

# Module 1. Cultural Awareness - Topic 2. Myths and fears

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## 1. INTRODUCTION

The World Health Organization has named vaccine hesitancy as one of the top ten threats to global health in 2019. Public health officials and physicians have been combating misconceptions about vaccine safety for over twenty years. They've had mixed success. Despite the fact that numerous studies have found no evidence to support the notion that vaccines cause autism and other chronic illnesses, a growing number of parents are refusing to vaccinate their children.

Vaccines are one of the great pillars of modern medicine. Life used to be especially brutal for children before vaccines, with huge portions being felled by diseases like measles, smallpox, whooping cough, or rubella, to name just a few. Today these ailments can be completely prevented with a simple injection.

So as science continues to advance and tackle new challenges, people should not forget how many deaths and illnesses vaccines have prevented, and how they continue to protect us from potentially devastating forms of infectious disease.

This learning unit provides a quick overview of the myths and fears for vaccination.

## 2. AIMS

The aim of this module is to enhance awareness and acknowledgement of the myths and fears in regard to vaccination.

## 3. LEARNING OUTCOMES

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

- Gain knowledge about related to Rationale for immunization in health care users and staff.
- Understand and deal with fears, myths, misconceptions about vaccination.

## 4. THEORETICAL FRAMEWORK

### 4.1. Concepts and definitions

**Cultural awareness.** The degree of awareness we have about our own cultural background and cultural identity. This helps us to understand the importance of our cultural heritage and that of others and makes us appreciate the dangers of ethnocentricity ([Papadopoulos, 2006](#)).

**Vaccination.** It is a simple, safe, and effective way of protecting against harmful diseases. It uses body's natural defences to build resistance to specific infections and makes immune system stronger (*Vaccines and immunization: What is vaccination?*, n.d).

**Vaccines.** They train immune system to create antibodies, just as it does when it's exposed to a disease. However, because vaccines contain only killed or weakened forms of germs like viruses or bacteria, they do not cause the disease or put you at risk of its complications (*Vaccines and immunization: What is vaccination?*, n.d).

**Vaccination Hesitancy.** Refers to the reluctance or refusal to be vaccinated.

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

- Gabis, L. V., Attia, O. L., Goldman, M., Barak, N., Tefera, P., Shefer, S., Shaham, M., & Lerman-Sagie, T. (2022). The myth of vaccination and autism spectrum. *European Journal of Paediatric Neurology*, 36, 151–158. <https://doi.org/10.1016/j.ejpn.2021.12.011>

Despite the overwhelming data demonstrating that there is no link between vaccines and autism, many parents are hesitant to immunize their children because of the alleged association.

Other contributing factors to the myths and conspiracy theories surrounding the association between vaccines and autism include the fact that the diagnosis of autism is typically made after the age of receiving the main childhood immunizations, as well as the occasional occurrence of regression after the age of first year vaccinations. In spite of vast evidence that the main contribution to the increase in incidence is from improvement of the diagnostic process, this rapid and publicized rise in autism diagnoses feeds parental concerns regarding any medical intervention that may be associated with the health of their children.

- Writers, S. (2022, December 20). *Vaccine Myths Debunked*. PublicHealth.org. Available at: <https://www.publichealth.org/public-awareness/understanding-vaccines/vaccine-myths-debunked/> [Accessed 08/11/2022].

Fears over the safety of vaccines are understandable. The CDC vaccination schedule calls for children to receive up to 14 inoculations by the age of six – many of them vaccines developed within the last twenty years. Many parents distrust these vaccines; worried about the potential for risks and long-term side effects. Research, however, shows that most of our biggest fears about vaccinations are unfounded. These eight major vaccine myths that research has shown to be baseless: Myth #1: Vaccines cause autism, Myth #2: Infant immune systems can't handle so many vaccines, Myth #3: Natural immunity is better than vaccine-acquired immunity, Myth #4: Vaccines contain unsafe toxins, Myth #5: Better hygiene and sanitation are actually responsible for decreased infections, not vaccines, Myth #6: Vaccines aren't worth the risk, Myth #7: Vaccines can infect my child with the disease it's trying to prevent, Myth #8: We don't need to vaccinate because infection rates are already so low in the United States.

- *Vaccines and immunization: What is vaccination?* (n.d.). World Health Organization (WHO). Available at: <https://www.who.int/news-room/questions-and-answers/item/vaccines-and-immunization-what-is-vaccination> [Accessed 08/11/2022].

This list of common misconceptions was originally written by the Centres for Disease Control and Prevention in the United States, primarily for use by practitioners giving vaccinations to children in their practices. An edited version is reproduced here as useful information for health-care workers giving vaccination as well as concerned parents. This Q&A addresses the common misconceptions about vaccination that are often cited by concerned parents as reasons to question the wisdom of having their children vaccinated. WHO gratefully acknowledges the permission of CDC Atlanta to present an edited version of "Six common misconceptions about immunization".

- Kreps, S. E., Goldfarb, J. L., Brownstein, J. S., & Kriner, D. L. (2021). The Relationship between US Adults' Misconceptions about COVID-19 Vaccines and Vaccination Preferences. *Vaccines*, 9(8), 901. <https://doi.org/10.3390/vaccines9080901>. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8402532/> [Accessed 7/11/2022].

While mass vaccination has blunted the pandemic in the United States, pockets of vaccine hesitancy remain. Through a nationally representative survey of 1027 adult Americans conducted in February 2021, this study examined individual misconceptions about COVID-19 vaccine safety; the demographic factors associated with these misconceptions; and the relationship between misconceptions and willingness to vaccinate. Misconceptions about vaccine safety were widespread. A sizeable minority (40%) believed that vaccine side effects are commonly severe or somewhat severe; 85% significantly underestimated the size and scale of the clinical trials; and a

sizeable share believed either that the vaccines contain live coronavirus (10%) or were unsure (38%), a proxy for fears that vaccination itself may cause infection. These misconceptions were particularly acute among Republicans, Blacks, individuals with lower levels of educational attainment, and unvaccinated individuals. Perceived side effect severity and underestimating the size of the clinical trials were both significantly associated with vaccine hesitancy.

- **Geoghegan, S., O'Callaghan, K. P., & Offit, P. A. (2020). Vaccine Safety: Myths and Misinformation. *Frontiers in Microbiology*, 11. Available at: <https://www.frontiersin.org/articles/10.3389/fmicb.2020.00372/full> [Accessed 08/11/2022].**

The World Health Organization has named vaccine hesitancy as one of the top ten threats to global health in 2019. The reasons why people choose not to vaccinate are complex, but lack of confidence in vaccine safety, driven by concerns about adverse events, has been identified as one of the key factors. Healthcare workers, especially those in primary care, remain key influencers on vaccine decisions. It is important, therefore, that they be supported by having easy access to trusted, evidence-based information on vaccines. Although parents and patients have a number of concerns about vaccine safety, among the most common are fears that adjuvants like aluminium, preservatives like mercury, inactivating agents like formaldehyde, manufacturing residuals like human or animal DNA fragments, and simply the sheer number of vaccines might be overwhelming, weakening or perturbing the immune system. As a consequence, some fear that vaccines are causing autism, diabetes, developmental delays, hyperactivity, and attention-deficit disorders, amongst others. In this review we will address several of these topics and highlight the robust body of scientific evidence that refutes common concerns about vaccine safety.

- **Gasparini, R., Panatto, D., Lai, P. L., & Amicizia, D. (2015). The 'urban myth' of the association between neurological disorders and vaccinations. *Journal of Preventive Medicine and Hygiene*, 56(1), E1–E8. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4718347/> [Accessed 8/11/2022].**

In modern society, a potentially serious adverse event attributed to a vaccination is likely to be snapped up by the media, particularly newspapers and television, as it appeals to the emotions of the public. The widespread news of the alleged adverse events of vaccination has helped to create the "urban myth" that vaccines cause serious neurological disorders and has boosted antivaccination associations. This speculation is linked to the fact that the true causes of many neurological diseases are largely unknown. The relationship between vaccinations and the onset of serious neuropsychiatric diseases is certainly one of coincidence rather than causality. This claim results from controlled studies that have excluded the association between vaccines and severe neurological diseases, therefore it can be said, with little risk of error, that the association between modern vaccinations and serious neurological disorders is a true "urban myth".

## 5. LEARNING ACTIVITIES

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

Watch the video Misconceptions about vaccines: [https://www.youtube.com/watch?v=BePYBYAYF\\_g](https://www.youtube.com/watch?v=BePYBYAYF_g)  
(In English with auto generated subtitles translated in all languages)

- Write in the blog (or post in social media or forums) some of the misconceptions about vaccines.

| No. | Title and description of the resource | Type            | Language of resource | Learning, training, assessment and evaluation activities | Access URL / download   |
|-----|---------------------------------------|-----------------|----------------------|--|---|
| 1.  | Misconceptions about vaccines         | Video<br>4'23'' | English*             | Individual learning<br>Self-reflection                   | <a href="https://www.youtube.com/watch?v=BePYBYAYF_g">https://www.youtube.com/watch?v=BePYBYAYF_g</a> |

\* Subtitles auto-generated in all languages

## 6. ASSESSMENT ACTIVITIES

Answer the True and False Quiz in the below link:

<https://www.goconqr.com/quiz/37684353/iene10>

Submit your answers and see the results.

### Questions and Answers:

1. Vaccines are unnecessary as long as good hygiene is maintained; that is, that clean water, nutrition, and sanitation alone can prevent diseases.
2. Vaccines are designed to produce optimum immunity, but having the disease poses greater risk, according to the WHO.
3. Vaccines are not needed if a disease doesn't exist in a country.
4. People in all parts of the world are more likely to be harmed by vaccine-preventable diseases than by vaccines.

## 7. REFERENCES

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