



Tracking to Zero, Part I

Immunizing India's Most Excluded

In 2005, India had never been closer to eradication. Just 66 cases were recorded for the year, in a mere 35 districts. The polio partners and the whole world were holding their breath. Twenty years of effort would be repaid a hundredfold, if the following year could bring the number down to zero.

It was not to be. In 2006, polio began to accelerate – slowly at first, but then precipitously. In 2007, 676 cases were recorded, rising to 874 in 2008.

Dr. Anisur Siddique, former deputy of UNICEF's Polio Unit, recalls how deeply the team was affected.

"I'd thought we were so close. We all thought so," he says. "We were already celebrating. But it turned out to be wishful thinking. And at that point, to be honest, I nearly despaired. I thought it would never happen."

What more could be done? India was already vaccinating 165 million children per round, reaching upwards of 95 percent of all children multiple times. The Underserved Strategy, introduced in 2002, had already deployed community workers across many endemic states, attempting to convert resistant families. Resistance had fallen without doubt. Anecdotal reports from the field were confirmed by clear evidence. The number of houses marked "XR" – unvaccinated, resistant families – had dropped dramatically.

The outbreak was caused by a resurgent strain of polio that had virtually disappeared from India – Type 3 virus. In 2007, after three years without any reported Type 3 case, the campaign decided to move to a *monovalent vaccine* that was extremely effective against India's stubborn, endemic Type 1 virus. "It was a calculated risk," says Siddique. We had a dramatic reduction of Type 1 – but when the outbreak of Type 3 hit, we knew that monovalent was not the final answer. We had to think again."



In the years that followed, the India programme had to go to lengths never seen or even considered by any other public health programme to finally defeat polio.

One critical, operational tactic was also the simplest: the switch from monovalent vaccine to bivalent vaccine. Hopes were high that this vaccine, which protects against both Type 1 and Type 3 polio viruses, could finish what monovalent had started.

The more complex strategies sprang from a rethink of the campaigns themselves - epidemiological data viewed through the lens of equity. Which children were getting the vaccine? Were they the children who needed it most?

The answers to those questions carried powerful implications for polio's endgame strategies. And they continue to transform India's public health sector today.

To finish the fight against polio, the campaign had to dig deeper than ever before into India's most marginalized communities: into urban slums where bitter poverty had robbed children of their immune system strength, into migrant communities travelling across state lines under the radar, into the most remote regions cut off from roads and transport.



Nomads from Assam.
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India's last push to eradicate polio centered on these children, with laser precision. Reaching the highest risk groups, the remotest areas and the neglected migrants became the first priority of a network of thousands, from Delhi to the furthest rural districts on the Nepalese border.

The introduction of bivalent vaccine proved to be, as everyone had hoped – a game-changer. But, according to Pankaj Bhatnagar, Acting Deputy Project Manager for the National Polio Surveillance Programme (NPSP), by the time bivalent arrived the programme had already reached an unmatched level of sophistication. “The virus could not escape,” he says.

These final strategies that tracked polio to eradication have been translated to other countries still wrestling with the disease. Those who implemented them are rightly proud of their efforts – and relieved that they never gave up.

“When we recorded only one case in 2011 and no cases in 2012, I honestly couldn’t believe it,” Siddique says. “I kept rechecking the numbers. I thought there must be something wrong. It was too much to imagine that after all those years, we had finally got to zero.”

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