

# Putting Immunisation at the Heart of Health Systems

RESULTS

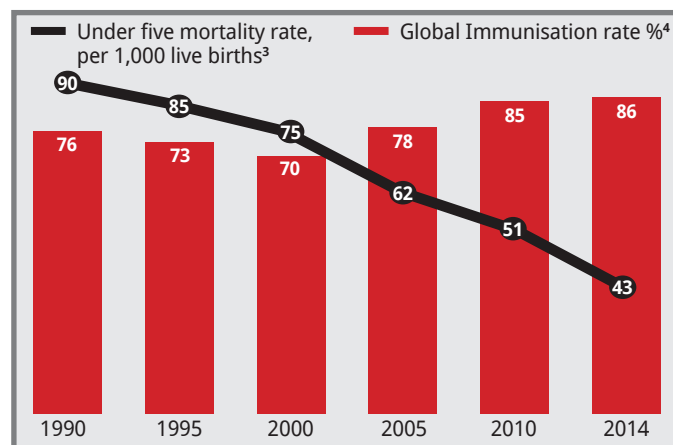
## Why is immunisation important?

**Vaccines work** – 2 – 3 million lives are saved every year through immunisation.<sup>1</sup> Smallpox, once a deadly infectious disease, was the first disease to be eradicated due to global vaccination efforts; with continued political will polio could become the second.

**Economic benefits** – Every US\$1 invested sees US\$16 saved.<sup>2</sup> Immunisation doesn't only result in protection for the individual, but provides wider health and economic benefits for society. Healthier children perform better in school and suffer from less health complications, enabling their long-term economic output to increase. Demands on the health system are also lowered making investment in immunisation a sensible investment.

**A driver for equity** – For the strongest societal benefits, every child must be reached with essential vaccines. This means reaching the poorest and most marginalised, who are often the hardest to reach in society and missed by health services. Strong national commitments to routine immunisation drive a comprehensive and universal approach to service delivery and ensure that no one is left behind.

**Increases in levels of routine immunisation have had a positive impact on the decline in under-5 mortality rates.**



**KEY ACTOR: Gavi, the Vaccine Alliance** – Created in 2000, Gavi is an international partnership with the goal of creating equal access to vaccines for children living in the world's poorest countries.<sup>5</sup> It has helped to prevent more than 7 million future deaths by vaccinating over half a billion children.<sup>6</sup>

**'Countries should roll out the interventions that are most cost-effective and have the most effect on disease burden. You get the interventions out with maximum coverage. Then, when there are more resources, you do the next one and then the next, building up until you have a full health system. What's the base of that pyramid? Vaccines.'**<sup>8</sup> **Seth Berkley, CEO Gavi**

## Strengthening health systems via routine immunisation

Children who miss out on immunisation are more likely to miss out on all health interventions. Routine immunisation can strengthen the whole system and increase equitable access to services. Vaccination campaigns and the development of structures and strategies to reach every last child are often one of the baseline services of a primary healthcare system.

**Infrastructure** – The infrastructure required for vaccination campaigns includes, but is not limited to: community health worker or volunteer training, getting medical supplies to the hardest to reach areas, and the infrastructure and policies needed to ensure the temperature controlled supply chain remains safe. These are essential components of a primary healthcare system. Gavi spends 15 – 25% of its finances on strengthening health systems, recognising that 'vaccines do not deliver themselves'.<sup>7</sup>

**Expanded health interventions** – Community health workers delivering immunisations can offer other simple health interventions to some of the most difficult to access communities with minimal extra training. For example, alongside being vaccinated children can be weighed to see if they are malnourished and their mothers can receive basic postnatal care. With greater investment, this can be scaled up to include other interventions which can utilise the already in-place workforce.

**Filling the data gap** – Community workers delivering immunisations in some of the hardest to reach areas are in the ideal position to collect vital health data. They reach communities who are usually excluded from the delivery of health services and have a wealth of knowledge as to who is missing out and why. This data and subsequent analysis informs better

policy and can highlight who is missing from health interventions. It offers the opportunity for national, subnational and regional legislatures to provide localised plans for the health sector.

**Preventative** – By proactively planning to control the spread of disease, health spending is able to budget more securely than reactively responding to infectious epidemics. This allows for better financial modelling and planning for the whole health system.

### CASE STUDY: RWANDA

**Child mortality has fallen by 73% since 1990** as of 2015.<sup>9</sup> A key factor in this success has been prioritising routine immunisation. In 2014, 99% of eligible children were reached with DTP (diphtheria, tetanus and pertussis) vaccine compared to 84% in 1990.<sup>10</sup> This was only achieved with political commitment to reaching every last child and by putting equity at the heart of immunisation policies. Programmes promote immunising in schools, focus on communication and provide incentives for health workers to reach every child.<sup>11</sup> Their HPV vaccination programme targeted girls between 11 and 15 with school-based vaccination followed by tracking and vaccinating out-of-school girls. Designated as educational 'health days', local health-care providers and teachers also discussed topics such as infectious diseases, nutrition and reproductive health having a much wider impact on the health system beyond immunisation.<sup>12</sup>

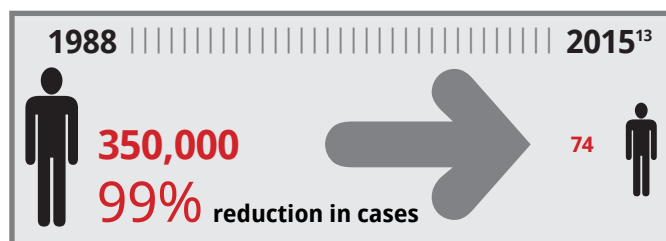
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## Polio: A Case Study

### Polio eradication

Polio is close to being the second disease to ever be eradicated. High immunisation rates are essential to prevent the disease making a resurgence and are a key factor in its near elimination. Millions of health workers and volunteers have focused on reaching every last child with polio vaccines. Even those children who live in the hardest to reach areas, who usually miss out on being vaccinated, were reached. The recent success of elimination of polio from India highlights that even in areas of great land mass with large total and rural populations, high immunisation rates are achievable.



**KEY ACTOR: Global Polio Eradication Initiative (GPEI)** - GPEI have been at the forefront of polio elimination since 1988. It is a public-private partnership which has immunised over 2.5 billion children in 200 countries globally.<sup>14</sup>

### Leveraging the polio legacy for routine immunisation and Health Systems Strengthening

The numbers involved in the battle to eradicate polio are staggering. In India alone, National Immunisation Days saw 2.5 million vaccinators reach 175 million children under five with oral polio drops. For vaccination campaigns to be a success and to reach every last child, GPEI continue to focus on strengthening surveillance, improving the quality of immunisation campaigns and building capacity to respond to outbreaks. This infrastructure can, and should be used, to strengthen routine immunisation and consequently health systems.

**Routine Immunisation** – Polio vaccinators are key personnel in ensuring all children are reached with other essential vaccines. Systems in place for the polio programme are already being transferred and integrated into routine immunisation programmes. One example of success is Bihar, India, where the integration of polio vaccination has helped boost routine immunisation coverage from 31% (2002-4) to over 80% (2012-13).<sup>15</sup> By expanding training programmes and infrastructure to include other vaccines, the legacy of the end of polio can be the eradication of further deadly diseases. The systems for reaching every last child are already there but require strong leadership and investment to transfer them from polio specific activities to wider outcomes to help achieve universal immunisation.

**Health System Strengthening** – Currently, polio vaccinators in the 10 countries with most significant polio assets already spend an average of 54% of their time on other immunisation practices and other health interventions, including nutrition and malaria prevention. GPEI, for example, has distributed 1.3 billion vitamin A doses from 1988 to 2010 with an economic benefit of \$17 billion.

Polio infrastructure and monitoring has also been instrumental in staving off other public health emergencies. In Nigeria, polio infrastructure was utilised to bring the Ebola outbreak under control through replicating the Emergency Operations Centre which was set up in 2012 to combat polio. This meant real-time information could be tracked using monitoring systems developed to track polio vaccination.<sup>16</sup>

The polio workforce are already having a considerable impact on in strengthening health systems, but more can be done to ensure the systems, policies and workforce continue to improve immunisation coverage in some of the most marginalised areas of the world. Transferring the knowledge and leave no one behind methods into best practice policies for health interventions is too good an opportunity to miss.

### RECOMMENDATIONS

**We must ensure that all children, regardless of their location, wealth or social status, have access to immunisation and other essential health services.**

#### NATIONAL GOVERNMENTS

- ◆ Prioritise routine immunisation as a fundamental basis of the health system.
- ◆ All government policies for routine immunisation and health must be based on the principle of equity and reaching every child.
- ◆ Make a deliberate effort to build on immunisation systems and infrastructure to strengthen the whole health system.

#### DEVELOPMENT PARTNERS

- ◆ GPEI should ensure a transfer of the polio infrastructure and lessons learned into routine immunisation and wider health services. Donors should support GPEI legacy plans and its goal of polio eradication by 2019.
- ◆ Gavi should continue and increase its investments in health system strengthening as a way of supporting equitable immunisations, as well as the wider health system.
- ◆ Multilateral agencies, donor governments and civil society organisations should recognise and take advantage of the opportunity that routine immunisation has for equity and health system strengthening.

#### Footnotes

1 WHO Global Immunization Data, 2015.  
2 [www.gavi.org/about/mission/facts-and-figures/](http://www.gavi.org/about/mission/facts-and-figures/)  
3 UNICEF, A Promise Renewed 2015.  
4 WHO, Global Health Observatory data repository.  
5 [www.gavi.org/about/](http://www.gavi.org/about/)

6 [www.gavi.org/about/mission/facts-and-figures/](http://www.gavi.org/about/mission/facts-and-figures/)  
7 Alan R. Weil, Eliminating Vaccine-Preventable Diseases Around The World as part of Health Affairs, February 2016.  
8 Alan R. Weil, Eliminating Vaccine-Preventable Diseases Around The World as part of Health Affairs, February 2016.  
9 UNICEF, A Promise Renewed 2015.  
10 World Bank, World Development Indicators Database.

11 WHO, Fulfilling a Promise 2016.  
12 WHO, Bulletin 2012.  
13 [www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx](http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx)  
14 [www.polioeradication.org/AboutUs.aspx](http://www.polioeradication.org/AboutUs.aspx)  
15 Indian District Level Household and Facility Survey 2012-13.  
16 Lessons from polio to Ebola as part of The Lancet, Infectious Diseases, Volume 15, No. 8, August 2015.