“Vaccinating Healthcare workers: “Protecting The Care Providers”

Discussion Summary

17 December 2021

Disclaimer

- *This document is a summary document of the discussions held, and results of the survey undertaken during First Roundtable only in the series of seven, which is vaccinating Healthcare Workers in India*
- *Considering the still evolving nature of this document and the remaining roundtables planned on other associated topics, the results and recommendations may be considered prelim at this stage.*

1. Background and Introduction

India has achieved great success in the field of childhood immunization. While the COVID pandemic has heightened attention to adult immunization, our country needs a sustainable Life course Immunization framework to protect it's 90-crore adult population from other similar vaccine preventable diseases (VPDs) like Influenza, Measles, Hepatitis B, Pneumonia, Dengue, Varicella, Tetanus, Rubella and Pertussis.

In more ways than one, HCWs form the fulcrum, which enables delivery of healthcare services to patients and population in general alike. Considering the human resource constraints India has for this segment, policy measures must be designed to safeguard this segment (As done in times of COVID Vaccination also, when the HCWs were being prioritized for vaccine delivery). Further, the HCWs work in proximity with the patients, so they are exposed to increased risk of infection.

Vaccinating HCWs can have multiple benefits ranging from increased productivity of HCWs, reduction in overall burden of the disease, decreased cost of care and an effective disease control and management.

The first roundtable in the series of seven under the theme of ***"Life Course Immunization for Resilient Public Health System"*** was held on 17 Dec 2021, on the topic of ***'Immunization for healthcare workers***' (HCWs) with participation from over 60 leading experts in 4 focused intensive sessions on the following topics:

- Prioritizing vaccines among HCWs
- Financing strategy to cover cost
- Building trust & awareness for vaccinating HCWs
- Policy recommendation to further increase coverage

The HCW roundtable was intended to draw from these pieces of evidence and dwell upon them further. Some of the resultant thoughts, discussions and recommendations are cited in this document.

1.1 Prioritizing vaccine for HCWs:

India has estimated >3 million active HCWs who are at a relatively higher risk of contracting VPDs. Different expert groups and the Technical Advisory Forum have advised prioritized various vaccines as per the strength of the evidence.

Considering the diverse nature of HCWs and the heterogeneity of their functions, as part of this breakout session, an effort was undertaken to categorize HCWs in different segments and then explore the optimal set of vaccines that can be prioritized for these segments. Other than prioritizing the finite resources, the same is expected to help develop a standardized framework which can help drive further adoption. The results of this exercise are shown below:

Category of HCWs	Recommendations	Additional Remarks
1. **HCWs in direct contact with blood & body contact** – doctors (including vets), nurses, dentists, students, allied HCWs like nursing aids, physiotherapists	Mandatory: Hepatitis B, Influenza, TDAP High Priority: Pneumococcal**, Varicella	For vaccines that are part of childhood immunization program like MMR seroprevalence may be checked. JE/Dengue/malaria maybe considered in hot spots^. **Pneumococcal to be given to at-risk and above 50 years.
2. **HCWs in indirect contact with blood & body substances** – lab technicians, and housekeeping, kitchen & catering staff	Mandatory: Influenza, TDAP, Meningococcal* High Priority: Pneumococcal**, Varicella	*Meningococcal to be prioritized for all lab-workers. Kitchen & catering staff maybe prioritized for typhoid vaccine. **Pneumococcal to be given to at-risk and above 50 years
3. **HCWs not in contact with blood or body substances -**Non-clinical staff, administration, parking, security	*Influenza, pneumococcal & meningococcal	*Non-clinical staff working in ICU may be considered for influenza, pneumococcal & meningococcal due to increased risk
4. **Community & grass-root workers –** Asha, Anganwadi & others	Hepatitis B, TDAP, Influenza, Meningococcal, Hepatitis A	Vaccine priority should be based on occupational risk based on category of grass-root worker

TDAP – Tetanus, Diphtheria, Pertussis – booster dose every 10 years, MMR – Mumps, Measles, Rubella.
^Vaccines for vector borne diseases (both at present and upcoming) like JE, Dengue, malaria may be considered for all HCWs in the hotspots.

As a follow up to the discussion, additional considerations are being explored linked to vaccines that are part of childhood immunization program like MMR. For these vaccines, booster dose maybe considered for all HCWs at risk or decision to vaccinate may be taken based on sero-positivity status.

1.2 Building trust & awareness for vaccinating HCWs:

Lack of awareness & hesitancy among HCWs limit vaccine coverage among them. Limited vaccination coverage can have a significant impact on the health of HCWs and the patients they come in contact. A review of literature presented diverse set of reasons, in accordance with the degree of misconceptions about adult vaccination, which limit their adoption. Multiple recommendations have also been given by different expert groups on how these misconceptions can be alleviated.

A part of this break-out session deliberated on some of these misconceptions in detail, importantly, to identify the most significant reasons amongst them. As a follow up, certain recommendations were also discussed which can help mitigate these misconceptions.

Barrier (In order of importance[1])	Details	Recommendation
Low knowledge & awareness	Low awareness on risk & benefits of vaccination and efficacy & side effects of vaccine	**Educational Activities**: Seminars & workshops on vaccine awareness, preventable diseases, benefits of vaccination to stimulate interest and encourage HCWs throughout medical colleges & healthcare institutions
Optimism bias & complacency	Low perceived risk of contracting infection	
Vaccine apathy	Disinterest and weak attitude around vaccination leading to assigning low priority to personal immunization	**Sensitization and education** on personal occupational safety for HCWs in the medical curriculum
Low confidence on data efficacy	India specific data about vaccine induced sero-protection & sero-conversion, as well as vaccine applicability to India-specific genetic variants	**Studies and data analysis** on safety, risk, efficacy, disease prevalence, risk-benefit in Indian HCWs to address concerns about safety/efficacy/risk perception of vaccines
Not mandated by Government	No mandatory recommendation from Government	**Dedicated Immunization center** in all major healthcare institutes as 'One stop shop' to promote vaccination to improve HCW's access to vaccines without having them spend additional time to travel
Not mandated by employer	No mandatory recommendation from employer	
Lack of access	Difficulty in accessing vaccine, loss of time and travel to vaccination centers	
Cost	Cost of vaccine & opportunity cost of missed work	**Recommendation on cost covering strategy** (section 1.3)

1.3 Blueprint for financing vaccine for HCWs:

Different modes of financing for HCW vaccination exist in different countries, namely, the govt., employers, private insurance. Considering the fragmented nature of Indian payor landscape, and the high out-of-pocket-expenses (OOPE), it is important to find an acceptable cost-covering strategy for vaccinating HCWs.

Towards this endeavour, the group aligned on certain principles that should form the basis of this cost strategy. The experts recommended that vaccines maybe considered as a public good

[1] Barriers appearing first are believed to have a higher impact than the ones appearing later in the list

where a good cost strategy would be to minimize occurrence of OOPE (Out of pocket expenditure). Further, considering that insurance is largely done for insurable events (where risk or probability of event happening is attached), the role of commercial insurance companies is to explore in special settings. Emphasis was also laid on leveraging technology like ABDM to track and ensure HCWs are vaccinated.

Based on these principles, it was recommended that vaccines can be categorized in different segments, and this can help guide the nature of payor who can bear the cost. A summary of these recommendations is as given below

Work environment	Vaccine Type	Recommendation on Cost Strategy
Institutional setting (For Ex. Hospitals)	Mandatory & post exposure vaccines*	• Primary employer's responsibility to enforce • Payment can be made by the employer or state body
	Optional & voluntary vaccines	• HCWs themselves can pay or co-pay (HCW + employer) • Insurance premium incentive for vaccinated HCW may be considered
Non-Institutional setting (For Ex. Pvt clinic, nursing home)	All vaccines	• Medical associations like IMA can cover the cost via membership fee • Tax incentives maybe considered for vaccines in high priority category

**post exposure vaccines like Anti-Rabies vaccine*
***This recommendation is limited to vaccinating HCWs, possible financing strategies to cover non-HCW adult population will be discussed in consecutive round tables.*

1.4 Policy recommendations for augmenting the coverage among HCWs:

The optimal policy architecture for India should consider the available human and technical resource infrastructure to widen the acceptance across the board. Hence, a focused discussion on policy recommendations was important and the recommendations are summarized below.

It was recommended by the experts that to incorporate vaccines as a safety measure for HCWs, we need to define "healthcare worker" as a profession & "vaccine preventable diseases (VPDs)" as an occupational hazard.

Policy Recommendations	Details on implementation & desired stakeholders
Educational activities – Seminars, workshops on awareness & benefits of vaccination	National programs continued medical education (CMEs), information education communication (IEC); activities can be implemented at medical colleges and healthcare institutions organized by institutional & college authorities.
India specific data analysis on safety, risk, efficacy, disease	National bodies like ICMR can take steps towards India specific data availability & expert bodies like IMA can recommend

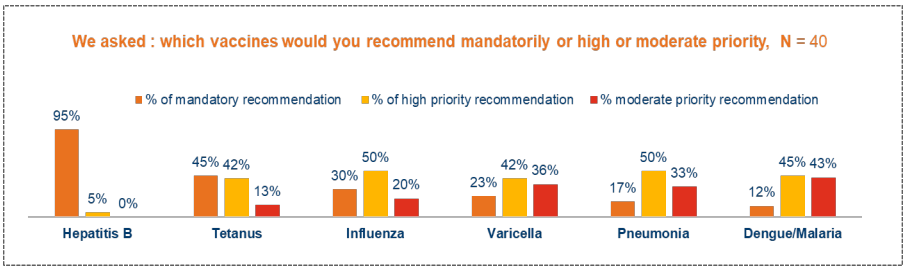
prevalence, risk-benefit to address concerns about safety/efficacy/risk perception of vaccines	based on that evidence, followed by NTAGI's informed recommendations to the government.
Sensitization on personal occupational safety in medical curriculum	Medical curriculum authority can add a chapter on "occupational safety" to the medical curriculum of all HCWs categories; this will help sensitize HCWs when they are young - "Catch them young".
Adult Immunization Center in healthcare institutes ***'One stop shop'*** *to* promote vaccination	Healthcare institutes can set up an immunization centre within the institute premises to encourage vaccination for HCW employees. This will ensure HCWs get easy access to vaccine at the onset & throughout the duration of their employment.
Cost sharing by institutions – cost incentivization by HR of all hospitals after Govt mandate. This may also be considered as a part of NABH Accreditation	Government can mandate HCWs as profession & VPDs as occupational hazard. Once this is mandated, employers can direct HRs to create a contributory fund & incentivize HCWs to get vaccinated. Accreditation agencies like NABH can further add this as part of their assessment to encourage widespread implementation in institutions.
Message magnification by role models	Programs by senior doctors/celebrities can be done at healthcare institutes to create mass exposure on adult vaccination & such programs can be covered by media for widespread coverage.

2. Summary of Survey Results:

Survey responses were obtained from 40 experts representing 37 unique organizations. Respondents across various roles in healthcare institutions; clinician leaders, senior administrative personnel, clinical research professionals and leading medical affairs experts.

The survey contained questions on vaccine priority, risk categorization, barriers & mitigating strategy, financing model & evidence required to further drive vaccination. Respondents belonged to the following broad designations.

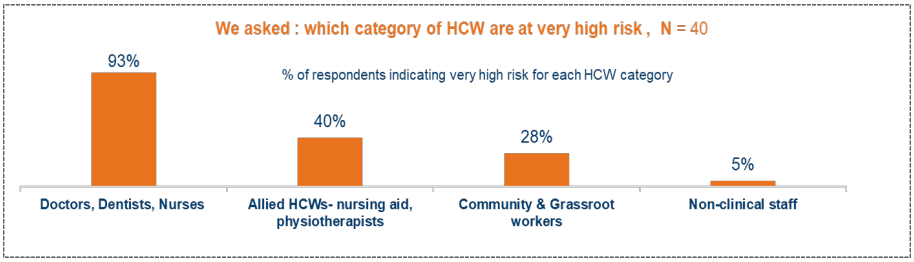
2.1 Response to vaccine priority:



Respondents felt Hepatitis B followed by Tetanus (TDAP) and Influenza are most mandatorily recommended while Pneumonia, Influenza, Dengue/Malaria are recommended as high priority

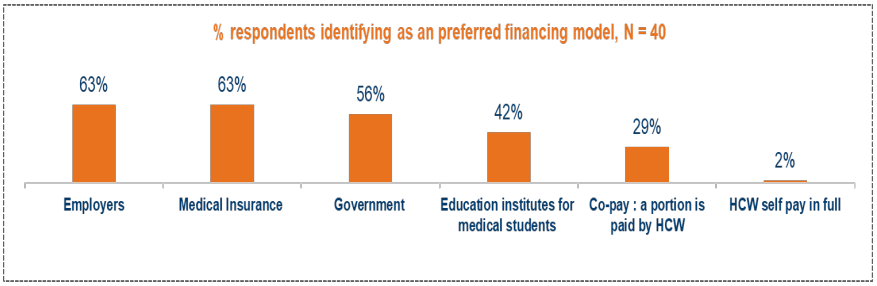
2.2 Response on risk categorization of HCWs:

Respondents feel Clinical HCWs (doctors, nurses), followed by Allied HCWs & finally Community workers are considered at very high risk



2.3 Response on implication of vaccinating HCWs: 95% respondents felt vaccinating HCWs has an effect on patient outcomes of which 90% felt HCWs can transmit VPDs to patients and other HCWs, while 78% felt HCWs can encourage their patients to take vaccines and ~70% felt vaccinating HCWs will prevent absenteeism due to illness from VPDs and also protect their families from VPDs

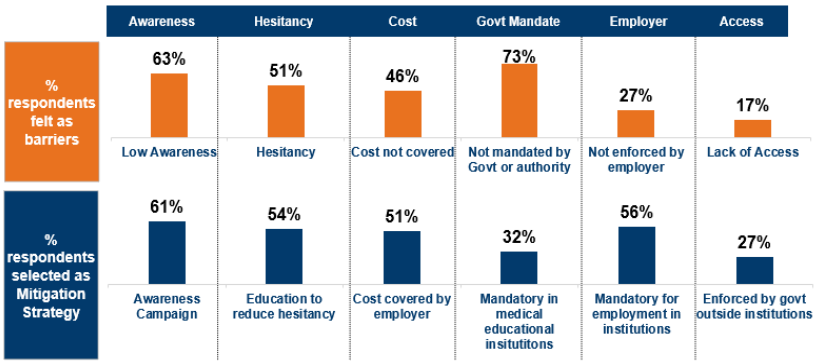
2.4 Response on acceptable financing model for vaccination HCWs:

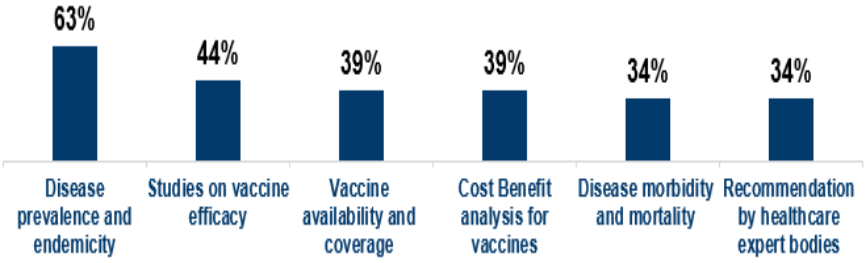


~60% of the respondents felt that Employers, Insurance & Government should pay for HCW immunization

2.5 Response on barriers & their mitigating strategy:

- Respondents identified not mandated by govt., low awareness and hesitancy as the key barriers
- Awareness campaigns, mandating for employment and Education to mitigate hesitancy were identified as the top 3 mitigation strategies to further increase coverage





2.6 Response on data evidence required to further increase coverage:

63% of respondents felt data on disease prevalence and endemicity while 44% felt studies on vaccine efficacy and 39% felt data on vaccine availability and cost benefit analysis for vaccines will help enhance coverage

Annexure : List of participants

- **Dr Harmeet Singh,** Joint Secretary, Ministry of Health & Family Welfare
- **Dr Randeep Guleria**, Director AIIMS Delhi
- **Prof Y K Gupta,** President AIIMS Bhopal and AIIMS Jammu
- **Rajeev Sadanandan, CEO,** Health Systems Transformation Platform Tata Trust, Former Principal Secretary Health, Kerala
- **Col. Dr. K. Venkatnarayan,** Officer on Special Duty (Health), Niti Ayog
- **Dr K Madan Gopal,** Senior Consultant- Niti Ayog
- Dr. **Sandhya Kabra,** Additional Director & HOD, Biotechnology Division, National Centre for Disease Control,
- **Dr Parvaiz Koul,** Professor & Head, Internal & Pulmonary Medicine; Sher-i-Kashmir Institute of Medical
- **Dr Jayesh M. Lele,** Hony. Secretary General, Indian Medical Association
- **Dr Damodar Bachani,** Deputy Project Director, John Snow India Pvt. Ltd.
- **Dr Navin Thakkar,** President Elect, International Pediatric Association
- **Dr Pankaj Bhardwaj,** Dean (Offg) Research, Nodal Officer, Adult Vaccination Center, Additional Professor of Community Medicine & Family Medicine, Coordinator, School of Public Health (SPH), All India Institute of Medical Sciences (AIIMS), Jodhpur
- **Dr Girdhar Gyani**, Director General, Association of Healthcare Providers of India
- **Dr Arvind Singh Kushwaha**, Additional Professor Community Medicine, AIIMS Nagpur
- **Dr Shabnam Singh,** Board Member, Healthcare Sector Skill Council, NSDC, Founder member of Max Healthcare Institute Ltd
- **Air Commodore V K Sashindran VSM,** Previously: Air Officer Commanding, Air Force Hospital, Kanpur, Now: Dean, School of Medicine, Dr DY Patil Deemed to be University, Navi Mumbai
- **Dr A P Dubey,** Professor of Pediatrics, ESI Post Graduate Institute of Medical Sciences & Research, New Delhi
- **Dr.Lalit R. Sankhe,** Associate Professor and In-charge Adult Immunisation Center, Department of Community Medicine, Grant Medical College and Sir JJ Group of Hospitals Mumbai
- **Ms Thankam Gomez,** Founder CEO, Cygnia Healthcare and Founder President - Association of Nurse Executives (India)
- **Dr Subramanian Swaminathan,** Director, Infectious Diseases, Gleneagles Global Hospital, Chennai
- **Dr Kaushik Sarkar,** India Country Director, Malaria No More
- **Dr Agam C. Vora,** Chest Physician Mumbai, Secretary Elect Association of Physicians of India, General Secretary Academy of Advanced Medical Education
- **Dr. Mangesh H Tiwaskar,** Governing Body Member, Association of Physicians of India (API)
- **Dr Ratna Devi,** CEO and Co-founder of DakshamA Health & Board Chair, International Alliance for Patient's Organization
- **Dr V Ramasubramaninam,** Adjunct Prof, Infectious Diseases Apollo Hospitals Educational & Research Foundation, Chennai
- **Dr Bobby John,** Managing Director, Aequitas Consulting & co-moderated by
- **Dr AmirUllah Khan,** Research Director, Centre for Development Policy and Practice, Hyderabad
- **Dr Nishant Jain,** Programme Director, Indo German Programme on Universal Health Coverage, GIZ India
- **Maulik Chokshi,** Director- Health Systems, Access Health
- **Anil Joseph, Managing Director, Abbott India Limited**
- **Dr sanjay Singh, CEO, Gennova Biopharmaceuticals Limited**
- **Dr Rana Mehta,** Healthcare Industry Leader & Partner
- **Anindya Dasgupta,** Senior Consultant- Healthcare PwC
- **Samhita Bhakta,** Principal Consultant, PwC
- **Dr. Ashwani Aggarwal,** Associate Director, PwC
- **Dr Shobhit Rastogi,** Principal Consultant, PwC
- **Nivedita Mehra,** Managing Director US India Strategic Partnership Forum
- **Dr Chitra Gupta,** Director Healthcare US India Strategic Partnership Forum
- **Industry Experts and Partners**