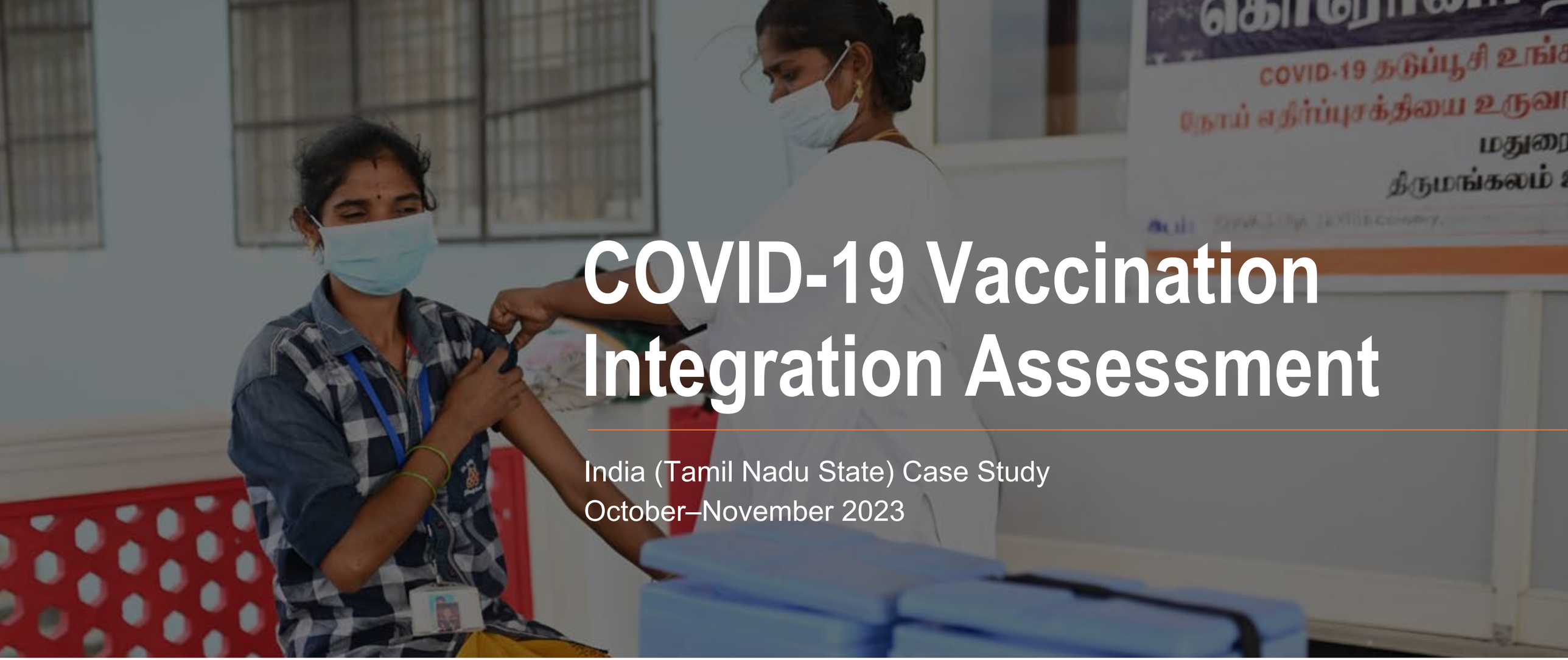


COVID-19 Vaccination Integration Assessment

India (Tamil Nadu State) Case Study
October–November 2023

HEALTH SYSTEMS STRENGTHENING ACCELERATOR

RESULTS FOR DEVELOPMENT

USAID FROM THE AMERICAN PEOPLE

MOMENTUM A Global Partnership for Health and Resilience

Table of Contents

Background

Background and Rationale

- Despite progress in COVID-19 vaccine introduction, **coverage remains suboptimal** globally.
- By April 2023, overall population coverage:

Low-income countries: 26% fully vaccinated[1]

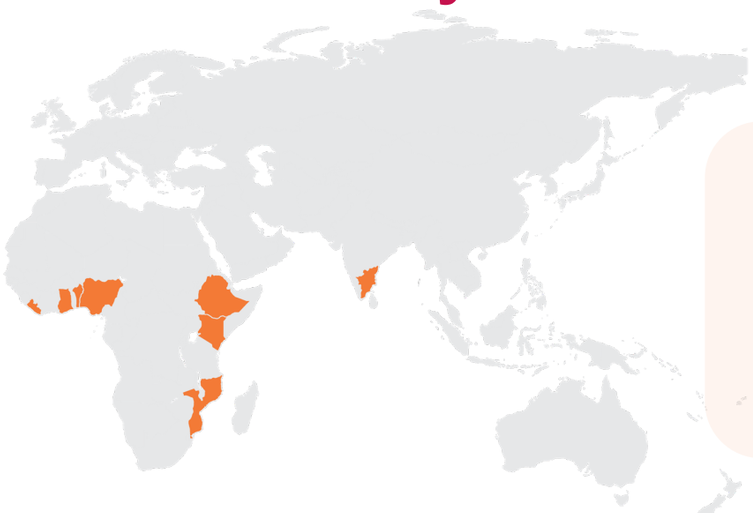
Lower middle-income countries (LMICs): 61% fully vaccinated

- WHO declared an end to COVID-19 as a public health emergency on May 5, 2023.
- Countries anticipate **waning financial, technical, and vaccine support** from external partners as the pandemic transitions.
- **Integration*** is identified as a key **strategy for ensuring the long-term sustainability of COVID-19 vaccination.**
- This report will generate evidence concerning **how LMICs have and are planning to integrate COVID-19 vaccination** with health systems.

[1] Source: GAVI. 2023. COVID-19 vaccine coverage continues to increase in lower-income countries. https://www.gavi.org/vaccineswork/covid-19-vaccine-coverage-continues-increase-lower-income-countries#:~:text=Gavi's%20latest%20COVAX%20data%20brief,a%20global%20average%20of%2066%25

**by integration, we mean: the degree to which COVID-19 vaccination has been or will be integrated with other components of the health system in terms of governance, management, service delivery, procurement, supply chain, information systems, financing, and service delivery—including integration with other essential health services (e.g., antenatal care [ANC], human immunodeficiency virus [HIV], noncommunicable diseases [NCDs], routine immunization [RI]).*

Multi-Country Assessment Methods and Scope



Seven country assessments in:

Benin	Liberia
Ethiopia	**India (Tamil Nadu state)**
Ghana	Mozambique
	Nigeria

Country selection criteria:

- Innovators in integration.
- Performance on COVID-19 vaccinations and routine immunization.
- USAID target or Pfizer priority countries.
- Geographic contexts.

Data collection:

Key informant interviews with stakeholders involved in implementing integration activities and in broader health system strengthening efforts:

- Ministry of Health, COVID-19 task force officials.
- Expanded Program on Immunization (EPI)/ National Immunization Technical Advisory Group members, heads of COVID-19 vaccination units at subnational levels.
- Development partners/agencies.
- Civil society organizations, implementing partners, public, private providers, academics, etc.

Focus group discussions with health care workers, community mobilizers.

India Background

COVID-19 Vaccine Procurement in India*

- The Government of India procured 75 percent of COVID-19 vaccines produced by manufacturers in the country.
- Procured vaccines were provided free of cost to the states and Union Territories (UTs).
- The allocation of vaccine doses to states and UTs was based on population, disease burden, and the progress of vaccination.
- States and UTs administered vaccines free of cost to identified priority groups through government vaccination centers.
- Domestic vaccine manufacturers could sell vaccines directly to private hospitals, restricted to 25 percent of their monthly production, at prior declared prices.
- The private hospitals could charge up to a maximum of Rupees 150 per dose (~ USD 2) as a service charge.

* Revised Guidelines for Implementation of National COVID Vaccination Program. Ministry of Health & Family Welfare, Government of India, June 2021. https://www.mohfw.gov.in/pdf/RevisedVaccinationGuidelines.pdf

COVID-19 Vaccination Rollout Timeline

Jan '21 — Healthcare and frontline workers

Mar '21 — Elderly (>60 years) and people (45–60 years) with underlying comorbidities

Apr '21 — People > 45 years

May '21 — All residents >18 years

Jan '22 — Children 15–18 years

Mar '22 — Children 12–14 years

Online Portals to Facilitate Management and Delivery of COVID-19 Vaccines

COVID-19 Vaccine Intelligence Network (CoWIN) Portal

- Launched to provide an end-to-end solution for the entire health system.
- CoWIN facilitated beneficiary registration, appointment scheduling, vaccination tracking, generation of beneficiary lists and vaccination certificates, facility wide coverage monitoring, adverse event following immunization reporting, and vaccine stock management.
- It connected stakeholders, including vaccine manufacturers, administrators, and verifiers, public and private vaccination facilities, and vaccine recipients.

Electronic Vaccine Intelligence Network (eVIN)

- Used for RI vaccines since 2015, it was expanded to include COVID-19 vaccines.
- Facilitated digitalization of vaccine stocks (doses supplied, consumed, wasted, and remaining doses in the stock) as well as remote temperature monitoring until last mile vaccine storage points.

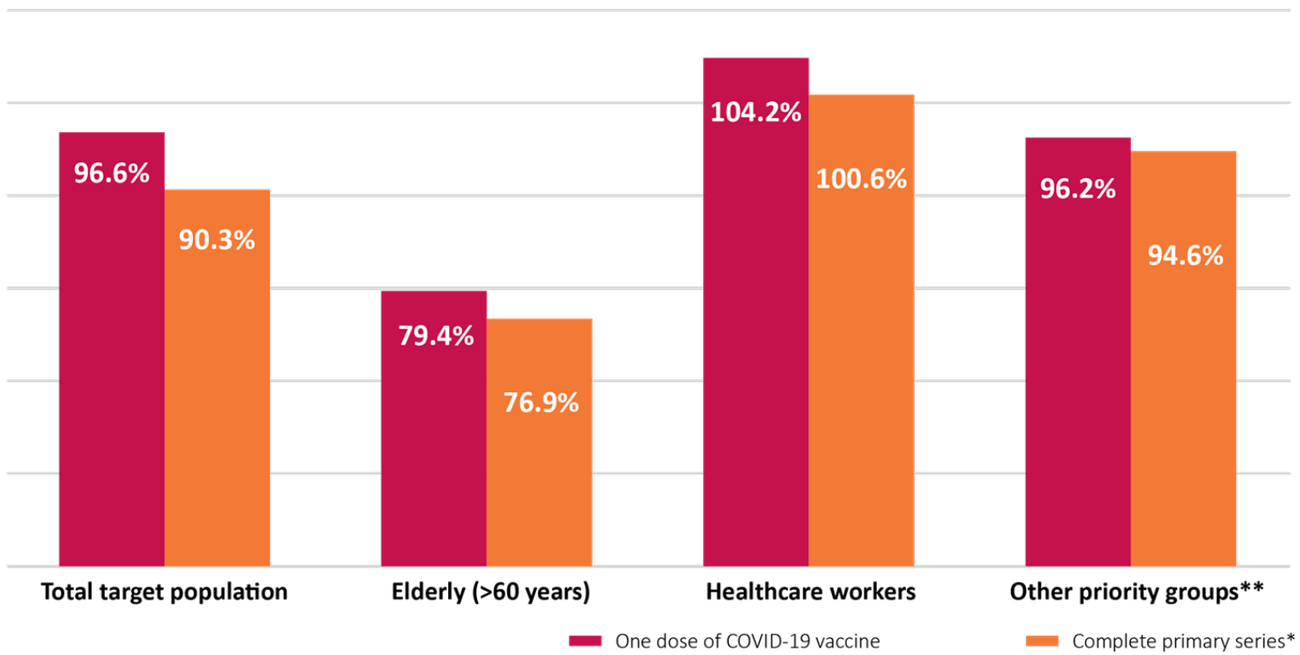
- These two portals were independent in functioning and were not interlinked in terms of data sharing.
- Users of the two portals were also different—CoWIN was used by health facility administrators, vaccinators, vaccine suppliers and beneficiaries, while eVIN was used by vaccine store managers.

Tamil Nadu Background

- Tamil Nadu, located in southernmost part of India, has a population of 83.6 million.[1] It is the eleventh largest state in the country by land area.[2]
- COVID-19 vaccination for healthcare and frontline workers was introduced in the state soon after the nationwide launch in January 2021.
- Tamil Nadu, like all other states of India, received centrally procured and approved COVID-19 vaccines.
- Vaccination was gradually scaled to include other priority groups (e.g., elderly people and people with comorbidities) in accordance with the national guidelines.
- The state health department was responsible for managing/monitoring the vaccine supply chain, and to plan and implement tailored vaccination strategies for targeted priority groups.

1 IndiaCensus. Tamil Nadu Population. https://www.indiacensus.net/states/tamil-nadu
2 There are 28 states and eight Union Territories in India.

COVID-19 Vaccination in Tamil Nadu (Reported cumulative coverage until October 2023)[1]



Total COVID-19 vaccine doses administered

India: 2,20,67,77,608

Tamil Nadu: 12,75,35,036

Source: Ministry of Health and Family Welfare, Government of India, https://dashboard.cowin.gov.in/. Accessed 30 November 2023.

1 Proportion of target/eligible population as received from the Department of Public Health and Preventive Medicine, Government of Tamil Nadu.
* Completed primary series means completing two dose series of COVID-19 vaccines approved for use in the country.
** Other priority groups include adults with other comorbidities, teachers or military, other frontline workers etc.

Assessment Objectives

Assess the status and think about the future integration of COVID-19 vaccinations, targeting priority groups with essential health programs and health system functions.

Compile lessons learned concerning integration of COVID-19 vaccinations from the urgent response phase of the pandemic.

Methods

Research Questions

1. What have governments planned for sustaining COVID-19 vaccinations for priority populations?

2. What is the thinking concerning the integration of COVID-19 vaccinations with:
   - Other essential health services
   - Other health system and vaccination functions.

3. How are COVID-19 vaccinations planned to be (or already are) part of:
   - Overall health strategies
   - Immunization strategies
   - Monitoring and evaluation
   - Budgeting.

4. How has integration with other essential services or health system functions helped or hindered equitable access to COVID-19 vaccination?

5. What lessons were learned from integration (or lack thereof) of COVID-19 vaccinations during the urgent pandemic response period?

Data Collection in Tamil Nadu

Desk review of relevant documents, including guidelines and government directives.

Qualitative data collection (conducted from Oct–Nov. 2023):

Key informant interviews with 14 people: stakeholders from national and sub-national governments and other stakeholders (e.g., private sector providers, academia, development partners, and civil society).

Two focus group discussions with healthcare service providers including vaccinators, pharmacists, cold chain handlers, and supervisors in Coimbatore (rural) and Madurai (urban) districts.

The districts (one rural and one urban) interviewees for key informant interviews, and health facilities for focus group discussions (FGDs) were identified in discussion with the state immunization officer and team members from the MOMENTUM Routine Immunization Transformation and Equity project.

Note: The findings described in the subsequent slides are for the state of Tamil Nadu only and may not be applicable to the overall country or other states.

Analysis

Notes were produced to summarize each interview and focus group discussion, guided by audio recordings to fill in any gaps in the notes.

Analysis was conducted using Atlas.ti software.

- Both deductive and inductive coding approaches were used.

Inter-coder reliability was ensured through discussions, group coding exercises, and quality checks conducted by the principal investigators.

To summarize the extent of integration into other health services and health system functions, the research team used a maturity scale[1], assigning values based on analysis of the data and reflecting maturity at the current stage:

1. **limited/no** integrated activities
2. **opportunistic** integration without planning
3. strategic **plans exist/beginning** deployment
4. integration **implementation underway** with some gaps
5. **highly integrated** and sustainable.

[1]Adapted from: WHO/UNICEF, 2023. Operational framework for demand promotion: Integration of COVID-19 vaccination into routine immunization and primary health care.

Research Findings

India (Tamil Nadu)

Research Question 1:

What have governments planned for sustaining COVID-19 vaccinations for priority populations?

Current Situation: COVID-19 Vaccination

COVID-19 vaccination is no longer provided by the state health department due to:

Unavailability of vaccines—there is no government supply of vaccines or any stock left at vaccine stores.

"Currently we don't have any supply from Government of India."

— District level respondent

"There is no stock available now, supply has been stopped since last 4 months."

— District level respondent

No demand from the community—COVID-19 is no longer considered a threat due to low incidence.

"There is no demand for vaccination now."

— District level respondent

"With the decline in disease burden (COVID-19), public interest in vaccination has also diminished."

— District level respondent

"People are going for vaccination only for passport and visa purposes [travel requirements]."

— District level respondent

Plan for Continuing COVID-19 Vaccination

The state health department has **not received any guidance or directive** from the national government on continuing COVID-19 vaccination.

There is no planning at the state or district level to continue COVID-19 vaccination for the priority groups.

> *"The plan for the continuation of COVID-19 vaccination will depend on various factors like demand, side effects, potential complications, and public acceptance. This plan may adapt in response to evolving circumstances."*
> — State health official

Any planning or decision regarding COVID-19 vaccination in the future will be guided by the national policies and guidelines.

> *"We follow state-level guidelines, and no decisions are made at the district level."*
> — District level official
>
> *"To ensure that vaccination services continue efficiently, we need to follow government guidelines."*
> — Private facility respondent

Plan for Continuing COVID-19 Vaccination

Perspectives

During the pandemic response phase, the demand for COVID-19 vaccination was high due to the fear of disease.

"Due to the fear of disease [COVID-19], people used to come by themselves for vaccination."
— FGD respondent

Continuation of COVID-19 vaccination in the future should be based on the perceived need by the target community and availability of resources.

"Managing and governing COVID-19 vaccinations in the post-emergency phase will involve continuous assessment of the need, cost-effectiveness, and value."
— State level respondent

"Transitioning from the emergency phase to a post-emergency phase requires a shift towards long-term sustainability."
— Private facility respondent

"Continuing COVID-19 vaccination demands a commitment to sustainability, integration, and long-term planning."
— District health official

Plan for Continuing COVID-19 Vaccination

Suggested approaches

OPTION 1

Provide COVID-19 vaccination along with RI services at primary health facilities and at the community level.

"Integration into existing immunization programs is an approach that could leverage established infrastructure for a more sustainable service delivery."

— State level respondent

OPTION 2

Set up a separate clinic in health facilities to deliver COVID-19 vaccination and other related services to priority groups.

"We are planning to collaborate with other organizations to set up a dedicated vaccination center for geriatric patients where required vaccines can be given."

— District level respondent

OPTION 3

Deliver COVID-19 vaccination to priority groups through campaigns, organized periodically or on an as-need basis.

"If an annual vaccination program similar to the Pulse Polio initiative [i.e., polio vaccination campaign] is implemented, we are prepared to participate."

— District level respondent

Research Question 2:

What is the thinking/decisions concerning the integration of COVID-19 vaccinations with:

- Other essential health services (e.g., antenatal care [ANC], non-communicable diseases, HIV, tuberculosis [TB], primary health care [PHC])
- Other health system and vaccination functions (e.g., service delivery, human resources, training, procurement, cold chain, supply/distribution systems, information systems, demand generation, supervision, and community engagement)?

COVID-19 Vaccination Integration During Urgent Response Phase

During the pandemic urgent response phase, some level of integration was achieved with RI and other health programs (e.g., ANC and NCD programmes).

This included delivering COVID-19 and RI vaccination services at the same sites/clinics, storing and transporting vaccines together, counseling antenatal mothers and people with comorbidities (NCDs) for vaccination, and screening people coming to heath facilities for vaccination.

State and district level officials implemented context based initiatives to facilitate integrated service delivery.

"State government and DDHS [district health department] gave instructions to carry out COVID-19 vaccinations along with routine immunization and ANC clinics."

— District level respondent

"We started with a vertical program [on COVID-19 vaccination], and as necessary, transition was done to a horizontal mode which is the standard model in all healthcare programs."

— State level respondent

"Higher officials used to inform us, and we acted according to that [on integrated service delivery]."

— FGD respondent

A. Status of the COVID-19 Vaccination Integration with Health Services (1/2)

RI	2	**Urgent response phase:** government healthcare staff were given instructions to provide COVID-19 vaccination with RI services to maintain childhood vaccination coverage. Health facility wide micro plans were developed with details about the days and sites of COVID-19 vaccination. Integration was achieved at human resource, service delivery, and cold chain infrastructure levels. **Current situation:** No plan to integrate with the RI programme but respondents felt that it is feasible if COVID-19 vaccination is continued through RI with government guidelines in place.
ANC	2	**Urgent response phase:** Health staff counseled mothers and vaccinated them during ANC visits at government health facilities (ANC clinics). Instructions were given to provide COVID-19 vaccination with ANC services to pregnant women. **Current situation:** No plan to integrate with ANC services but respondents felt that it is potentially feasible to administer counseling and vaccination if it is continued through government guidelines.
Programs for people who are immunocompromised (e.g., people who have HIV or TB)	1	**Urgent response phase:** No clear instructions were in place but in some government health facilities with HIV clinics, counsellors educated patients and encouraged them to get COVID-19 vaccination. Perceived public stigma was a barrier to vaccination for HIV patients. **Current situation:** No plan/guidance exists to engage HIV and TB clinics, but according to respondents these can be resourced to generate demand among high-risk groups.

*Values assigned based on research team's analysis of data, reflecting maturity at current stage. Scale: **1**=**limited/no** integrated activities; **2**=**opportunistic** integration without planning; **3**=strategic **plans exist/beginning** deployment; **4**=integration **implementation underway** with some gaps; **5**=**highly integrated** and sustainable.

(Source: WHO/UNICEF, 2023. Operational framework for demand promotion: Integration of COVID-19 vaccination into routine immunization and primary health care)

A. Status of the COVID-19 Vaccination Integration with Health Services (2/2)

Health program	Maturity scale*	Brief explanation
Programs for older adults and/or NCD programs	2	**Urgent response phase:** Health facility staff engaged with a state supported NCD program (Makkalai Thedi Maruthuvam) which conducted awareness generation activities among the elderly coming for screening or treatment and motivated them to get all COVID-19 vaccination doses. Vaccination details were also recorded in the patient's NCD treatment card to help track vaccination. **Current situation:** No plan/guidance exists, but according to respondents, NCD clinics can be resourced to generate demand among older adults and/or those living with NCDs.
PHC	2	**Urgent response phase:** In some health facilities, both public and private, a system was developed where patients coming to an outpatient department (OPD) were asked about their vaccination status and referred for vaccination. This system facilitated screening patients for vaccination and ensured patients were counseled and any misinformation was addressed. In some private facilities, COVID-19 vaccination units were established with the required logistics to screen and vaccinate incoming patients. **Current situation:** The referral system from OPDs has been discontinued and can be formalized through government guidelines.
Other programs	1	**Urgent response phase:** In some areas, health workers took the initiative and voluntarily went to old age homes to vaccinate residents. Large hospitals, antenatal wards, dialysis centres, pulmonology clinics, and geriatric units were involved in creating awareness about COVID-19 vaccines. **Current situation:** Neither continuing nor any plan to continue in future.

*Values assigned based on research team's analysis of data, reflecting maturity at current stage. Scale: **1=limited/no** integrated activities; **2=opportunistic** integration without planning; **3**=strategic **plans exist/beginning** deployment; **4**=integration **implementation underway** with some gaps; **5=highly integrated** and sustainable.

(Source: WHO/UNICEF, 2023. Operational framework for demand promotion: Integration of COVID-19 vaccination into routine immunization and primary health care)

B. Planning (and Decisions) Concerning Integration of COVID-19 with Health System and Vaccination Functions (1/5)

Health system building block	Specific functions relevant to vaccination	Maturity scale*	Brief explanation
Leadership and governance	Strategic planning, intersectoral coordination, monitoring	3	**Urgent response phase:** A three-layered governance structure was created to lead COVID-19 vaccination efforts in the state– (1) a State Immunization Advisory Committee to discuss COVID-19 vaccination issues and facilitate strategic planning; (2) a State Task Force Committee to coordinate activities in the entire Health Department and facilitate vaccine distribution; and (3) a State Steering Committee to ensure a coordinated response across various relevant departments sectors. **Current situation:** According to the respondent, the same governance structure will continue for RI in the future.
Service delivery	Trained workforce, vaccination sites	3	**Urgent response phase:** Trained vaccinators and other paramedical staff including supervisors and data entry operators were deployed by the government health department from PHCs and hospitals for COVID-19 vaccination camps. RI vaccinators were involved in providing COVID-19 vaccination at facility-based clinics and outreach sites. Context specific modifications (e.g., registration, vaccination hours, 24/7 camps in urban areas, and crowd management) were made according to the target priority groups. Health facility-based vaccination clinics and outreach locations for delivering RI services were utilized to deliver COVID-19 vaccination. **Current situation:** Since COVID-19 vaccination is not currently ongoing, staff have been engaged at their original locations and duties. According to respondents, if COVID-19 vaccination is continued, these vaccinators and other trained staff will be assigned to COVID-19 vaccination service delivery. However, there is no planning being done for this and it will be done according to the national and state guidelines.

*Values assigned based on research team's analysis of data, reflecting maturity at current stage. Scale: **1**=**limited/no** integrated activities; **2**=**opportunistic** integration without planning; **3**=strategic **plans exist/beginning** deployment; **4**=integration **implementation underway** with some gaps; **5**=**highly integrated** and sustainable.

(Source: WHO/UNICEF, 2023. Operational framework for demand promotion: Integration of COVID-19 vaccination into routine immunization and primary health care)

B. Planning (and Decisions) Concerning Integration of COVID-19 with Health System and Vaccination Functions (2/5)

Health system building block	Specific functions relevant to vaccination	Maturity scale*	Brief explanation
Health system financing	Funds for infrastructure strengthening	2	**Urgent response phase:** Additional funds were allocated for cold chain management, transporting vaccines, and remuneration for the additional staff (as well as incentives for the regular vaccination staff). These financing modalities facilitated overall cold chain infrastructure strengthening and motivation of vaccination staff. **Current situation:** Since COVID-19 vaccination is not ongoing this financial support has also been discontinued. Respondents were not aware if this financial support will continue however, they were of the opinion that if COVID-19 vaccination is continued, funding for additional resources like cold chain equipment and additional trained workforce will be required.
Information systems	Reporting structure/tools, workforce	2	**Urgent response phase:** Integration happened at the level of workforce and reporting portals. Existing staff (pharmacists) who maintained records of RI vaccines also managed the physical record of vaccines received, consumed, and remaining. The eVIN portal, which was earlier used for RI vaccines integrated COVID-19 vaccines in use to monitor their supply and utilization. **Current situation:** According to respondents, if COVID-19 vaccination is continued the existing pharmacists and data entry operators will be responsible for managing recording and reporting. Similarly, the eVIN portal will be used to monitor the supply and utilization of COVID-19 vaccines. However, there are no instructions or guidelines in this regard.

*Values assigned based on research team's analysis of data, reflecting maturity at current stage. Scale: **1=limited/no** integrated activities; **2=opportunistic** integration without planning; **3**=strategic **plans exist/beginning** deployment; **4**=integration **implementation underway** with some gaps; **5=highly integrated** and sustainable.

(Source: WHO/UNICEF, 2023. Operational framework for demand promotion: Integration of COVID-19 vaccination into routine immunization and primary health care)

B. Planning (and Decisions) Concerning Integration of COVID-19 with Health System and Vaccination Functions (3/5)

Health system building block	Specific functions relevant to vaccination	Maturity scale*	Brief explanation
Health workforce	Recruitment	1	**Urgent response phase:** To address increased workload for vaccination and data entry/reporting, additional personnel were recruited on an incentive basis. These included nursing students and paraclinical staff. These additional personnel were given trainings on vaccination and other programmatic aspects. **Current situation:** There is no plan to engage additional staff recruited during the urgent phase. In the majority of cases, these personnel were relieved of duties after the urgent phase was over. However, in some settings, especially in the private sector, these additional personnel continued working at the health facilities.
	Training	2	**Urgent response phase:** All cold chain handlers to the sub-district level were trained on handling COVID-19 vaccines. These trainings on COVID-19 vaccination management built their capacity which will help improve overall cold chain management for RI in the future. Since COVID-19 vaccination required intramuscular injections, which were already being done by the existing vaccinators and healthcare workers, no specific training was given to them on COVID-19 vaccine administration. However, they were trained on handling COVID-19 vaccines and reducing wastage. **Current situation:** The trainings conducted during the urgent phase helped build staff capacity, which will help in the future. However, there is no plan to include COVID-19 vaccination and related modalities in future trainings. This will depend on the guidelines received from the national/state levels.

*Values assigned based on research team's analysis of data, reflecting maturity at current stage. Scale: **1**=**limited/no** integrated activities; **2**=**opportunistic** integration without planning; **3**=strategic **plans exist/beginning** deployment; **4**=integration **implementation underway** with some gaps; **5**=**highly integrated** and sustainable.

(Source: WHO/UNICEF, 2023. Operational framework for demand promotion: Integration of COVID-19 vaccination into routine immunization and primary health care)

B. Planning (and Decisions) Concerning Integration of COVID-19 with Health System and Vaccination Functions (4/5)

Health system building block	Specific functions relevant to vaccination	Maturity scale*	Brief explanation
Health workforce (continued)	Supervision	2	**Urgent response phase:** Existing government officials and supervisory cadre were involved in the supervision of COVID-19 vaccination activities. The supervisors were allotted a defined area to supervise and ensure COVID-19 vaccine availability, inter-departmental coordination, as well as demand generation and mobilization. **Current situation:** Since COVID-19 vaccination is not ongoing, no plans exist to involve supervisory cadre. This will depend on the guidelines received from the national/state level.
Medical products, vaccines, and technologies	Procurement	1	**Urgent response phase:** Like procurement of RI vaccines, procurement of COVID-19 vaccines was done centrally by the national government and provided to the states for free administration through government health facilities and other identified institutions. Initially, vaccines were provided free of cost to private sector providers and civil society. Later (after national government issued guidelines), private hospitals were authorized to procure approved vaccines directly from the manufacturers. **Current situation:** There is no ongoing vaccine supply to the state or any COVID-19 vaccine stock at state and district vaccine stores. There are no directives regarding vaccine procurement or supply to continue COVID-19 vaccination in the future.

*Values assigned based on research team's analysis of data, reflecting maturity at current stage. Scale: **1**=**limited/no** integrated activities; **2**=**opportunistic** integration without planning; **3**=strategic **plans exist/beginning** deployment; **4**=integration **implementation underway** with some gaps; **5**=**highly integrated** and sustainable.

(Source: WHO/UNICEF, 2023. Operational framework for demand promotion: Integration of COVID-19 vaccination into routine immunization and primary health care)

B. Planning (and Decisions) Concerning Integration of COVID-19 with Health System and Vaccination Functions (5/5)

Health system building block	Specific functions relevant to vaccination	Maturity scale*	Brief explanation
Medical products, vaccines, and technologies (continued)	Cold chain	4	**Urgent response phase:** The cold chain infrastructure for RI vaccines was used for storing, managing, and distributing COVID-19 vaccines. During the pandemic response phase, funds and equipment were provided to meet additional storage space requirements and to strengthen the existing stores. This strengthening effort will ensure improved cold chain management in the future. The eVIN portal earlier used for RI vaccines was also used to monitor the supply and utilization of COVID-19 vaccines. The eVIN portal has also been adapted to include rabies and influenza vaccines in other states. The existing staff (pharmacists and supervisors) engaged in managing and monitoring storage of RI vaccines were given the responsibility to store, distribute, and manage COVID-19 vaccines. **Current situation:** Since COVID-19 vaccination is not ongoing and there is no vaccine stock availability, the cold chain infrastructure is not used for storing and managing COVID-19 vaccines. There are also no directives in this regard, however according to respondents if COVID-19 vaccination is continued the existing infrastructure will be used to manage the vaccine supply.
	Supply chain	4	**Urgent response phase:** The existing infrastructure of state, regional, zonal, and district vaccine stores for RI vaccines was also utilized for COVID-19 vaccine storage and distribution. After the initial emergency vaccination response, COVID-19 and RI vaccines were transported together from district to sub-district level health facilities (PHCs). **Current situation:** There are no directives in this regard, however according to respondents if COVID-19 vaccination is continued the existing infrastructure will be used to manage the vaccine supply.

*Values assigned based on research team's analysis of data, reflecting maturity at current stage. Scale: **1**=**limited/no** integrated activities; **2**=**opportunistic** integration without planning; **3**=strategic **plans exist/beginning** deployment; **4**=integration **implementation underway** with some gaps; **5**=**highly integrated** and sustainable.

(Source: WHO and UNICEF, 2023. Operational framework for demand promotion: Integration of COVID-19 vaccination into routine immunization and primary health care)

Plan for COVID-19 Vaccination Integration in the Future (1/2)

Respondents believed that integration with existing health programs is essential and will help improve access. But it is complex and requires effective governance structures, meticulous planning to allocate needed resources, trained workforce, responsive data systems, and community engagement and acceptance.

"Integration (of COVID-19 vaccination) should be flexible and adaptive, focusing on the specific needs of each program or cohorts….. it should be based on the need. "

— State level respondent

"In the post-emergency phase, it is imperative to pivot towards a more integrated approach. Integration involves assimilating COVID-19 vaccination into the existing healthcare infrastructure. This includes merging COVID-19 vaccinations with routine immunization programs to capitalize on their collective potential."

— District level respondent

"The delivery of COVID-19 vaccinations (after integration) can be effectively handled through primary health centers."

— State level respondent

Plan for COVID-19 Vaccination Integration in the Future (2/2)

However, it was revealed that there is no formal plan or guidelines on integrating COVID-19 vaccination with other health services or system functions.

> *"Nothing has been planned as of now (regarding integration). Integrating it (COVID-19 vaccination) into the routine system might take time, and acceptance may be a challenge."*
> — District level respondent.

> *"So far, no conversations are going around integration."*
> — District level respondent.

According to respondents, guidelines from the national government will be required to initiate planning at the state level.

> *"For integration to occur seamlessly at the village level and the primary health center level, the process must commence from the centre [national government]."*
> — State health official.

Perspectives on Operational Integration with Health Services

With RI

In Favour

"Integration with routine immunization is essential to avoid discrepancies in communication patterns."

— State level respondent

"The integration of COVID-19 vaccination with routine immunization is a key aspect… the administration of the COVID-19 vaccine, since it is intramuscular vaccination, can be efficiently managed by nurses with decades of experience in the system…"

— State level respondent

Not in Favour

"When it comes to vaccine delivery, we can consider integration into routine immunization programs but with other vaccines people won't accept it."

— District level respondent

"If it is integrated with routine immunization, staffs will do it as routine work, but they will be overburdened [due to additional injection load]."

— District level respondent

With other programs

In Favour

"COVID-19 vaccinations can be integrated with other health programmes like school health program, mobile medical units, ART [antiretroviral therapy] clinics, TB clinics and cancer centres. "

— State level respondent

"The COVID-19 vaccination can be well continued by further integrating it with other programs, such as reproductive and child health and antenatal care using the digital infrastructure already in place."

— State level respondent

Not in Favour

"If the working platform is different, then the integration will be difficult [on integration with other programs]."

— State level respondent

Approaches for Integration with RI

At health facilities (fixed/static sites)

OPTION 1

Since cold chain and vaccine handling guidelines for RI and COVID-19 vaccines are the same, they can be given at the same vaccination clinic where children/pregnant women are vaccinated.

"The procedures for storage, handling, and distribution are similar to those of routine vaccines, so the staff should not face any significant challenges."

— State level respondent

OPTION 2

Since the beneficiaries for COVID-19 vaccines are different and require counseling or motivation, a separate clinic, different vaccinators, or different timings should be scheduled for them.

"Vaccines were given separately in the hospital [from RI vaccines). Earlier COVID-19 vaccines were given daily in hospital later [only on scheduled days)."

— FGD participant

"In hospital both the vaccines (RI and COVID-19) were given simultaneously because we had separate staff for that."

— District level respondent

OPTION 3

COVID-19 vaccines should be administered on scheduled day(s) at a separate clinic.

"Separate clinic should be set up."

— FGD participant (rural facility)

"Rabies, influenza … these vaccines are given separately [i.e., not as a part of routine health services]. COVID-19 vaccination should be given like that."

— State level respondent

Approaches for Integration with RI

At outreach locations (in the community)

OPTION 1

As RI vaccinations are scheduled on a fixed day every week (Wednesday), COVID-19 vaccinations should also be scheduled on a specific day.

"It was difficult to administer along with the routine vaccinations as many children come for pentavalent vaccines…. It would be better if we keep a separate day for COVID-19 vaccination as the target population is different for COVID-19 vaccines."

— FGD participant

OPTION 2

The first half of the vaccination day can be used to vaccinate children and the second half to administer COVID-19 vaccines to adults.

"In the community, first half of the day we will give routine vaccines to children and in the second half of the day it will be for COVID-19 vaccines."

— FGD participant

OPTION 3

RI and COVID-19 vaccines can be administered separately at two different locations by separate vaccinators.

"… every Wednesday is designated as immunization day. During the day, children receive immunizations in one area, while adults may receive COVID[-19] vaccinations in another section. This organized approach ensures that the community and the health system are not burdened…."

— State level respondent

Research Question 3:

How are COVID-19 vaccinations planned to be (or already are) part of overall health strategies, immunization strategies, monitoring and evaluation, and budgeting?

Status of Planning to Make COVID-19 Vaccination Part of Overall Health and Immunization Strategies

State health departments have not planned (or are planning) to make COVID-19 vaccination a part of the health and immunization system and strategies, because:

There are **no instructions or guidance** from the national level in this regard.

"We follow state-level guidelines, and no decisions are made at the district level [regarding planning or integration]."

— District level respondent

COVID-19 vaccination is **no longer a felt need** and there is no community demand.

"When there is no COVID, why we need to get vaccinated."

— District level respondent

"… we acknowledge the challenges of sustaining public interest and motivation for regular COVID-19 vaccinations, especially as the urgency of the pandemic has decreased."

— State level respondent

There is **no COVID-19 vaccine supply or available stock** at the state level and below.

"There is no stock available now, supply has been stopped since last four months."

— District level respondent

"If stock is not there, we cannot do demand generation."

— District level respondent

How are COVID-19 Vaccinations Planned to be (or already are) Part of Country Strategies and Planning? (1/2)

Health system processes	Maturity scale	Elaboration
Overall health strategies	1	**Urgent response phase:** Government of India issued guidelines for the state governments to implement COVID-19 vaccination for priority groups. **Current situation:** No guidelines have been issued by the national Ministry of Health during planning years 2022–23 and 2023–24 to provision funding to continue COVID-19 vaccination related activities in the annual Programme Implementation Plans (PIP).*
Immunization strategies	1	**Urgent response phase:** COVID-19 vaccination was rolled out in campaign mode and was not integrated with existing immunization strategies. **Current situation:** The current comprehensive multi year plan outlining the government's plan for strengthening immunization programmes is for the period 2018–2022. No recent national level plan is available mentioning COVID-19 vaccination or its integration into the health system. Intensified Mission Indradhanush, a strategy to improve immunization, only aims to increase full immunization coverage among unvaccinated and partially vaccinated children. The campaign guidelines do not include COVID-19 vaccination.

* PIPs developed by the states under the aegis of National Health Mission are the key operational document outlining health activities to be implemented by the state governments. It is developed based on the guidelines, including financial, issued by the national government.

How are COVID-19 Vaccinations Planned to be (or already are) Part of Country Strategies and Planning? (2/2)

Health system processes	Maturity scale	Elaboration
Monitoring and evaluation	2	**Urgent response phase:** The coWIN web-based portal and mobile based application were used nationwide to register beneficiaries for COVID-19 vaccination, reporting vaccination, and issuing vaccination certificates. It is used for monitoring COVID-19 vaccination uptake. Monitoring the COVID-19 vaccine supply and utilization was done using the eVIN portal. **Current situation:** The coWIN portal is still functional but not used since there is no vaccine supply and vaccination is not ongoing. Similarly, eVIN is also functional for RI vaccines. However, there is no guidance on integrating reporting and monitoring of COVID-19 vaccination with overall health and immunization reporting (i.e., health management information system).
Budgeting	1	**Urgent response phase:** During the pandemic response phase, additional funds were provided to the state governments to organize vaccination activities. No guidelines have been issued for budgeting COVID-19 vaccination activities. **Current situation:** There is no guidance from the national or state governments regarding financial allocations for resources required to continue COVID-19 vaccination or for integrating it with health systems and programmes.

Perspectives on Planning to make COVID-19 Vaccination a Part of Overall Health and Immunization Strategies (1/2)

Making COVID-19 vaccination a part of overall health system will require planning and resources.

> *"From the urgent phase, we learned that integrating COVID-19 vaccination with routine healthcare services is both complex and essential. This process requires meticulous planning, allocation of adequate resources, and the proper training of the workforce. The urgent phase emphasized the importance of robust data systems, effective governance structures, and engaging the public in the vaccination process."*
>
> — District level respondent

Availability of standard operational guidelines and accountability are crucial to plan and effectively make COVID-19 vaccination a part of the overall health system.

> *"The focus on integrating COVID-19 vaccination into routine healthcare systems, will be according to the state guidelines."*
>
> — State level respondent

The resources required including equipment and funding, will depend on the disease situation and scale of integration. The specific needs would be determined based on the government's plans for integration.

Perspectives on Planning to make COVID-19 Vaccination a Part of Overall Health and Immunization Strategies (2/2)

The approach for making COVID-19 vaccination a part of the overall health system should be open-ended and responsive, tailored to needs, available resources, and infrastructure.

"It should be done strategically to maximize accessibility and reach with focus meeting the needs of the people effectively."

— State level respondent

"The plan to continue COVID-19 vaccination involves maintaining and adapting the existing healthcare system.... The goal should be to leverage the existing system to address not only COVID-19 but also future vaccination needs, such as vaccines for other diseases like diabetes or dengue."

— State level respondent

Monitoring public perceptions, addressing misinformation, and ensuring a steady vaccine supply will be the essential elements in the post-emergency phase.

"Success will depend on creating awareness among the public and ensuring that at-risk individuals continue to receive vaccines."

— State level respondent

Research Question 4:

How has integration with other essential services or health system functions helped or hindered equitable access to COVID-19 vaccination?

Status of Equity in COVID-19 Vaccination During the Urgent Response Phase (1/2)

Health worker/manager study respondents felt COVID-19 vaccination was available and provided to all people without any discrimination.

"I don't see any inequity [in COVID-19 vaccination]."

— District level respondent

"No discrimination in gender or communities was encountered."

— District level respondent

Equitable access to vaccination services was not perceived as a challenge.

Specific actions were taken by healthcare staff to ensure vaccination of priority groups and vulnerable individuals.

"Equity in vaccine distribution was a priority and leveraging grassroots health workers helped ensure that all segments of the population had equitable access to vaccines."

— District level respondent

Status of Equity in COVID-19 Vaccination During the Urgent Response Phase (2/2)

Various actions were implemented by the state and district health departments to ensure equitable access of COVID-19 vaccination to priority high-risk groups.

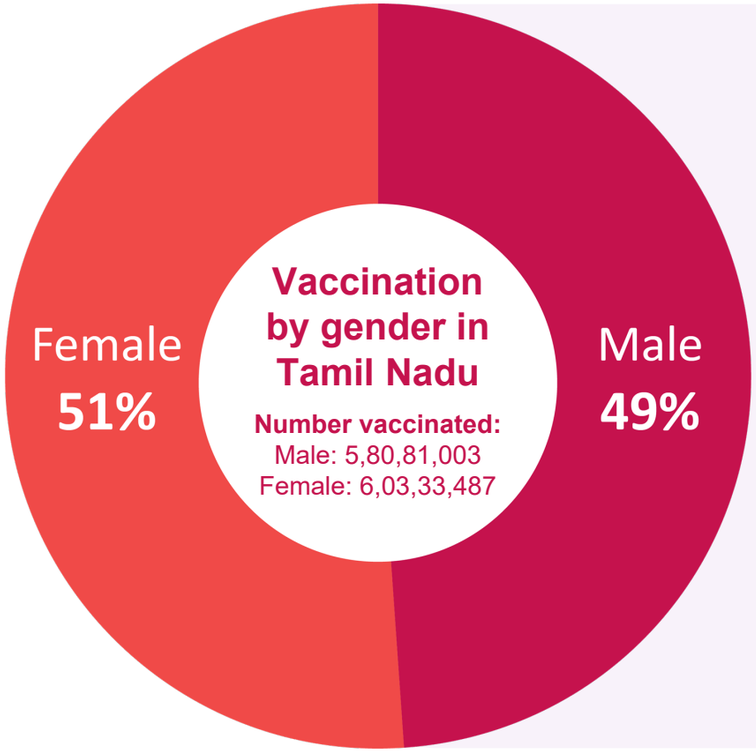
"Equity was ensured by reaching remote areas and urban centers, providing vaccination opportunities to all."
— State level respondent

"In evening we closed the vaccination records and kept some vaccines separately for night duty staffs to administer if someone comes in the night. We had also planned mega vaccination camps every week."
— FGD participant at urban facility

"We had centralized vaccination centre [in the urban area], and the vaccines were also made accessible at various primary healthcare facilities [in rural areas] in 13 blocks, including rural health centres. This enabled convenience and accessibility for everyone, especially for those residing in remote areas."
— District level respondent

"Vaccine was administered through camps in schools, disability departments, old age homes and mentally challenged homes… We also targeted shipping industries and sea port workers."
— State level respondent

Equity in COVID-19 Vaccination in Tamil Nadu



"Equitable distribution was ensured without any gender discrimination. There is no issue related to equity as all clients approached themselves to the facility."

— District level respondent

"Equity is important, to ensure that no one is left behind, regardless of their socioeconomic status or geographic location."

— District level respondent

"Continuing COVID-19 vaccination demands a commitment to sustainability, integration, and long-term planning. This includes ensuring a consistent vaccine supply, maintaining a robust cold chain, expanding access points, sustaining outreach efforts, evolving data systems, reinforcing governance structures, and maintaining a focus on equity to achieve comprehensive vaccination coverage."

— District level respondent

CoWIN dashboard. https://dashboard.cowin.gov.in/. Accessed 10 Dec 2023.

How Integration with Other Essential Services or Health System Functions Helped or Hindered Equitable Access to COVID-19 Vaccination?

Health system processes	Elaboration
Gender	Gender discrimination was not revealed to be an issue in the state, and vaccination services and other health services are provided to all individuals irrespective of their background. Since gender inequity was non-existent, integration of COVID-19 vaccination with RI and other health services had no specific impact on this aspect.
Income	Socio-economic disparity was not revealed as an issue in the state during discussions. People from all economic backgrounds approached government vaccination sites for vaccination. Private health facilities, which charged for COVID-19 vaccination, were only approached by people who could pay for the services.
Underserved populations	Vaccination activities were planned in outreach areas to reach underserved populations. Microplans were made to ensure that all areas were covered. For specific population groups (e.g., transgender, intellectually disabled, labourers), vaccination was organized at locations where they could easily access services.
Other groups of importance	Mega vaccination camps and 24x7 vaccination centers were organized for people who could not reach vaccination centers due to their job responsibilities or other groups (e.g., farmers, industrial workers).

Perspectives on Integrating COVID-19 Vaccination with other Health Services to Ensure Equitable Access

Equity in COVID-19 vaccination was considered an important aspect by the respondents.

"The overarching principles in the post-emergency phase include sustainability, equity, and efficiency."

— District level respondent

"It will be ideal if it is integrated with existing health programmes to ensure equitable access. We can utilize RI to motivate families to get vaccinated. Because children will be accompanied by the adults."

— District level respondent

"Success for COVID-19 vaccination going forward would involve integration of vaccination programs, efficient data management, and reaching all eligible individuals [i.e. equity]."

— State level respondent

"Financing ensures resources are available, information systems track progress, demand generation encourages vaccination, and equity ensures broad accessibility."

— State level respondent

"…ensuring equitable distribution will require ongoing attention."

— District level respondent

Research Question 5:

What lessons were learned from integration (or lack thereof) of COVID-19 vaccinations during the urgent pandemic response period?

Lessons Learned from Integration (or not) of COVID-19 Vaccinations during the Urgent Pandemic Response Period

A. With other health programs

Health programs	Lessons
RI	RI is an important platform for integrating COVID-19 vaccination due to workforce trained in administering vaccines, cold chain infrastructure for vaccine management under optimized conditions, service delivery locations, and governance structures and monitoring mechanisms (eVIN).
ANC	Health staff at antenatal clinics can generate awareness, address vaccine related misinformation, and facilitate demand generation among pregnant mothers as well as their family members. In some settings, COVID-19 vaccination can also be integrated at the antenatal clinics where tetanus vaccination is provided. These aspects can be integrated both at the health facility and outreach settings.
Programs for people who are immunocompromised (e.g., people who have HIV or TB)	HIV clinics, antiretroviral therapy centers, and TB clinics can be engaged to generate awareness and demand among patients. They can also be engaged to follow up with their patients for timely and complete vaccination.

Lessons Learned from Integration (or not) of COVID-19 Vaccinations during the Urgent Pandemic Response Period

A. With other health programs

Health programs	Lessons
Programs for older adults and/or NCD programs	Patients with NCDs comprise a large priority group for COVID-19 vaccination. Healthcare staff at NCD clinics facilitate demand generation and track and follow up with patients for timely and complete vaccination. Community health workers have an important role screening high risk patients, generating awareness, and facilitating vaccination of clients who do not visit health facilities.
PHC	Many health facilities established a mechanism during the pandemic response phase where people approaching OPD or doctors for treatment were first screened for fever and asked about their vaccination status. In some settings, unvaccinated clients were registered and referred for vaccination. This strategy can ensure integration with PHC for screening and motivating priority groups who are seeking other treatments.
Other programs	Other programs that were considered as potential platforms for integrating aspects of COVID-19 vaccination were school health programmes, alcohol prevention programmes, the “Family Adoption” program for students at medical colleges, mobile medical units, cancer control programs, and “Medicine at doorstep” programs.

Lessons Learned from Integration (or not) of COVID-19 Vaccinations during the Urgent Pandemic Response Period

B. By health system building block

Health system building block	Specific functions relevant to vaccination	Brief summary of lessons
Leadership and governance	Guidelines	The absence of clear guidelines poses a significant challenge, underscoring the need for streamlined protocols.
	Governance structure	The governance mechanism established in the state to oversee implementation ensured timely actions to address challenges and achieve high vaccination uptake.
Service delivery	Vaccination sessions	Health infrastructure in urban areas is inadequate to address healthcare needs of all population groups. Addressing this requires additional personnel and finances.
Health system financing	Infrastructure strengthening, cold chain, HR	Additional funds will be required to increase the storage space and recruit additional workforce if COVID-19 vaccination is delivered in a campaign mode.
Health workforce	Role	Besides vaccination staff, other health cadres came together to implement COVID-19 vaccination—staff nurses acted as vaccinators (both facility based and outreach), supervisors (health inspectors) supported organization of vaccination activities and mobilization, and pharmacists got involved in vaccine management and distribution.
	Training	Existing vaccination staff are trained in giving intramuscular vaccines and can handle and administer COVID-19 vaccines.

Lessons Learned from Integration (or not) of COVID-19 Vaccinations during the Urgent Pandemic Response Period

B. By health system building block

Health system building block	Specific functions relevant to vaccination	Brief summary of lessons
Medical products, vaccines, and technologies	Cold chain	Since COVID-19 and RI vaccines were required to be stored at the same temperature, it was easier to store them together. In private health facilities, COVID-19 vaccines were mainly stored in separate equipment.
	Supply chain/distribution system	The supply chain system used to transport, and deliver RI vaccines is adequate to manage COVID-19 vaccines.
Information systems	Use of online portal	Web-based information systems played a pivotal role in tracking vaccine inventory and monitoring the overall progress of the vaccination campaign.
Demand and community engagement	Information, education, and communication activities Addressing misinformation Creating awareness	Intersectoral coordination played an important role in demand generation and community engagement. Local leaders, religious leaders, school-teachers, and community representatives played an important role informing and educating people and generating awareness (e.g., miking to announce the venue and timing). These people played a crucial role in addressing vaccine related misinformation to increase demand and improve coverage. Display of information, education, and communication material (posters, banners, pamphlets) at public places (e.g., bus stops, on events and mass gathering sites, schools, and hospitals facilitated outreach to priority groups).

Learnings: Factors Required for Successful Continuation and/or Integration of COVID-19 Vaccination with Health Systems

1. Coordination among different departments and sectors.

"Collaboration with various stakeholders such as the government, private sector, and civil organizations are crucial for the success of vaccination campaign [COVID-19 as well as other vaccines]."

— District level respondent

"… continuity requires a coordinated effort with DDHS [district health department], NGOs, village panchayat leaders, including ongoing public awareness campaigns."

— District level respondent

"Coordination and collaboration with key stakeholders, such as the District Health Society and City Health Officer's office, were pivotal in ensuring a consistent supply of vaccines."

— District level respondent

"… the collaboration with other departments, particularly the Social Welfare Department and the School Education Department, plays a vital role."

— State level respondent

Learnings: Factors Required for Successful Continuation and/or Integration of COVID-19 Vaccination with Health Systems

2. Robust vaccine supply chain and cold chain infrastructure.

"Supply chain is the backbone."

— State level respondent

"… we must ensure a consistent vaccine supply, a functional cold chain, and sufficient human resources."

— District level respondent

"Monitoring public perception, addressing apprehensions, and ensuring a steady vaccine supply are essential elements for success in the post-emergency phase. To ensure that vaccination services continue efficiently, we need to follow government guidelines and maintain a steady supply of vaccines"

— District level respondent

"Success for COVID-19 vaccination would mean consistent vaccine supply and a strong focus on awareness."

— District level respondent

"To continue COVID-19 vaccination successfully, we must re-emphasize ongoing awareness campaigns, secure a reliable vaccine supply, and keep public demand for vaccination high."

— District level respondent

Learnings: Factors Required for Successful Continuation and/or Integration of COVID-19 Vaccination with Health Systems

3. Creating public awareness, addressing misinformation, and generating demand.

"The government should focus on creating awareness to stimulate demand generation for COVID-19 vaccinations."

— State level respondent

"Running public awareness campaigns is paramount to build trust in vaccines and to address any concerns."

— District level respondent

"Success will depend on creating awareness among the public and ensuring that at-risk individuals continue to receive vaccines. Monitoring public perception, addressing apprehensions, and ensuring a steady vaccine supply are essential elements for success in the post-emergency phase."

— District level respondent

"Public awareness campaigns are essential to keep at-risk individuals motivated for vaccination."

— District level respondent

"Create awareness. Especially through social medias. Running public awareness campaigns is paramount to build trust in vaccines and to address any concerns."

— District level respondent

Learnings: Factors Required for Successful Continuation and/or Integration of COVID-19 Vaccination with Health Systems

4. Availability of adequate and trained workforce to minimize impact on other health services.

"Managing human resources for COVID-19 vaccination may require expanding operational hours or adding staff when needed."

— State level respondent

"Existing human resources can be efficiently utilized, and any vacant positions should be filled as required, without the need for additional staffing."

— State level respondent

"Challenges include the need for human resources, accountability, and the allocation of responsibilities for vaccine management."

— State level respondent

"Successful integration could be made possible by adapting digital systems and training, as well as involving diverse personnel."

— State level respondent

"Additional personnel and finances are required for urban areas."

— District level respondent

"The primary challenge we face is human resources. Manpower is critical, and even in times when healthcare workers may not have immediate tasks, emergencies like childbirth can happen at any moment, requiring their constant readiness."

— State level respondent

Learnings: Factors Required for Successful Continuation and/or Integration of COVID-19 Vaccination with Health Systems

5. Ensuring easily accessible vaccination services to priority groups.

"Vaccination should be made widely accessible through various channels, including private and government healthcare facilities, Integrated Child Development Services, women and child health sectors, municipalities, corporations, and local bodies."

— State level respondent

"In the post-emergency phase, expanding access points becomes essential."

— District level respondent

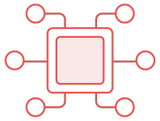
"Ensuring equitable access to vaccines was a significant and ongoing lesson, highlighting the need for adaptability in responding to changing circumstances."

— District level respondent

"If integration into routine immunization or another health program is pursued, it should be done strategically to maximize accessibility and reach. The focus should remain on meeting the needs of the people effectively. Especially urban areas are difficult, population and vaccination site matching will be required."

— State level respondent

Learnings: Factors Required for Successful Continuation and/or Integration of COVID-19 Vaccination with Health Systems



6. Use of digital infrastructure for efficient vaccine delivery and tracking beneficiaries.

"The management and governance of COVID-19 vaccination in the post-emergency phase will continue to rely on the digital infrastructure and training put in place."

— State level respondent

"Lessons include the significance of communication, adherence to standard operating procedures, and addressing demand-supply mismatch during emergencies. It highlights the importance of digitalization and real-time monitoring for improved vaccine management."

— State level respondent

"The integration of digital systems and real-time monitoring played a pivotal role in managing human resources efficiently."

— State level respondent

"Data is central to track vaccines from regional stores to the district level and ensuring their effective distribution."

— State level respondent

Learnings: Continuation and/or Integration of COVID-19 Vaccination with the Health System

Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis

Based on the findings from the assessment, a SWOT analysis was done regarding a future plan for continuing and/or integrating COVID-19 vaccination with health system. The key points are summarized in the subsequent slides.

SWOT Analysis

STRENGTHS

- Trained and dedicated vaccination staff comprised of vaccinators and cold chain handlers at all levels of healthcare service delivery.

"Capacity developed during the COVID-19 vaccination program should serve as a resource for future vaccination programs."
— State level respondent

- Strong network of village health nurses, mobilizers, community influencers, as well as community health workers to ensure services reach every household.
- Well equipped cold chain infrastructure comprising of state, regional, zonal, district, and health facility level stores with required equipment and storage space.
- Vaccination staff trained in the use of due lists to track beneficiaries for timely and complete vaccinations.
- Collaboration with private healthcare providers providing COVID-19 vaccination services.

"Presence of well-established private nursing homes, medical colleges, nursing schools, and nursing colleges has allowed us to effectively manage COVID-19 vaccination requirements…"
— State level respondent

- Time tested and well accepted use of online portals for registering and reporting (CoWIN) and vaccine supply management (eVIN) across all health facilities.

SWOT Analysis

WEAKNESSES

- Multiple health programs and vertical activities (e.g., campaigns) increase the workload of healthcare staff.
- Use of multiple records (registers, logbooks) and reports result in extra work for the staff.

"Too many registers are being maintained for routine immunization itself. They were required to enter details of COVID-19 vaccination both in CoWIN and registers. Documentation had become more than the primary work."

— FGD participant

- Although use of online portals facilitated COVID-9 vaccination, use of multiple portals (both national and state specific [e.g., NCD portal]) lead to duplication in reporting and an increase in the staff workload.
- Vaccines available at the government and private health facilities are different. Private health facilities procure vaccines directly from the manufacturer (Covishield and Covaxin at government facilities and Sputnik at private facilities). This create confusion in the community about the choice of vaccines.
- Unavailability of vaccines at the health facilities lead to reduction in demand and reluctance towards government services.
- Lack of national guidance regarding COVID-19 vaccination continuation and/or integration.

"The absence of clear guidelines pose a significant challenge, underscoring the need for streamlined protocols."

— District level respondent

SWOT Analysis

OPPORTUNITIES

- Strong leadership from the national government to facilitate timely and adequate allocation of required resources and funds.
- Robust governance mechanism involving ministers and administrative officials from different departments to steer coordination, resource pooling, and unified efforts.
- Strong functional coordination among different government departments (e.g., education and social welfare) and sectors (e.g., private sector, civil society, community-based organizations, religious institutions, industrial houses, and political leaders) during the emergency phase.
- Different health programs targeted at priority groups to facilitate need-based education and counseling (e.g., ANC, TB and ART programs).

> *"Administering (COVID-19 vaccines to) antenatal mothers won't be that challenging. Because they come for routine vaccines like tetanus and after that they [also] come for vaccinating children."*
>
> — FGD participant

- Well equipped and resourced private health facilities with cold chain equipment to ensure delivery of quality vaccination services.

SWOT Analysis

- No or low reported incidence of COVID-19 disease leading to a reduction in the demand for vaccination, including among priority groups.

> *"With the decline in disease burden, public interest in vaccination has diminished, resulting in only 30% coverage for booster doses."*
>
> — District level respondent

- Additional responsibilities on the programme management staff/officials at the state and district levels.
- Prevalent myths and misinformation about COVID-19 and RI vaccines, and government procedures lead to vaccine hesitancy and poor vaccination uptake.

> *"Public awareness campaigns are essential to promote vaccination (COVID-19) as there's still apprehension among the public, including healthcare workers about the safety and side effects of the vaccine. For future success, campaigns should focus on sensitizing the public and addressing concerns."*
>
> — District level respondent

- COVID-19 vaccines are administered for a price at private health facilities which may create a barrier to vaccination.
- Government recruitment procedures to fill vacant health staff positions are too challenging as they involve funding and administrative issues.

Conclusions

- Tamil Nadu has not started planning to sustain COVID-19 vaccinations or integrate it with other health services over the long term.
- Depending on the national guidelines, it is likely that COVID-19 vaccinations will be planned for:
    - Integration with RI, ANC, NCD, HIV, TB, and PHC programs.
    - Integration with health system and vaccination functions including service delivery, human resources, training, procurement, cold chain, supply/distribution systems, demand generation, information systems, supervision, and community engagement.
- Currently, there is no national guidance regarding COVID-19 vaccination integration or how it is going to be part of overall health and/or immunization strategies, monitoring and evaluation, or budgeting.
- Health worker/manager study respondents felt COVID-19 vaccination was equitable, with specific efforts and outreach made to identify and reach underserved populations.
- The major learnings from the urgent response period are:
    - RI is a potential platform to deliver COVID-19 vaccination in the future.
    - Integration with other programs (e.g., NCD and ANC) will be crucial to priority groups like pregnant women and people who are immunocompromised.
    - Ensuring sustained vaccine supply, addressing vaccine related misinformation, and generating awareness are the key factors to ensure sustained and integrated vaccination.

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Photo credit: John Snow India Private Limited

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