

Editorial

# HPV vaccine program for cervical cancer prevention: how to increase community acceptance?

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### ABSTRACT

Cervical cancer is Indonesia's second leading cause of death and a significant health financing burden. In 2021, there were 36,633 cases, most caused by HPV (95%). This cancer can be prevented with HPV immunization. The Indonesian government is committed to vaccine-preventing diseases and strengthening health services, focusing on prevention. Immunizations are given to girls in grades 5 and 6 of elementary school to achieve a minimum of 90% immunization coverage and reduce cervical cancer. Support from all parties is needed for the success of this program.

### INTRODUCTION

Worldwide, cervical cancer is the fourth most common cancer in women. In 2020, an estimated 604,000 new cases will be found, with an estimated death toll of 342,000. About 90% of these occur in low- and middle-income countries.<sup>1</sup> Cervical cancer ranks second, with 36,633 cases or 9.2% of the total cancer cases in Indonesia. Diagnosis of cervical cancer is often late; most cervical cancers are detected at an advanced stage, so the chances of survival for cervical cancer patients are getting smaller. About 94% of cervical cancer patients die within two years.<sup>2</sup>

95% of cervical cancer is caused by infection with the human papillomavirus (HPV). The journey of the HPV virus into cervical cancer takes a long time, so cervical cancer can be prevented by finding it as early as possible through cervical cancer screening, namely pap smears, visual inspection of acetic acid (VIA), and HPV DNA and HPV mRNA tests. As a prevention, giving HPV vaccination to women aged 9-14 years is also recommended by the World Health Organization (WHO).<sup>3</sup>

Since May 2018, HPV immunization programs have started in 80 countries, using various methods like schools, healthcare providers, or communities. Despite its effectiveness, HPV vaccine safety concerns caused lower vaccination rates in some countries. Online misinformation spreads rapidly globally, impacting distant nations. The HPV Prevention and Control Board organized meetings to enhance prevention efforts and created a checklist for existing or upcoming HPV vaccination programs applicable to other vaccines. Four post-implementation scenarios emerged: sustained high coverage (e.g., Australia, UK), coverage drop due to alleged side effects (e.g., Japan, Ireland), sub-optimal coverage (e.g., US, France), and incomplete implementation (e.g., Romania). To improve HPV immunization, pre-implementation Action Plans reflecting local perceptions are advised. Different program sustainability among countries highlights the need for tailored approaches.<sup>4</sup>

WHO states introduced HPV vaccination; the Americas and Europe led with 85% and 77% introduction rates. 2019 saw many new introductions, mostly in low- and middleincome countries (LMICs) with limited access.<sup>5</sup> Programs achieved around 67% coverage for the first dose and 53% for the final dose. LMICs outperformed in the first dose but lagged in the last due to dropout. Just 6% reached over 90% coverage for the final dose, 21% achieved 75% or more, while 40% had 50% or less.<sup>6</sup> Global coverage for the final HPV dose in 2019, weighted by population, was estimated at 15%. Progress is needed to reach the 2030 goal; post-COVID, focus on maintaining introductions, especially in populous countries, and enhancing global program performance is crucial.

## HPV IMMUNIZATION AS A PUBLIC HEALTH INVESTMENT

Through the Directorate General of Disease Prevention and Control, the Ministry of Health of the Republic of Indonesia started a national HPV immunization to reduce cervical cancer, the second cause of death in Indonesia.<sup>7</sup> The

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HPV immunizations were launched at Tondano Elementary School Minahasa on August 9, 2023.8 Girls aged 11 years or in grade 5 elementary school get the first dose of the HPV vaccine, followed by the second dose 6-12 months later.<sup>9,10</sup> This free vaccine is vital to prevent deadly cervical cancer (50% of deaths), replacing expensive medical expenses. HPV causes about 95% of cases, but this cancer is preventable.<sup>11</sup> A comprehensive nationwide immunization initiative is set to unfold across all districts. This vital effort, known as the School Children Immunization Month (Bulan Imunisasi Anak Sekolah), will take place throughout August 2023 aiming to ensure widespread immunization coverage among the younger population. Cooperation among the education sector and local government is essential. Aligned with the directive of a Joint Decree of 4 Ministers regarding HPV immunization in schools.

#### VACCINE ACCEPTANCE DRIVERS

The success of vaccination coverage relies significantly on public acceptance, a crucial factor. The greater the willingness to vaccinate, the broader the coverage achieved.<sup>12,13</sup> Designing an effective program campaign requires targeting those who express uncertainty or lack of knowledge rather than focusing solely on the already willing recipients. Attempting to sway hesitant individuals with threats of punishment or fines is often ineffective. Coercive measures and punitive fines are unsuitable for this group. Similarly, addressing extreme anti-vaccine factions with entrenched beliefs is challenging due to their resistance to change.

It is essential to campaign to comprehend the degrees of vaccine hesitancy and the underlying reasons. This understanding facilitates the development of a targeted strategy to alter perspectives and attitudes. Vaccine acceptance is a multifaceted outcome influenced by intricate decision-making processes shaped by various factors. The WHO EURO Working Group on Vaccine Communications has identified determinants of vaccine hesitancy, including contextual, individual, and group factors and vaccine/vaccination-specific influences.<sup>14</sup>

### **IMPROVING IMMUNIZATION ACCEPTANCE**

Increasing immunization acceptance is a collective call to create a healthier future for the next generation. Steps are taken to ensure that every citizen recognizes and embraces the importance of immunization, with accurate and easy-to-digest education considered the main foundation. The government and a skilled medical team designed a comprehensive information campaign that highlighted the benefits of immunization and dispelled any doubts that might arise. Through brochures, online seminars, and live lectures, the public can ask questions and understand facts related to immunization. Conversely, the importance of community and religious leaders' support is also in the spotlight. They set a strong example and understanding to the community about the urgency of immunization. By involving these leaders in the campaign, the message about immunization becomes more convincing and inspiring.

In order for information to be more evenly distributed and conveyed more efficiently, the role of technology is also utilized. Social media is an effective platform for spreading positive messages about immunization. Short videos illustrating the benefits of immunization, testimonials from families who have experienced them, and simple scientific graphics all combine to create an inspiring narrative. In addition, providing easy and affordable access to immunization services is very important. Health clinics and Integrated Healthcare Center opened on a flexible schedule, accommodating the needs of diverse communities. Through this step, not only increased acceptance of immunization but also attention to public health in general.<sup>15,16</sup>

In this journey, collaboration between institutions and communities plays a crucial role. Collaboration between the government, health institutions, NGOs, and volunteers creates a synergy that drives efforts to increase immunization acceptance. This togetherness also encourages people to feel cared for and empowered. A sense of collective responsibility and concern for shared health has opened the door to a healthier future free from preventable disease. With growing awareness, every immunization shot is a small but meaningful step towards shared health glory.

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