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 two studies, in collaboration with partners in eight countries, one exploring national decision-making processes around new vaccine adoption and another on the impact of new vaccines on country health systems

November 2013

# Introducing PCV10

# Kenya

## *Study 1*
## *Decision-making for new vaccine adoption*

As new and improved vaccines become available, countries need to make decisions on which vaccines to adopt into their routine programmes. The ten-valent pneumococcal conjugate vaccine (PCV10) was introduced into the routine childhood immunisation programme in Kenya in February 2011. The vaccine was initially funded by the GAVI Alliance for 5 years, with the Kenyan government co-financing the vaccine at US$ 0.20 per dose. This study investigated processes of national decision-making for new vaccine adoption and sought to understand the factors affecting these decisions in Kenya.

### Methods

Interviews were conducted with 15 key informants in March 2011, including Ministry of Health officials, staff from international agencies, academics and clinicians. The interviews mainly focused on the decision to adopt the pneumococcal vaccine.

## *Findings*

### Main actors

The Kenyan Ministry of Health played a key role in decision-making, as expected; many interviewees mentioned the Minister of Health's support for vaccination and child health. The Minister of Health had been lobbying at global levels for access to vaccines at reduced prices. The World Health Organization (WHO) was also an important actor, providing information and support. No technical immunisation advisory committee was operational at the time of the decision. The requirement for GAVI funding applications led to more structured decision-making procedures, although as GAVI procedures became more familiar, it seemed that decisions became faster and more automatic.

### Key drivers of the decision

- Availability of GAVI funding
- The burden of disease
- Political prioritisation of the vaccine preventable disease, reaching Millennium Development Goal 4 on reducing child mortality was considered important
- Immunisation was a high government priority
- Discussions about the pneumococcal vaccine preceded the GAVI call, with the adoption of the pentavalent vaccine leading to consideration of additional ways to reduce childhood pneumonia; in some ways Kenya was waiting for the new vaccine to be developed
- Advocacy activities by international agencies played a role in agenda-setting

*CONCLUSION: The decision to adopt new vaccines in Kenya was driven by an underlying desire to seize GAVI funding. The burden of disease and political prioritisation of vaccination were also important drivers.*

## *Study 2*
## *Assessing the impact of PCV10 introduction on the health system*

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 added stressor where resources are already overstretched. It was decided that all children in Kenya below one year of age on the 1st January 2011 would be given 3 doses of PCV10 with 4-week intervals between each dose. This study evaluated the impact of PCV10 introduction on Kenya's immunisation programme and on the wider health system.

*PCV10 is delivered at the same time as the pentavalent vaccine, targeting children when they are 6, 10 and 14 weeks old*

*"In terms of programming, it has just integrated into the system, the immunisation programme, naturally. It has fitted"*

Regional level interviewee

*"We were able even to get children who…were not immunised with other vaccines because, as you know, in Kenya pneumonia is feared."*

District level interviewee

Photo: Gates Foundation

### Methods

This study used a mixed methods approach and data were collected during July and August 2011, six months after the introduction of PCV10 and also in February and March 2012, to evaluate the longer term impact. Semi-structured interviews with 51 key informants were conducted at national, provincial and district levels. Three districts in each of the following three provinces were selected for data collection: Nairobi, Rift Valley and the Western Province. Structured questionnaires were completed with staff in 43 health facilities. Routine data on the number of antenatal visits and number of children vaccinated twelve months before and five months after PCV10 introduction were collected from 43 health facilities and nine districts. Data collection tools and data analysis were structured using the WHO health system building blocks framework.[1]

# Kenya

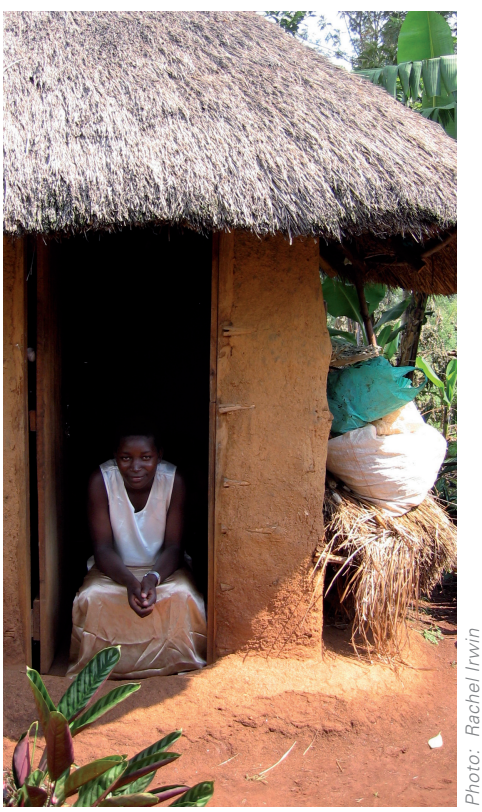

Photo: Rachel Irwin

### *Findings*

The new vaccine was well-integrated into the immunisation programme with limited impact, either positive or negative, on the Expanded Programme on Immunization or health system.

- Despite an overwhelming perception that the new vaccine introduction had increased coverage of other vaccines, findings from routine data did not support this
- Social mobilisation was perceived to have covered not only PCV10, but vaccination more broadly, and in some cases, other health services
- An integrated approach to the prevention and control of pneumonia was reported by some
- There was no change in provision and supervision of routine services
- Staff workload temporarily increased following the introduction
- Training acted as a refresher to update broader skills on vaccination services
- Some data collection tools had been revised but no impact on quality of data was reported
- Stock outs of the new vaccine during introduction may have triggered perceptions of broader stock outs
- The cold chain was expanded prior to the introduction; no impact on cold chain capacity for other vaccines or products was reported
- Adverse events following immunisation (AEFI) surveillance capacity was boosted, although reporting remained unchanged
- A delay in the availability of GAVI funds meant that money was borrowed from other programmes
- Some concerns were voiced about long-term financial sustainability.

### *References*

1 World Health Organization, *Everybody's business: strengthening health systems to improve health outcomes. WHO's Framework for Action.* Geneva: World Health Organization. 2007.

*CONCLUSION: The new vaccine was viewed positively at all levels. Overall, the new vaccine was smoothly integrated into the routine vaccination programme but had no or limited impact on the health system.*