

Cervical cancer control and HPV vaccine in Latin America

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It is now well recognized that human papillomavirus (HPV) infection is the necessary cause for cervical cancer and the approval of the HPV vaccine, including virus types 16 and 18, which are responsible for almost 70% of the cases of the disease, brings new future options for screening^{1,2,3}. Although there is no doubt concerning the efficacy of the vaccine, many questions considering the results of large-scale immunization and in a long term are urgent and should be elucidated⁴.

The great potential of the HPV vaccine is posing to health authorities, especially in countries in which Immunization Programs are public and organized some important decisions that might consider all available aspects of this new technology. Given the first vaccine was approved as safe and efficient in 2006, an exciting and permanent debate towards the benefits and risk of this new preventive tool is getting more space each day among health authorities and the scientific community, as well as in the media.

It has been advocated that the great advantage of vaccinating girls in the 10-12 years age group is that it will reach a future impact in reducing cervical cancer. The main argument against introducing HPV vaccination in public health for prevention of HPV infection and its consequences is based on the fact that the long-term effects of the vaccine are not well known yet. In addition, the present costs imposed by the industry are a real limitation to incorporate the vaccine on a large scale.

Indeed what is clear for the moment is that the total effectiveness in terms of public health can not be established and that the vaccination will not replace the screening

program. In addition, all vaccinated girls will have to be screened with a Pap smear earlier than now, which will impact the number of individuals included in cervical cancer screen programs.

In the context of Latin America, the development and introduction of the vaccine lead toward the need to evaluate cervical cancer screening programs based on cytology. Many researchers argue against the effectiveness of these ongoing programs and make it clear that it is important to review their strategies, incorporating sustainable actions^{5,6}. In fact, poor results of these policies considering all countries of Latin America are being observed; however, they reflect the level of organization and resolution of health services within each country and, in particular, in urban areas. Therefore, it is not possible to conclude that cytology-based screening programs have proven to be costly and that their lack of impact is due to the ineffectiveness of these actions, but rather to their faulty implementation.

Even so, it is possible to observe in the past decade a slight decrease in cervical cancer mortality in a few countries of Latin America such as Mexico⁷, Costa Rica⁸ and Chile^{9,10}, as well as in some regions of Brazil^{11,12}. These findings may be explained by better indicators of quality of cytology and follow-up. Considering that the organization of the screening actions in these countries started in 1994-1995, it is likely that the positive impact on mortality might continue if the programs remain.

With the advent of the HPV vaccine, it is necessary to uphold the effort to improve cytology based screening programs at the same time that Latin American countries have to create conditions to introduce the

new technology that will permit the identification of HPV types and allow appropriate conditions for the follow-up of vaccinated individuals. However, if effectiveness is the objective, one must consider that the incorporation of the vaccine, a still very expensive policy, also demands considerable logistic

support guaranteeing an all-inclusive access of the population. Within this context, the debate over the national production of vaccines and the establishment of agreements taking into consideration technology transfer are pertinent and must be stressed by governments.

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