

India's story of

TRIUMPH OVER POLIO



Reaching every child with two drops of life

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COVER

Vaccinators on their way to a village on the Kosi River floodplain in Bihar.
Photograph by Sephi Bergerson

INSIDE COVER

Community mobilizers celebrate an end to polio transmission at an event in Ghaziabad.
Photograph by Sandeep Biswas

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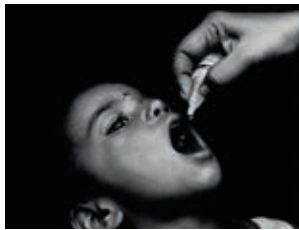
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Produced by UNICEF

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Introduction

They said India would be the last country to stop polio. The feat was near impossible: to find and immunize more than 170 million children behind every door of every dwelling in this vast sub-continent; to reach the millions who didn't even exist on a map - brick kiln workers, construction workers, slum dwellers, nomads; to provide two drops of oral polio vaccine to protect India's children from the most intense transmission of wild poliovirus on the planet, in one of the most heavily, densely populated countries on earth.

They said the population was just too large, and moved too much. Every year, 27 million babies were born - a large enough cohort on their own to sustain transmission, if not immunised. Every day, 23 million people criss-crossed the country on 11,000 passenger trains. They moved abroad too, carrying virus from India to other countries, resulting in outbreaks of Indian virus in Bangladesh, Nepal, Tajikistan, even Angola.

They said the challenges were too great. The mixture of poor sanitation, population density, poor health conditions, heat and monsoon created a perfect storm for virus transmission. In western Uttar Pradesh, rumours swirled about the oral polio vaccine, that it was 'haram', that it sterilized boys and other theories that generated distrust. In neighbouring Bihar, the Kosi River flooded the plains each year, overnight turning green rice fields into a vast, inland sea. Here, the millions that farmed its edges left their homes, moving to new ground as they'd done for centuries, the completely new landscape rendering last year's microplans useless, the vaccinators forced to traverse

on

wide rivers on slow boats to find those scattered children. How could you possibly know if you had immunized them all?

They said the epidemiology was a bridge too far: to raise immunity to the threshold required to stop the virus, experts said, more than 95% of children in India's highest-risk areas would need to be vaccinated more than eight times each. That would require the Government of India to fund and distribute more than 90 million doses of oral polio vaccine every month, to coordinate and pay more than 750,000 vaccinators every month, and to outlay more than \$500 million a year, every year, until it was finished. That would require the vaccinators and social mobilizers to roll out up to 10 campaigns a year. To march through Ghaziabad's baking hot alleyways in May, or traverse the sweltering humidity of the Kosi River basin in August, to climb the ladders of Mumbai's three-storey slums in December, to reach every construction site in Gurgaon and every brick kiln in Bihar, to seek out every last child in the microplan, to not be complacent, to not tire, or be lazy, or waver

in the face of parents, shouting, "Why these polio drops again?". It was not their stipend of just \$1 a day, but the cause which kept the frontline workers going.

In 1988, when the World Health Assembly, inspired by the success of smallpox eradication, embraced Rotary International's dream of a polio-free world and launched the Global Polio Eradication Initiative, an estimated 350,000 children worldwide were paralyzed or killed by poliovirus each year. A staggering 200,000 of these cases occurred in India. What followed was the world's largest immunization effort: twice a year, National Immunization Days reached more than 170 million children across the country in five days. A further seven to eight times a year, Sub-National Immunization Days reached nearly 75 million children in the highest-risk areas, the focus being to reach every child, in every round. This incredible endeavour was achieved through the strong commitment and partnership between the Government of India, the World Health Organization, Rotary International and UNICEF - the key polio

implementing partners - as well as the US Centers for Disease Control and Prevention, CORE, the Bill & Melinda Gates Foundation, the US and Japanese government aid agencies, among others. It happened through the rigorous management of well-planned vaccination campaigns and an appetite for seeking innovative solutions to challenges; by focussing on the one child missed with equal passion as the 99 who were vaccinated.

To reach every child, frontline workers mapped every village, town and city, every brick kiln and nomadic settlement via ground-level microplanning. Pregnant mothers and newborns were tracked and 'due lists' for vaccination shared with local health workers. Mobile vaccination teams cast a tight net for children at major intersections, at bus stations, on railway platforms and even on moving trains. Nomadic groups and sites were tracked, religious festivals followed, and human resources allocated to focus on the very highest-risk groups and areas. Tens of millions of children were vaccinated at border posts with Nepal, Pakistan and Bangladesh.

A Booth Day festively kicked off each round with polio booths set up in popular locations such as schools, markets and religious institutions. In a celebratory atmosphere, children received not only oral polio vaccine but also incentives such as nutritional supplements, a ball, mask, cap or whistle. The delivery of Vitamin A, bed nets and health camps regularly piggybacked on polio campaigns. Local innovations such as children's calling groups, or 'Bulawa Toli', ran through the laneways of their communities calling children to the booths.

To reach missed children, innovative re-visit strategies were introduced - every afternoon of the campaign, and again after the campaign - with missed children the focus of nightly accountability meetings between partners at the local, district, state and national levels. To find and reach children in Bihar's flooded plains, hundreds of overnight stay huts were built, allowing surveillance medical officers, social mobilizers and vaccinators to stay in the Kosi River basin, to more rapidly map the population and ensure the programme was reaching every possible child.

To tackle religious misconceptions and community refusals, dedicated social

mobilization networks were established to spread a range of public health messages. An underserved strategy was adopted and religious leaders mobilized to garner support of the community for polio vaccination. One by one, thousands of imams and community influencers were engaged to promote polio immunization. Social mobilizers visited homes and schools, and held mothers' and influencers' meetings in their own communities to create acceptance and demand for the vaccine. An angry Bollywood megastar berated India's parents for failing to protect their children, and in following years, when asked why they vaccinated their children, parents would say: "Because Amitabh Bachchan told me to." His face adorned hundreds of thousands of posters and banners trumpeting the dates of the campaigns, turning Uttar Pradesh and Bihar pink and yellow in the days before each round.

To tackle the virus in its last bastions, the '107 Block Plan' was introduced in the 107 very highest-risk blocks. This plan included a convergence of public health initiatives and messaging promoting routine immunization to raise immunity, hand washing to break faecal oral transmission and other related health initiatives.

Innovative new vaccines were introduced, first the monovalent vaccines and then the ground-breaking bivalent oral polio vaccine, which concurrently tackled both remaining serotypes of wild poliovirus, effectively doubling the impact of each vaccination.

Most importantly, the Government of India and its millions of frontline workers never wavered. The government itself paid for each dose of vaccine. And every round for a decade, hundreds of thousands of vaccinators and social mobilizers walked well-worn trails to doors with the scribbled chalk traces of years of previous polio campaigns, continuously improving the quality of those campaigns, reaching 85%, then 90%, then 95%, then 98% of children, and never failing to believe that eradication was possible. Many of India's parents and caregivers allowed their infant children to be vaccinated 10, 20, even 30 times and they too deserve the world's acknowledgement.

On 13 January 2011, in a small, rural village in Panchla Block, Howrah district, West Bengal, a two-year-old girl named Rukhsar was paralyzed by polio. She had never left her village, but this particular strain of poliovirus still found her unprotected belly, all the way from Delhi,

some 1,500 kilometres away. An emergency response was launched, at a speed never witnessed before, rapidly immunizing children throughout the neighbouring villages and scattered houses within five days. This effectively interrupted transmission which could have spread across the country in no time. Weeks passed without any further cases, then months passed. For the longest time, India's sensitive surveillance system, with its fast and accurate testing of thousands of acute flaccid paralysis cases, supported by the environmental surveillance testing of sewage, found absolutely no traces of polio. This insidious disease that had twisted children's limbs in India since antiquity, was no more.

This photographic essay tells the story of India's triumph over polio through the polio programme's Sub-National Immunization Days, or 'the polio round'. Five professional photographers travelled to seven states to capture the five days of the campaign, the preparations and the follow-up. They visited the villages, cities, government facilities, schools, mosques and houses, and followed the activities of the immunization campaign from beginning to end.

Each photographer has brought their own individual style, but collectively they have captured the festiveness, the grit, the commitment and sheer human determination that mark each round. Their pictures reveal a public health programme that has reached further than any other into homes, schools, workplaces and religious life; a programme that has engaged more members of communities than any other, as social mobilizers, field volunteers, vaccinators, influencers, informers, parents, siblings and caregivers.

Most tellingly, these photographs tell the story of the workers at the frontline of India's polio eradication effort. They are the heroes of India's greatest public health achievement. Rain or sunshine, hot or cold, these women and men are still marching the miles to protect all of India's children from polio.

Two drops of life, two drops at a time.

A child in a New Delhi slum is vaccinated during house-to-house visits



The Polio

In each national polio immunization campaign in India, more than 170 million children are vaccinated by more than two million vaccinators.

Round

Mass government polio immunization campaigns, or 'pulse polio rounds', were launched in India on 9 December 1995. Initially, the campaigns were held at fixed sites with parents requested to bring their children to the booths, before the successful door-to-door strategy was launched in 1999 to ensure no child was missed. National Immunization Days (NIDs) have been held twice a year since 1995, with more than 2.3 million vaccinators knocking on the doors of some 209 million homes to immunize 170 million children under five. This 'pulse polio' approach of covering all children in India with oral polio vaccine in two rounds, held four to six weeks apart, usually in January and February, successfully interrupted transmission of poliovirus in most parts of the country.

However, in several areas polio persisted, particularly in western Uttar Pradesh, central Bihar and pockets of Jharkhand and West Bengal. The megacities of Delhi, Mumbai and

Kolkata became hot beds for the virus, as migrant workers moved in and out, and the virus moved with them. The virus survived and even thrived in areas with high population density, large cohorts of young children, contaminated water and poor sanitation. Each hot, humid monsoon season, when the rains swept through the open drains of Uttar Pradesh, the underlying conditions for polio to spread via the faecal-oral route were rife.

To respond to this, in 1999, the country was divided into high, medium and low-risk states. Sub-National Immunization Days (SNIDs) began in medium and high-risk states, immunizing the children most at risk - usually more than 75 million children in each SNID - up to eight times a year. When the number of supplementary immunization rounds was at its peak, a child living in a high-risk area may have received as many as 12 doses of the oral polio vaccine by the time they turned one.

In areas with an importation, emergency mop-up procedures were immediately implemented, with a small scale response around the immediate case, followed by additional vaccinations to rapidly raise immunity of the at-risk population. In the final years, to protect migrants returning to their homes from endemic states during popular festivals like Holi and Chhat, special vaccination drives were held at major transit sites, along major routes and at congregation sites.

Getting ready

Preparations begin well before the round begins. In a country of more than 1.2 billion people spread across three million square kilometres of diverse terrain, with 22 national languages and numerous religions and cultures, there are logistical and social challenges to overcome to ensure all families are ready when the polio round begins.

The vaccine is distributed from central stores to the states, then to districts, and then to cold storage facilities around the country. The government and partners meet at block, district, state and national levels to develop and update detailed microplans for the polio round; setting out roles and responsibilities, houses to be

covered on each day, the names of vaccinators, their supervisors and key influencers. These detailed local microplans are a key to the success of the campaign. Vaccination teams draw up maps of their vaccination area. Posters are plastered throughout neighbourhoods, and banners strung up across busy intersections. Vaccinators, field volunteers and community mobilizers are trained and re-oriented. Children's rallies and school polio sessions are held to raise awareness. Mothers' and influencers' meetings are conducted, mosques and other religious and social institutions announce the dates of the campaign and urge parents to immunize their children. Everyone knows the polio round is about to begin.

A vaccinator refresher training session in the days before the start of the round, near Kolkata, West Bengal



Children's rallies

Children parade through their village calling out polio vaccination slogans to raise awareness of the upcoming round, near Kolkata, West Bengal







LEFT
Children rallying on the day before Booth Day,
to raise awareness that the round is about to start,
in Bhiwandi, Maharashtra

RIGHT
Children rally near Kolkata, West Bengal



Detailed house-level microplanning to reach every child

RIGHT

A map showing areas needing focus in the upcoming round, at the WHO/NPSP office in Darbhanga, Bihar

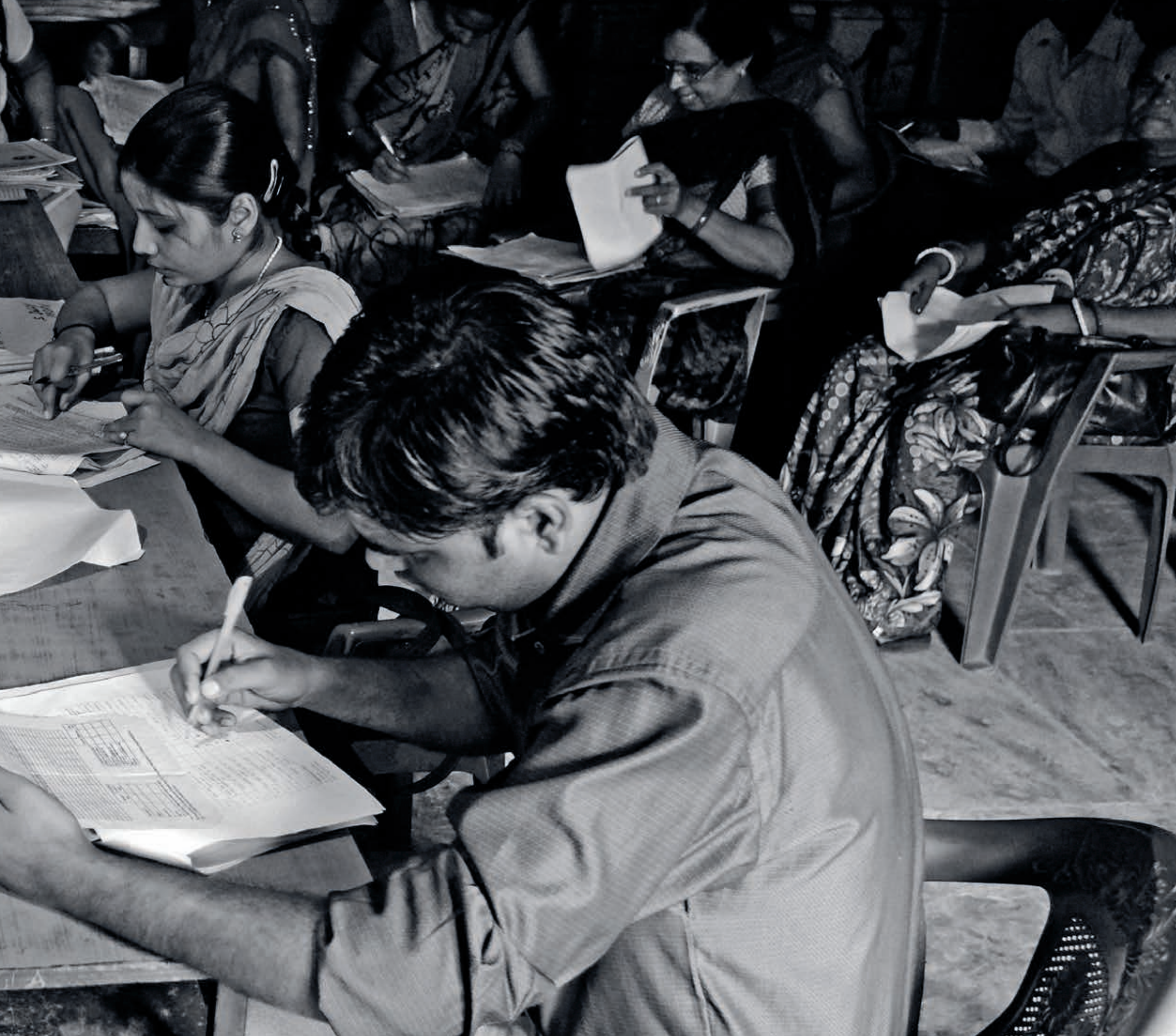
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A meeting to finalise a local microplan, in Agra, Uttar Pradesh

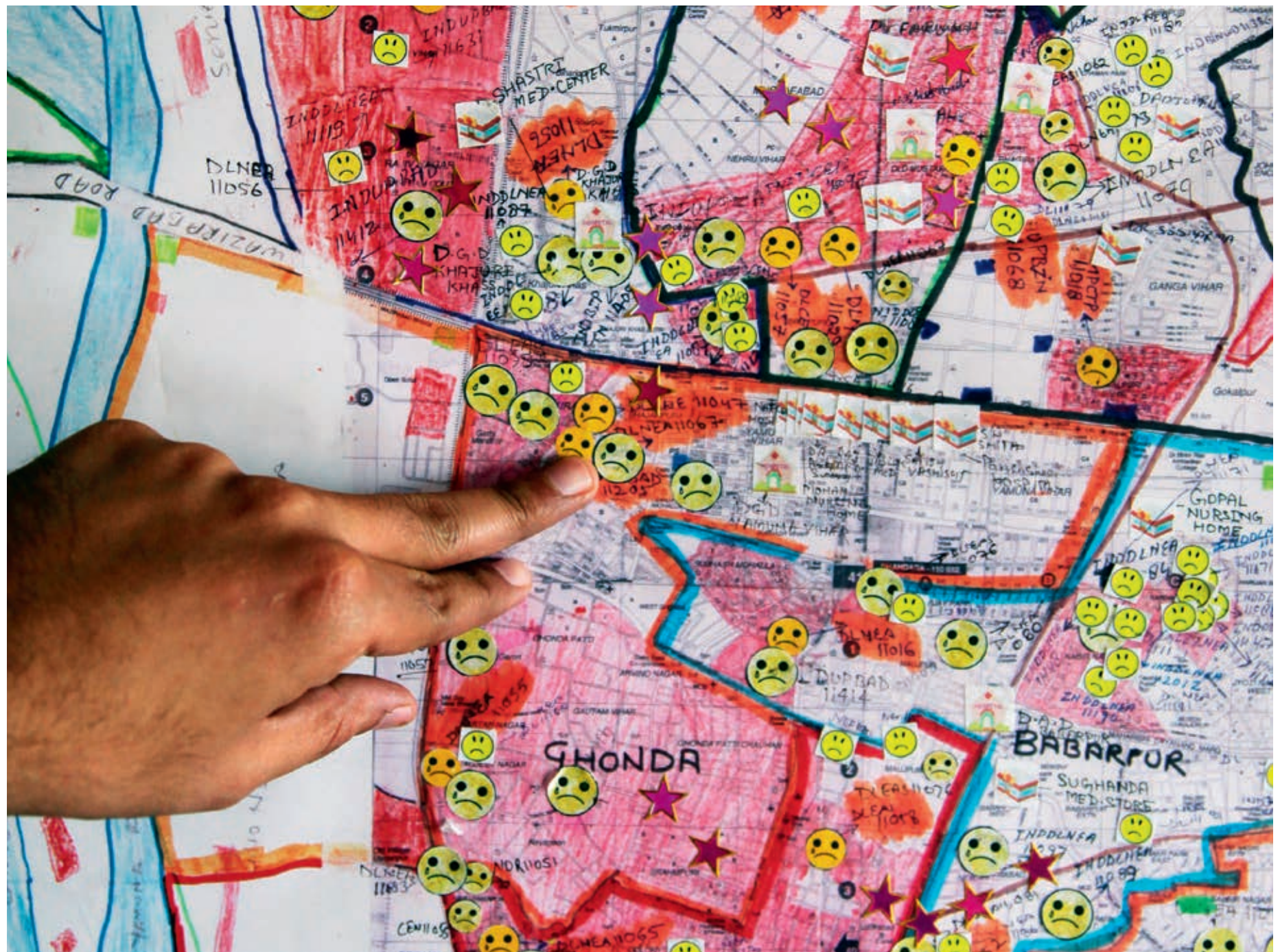












LEFT
A vaccination team supervisor in the Darbhanga district in Bihar

ABOVE
A hand-drawn map of a high-risk area of Delhi

Training of vaccinators & community mobilizers

An instructor holds up two fingers to signify the two drops of oral polio vaccine given to every child, at a refresher training session for vaccinators at Amritsar, Punjab







ABOVE
A pre-round briefing session for community mobilizers in New Delhi

RIGHT
A similar session for field volunteers at Bhiwandi, Maharashtra





Mobilizing the community

RIGHT

A community mobilizer visits parents in her village near Kolkata in West Bengal, making sure everyone in the community knows about the round and the importance of vaccination

FAR RIGHT

A 'talking doll show' in a street performance giving polio vaccination messages in the lead up to a round, near Kolkata in West Bengal





Announcing the round
through posters, banners and a diverse array
of brightly branded information



Freshly printed posters showing the dates of the
immunization round are loaded onto a truck in New Delhi





An auto-rickshaw announcing the upcoming polio immunization round in a high-risk area of Kolkata, West Bengal





Posters giving dates and promoting the round in West Bengal





Posters featuring the Bollywood megastar Amitabh Bachchan announcing the date of the immunization round and urging parents to take part, at a rickshaw stand in Patna, Bihar





ABOVE

Announcements are made from mosques in polio high-risk areas, urging parents to vaccinate their children in Moradabad, Uttar Pradesh

RIGHT

A community mobilizer supervises a poster being pasted on the wall of a mosque in Patna, Bihar









A banner advertising the polio round on a boat operating on the Ganges near Patna, Bihar





LEFT

Toy balls are provided by Rotary as incentives to children to be vaccinated. They are being packed and at a factory in Delhi

ABOVE

Balls are given out to children after vaccination at a booth in Moradabad, Uttar Pradesh

Vaccine distribution

Delivering the oral polio vaccine on time to every corner of India has been an operational feat

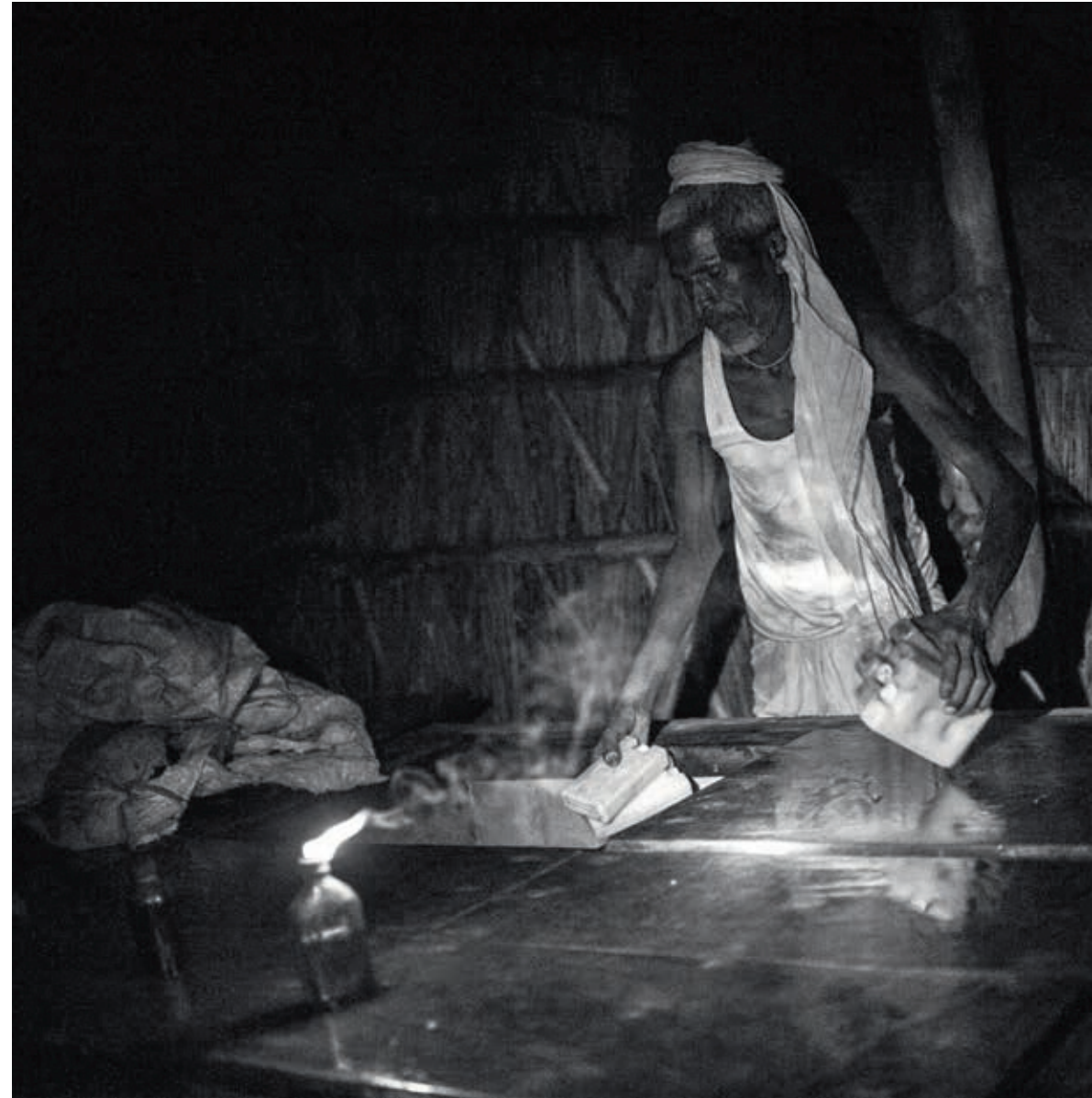
The game-changer:
bivalent oral polio vaccine

Delivering the oral polio vaccine on time to each one of its 600,000 villages, many of them in the remote corners of the country, has been an operational feat. Stockpiles of vaccine are stored in four major storage facilities across India. They're then transferred in large coolers to district-level facilities where they maintain a temperature of minus 20 degrees Celsius, despite India's hot climate. At the time of an immunization round, the vaccine is transferred into specially designed vaccine-carrier boxes, lined with small icepacks. Early each morning of the polio round, vaccinators line up at the cold chain storage sites to collect their vials, count and sign for them, and tightly pack their vaccine-carriers. Once in the field, the vaccine must constantly remain between two to eight degrees, with the vaccine-carriers designed to sustain this temperate for 24-48 hours. As the day wears on and the temperature rises, and an individual vial of vaccine is removed from the vaccine-carrier, a small square on the vaccine vial will slowly turn through four stages from white to off-white. If it's a darker shade of grey the vaccine is no longer effective and must be discarded.

Another reason for the success of the polio programme in India has been the regular revision and fine-tuning of the type of oral polio vaccine used in the immunization rounds. Until 2006, most polio cases in India were caused by wild poliovirus type 1 – considered the most dangerous type, paralysing one in every 200 children who contract it. With the introduction of monovalent oral polio vaccines in 2005, the programme could focus on reducing type 1 poliovirus, with vaccines almost three times more efficacious than the traditionally used trivalent oral polio vaccine. The use of mOPV1 in intensive rounds helped India reduce transmission of type 1 to record lows by 2007. The introduction of bivalent oral polio vaccine in India in 2010 delivered the knock-out blow, allowing every contact with every child to tackle both remaining serotypes concurrently. Within 12 months, the number of polio cases in India dropped dramatically from 741 in 2009, to 42 in 2010, to just one case in 2011 - the last case.

The white square on the label of this vial of oral polio vaccine indicates it is at the correct temperature to be administered





At three-thirty in the morning, by the light of a candle, the oral polio vaccine is packed into large cold-storage boxes and then carried to carts outside, near the Kosi River, Bihar







THIS PAGE
The cold-storage boxes are pushed through mud to the edge of the river and loaded onto boats on the Kosi River, Bihar

NEXT PAGE
A polio high-risk area on the Ganges, Hapur district, Uttar Pradesh







ABOVE
The cold-storage boxes reach the other side of the Kosi River, Bihar

RIGHT
Vaccine carrier-boxes being prepared for collection in Moradabad, Uttar Pradesh

FAR RIGHT
Delivery to the vaccinators







Vaccine carriers being delivered by taxi in New Delhi



Booth Day

The polio round begins with Booth Day, also known as 'Polio Sunday', when fixed-site immunization booths are set up across neighbourhoods, at schools, health facilities, religious temples and shopfronts, and children under the age of five are brought to be vaccinated. The event is inaugurated by a community or religious leader giving the first drops of oral polio vaccine to a child. Hundreds of children line up to receive the vaccine. The little fingers of the left hands are marked with indelible ink, an indication that the child is immunised. Booth incentives are provided

with the vaccine to children and infants; including plastic balls, facemasks, sun visors and, in some locations, food or nutritional supplements. These incentives are offered by the government, Rotary and UNICEF. The booths generate a festive, carnival-like atmosphere, creating momentum for the round. The vaccination teams keep a ledger of the number of children immunized. These figures are compiled and the performance of each booth is compared with previous rounds, at evening meetings that review the Booth Day activity and the community turn out.

A fixed-site polio booth in Moradabad,
Uttar Pradesh







ABOVE

A local imam gives the first drops of oral polio vaccine, inaugurating the booth



RIGHT AND FAR RIGHT

Children line up to be vaccinated at a booth in Moradabad, Uttar Pradesh





ABOVE

A tally sheet is marked for each child vaccinated, and then compared with the tally sheet for the same booth in the previous round

RIGHT

A community mobilizer brings a baby to the booth to be vaccinated, at Moradabad in Uttar Pradesh







Children are given a nutrition supplement as a reward after they've been vaccinated at a booth in Moradabad, Uttar Pradesh





A child in Moradabad, Uttar Pradesh, with a Rotary-provided mask and whistle, given as incentives for children to be vaccinated at the booths



Bulawa Toli

Children's Calling Group

An innovative part of Booth Day in certain communities is the Bulawa Toli or children's calling group. Around ten older children are selected by the local community mobilizer to form the group. On Booth Day, members of the Bulawa Toli march through the community like pied pipers, chanting polio slogans. They wave flags, blow whistles, and wear polio sun visors and badges, calling and even carrying younger children to the local booth to be vaccinated. The Bulawa Toli is a loud display of youthful exuberance for the round that is impossible to ignore!

A Bulawa Toli, or children's calling group, is gathering and getting ready to go in Moradabad, Uttar Pradesh





School students in Moradabad, Uttar Pradesh, take part in a 'polio class', holding up two fingers to signify two drops of the oral polio vaccine. The class is held by a local community mobilizer who then selects children to form the Bulawa Toli on Booth Day









The children of the Bulawa Toli go from lane to lane, and from house to house, looking for children under five to bring them to a booth in Moradabad, Uttar Pradesh

Reaching every house, reaching every child

To reach every child, teams of vaccinators visit every home, actively searching for any children who were not vaccinated at the booth.

When the programme started, vaccination only took place at fixed-site booths. To improve immunization coverage and reduce the number of missed children, house-to-house vaccination was introduced in 1999. Beginning on day two of the polio round, teams of vaccinators visit every home, searching for any children who were not vaccinated at the booth. They can tell whether a child is vaccinated by checking the mark on their little finger on the left hand. The vaccination teams start on Monday morning, the day after Booth Day, and continue for up to four days. An 'A' team visits in the morning, vaccinating every child it comes across. Some children who are out or sleeping may be missed. The 'B' team returns that afternoon to the houses where children were missed by the 'A' team, ensuring those indicated in the microplan are reached. This continues until every child under five is accounted for.

Vaccinators heading out on the first morning of house-to-house vaccinations in New Delhi





A field volunteer in New Delhi during
house-to-house vaccinations



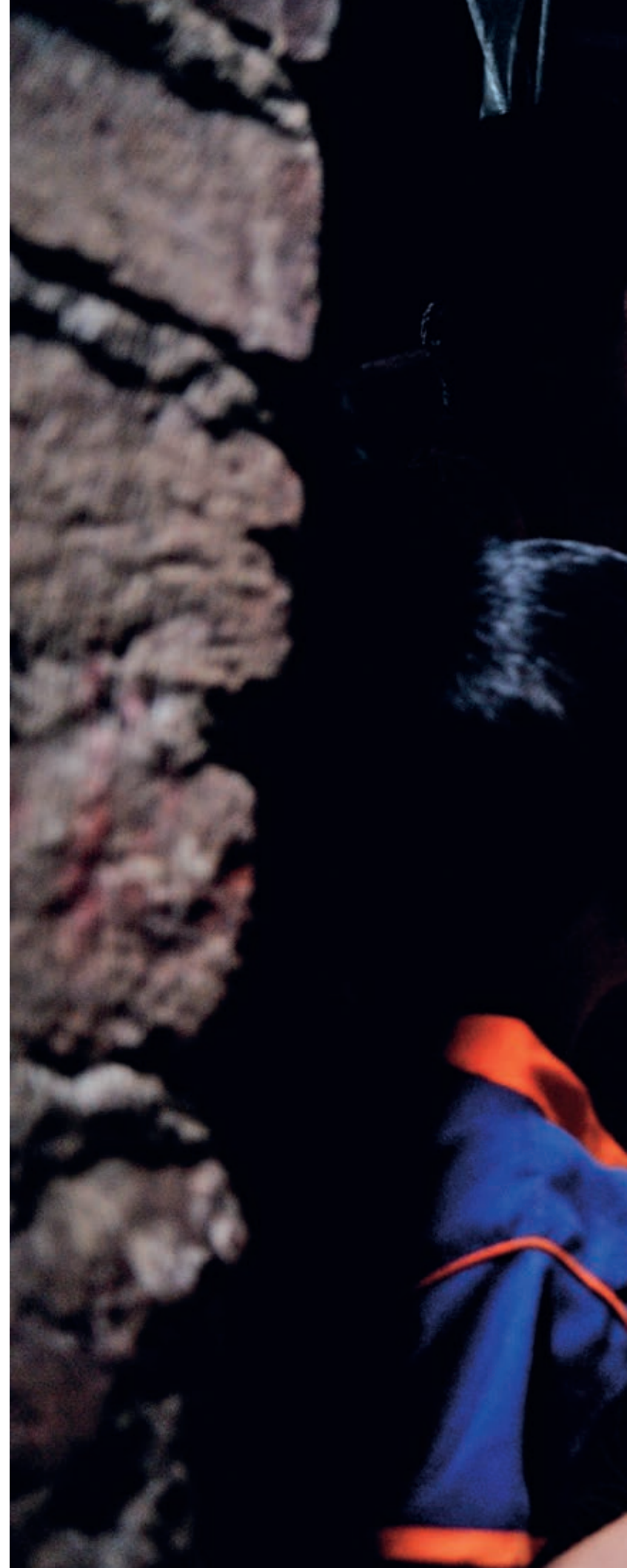


House-to-house vaccinations
in New Delhi





House-to-house vaccinations in Mumbai







A vaccinator looking for children at a slum in
Ludhiana, Punjab

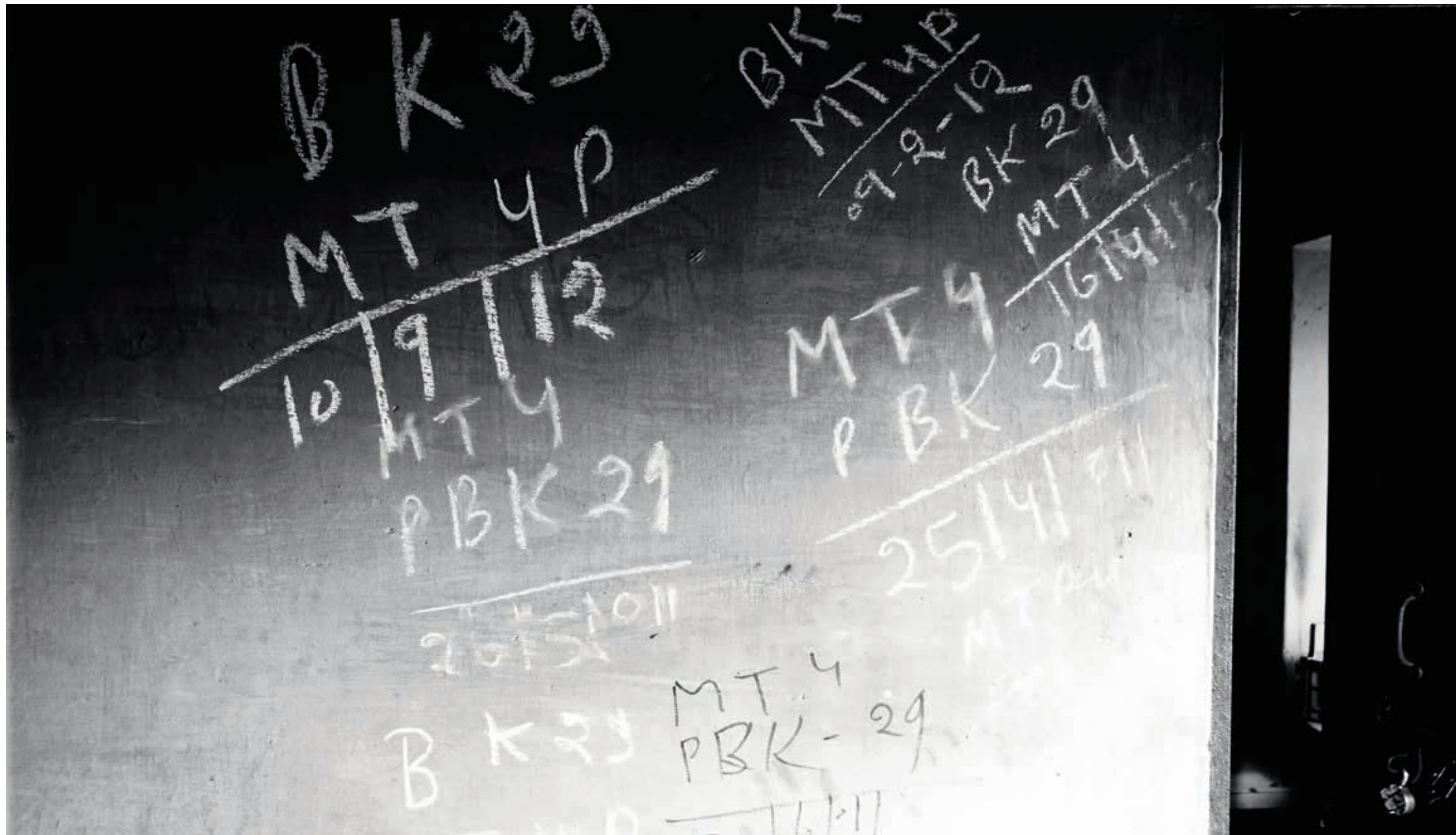




House marking

Vaccinators and community mobilizers mark each house as they complete their work using a detailed code. These chalk or temporary paint markings are a guide for follow-up vaccination teams, monitors and supervisors. Houses where all children have been successfully vaccinated against polio are marked with a 'P', the date of the campaign is recorded and an arrow drawn to show which direction the team is moving in. If any child is missed, the house is marked with an 'X'. In the records of the vaccinators, the 'X' houses are given sub-categories for appropriate follow-up action. If, for example, parents refuse for religious reasons or even as a protest against a lack of other services, the house is marked with an 'X-R'. Vaccinators and community mobilizers return later with a religious leader or another key influential person in the local community, to try to persuade them to accept the vaccine.





LEFT

A house is marked with chalk in Malegaon, Maharashtra

ABOVE

House markings on the wall of a dwelling at a brick kiln in Ghaziabad, Uttar Pradesh





Portraits of some of the over two million
frontline workers whose tireless efforts
keep polio out of India





House marking in the Kosi River region of Bihar. Huts are marked using red paint

Finger marking

Finger marking with indelible ink to show that a child has been vaccinated





Dealing with resistance

On occasion, vaccinators and community mobilizers will meet resistance. Thanks to the work of UNICEF and CORE's Social Mobilization Network, this level of refusal has fallen from a high of almost 15% in western Uttar Pradesh a decade ago, to less than 1% by 2013. Still, on occasion, parents refuse to let vaccination teams inside to immunize their children because of fears or misconceptions about the programme or the oral polio vaccine, or as a protest in demand for additional services. Multiple strategies have been employed to tackle this refusal; community mobilizers try to persuade

them, presenting written endorsements from local religious leaders or medical authorities, such as the 'Green Booklet', which carries quotes from the Quran and the Hadiths in support of vaccination. If it doesn't work, the vaccinators and community mobilizers will return with a local influencer, either religious or occupational, such as an imam, a doctor or a local political leader, who has been engaged by the polio programme to put the case for vaccination. Households who continue to refuse the vaccine are noted and mapped for further consultations with local community mobilizers.

Vaccinators knock persistently, but the mother inside this house is refusing to open her door, in Malegaon, Maharashtra





An 'interface' meeting with a resistant family in urban Patna, Bihar. The influencer on the right is a respected member of the local community, trying to persuade the parent on the left to vaccinate his children







ABOVE

A parent argues with a medical officer who is an influencer with the polio programme, trying to persuade her to accept the oral polio vaccine for her children in Malegaon, Maharashtra

RIGHT

A doctor treats a child in Bhiwandi in Maharashtra, whose parent refused polio vaccination, saying the child was sick. Health clinics are set up before and during the round, giving free medicines for minor complaints

FAR RIGHT

A local religious teacher, or maulana, is talking in favour of polio vaccination to a resistant family in Bhiwandi, Maharashtra





Reach Ev

ing
every Child

Reaching children on the move

With large numbers of children in India on the move, the polio programme has gone to extraordinary lengths to ensure they don't miss out on being vaccinated. Large numbers of families with infant children move seasonally throughout India in search of work, or on their way to or from religious or cultural festivals. A transit vaccination strategy was established to cast a net to reach these children during immunization rounds, with dedicated moving

transit teams placed at key intersections, at railway and bus stations, on moving trains, and at busy intersections and markets. Special billboards, posters, banners and radio messages ensure migrant groups get the message to vaccinate their children. Vaccination teams also set up at large religious and cultural festivals throughout the year, reaching children who are vulnerable because they are often on the move.

Ghaziabad Railway Station, in a polio high-risk area







ABOVE AND RIGHT
Children are vaccinated on trains in Mumbai

FAR RIGHT
Vaccination by the railway track near Kolkata





জাতীয় পাল্স পোলিও টিকাকরণ কর্মসূচী
পোলিও রোগ সম্পূর্ণ নির্মূল করতে
০ থেকে ৫ বছরের নীচে সমস্ত শিশুদের
পোলিও টিকা খাওয়ান
রাজ্য স্বাস্থ্য ও পরিবার কল্যাণ দপ্তর হাওড়া





Polio vaccination at Howrah Railway Station, a major inter-city station for travellers coming and going from Kolkata with their children





Vaccinators at a bus stand in
Ghaziabad, Uttar Pradesh





FAR LEFT

Vaccination on a bus, before it departs in Malegaon, Maharashtra

LEFT

Vehicles carrying children are stopped by vaccinators on a highway in Malegaon, Maharashtra

ABOVE

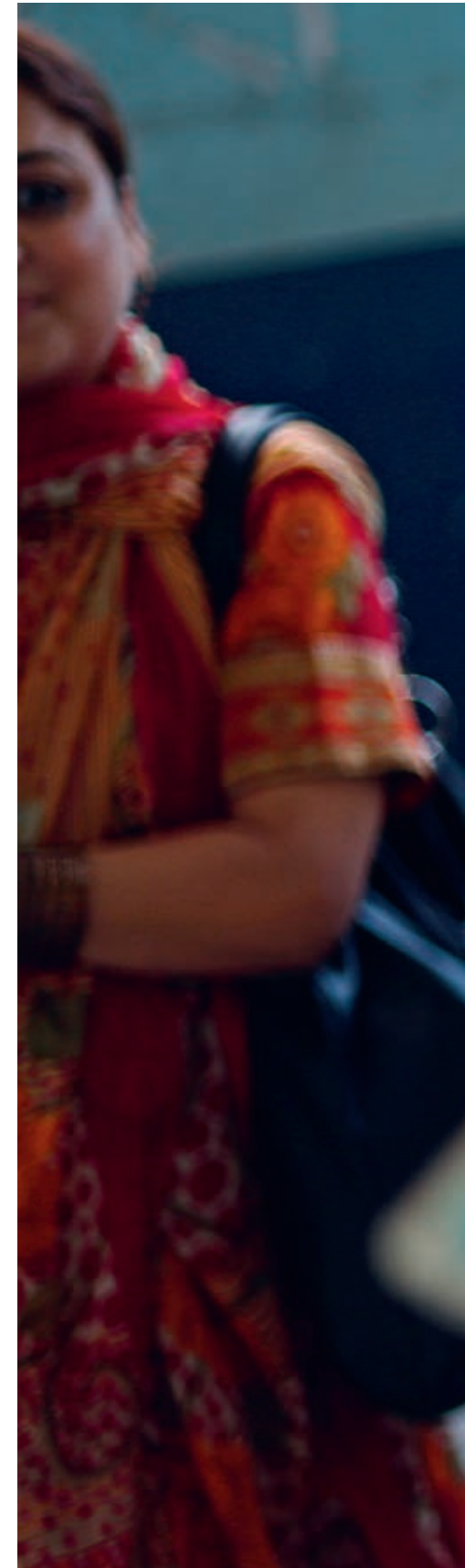
A transit vaccinator searches for unvaccinated children at a busy market in Malegaon, Maharashtra

Border vaccinations

While the poliovirus is no longer circulating in India, the constant risk remains of importation from a polio-endemic or re-infected country. Both neighbouring Pakistan and Afghanistan remain infected, two of the last remaining endemic countries. To mitigate the risk of poliovirus importation by travellers, continuous polio immunization posts have been set up along the international borders with Pakistan, Nepal, Bangladesh, Myanmar and Bhutan. All children up to the age of five years who

are crossing the international borders are vaccinated. Initiated in 2011, the number of posts has grown to over 100, with nearly 4.2 million children immunized at these posts by the end of 2013. Nepali community mobilizers who speak the local dialects are employed on the Indian side of the porous border with Nepal to convince parents moving in and out of India to vaccinate their children with the oral polio vaccine. Indians and Nepalis can cross the border at will without documents.

A two year old boy from Pakistan is vaccinated against polio as he crosses into India at the Attari Railway Station, Punjab







ABOVE
Vaccination at Attari Railway Station, on India's border with Pakistan in Punjab



RIGHT AND FAR RIGHT
Vaccinators at work on the Jogbani border, between India and Nepal



Reaching the hardest to reach

The Kosi River was one of the country's last refuges for the poliovirus and played host to an extensive outbreak in 2009. The river rises and falls with the seasons and the population is constantly moving. Many subsistence farmers move from place to place in search of work, taking their children with them. The strains of the virus often moved back and forth between the endemic reservoirs of central Bihar and western Uttar Pradesh, thwarting the eradication effort. Targeted approaches were needed to reach every child in this and other hard to reach regions.

To intensify the focus on the difficult to access areas along the river, the Kosi River Operational Plan was drawn up. A critical component for success was recruiting and deploying community mobilizers from the mushari (formerly 'untouchable') community. Satellite offices and overnight stay points were also established, to allow surveillance medical officers and campaign supervisors to spend a few nights close to activities, mapping, planning and supervising the programme from the ground. A grid was drawn up, identifying areas that were previously underserved to ensure inclusive programming. Extra community mobilizers were positioned in the areas that needed them most. With these additional resources and focus, children stopped being missed, and circulation of the poliovirus in this reservoir was interrupted.

Vaccinators on their way to a village on the Kosi River floodplain in Bihar





Vaccinators on their way to a village on
the Kosi River floodplain in Bihar





A team of vaccinators approaching isolated shelters on the Kosi River floodplain in Bihar









Vaccinators entering a remote village by the Kosi River, near Khagaria in Bihar



Children under five and babies being given two drops of the oral polio vaccine, in villages on the Kosi River floodplain in Bihar





Vaccination and finger marking during house-to-house visits on the Kosi River floodplain in Bihar



Focusing on high-risk groups

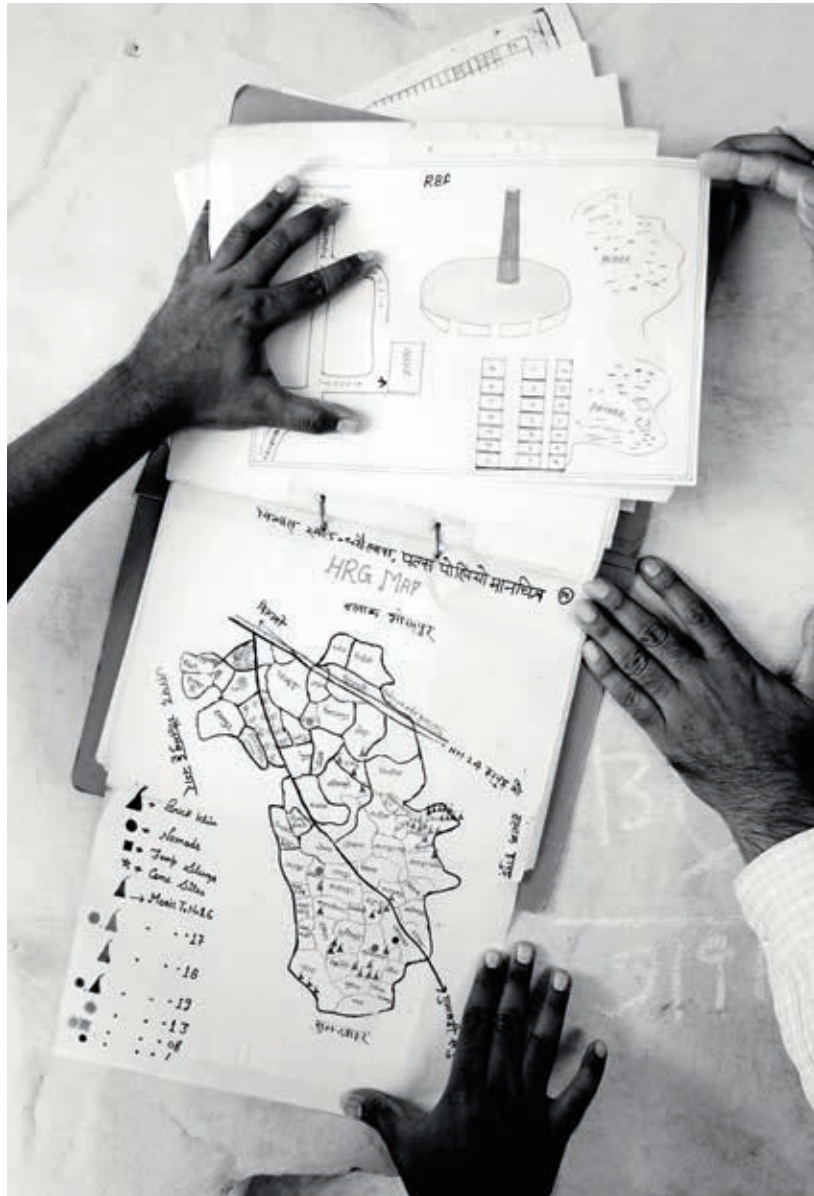
In 2009, it was identified that almost half of all polio cases were occurring among migrants. The programme began comprehensively mapping where groups of migrants and other high-risk groups were living, and included them in planning for the immunization rounds.

Slums, camps, construction sites, factories and brick kilns are mapped across India, which enables vaccinators to include these sites during rounds, and to immunize the vulnerable children living on-site. Informers such as work-site managers or local shop-keepers are engaged to inform community mobilizers when groups come and go. Community mobilizers visit, providing messages on a range of child health interventions and encourage parents and caregivers to vaccinate their children against all vaccine-preventable childhood diseases. When migrants leave an area, they are tracked in order for children to be vaccinated quickly when they arrive at their destination, or when they return to their starting point.

Children living and playing near a rubbish dump in Mumbai, Maharashtra





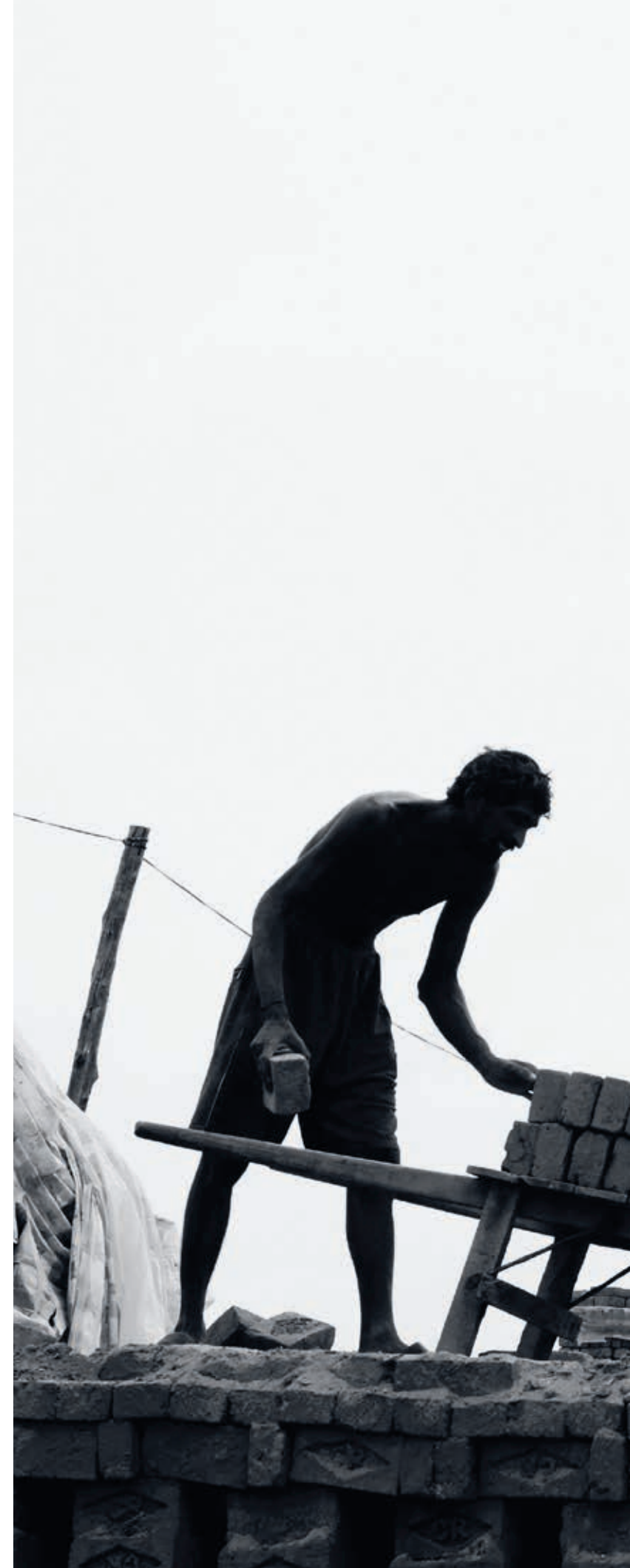


ABOVE

Mapping of high-risk areas, including brick kilns, to make sure they are included in house-to-house vaccinations

RIGHT

A child is vaccinated at a brick kiln in Hapur district in Uttar Pradesh. Seasonal workers and their children live on-site during the dry months, then move on, making them vulnerable to missing out on the vaccine.









Polio vaccinators at work in a slum in Ghaziabad, Uttar Pradesh, watched by a girl living there





LEFT

A child defecating into the sewer as a team of vaccinators passes by in Bhiwandi, Maharashtra. Open defecation is one way the poliovirus spreads

ABOVE

A polio-affected child near Sambhal, Uttar Pradesh



Worker accommodation at a construction site in Ghaziabad, Uttar Pradesh









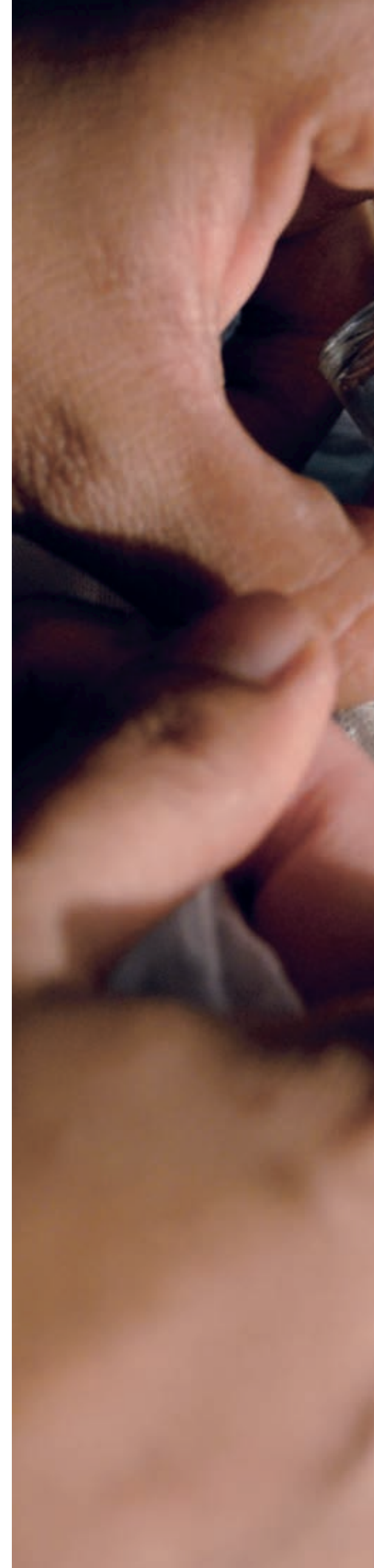
FAR LEFT
Night time vaccinations in Mumbai, reaching children living with their parents on the street

LEFT ABOVE AND LEFT BELOW
Vaccinators seek out children living under flyovers and in makeshift shelters by the street in Mumbai

Newborn tracking

Another innovation in India was the Tracking Every Newborn initiative. With most polio cases occurring in children younger than two, and with more than half a million children being born each month in the then polio-endemic states of Uttar Pradesh and Bihar, it was essential that the polio programme could reach these children before the poliovirus did. In 2005, a system was introduced to identify every pregnant woman and rapidly provide the oral polio vaccine birth dose to every newborn in the polio high-risk areas of Uttar Pradesh and Bihar. Community mobilizers counsel pregnant women on the importance of colostrum feeding and exclusive breastfeeding until six months of age, as well as on registering their children, incorporating them into the routine immunization system, and vaccinating them in every polio round until five years of age. Once a baby is born it is included early in the polio campaign microplans and the routine immunization system.

A newborn baby is given its first dose of the oral polio vaccine





Monitori and

ng Evaluation

The polio eradication programme in India is strongly data-driven and evidence-based, with extensive monitoring and evaluation of almost all aspects of the programme. Armed with this data and the programme's mantra of focusing on the missed child, the vaccinators, supervisors and community mobilizers draw up action-oriented community-level microplans ahead of rounds based on programme needs.

During the round, vaccinators and community mobilizers fill in tally sheets showing the number of children vaccinated, with this data cross-checked by block and district-level supervisors, and collated at the end of the day for analysis at nightly government-led evaluation meetings at block, district and state levels. Independent monitors follow vaccination teams to ensure houses are being correctly marked and that all children are vaccinated as claimed. UNICEF and Rotary monitors check whether campaign materials are being properly displayed and all other communication efforts are being carried out as they should be. At the end of each round this data is analysed for necessary improvements in advance of the next round.







PREVIOUS PAGE

Vaccinators in New Delhi filling in forms

ABOVE

A Block Mobilization Coordinator supervising the work of two Community Mobilization Coordinators, on Booth Day in Moradabad, Uttar Pradesh

RIGHT

Checking records during vaccine distribution in Mumbai



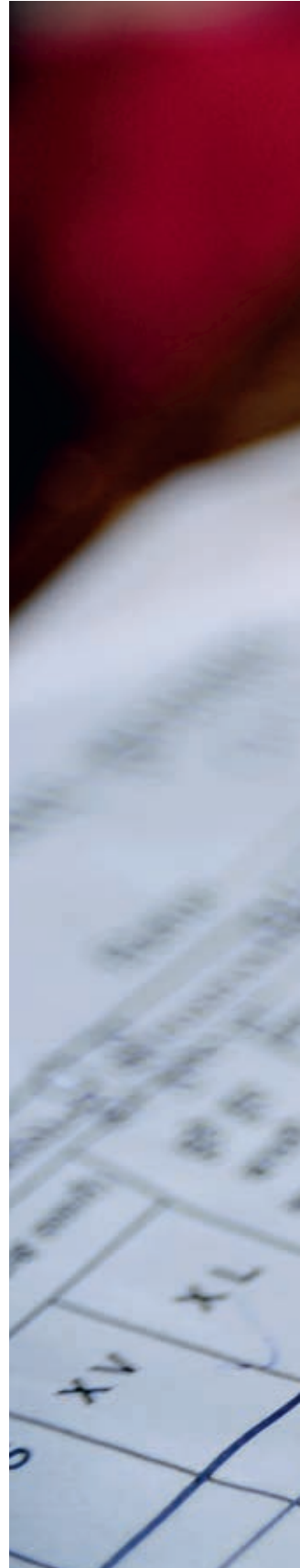


RIGHT ABOVE
A supervisor monitors activities on Booth Day at Moradabad, Uttar Pradesh



RIGHT BELOW
An evening debriefing meeting at the District Magistrate's Office in Malegaon, Maharashtra

FAR RIGHT
Tally sheets and empty vials at Booth Day in Moradabad, Uttar Pradesh





Social Mob

A major element of the polio programme's success has been building trust and support, and persuading underserved and marginalised communities to take part in the government's polio immunization rounds.

ilization

In 2001, the Social Mobilization Network began, organised by UNICEF and joined later by the NGO umbrella CORE Group. It aimed to mobilize communities in polio's highest-risk areas. At that time, resistance to the vaccine was running as high as 20% in some Muslim communities in the state of Uttar Pradesh. Rumours had taken hold that the polio vaccination rounds were part of a secret push to sterilize Muslim children, and that the vaccine itself contained ingredients that were haram, or not permitted under Islamic law. A sustained and concerted effort was required to educate these communities about the safety and importance of the oral polio vaccine, and to build up trust and a sense of local ownership of the programme. Thousands of community mobilization coordinators (CMCs) were recruited from their communities and trained to go from house-to-house to teach parents about the importance of polio vaccination.

CMCs are supervised by Block Mobilization Coordinators, who are in turn supervised by District Mobilization Coordinators and Sub-regional Coordinators. In all, more than 9,000 community mobilizers, coordinators and supervisors are working in the polio high-risk areas of Uttar Pradesh, Bihar and West Bengal. Mostly women, known and trusted in their own communities, each CMC visits an average of 350-500 homes before and in between polio rounds, encouraging parents to ensure polio vaccination for their children, and recording the location and immunization status of all children under five in a dedicated field book. The CMC then draws on this information to ensure all children in her area are immunized, even children visiting from other areas. These community mobilization efforts have ensured nearly total community ownership of the programme, with less than 1% of families on average refusing polio vaccination in areas where CMCs are based.

As well as dealing with resistance, the Social Mobilization Network has been able to use its local knowledge and position within communities to improve the quality of immunization rounds in remote, difficult to reach areas. Locally based CMCs ensure parents are informed about an upcoming immunization round, and actively track the location of children so they are not missed. In the agricultural expanses of the Kosi River basin, it was once common for up to 14% of children to be missed by the polio vaccinators. Now, in 2014, less than 1% are missed.





LEFT

A Community Mobilization Coordinator uses a flipbook to give polio and other health messages inside a home in Meerut, Uttar Pradesh

ABOVE

A Community Mobilization Coordinator visiting a home in Meerut, Uttar Pradesh



ABOVE

A Community Mobilization Coordinator uses a flipbook to give polio and other health messages at a mothers' meeting in her area

RIGHT

A mothers' meeting in Agra, Uttar Pradesh



Religious engagement

An important part of social mobilization, and a major game-changer for India's polio programme, has been winning the support of religious leaders and engaging them as long-term advocates for polio vaccination. In 2002 Muslims represented 57% of children affected by polio in Uttar Pradesh, but only 17% of the state population. At that time, Muslims made up less than one-sixth of India's population, yet a Muslim child was five times more likely than a non-Muslim child to have not received even one dose of the oral polio vaccine. It was the impetus for the Underserved Strategy to be launched in 2003, setting out to engage Muslim communities.

Religious leaders started to become an integral part of the polio programme, taking responsibility for ensuring their communities understood the importance of polio vaccination. Partnerships were formed with respected Islamic institutions and universities and with hundreds of mosques and madrassas across polio's highest-risk areas. An Ulema Council of Muslim leaders was organised by Rotary, bringing together a range of sects in the name of fighting polio.

Today, announcements are made from more than 90% of mosques across western Uttar Pradesh before and during an immunization round, urging parents to immunize their children against polio. Imams and Hajjis often personally inaugurate polio booths, giving the first drops of oral polio vaccine to a newborn baby to launch the round. Religious leaders give written appeals and fatwas, providing reassurance that the oral polio vaccine is safe and important to give to children. And religious leaders actively participate in persuading refusal families, returning with vaccinators and community mobilizers to houses, convincing the families to reconsider.

Transit vaccination teams attend large festivals of Hindus, Muslims and Sikhs, and campaign materials line the routes of annual pilgrimages, to ensure children of all religions are reached when on the move. During key festivals, such as Holi and Diwali, special immunization campaigns are held to reach those families who have returned to their villages of origin before they climb back on trains and buses and return to their place of work.





LEFT
A religious leader speaking in favour of polio vaccination at a social advocacy meeting near Kolkata, West Bengal

FAR LEFT
A polio banner strung across the street during a rally for Urs-e-Razvi at Bareilly, Uttar Pradesh





Polio banners hang outside a mosque, after Friday prayers in Patna, Bihar

A social mobilizer (left) and a local religious leader (right) after a successful pre-round meeting in Patna, Bihar





Working with influencers

The polio programme engages key community influencers – religious leaders, local doctors, school teachers or local-level politicians – to promote polio vaccination in their communities and to help tackle any resistance to the vaccine. In Muslim communities, these influencers are often Hajjis - senior men who are respected because they've made the pilgrimage to the Haj, or Mecca. These Hajjis and community influencers are oriented on the facts about the poliovirus and the campaign. They are called together for influencers meetings prior to rounds when they are reminded of the importance of their roles, and their names and numbers are added to the microplans. When families refuse the vaccine, these influencers are quickly called upon to join the afternoon re-visit team, going with the vaccinators and community mobilizers to convince the families to accept the vaccine to protect their children against the poliovirus.

A senior medical officer trying to convince parent to accept the polio vaccine for his child, in Malegaon, Maharashtra





Surveillance Laboratory

Surveillance reporting sites are in every block, in every district across India. A key factor of the success of polio eradication in India has been a highly sensitive and accurate system of detecting poliovirus cases through the acute flaccid paralysis surveillance network, where suspected polio cases have been quickly reported, investigated and tested in the laboratory network.

e and Network

The National Polio Surveillance Project (NPSP) was launched in India in 1997 by the World Health Organisation (WHO) in collaboration with the Government of India. Almost 350 Surveillance Medical Officers (SMOs) are stationed across India, supported by an extensive reporting network of almost 40,000 public and private health facilities - local doctors as well as traditional health practitioners, or quacks. Whenever a child in India suffers any form of paralysis, the local health department and SMO are alerted by identified informers or medical officers. Two stool samples are collected from the child 24 hours apart, and the samples transported by cold chain to one of

eight WHO-accredited government laboratories across the country, where they are tested for poliovirus. Results are known in around two weeks, determining if the child has polio or not. If a case is confirmed, extensive genetic sequencing takes place to determine which case the sample is most closely related to, and to allow the programme to trace how the virus is moving. In addition, a detailed epidemiological investigation is done which helps decide the scale of the immunisation response.

NPSP also conducts environmental surveillance for the poliovirus, regularly testing sewage samples from several sites in Delhi, Mumbai,

Patna, Kolkata and Punjab and sending them to government laboratories for examination. With the sites carefully chosen according to their high-risk for polio and population density, this environmental testing provides extremely sensitive information about whether any poliovirus is circulating in the area. It also helps the programme track the movement of the virus. India's last case of wild poliovirus, in Howrah, West Bengal, for instance, was most closely related not to transmission in neighbouring Murshidabad, but to an environmental sample collected 1,500 kilometres away in north Delhi.

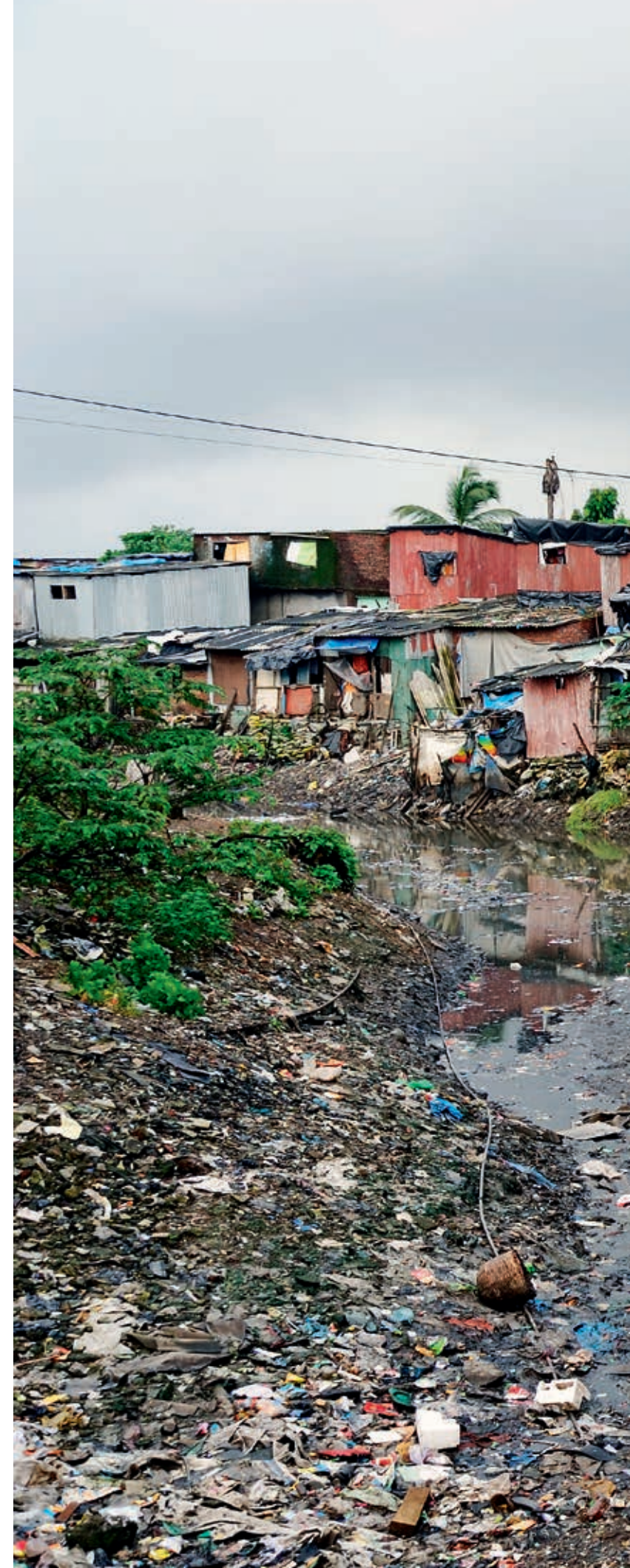


ABOVE

A child in Hapur district, Uttar Pradesh is examined as part of testing of all cases of Acute Flaccid Paralysis

RIGHT

A site in Mumbai, Maharashtra, where a water sample is taken each week and tested for the poliovirus









FAR LEFT
Frontline workers are instructed on stool sample collection at Amritsar, Punjab

LEFT ABOVE AND LEFT BELOW
Testing for the poliovirus at a government laboratory in New Delhi

Media

A comprehensive media strategy has been rolled out across India, working closely with national and local media organizations to ensure accurate and informed reporting about polio and to build long-term advocates who will actively promote immunization rounds. It uses celebrity star power to capture the attention and the imagination of India's children, parents and caregivers, and is consistently high-impact with the polio campaign's colourful branding.

Strategy

Working with celebrities and media

Celebrities have played a highly valuable role in announcing campaigns and convincing the parents across the country to vaccinate their children. Bollywood megastar Amitabh Bachchan became the UNICEF Ambassador for Polio in 2002 and began to feature in television and radio advertisements broadcast across India ahead of polio immunization rounds. He and other celebrities such as Shah Rukh Khan and Amir Khan made famous the campaign tagline 'Do boond, zindagi keh' or 'two drops of life'. People across India quote it and hold up two fingers as they say it, just as they've seen their superstars do, signifying the two drops of oral polio vaccine used to immunize a child.

Over the years, many other major celebrities have featured in polio advertisements, including Indian cricket players who compete with Bollywood in popularity. Sachin Tendulkar and other famous cricketers have taken part in the 'Bowl Out Polio' campaign. Cricket stars and

teams have endorsed the polio programme, appearing in television advertisements and publicising polio immunization messages at major international games.

Frequent engagement with editors and reporters of local and language dailies, popular among target populations, has helped counter rumours in the community and ensured positive reporting on polio. Advertisements featuring religious leaders or paediatric associations appealing to parents to immunize their children are placed in newspapers in target areas, and community mobilizers carry the advertisement with them as a tool to persuade parents to accept the vaccine. Radio has proven most effective for communicating with migrant groups, who may not have access to television and are often illiterate. During a polio immunization round, radio jockeys are encouraged to remind parents of the round through news snippets, song and drama.



RIGHT ABOVE

Bollywood star Amitabh Bachchan, Polio Ambassador, launching a polio communication campaign

RIGHT BELOW AND FAR RIGHT

World famous Indian Cricketers Anil Kumble (right below) and MS Dhoni (far right) take part in the 'Bowl Out Polio' campaign



Branding

Most people in India, even those living in remote parts of the country, recognize the colours of the polio campaign – bright pink, yellow and blue – along with the campaign materials and logo, ‘My child, every time, until five years of age’. Ask any parent from Moradabad in western Uttar Pradesh what the pink number nine signifies on a yellow polio banner and they will tell you that ‘Polio Sunday’ will be held on the 9th, when they must take their child to the polio immunization booth. In the lead-up to an immunization round, the posters and banners pasted and strung up in public places in the villages and cities across India, especially in high-risk areas, are easily recognised. Special banners, posters and other campaign materials have been developed targeting migrant groups, using local dialects and special slogans such as ‘wherever you go, wherever you are, ensure polio vaccination for your child up to five years’.

Polio posters near Kolkata, West Bengal





আপনার শিশুর সুস্থ ভবিষ্যত নিশ্চিত করুন আজই

সেপ্টেম্বর ৯ সিতंबर
পোলিও রবিবার

আপনার শিশুকে পোলিও রোগ থেকে রক্ষা করুন।
বছর পূর্ত পোলিওর টিকা প্রতিবার খাওয়ান।

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World Health Organization CDC UNICEF

Commitm Partnersh

ent and ips

Stopping transmission of polio in India has required unprecedented political and financial commitment from the Government of India.

The Government has owned, led and funded the programme resolutely, with technical support from polio partners WHO, Rotary International, UNICEF, and the US Centers for Disease Control and Prevention, CORE and the Bill & Melinda Gates Foundation. In addition, other bilateral donors have made essential contributions, including the World Bank and government aid agencies from the United States, the United Kingdom, Japan, Canada and Germany.

Each partner has clearly defined responsibilities: the Government of India directs, implements and funds the polio campaigns, NPSP carries out disease surveillance and research, and

supports health authorities in operating and monitoring the campaign, and UNICEF is the lead agency for communication and social mobilization. Rotary is responsible for advocacy and fundraising, and also provides untold volunteer and financial support across the country, supporting printing of campaign materials, booth incentives and providing marker pens to mark children's fingers, as well as hosting health camps during supplementary immunization activities. Over India's journey from 200,000 polio cases each year to zero, the Government of India has invested more than USD\$2 billion in polio eradication - more than any other national government.



ABOVE
Pre-round meeting at Patna in Bihar

RIGHT
A State Government Minister, Haider Aziz Shafi, 'flags off' a bus adorned with polio vaccination messages in Kolkata, West Bengal





ABOVE

A district level partnership meeting at Darbhanga, Bihar

RIGHT

A 'polio gate' in the Kosi River region of Bihar, erected by the elected local representative to the Panchayat Raj Institute, local government



The Final 107 B1

To tackle the virus in its last bastions, the 107 Block Plan with a convergence of health initiatives was introduced in the highest risk blocks.

Inch: ock Plan

By 2009, despite significant gains, India still recorded almost half the world's cases of polio, with 741 of 1,604 cases globally. More than 80% of these cases were persistently occurring in just 107 blocks of Uttar Pradesh and Bihar, 66 of them in Uttar Pradesh. In these small but enduring reservoirs of poliovirus, it became clear that the polio programme needed to tackle the underlying factors behind poliovirus transmission.

Poor sanitation, poor nutrition and a high incidence of diarrheal events meant the oral polio vaccine was not being given the chance it needed to replicate in the gut in order to work. In response, the Government of India implemented the 107 Block Operational Plan. Firstly, human and financial resources were concentrated in these 107 blocks of persistent

transmission to ensure that all immunization campaigns were of the highest possible quality. The programme introduced multiple strategies to address the underlying factors contributing to ongoing poliovirus transmission; poor water and sanitation, open defecation, a high incidence of diarrhea and low routine immunization coverage. The Social Mobilization Network was concentrated in these blocks and focused on providing convergent 'polio plus' messages on the need for full routine immunization coverage, colostrum feeding, exclusive breastfeeding until six months of age, the four essential times to wash your hands with soap, and the use of oral rehydration salts and zinc for the treatment and prevention of diarrhea. The 107 Block Plan had an immediate and profound impact, with these blocks recording no wild poliovirus transmission within 12 months.





LEFT
A community mobilizer promoting routine immunization, giving an RI card to record vaccination against all childhood vaccine-preventable diseases

ABOVE
Water pump in Moradabad, Uttar Pradesh

The Last

On 13 January 2011, in a small village in West Bengal, a two year old girl was paralyzed by polio. No one knew then that she would become India's last polio case.

Case

In the front yard of her family's mud brick and bamboo hut, Rukhsar Khatoon looks at first like most of the other small children in the rural village of Shapara, in Panchla block, just one hour's drive from Kolkata. But Rukhsar walks with a slight limp and she cries if she tries to run. "It hurts when she walks. She can't run, she goes slowly," says her father, Abdul Shah.

After hundreds of years and tens of millions of cases, Rukhsar is the last child in India to be paralyzed by polio. When the vaccination teams had knocked on her door, Rukhsar's older brother was immunized, but she and her older sister missed out – victims of her parents' incorrect belief that because she had a bout of diarrhea at the time, she should not receive the vaccine. On 13 January, 2011, despite never having left her village, poliovirus found Rukhsar, rendering her left leg swollen and flaccid. She was rushed to hospital and in time, her case was confirmed as positive for wild poliovirus type 1.

Funding from Rotary International ensured Rukhsar received physiotherapy which has enabled her to walk with a limp, but her mother, Zubeida Bibi, is still haunted by regret. "Had I known, I wouldn't have made this mistake," she says. Rukhsar's father has become an active advocate for polio vaccination. During immunization campaigns he goes from house to house in his and surrounding villages, to convince parents to vaccinate their children. "I go and explain to everyone that what happened to my child should not happen to any child again," says Abdul Shah. "When polio is eradicated it will be good for me, good for other children, and good for other parents. I am confident it will happen," he says.





Rukhsar Khatoon, India's last polio case, with her father Abdul Shah in her village in West Bengal



Children at a village near Kolkata
in West Bengal



Maintainin

Getting to zero polio cases was the first challenge, maintaining it at zero and preventing importation remains an ongoing challenge. The Government of India and partners remain vigilant against the very real threat of a poliovirus importation.

g Zero

After Rukhsar Khatoon's case in January 2011, ensuring there were no further cases remained a national priority. In April 2011, India declared polio as a public health emergency, resolving to respond to any case of poliovirus anywhere in the country with high speed and intensity. All 35 states and union territories strengthened and prepared emergency preparedness and response plans, which are continually updated. A 200 member Rapid Response Team was put in place. After a tense year of trepidation and high alert, never knowing if another case may come, on 13 January 2012, India cautiously celebrated the first anniversary of its last case. One month later it was officially removed from the WHO's list of polio endemic countries.

In October 2012, there was a false alarm, when a suspected case of polio demonstrated India's capacity to respond with record speed of within four days.

The second anniversary of the last polio case in India was celebrated in early 2013 with

restrained enthusiasm. Further concerns were raised with news of outbreaks of polio across the world including in countries that had not seen the virus in years. However, after three years with no new case, India proudly celebrates three years of freedom from polio, paving the way for regional certification by the WHO.

Despite this historic progress, the risk of polio persists in India, with continuing poliovirus transmission in neighbouring countries and outbreaks across the world. Globally since 2000, as many as 49 countries that had been polio-free have suffered from one or more importations of wild poliovirus. The Government of India and partners remain vigilant against this very real threat of an importation from the remaining endemic and re-infected countries. To mitigate the risk of importation from across the border, vaccination posts have been set up at 102 locations along India's international borders. Travellers to and from the endemic and re-infected countries are being requested to take the polio vaccine before coming to India.

Maintaining zero polio has given impetus to addressing broader health issues in India. Convergent programmes such as those in the 107 Block Plan are being implemented by the polio programme network, with strategies and awareness raising to address the underlying factors contributing to poliovirus transmission, including poor water and sanitation, open defecation, diarrhea and, especially, the low routine immunization coverage. Boosting routine immunization strengthens immunity overall, as well as ensuring children continue to be vaccinated against polio. The government has invested in strengthening public health initiatives, investing more than USD\$15 billion, including in The National Rural Health Mission, and positioning over 800,000 Accredited Social Health Activists (ASHAs) across the country, to support community health initiatives including the polio eradication programme. State governments are capitalizing on the polio surveillance and social mobilization networks, and other networks, to strengthen routine immunization and convergent health initiatives.



RIGHT ABOVE

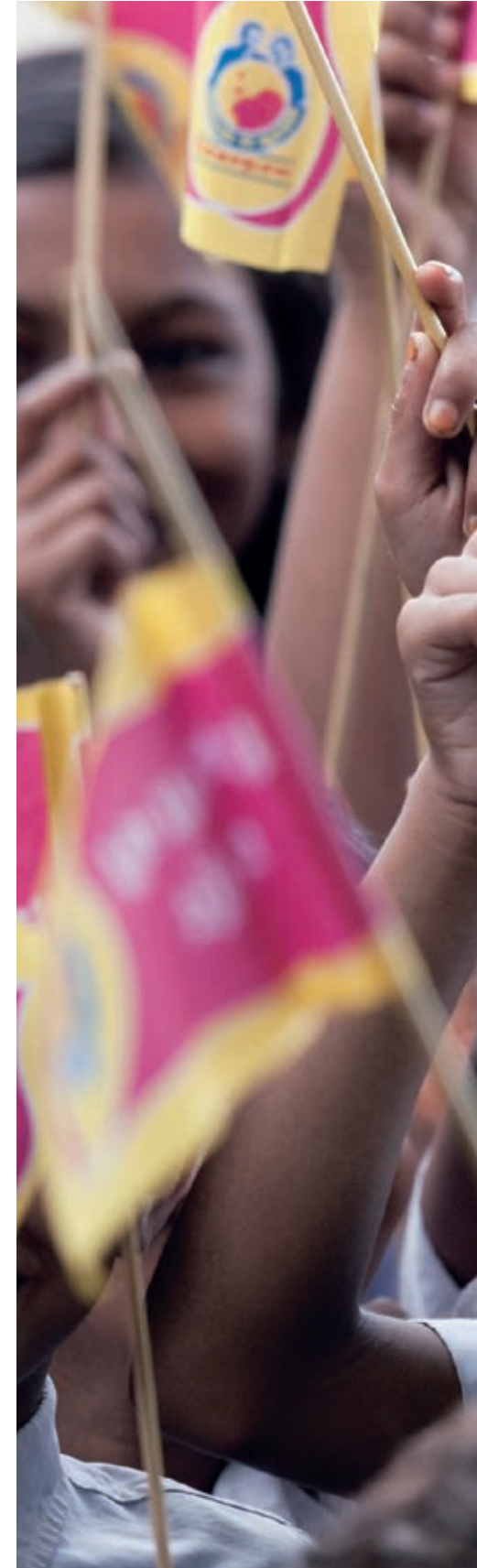
India is removed from the list of polio endemic countries by the WHO in February 2012. WHO global polio head Bruce Aylward (left) with Government of India Union Health Minister Ghulam Nabi Azad (right)

RIGHT BELOW

Government of India Additional Secretary, Health and Family Welfare, Anuradha Gupta, holds a press conference to mark two years since India's last polio case.

FAR RIGHT

A proud India celebrates three years without polio.





India has stamped out the poliovirus and is committed to ensure that it does not return to cripple any child anywhere in India. It remains vigilant against the risk of polio importation, until the whole world is free from this debilitating disease. There is no let up in efforts to reach every child with two drops of life.

The photographers



Anindito Mukherjee

Anindito Mukherjee is a New Delhi based photojournalist who has worked for Reuters and the India Today group. His pictures have appeared in Time Magazine and The New York Times. He went to Amritsar, the Wagah border and Ludhiana in the Punjab, and to New Delhi to take the photographs for this project.



Graham Crouch

Graham Crouch is an award-winning photographer from Australia living in New Delhi and working across South Asia. His pictures appear in newspapers including The Australian, The New York Times and The Guardian. For this book he travelled to Kolkata in West Bengal, Meerut in Uttar Pradesh and New Delhi.



Sandeep Biswas

Sandeep Biswas is a New Delhi photographer whose work has featured in art exhibitions around the world, as well as in magazines, journals and newspapers. He has won several significant awards and fellowships and also teaches photography. His work for this project took him to New Delhi, Moradabad in Uttar Pradesh, and Mumbai, Bhiwandi and Malegaon, Maharashtra.



Sephi Bergerson

Sephi Bergerson is an Israeli-born photographer who has lived in India since 2002 and has been photographing the Indian polio programme since 2004. His images appear in many books and he has won several international awards. His photographs for this project were taken in Patna, Darbangha, Jogbani and Khagaria, all in the state of Bihar.



Tim Georgeson

Tim Georgeson is a multi award-winning photographer, film maker and creative director. His work has been published in magazines including Vogue, Rolling Stone, The New York Times Magazine and National Geographic, and has been exhibited around the world to critical acclaim. He has won two World Press Awards. For this project he travelled to Delhi and Agra, Ghaziabad and Moradabad in Uttar Pradesh. He provided creative direction with Lopez Design for the creation of this book.

Credits



Pg 11
Anindito Mukherjee



Pg 15
Graham Crouch



Pg 17
Graham Crouch



Pg 18
Sandeep Biswas



Pg 19
Graham Crouch



Pg 21
Sephi Bergerson



Pg 22
Tim Georgeson



Pg 24
Sephi Bergerson



Pg 25
Anindito Mukherjee



Pg 27
Anindito Mukherjee



Pg 28
Anindito Mukherjee



Pg 29
Sandeep Biswas



Pg 30
Graham Crouch



Pg 31
Graham Crouch



Pg 32
Graham Crouch



Pg 33
Graham Crouch



Pg 34
Graham Crouch



Pg 34
Graham Crouch



Pg 35
Graham Crouch



Pg 36
Graham Crouch



Pg 36
Graham Crouch



Pg 37
Graham Crouch



Pg 39
Sephi Bergerson



Pg 40
Tim Georgeson



Pg 41
Sephi Bergerson



Pg 42
Sephi Bergerson



Pg 43
Sephi Bergerson



Pg 44
Graham Crouch



Pg 45
Sandeep Biswas



Pg 47
Tim Georgeson



Pg 48
Sephi Bergerson



Pg 49
Sephi Bergerson



Pg 50
Sephi Bergerson



Pg 51
Sephi Bergerson



Pg 51
Sephi Bergerson



Pg 52
Tim Georgeson



Pg 54
Sephi Bergerson



Pg 54
Tim Georgeson



Pg 55
Tim Georgeson



Pg 56
Anindito Mukherjee



Pg 57
Anindito Mukherjee



Pg 59
Sandeep Biswas



Pg 60
Sandeep Biswas



Pg 60
Sandeep Biswas



Pg 61
Sandeep Biswas



Pg 62
Sandeep Biswas



Pg 63
Sandeep Biswas



Pg 64
Sandeep Biswas



Pg 65
Sandeep Biswas



Pg 67
Tim Georgeson



Pg 68
Tim Georgeson



Pg 69
Tim Georgeson



Pg 71
Tim Georgeson



Pg 72
Tim Georgeson



Pg 73
Tim Georgeson



Pg 75
Anindito Mukherjee



Pg 77
Anindito Mukherjee



Pg 79
Anindito Mukherjee



Pg 81
Sandeep Biswas



Pg 82
Anindito Mukherjee



Pg 83
Anindito Mukherjee



Pg 84
Sandeep Biswas



Pg 85
Tim Georgeson



Pg 86
Tim Georgeson



Pg 86
Tim Georgeson



Pg 86
Tim Georgeson



Pg 87
Tim Georgeson



Pg 88
Sephil Bergerson



Pg 89
Sephil Bergerson



Pg 90
Tim Georgeson



Pg 91
Sephil Bergerson



Pg 93
Sandeep Biswas



Pg 95
Sephil Bergerson



Pg 96
Sandeep Biswas



Pg 96
Sandeep Biswas



Pg 97
Sandeep Biswas



Pg 101
Tim Georgeson



Pg 102
Sandeep Biswas



Pg 102
Sandeep Biswas



Pg 103
Graham Crouch



Pg 104
Graham Crouch



Pg 106
Tim Georgeson



Pg 107
Tim Georgeson



Pg 108
Sandeep Biswas



Pg 108
Sandeep Biswas



Pg 109
Sandeep Biswas



Pg 110
Anindito Mukherjee



Pg 111
Anindito Mukherjee



Pg 112
Anindito Mukherjee



Pg 112
Sadique Ahmad



Pg 113
Sadique Ahmad



Pg 115
Sephi Bergerson



Pg 116
Sephi Bergerson



Pg 118
Sephi Bergerson



Pg 120
Sephi Bergerson



Pg 121
Sephi Bergerson



Pg 122
Sephi Bergerson



Pg 122
Sephi Bergerson



Pg 123
Sephi Bergerson



Pg 124
Sephi Bergerson



Pg 125
Sephi Bergerson



Pg 127
Sandeep Biswas



Pg 128
Tim Georgeson



Pg 129
Tim Georgeson



Pg 130
Tim Georgeson



Pg 131
Tim Georgeson



Pg 132
Sandeep Biswas



Pg 133
Tim Georgeson



Pg 134
Tim Georgeson



Pg 135
Tim Georgeson



Pg 136
Sandeep Biswas



Pg 137
Sandeep Biswas



Pg 137
Sandeep Biswas



Pg 139
Sandeep Biswas



Pg 142
Anindito Mukherjee



Pg 144
Sandeep Biswas



Pg 145
Sandeep Biswas



Pg 146
Sandeep Biswas



Pg 146
Sandeep Biswas



Pg 147
Sandeep Biswas



Pg 150
Graham Crouch



Pg 151
Graham Crouch



Pg 152
Graham Crouch



Pg 153
Tim Georgeson



Pg 154



Pg 155
Graham Crouch



Pg 156
Sephi Bergerson



Pg 159
Sephi Bergerson



Pg 161
Sandeep Biswas



Pg 164
Tim Georgeson



Pg 165
Sandeep Biswas



Pg 166
Anindito Mukherjee



Pg 167
Graham Crouch



Pg 167
Graham Crouch



Pg 170



Pg 170



Pg 171



Pg 173
Graham Crouch



Pg 176
Sephi Bergerson



Pg 177
Graham Crouch



Pg 178
Sephi Bergerson



Pg 179
Sephi Bergerson



Pg 182
Gurinder Osan



Pg 183
Tim Georgeson



Pg 186
Graham Crouch



Pg 187
Graham Crouch



Pg 189
Graham Crouch



Pg 192



Pg 192



Pg 193
Graham Crouch





INDIA'S STORY OF TRIUMPH OVER POLIO brings you behind the lens of five photographers to show India's remarkable journey from having half of the world's polio cases to celebrating three years of freedom from the disease.

In order to stop the world's most aggressive reservoir of poliovirus, practically every last child in this vast country needed to be found and reached with the oral polio vaccine, or 'two drops of life'. It is a challenge that India embraced mobilizing over two million vaccinators to reach nearly 170 million children under five in each national campaign, 'the polio round'.

This triumph over polio in India is due to the strong commitment of the Government of India, its polio partners and, above all, the tireless hard work of millions of frontline workers – vaccinators, community mobilizers, and community health workers – who continue to implement innovative strategies and to keep polio out of India. Together, they stayed the difficult course to arrive at what is arguably India's greatest public health achievement, by focussing on the one child missed with equal passion as the 99 who were vaccinated.

