

Recording of hepatitis B birth dose in national family health surveys in India: A pressing need

The National Family Health Survey (NFHS), a multi-round large-scale survey conducted throughout India to provide essential data on health and family welfare needed by the Ministry of Health and Family Welfare (MoHFW) and other agencies for policy and programme purposes,^[1] was first conducted in 1992–93. During 2019–20, aside from providing evidence for the effectiveness of ongoing programmes, NFHS-5 captured data from around 6.1 lakh households which helped in identifying existing lacunae, the need for new programmes with an area-specific focus and identifying population groups that are most in need of essential services.

This data also helps establish indicators which can aid in achieving the World Health Organization (WHO) Sustainable Development Goals (SDG) by 2030, an important one being combatting hepatitis as a part of goal 3.3. These indicators are updated continuously and NFHS-5 had some additional topics that included expanded domains of child immunisation.^[2] Under the section “Child Vaccinations and Vitamin-A Supplementation”, the NFHS records the number of children who have received BCG vaccine and three doses of pentavalent or hepatitis B vaccines in children between the ages of 12 and 23 months.

Despite hepatitis B birth dose (BD) being provided under the National Immunisation Schedule, it is puzzling as to why this very important indicator is not recorded under the NFHS. It is more baffling because of the fact that while there is an equal opportunity for providing BCG vaccine and hepatitis B BD with respect to timing, manpower and resources, only BCG immunization data is being recorded; hepatitis B BD is not.

Although the WHO has recommended that starting from 2009, all newborns would receive timely hepatitis B BD irrespective of the mother’s serological status, augmentation of coverage of the timely dose has been slow and heterogenous. As of 2019, only an estimated 43% of newborns had received timely hepatitis B BD vaccine in India (~54% in the WHO SEAR region).^[3] So, clearly, the NFHS is an ideal platform to record this very important indicator.

Lahariya *et al.*^[4] observed that a major reason for low coverage of the hepatitis B BD was the fact that the decision to include birth dose for all institutional deliveries was communicated in mid-2008 (almost a year after vaccine introduction), and it is likely that the information did not trickle down to the field staff, sufficiently and effectively. The fear of high vaccine

wastage in a perpetually resource strapped country like India was another reason for low uptake of hepatitis B BD. Prior to the introduction of open vial policy in India, health staff were often apprehensive in opening a new ten-dose hepatitis B vaccine vial in institutes where only a few deliveries were conducted every day.

Newborns and young children have the highest risk of acquiring chronic hepatitis B virus (HBV) infection. The risk for developing chronic HBV infection varies inversely with age, with newborns having up to 90% risk of developing chronic infection in the future. The risk, while dropping, still remains high during infancy and children between one and five years who have an approximately 30% risk, while those older than five years are at 5%–10% risk of developing chronic HBV infection.^[5]

Hence, recording hepatitis B BD in the NFHS will be pivotal toward the road to elimination of hepatitis as scaling up timely hepatitis B BD vaccination coverage to 90% by 2030 will result in immediate reductions in incidence of chronic HBV cases and the prevalence of hepatitis B surface antigen (HBsAg) prevalence in five-year-olds.^[6]

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Conflicts of interest

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