

Implementation of HPV vaccination in India, Peru, Uganda, and Vietnam

CCA Global Webinar October 21, 2010

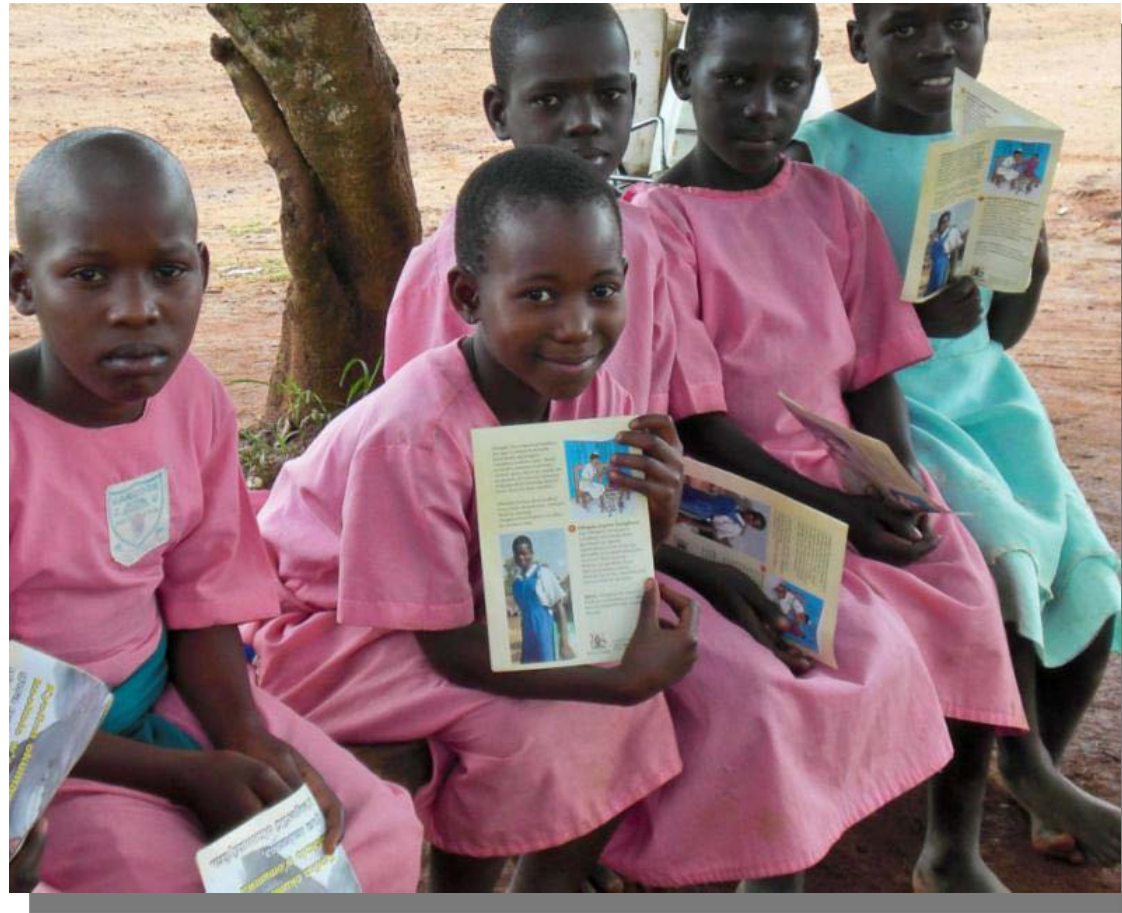
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PATH HPV Vaccine Project 2006-2011

**Generate and
disseminate
evidence for
informed
public-sector
introduction of
HPV vaccines**



Background

- Shortage of programmatic experience from low-resource settings.
- PATH project designed to provide data for decision-making in future programs.
- Projects targeted 9- to 14-year-old girls (varied by country).
- Programs were designed based on country-specific needs.



Project aim & research questions

- **Which delivery strategies achieve high COVERAGE?**

What level of coverage can be achieved by using different strategies?

What strategy is best for reaching out-of-school girls?

- **Which strategies show FEASIBILITY?**

What are the challenges of selecting girls by grade versus age?

What is the impact on other services?

- **Which show ACCEPTABILITY?**

What are the information needs and best communication strategies for various target audiences?

- **How much do the various strategies COST?**

What is the cost per girl immunized for each strategy?



PATH demonstration projects

Uganda



Vietnam



Peru



India



Vaccine delivery strategies

Country	Strategy and description
Peru	<ul style="list-style-type: none">• School-based: Delivered to Grade 5 girls at least 9 years old at schools + active follow-up for dose 2 and 3.
Uganda	<ul style="list-style-type: none">• School-based: Delivered to Primary 5 girls at least 10 years old at schools + routine outreach to out-of-school 10-year-old girls.• Child Days Plus: Delivered to 10-year-old girls for dose 1 and 3 through Child Days Plus program + outreach for dose 2.
Vietnam	<ul style="list-style-type: none">• School-based: Delivered to Grade 6 girls at least 9 years old at schools + community mop-up for 11-year-old girls in other grades or out-of-school.• Health center-based: Delivered to 11-year-old girls at health centers + community mop-up.
India	<ul style="list-style-type: none">• Campaign: Delivered to school-going girls 10–14 years old at school, and at <i>Anganwadi</i> center for out-of-school girls of the same age on a set schedule. Only 10-year-old girls vaccinated in Year 2.• Routine: Delivered to school-going girls 10–14 years old at school, and at <i>Anganwadi</i> center for out-of-school girls of the same age routinely, on a monthly basis. Only 10-year-old girls vaccinated in Year 2.



Coverage results

- **Very high coverage in all four countries***
(usually 80-95% of eligible girls)
- **Little difference in coverage between strategies;**
greater variance in terms of cost per vaccinated child
- Detailed results to be published by mid-2011

* It is important to remember that the PATH projects included extensive community mobilization/education efforts and careful training of health staff and community leaders. It is possible that similar results would not be obtained in the absence of such support.



Acceptability results

Key factors influencing community acceptance

- Vaccine promoted as protection against a cancer
- Interpersonal communication from health workers, teachers and community leaders was important channel
- Messages were reinforced through multiple channels, including in “small” and mass media
- Parents were reassured to know that HPV vaccination was endorsed by government, teachers, community leaders

Key areas of concern or confusion among parents and girls

- Their main questions focused on vaccine safety, effectiveness and side effects; they felt reassured when that information was provided



Feasibility results

- Adding HPV vaccination had minimal impact on other services
- Service providers reported that the extra workload came with benefits: their capacity had been increased due to training and ability to offer a valuable new health service
- Existing cold-chain systems were adequate
- Coordination of efforts between health and education sectors is crucial for school-based immunization



Vaccine Safety (Adverse Event monitoring)

Country		Total AE*	Total doses delivered	Rate of AE for all doses
Peru	Year 2	195	26,798	0.7%
Vietnam	Year 1	31	10,271	0.3%
	Year 2	37	8,874	0.4%
India	Year 1	459	72,621	0.6%

* Includes both serious and non-serious adverse events

- **Peru:** No serious adverse events (SAE) reported
- **Vietnam:** 1 SAE reported (persistent rash) but not linked to vaccine (year 1)
- **India:** 10 SAE were reported including 6 deaths, which investigation determined not to be vaccine-related, and 4 other events which were downgraded to non-serious AEs



Challenges

- Immunization outreach, including outreach to schools, can be expensive.
- Effective HW training and community education/mobilization are crucial for new vaccine introduction as people naturally have many questions and concerns (safety, etc.)
- If a school-based program is used, it must be scheduled so that all doses fit within one school year
- Also, systems are needed to reach non-school-going girls
- Negative media, even when not based in fact, can be very harmful (as seen in India)
- In the case of a pilot or demonstration project, it can be difficult to restrict information to the pilot area—demand may come from adjacent areas too



Lessons learned 1

HPV vaccine is acceptable, as evidenced by high coverage.

- Decision-making is complex; parents need time and correct information.
- Fears about sexual behavior were NOT a major factor in decision-making. Parents focused on cancer prevention instead.

School-based delivery is feasible.

- Many more girls now attend school.
- Linking with existing programs for children and adolescents is possible (eg. Child Health Days in Uganda).
- Eligible population should be easily identified (whether by age or grade).
- Fixed, limited delivery 3 times per year may lessen the impact on the health system.



Lessons learned 2

Education messages should build on

- Positive attitudes toward vaccines.
- Prevention of cancer.
- Safety and side effects.
- How to access services.

Communication strategies should include teachers in addition to health workers and community leaders.

Special consideration must be given to remote areas in terms of planning, allowances, and other logistics.



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Outlook

Progress in preventing cervical cancer: Updated evidence on vaccination and screening

Cervical cancer takes the lives of more than 270,000 women every year, over 90 percent of them in less developed countries.^{1,2} Deaths from this disease not only cause great personal suffering, but are stark reminders of gender inequity in health care. The loss of mothers, grandmothers, and other essential family members who take care of children, provide income, and work in their communities also causes a significant economic hardship. The highest incidence and mortality rates are in sub-Saharan Africa; Latin America and the Caribbean; and South and Southeast Asia (Figure 1).^{3,4} Even in industrialized countries that have experienced dramatic declines, the death rate is still high in regions with poor access to health care or other barriers to cervical cancer screening and early treatment.⁵

However, we now have efficient, low-cost screening approaches suitable for low-resource areas, and we have vaccines that are efficacious in preventing the precancerous changes that lead to cervical cancer, as highlighted here.^{6,7}

In this issue

- Cervical cancer and HPV
- Vaccines against HPV
- Vaccination strategies
- Screening and treatment
- Cost-effectiveness and financing
- Communication and training
- Implications for policy and programs

Cervical cancer and HPV

In the early 1980s, Professor zur Hausen and colleagues identified the association between certain human papillomaviruses and cervical cancer, and HPV is now known to be the cause of virtually all cervical cancers.⁸ HPV infection, which is sexually transmitted, is necessary for cancer to develop, but additional factors increase the risk for progression to cancer.^{1,9,10} Among these co-factors are early age at first sexual intercourse, high number of pregnancies, multiple sexual partners, smoking, long-term use of hormonal contraceptives, and infection with HIV. Clearly, lack of screening and treatment for precancerous lesions also

Safe and efficacious vaccines protect against human papillomaviruses (HPV) types 16 and 18, which cause about 70 percent of cervical cancer cases.

Experience to date using HPV vaccines in demonstration programs in Africa, Asia, and Latin America, as well as in public health programs in Latin America, has been encouraging. Researchers and program managers are finding strong support and interest among decision-makers and in communities.

New approaches to cervical screening using visual inspection techniques are at least as sensitive as Pap testing and are more sustainable in low-resource areas, especially when paired with cryotherapy for treatment.

New technologies for HPV DNA screening that are highly sensitive—more sensitive than Pap testing—and suitable for developing countries have the potential to save many lives.

Comprehensive prevention strategies—those that include both vaccination (when affordable) and screening (either starting or expanding screening and treatment programs)—will save the most lives. Such strategies are endorsed by the World Health Organization, the Pan American Health Organization, the Alliance for Cervical Cancer Prevention, PATH, and many others.

10 YEARS OF GAVI

Pan American Health Organization

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Help with program planning

CERVICAL CANCER PREVENTION ACTION PLANNER

PATH

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Version 1.0
Photo: PATH/Mike Wang

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Thank you!

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