

Important Vocab For the Editorial

1. **call for** (phrasal verb) – require, need, necessitate/demand.
2. **vaccination** (noun) – treatment with a vaccine to protect against a particular disease; immunization.
3. **prevalence** (noun) – commonness, widespread presence, ubiquitousness.
4. **vaccine** (noun) – a biological preparation that improves immunity to a particular disease.
5. **immunisation** (noun) – the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine. Vaccines stimulate the body's own immune system to protect the person against subsequent infection or disease.
6. **scale-up** (noun) – increase, expansion.
7. **chronically** (adverb) – continuously, constantly, unabatingly.
8. **chronic** (adjective) – persistent, long-term, continuing (or happening again and again for a long time).
9. **premature** (noun) – untimely, early, too soon/too early.
10. liver **cirrhosis** (noun) – a liver condition that causes irreversible scarring on the liver.
11. **pentavalent** vaccine (adjective) – 5-in-1 vaccine; it protects against five major infections: diphtheria, tetanus, pertussis (whooping cough), hepatitis B and Haemophilus influenzae type b (Hib).
12. **pilot** (adjective) – test, trial, experimental (a scheme).
13. **roll-out** (noun) – official launch / introduction.
14. **sub-optimal** (adjective) – below the highest standard/level/quality.
15. **vertical transmission** (noun) – vertical transmission (of viruses) occurs from mothers to their children/offspring during pregnancy, birth, or breastfeeding. In horizontal transmission, viruses are transmitted among individuals of the same generation
16. **puzzling** (adjective) – confusing, baffling, bewildering.
17. **institutional delivery** (noun) – it refers to the facilities like hospitals, trained health care professionals etc. for women for giving birth to child.
18. **incidentally** (adverb) – by chance, accidentally, coincidentally.
19. **account for** (phrasal verb) – constitute, make up, comprise, form.
20. **merit** (noun) – strong point, advantage, value.

A weak chase: On controlling hepatitis B

Controlling the hepatitis B virus calls for universal vaccination of newborns

On September 3, Bangladesh, Bhutan, Nepal and Thailand became the first four countries in the World Health Organization's southeast Asia region to have successfully controlled hepatitis B. The virus is said to be controlled when the disease prevalence is reduced to less than 1% among children less than five years of age. Despite the introduction of hepatitis B vaccine in the Universal Immunisation Programme in 2002 and scaling-up nationwide in 2011, about one million people in India become chronically infected with the virus every year. According to the Health Ministry, as on February 2019, an estimated 40 million

people in India were infected. Hepatitis B infection at a young age turns chronic, causing over 1,00,000 premature deaths annually from liver cirrhosis or liver cancer. A study published in 2013 found lower coverage of hepatitis B vaccine in eight of the 10 districts surveyed. But the coverage has witnessed an increase with the introduction of a pentavalent vaccine on a pilot basis in Kerala and Tamil Nadu in December 2011 and national roll-out in 2014-2015. According to the WHO, the coverage of hepatitis B third dose had reached 86% in 2015. However, despite the high vaccination coverage, disease prevalence in children aged less than five years has not dropped below 1%. One of the reasons for this is the sub-optimal coverage of birth dose in all infants within 24 hours of birth.

Hepatitis B birth dose, given in the first 24 hours, helps prevent vertical transmission from the mother to child. The compulsion to increase birth dose to cut vertical transmission arises from two important reasons — about 70-90% newborns infected this way become chronic carriers of hepatitis B, and about 20-30% carriers in India are due to vertical transmission. But even seven years after the Health Ministry approved the birth dose in 2008, its coverage remained low — 45% in 2015 and 60% in 2016 — according to a 2019 Health Ministry report. What is indeed puzzling is that even in the case of institutional delivery, the birth dose vaccine coverage is low — 76.36% in 2017. Incidentally, institutional delivery accounts for about 80% of all deliveries in the country. The birth dose coverage when delivery takes place outside health-care institutions is not known. One of the reasons for the low coverage is the fear of wastage of vaccine when a 10-dose vial is used. Unfortunately, health-care workers are very often unaware of the WHO recommendation that allows hepatitis B open-vial policy. Opened vials of hepatitis B vaccine can be kept for a maximum duration of 28 days for use in other children if the vaccine meets certain conditions. There is also a need to increase public awareness about the merits of the birth dose.