Cambodia: “Coverage Improvement Planning” Pays Off

Expanding services and increasing financial sustainability

December 2004
The Kingdom of Cambodia, in partnership with PATH’s Children’s Vaccine Program (CVP) and the Australian International Health Institute of the University of Melbourne (UoM), is now immunizing more children, more safely, and with more vaccines than ever before. The partnership is active at the national level—PATH and UoM are providing technical assistance with immunization programming nationwide. The partnership is implementing a special initiative to model new interventions and assess innovative strategies to improve coverage in two pilot provinces: Kampong Chhnang (population 600,000) and Kampong Cham (population 1.7 million).

The main objectives of the partnership are to:

1. Formulate effective and sustainable strategies for reaching national immunization coverage goals.
2. Pilot new approaches to strengthening routine immunization service delivery in two provinces.
3. Replicate successful approaches in other provinces (and eventually nationwide).

Specific focal areas include:

- Planning and management for improved immunization.
- Planning for financial sustainability for immunization.
- Introducing hepatitis B vaccine, with a birth dose to protect children born at home.
- Developing communication strategies for improved coverage.

**Planning and management for improved immunization**

Significant increases in immunization coverage can be gained by integrating health planning across sectors, piloting and documenting innovative performance improvement mechanisms, and strengthening newly decentralized health management. During the past year, as a result of partner efforts and for the first time ever in Cambodia, a national immunization plan was integrated into the overall Ministry of Health planning system. This is important because it helps strengthen linkages between immunization and broader health sector reform priorities.

The government also has piloted a new approach to planning, focusing on clear deliverables, detailed micro-planning for each district, and intensified monitoring and managerial support. Coverage improvement plans (CIPs) are not an innovative strategy on their own, but the partnership approach...

* Companion papers on “PATH’s Children’s Vaccine Program—increasing immunization coverage, improving immunization safety, expanding protection”, “Andhra Pradesh—Building a Model Immunization System” and “Senegal—Changing the Face of Immunization in West Africa” are available from www.ChildrensVaccine.org.
linking CIP implementation to a system of output-based performance measures—as negotiated in advance between national and sub-national teams—certainly is.

In 2003, CIPs were developed for twelve districts, including two in partnership focal provinces. The plans help the National Immunization Program (NIP) effectively allocate resources to intensify outreach when trying to achieve coverage targets. They also help reduce dropouts by identifying service gaps and other access barriers.

This strategy contributed to the NIP’s success in immunizing almost 25,000 more children in 2003 than in 2002. In only twelve months, immunization coverage in the CIP districts rose 13 percentage points—from 70 percent to 83 percent. BCG and measles coverage also improved by 13 percent and 15 percent, respectively.

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<th>2002</th>
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<td>BCG</td>
<td>79</td>
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<td>DTP-3</td>
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<td>Measles</td>
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Coverage improvement plans work! Full immunization, as measured by the third dose of DTP vaccine, increased 13 percentage points in the CIP districts.
Planning for financial sustainability
In 2002, Cambodia became one of the first countries to complete a long-term financial sustainability plan as part of its commitment to the Global Alliance for Vaccines and Immunization (GAVI). The government now has dynamic tools allowing them to update resource and cost projections on a regular basis. This permits both the government and partners to routinely generate and review detailed financial analyses and to identify gaps that must be addressed to reach national program objectives.

Introducing hepatitis B vaccine
Hepatitis B disease burden is high in south and east Asia. Data suggest that rates of chronic infection average 10 to 12 percent in Cambodia and may be even higher. For this reason, the government was anxious to collaborate with partners in adding hepatitis B vaccine to the infant immunization schedule.

In 2001 the government received word that its application to GAVI and The Vaccine Fund for combined DTP-hepatitis B vaccine had been approved. Since then the vaccine introduction process has gone more smoothly than the partners had dared hope. The new vaccine was first used in one of the partnership’s focal provinces, Kampong Chhnang. By the end of 2003 introduction expanded to four additional provinces, covering about 30 percent of all newborns. In 2004 more provinces are being added, increasing access to 72 percent of the total population. And the NIP plans to cover the entire country by the end of 2005.
The benefits of a birth dose

People who are first infected with hepatitis B as infants are much more likely to become chronic carriers. And chronic carriers are at much higher risk of liver disease later in life—including liver cancer. In Cambodia, with high rates of transmission from mother to child during delivery, vaccination soon after birth can drastically reduce chronic carriage. But since 90 percent of Cambodian infants are born at home, vaccinating them within three days (or, when possible, within 24 hours) is a daunting challenge. The partners have taken it on by introducing a hepatitis B birth dose in Kampong Chhnang. By the end of 2003—only nine months after initiating the new systems—birth dose coverage rates reached 40 percent, with over 1,100 newborns immunized. Based on this initial success, the NIP is now developing a strategy to introduce birth dosing on a national scale.

Developing communication strategies for improved coverage

In Cambodia, with its low levels of female literacy and with a professional cadre decimated by decades of war and civil strife, demand for immunization is low, particularly in remote and socially disadvantaged areas. But in recent years the partners have invested increasing resources in communication interventions to increase uptake of immunization services. With technical assistance and other support from the partners, the NIP has recently developed a national immunization communication strategy, first being rolled out in the two partnership districts.

The strategy incorporates a variety of channels and interventions, including use of mass media, printed materials designed especially for local audiences, engagement of local political leaders in support of immunization, social mobilization through local volunteer networks, outreach through workplaces, and the development of new monitoring tools to help assess communication impact. The partners suspect that the success of the birth-dose system and the dramatic decrease in dropout rates in pilot provinces are in large part due to improved communication. For example, in one district in Kampong Cham Province that implemented the coverage improvement planning process in conjunction with a dynamic social mobilization strategy, immunization coverage doubled between 2002 and 2003—reaching 84 percent from the previous year’s high of 44 percent!
Key Accomplishments in Cambodia

Planning and management for improved immunization
- New coverage improvement planning method used in 12 districts, targeting 40,000 difficult to access, unimmunized children, resulting in a 13 percentage point increase in coverage between 2002 and 2003.
- National Immunization Program (NIP) plans integrated into health sector planning system for the first time.
- Introduction of performance-based contracts for improved immunization performance at the sub-national level.
- Monitoring and management support strategy for senior level managers implemented at the national level.
- One thousand health workers trained in hepatitis B disease, injection safety, and cold chain management.

Planning for financial sustainability for immunization
- Robust financial sustainability analyses in routine use by NIP for the first time.

Introducing hepatitis B vaccine, with a birth dose to protect children born at home
- Smooth introduction of combined DTP-hepatitis B vaccine reached 25 percent of target districts by the end of 2003, and will reach 50 percent by the end of 2004.
- Only nine months after launch, the new hepatitis B birth-dose strategy is reaching 40 percent of newborns in target areas.

Developing communication strategies for improved coverage
- Communication strategy for immunization is now rolling out—first in target districts, then nationwide.
- High birth dose and low dropout figures a result of improved communication interventions (including social mobilization).

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CVP Publications

These documents are available from www.ChildrensVaccine.org
Most are available in both English and French; some are available in Spanish and Russian as well.
Use the site search engine to locate titles of interest
(or click on the titles below if you’re reading an electronic version).

Advocacy for Immunization
- The Case for Childhood Immunization
- Fragile Lives—Immunization at Risk (film)
- Childhood Immunization: A Worthwhile Investment (PowerPoint show)
- Advocacy for Immunization
- Childhood Immunization: What You Need To Know (for parents)
- Hepatitis B Vaccine Introduction: Lessons Learned in Advocacy, Communication and Training
- Realizing the Full Potential of Childhood Immunization: How Health Professionals Can Make a Difference
- Helping Young People Become Youth Advocates for Immunization

Immunization Management and Training
- Immunizing Children Against Hepatitis B
- Immunizing Children Against *Haemophilus influenzae* type B
- Immunizing Children Against Japanese Encephalitis
- Immunization and Child Health Materials Development Guide
- Preventing Vaccine Freezing in the Cold Chain
- Guidelines for Supportive Supervision
- Training Vaccinators in a Time of Change
- Advanced Immunization Management (AIM) e-learning modules

Injection Safety
- Giving Safe Injections
- Proper Handling and Disposal of Auto-Disable Syringes and Safety Boxes
- Designing Safe Syringe Disposal Systems for Immunization Services
- Using Uniject™ to Increase the Safety and Effectiveness of Hepatitis B Immunization
- Unsafe Injections, Fatal Infections
- Practical, Local Solutions for Safely Managing Contaminated Syringes and Other Medical Waste
- Technologies for Vaccine Delivery in the 21st Century
- Perceptions About Injections and Private Sector Injection Practices in Central Nepal
- Immunization Injection Safety in Nepal

Other papers describing CVP’s work
- Andhra Pradesh—Building a Model Immunization System
- Cambodia—Coverage Improvement Planning Pays Off
- Senegal—Changing the Face of Immunization in West Africa
- PATH’s Children’s Vaccine Program—Increasing coverage, improving safety, expanding protection