Vaccination has been shown to be one of the most effective public health interventions. In the past ten years many new vaccines have become available to low- and middle-income countries. The London School of Hygiene & Tropical Medicine carried out a study, in collaboration with partners in six countries, exploring the impact of new vaccines on country health systems.

Introducing HPV vaccine

It is often hoped that introducing additional vaccines may help to strengthen immunisation programmes and health systems more broadly. There are also concerns, however, that such additions may prove to be an additional stressor where resources are already overstretched. Cervical cancer, mainly caused by human papilloma virus (HPV), is the most common type of cancer in Rwanda; there were 986 cases in 2010 and 678 deaths.1 Rwanda introduced the HPV vaccine, Gardasil, in April 2011 and was the first country in Africa to do so. The aim of this study was to evaluate the impact of HPV vaccine introduction on Rwanda’s immunisation programme and the broader health system.

Impact of HPV vaccine introduction on the health system

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Methods

The study used a mixed methods approach and data were collected during August 2012, after one complete round of three doses of HPV vaccination had been delivered. Semi-structured interviews with 30 key informants were conducted at national and district levels. Structured questionnaires were completed with staff at 27 health facilities in the Northern, Eastern and Kigali regions. Routine data on the number of antenatal visits and the number of children vaccinated were collected one month before, during, and one month after HPV vaccine introduction from all selected health facilities. Data collection tools and data analysis were structured using the WHO health system building blocks framework.2

References

Findings

The vaccine was well-integrated into Rwanda’s immunisation programme and there were no major impacts on the EPI or health system.

- The decision-making and planning process led to reinforced partnerships between actors involved e.g. Ministry of Health and Ministry of Education
- The new vaccine did not cause any disruptions to regular health services at the facility level
- Facilities co-delivered other services during HPV vaccination sessions e.g. education on hygiene and sexual health, distribution of de-worming drugs
- The communication campaign was also used to relay other health messages
- Workload increased during the days of vaccination and there was an increase in general workload at introduction
- Training related to HPV vaccine was helpful in strengthening EPI-related skills
- Positive effects were reported on staff motivation
- Information and communication with the public increased knowledge and demand for vaccines, a concurrent pilot scheme of cervical cancer screenings was rolled out

CONCLUSION: The introduction was well planned and the vaccine was well-integrated into Rwanda’s existing vaccination programme, with high coverage achieved. Overall, the impact was positive; an increased awareness of cervical cancer was reported, links between health facilities and schools were created, and the opportunity was used to co-deliver interventions. HPV vaccine had no or minimal effects on most health system components, including regulatory policy, planning, procurement, cold chain capacity and waste management.