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Curriculum for Training Courses on HPV Vaccination and Vaccine Communication D 7.2



PERCH
PartnERship to
Contrast HPV



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Content

| | |
|--|-----------|
| Introduction | 3 |
| Concept design and implementation..... | 3 |
| Overall aspects of training | 3 |
| Module I “Medical and epidemiological basics of HPV and HPV vaccination” | 5 |
| Module II: “HPV vaccine communication in medical practice/healthcare” | 7 |
| Appendix I. Non-systematic review into international training programmes on HPV vaccination with a focus on communication | 11 |
| Appendix II. List of international training programmes on HPV vaccination with a focus on communication..... | 13 |
| Appendix III. List of general international online-resources on HPV vaccination | 23 |

Introduction

This curriculum was developed as part of the PartnERship to Contrast HPV (PERCH). It is based on the results of an overarching needs assessment among the PERCH WP 7 partner countries and includes a content description of the training modules as well as appropriate materials and methods for training.

The curriculum covers the fundamentals of HPV infection and HPV vaccination (e.g., benefits, risks, efficacy) as well as communication on HPV and the HPV vaccine in medical practice/healthcare.

The curriculum serves as a guideline or checklist for the PERCH countries, which can be adapted to the respective national context. Thus, the aim of the curriculum is to be flexible and adaptable in its implementation, in line with the needs of the country conducting the training course(s).

The curriculum also aims to support healthcare professionals in communicating information about the HPV vaccine to the respective target groups (children, adolescents, parents/caregivers) in order to promote vaccine confidence.

Concept design and implementation

The curriculum consists of the overall aspects and two content modules:

Module I focuses on the clinical and epidemiological basics of HPV and HPV vaccination. It also includes basic aspects of HPV/cervical cancer screening and the treatment of HPV-associated (pre)cancer. The WP 7 working group decided that a separate, comprehensive module on HPV/cervical cancer screening and treatment, with the associated training content, would be too broad for the focus, timeframe and resources of the PERCH Joint Action. Accordingly, some aspects of secondary prevention are included in module I.

Module II addresses communication about HPV vaccine in medical practice/healthcare. It includes suggestions for basics of communication in case that trainings intend to cover communication in more detail.

Overall aspects of training

Duration of training (e.g., teaching units per module and time required to complete training)
The curriculum contains possible content for the country specific trainings. The countries participating in WP 7 can tailor the training to their identified training needs. Modules can be taught separately, they can be shortened to defined aspects, and the modules are independent of one another.

Teaching methods

Suitable teaching methods need to be chosen for conducting the training. These include, for instance, plenary sessions, role playing, working groups, case studies.

Training materials for participants

The host of the trainings decides which training materials are to be provided and how (paper handout, online, a combination of both)

Target groups

This curriculum targets all healthcare professionals involved in vaccinating against HPV in medical practice/healthcare. Some aspects are focused on particular groups of healthcare professionals (e.g., those involved in secondary prevention).

Group size

Group size must be tailored to the respective context and to the teaching methods used in the training course.

Professional qualification of trainers

Trainers must have professional qualifications to conduct the training course or a single module/content area of the curriculum. For example, they may have a professional background in medicine, public health, care/nursing and/or be qualified to provide communication training (depending on the module that the trainer conducts).

Training format

Different training formats are possible, such as e-learning, in-class training, webinars, blended learning (e.g., a webinar combined with e-learning or in-class training with e-learning). Suitable infrastructure must be provided by the host of the training course.

Attendance

The host of the training decides whether or not attendance is compulsory. If attendance is compulsory, it must be ensured by the host.

Evaluation

Training courses should be evaluated in order to contribute to continuous quality control. Within the PERCH project a joint evaluation of trainings is intended, using a pre-/post-test design. This includes the measurement of success of the training (improved knowledge on HPV and HPV vaccination; participants feel more confident in communicating with parents/caregivers, children, adolescents) as well as participant satisfaction with the organization and content of the training.

Credit points

Credit points may be claimed if the course is approved by an eligible authority. Applying for credit points is the responsibility of the host of the training.

Certificates

The host of the training provides certificates of attendance to the participants if they complete the training course successfully. "Successful completion" is defined by the host.

Training fees

The host is responsible for charging any fees, if applicable.

Training content

Module I “Medical and epidemiological basics of HPV and HPV vaccination”

Module 1: Medical and epidemiological basics of HPV and HPV vaccination

Learning objectives

- Participants acquire basic knowledge of the human papillomavirus, i.e., clinical description, virology and transmission. They are familiar with the most relevant HPV genotypes, HPV-associated diseases and risk factors for infection, as well as co-factors for progression.
- Participants understand the burden of HPV-related disease and the epidemiology of HPV-associated diseases.
- Participants know about groups with increased risk of HPV-related diseases (e.g., men who have sex with men).
- Participants know the fundamentals of HPV-testing as well as cytology testing for early detection of cervical cancer and cervical precancerous lesions.
- Participants know about the limited protection of safer sex practices against an HPV infection and can explain why the HPV vaccination is the most effective means of prevention.
- Participants have a basic understanding how HPV vaccines work. They can name all three HPV vaccines licensed in the EU. They have a firm knowledge of the respective HPV vaccination schedules, how they are administered, stored and handled.
- Participants know about the recommendations on HPV vaccination in their country.
- Participants have a firm knowledge of the effectiveness, efficacy and safety of the HPV vaccines. Participants understand the concept of a risk-benefit assessment. They can communicate the risks and consequences of an HPV infection in comparison to the risks and benefits of an HPV vaccination.

Learning content

Human papillomavirus (HPV)

- Basic knowledge of human papillomaviruses
- Difference between low-risk and high-risk HPV types, most relevant genotypes
- HPV transmission pathways (including limitations of safer sex practices for protection)



- HPV transmission and medical instruments (content based on published studies)
- Risk of HPV infection during lifetime, clearance, natural history/course of disease

HPV-associated diseases

- HPV-associated diseases:
 - Anogenital warts
 - Recurrent respiratory papillomatosis
 - Cervical carcinoma and its preliminary stages
 - Vulvar and vaginal carcinoma
 - Anal carcinoma
 - Penile carcinoma
 - Carcinomas of the head and neck (e.g., oropharyngeal carcinoma, oral cavity, larynx)
- Epidemiology/burden of HPV infection and HPV-related diseases (including age distribution for anogenital warts, HPV-related cancers including cervical carcinoma) in their own country /EU-wide and worldwide
- Risk factors for HPV infection and development of HPV-related diseases (including groups with increased risk of HPV infection)

WHO cervical cancer elimination strategy

- Basics of the WHO cervical cancer strategy: aim and objectives for 2030

Cervical cancer screening

- Screening tests: HPV test, cytology
- Cervical cancer screening programme and recommendations in the respective country
- HPV test: mechanism, application
- Basics of cytology and additional tests in cases of abnormal Pap findings (CIN)

HPV vaccination

- Mechanism of HPV vaccination
- EU-licensed vaccines: common features of and differences between the HPV vaccines Cervarix, Gardasil, Gardasil9, including the HPV genotypes targeted
- Protection: effectiveness and efficacy, including cross-protection and duration of protection of the HPV vaccines



- Protection regarding HPV persistent infection and HPV-related outcomes
- Safety of HPV vaccines: local and systemic reactions, conclusions of WHO Global Advisory Committee on Vaccine Safety (GACVS), meetings on vaccine safety, contraindications, long-term assessment of HPV vaccine safety
- Vaccination schedule (including preferred age for HPV vaccination) and vaccine administration
- Vaccination recommendations in the respective country: routine vaccination, catch-up vaccination and risk groups
- Vaccine storage and handling
- Public health perspective on HPV vaccination; vaccination coverage in own country and in comparison to other EU countries
- HPV vaccination and participation in cervical screening programmes in the respective country
- Cancer screening in women vaccinated against cervical cancer (secondary prevention)

Module II: “HPV vaccine communication in medical practice/healthcare”

Learning objectives:

Training on HPV vaccine communication in medical practice/healthcare settings:

- Participants know and effectively implement verbal- and non-verbal communication techniques in consultations on the HPV vaccine to promote the importance of HPV vaccination.
- Participants develop communication strategies to convey accurate information about the HPV vaccine, such as avoiding technical language and using figurative language to ensure understanding.
- Participants understand the importance of clear communication to enhance patient confidence
- Participants learn to address common misconceptions and concerns regarding the HPV vaccine; Participants know how to successfully pre- and debunk misinformation about the HPV vaccine.
- Participants know the importance of the clinical care partnership/relationship between practice staff and patient, and how to (positively) influence it to promote vaccine confidence; Participants understand the role of healthcare professionals in advocating for HPV vaccination.



- Participants successfully manage interpersonal communication in challenging conversations about the HPV vaccine (e.g., dealing with vaccine hesitancy and anti-vaxxers).
- Participants understand how transparent communication contributes to vaccine acceptance.
- Participants learn how to communicate the risks and benefits of HPV vaccination to different patient populations.

Communication for addressing vaccine hesitancy:

- Participants identify common reasons for vaccine hesitancy regarding the HPV vaccine.
- Participants develop communication techniques to address hesitancy and build confidence.
- Participants understand the psychological factors influencing vaccine decision-making.

Communication on vaccine safety and side effects:

- Participants provide clear information about the safety profile of the HPV vaccine.
- Participants develop communicative strategies to dispel concerns about possible side effects.

Communication during administration of the HPV vaccine:

- Participants develop skills for explaining the vaccination process to patients.
- Participants learn to address questions and concerns related to administration of the HPV vaccine.

Target-group-specific communication with children, adolescents and parents/caregivers about the HPV vaccine:

- Participants are able to address parents/caregivers, children, adolescents in a target-group-specific way and analyse their specific needs, questions and concerns regarding HPV vaccination.
- Participants learn to adapt their communication to different age groups (needs, prior knowledge, fears), including children, adolescents and parents/caregivers.
- Participants develop skills to communicate sensitively and respectfully about topics such as sexuality and health, especially when it comes to HPV vaccination in adolescents.



Learning content:

1. Fundamentals of communication and communication techniques

Foundations of effective communication:

- Understanding the basics of clear and concise communication
 - Patient-centered communication
 - Question-promoting communication
 - Plain and understandable language
 - Multimodal communication
- Developing proficiency in conveying complex medical information to diverse audiences.
 - Consideration of age groups, educational level and cultural differences.
 - Training in the use of clear and generally understandable language to make complex medical information accessible.
 - Avoidance of technical jargon and explanation of technical terms.
 - Use of graphics, diagrams and other visual aids to illustrate complex medical concepts.
 - Training in the creation of visual materials for different age groups.
 - Development of methods to convey complex information visually and orally

Active listening skills:

- Cultivating active listening skills to better understand patient concerns.
- Implementing techniques to show empathy and understanding during communication.

Clarity in communication:

- Ensuring clarity when discussing medical concepts and vaccination information.
- Using plain language to enhance comprehension, especially when addressing complex topics.

Non-verbal communication:

- Recognizing the impact of non-verbal cues in medical interactions.
- Developing awareness of body language and facial expressions in patient communication.



2. How to deal with challenging conversations

Addressing misinformation and building trust:

- Identifying and correcting common myths and misinformation about HPV vaccination.
- Emphasizing transparency in communication to establish trust.

Communication for handling challenging situations:

- Dealing with vaccine hesitancy.
- Dealing with vaccine deniers/anti-vaxxers.

Empowering informed decision-making:

- Supporting patients and caregivers in making informed decisions.
- Encouraging questions and providing additional resources for clarification.

Appendix I. Non-systematic review into international training programmes on HPV vaccination with a focus on communication

Background

Health care workers (HCWs) play a significant role in the decision of patients to get vaccinated. Beyond their formal responsibility to educate a patient on the benefits and possible side effects of vaccines, HCWs are in a position to maintain and increase trust in vaccination [1]. Many patients and caregivers are unsure if they are willing to get vaccinated themselves, or to have their children vaccinated, or they have reservations [2]. HCWs can address their concerns [3].

The HPV vaccination is recommended for children not younger than 9 years and adolescents [4]. Therefore, HCWs educate not only the patients themselves, who are children and adolescents, but also their caregivers. For this reason, HCWs need to be knowledgeable about the HPV vaccine, about evidence-based vaccine recommendations and about the best communication practices. Given that HCWs are the most trusted advisors on vaccine decisions [1], their knowledge and communication skills are the key to a successful HPV vaccination programme. Poor communication can undermine vaccine acceptance and contribute to vaccine hesitancy [2]. Therefore, adequate training programmes on HPV vaccine communication are needed to support HCWs in their role as influencers of the vaccine decision.

Methods

A non-systematic review of accessible training programmes and tools was conducted in June 2023. The requirements were: (1) focus of the training is either on HPV vaccine, vaccine communication or both, (2) HCWs are the target audience, (3) the training is provided in English.

Results

We identified eleven training programmes and tools; only two trainings focus on both the HPV vaccine and its communication. The other trainings focus either on vaccine communication in general (n=4) or HPV vaccination in general (n=4). Several formats are used to train HCWs. Online-self-paced modules are the most commonly chosen format (n=8). Other training formats are app-based training, facilitator guides and web-on-demand videos. Nearly half of the trainings are open access (n=6). Most require registration (n=7) and, of these, two require registration fees. The time required to complete training depends on the format (participants of self-paced trainings can determine the time themselves). The time indicated ranges from 30 minutes to three days.

A list of all training programmes and tools can be found in Appendix II, which contains information about the provider, a link for access, accessibility (e.g., free of charge), the format, the duration, the target group/audience of the training, a short description and the learning objectives.

One training with a specific focus on HPV vaccine communication is a tool from the World Health Organization (WHO) Europe: *Communicating with caregivers about the Human Papillomavirus vaccination: a tool to build confidence in communication skills among health workers*. It is designed to enable facilitators to train HCWs. WHO provides a facilitator's guide, a presentation and multimedia. The training can be adapted to the specific setting in which the audience works. It can be conducted in person or online, and takes four to six hours. The aim is to support and encourage HCWs in communicating with patients and caregivers about the HPV vaccine and in their position as recommenders. For this, the facilitator first explains the important role of HCWs and how they



contribute to vaccine confidence. Information is provided on how to communicate risks and benefits and which factors influence acceptance of HPV vaccination among patients and caregivers. HCWs acquire skills on motivational interviewing, a communication technique to identify a patient's vaccine acceptance, hesitancy or refusal, and to address it. The training includes conversation scenarios (videos) and role playing to practice what was learned previously in theory.

The second training tool on HPV vaccine communication is a self-paced mobile app from the Academic Pediatric Association and American Academy of Pediatrics in collaboration with Kognito: *HPV Vaccine: Same Way, Same Day*. The target audience is pediatricians and primary care practitioners. With interactive role playing, they can practice strategies for effectively discussing the HPV vaccine with their patients and caregivers. It takes users about 30 minutes to complete all the role plays. The app is available free of charge for download from the Google Play and Apple iTunes stores. The app is rated with a mean of 2.6 out of 5 in the Google Play store; no rating is available in the Apple iTunes store.

Conclusion

The range of training programmes and tools for HCWs on HPV vaccine communication in English is limited. One reason is that several countries have region-specific trainings in their native language. Vaccine recommendations, legal frameworks, the levels of trust and vaccine hesitancy, as well as their determinants differ from region to region. Region-specific trainings are aligned according to their setting and thus more appropriate for HCWs who work in this specific setting. Nevertheless, this review provides assistance if a country lacks region-specific trainings. The trainings are an opportunity for HCWs to expand their knowledge and skills and can be used for the public health workforce as practice examples.

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Appendix II. List of international training programmes on HPV vaccination with a focus on communication

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| Training/Course | Communicating with caregivers about the Human Papillomavirus vaccination: a tool to build confidence in communication skills among health workers |
| Provider | WHO |
| Web link | https://www.who.int/europe/publications/i/item/WHO-EURO-2023-6865-46631-67769 |
| Accessibility | Open access |
| Format | Educational module to be facilitated by a trainer to Health Workers (HWs) or as a Training of Trainers (ToT), a facilitator guide, slides for presentation and 3 videos (communication scenarios) are provided |
| Target group/audience | Trainers and facilitators Health workers, including vaccinators, general practitioners, nurses, pediatricians, specialists, pharmacists, etc.; Immunization programme managers; Immunization advocates and champions |
| Description | This training module is designed to equip health workers (HWs) with knowledge, skills, confidence and resources to help them in their role to recommend the Human Papillomavirus (HPV) vaccine. It provides a structured approach to assist HWs when communicating with caregivers about HPV vaccination. |
| Learning objectives | At the end of this training module, the participant will be able to: <ol style="list-style-type: none"> 1. Explain the role of HWs in contributing to vaccine confidence. 2. Communicate risks and benefits to support a vaccination decision. 3. Understand factors influencing vaccination behavior in the context of HPV 4. Identify different attitudes and positions among caregivers about HPV vaccination. 5. Apply a structured approach in conversations about HPV vaccination using strategies grounded in motivational interviewing. 6. Deliver clear, concise messages to build confidence in HPV vaccination among caregivers. |
| Curriculum content | <ol style="list-style-type: none"> 1. Vaccine confidence and the role of health workers 2. Communicating risks and benefits 3. Factors influencing caregivers' acceptance of HPV vaccination 4. Communicating with caregivers using motivational interviewing 5. Putting the conversation pieces together to build confidence in communicating about HPV vaccination |
| Duration | 4-6 hours |



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| Training/Course | HPV Vaccine: Same Way, Same Day |
| Provider | Academic Pediatric Association and American Academy of Pediatrics in collaboration Kognito |
| Web link | https://apps.apple.com/us/app/hpv-vaccine-same-way-same-day/id1356847181 |
| Accessibility | Open access, app is available for download from the Google Play store and the Apple iTunes store |
| Format | Self-paced mobile app, interactive role-play simulation |
| Target group/audience | Pediatricians and primary care practitioners |
| Description | Practice research-based strategies for effectively introducing and discussing the HPV vaccine with families. Same Way, Same Day™ is a role-play simulation where you play the role of a pediatrician and engage in a series of practice conversations with a virtual family. |
| Curriculum content | <ol style="list-style-type: none">1. The HPV Vaccine2. Conversation Challenge 1: An Accepting Family3. Addressing Vaccine Hesitancy4. Conversation Challenge 2: A Hesitant Family5. Takeaways6. Resources |
| Duration | 30 minutes |



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| Training/Course | You Are the Key to HPV Cancer Prevention |
| Provider | Centers for Disease Control and Prevention (CDC) |
| Web link | https://www2.cdc.gov/vaccines/ed/hpv_key/yatk.asp |
| Accessibility | Open access |
| Format | Web on-demand video |
| Target group/audience | Immunization providers (physicians, nurses, nurse practitioners, pharmacists, physician’s assistants, DoD paraprofessionals, medical students, etc.) |
| Description | This webinar is intended to support you in making effective recommendations and answering parents’ questions. Provided in this presentation is up-to-date information on HPV infection/disease, HPV vaccine, and ways to successfully communicate with parents about HPV vaccination. |
| Learning objectives | <ol style="list-style-type: none"> 1. Describe the burden of HPV infection and disease in the United States. 2. Define the importance of HPV vaccination in cancer prevention. 3. Describe recommendations for HPV vaccination for adolescents and adults. 4. Describe the rationale for the routine HPV vaccination at age 11 or 12 years. 5. List two components of an effective HPV vaccine recommendation. 6. Identify relevant and compelling information to share with parents about HPV vaccine to help inform their decision to vaccinate their child. 7. Locate current immunization resources to increase knowledge of the team’s role in program implementation for improved team performance. 8. Implement disease detection and prevention health care services (e.g., smoking cessation, weight reduction, diabetes screening, blood pressure screening, immunization services) to prevent health problems and maintain health. |
| Curriculum content | <ol style="list-style-type: none"> 1. HPV Infection & Disease: Understanding the Burden 2. HPV Vaccines and Vaccine Recommendations 3. HPV Vaccine Safety 4. Impact of HPV Vaccination Program 5. Talking about HPV Vaccination: Framing the Conversation 6. Resources for Healthcare Providers |
| Duration | 65 minutes |



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| Training/Course | You Call the Shots |
| Provider | CDC |
| Web link | https://www.cdc.gov/vaccines/ed/youcalltheshots.html |
| Accessibility | Open access |
| Format | Web-based training course, slides for self-study with knowledge checks in the end of each chapter (quiz) |
| Target group/audience | Administrators, CHES certified health educators, physicians, epidemiologists, LPNs, LVNs, medical assistants, medical students, NPs, nurse technicians, other health educators, pharmacists, PAs, program managers, RNs |
| Description | You Call the Shots is a series of interactive, web-based, immunization training courses that present practice-oriented immunization content in a step-by-step, self-study format. These courses are ideal for medical or nursing students, new vaccination providers, or seasoned health care providers seeking a review. You Call the Shots consists of a series of modules that discuss vaccine-preventable diseases and the latest recommendations for vaccine storage, administration, and use. Each module provides learning opportunities, self-test knowledge checks, reference and resource materials, and an extensive glossary. This module is the 8th in the series and focuses on HPV and its related vaccines. |
| Learning objectives | At the conclusion of the session, the participant will be able to: For HPV, describe this disease, including the causative agent. For HPV, list the groups at highest risk. For HPV, identify those for whom routine immunization is recommended. For HPV, describe characteristics of the vaccine used to prevent this disease. (Characteristics may include schedule, contraindications, and/or adverse reactions.) Locate current immunization resources to increase knowledge of team's role in program implementation for improved team performance. Implement disease detection and prevention health care services (e.g., smoking cessation, weight reduction, diabetes screening, blood pressure screening, immunization services) to prevent health problems and maintain health. |
| Curriculum content | <ol style="list-style-type: none"> 1. About HPV 2. About HPV Vaccine 3. Recommendations for Vaccination 4. Contraindications and Precautions 5. Use of the HPV Vaccine Information Statement (VIS) 6. Storage and Handling 7. Vaccine Administration 8. Adverse Reactions 9. Resources |
| Duration | 83 slides |



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| Training/Course | Virtual course on comprehensive cervical cancer control |
| Provider | Pan American Health Organization (PAHO) |
| Web link | https://www.paho.org/en/virtual-course-comprehensive-cervical-cancer-control |
| Accessibility | Access after registration, free of charge |
| Format | Online course |
| Target group/audience | The course is aimed at health care workers (especially those in the first level of care): Physicians; non-physician workers (nurses, midwives, auxiliary personnel, among others); and program managers. |
| Description | This course aims to improve the training of health providers in all aspects related to the prevention and control of cervical cancer, including its natural history, primary prevention through vaccination against HPV, detection and treatment of cervical lesions precancerous, diagnosis and treatment of invasive cervical cancer, and provision of palliative care. The course will also cover aspects of community mobilization for the use of cancer preventive services. Information will also be provided on the proper organization of vaccination and screening services. The course also offers the possibility of completing a module that reports on the organization of cervical cancer control programs. |
| Curriculum content | <p>Introduction</p> <p>Module 1. Key concepts of cervical cancer</p> <p>Module 2. HPV vaccination for cervical cancer prevention</p> <p>Module 3. Programmatic aspects of HPV vaccination</p> <p>Module 4. Cervical cancer screening</p> <p>Module 5. Diagnosis and treatment of precancerous cervical lesions</p> <p>Module 6. Programmatic aspects of cervical cancer screening and treatment of precancerous lesions</p> <p>Module 7. Diagnosis and treatment of invasive cervical cancer</p> <p>Module 8. Palliative care</p> <p>Module 9. Community mobilization, education, and counselling</p> <p>Module 10. Establishing a cervical cancer prevention and control program</p> |
| Duration | 40 hours |



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| Training/Course | HPV vaccination – self-paced module |
| Provider | International agency for Research on Cancer (IARC), WHO |
| Web link | https://learning.iarc.fr/wcr/courses/hpv-vaccination-module/ |
| Accessibility | Access after registration, free of charge |
| Format | Online course, self-paced |
| Target group/audience | Researchers, students, health professionals, policy-makers, and anyone interested in cancer prevention |
| Description | Self-paced module on HPV vaccination with 3 video lectures, one Q&A part and a knowledge check (quiz) in the end |
| Curriculum content | <ol style="list-style-type: none">1. HPV vaccination2. Key learnings from Australia's HPV vaccination experience3. Key trends in HPV vaccination from a global perspective4. Q&A5. Test your knowledge |
| Duration | 1.5 hours |



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| Training/Course | Weathering the Vaccine Vortex |
| Provider | AAP |
| Web link | https://shop.aap.org/weathering-the-vaccine-vortex/ |
| Accessibility | Access after registration, free of charge |
| Format | online course |
| Target group/audience | Pediatric clinicians and their teams |
| Description | <p>Disinformation about child and adolescent vaccines that originates and spreads online harms public health and contributes to vaccine hesitancy. Pediatricians are confronted with this disinformation daily both online in social media and in person when families bring the information to health care visits. Without the strategies and tactics to diffuse the misinformation, clinicians encounter challenges in routine vaccine administration.</p> <p>This content was recorded Jun 21, 2022 during a live session. It is intended to provide pediatric clinicians and their teams with an understanding of how childhood vaccines originate and spread online and contribute to vaccine hesitancy. The course includes the latest research on vaccine messaging and practical takeaways to support them as they engage with families in vaccine conversations both online and in person.</p> |
| Learning objectives | <p>After completing this course, you should be able to:</p> <ol style="list-style-type: none">1. Gain an understanding of how disinformation about childhood vaccines originate and spread online and contribute to vaccine hesitancy.2. Learn how social media algorithms work to advance vaccine disinformation.3. Gain an understanding of the best practices for responding to vaccine disinformation.4. Be trained in how to address disinformation with families to effectively promote routine vaccine administration.5. Learn how to know when to engage or not engage online and how to present the truth as a trusted source. |



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|------------------------------|---|
| Training/Course | Communication on vaccine safety: Guidance to support Health Care Workers |
| Provider | PAHO |
| Web link | https://www.campusvirtualsp.org/en/course/vaccine-safety |
| Accessibility | Access after registration, free of charge |
| Format | online course |
| Target group/audience | Health workers in general |
| Description | The aim is to provide health teams with tools that will aid them in communicating effectively with the general population, with the purpose of strengthening or regaining trust in vaccines and immunization programs in the Americas. |
| Learning objectives | <ol style="list-style-type: none">1. Pinpoint the factors that influence decision-making regarding vaccination.2. Define the spectrum of reluctance to get vaccinated.3. Describe communication strategies regarding interaction with parents, caregivers and patients.4. Identify strategies to improve vaccination experience.5. Recognize frequently asked questions about vaccination in general and about influenza, HPV, measles and Covid-19 in particular.6. Analyze the different ways to dispel false information and misconceptions about vaccines.7. Describe the best way to communicate events supposedly attributable to vaccination and immunization. |
| Curriculum content | Introduction M1: Understanding your interlocutor M2: Communication and experience improvement strategies M3: Q&A about vaccination and diseases M4.1: Debunking false information and myths M4.2: Communication related to ESAVIs M4.3: Activity M5: Summary |
| Duration | 3 hours |



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|------------------------------|--|
| Training/Course | Vaccine Trust Course (Level 1) |
| Provider | International Paediatric Association (IPA) |
| Web link | https://ipa-world.org/ipa-vaccine-trust-project.php# |
| Accessibility | Access after registration, offered for free for the members of IPA member societies |
| Format | online course |
| Target group/audience | Pediatricians, nurses, and program managers in the public sector |
| Description | <p>Engage and empower pediatricians on vaccination by improving the effectiveness of their conversations with caregivers leading to increased trust, positive intent to vaccinate, and healthy preventative behaviors.</p> <p>Train pediatricians to become influencers in the public arena (e.g., mass media, social media, communities) so that they are recognized as the go-to experts on vaccination.</p> |
| Curriculum content | <p>Module 1 - Infodemiology Module 2 - Behavioural science behind vaccine acceptance interventions Module 3 - Interpersonal communication (IPC) Module 4 - Social media engagement Module 5 - Dealing with vocal vaccine denier Module 6 - Interacting with Media Module 7 - Building vaccine value – Advocacy and messaging to effect change</p> |
| Duration | 2-3 weeks |



| | |
|------------------------------|---|
| Training/Course | Train the trainers on vaccine confidence and communication |
| Provider | University of Antwerp, IMMUNION Project |
| Web link | https://coalitionforvaccination.com/our-work/immunion-materials |
| Accessibility | Open access |
| Format | webinar |
| Target group/audience | Trainers that are involved in teaching (future) healthcare providers: <ul style="list-style-type: none"> • Teachers who are currently training any type of (future) healthcare provider that is or will be involved in the vaccination process (e.g., nurses, midwives, pharmacists, GPs, pediatricians) • On the topic of vaccines/vaccination • From all EU member states |
| Description | The objective of the Train the Trainer session is to support trainers of healthcare providers and health students by offering training on vaccine confidence and communication. The training is designed to provide knowledge and tools to trainers, who can then carry this content forward in their trainings of healthcare providers and/or healthcare students, which will result in better knowledge and confidence of (future) healthcare providers to communicate about vaccines and to deal with questions about vaccination. |
| Curriculum content | <ol style="list-style-type: none"> 1. Introduction 2. Role of the HCP in the vaccination process and the importance of communication 3. Vaccine hesitancy in Europe 4. How to improve health literacy 5. Communication about vaccines: How to communicate about vaccines; Communication exercises 6. Tips and tricks for teaching 7. Q&A |
| Duration | 3 hours |



Appendix III. List of general international online-resources on HPV vaccination

This appendix includes a list of online resources for information on HPV vaccination or general information on debunking for healthcare professionals or the public. This list of resources was compiled by the working group members and is not intended to be an exhaustive source of all available information on HPV vaccination. Some resources are suitable for both target groups. The training courses described in Appendix I are not listed again here.

Target group - healthcare professionals:

- **Strengthening Education and Knowledge on Immunization (SEKI)**
 - The platform provides curated quality training content for healthcare professionals to stay on top of all vaccine-related developments. The platform was created by the Vaccine Safety Initiative (VIVI) and the European Academy of Paediatrics.
 - <https://seki.eu/recommended-vaccine-training-providers/>
- **International Papillomavirus Society (IPVS) education center**
 - <https://ipvsoc.org/basic-educational-resources/ipvs-education-center/>
- **International Pediatric Association (IPA) Vaccine Trust Project**
 - The IPA initiated the launch of the Vaccine Hesitancy Project with the goal of reducing vaccine hesitancy in communities, disseminate the value of vaccination, increase demand for immunization, and help reach the targets of the WHO Global Vaccine Action Plan.
 - <https://ipa-world.org/ipa-vaccine-trust-project.php>
- **Pan American Health Organization (PAHO.)Communicating about Vaccine Safety: Guidelines to help health workers**
 - <https://iris.paho.org/handle/10665.2/53167>
- **World Health Organization Cervical Cancer Elimination Initiative**
 - <https://cceirepository.who.int/>
- **US Centers for Disease Control and Prevention (CDC) Vaccine Safety Information**
 - <https://www.cdc.gov/vaccinesafety/vaccines/hpv-vaccine.html>
- **US Centers for Disease Control and Prevention (CDC) Parents' FAQ**
 - <https://www.cdc.gov/hpv/hcp/answering-questions.html>
- **European Centre for Disease Prevention and Control (ECDC) information about HPV**
<https://www.ecdc.europa.eu/en/human-papillomavirus>
- **National STD Curriculum**
 - A free educational website from the University of Washington STD Prevention Training Center.
 - <https://www.std.uw.edu/go/comprehensive-study/hpv/core-concept/all#page-title>



- **The Debunking Handbook 2020**
 - Lewandowsky, S., Cook, J., Ecker, U. K. H. et al. (2020). The Debunking Handbook 2020.
 - Available at <https://sks.to/db2020> in Albanian, Bulgarian, Czech, Dutch, Galician, German, Greek, Italian, Macedonian, Polish, Portuguese, Romanian, Russian, Slovak, Spanish, Swedish, Turkish, Ukrainian
- **Robert Koch Institute (RKI) Germany: “Truth sandwiches” for vaccinations** (English and German)
 - “Truth sandwiches” debunk commonly occurring misinformation about vaccinations to support HCPs in vaccinating patients. The fact is stated first, then the misinformation is identified as such, subsequently it is explained where the misinformation comes from and why it is incorrect. Finally, the fact is repeated (according to Lewandowski et al. 2020. The Debunking Handbook).
 - All existing “truth sandwiches” can be found here:
https://www.rki.de/EN/Content/infections/immunisation/vaccination_myths/vaccination_myths_content.html
- **Measuring the 7Cs of Vaccination Readiness**
 - Geiger, M., Rees, F., Lilleholt L., Santana A. P., Zettler I., Wilhelm O., Betsch, C., Böhm R. (2022). European Journal of Psychological Assessment, 28(4), 261-269.
- **Naslovnica - Portal VOLIM ZDRAVLJE** (Croatian)
 - “I love health” was created as a sustainable national platform for health promotion and disease prevention based on a project of the same name funded by the ESF. With the Croatian Institute of Public Health as a partner, the I Love Health platform is managed by the Croatian Association for the Fight Against HIV and Viral Hepatitis.
 - Cancer prevention and vaccination against HPV: <https://volimzdravlje.hr/tecajevi/e-learning-prevencija-raka-cijepljenjem-protiv-hpv-a/>
 - The basics of vaccination and vaccines: <https://volimzdravlje.hr/tecajevi/e-learning-osnovno-o-cjepivu-i-cijepljenju/>
 - Prevention and early diagnosis of cervical cancer: <https://volimzdravlje.hr/tecajevi/e-learning-prevencija-i-rano-otkrivanje-raka-vrata-maternice-kome-vrijedi- reci-pa-pa/>
 - Testing for STIs. <https://volimzdravlje.hr/tecajevi/e-learning-testiranje-na-spolno-prenosive-infekcije/>
- **PrevHPV Project** decision support tool website (French)
 - This site, a decision support tool for HPV vaccination, aims to help the practitioner inform adolescents and their parents about the human papillomavirus (HPV) and HPV vaccination by presenting the advantages and disadvantages of the vaccination in an equitable manner.
 - <https://soshpv.fr/>



Target group – the general public:

- The “Ärztliche Gesellschaft zur Gesundheitsförderung e.V.” (ÄGGF) [German Medical Society for Health Promotion] provides information sessions in schools to enhance health and sex education, the goal being to contribute to promoting health literacy among adolescents throughout Germany. It also provides online information on prevention and health promotion
 - German Medical Society for Health Promotion (ÄGGF) HPV flyer for adolescents (English): https://www.aeggf.de/frontend/media/downloads/hpv-flyer_secured/faltblatt-jugendliche-engl.pdf
 - German Medical Society for Health Promotion (ÄGGF) HPV flyer for parents (English): https://www.aeggf.de/frontend/media/downloads/hpv-flyer_secured/faltblatt-eltern-xl-engl.pdf
- International Papillomavirus Society (IPVS) campaign website.
<https://www.askabouthpv.org/>
- US Centers for Disease Control and Prevention (CDC) FAQ for parents:
<https://www.cdc.gov/hpv/hcp/answering-questions.html>