancy for use by health care professionals and clinical organizations in the care of their patients and employees. The

authors state that to address vaccine hesitancy and increase the COVID-19 vaccine uptake, we need multilevel, evidence-based strategies. Similarly, they underline the importance of the widespread adoption of evidence-based best practices that have been developed and refined with previous vaccines. Such evidence-based practices coming from the social, behavioural, communication, and implementation science should inform clinical efforts at the interpersonal, individual, and organization levels to address COVID-19 vaccine hesitancy. Interventions at the policy and community level do not specifically address vaccine hesitancy, but they are the first step and interventions to address vaccine hesitancy within clinical organizations are to follow.

9. **Batteux, E., Mills, F., Jones, L. F., Symons, C., & Weston, D. (2022). The Effectiveness of Interventions for Increasing COVID-19 Vaccine Uptake: A Systematic Review. *Vaccines*, 10(3), 386. <https://doi.org/10.3390/vaccines10030386>**

The aim of this systematic review is to identify and evaluate the effectiveness of interventions to increase COVID-19 vaccine uptake. From the 39 studies included 7 measured vaccination uptake and 32 measured vaccination intention. The authors found reasonable evidence from studies investigating real behaviour indicating that personalising communications and sending booking reminders via text message increases vaccine uptake. Referring to the vaccination intention the findings are mixed but indicate that communicating uncertainty about the vaccine does not decrease intention and that making vaccination mandatory could have a negative impact.

10. **Reñosa, M. D. C., Landicho, J., Wachinger, J., Dalglish, S. L., Bärnighausen, K., Bärnighausen, T., & McMahon, S. A. (2021). Nudging toward vaccination: A systematic review. *BMJ Global Health*, 6(9), e006237. <https://doi.org/10.1136/bmjgh-2021-006237>**

The aim of this systematic review is to investigate if nudging can control vaccine hesitancy and improve vaccine uptake. The studies included tested the following nudging-based interventions: using reminders and recall, changing the way information is framed and delivered to a target group, changing the messenger delivering information, invoking social norms and emotional affect (e.g., through storytelling, dramatic narratives and graphical presentations), and offering incentives or changing defaults. The nudges that offer incentives to parents and healthcare workers, that make information more salient or that use trusted messengers to deliver information have been found the most effective. Yet the effectiveness of nudging interventions depends substantially by the context.

Several studies are in progress to offer us more knowledge on vaccine specific determinants of hesitancy. This new knowledge is intended to inform relevant policies and strategies at local, national or international level. (Ali and Celentano, 2017).

## 5. LEARNING ACTIVITIES

### Activity 1 (duration: 30 minutes):

Read the following guide, comment one of the 12 strategies and upload feedback and strategy examples on the dedicated forum and give feedback to other participants. Please focus mainly from page 13 onward: COVID-19 Vaccination Field Guide: 12 Strategies for Your Community. CDC, 2021 Available at: <https://www.cdc.gov/vaccines/covid-19/vaccinate-with-confidence/community.html>

*Resources to be used for the module learning activities:*

No.	Title and description of the resource	Type	Language of resource	Learning, training, assessment and evaluation activities	Access URL / download
1.	A Field Guide with 12 Strategies to increase COVID-19 Vaccine confidence and uptake. It also includes examples of applying these strategies.	Written material	English	Individual learning Self-reflection Upload feedback and strategy examples	<a href="https://www.cdc.gov/vaccines/covid-19/vaccinate-with-confidence/community.html">https://www.cdc.gov/vaccines/covid-19/vaccinate-with-confidence/community.html</a>

## 6. ASSESSMENT ACTIVITIES

Please fill in the blanks using the following words (duration: 10 minutes):

“backfire effect”, “efficacy”, “safety”, “behaviour change theory”, “social media”, “knowledge”, “behaviour change”, “incentives”, “information”, “trusted”, “organization”

1. A \_\_\_\_\_ occurs when an evidence-based correction is presented to an individual and they report believing even more in the very misconception the correction is aiming to rectify.
2. It is suggested vaccine promotion strategies to be continually assessed for both \_\_\_\_ and \_\_\_\_.
3. Interventions informed by \_\_\_\_ and delivered via \_\_\_\_ platforms were found generally more effective in addressing vaccine hesitancy.
4. Educational messages were proved to be effective in increasing \_\_\_\_\_ but less in triggering \_\_\_\_\_.
5. The nudges that offer vaccination \_\_\_\_\_ to parents and healthcare workers, that make vaccination \_\_\_\_\_ more salient or that use \_\_\_\_\_ messengers to deliver information have been found the most effective.
6. Evidence-based practices for clinical organizations to address COVID-19 vaccine hesitancy may be at the interpersonal, individual, and \_\_\_\_\_ level.

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