PRESIDENT'S PAGE

School Age Immunization: The Need of the Hour

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It has been forty-three years since the WHO declared the complete eradication of smallpox in the world – a tremendous victory attributed entirely to the intensified, large-scale vaccination programs across the world. Polio has been similarly eliminated from many countries in the world, including India, and occurrence of other vaccine preventable diseases (VPDs) has dramatically reduced over the last few decades in the country. Unfortunately, some of these diseases continue to exist in large numbers in the developing world. India is one of the ten countries where a measles outbreak was reported in late 2022, and early 2023 [1]. Other VPDs, such as enteric fever, hepatitis A, diphtheria, chickenpox and cervical cancer continue to exist in alarming numbers in our country. In fact, a third of all global deaths due to VPDs occur in India [2]. While we have made rapid strides to catch up with the developed countries on several parameters, time has come to also focus on the vaccination of children beyond two years. Even in our NFHS data collection the emphasis is given on vaccination status of infants and toddlers only up to 12-23 months of age and I find it extremely disheartening that we lag behind on large scale immunization beyond the age of toddlerhood. Although, vaccine uptake amongst infants is widespread in the private sector in India, it is a known fact that vaccine immunity wanes over time and thus, booster shots are required in the successive years of childhood. India lacks a comprehensive strategy to improve coverage of childhood immunization beyond infancy and toddlerhood, and this is a significant deterrent to eliminating, or at least reducing, the incidence of VPDs in India.

As is the case for most public health issues, delay in immunization is the consequence of both demand and supply side limitations, and is a more severe issue in remote geographies and impoverished populations, migrants and urban slums, which rely on public health facilities for healthcare. On the demand side, parental resistance due to religious beliefs, lack of awareness and community-level fear-mongering (more so on social media these days) are all documented factors behind vaccine delays. Although India's Universal Immunization Program (UIP) provides free vaccination for children aged below 12 years, there are significant vaccination delays compounded by the reporting and monitoring on immunization data at the ground level. Government initiatives incentivizing institutional births have indirectly improved the administration of the BCG vaccine, Hepatitis B and birth dose of OPV, which has more promising data as opposed to the DPT-1 vaccine, which is given six weeks after birth. Once the infant leaves the facility, it becomes more logistically taxing to ensure subsequent vaccinations. ANMs at the village level are expected to go through birth records and prepare lists of all children due for vaccinations, and handover these lists to ASHA workers to mobilize them at the Village Health Nutrition and Sanitation Day. This process is labor intensive and prone to human error. It is also a well-known fact that frontline health workers such as ASHAs and ANMs are already overburdened as they execute several other health initiatives of the government, immunization only being one of them. Despite these hardships, considering the huge geographical area and population cohort, the efforts of the state and central governments for successfully implementing Mission Indradhanush over the past several years is certainly laudable. Immunization protects not only the vaccinated child, but also furthers herd immunity for the entire community. Thus, it is imperative to step up our immunization efforts.

School entry booster vaccination is the link between infant vaccination and adolescent vaccination. It boosts the immune response in these children and helps restore the immunity gap. Impact of introduction of pertussis containing DTP vaccine at school entry in Norway was seen with 65% reduction in pertussis cases from a median of 204 per 100,000 cases between 1997 and 2005, to 71 per 10000 cases between 2008 and 2016, in 5- to 11-year-old children [3]. The same has been concluded from a clinical effectiveness study of influenza vaccination in Japan in children aged 1 to15 years, where influenza vaccines were very effective in reducing its secondary complications. In India, schools and anganwadis are the perfect touchpoint for monitoring immunization status, and improving the coverage for consecutive rounds of post-infancy vaccination. Checking vaccination status of each child

during admission to school allows an opportunity to identify children that have missed their first dose of BCG or DPT or any other routine vaccine, especially from amongst those born at home, or from hard-to-reach geographies. Through greater collaboration between the Ministries of Women and Child Development and Health and Family Welfare, the former can collect data through checks at entry, while the latter can plan for mop-up vaccination drives in the areas where the data on immunization is particularly worrisome. Parent-teacher meetings at schools are also a great platform for health workers to disseminate accurate and scientific information about vaccines, allowing for detailed discussions and myth-busting with a larger audience as opposed to one-on-one counselling in a clinical set up, which is rarely sufficient. Checking of vaccination status at entry or milestones at childcare, pre-school or primary school is a strategy that has been widely recommended by the World Health Organization (WHO) and others as a way to improve coverage of routine vaccinations. A comprehensive school-based approach to deliver immunization services and improve vaccination coverage in school-aged children is consistent with the Global Vaccine Action Plan (GVAP) [4] and Immunization Agenda 2030 (IA2030) [5] strategic priorities to establish platforms for life course vaccination.

India currently does not have a national or state level policy to involve schools in routine immunization programs. Of the 194 member states at the WHO, 135 implement a vaccination check at entry to, or during, at least one level of school in 2018 [6]. I recognize that there could be a small but unwanted side-effects to such a policy, such as an increase in the rate of out-of-school children, where parents chose to keep the children at home rather than get them vaccinated. As socio-cultural beliefs still play a big role in day-to-day decision making in India, I would recommend that the policy be tweaked: instead of making vaccination a barrier to entry, we use it exclusively as a way to improve data and monitoring of immunization history. Similarly, instead of referring the child to a health facility, we use this data to improve follow-up at VHND (village health and nutrition days) or through a regular immunization outreach program at the school. We have many vaccines available for the school aged children which are not part of the national UIP as of now, like influenza, hepatitis A, varicella, mumps, HPV, TdaP, typhoid etc. Though many parents can afford to give these time-tested vaccines to their children, probably they are not as aware of them as the other well-known vaccines. School authorities checking the vaccination status at the preprimary, primary and secondary school or a pediatrician addressing a school parent teacher meeting, can definitely make an attempt to increase the mass awareness on VPDs.

India has undoubtedly made significant strides in reducing child mortality. However, hundreds of thousands of toddlers still die every year of preventable and treatable diseases. Taking lifesaving vaccines to every child is logistically feasible, if the right will be shown at the policy level. IAP, through its SAKSHAM program, is also incentivizing school drives for vaccinations. With immense gains for child health, and public health immunity at large, it is time we step up the focus on vaccinations from birth till 18 years of age and make other VPDs a word of the past, much like we did with smallpox and polio.

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