

## Vaccination Saves Lives

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Vaccination as a public health intervention has proved to be one of the most successful examples of cost-effective prophylactic program to control many of the infectious diseases in the world. It has prevented innumerable childhood diseases and averted disabilities by protecting children from debilitating diseases [1]. 'Close the Immunization Gap' was this year's theme for World Immunization Week celebrated from 24th to 30th April 2015. After successful eradication of small pox, we have embarked on to the journey to eradicate poliomyelitis from the earth, and we are almost at it. Deaths from measles have declined by 71% worldwide [2]. This has been possible only because of immunization. These programs have changed the picture of public health, and it has been possible only because of the collective and cohesive effort of our world leaders to unite and contribute, irrespective of their political and social systems or levels of their development.

However, our achievements are far from the full potentials of immunization. Between 2009 and 2013, immunization coverage has increased from 61% to 65%, indicating only 1% annual increase. A World Health Organization study on immunization coverage published in 2014 revealed that global vaccination coverage – the proportion of the world's children who receive recommended vaccines – has remained steady for the past few years.

Unfortunately, one-fifth of the world's under-five mortality occurs in India, and a substantial number of these deaths are due to vaccine preventable diseases. Even though we have managed to have a wider use of vaccines in the last decade resulting in prevention of infectious diseases, we still can do much more by ensuring that everyone can access immunization. A coverage evaluation by WHO and UNICEF estimated that 87%, 73%, 70% and 74% of the children in India till the age of 24 months were vaccinated with Bacillus-Calmette-Guerin (BCG) vaccine, three doses of oral polio vaccine (OPV) and Diphtheria-Pertussis-Tetanus (DPT) vaccine, and a dose

of measles vaccine, respectively [3]. A 13% drop from BCG to measles shows that a significant chunk of children in contact with service providers miss out on subsequent doses.

Another factor particular to our country is the disparity in the vaccine converges in different states. Nearly 25% of our unvaccinated and partially vaccinated children are in the eighty-two districts of the four states of Bihar, Uttar Pradesh, Madhya Pradesh and Rajasthan [4]. This disparity can be addressed only by a concordant attempt at strengthening routine vaccination in these districts. Geographical diversity and cultural divergence is a major issue to be tackled tactfully. Our migrant population has been a challenge and we should develop a long term plan to include them.

The *Mission Indradhanush* launched by the Government of India aims to immunize all children against seven vaccine preventable diseases (diphtheria, whooping cough, tetanus, polio, tuberculosis, measles and hepatitis B) by 2020. Indian Academy of Pediatrics (IAP) has been strong advocate of immunization, and pledges its support in this endeavor of the ministry. Building up a sound epidemiological database, developing a surveillance system and encouraging self reliance in vaccine production should be our strategies for achieving good vaccine coverage. Our monitoring system for reporting and following up adverse events following immunization (AEFI) has to be streamlined and strengthened for any evidence-based decisions. IAP has been part of the government's AEFI program, and has also set up a web-based reporting system wherein the members can report vaccine preventable diseases and AEFI. This voluntary reporting system will help establish a robust surveillance system for vaccine preventable diseases and AEFI in future.

Our community leaders should be made aware of the life-saving role of immunization programs, and strategies should be planned with them as partners. Our health workers should be trained in communication skills to motivate population groups with high dropout rates, and in

areas hitherto unvaccinated. IAP always accorded a high priority to vaccines and vaccination issues. A subcommittee with complete autonomy has been assigned the task of framing recommendations on childhood vaccines and issues pertaining to immunization. Let us step-up our efforts to achieve immunization's full potential and thereby a healthier nation.

#### REFERENCES

1. Levine OS. The future of immunisation policy implementation and financing. *Lancet*. 2011;378:439-48.
2. Simon E. Assessment of the 2010 global measles mortality reduction goal; Results from a model of surveillance data. *Lancet*. 2012;379:2173-8.
3. WHO and UNICEF India. WHO and UNICEF Estimate of Immunisation Coverage 2013 Revision. Available from: [http://www.data.unicef.org/fckimages/uploads/1421190746\\_india\\_rev\\_13\\_FINAL..pdf](http://www.data.unicef.org/fckimages/uploads/1421190746_india_rev_13_FINAL..pdf). Accessed June 15, 2015.
4. International Institute for Population Sciences (IIPS) and Macrointernational. National Family Health Survey (NFHS-3) 2005-2006. Mumbai: IIPS, 2008.

