



Commentary

HPV immunization programs: Ensuring their sustainability and resilience

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1. Introduction

Since May 2018, Human Papillomavirus (HPV) immunization programs have been introduced in 80 countries, areas or territories using a variety of strategies such as school-based, healthcare professional (HCP)-based or community-based delivery programs [1]. Despite its proven effectiveness, concerns about the safety of the HPV vaccine and alleged side-effects led to significant decrease in vaccination coverage in a number of countries [2]. Stories and misinformation now travel so quickly and widely via the internet that they may have a serious impact in countries far from their origin [3]. The HPV Prevention and Control Board has organized four technical and country meetings where international and local experts exchanged lessons learnt and experiences in order to strengthen countries' efforts to secure HPV prevention and control [4–6]. Based on these insights, the HPV Prevention and Control Board¹ has developed a checklist that can be used for countries with existing or soon to be introduced HPV vaccination programs. The checklist can also be applied to other vaccination programs (see Table 1).

So far, we have observed four scenarios following implementation of HPV immunization programmes. Countries or regions where the programme was successfully launched a few years ago and that continue to experience high vaccination coverage (e.g. Australia, UK and Flanders (Belgium)); countries where a programme was successfully launched but that soon experienced a significant decrease in vaccination coverage due to alleged side

effects (e.g. Japan, Ireland and Denmark); countries that launched with a sub-optimal coverage and continue to have a lower than target coverage (e.g. US and France) and countries where a nation-wide programme was launched but were never fully implemented (e.g. Romania) due to hurdles at various levels. To strengthen the HPV immunization programme, we recommend that authorities develop an Action Plan prior to implementation. The significant difference between countries in the sustainability of their programmes illustrates that this plan needs to reflect local cultural perceptions and sensitivities.

2. Provide proper and timely support to Health Care Professionals (HCP) involved in implementing the programme

It is absolutely critical to inform HCPs involved in implementing the programme, e.g. school-doctors, school-nurses, general practitioners, paediatricians, gynaecologists and even pharmacists, with timely information about the disease, the vaccine, and the program in order to create acceptance for HPV vaccination among them. If they are not convinced about the safety and effectiveness of the program they will not convince the target population. An action plan should therefore include training but also other tools to support professionals who are the first-line contact with vaccinees and their parents. Also, HCP who treat vaccinees with alleged side-effects are an important group for training. Encouraging the use of additional educational credits for such training underscores the importance health authorities attach to the training. Compensation or accreditation for the (extra) time GP's need to educate girls and parents on HPV vaccination can be an encouragement.

3. Elaborate a communication plan

A good *Action Plan* integrates a communication plan, including a budget to carry it out. In general, the public may have little information of the importance of a vaccine preventable disease before a vaccine is introduced. This calls for information programmes in which experts communicate about HPV infection and the vaccine with one voice. A well thought out communication plan involves guidance for face-to-face communication and for tailored communication to a broader and diverse public. The communication should include information on the preventable disease as well as on the vaccine and the program. Various strategies can be included,

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Table 1
Checklist for countries to strengthen their immunization program. Example of HPV vaccination.

Prior to introduction of HPV immunization program	Countries maintaining a program	In case of a crisis
Focus on positive effects and impact of vaccination		
Elaborate an action plan: <ul style="list-style-type: none"> • Combine screening and vaccination • Include a communication budget • Document burden of disease 	Implement a monitoring, follow up and adjustment tool to correct communications, training and/or policy if required.	Assign a focal point who deals with the media
Communication strategy with a focus on: <ul style="list-style-type: none"> • One voice • Trustworthy websites • Use of social media • Train the media 		
Train HCP on HPV and on how to discuss the vaccine with the target audience		Invest in/restore confidence among HCP and public health staff
Create political support and reach out to silent supporters of the vaccine		Engage professional networks and enhance political support
Develop and (at regular intervals) test a crisis prevention and mitigation plan		
Develop a monitoring, follow up and adjustment tool		
Define the right age for vaccination	Take alleged side-effects seriously: <ul style="list-style-type: none"> • Show empathy • Early response is essential • Don't be complacent • Do not think problems will go away by themselves, they may get worse 	

such as story-telling, involving cancer survivors, family members left behind, and an appropriate use of social media to direct readers to websites with trustworthy and reader-friendly information about the HPV, vaccination, and vaccine safety [5,6]. More information on how to communicate with HCP or how HCP can answer questions of parents can be found on the websites of the World Health Organization (WHO), European Centre for Disease Prevention and Control (ECDC) and the Centres for Disease Control (CDC) [7–10].

Essential elements in a communication plan are:

- A pro-active communication chapter, before the program is started.
- A crisis communication chapter in case safety or other issues occur, and one that includes the assignment of a focal point (a “crisis control centre”) to coordinate the response and immediately answer all the questions from the media. The elaborated crisis communication plan should be tested to ensure that it works when needed.
- A chapter on the use of social media.
- Tools and reflection on how to communicate with one voice.

4. Talk about screening and prevention concomitantly

As both have the same overall goal towards reduction of HPV related disease, promoting synergy between primary and

secondary prevention programmes in the *Action Plan* reinforces the strategy of speaking with one voice.

5. Reflect on crisis prevention and mitigation from the start

In general, we notice a slow response to crises, partly due to a lack of political leadership strongly supporting the immunization team in defending the programme, partly because crisis mitigation and communication are not reflected upon at the start of an immunization programme. Once a crisis occurs, there will be no time to develop a crisis communication plan, but early response is essential in order to avoid negative impact on confidence and eventually on vaccination coverage. Monitoring signals of hesitancy (e.g. rumours, anti-vaccine messages on social media), setting up a rapid response team and speaking with one voice are crucial strategies to mitigate confusion among parents, health care professionals and vaccinees. Even though the concerns from victims of alleged side effects must not be ignored, it is advisable to focus on the positive benefit risk balance of the vaccine, and avoid negative campaigning. Engaging networks of healthcare professionals and well-informed politicians and journalists by providing them tailored and accurate information can make a difference. Defining a strategy in case of a crisis, detailing how to respond to vaccine crises, including the development of tools to inform the general public (e.g. informative websites and demanding airtime on

television or radio) and how and where to refer those afflicted appropriately, in an *Action Plan*, will facilitate a quick and forceful response, leaving less room for rumours to fester. A relevant reference is the WHO guide on managing the communications response after vaccine safety events [11].

6. Monitoring, follow-up and adjusting the immunization program

Last but not least, proper monitoring of the program remains crucial. Suboptimal vaccination coverage rates, especially in case of availability of vaccination services, may be related to vaccine hesitancy [12]. But other signals, such as reporting of adverse events and potential safety issues that are reported in the media and discussed on social media are equally important as an early warning system for an upcoming crisis [13]. Regular surveys (e.g. every 2 years), act as a vaccine confidence barometer and can assist in measuring (changes in) attitudes and help guiding the program.

From the above, it is clear that a programme starts well before the first vaccine is given. Taking the time to prepare is a necessary condition for success.

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