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Commentary

Routine immunization services in the light of COVID-19 pandemic

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INTRODUCTION

World immunisation week is observed every year in the last week of 24th April to 30th April. Many parts of the world are still reeling under the threats of vaccine-preventable diseases (VPDs) and the importance of vaccination cannot be understated even in times of any other crisis. Worldwide, millions of children are saved from the grip of infectious diseases like polio and measles, and annually, around 2 to 3 million deaths are being averted.[1] Routine immunization services, mass vaccination campaigns, catch up, and mop up sessions through outreach activities form part of the vaccine delivery strategies.

On January 30, WHO declared COVID-19 as public health emergency of international concern, followed by the declaration of the pandemic on March 11. Lockdown measures commenced worldwide since then. Immunization and other routine essential services have been suspended globally by the current COVID-19 pandemic. The need to follow social distancing and the fear among the public of contracting infection, have decreased the utilization of immunization services at the health centers. Procurement of vaccines has become limited due to restrictions in transport and trade. Besides, health care workers are either re-routed to COVID-19 duties or overburdened along with providing routine essential services. This has a tremendous impact on the healthcare system, especially in resource-poor countries.[2,3] Several countries have suspended measles campaigns leaving around 117 million children unvaccinated for measles vaccines in over 37 countries, and millions more as other countries follow suit.[4] Countries like the Democratic Republic of Congo and the Central African Republic are currently having an episode of measles outbreak. This added to the prevalence of malnutrition of children and the contagiousness of the disease will lead to grave consequences. There will be a surge in mortality rates. Global polio eradication initiative has suspended its mass campaigns.[5] Polio endemic countries like Pakistan and Afghanistan that are trying to fight this disease will be the worst hit.

Lessons from the past have shown that immunization of children is necessary for the smooth functioning of healthcare systems too or they will be overwhelmed with consequences later. For instance, in the WHO European region in 2018, 520,000 children did not receive the measles vaccine due to a lax in vaccination. A year later, around 100,000 people were affected by measles, thus exposing the immunity gap in the region leading to a costly affair for the health systems.[6] The global vaccine action plan was endorsed to work through the decade of 2011-2020 for achieving universal access to immunization.[7]

Despite the efforts to achieve targets, WHO immunization data shows that in 2018, 19.4 million infants had not received the basic vaccines.[8] With the immunity gap yet to be covered around the globe, India is no different with 26 million births every year. The need for a steady and organized vaccine delivery mechanism is paramount for saving millions of lives from infectious diseases and sustaining the health care system.[9]

Even the Ebola outbreak in 2014-15 had more deaths due to infectious diseases like malaria, TB, HIV/AIDS than deaths caused by Ebola itself.[10] This gives an important lesson. The emergence of Covid-19 and the furor in

curbing this virus should not result in the outbreak of other vaccine-preventable diseases. WHO has released a set of guiding principles on 26th March 2020 for immunization activities during the pandemic. The recommendations include temporary suspension of mass vaccination campaigns and considering routine immunization services and VPD surveillance after careful risk-benefit analysis by the authorities in the respective regions.[11] This applies across all age groups and subpopulations like pregnant women and the elderly. WHO's strategic advisory group of experts on Immunization, on March 30th also recommended the continuation of routine immunization services wherever possible, despite the cessation of vaccination campaigns.[5]

India, on commencing the lockdown period, has been providing only essential and emergency 'non-COVID' services. Various print media reports are suggesting that healthcare workers are no longer doing community visits or routine immunization drives. Anganwadis and sub-centers have been shut down. The community themselves are boycotting the same. Even TT doses for pregnant mothers are being put on hold.[12] Intensified Mission Indradhanush 2.0 was started in October 2019 by the Indian government to achieve targeted vaccine coverage by March 2020. None of this is going to be met, thus hindering the already lagging vaccine coverage, especially in underperforming states like UP and Bihar.[13] Even the urban slums in cities like Mumbai have many unregistered children in healthcare centers and their parents are unaware of the importance of vaccination. Healthcare workers cannot afford to conduct outreach activities in these areas currently. Resistance or even violence from the community could happen and worse, the workers themselves could be conduits of COVID-19 infection, which could spread like wildfire in the densely populated slums. Advocating routine immunization during this period is due to the assumption that vaccinating children for viral diseases like measles, rubella, hepatitis B, varicella, polio may protect them against COVID-19, as it prevents the virus from invading lung cells by producing cross-reactivity. [14]

WAY FORWARD

The delay in reaching targets set by programs, should not deter rather motivate in continuing the routine immunization services to prevent the emergence of VPDs. The following strategies have been recommended:

- Conducting risk-benefit analysis of each district based on the spread of Covid-19, the strength of the health care system, availability of trained health care workers periodically.
- Mass immunization camps can be done post the lifting of lockdown in areas where a resurgence of VPDs is predicted.
- The availability of trained health care workers and their safety should be ensured by the public health authorities.
- Zero dose vaccines to be given mandatorily in all institutional births.
- Catch-up vaccination sessions can be initiated as soon as conditions are favorable.
- Immunization sessions should be conducted based on fixed appointments to prevent overcrowding with just one accompanying person.
- Parents should be educated to visit the nearest immunization centers and avoid visiting hospitals if they/any member of the family is showing symptoms of COVID-19 infection.
- Personal protective equipment should be made available and used by all healthcare workers even during outreach sessions. Other preventive measures like social distancing, hand hygiene, regular disinfection of health centers should be followed.
- Multiple sessions catering to a smaller number of beneficiaries can be conducted and necessary funds and logistics should be provided in this regard to them.
- The existing vacancies in the health system should be filled up and if required fresh appointments can be made on a contract basis to increase workforce capacity.
- Health education activities regarding the importance of vaccination should be continued and can be clubbed with health promotion activities related to COVID-19.

To conclude, appropriate conduct of routine immunization services is necessary to decrease mortality and morbidity due to VPDs. Prevention of infectious diseases with special focus on COVID-19 is to be undertaken, to keep up to the theme of immunization this year, i.e. protected together #VaccinesWork.

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