




Self-Testing in Factories | India

A Playbook for Global
Pandemic Preparedness

**COMMUNITY
ACTIONCOLLAB**
Catalysing a resilient world
Formerly
#COVIDActionCollab

Swasti
THE HEALTH CATALYST

With Support From
FIND 
Diagnosis for all



*Throughout the playbook names of workers have been changed to protect their privacy.

Foreword

Diagnostics took centre stage in the public discourse with the emergence of the COVID-19 pandemic. In many countries, including India, the pandemic not only affected the pre-existing health systems, but it also threw light on health-care access for vulnerable populations, including migrant and low-income workers, as well as daily wage earners. This situation was most starkly evident at the peak of the pandemic, as quick, accurate, and affordable testing was not accessible to these groups. Public testing facilities were overloaded and private options remained economically unfeasible and out of reach for many. Against this backdrop, FIND saw a unique opportunity to collaborate with Swasti, a global public health non-profit based in Bengaluru, India, to fill this gap. We collaborated to bring accurate (antigen-based) SARS-CoV-2 (the virus that causes COVID-19) self-testing kits for self-administered use to factory workers in Bengaluru.

A peer-assisted model was used. The results revealed that a nasal sampling-based self-testing kit for COVID-19 shows overall moderate to high levels of usability. Our hope is that our findings, presented in this playbook, will serve as a go-to resource for pandemic preparedness in similar settings around the world. Access to affordable and accurate diagnostic testing, collaboration between organisations, and user-friendly testing kits are crucial in any geography for an effective pandemic response and for building resilient health systems.

As COVID-19 struck Low and Middle Income Countries (LMICs), the most marginalised communities faced a range of problems pertaining to their health and livelihood that hindered their access to and utilisation of COVID-19 services aimed at prevention and treatment.



FIND accelerates equitable access to reliable diagnosis around the world. It is working to close critical testing gaps that leave people at risk from preventable and treatable illnesses, enable effective disease surveillance, and build sustainable, resilient health systems. In partnership with countries, WHO and other global health agencies, FIND is driving progress towards global health security and universal health coverage. FIND is a WHO Collaborating Centre for Laboratory Strengthening and Diagnostic Technology Evaluation.

Testing in hard-to-reach and extremely vulnerable populations remains difficult. Limited access to testing leads to delayed identification of COVID-19, resulting in both poor health outcomes for the infected individual and in increased transmission in the community. Effective testing is also constrained by the fact that there is a palpable fear of getting tested, especially among vulnerable communities, due to:

- ⌘ Lack of trust in institutional quarantine and fear of forced institutional quarantine away from one's family and community
- ⌘ Loss of livelihood and limited ability to survive in quarantine
- ⌘ Stigma and discrimination from community members and care providers

Swasti collaborated with FIND to conduct a study in two factories. The first was a small factory with around 200 employees and the other was a large factory with around 1,250 employees in the Peenya industrial cluster in Bengaluru, India. The purpose was to determine the usability, feasibility, and acceptability of a peer-assisted self-testing model, and to generate learnings about the implementation of a self-test-based routine surveillance programme for COVID-19 (and for similar emerging public and community health threats) in a factory setting, specifically in the LMICs.

It is our hope that this playbook serves as a resource for pandemic preparedness, and any self-testing initiative aimed at safeguarding and promoting the health of vulnerable workers.

Aditi Srinivasan

Senior Manager, Market Innovations
FIND

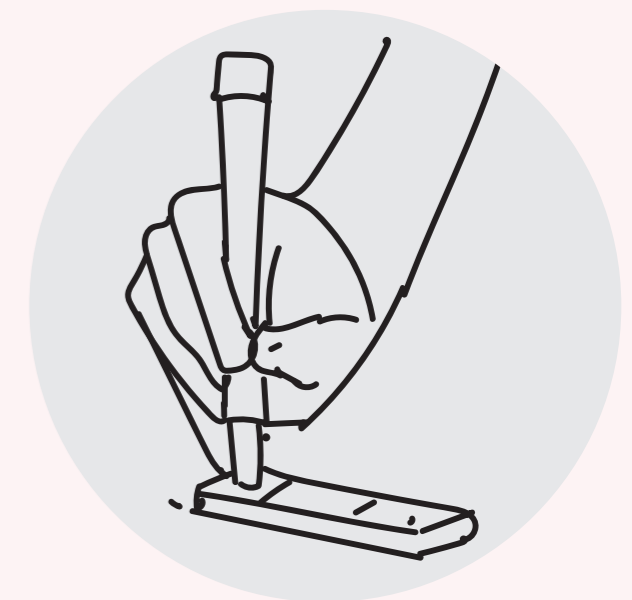


Scan here to
watch Neha
elaborate on the
FIND x Swasti
Partnership

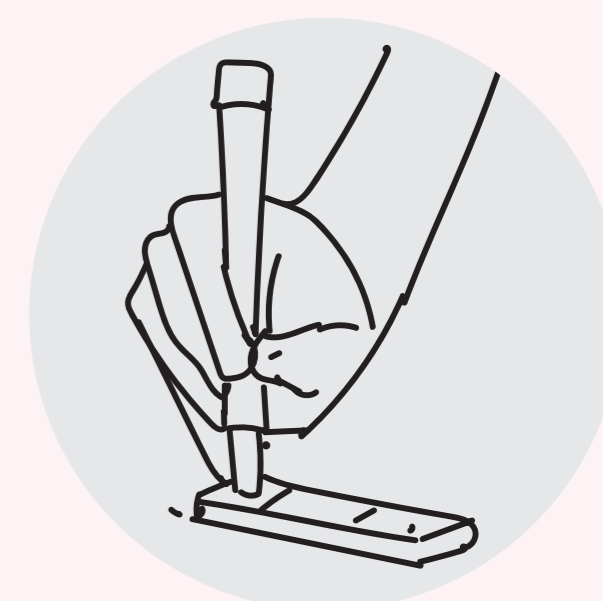


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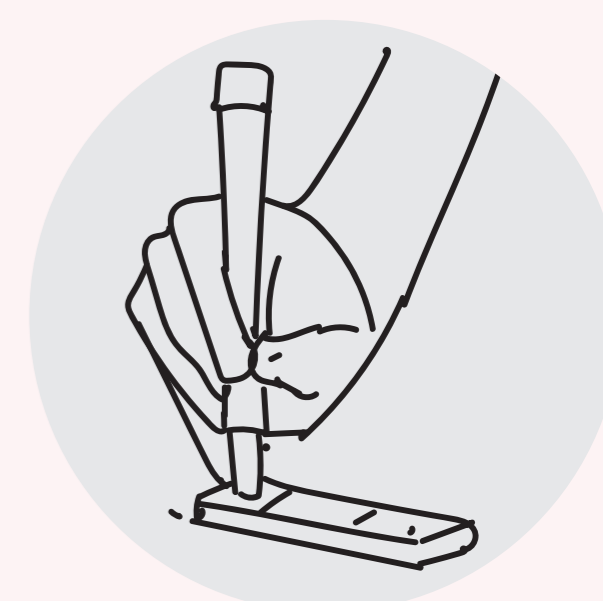
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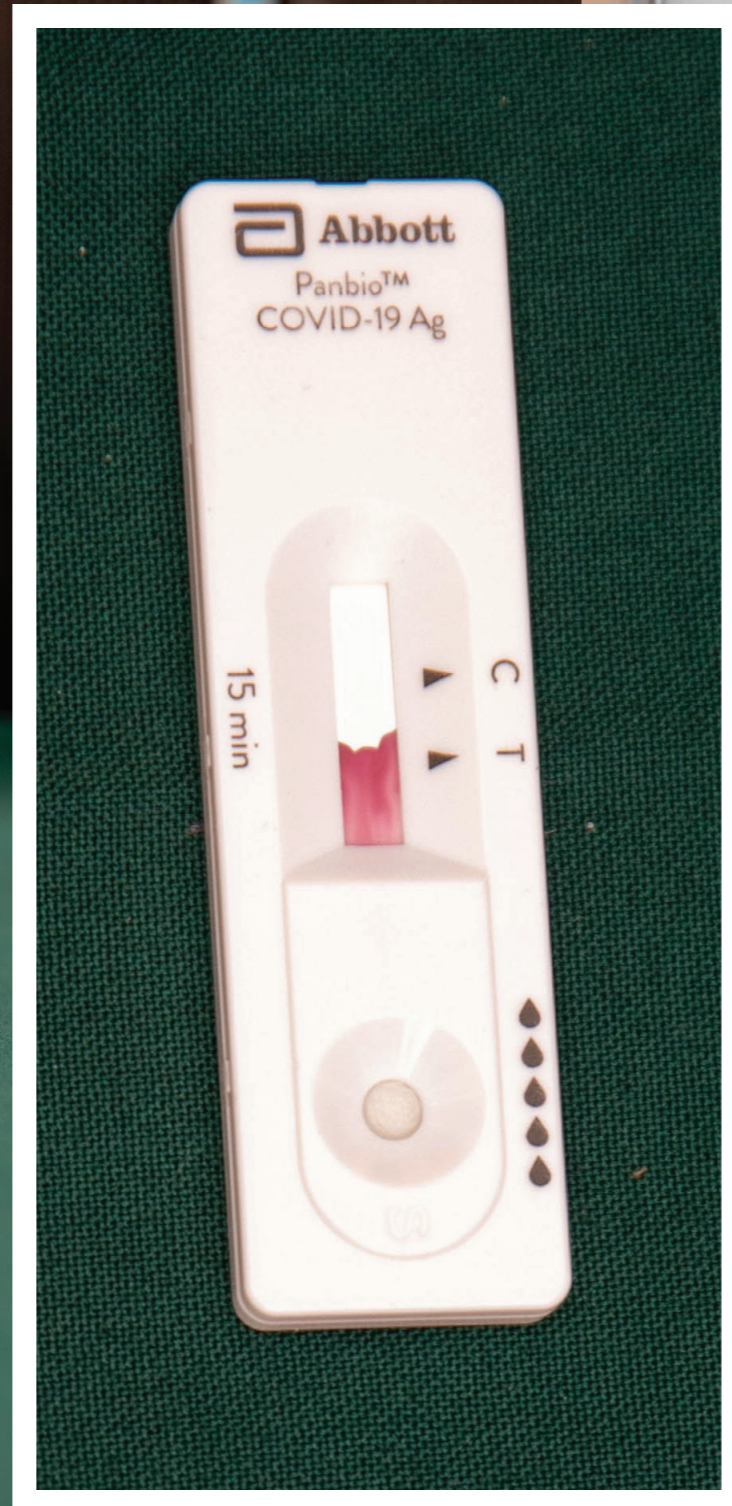


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What is a Playbook?

A playbook includes “process workflows, standard operating procedures, and cultural values that shape a consistent response—the play.”

It borrows from some of the Aristotelian elements of the play -

Plot

The arrangement of events or incidents on the stage.
The plot is composed of “clearly defined problems for characters to solve.”

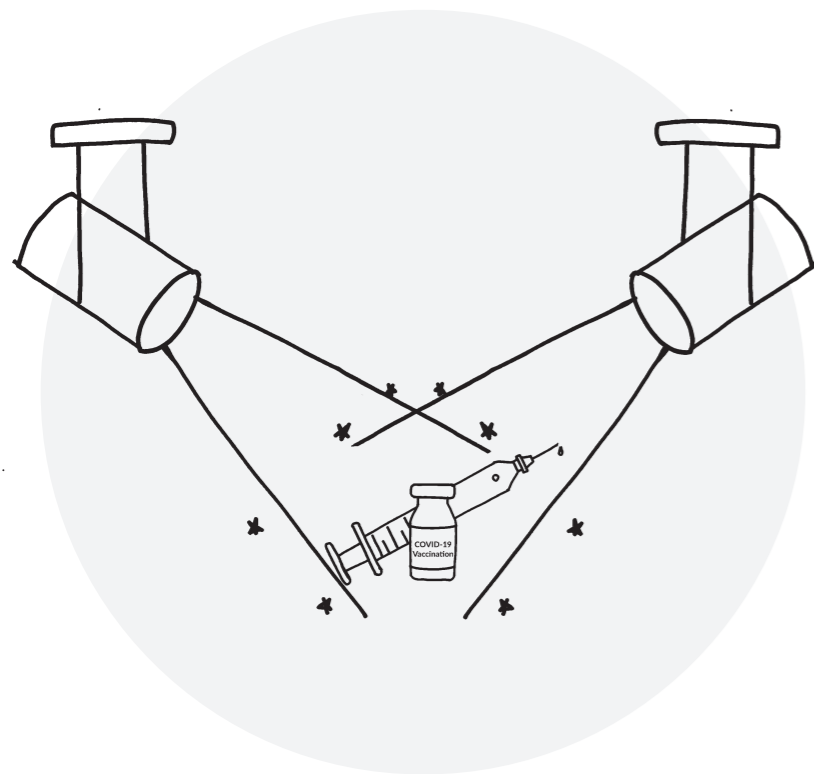
Character

The agents of the plot. The People.

Theme

The reason for the play. The Purpose.

Three of the six Aristotelian elements of the play



How to make the best use of this playbook

This playbook, *Self-Testing in Factories | India: A Playbook for Global Pandemic Preparedness*, has been designed to be used in the field by practitioners.

You can use the playbook to adopt self-testing measures and guidance not only for COVID-19 but also for any self-test in the future in terms of global pandemic preparedness. The sections can be adapted for any workplace setting such as offices, shops, and other establishments. Given the nature of the activities, the approach is also applicable across geographies and industries.

The logical layout of the playbook, and therefore its independent use in different settings, conditions, and circumstances, is based on the following:

The Why? – Understanding the logic of self-testing and its merits, especially in the context of worker safety, access of workers and their communities to have knowledge about their own health, and an individual’s agency in terms of securing one’s health care. This can be used for advocacy for self-testing in factories. **You will find this on pages 3–4 in the chapters Plot: Problem Statement and Purpose and Objective.**

The Who? – Recognizing the roles that various people need to play. These could be existing personnel who take up various roles to make self-testing at the workplace a stress-free and smooth process. This can be used to understand the role of the human resource personnel who will need to be ideally deployed. **You will find this on pages 6–10 in the chapter People.**

The Key Differentiator – Gaining insight into peer-assisted self-testing. The key success factor and differentiator in making the self-testing method work and why it works. This can be used to adapt this approach to different situations. **You will find this on page 11 in the chapter The Secret to Success: Peer-Assisted Self-Testing.**

The Where? – Choosing the right places and addressing concerns about privacy in any health activity setting — whether it should be stand-alone or integrated — is a powerful and valid concern. This helps in understanding the importance of physical space. This can be used to physically alter places or to book suitable places required for self-testing. **You will find this on pages 15–18 in the chapter Places.**

The When? – Rolling out self-testing successfully in any setting always rests on two axes: Axis 1 – The health-seeking behaviour of an individual; and Axis 2 – The environment that dictates the urgency of self-testing or that enables self-testing. It is also important to take into account the scale at which self-testing is planned to be rolled out. This is a crucial insight that helps reduce panic or stress in any individual, demographic group, or community. This can be used as a rubric or framework to make decisions pertaining to self-testing. **You will find this on pages 22–29 in the chapter Act 1. Scene 1. The Planning Phase.**

The How? – While the entire playbook is essentially about “The How?”, the logical layout of the sections is, in essence, “The How”. This can be used to design self-testing campaigns and events, or to keep these campaigns and events rolling throughout the year in order to reach out to a specific group of the most vulnerable people or to take a census approach. **You will find this on pages 32–67 in the chapters Act 1. Scene 1. The Planning Phase; Act 1. Scene 2. The Pre-Rollout Phase; Act 2: The Rollout of the Self-Testing Phase; and Act 3: Post the Self-Testing Phase and Stage Directions.**

Hence, depending on which question you are seeking an answer to in the context of self-testing in the workplace, the playbook is designed to help you as a whole or in parts.

Plot: Problem Statement

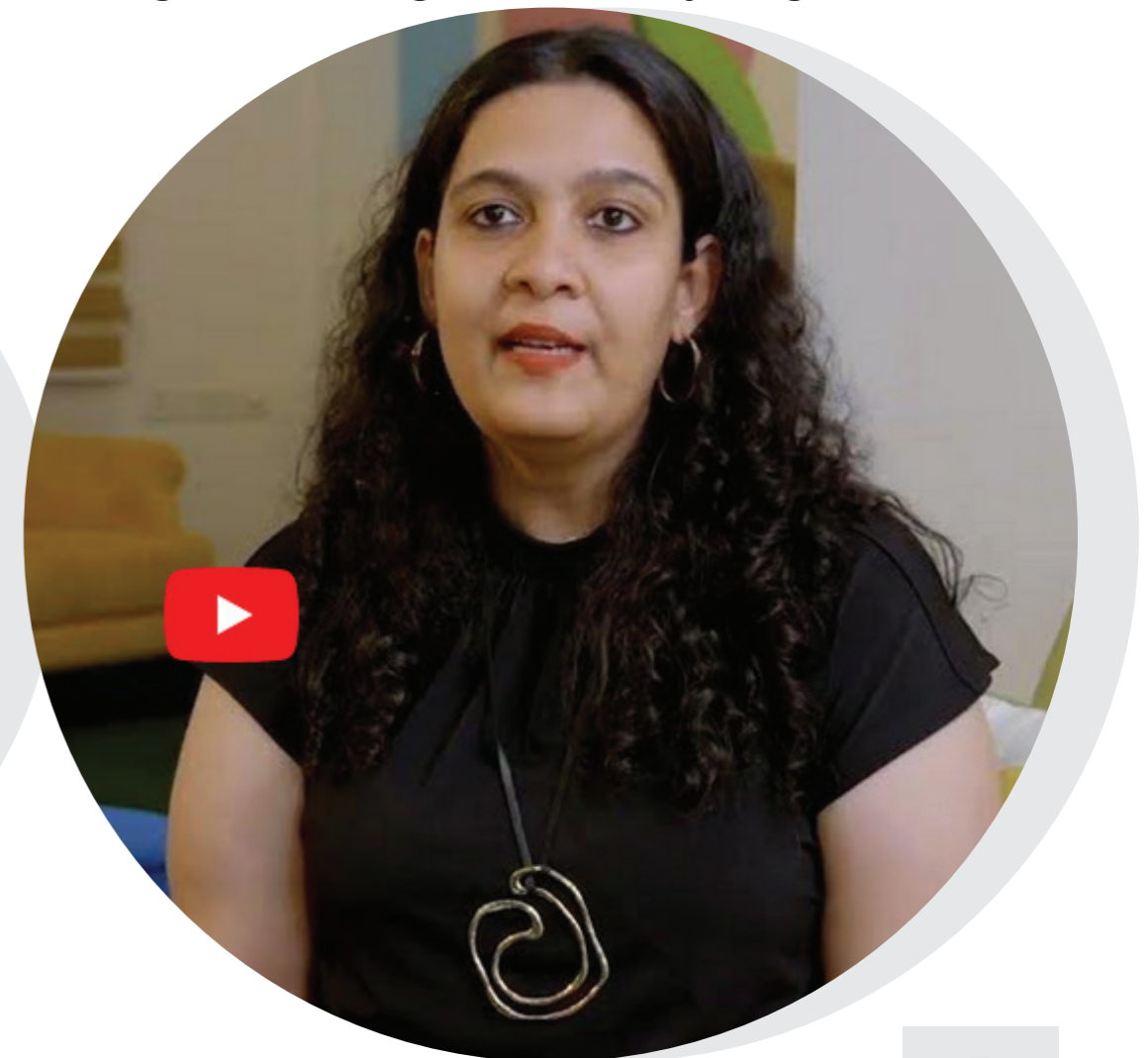
As the COVID-19 lockdowns eased and as workplaces started opening up, worker safety and the early identification of potential outbreaks became important requirements for keeping communities safe. Many industries and sectors that provide essential services such as banking and manufacturing struggled to stabilize themselves due to large numbers of their staff getting repeatedly infected. Gradually, the major industry players, based on epidemiologic indications, realized that COVID-19 was here to stay, and that they needed to prepare the economy and, more importantly the workers, to remain resilient in the face of imminent waves of infection.

The two key ways of tackling this issue were to (a) increase the rates of vaccination; and (b) institute policies for regular screening and periodic COVID-19 testing at workplaces. These measures were important for recovery not only to ensure business continuity but also to protect employee well-being and health at all times.

Settings where workers are in close proximity, such as manufacturing units and garment factories, are at particularly high risk of large outbreaks. Typically, these workplaces exist in industrial clusters or informal settlements, and outbreaks in these units can lead directly to outbreaks in surrounding communities, and vice versa.

Workers usually hail from marginalised communities such as migrants, daily wage earners, and the urban and rural poor who generally have lower levels of access to health systems and health information and who often skip health check-ups entirely to avoid compromising the earning of their daily wage.

Scan here to watch Neha discuss the challenges during the COVID-19 pandemic in India and the reason for self-testing:



Purpose and Objective

The information on self-testing in this Playbook offers guidance to help factory owners, workplace managers, and policy makers explore suitable options for self-testing for vulnerable populations, gather insights into what works and what does not, and deploy communication strategies to address myths and misconceptions. The playbook outlines the steps required for incorporating self-testing activities that can be undertaken for smooth planning and for rolling out the self-testing measures at the workplace.

In the playbook, you will find:

- ⌘ Set of activities to integrate self-testing as an activity in the workplace
- ⌘ Summary checklist
- ⌘ Team role matrix
- ⌘ Tips and tricks

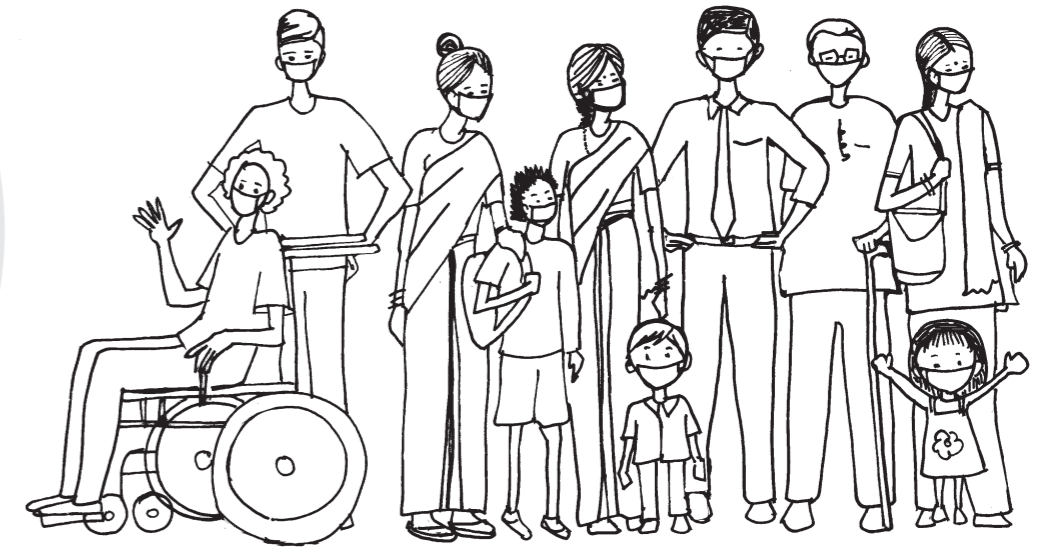
The playbook divides the entire process into three acts, which are as follows:

Act 1

- **Scene 1: The planning phase**
- **Scene 2: The pre-rollout phase**

Act 2: The rollout of the self-testing phase

Act 3: The post-self-testing phase



Scan here to watch Neha talk about why Swasti conducted this research study:







PEOPLE

Who are the people?

Testing Supervisor

Role:

- ⌘ Picks the testing strategy and prepares the testing plan
- ⌘ Facilitates training and orientation activities
- ⌘ Manages the resources required for testing

What does the Testing Supervisor need?

- ⌘ Information about the nature and scope of the community spread and the organisational risks for COVID-19, so as to select the most appropriate and most effective testing strategy
- ⌘ Assessment of the existing worker welfare policies and of the support systems in place
- ⌘ Human resources (HR) schedules and shift details, so as to plan testing properly

- ⌘ Technical support in the absence of a health-care provider in the organisation

Who can be the Testing Supervisor in your workplace?

- ⌘ HR associate – A person responsible for managing the human resources in the factory/workplace and related compliances.
- ⌘ Welfare officer – An individual assigned to support and engage workers in welfare activities in the workplace.



Clinical Team / Trained Welfare Officer:

Who are they: Doctors, nursing staff, or employee responsible for worker welfare

What does the Clinical Team need to know?

If the clinical team members / trained welfare officers are not used to working or interacting with vulnerable populations, it is important to have sensitisation sessions on the importance of providing respectful care. At the outset, it is important for the clinical team members / trained welfare officers to discard any assumptions they may have about the information on diseases and health care known or available to workers, or their ability to find this information by themselves. Migrant and daily wage workers may have had negative experiences and hence clinical team members / trained welfare officers should be briefed about answering specific health-related questions respectfully, sensitively, and carefully. During the COVID-19 pandemic, many people did not have access to general health care, even when they needed it most. So if testing initiatives for vulnerable populations are implemented during a pandemic, clinical teams should also use these occasions to address the general clinical concerns of workers and other vulnerable populations.

In this context, it is imperative for the clinical team member / trained welfare officer to carry out the following functions:

1. Provide pre- and post-counselling on what the self-test entails and what to expect.
2. Actively assist the workers in conducting the self-test
3. Ask workers if they have any questions or concerns and respectfully answer or address their questions or concerns, no matter how basic they may seem.
4. Help workers read the test results and address their concerns about treatment and facing stigma or discrimination if they test positive while deploying the protocol on positive test results.
5. Request workers to repeat the self-test the next day if they test negative and if they are experiencing or exhibiting symptoms.
6. Explain the importance of attending routine testing programmes when those who test negative are selected for random testing.



We taught people about how to take care of themselves and those around them when there are COVID-19 cases around. We taught them about using self-testing kits and how self-testing can help them be more aware and protect themselves. The employees were happy about this.

Mahalakshmi, Nurse, 36, English Blazer



Scan here to watch Meghana discuss the learnings and takeaways from peer-assisted self-testing in factories



Non-Clinical Personnel: Demand Generation and Post-Test Counselling

Who are they: Unit supervisors or mid-level managers in the factory

What do Non-Clinical Personnel need?

- ⌘ Knowledge of self-tests, specifically the ability to perform tests and read results
- ⌘ Understanding of the importance of self-tests, capacity to build consensus, and ability to mobilise workers to perform tests
- ⌘ Ability to use information, education and communication (IEC) material to create awareness
- ⌘ Overview of the testing programme and the ability to coordinate activities with unit heads and the factory management
- ⌘ Training to counsel workers who test positive and to coordinate with health facilities to seek and deploy further support
- ⌘ Knowledge of how to help workers receiving treatment to complete treatments and reach recovery



Situationally aware management: Anticipate interference and disturbances and have factory management informed and at hand who can handle issues as they come up.

The Secret to Success: Peer-Assisted Self-Testing

Why is peer-assisted self-testing important?

- ⌘ Presents fewer barriers in communication among peers
- ⌘ Circumvents the barriers of hierarchy between workers and their superiors or healthcare providers
- ⌘ Represents a buy-in of the intervention by the community for which it is designed
- ⌘ Builds a case for point-of-care diagnostics to reach the last mile
- ⌘ Allows factory owners to design programmes that suit their workers' needs.

Peers were selected based on the following criteria:

- ⌘ They were recommended by a supervisor or a peer.
- ⌘ They possessed strong communication skills.
- ⌘ They were quick learners.
- ⌘ They had prior experience as peer educators.
- ⌘ They had the ability to read and write and to perform data entry.



“

“In one year, we have developed a lot of peers. Most of the people are self-trained now. They know how to test themselves. And with the support of Swasti’s training, we are now prepared to take the intervention forward ourselves and then do the testing.”

Mr Madhu, Plant Lead, ACWA

Factory workers claimed that peer assistance was a critical component of self-testing. They found comfort in performing the test themselves after receiving instructions about the test process.

Factory workers preferred having their colleagues act as peer instructors over healthcare workers because the instructions provided by their co-workers were straightforward and simple to understand and follow.

“

“When we went to a nearby hospital, they simply took the swab and sent us back. They did not explain anything. Here, at the workplace, our peers have explained the process to us.”

Sumalatha*, *Factory Worker, 35*

“

“We were comfortable as our co-workers were providing us with instructions.”

Sangeetha*,
Factory Worker

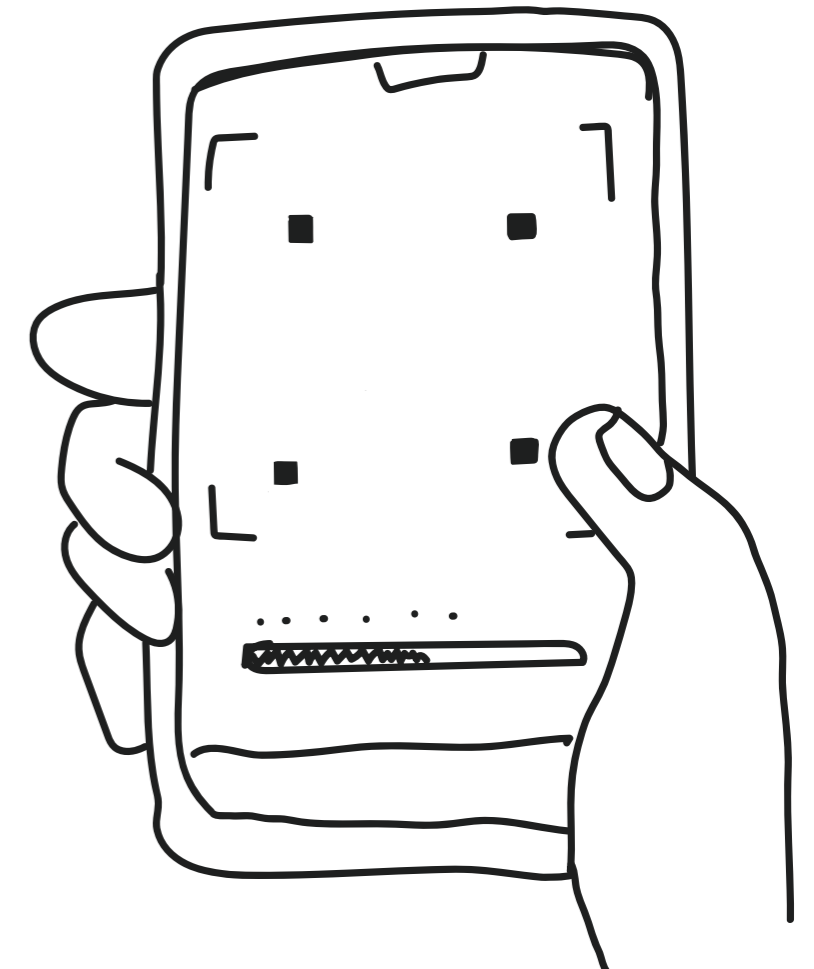


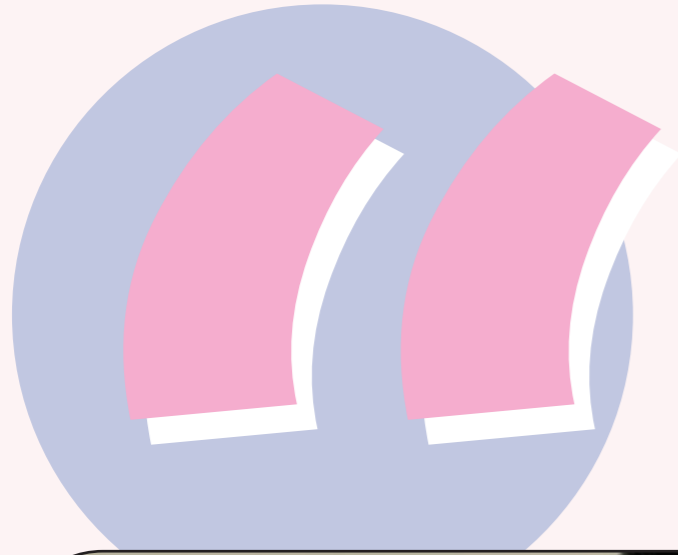
Scan here to watch Devaraju talk about the factory and community response to peer-assisted self-testing:



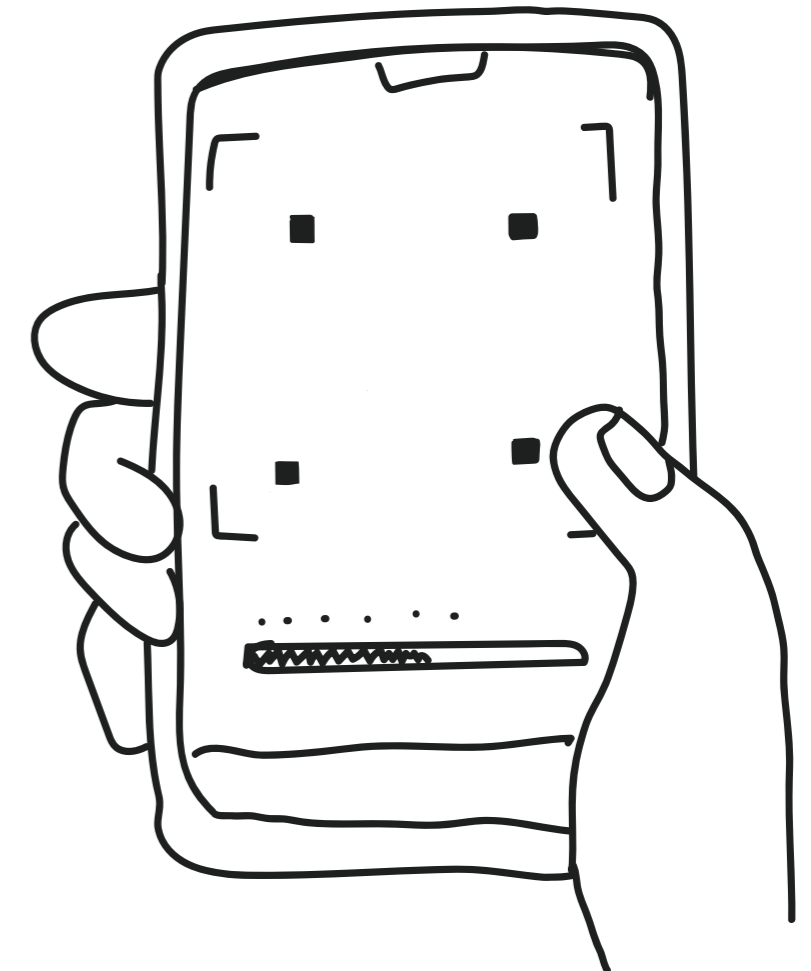
Peer assistants were trained in infection control and prevention (ICP) procedures, in the use of standard Personal Protective Equipment (PPE) during testing, in the use and benefits of self-testing using RATs, in the demonstration of the self-test kit, and in the use of support tools (e.g. paper/video Instructions for Use (IFU), sample collection, test operation, and result interpretation). They were also trained to address any concerns the participants might have about the consequences of the results and to provide a non-stigmatizing and supportive space for conducting self-testing. In addition, peer assistants were trained to use the manufacturer-provided app to report the results and to help employees use the app.

Scan here to watch Shantha talk about her experience as a peer assistant:





Scan here to watch Devaraju talk about his experience as a peer assistant:





C T

C T

15 min

Places

How to choose the right place to set up peer-assisted self-testing

In partnership with the peers, choose a location for peer-assisted self-testing that is most convenient and safest for them. Identify a location to conduct testing in the factory or workplace. This could be a room or a temporary setup at the workplace, such as a kiosk. The following are some examples of places where you can conduct testing for your workers:

- ⌘ Inside the workplace
- ⌘ Clinic or medical room
- ⌘ Isolation room
- ⌘ Conference or training hall
- ⌘ Dedicated kiosk set up on the floor of each functional area
- ⌘ At the workplace (if it allows for privacy)
- ⌘ Outside the workplace
- ⌘ Open space with a shelter/roof
- ⌘ Dedicated kiosk set up outside or at the entrance

If there are multiple sites or locations in the same workplace, it is important to ensure that all the sites and locations meet the following criteria.

The testing location should be:

- ⌘ Well ventilated — to prevent infection among people taking the test together or in close proximity in an enclosed space
- ⌘ Well lit — to ensure that the test is being conducted and interpreted correctly
- ⌘ Private — to protect the worker's privacy while performing the test
- ⌘ Accessible — to ensure that all workers will be able to access and perform the test quickly to minimise disruption to workplace production
- ⌘ Well equipped — with a flat and stable desk or table to perform the test, chairs without armrests for the workers, and large bins with biohazard waste disposal bags to dispose of the used test kits
- ⌘ Accessible facilities – Provision of drinking water, medical care, privacy, washroom.
- ⌘ Accessible for people with disabilities. If that is not possible, alternative arrangements should be made. This may involve discussing the matter with the medical officer at the vaccination centre to explore alternatives such as mobile vans.



“Earlier, we had to go outside, to the hospital, to get the test done. But later the test was provided in the factory itself, along with medication as needed and arrangements were made for us to avail the COVID-19 vaccination. This was a great benefit. Because of this, we could avoid the situation where we had to go out, stand in a queue and get tested, and maybe even end up testing positive due to the exposure.”

Sumit*, Quality Checker, ACWA, 27.



Learning Vignette

The Learning Finding

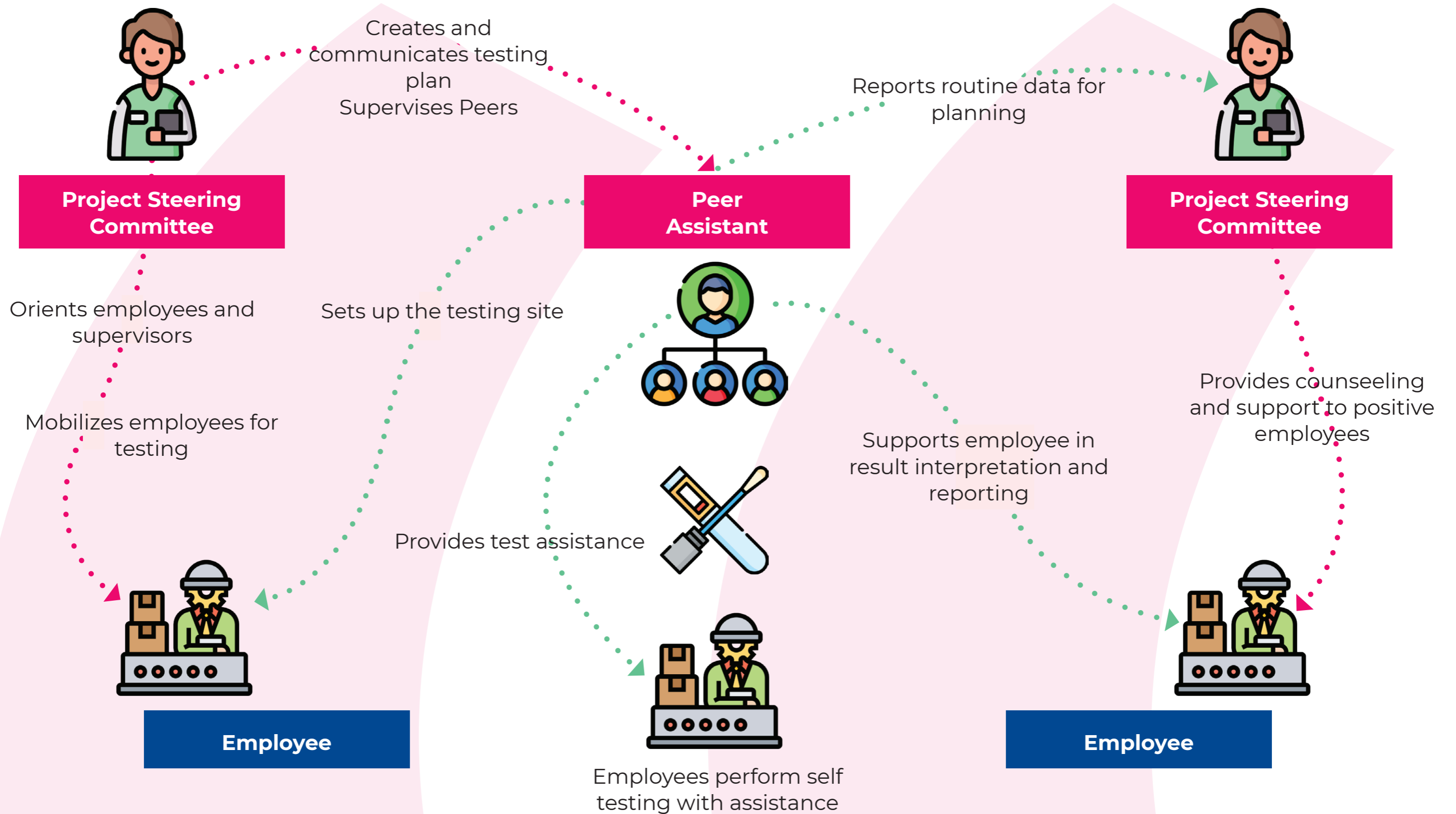
- ⌘ Initially, we had recommended that at least the sample collection should take place entirely in the open.
- ⌘ However, high temperatures and harsh sunlight deterred or prevented peer assistants from remaining outside for long periods.
- ⌘ A model for people stepping outside just for sample collection was tried, but the requirement of multiple changes in location for testing, sampling, and data entry led to crowding and confusion and hence proved to be inefficient and ineffective.
- ⌘ A new venue, a large and well-ventilated room, was then chosen for conducting the testing events.
- ⌘ We noted that while the staff accepted their negative result without much demure or questioning, in the case of those who tested positive and were asymptomatic, some amount of counselling was needed before they were ready to accept the result, specifically if the test line was a faint positive.
- ⌘ We also had an event when there was a clear faint positive on the test strip, but due to the lighting in the room, the mobile app picked it up as negative on the first try. On the second try, conducted in better lighting, the app was able to pick up the positive result. However, this led to confusion and doubt about the worker having tested positive.
- ⌘ These issues—that result in doubt, uncertainty, confusion, and resistance—will need to be addressed in training programmes for both peers and the management / HR personnel at the factory who are responsible for counselling workers.

The Learning Action

- ⌘ Choose a location keeping in mind comfort, convenience, and accessibility in terms of temperature, openness, and ventilation. In some parts of the world, climatic conditions (such as temperature and rainfall) are unpredictable, and it may make sense to perform self-testing activities always in indoor spaces while keeping in mind the requirements for safe distancing.
- ⌘ Good lighting is essential to avoid confusion, doubt, or uncertainty about the test result and to prevent (or at least limit) interference with the app's reading of the results.
- ⌘ The lighting should ideally be white light, providing enough illumination for the task at hand, while creating the ambience and comfort you want in a given space.
- ⌘ It is advisable to switch on the lights even during the daytime unless the room is naturally well lit.



Process Workflow



Summary Checklist

Planning Phase

- Conducting the Factory Readiness and Risk Assessment.
- Securing buy-in from the factory management.
- Holding an orientation meeting with the workers to explain why regular testing is necessary in factories.
- Setting up the project steering committee for mobilisation, testing, and referral.
- Choosing a Rapid Antigen Test (RAT) kit.
- Selecting and training the peer assistants.
- Assessing when the self-test kits should be issued at the workplace as per the factory readiness and risk assessment.

Pre-Rollout Phase

- Establish data collection and monitoring mechanisms.
- Train peer assistants on data collection and monitoring mechanisms and protocols.
- Establish a test kit-tracking mechanism to avoid a shortage of kits and to prevent the use of expired kits.
- Organise demand-generation activities such as building awareness about the importance of self-testing during meetings, using information, education and communication (IEC) material, providing counselling, etc.
- Create a schedule, along with the time and date, for the departments/workers to be tested.
- Select the most appropriate package of measures that fit your workplace setting to ensure the implementation of infection prevention and control (IPC) measures.

Rollout of Self-testing

- Go through the logistics checklist on the setting up of the testing site.
- Conduct self-testing with peer assistants as per the pre-decided schedule.
- Ask workers to wear their masks at all times except during sample collection.
- Peer assistants should provide loud and clear instructions on all the components of the test kit and on how to use them for the workers.
- Peer assistants should ensure that the workers avoid contaminating the sample due to improper methods or failure to follow instructions.
- Peer assistants should alert the workers to read their results within the accurate time window and help them interpret their results.
- Peer assistants should assist the workers in documenting their self-test results through the application provided by the self-test manufacturer.
- Peer assistants should guide and communicate with workers who have tested positive on the next steps that should be taken.
- Close off and disinfect the areas used by the person(s) who have tested positive.

Post Self-Testing Phase

- Take appropriate result-based actions for each worker.
- Provide post-test counselling for those who may have tested positive or for those who may have queries.
- Take result-based actions for the factory, i.e., conducting contact tracing, sanitising the workplace, evaluating the risk of exposure, etc.
- Assess the data from the self-tests to reduce COVID-19 risks in the workplace.





ACT 1. SCENE 1.
THE PLANNING PHASE

Planning phase : The workplace readiness assessment

COVID-19 self-testing programmes can be implemented in many ways and are unique to the needs and capacities of each factory.

Assessing the risk for the workforce, choosing the right testing strategy based on the risks, and creating and implementing a nuanced testing plan is critical to achieving a resilient workplace.

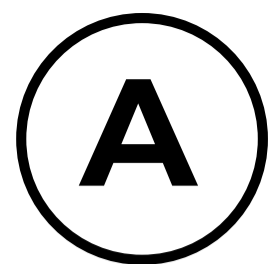
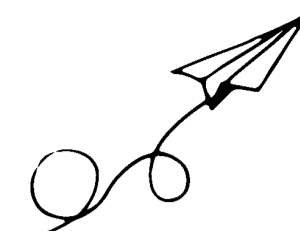
Before engaging the workforce in a testing programme, it is helpful to conduct a workplace readiness assessment to evaluate the level of risk, the existing capacities, and the requirements for choosing the right mix of strategies for your workplace.

A copy of the pullout worksheet can be found in Appendix A.

Scan here to watch Madhu discuss the challenges during the COVID-19 pandemic and the reasons for self-testing:



Factory Readiness and Risk Assessment



Employers are recommended to use this workplace readiness assessment to make an informed decision about workplace testing programs for SARS-CoV-2 for their employees.

Section 1: ASSESS YOUR INFORMATION

Are you using the latest COVID-19 Information to track your local risk and set safety rules for Infection prevention?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you know your employees' vaccination status?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are employees routinely tested for COVID-19?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you do daily temperature checks and health assessments?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you tracking the risk level in communities where employees may travel for work?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you reporting cases to BBMP/ICMR (Reporting authority)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is your company in regular touch with your local public health department for up-to-date information on community resources and opportunities to collaborate on community health?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Section 2: ASSESS YOUR POLICIES

Do you have a vaccination policy?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you offer paid leave for employees to get themselves and their family members vaccinated?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you offer paid sick leave to allow workers to stay home when they fall sick or need to isolate themselves?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you conducting health education sessions and continuing to address myths and misinformation about COVID-19 and vaccination?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you have a way for employees to report safety concerns and issues anonymously?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Section 3: ASSESS YOUR OPERATIONS

Are there any areas of your company that lack indoor ventilation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your company have enough supply of tests for workers?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you have a stock of masks to distribute as needed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your workspace accommodate social distancing?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are your sanitation protocols up to date?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have you reduced frequent touchpoints with hands-free solutions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is your workplace prepared to offer on-site booster shots if a new variant requires them?	<input type="checkbox"/> Yes <input type="checkbox"/> No

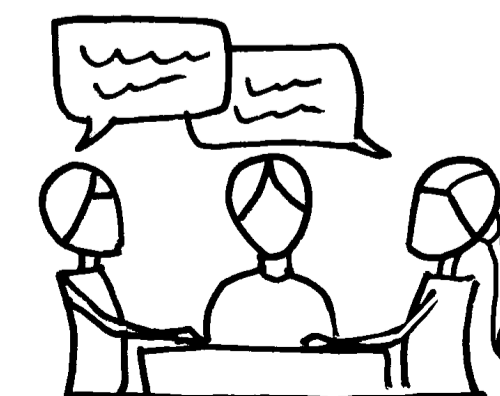
Section 4: ASSESS SYSTEMS OF SUPPORT

Do you support employees who want to continue wearing masks?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you have a policy to address employee concerns about working with unvaccinated coworkers or in unsafe conditions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you considering and incorporating employee feedback—including that of employees who belong to adversely affected populations—into your planning for upcoming health challenges?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you offer support/flexibility for employees with new family care responsibilities or continued vulnerability to disease?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are your company managers trained to check in on employees' mental well-being and needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your company offer support for employees' mental well-being and needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Do your company have employee-led groups for women, people with disabilities, mental health, or other affinity needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do your employees access affordable healthcare through your company's health insurance?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your insurance plan comply with the Mental Healthcare Act, of 2017?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your company offer a Worker well-being/Welfare Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have you assessed its offerings to meet your current challenges or demands?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you regularly informing your staff about benefits such as employee insurance and paid sick leave?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Section 5: ASSESS YOUR FLEXIBILITY

Are you inviting your workers to help identify creative and flexible solutions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are employees cross-trained in other company functions in the event of an outbreak at your workplace?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you prepared to hire temporary workers to supplement your workforce if employees get sick?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have you identified ways to expand social distancing protocols if needed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are there any operations appropriate to move outdoors?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you working with other local businesses to identify cooperative and creative solutions during a public health crisis?	<input type="checkbox"/> Yes <input type="checkbox"/> No



Factory Readiness and Risk Assessment

B

Employers are recommended to use this workplace readiness assessment to make an informed decision about workplace testing programs for SARS-CoV-2 for their employees.



Low Risk

IF

Community spread is low (less than 5%)

AND

The vaccination rate among the workforce is high (greater or equal to 90 percent vaccination coverage)

There are no outbreaks among your workforce.

THEN

- ⌘ Help employees keep their vaccinations up-to-date
- ⌘ Upgrade indoor ventilation systems
- ⌘ Support employees who choose to keep wearing masks
- ⌘ Post visual cues for social distancing recommendations
- ⌘ Consider making masks available on site for workers at high risk or for those who choose to wear a mask
- ⌘ Continue to follow ICMR quarantine and isolation guidance for workers who are exposed or who test positive for COVID-19.

To access data on community transmission and vaccination rates in your area, refer to reports shared by your local municipal health department or national health department.



Medium Risk

IF

Community spread is moderate (between 5-10%)

OR

The workforce vaccination rate is low

There is an outbreak among the workforce

THEN

- ⌘ Make masks available for workers at high risk
- ⌘ Consider requiring masks for unvaccinated workers
- ⌘ Require masks for workers who have been exposed to COVID-19
- ⌘ Consider weekly testing of unvaccinated employees
- ⌘ Consider expanding hybrid or remote work options
- ⌘ Implement protocols for social distancing
- ⌘ Consider allowing business travel only for vaccinated employees
- ⌘ Help your employees keep their vaccinations and booster doses up-to-date
- ⌘ Upgrade or improve the indoor ventilation systems
- ⌘ Continue to follow ICMR quarantine and isolation guidance for workers who are exposed or who test positive for COVID-19



High Risk

IF

Community spread is high (above 10%)

THEN

- ⌘ Require masks indoors for all workers
- ⌘ Require weekly testing for all workers
- ⌘ Pivot to remote work where possible
- ⌘ Enforce social distancing protocols on site
- ⌘ Consider suspending company travel
- ⌘ Help employees keep their vaccinations and booster doses up-to-date
- ⌘ Maintain improved ventilation
- ⌘ Continue to follow ICMR quarantine and isolation guidance for workers who are exposed or who test positive for COVID-19
- ⌘ Consider reducing the number of workers in each shift to allow the maximum social distancing possible



Action Guidance: Based on the workplace readiness assessment



IF

Community spread is low (less than 5%)

AND

The vaccination rate among the workforce is high (greater or equal to 90 percent vaccination coverage)

There are no outbreaks among your workforce.

THEN

- ⌘ Help employees keep their vaccinations up-to-date
- ⌘ Upgrade indoor ventilation systems
- ⌘ Support employees who choose to keep wearing masks
- ⌘ Post visual cues for social distancing recommendations
- ⌘ Consider making masks available on site for workers at high risk or for those who choose to wear a mask
- ⌘ Continue to follow ICMR quarantine and isolation guidance for workers who are exposed or who test positive for COVID-19.

On percentages of vaccination: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9144560/>

A copy of the above linked content with access dates can be found in the Appendix B



Medium Risk

IF

Community spread is moderate (between 5-10%)

OR

The workforce vaccination rate is low

There is an outbreak among the workforce

THEN

- ⌘ Make masks available for workers at high risk
- ⌘ Consider requiring masks for unvaccinated workers
- ⌘ Require masks for workers who have been exposed to COVID-19
- ⌘ Consider weekly testing of unvaccinated employees
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- ⌘ Implement protocols for social distancing
- ⌘ Consider allowing business travel only for vaccinated employees
- ⌘ Help your employees keep their vaccinations and booster doses up-to-date
- ⌘ Upgrade or improve the indoor ventilation systems
- ⌘ Continue to follow ICMR quarantine and isolation guidance for workers who are exposed or who test positive for COVID-19



High Risk

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Community spread is high (above 10%)

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- ⌘ Require masks indoors for all workers
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- ⌘ Maintain improved ventilation
- ⌘ Continue to follow ICMR quarantine and isolation guidance for workers who are exposed or who test positive for COVID-19
- ⌘ Consider reducing the number of workers in each shift to allow the maximum social distancing possible

Planning phase: Introducing Self-Testing at the workplace

Getting the buy-in from the workforce and the management

Organising an orientation meeting for workers on why regular testing is necessary for factories

Organising a 30-minute orientation session with the senior management, the mid-level management, and representatives of the workforce from each unit

Information to be given in the orientation meeting:

- ⌘ The Covid-19 wave: Understanding its importance and implications
- ⌘ Why is testing essential for the workforce?
- ⌘ Is testing mandatory or not?
- ⌘ Who will be testing? What are the logistics of testing?
- ⌘ Support for those who have tested positive
- ⌘ Benefits and harms (if any) of testing
- ⌘ Training on the use of the test kit for peer assistants
- ⌘ Demonstration on the use of the test kit by peer assistants

Tools that the factory management can use to run the orientation meeting:

- ⌘ Video that can be shared in WhatsApp groups and can be presented at meetings
- ⌘ Presentation with general information about the testing model

Note: Invite some workers who are known to be early adopters of new practices and innovations to try out the test kit. Get their feedback before implementing testing for the entire workforce.

Scan here to watch the self-test training video in Kannada:



Scan here to access the presentation with general information about the testing model:

Talking points: Conversational pointers when discussing the necessity of introducing self-testing in factories

Why is regular testing necessary in factories?

Periodic COVID-19 testing and screening at the workplace using Rapid Antigen Tests (RATs) can:

- ⌘ Reduce the risk of disease outbreaks due to asymptomatic cases
- ⌘ Help test, trace, and isolate positive cases to slow the spread of COVID-19
- ⌘ Keep your employees, their families, and the community safe
- ⌘ Help you conduct your business safely and prevent factory closures due to disease outbreaks
- ⌘ Assure your customers that the workplace is safe

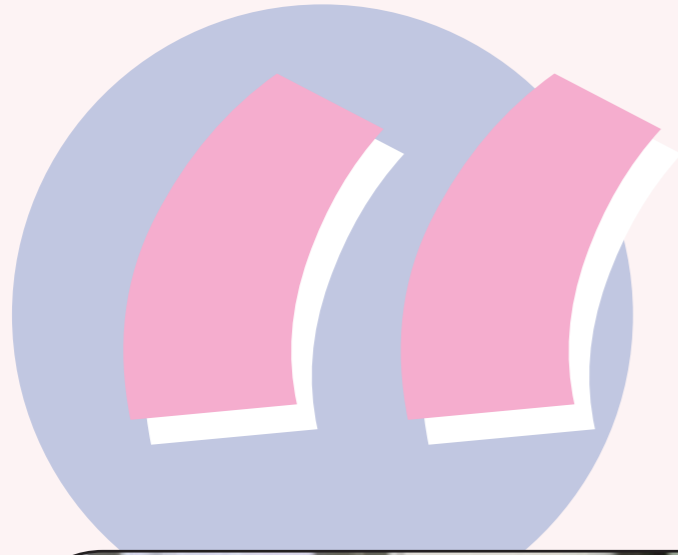
There is a high risk of risk of exposure in factories due to:

- ⌘ Contact with peers in close proximity, which leads to an increased possibility of spreading infection.
- ⌘ Erratic following of hygiene measures like washing hands frequently, sneezing while covering, wearing masks, etc.

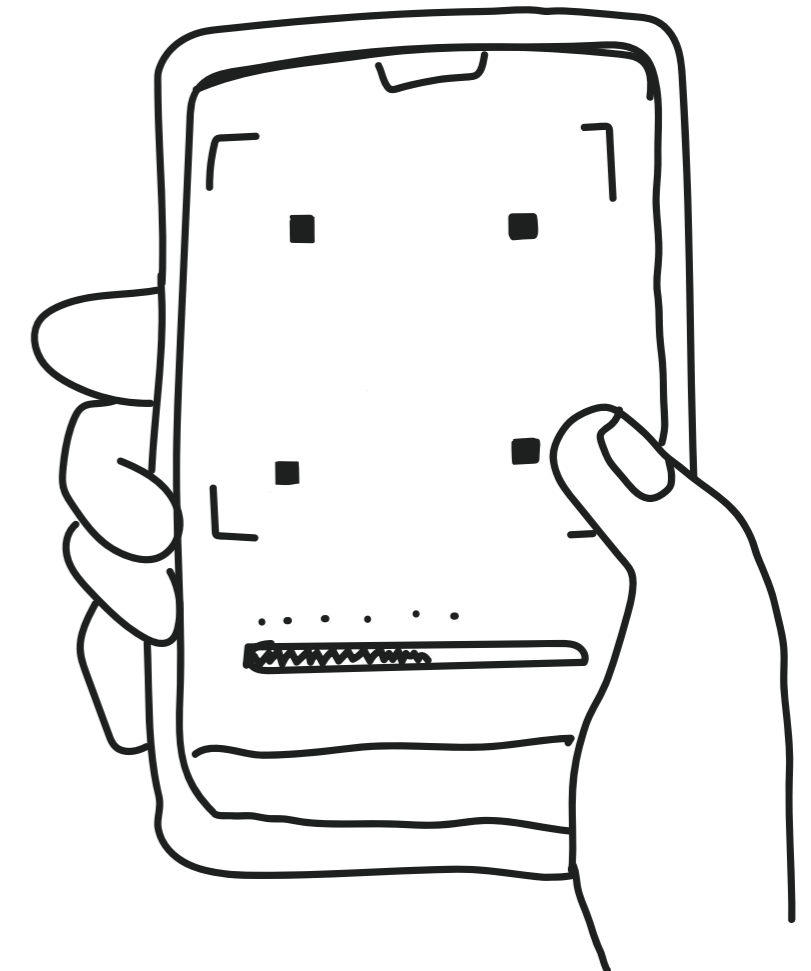


Scan here to watch Meghana talk about the importance of self-testing in factories:





Scan here to watch Madhu talk about how self-testing helped his factory in achieving pandemic preparedness:





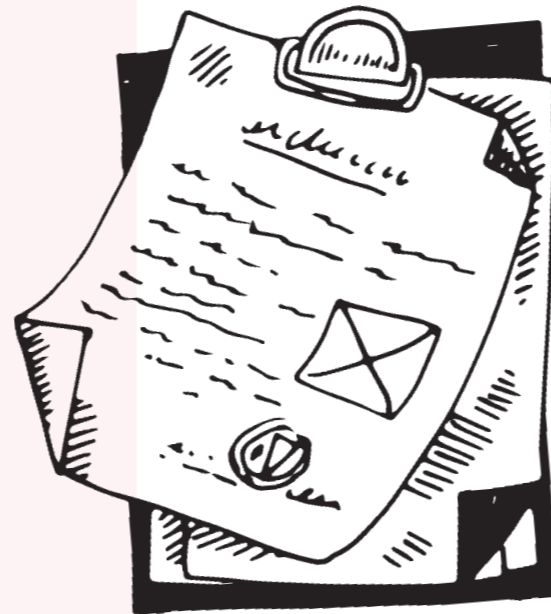
Planning Phase:

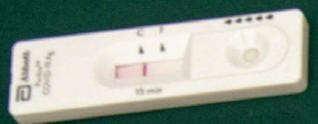
Establishing the project steering committee

Set up a project steering committee.

A project steering committee is a core group responsible for three key activities: mobilisation, testing, and referral.

Setting up a testing programme for your workforce requires an intense collaborative effort by the different department heads, the HR and administrative departments, and employees. Setting up a core committee of members to handle the specific duties of such a programme is the first and most important step. You can also designate a single person to perform two or more activities if required and if you have limited human resources.





14 वर्ष से कम आयु के बच्चों की मददगार एक चरण द्वारा की जानी चाहिए।
 निर्धारित निर्देश पढ़ना शुरू करें। (सिंगल टेस्ट) पूरा करने के लिए दो नई परीक्षण प्रक्रिया हैं: 4 मिनट, 10 मिनट और 20 मिनट। इनमें से कोई भी परीक्षण को पूरा करने के लिए समर्थित मान्य है। यदि एक से अधिक व्यक्तियों का परीक्षण किया जाएगा, तो सबकुछ से बचने के लिए परीक्षण सामग्रियों को अलग करें।

शुरू करने से पहले

NAVICA ऐप डाउनलोड करने के लिए पेज 1 पर दिए गए QR को स्कैन करें। ऐप खोलें और टेस्ट पूरा करने के लिए निर्देशों का पालन करें।

अपने हाथों को धोएं या सैनिटाइज करें। सुनिश्चित करें कि शुरू करने से पहले वे सूखे हैं।

A. टेस्ट के लिए तैयार हो जाएँ

- बॉक्स पर समाप्ति तिथि की जाँच करें। किट के एक्सपायर होने पर उपयोग ना करें।
- सुनिश्चित करें कि उपयोग करने से पहले किट कम-से-कम 30 मिनट के लिए कमरे के तापमान पर हो। बॉक्स खोलें और सिंगल टेस्ट करने के लिए नीचे दिखाई गई सामग्रियों में से प्रत्येक से 1 निकालें। निर्देश दिए जाने तक अलग-अलग सामग्रियों को ना खोलें।

1 टेस्ट डिवाइस, 1 ट्यूब, 1 नीली कैप, 1 स्वाब, 1 बैग, 1 बफर बॉटल (0.4 mL), 1 ट्यूब रैक, 4 गाँठे या 1 गाँठे वाला ट्यूब रैक (किट के आकार के अनुसार अलग-अलग)

ध्यान दें: एक ट्यूबिंग डिवाइस (घड़ी, टाइमर, आदि) की आवश्यकता है, लेकिन प्रदान नहीं की गई है।

1. टेस्ट डिवाइस को तैयार करें। बॉटल को खोलें और ट्यूब को घुमाएँ और खींचें।

2. बफर बॉटल को खोलें और ट्यूब को घुमाएँ और खींचें।

3. ट्यूब को खोलें और ट्यूब रैक में डालें। ध्यान दें: तैयार करने के लिए ट्यूब के अंदर का फिल्टर को खोलें।

4. ट्यूब को खोलें और ट्यूब रैक में डालें। ध्यान दें: तैयार करने के लिए ट्यूब के अंदर का फिल्टर को खोलें।

B. नाक से सैम्पल को इकट्ठा करें

उंगलियों को स्वाब के छोर से दूर रखें।

- स्टिक के सिरे पर स्वाब प्रोटेक्टिव पैकेज खोलें। स्वाब को बाहर निकालें।
- दोनों नथुनों में स्वाब डालें। प्रतिरोध महसूस होने तक (लगभग 2 cm) स्वाब के नरम सिरे को सीधे अपने नथुने में डालें। धीरे से स्वाब को घुमाएँ, इसे कम-से-कम 5 बार अपने नाक के मार्ग के अंदरूनी हिस्से से रगड़ें। नथुने से स्वाब निकालें।
- उसी स्वाब का उपयोग करते हुए, अपने अन्य नथुने में चरण 7 को दोहराएँ।

प्रत्येक नथुने में कम-से-कम 5 बार घुमाएँ

रुकें। चेक करें: क्या आपने दोनों नथुनों को स्वाब किया?

- स्वाब को ट्यूब में डालें। ट्यूब की दीवार पर दबाते हुए तल के अंदर उसे 5 या अधिक बार घुमाएँ। बचे हुए तल पदार्थ को निकालने के लिए ट्यूब की दीवार से स्वाब रिप को पिंच करें।
- एक हाथ से ट्यूब को मजबूती से पकड़ें। स्वाब को बाहर की ओर उठाएँ और ब्रेक लाइन का पता लगाएँ। ब्रेक लाइन पर स्वाब हैडल को तोड़ दें। ट्यूब में स्वाब को छोड़ें और बची स्टिक को हटा दें। ध्यान दें: बफर में स्वाब डालने के बाद, बफर के निष्क्रिय गुण और बंद निष्कर्षण ट्यूब के भौतिक अवरोध, कोविड-19 वायरस को बेअसर करने में मदद करते हैं।
- ट्यूब के शीर्ष पर ब्लू कैप को लगा दें। आगे कदम को करने से पहले ट्यूब को ट्यूब रैक में वापस रख दें।

C. परीक्षण करें

- सुरक्षात्मक पैकेज से टेस्ट डिवाइस निकालें और एक अच्छे प्रकारात्म्य स्थान में सपाट सतह पर रखें।
- तरल में बुलबुलों की जाँच करें। बुलबुलों के गायब होने की प्रतीक्षा करें क्योंकि उनसे गलत परिणाम आ सकते हैं। सफेद कैप को नीचे की ओर रखते हुए ट्यूब को लंबवत रखें। सफेद कैप को हटा दें।
- टेस्ट डिवाइस को तब तक ना हिलाएँ, जब तक कि टेस्ट खाल ना हो जाए।
- ट्यूब से तरल की 5 बूंदों को टेस्ट डिवाइस पर गोलाकार स्थान में टपकाएँ। ट्यूब पर सफेद कैप वापस लगाएँ और 15 मिनट प्रतीक्षा करें।

ध्यान दें: यदि कलॉगिंग होती है, तो ब्लॉकिंग को समान करने के लिए ट्यूब के निचले हिस्से को धीरे से टैप करें।

इस अवधि के दौरान टेस्ट डिवाइस को स्पर्श ना करें।

- टेस्ट डिवाइस को टेबल पर फ्लैट रखें। 15 मिनट के बाद, टेस्ट डिवाइस की फोटो लेने के लिए NAVICA ऐप का इस्तेमाल करें और अपना रिजल्ट सबमिट करें। ऐप स्वचालित रूप से आपका रिजल्ट आईसीएमआर को रिपोर्ट कर देगा और आपका टेस्ट परीक्षा रिजल्ट प्रदर्शित करेगा। परिणाम 15 मिनट से पहले या 20 मिनट के बाद ना पढ़ें।

15 मिनट प्रतीक्षा करें
15-20 मिनट पर पढ़ें

ध्यान दें: परिणाम विंडो में एक नियंत्रण (C) पंक्ति कुछ मिनटों के भीतर दिखाई दे सकती है, लेकिन एक टेस्ट (T) पंक्ति को प्रदर्शित होने में 15 मिनट तक का समय लग सकता है। ध्यान दें: 20 मिनट के बाद परिणाम गलत हो सकता है।

D. टेस्ट का परिणाम पढ़ें

अभाव्य परिणाम (परीक्षण नहीं)

परिणाम विंडो खोजें। यदि परिणाम नहीं दिखाई देता है, तो परीक्षण ने काम नहीं किया है। यह गलत परीक्षण प्रक्रिया का संकेत है। इसे दोहराएँ और परीक्षण करना चाहिए।

पॉजिटिव परिणाम

परिणाम विंडो दूढ़ और दो लाइनों के लिए ध्यान से देखें। पॉजिटिव परिणाम: यदि आप दो लाइनें, कंट्रोल (C) लाइन और टेस्ट (T) लाइन देखते हैं, तो इसका मतलब है कि COVID-19 पाया गया है।

यह पॉजिटिव टेस्ट के उदाहरण हैं:

नजदीक से देखें! किसी भी टेस्ट (T) लाइन की उपस्थिति, कितनी भी फीकी होने पर भी एक पॉजिटिव परिणाम है।

यदि पॉजिटिव है, तो तुरंत अपने डॉक्टर या स्थानीय स्वास्थ्य विभाग से संपर्क करें और सेल्फ-आइसोलेशन के लिए स्थानीय दिशानिर्देशों का पालन करें।

नेगेटिव परिणाम

परिणाम विंडो दूढ़ और विंडो में एक सिंगल लाइन को देखें। नेगेटिव परिणाम: यदि आप देखते हैं कि केवल नियंत्रण (C) लाइन मौजूद है, तो इसका अर्थ है कि COVID-19 नहीं पाया गया।

यह नेगेटिव टेस्ट का एक उदाहरण है:

यदि रैपिड एंटीजन परीक्षण के परिणाम नकारात्मक हैं और लक्षण जारी हैं, तो तुरंत आरटी-पीसीआर प्रतिक्रिया के लिए परीक्षण करना चाहिए। आपको सेल्फ-आइसोलेशन के लिए स्थानीय दिशानिर्देशों का पालन करना चाहिए। अपने डॉक्टर से परामर्श करने की सलाह भी दी जाती है। स्वास्थ्य एवं परिवार कल्याण मंत्रालय, भारत सरकार (<https://www.mohfw.gov.in>)

E. टेस्ट किट का निपटारा करें।

- स्वाब, ट्यूब और टेस्ट डिवाइस को बैग में रखें।
- बैग को कसकर सील करें।
- थैले को कचरे के डिब्बे में फेंक दें।

ध्यान दें: 20 मिनट के बाद परिणाम गलत हो सकता है।

Project Steering Committee:

A

Team role matrix

Members of the project steering committee



Roles

Testing Supervisor

Who plays these roles

Test planning and organisation can be performed by one or two human resource department / administration personnel based on the workforce size.

This person/people should have:

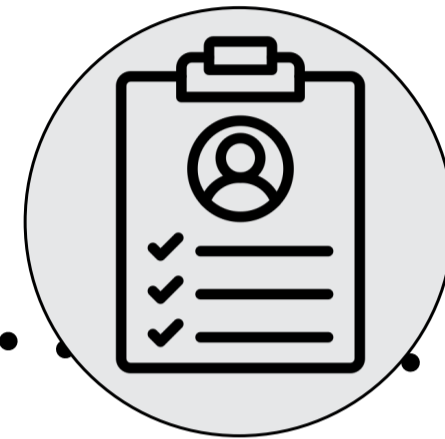
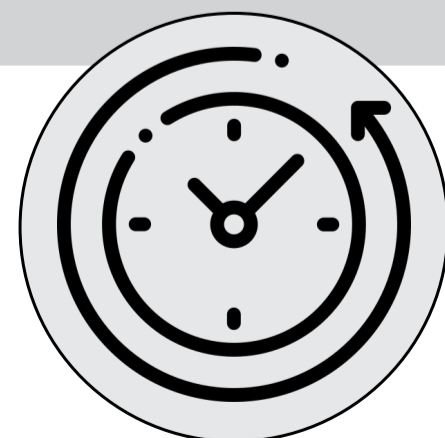
- ⌘ Access to the employee database, i.e. employee names, demographics, units, and supervisor details
- ⌘ Access to workforce schedules, shift

timings, and details of all individuals who work in each shift

- ⌘ Knowledge and understanding of the disease prevalence in the community
- ⌘ Access to infrastructure and the kits to be used in the programme

Time required

This personnel will be expected to spend 1-2 hours a week in planning activities and 1-hour during each testing event.



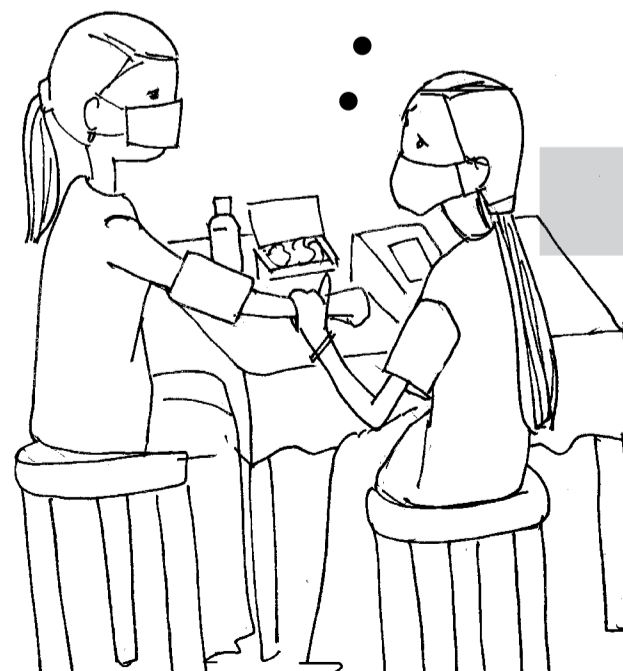
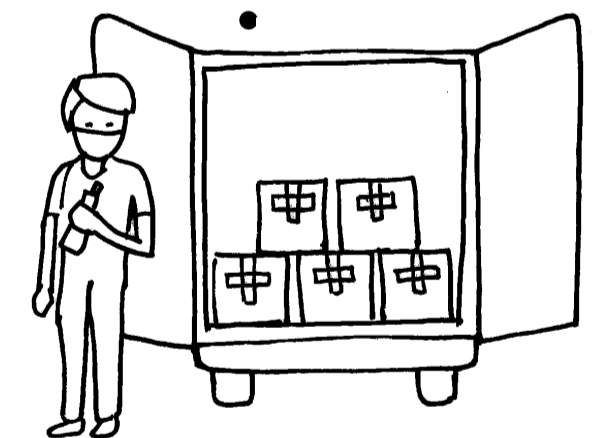
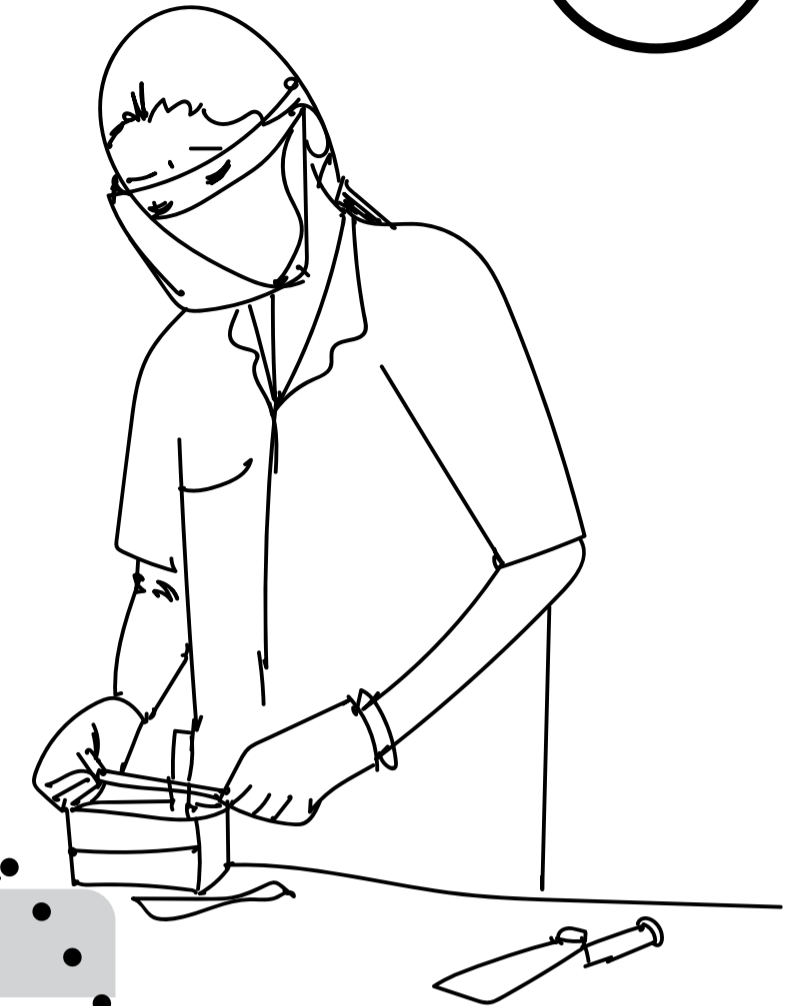
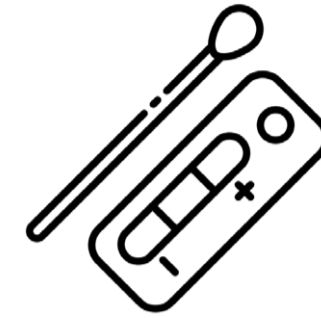
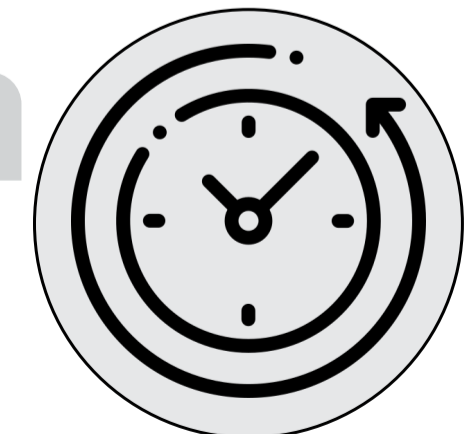
Role description

The test planning and organisation personnel will be responsible for

- ⌘ Preparing testing plans based on workplace--level and community--level disease prevalence
- ⌘ Deciding who gets tested and when, based on the recommended criteria
- ⌘ Using the insights generated from the routine testing data to
 - » initiate contact tracing and further testing activities
 - » manage the testing load
 - » select and deploy trained peers
- ⌘ Taking stock of the material (PPE, testing kits), performing inventory management and placing orders when necessary
- ⌘ Deploying the mobilisation personnel and following up with them to ensure that the employees are adhering to the agreed schedule.

Time required

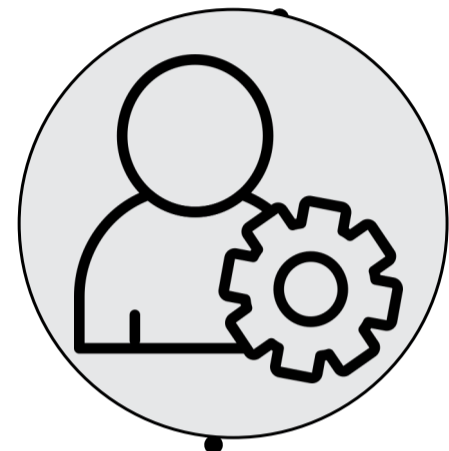
The test planning and organisation personnel will be expected to spend one or two hours a week in planning activities and one hour at each testing event.



Project Steering Committee:

Team role matrix

Members of the project steering committee



Roles

Demand generation and post-test counselling

Who plays these roles

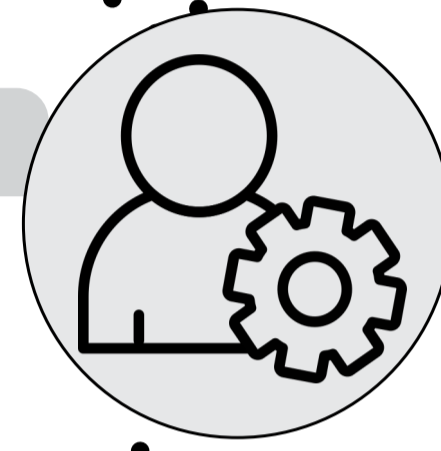
- ⌘ Demand generation and post-test counselling can be performed by the unit supervisors or by mid-level managers in the factory.
- ⌘ Welfare officers or health-care staff at the factory can also be designated to perform this role in factories where these resources exist.

Role description

- ⌘ Building awareness of the importance of self-testing for workers periodically in meetings and gatherings
- ⌘ Using the information, education and communication (IEC) material available to conduct demand-generation activities before and during the implementation of a testing programme
- ⌘ Coordinating with the testing supervisor to generate testing schedules for one or all units
- ⌘ Mobilising the workers to the testing site appropriately on the day of the testing event
- ⌘ In the case of on-demand testing, reminding the workers about the availability of the tests and the process of accessing the tests at the workplace
- ⌘ Provisioning counselling for those workers who test positive and referring them to external partners or clinics for follow-up diagnosis and treatment
- ⌘ Following up with the workers receiving treatment to ensure treatment adherence and recovery.

Time required

The expected time commitment is four to five hours per week during the planning period and one to two hours during the testing period.



Roles

Technical Support

Who plays these roles

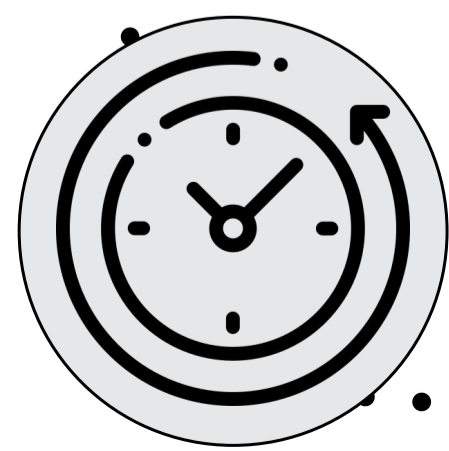
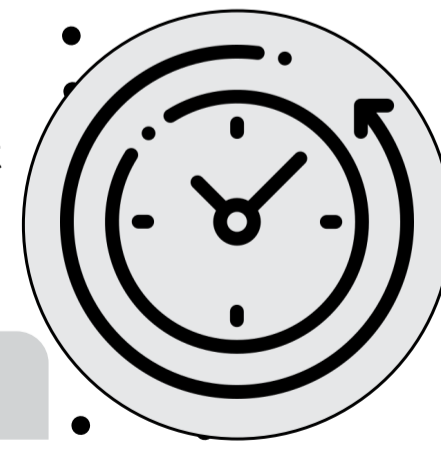
- ⌘ Trained welfare officers / clinical staff should assume this role.
- ⌘ In the absence of trained welfare officers / clinical staff, the testing supervisor can seek this support from partner organisations

Role description

- ⌘ Ensuring that the most accurate and appropriate tests are being used for testing
- ⌘ Providing frequent training and support to peer assistants to ensure that their knowledge is up-to-date
- ⌘ Assisting the peer assistants and testing supervisors in resolving any discord or discrepancy in the test the test results
- ⌘ Providing the most up-to-date information about the testing model

Time required

The expected time commitment from the personnel providing Technical Support will be around three to four hours per week during the planning and one hours during testing.



Planning Phase: Choosing a test kit

Professionally administered Rapid Antigen Tests (RATs) for COVID-19 have been shown to have sufficient accuracy in diagnosing COVID-19, can give a result in 15–30 minutes, and can be performed in a range of non--clinical and clinical settings. The World Health Organization (WHO) first released interim guidance on the use of RATs in September 2020, with revisions issued in October 2021. RATs were recommended for use in India in June 2020 by the ICMR and have been widely used since then.

Keep the following criteria in mind when choosing the right test kit for your workplace:

I. Certification and approval by regulatory authorities

Refer to the latest national government advisory on **COVID-19 Home Testing using Rapid Antigen Tests (RATs)** before you choose a test kit. To choose a test kit, consult a nationally approved list of Rapid Antigen Tests. To date, **17 rapid antigen home/self-test kits have been validated and approved by ICMR**. In a critical scenario involving a newly emerging disease or infection with limited data on the effectiveness of in vitro diagnostic tests, it is advisable to refer to the WHO's Emergency Use Listing (EUL) for guidance. The

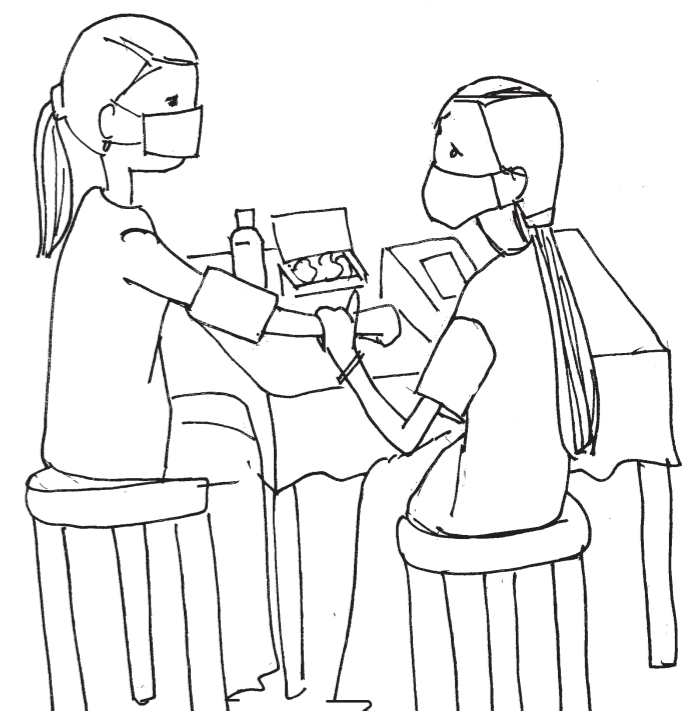
EUL procedure is developed to expedite the availability of IVDs (in vitro diagnostics) needed in public health emergency situations. The Panbio COVID-19 Antigen Self-Test is the only commercially available test kit (as of April 11, 2023) with both ICMR and WHO EUL approval for self-testing use.¹

A copy of the above-mentioned linked content with access dates can be found in Appendices C, D, and E.

¹ WHO Emergency Use Listing for In vitro diagnostics (IVDs) Detecting SARS-CoV-2 https://cdn.who.int/media/docs/default-source/in-vitro-diagnostics/200922-eul-sars-cov2-product-list_94b2eb36-58b6-43c6-be1e-ceedc188f52a.pdf?sfvrsn=11246c08_6&download=true

Rapid Antigen Tests are convenient because they can be done at home or work without the need for a lab or clinic visit, and they are also simpler to perform compared to the RT-PCR tests. The results are derived within 15 minutes and can help curb the infections' spread.

If introduced well, self-testing can become a powerful tool to increase rates of early testing, isolation, and care for our communities.



II. Detection of variants

Check the product website or the product page to ascertain or verify the details about all the variants that could be detected by the test you have chosen to deploy.

III. Turnaround time for test results

All the antigen-based COVID-19 self-test kits take up to 30 minutes on average to complete and to yield results, depending on the competency and ability of the tester to understand the test instructions and perform the test steps accurately. Based on the capacity of your workforce, choose a test that provides many options for conveying instructions, such as pictures, videos, or instructions in your local language.

IV. Sample collection method

Samples for RATs can be collected in many ways; they can be oral, nasal, nasopharyngeal, or blood-based. Samples for COVID-19 are usually collected through the upper respiratory tract. If you are implementing self-testing for the first time, or if your workforce does not know how to use a more complicated sampling method, pick a nasal-based test. Findings from our pilot have shown that nasal-based tests have a relatively higher acceptance rate than nasopharyngeal tests.

Procurement and inventory of the RAT products used in the programme should be done through verified and trusted sources. The testing supervisor is responsible for making any permit applications in a timely manner. The testing supervisor should also confirm that appropriate temperature conditions have been maintained during the transit of the product received and that any discrepancies are reported and resolved before the use of the product.



“

“Taking a swab from the mouth and nose and dragging it out makes us uncomfortable, resulting in sneezing and watery eyes [speaking about nasopharyngeal sampling in RT-PCR]. But this is good [speaking about the nasal method of sampling].”

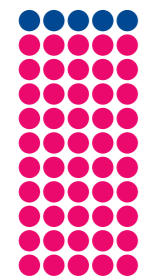
Sumitra*, Factory Worker, 35.

Note: The test kits should be stored in a secure, environmentally controlled, and monitored (manually or automated) area in accordance with the labelled storage conditions (20C–30C), with access limited to the project team.

Decision guidance: When should self-test kits be issued at the workplace

The ideal testing volume to be issued at the workplace should be based on the positivity rates in the city and the positivity rate in the factory, i.e., if there are more infections in the factory, it is recommended that the testing volume be increased regardless of the citywide positivity rates.

The following scenarios illustrate how testing volumes will change based on the positivity rates:



⌘ Positivity rate within the city **<5 percent:** On-demand tests and tests for workers exhibiting symptoms



⌘ Positivity rate within the city **5 –10 percent:** Test 20 percent of the workers randomly and monitor the positivity rates by factory and unit



⌘ Positivity rate within the city above **10 percent:** Test all workers (census testing)



⌘ Positivity rate within the factory exceeds **10 percent:** Even though scenario 3 applies in this case, census testing will be conducted in the week after previous testing

Note: To access data on community transmission refer to reports shared by your local municipal health department or national health department.



In addition to the above-mentioned testing-related protocols, all those who have come in contact with those who tested positive and the individuals exhibiting symptoms will need to be offered tests.

Individuals who know that they have been exposed to the virus outside the factory setting or those who exhibit or experience symptoms will also need to be allowed to request a self-test.

Extra Infection Prevention and Control (IPC) measures will need to be put in place if known symptomatic or exposed individuals need support for peer testing. Confirmatory testing through an RT-PCR should also be conducted according to the testing algorithm.



Planning Phase:

Select and train your peer assistants

Peer assistants will be other employees in good standing in the factory who:

- ⌘ Are recommended by a superior or a peer
- ⌘ Are strong and effective communicators
- ⌘ Have shown proficiency in understanding test procedures, in supporting others in doing so, and in understanding the importance of IPC as determined by the study coordinator
- ⌘ Are able to read and write
- ⌘ Are comfortable using technology to support data entry and any other simple data collection method required for testing
- ⌘ Speak more than one local language, are quick learners, and/or have previous experience as peer educators. However, these criteria are not mandatory.



Peer assistants should be trained to perform the following tasks:

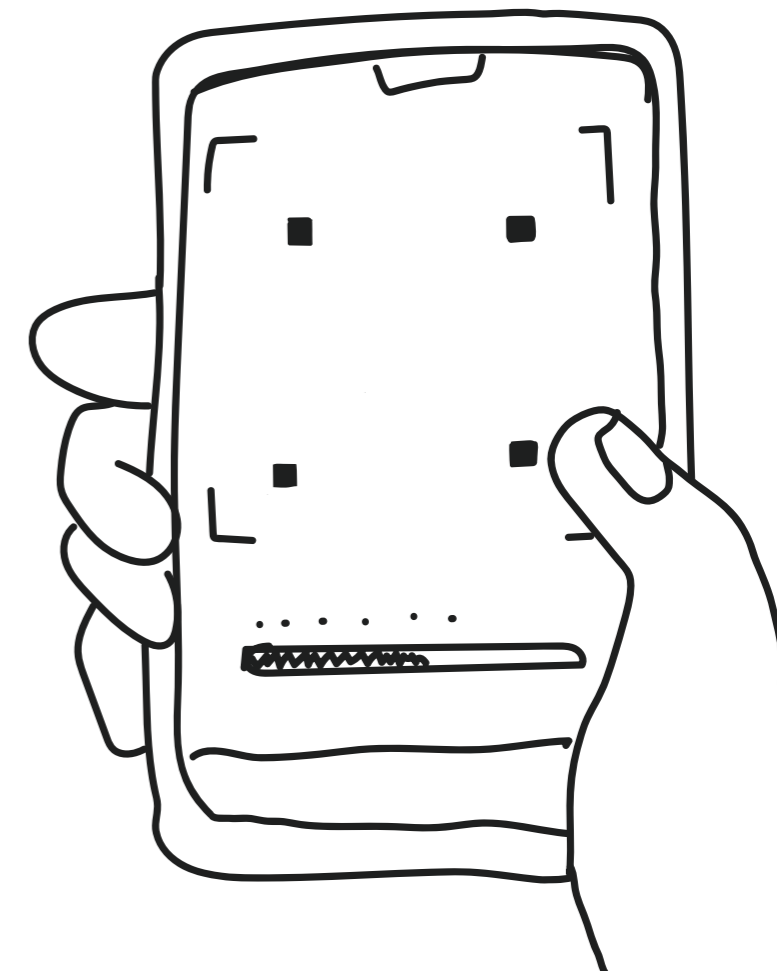
- ⌘ Coordinating activities with the other team members and setting up the area for testing. Ensuring that the testing site is clean and is provided with all the required materials
- ⌘ Ensuring a safe testing environment for both workers and peer assistants by following COVID-19-appropriate behaviour while testing
- ⌘ Providing a non-stigmatizing environment for workers by making them feel comfortable and supported throughout the testing process
- ⌘ Providing instructions and support for test preparation, sample collection, test process, result interpretation, and reporting using the IFU leaflet, videos, and demonstration kits
- ⌘ Maintaining confidentiality of the test process and the results after the testing
- ⌘ Addressing any concerns the participants might have about the consequences of their results
- ⌘ Guiding the workers in reporting their results to the necessary platform. A mobile application may require a photograph of the test results that then has to be uploaded to the platform
- ⌘ Reiterating the post-testing support available to the workers through the factory management — vaccination support, paid leave, and referral to treatment facilities wherever applicable



All assisting personnel (peer assistants, HR personnel, and maintenance personnel) must test themselves and report their test results before beginning testing others to prevent the spread to other employees. Employees will conduct the self-test with verbal assistance from the peer assistants about infection prevention, sample collection, test preparation, result interpretation, etc. Each peer assistant will be required to spend 15–20 minutes with each worker being tested to provide support throughout the testing process. Ensure a 1:1 assistant peer-to-worker ratio or a 1:2 ratio (the latter ratio has been observed in the usability study to be equally effective, with no compromise on the quality of instruction).



Peer Assistant Training and Assessment Materials are available here:



Note:

Training for both peer assistants and observers needs considerable repetition, hand-holding, and role-play exercises to ensure accuracy and comprehension.

A one-time point training without on-the-job support may not be efficient nor sufficient.

Learning Vignette

The Learning Finding

Almost 95 per cent of participants found the verbal instructions provided by the peer assistants easy to understand, 36.8 per cent said it was “somewhat easy”, and 57.9 per cent said it was “completely easy”.

Those who found it difficult to understand instructions identified the following issues that are impeding their comprehension of instructions:

- ⌘ Participants were not able to hear the peer assistant clearly.
- ⌘ Participants did not understand the verbal instructions; they needed visual support (e.g. demonstration on pinching the swab in the tube)
- ⌘ Peer missed giving some instructions (e.g. not touching the swab)
- ⌘ Peer gave incomplete instructions (e.g. removing the white cap; didn't say that the contents will not spill)

The Learning Action

To support the peer assistants in making the instructions easy to understand by the participants, remind them during training to undertake the following actions when assisting others with self-testing:

- ⌘ To speak clearly, slowly, and respectfully
- ⌘ To follow a cue card or the Information, Education and Communication (IEC) material provided to them as a conversational aid
- ⌘ To show the video on self-testing at a slowed pace to help the individual undertaking the self-testing





Act 1. Scene 2.

The Pre-Rollout Phase

Pre-Rollout Phase: Establishing data collection and monitoring mechanisms

Data collection and monitoring mechanisms

⌘ Peer assistants will be the primary data collectors. If the factory management chooses, they can also deploy members of the project steering committee to share the workload for data collection if the testing volumes are high. Peer assistants will collect information related to the testing event (results, date of testing, the reason for testing, the time taken for testing, etc.) using a self-testing form whenever they provide assistance. The information collected by the peer assistants will not have any personal identifier other than an assigned factory number. The information collected by the peer assistants will populate a dynamic dashboard that will be available to the factory management for monitoring and planning tests, performing contact tracing, and disseminating the test results to individual workers on their contact numbers listed with the factory.

- ⌘ Consider using a live dashboard to monitor your testing.
- ⌘ Data-entry requirements:
 - ◆ Data-entry forms
 - ◆ Devices for collecting data: These should be provided by the management in case the workers are not allowed to bring their own devices
 - ◆ Data dashboard



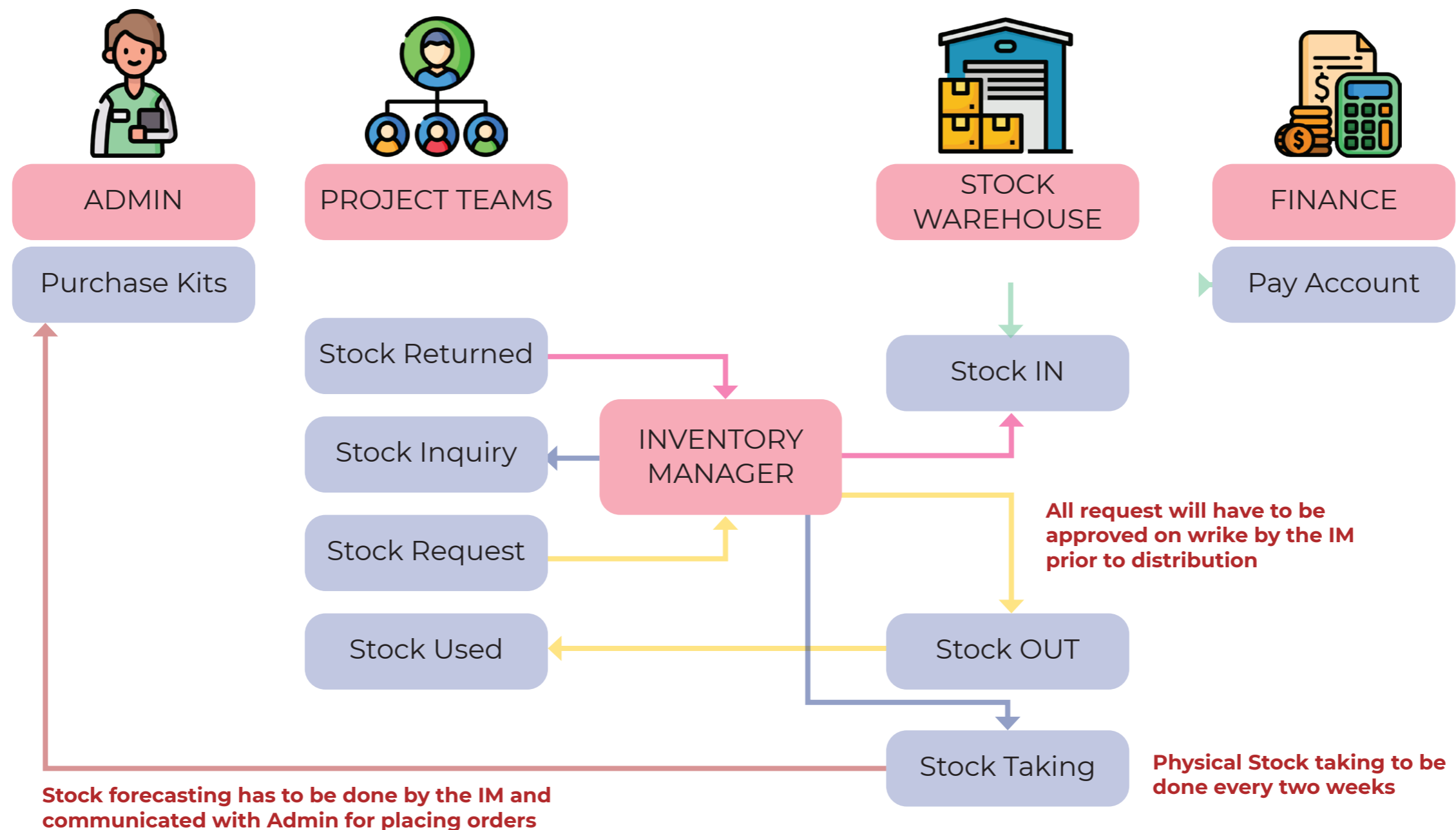
**Scan here to
access the
COVID self-
testing form:**





Pre-Rollout Phase: Establishing test kit-tracking mechanisms.

To avoid a shortage of test kits and to prevent the use of expired test kits, the factory management should maintain ample stock of the test kits and other materials required for the testing programme. The following process may be used to manage and monitor the stock of self-testing kits.



IM : Inventory Manager

Pre-Rollout Phase: Demand generation activities

What works

- ⌘ Building awareness about the importance of self-testing and arranging demonstrations by early adopters for workers periodically in meetings and gatherings.
- ⌘ Using the EIC material available to conduct demand-generation activities before and during the implementation of a testing programme.
- ⌘ Coordinating with the testing supervisor to generate testing schedules for a specific unit or for all units.
- ⌘ Mobilising the workers to reach the testing site on time and in an appropriate manner on the day of the testing event.
- ⌘ In the case of on-demand testing, reminding the workers about the availability of the tests and the process of gaining access to the tests at the workplace.
- ⌘ Providing counselling for workers who test positive and referring them to external partners or to clinics for follow-up diagnosis and treatment.
- ⌘ Following up with the workers receiving treatment to ensure treatment adherence and recovery.

“

“Experiencing self-testing was very useful for us. After learning how to self-test, I have told almost everyone — our family, our relatives. My nephews are studying — I told them too! I told them that in case there is an increase in the number of cases of COVID-19, we can get the self-testing kits ourselves and use them to stay safe and to respond quickly if we test positive.”

Smitha*, Worker, 33, English Blazer

**Documents on
and activities
for demand
generation are
available here:**







ACT 2.

ROLLOUT OF SELF-TESTING

Rollout Phase: Conduct self-testing with peer assistance

Logistics checklist for setting up the testing site

- Tables and chairs
- Peers to workers ratio
- Training for peer assistants
- Demonstration kit / communication aid for workers
- Identification of location
- Sanitizers for everyone
- Gloves, masks, and PPE kits for peer assistants
- Timers
- Test kits (checked for date of expiry)
- Dustbins (large sized, depending on the number of workers being tested)
- Biowaste pickup bags and service setup
- Printed instruction notes for those testing positive
- Device for data collection and for uploading, and entering test results
- Reference image posters/show cards for positive results (double line on the test kit), negative results (single line on the test kit), and inaccurate results



Mobilising workers on the day of testing:

Ways of shortening the wait time

- ⌘ Arrange for peer assistants to work in shifts depending on the number of workers being tested each day.
- ⌘ Pre-determine the workers to be tested based on the department, or randomly select employee IDs and inform these workers of the time slots for testing ahead of time.
- ⌘ Allow symptomatic workers to be tested first.
- ⌘ Allow exposed workers to be tested first.
- ⌘ Increase the peer assistant-to-worker ratio if large numbers of tests need to be conducted.
- ⌘ Conduct tests on alternate days if the number of tests needs to be reduced.
- ⌘ Have on-demand test kits available with the factory nurse or the health personnel who is trained as a peer.

Scan here to watch Shobha discuss the factory and community response to peer-assisted self-testing

Ways of mobilising workers without disrupting production time

- ⌘ Pre-determine the departments and/or the workers who are to be tested. Post a schedule/timetable department-wise.
- ⌘ Select the workers who will be substituted from the assembly line when others are being tested.
- ⌘ In case large numbers of workers need to be tested, allow pre-shift and post-shift testing for workers.



Protect your staff as you conduct testing

The proper implementation of infection prevention and control (IPC) measures is key while conducting a COVID-19 testing programme at your workplace. While conducting testing, choose the most appropriate package of measures that fit your workplace setting from the following:

Administrative controls:

- ⌘ Ensure resources for IPC measures, such as appropriate infrastructure, and the development of clear IPC policies.
- ⌘ Facilitate access to the testing site.
- ⌘ Ensure appropriate triage and placement of employees.
- ⌘ Maintain adequate peer assistant-to-employee ratios.
- ⌘ Provide training for peer assistants and employees.
- ⌘ Provide bio-waste handling bins and biohazard waste disposal bags to prevent the mishandling of biowaste and biohazard material.

Environmental and engineering controls:

- ⌘ Provide adequate space to allow a social distance of at least 1 metre to be maintained between employees who are testing and between employees and peers/healthcare workers.
- ⌘ Ensure the availability of well-ventilated isolation rooms for patients with suspected or confirmed COVID-19.

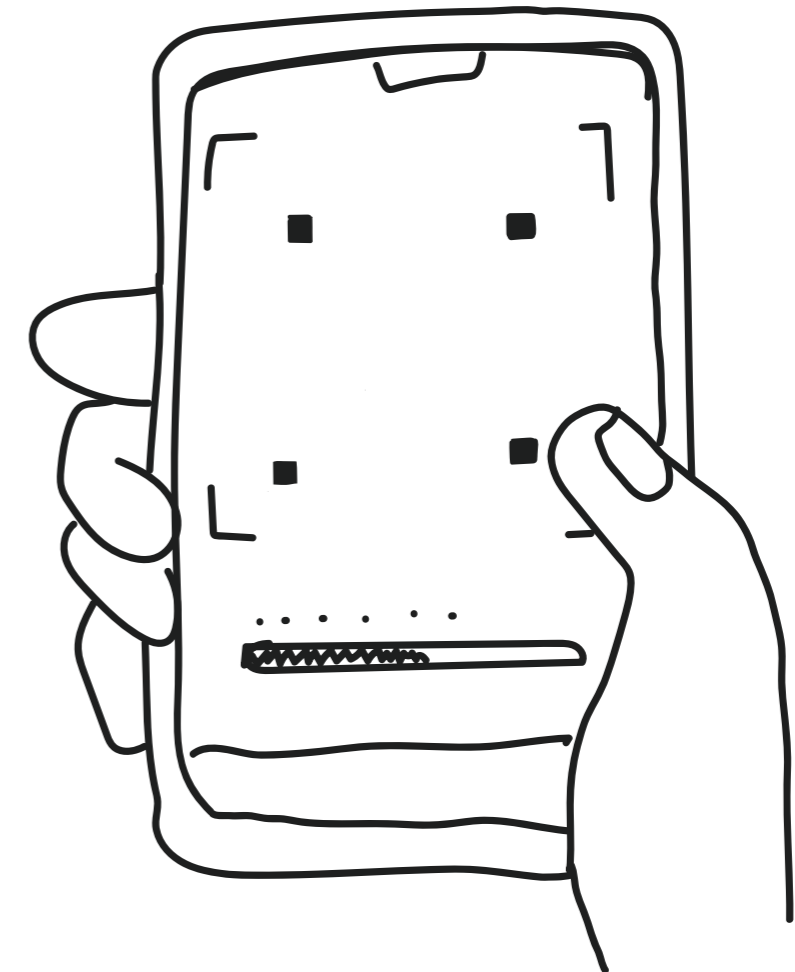
Individual Protocol:

- ⌘ Perform hand hygiene activities frequently with an alcohol-based hand rub if your hands are not visibly dirty, or with soap and water if your hands are visibly dirty.
- ⌘ Avoid touching your eyes, nose, and mouth.
- ⌘ Practise respiratory hygiene by coughing or sneezing into a bent elbow or a tissue and then immediately disposing of the tissue.
- ⌘ Wear an appropriate mask if you have respiratory symptoms and perform hand hygiene after disposing of the mask.
- ⌘ Maintain social distance (a minimum of 1 metre) from each other.
- ⌘ Sanitize commonly used surfaces and devices regularly and thoroughly

Rollout Phase: Notes on test administration

- ⌘ The peer assistants should provide an overview of the test components, orient the study participant/employee to the manufacturer-provided (Instructions For Use) IFU, and assist the study participant/employee as they perform each step of the test.
- ⌘ The peer assistants should be present while the test is being conducted to provide assistance to the employee during the test operation.
- ⌘ The employees should collect their samples using swabs and finish their test in line with the approved test's IFU.
- ⌘ Once the test is finished, the employees should wait for the recommended time before reading and interpreting the results.
- ⌘ The employees can use a timer or a watch to monitor the waiting time.
- ⌘ Upon receiving the results, the employee should interpret and confirm the results with the help of the peer assistants and proceed to the next step, that is, the reporting of the test results.

Peer assistant material that provides an overview of the test-kit components is available here:



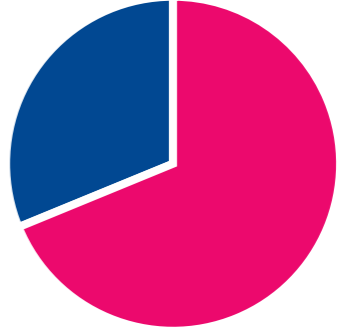
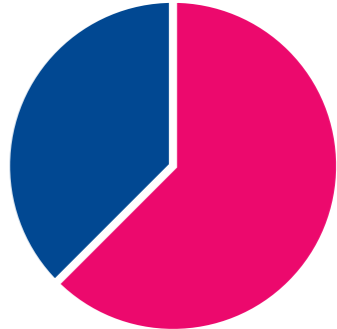
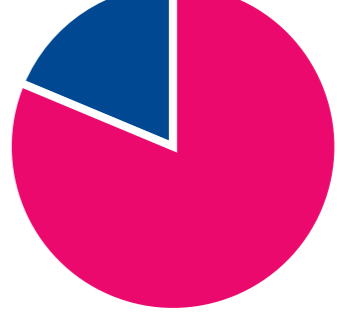
Learning Vignette

The Learning Finding

The following were some common errors made by peer assistants:

- ⌘ Not providing instructions on wearing a mask correctly at all times except for sampling (sample collection)
- ⌘ Not providing instructions about the importance of not touching the swab at any point
- ⌘ Not providing instructions on checking the liquid for bubbles
- ⌘ Not speaking loudly or clearly or slowly
- ⌘ Touching the participant's test kit to show or demonstrate something
- ⌘ Giving instructions too rapidly, so comprehension on the part of the participant was compromised
- ⌘ Giving incomplete instructions
- ⌘ Not explaining the context or meaning of certain instructions

Three instructions that most peer assistants tended to miss were:

Checking if the buffer is above the line marked in the tube	Peers got it right only 68.80% of the time	
Checking the liquid for bubbles	Peers got it right only 62.50% of the time	
Not touching the swab at any point	Peers got it right only 81.30% of the time	

The Learning Action

Peer assistants can provide the following instructions clearly with the help of the right information, education and communication (IEC) material:

- ⌘ Carefully explain the purpose and function of the different components of the test kit (swab, buffer bottle, tube, test device, tube rack, disposable bag, timing device).
- ⌘ Instruct the employee to empty the buffer into the tube while avoiding spillage.
- ⌘ Check if the buffer is above the line marked in the tube.
- ⌘ Unwrap the sample collection swab appropriately.
- ⌘ Use the sample collection swab appropriately.
- ⌘ Do not touch the sample collection swab at any point.
- ⌘ Check with the employee to ensure that they have inserted the swab to the correct depth.
- ⌘ Check with the employee to ensure that they have rotated the swab five times in each nostril.
- ⌘ Check with the employee to ensure that they have inverted the swab into the buffer tube without putting it down anywhere.
- ⌘ Instruct the employee to check the liquid for bubbles.
- ⌘ Instruct the employee to place exactly five drops (and not more nor less) into the well and not in any other location on the test kit.
- ⌘ Alert the employee to read their results in the accurate read time window.
- ⌘ Instruct the employee on how to interpret their results.
- ⌘ Instruct the employee about how to report their results.



Rollout Phase: How to manage the documentation of results

Manufacturer-provided self-reporting applications

The Government of India had mandated the reporting of self-test results through the application provided by the self-test kit manufacturer.

The application collects information such as name, date of birth, phone number, address, gender, nationality, occupation, vaccination status (whether vaccinated or not) and COVID-19 details (whether symptomatic / whether the individual has been in contact with a person with COVID-19 in the past 14 days). The test results are captured through images and are automatically analysed using Artificial Intelligence (AI) to interpret the results on the application.

The test results should be recorded by the worker through the manufacturer-provided application on their own device or through a device provided by the peer assistant.

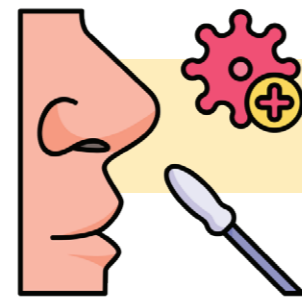
If the worker cannot operate a smartphone or cannot read and understand English, the peer assistant will collect the data and report the results on behalf of the worker. The results recorded on the app are automatically shared with ICMR as per the government guidelines.

Most applications offer the facility of downloading the test results as an image or a PDF that can be shared with the tester upon request.



Care should be taken to keep these images and files confidential to protect the tester's privacy and should be deleted as soon as possible once they have served their purpose.

In case of any technical or network error, or if there is a disagreement between the test results as interpreted by the peer, by the worker, and by the application, the peer assistant should try to recapture the results or should assist with retesting if necessary. The peer-interpreted results can then be used to follow the national testing algorithm.



Regular Peer Assisted Self Testing

Self Test

Positive

Negative

Initiate contact tracing

High Risk Contact

Low Risk Contact

Reported as positive

Symptomatic

Reported as negative

Employee is placed in isolation until RT-PCR sample is taken and then sent home to wait for results. RAT positive individuals need an RT-PCR report to be able to claim paid leave.

Employee is sent back to work and tested in the next cycle

RT-PCR Positive

RT-PCR Negative

Employee is advised to follow home quarantine for 7 days with support from Telecare

Employee is sent back to work and monitored for systems

Contact is offered a self-test immediately and after 4-5 days of exposure to a known case

Advised to self monitor for symptoms and to demand a self test if suspecting infection

Rollout Phase: If a worker tests positive for COVID-19

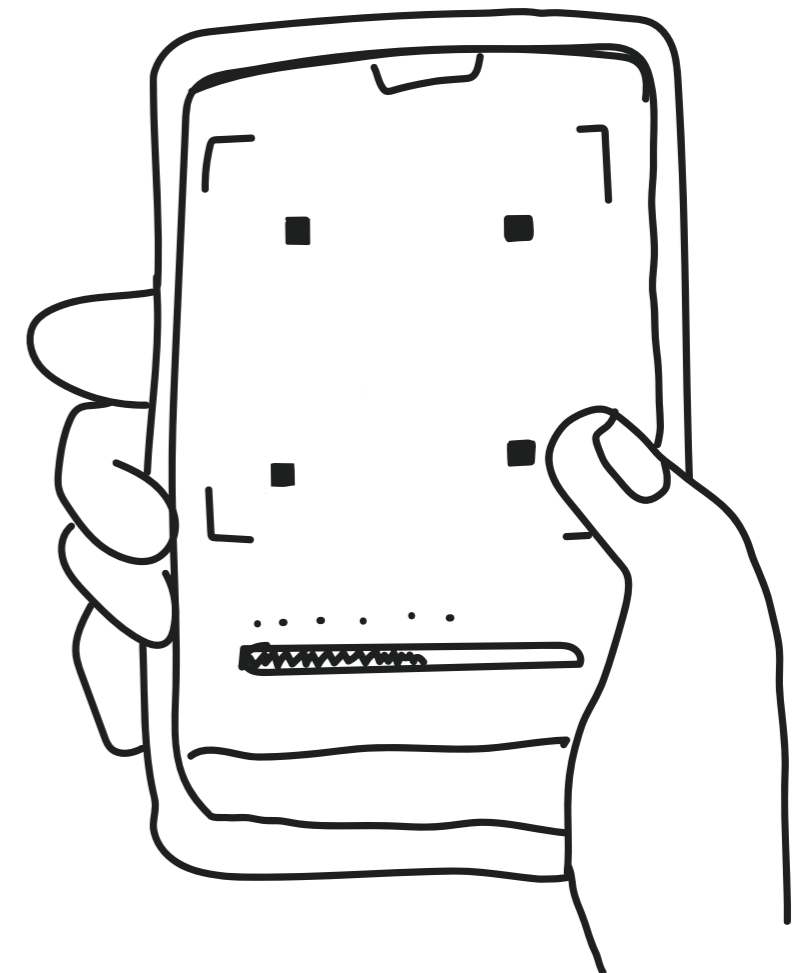
Steps to guide and communicate to the worker who has tested positive for COVID-19:

- ⌘ Monitor the symptoms. If you experience an emergency warning sign (including trouble breathing), seek emergency medical care immediately.
- ⌘ Stay in a separate room from other members of the household if possible.
- ⌘ Use a separate bathroom if possible.
- ⌘ Take steps to improve the ventilation in your home if possible.
- ⌘ Avoid contact with other members of the household and with pets.
- ⌘ Do not share personal items like cups, towels, and utensils.
- ⌘ Wear a well-fitting mask when you need to be around other people.

Employers should:

- ⌘ Close off areas used by the person who has tested positive.
- ⌘ Clean and disinfect the workspace of the person who has tested positive.
- ⌘ Open outside doors and windows to increase air circulation in the exposed area, if feasible.
- ⌘ Collect information about the sick worker's contacts among co-workers for the period starting two days prior to the onset of symptoms to identify other workers who might have been exposed.
- ⌘ Provide a COVID-19 care kit to the employee who has tested positive for COVID-19.

Multilingual IEC material on caring for people with COVID-19 along with guidance on the use of COVID-19 care kits is available here:





Act 3.

The Post-Self-Testing Phase

The Post-Self-Testing Phase

RESULT BASED ACTIONS FOR INDIVIDUALS

- ♦ **If tested positive:** Isolate the worker at the factory until the RT-PCR sample is taken and then send the worker home to quarantine for seven days or until the symptoms last.
- ♦ **If tested negative and is symptomatic:** Isolate the worker at the factory until the RT-PCR sample is taken and advise the worker to undergo home quarantine if positive.
- ♦ **If tested negative:** Send the worker back to work and monitor the worker for symptoms or test the worker in the next testing cycle.

POST TEST COUNSELLING - Answer any queries or address any concerns that workers might have about the accuracy of test results, follow-up actions, confirmatory tests, and the support available for them from the employer.

RESULT BASED ACTIONS FOR FACTORIES / WORKPLACE

- ♦ Conduct contact tracing. Identify and test all the workers who might have been exposed, or who are at high risk of exposure, on the same day if possible.
- ♦ Ensure adherence to national and/or local reporting guidelines by reporting the results of all the tests conducted.
- ♦ If the worker can avail health insurance, connect them to the responsible partner
- ♦ Evaluate the risk of exposure to the workforce and update factory- level IPC protocols as and when necessary.

CLEANING AND SANITIZING OF THE SITE

- ♦ Sanitize and clean the self-testing location.
- ♦ Ensure that medical waste and general waste is handled and disposed of properly.

TEAM DEBRIEFING AND NEXT STEPS

- ♦ Debrief the team on the peer-assisted self-testing – about what went well, what the challenges were, what could be improved, etc.
- ♦ Discuss and decide on the next steps, for example, organizing self-testing for those who could not participate in the event, and implementing contact tracing.

DATA VERIFICATION

- ♦ Upload the data, verify the data collected, fix any issues with the data collection app.

STOCKS AND SUPPLY

- ♦ Take stock of the test kits and the PPE equipment utilized in the testing rollout. In a low-prevalence scenario, procure test kits and PPE equipment if the number of units in hand is less than 10 percent of the number of workers in the factory. In a high-prevalence scenario, ensure that there are enough test kits to test the entire workforce.

Post-Self-Testing Phase: Ten situations to keep an eye out for to avert COVID-19 risks at the workplace

Situations when the factory management / project steering committee will need to design and implement an immediate intervention

- 1 The factory's positivity rate is rising more rapidly than the city's positivity rate:** This means that there is an outbreak in the factory and the situation needs to be addressed swiftly by subjecting all workers to self-tests and supporting those who test positive in their journey to recovery, while also putting in place preventive measures, such as mandatory masking and frequent sanitization and disinfection.
- 2 Positive workers are unable to be referred to hospitals or cannot be placed under medical supervision:** This will require escalation of the issue to the relevant authorities and/or the creation of additional mechanisms to resolve the matter.
- 3 Workers and peer assistants are unable to manage testing events:** This will require mandating either change of peer assistants or implementing a new set of capacity-building measures.
- 4 Census testing support is needed:** This may require seeking support from the nearest Primary Health Centre or setting up a COVID-19 vaccination camp. A COVID-19 Vaccination Playbook is available for [download here](#).
- 5 Counselling support is needed for high positivity rates:** This may require seeking telecare support or implementing rapid response measures for the mental and physical well-being of workers.
- 6 Additional telecare support/helpline access is needed for high positive outcomes:** This may require decisions on further investments and/or collaborations.
- 7 Data entry and analysis is showing errors / a positive trend cannot be monitored:** This will require support from the senior management to fix data monitoring systems that have been configured to work in a specific workplace setting.
- 8 Biowaste pickup is not efficient or cannot be arranged:** This will require the senior management to reach out to the locality / district / city waste management authorities and address the issue promptly.
- 9 PPE kits and other protective gear are not available:** This will require the senior management to escalate the issue with the nearest government hospital to support procurement.
- 10 Test kits are not available:** This will require the senior management to escalate the issue with the nearest government hospital to support procurement or to establish links with the nearest Primary Health Centre / Urban Health Centre for referrals for testing.

Learning Vignette

The Learning Finding

- ⌘ There was a push from the management and the supervisors to test all workers during the early stages of the study because of the third wave of the pandemic, which slowly waned as the number of cases came down. To maintain surveillance testing as a priority, we strengthened the training for the peer assistants and conducted meetings with the supervisors and the management on the importance of test accuracy and the intended use of the test as a method of surveillance.
- ⌘ Resistance against testing was observed more in employees working in time-demanding roles and employed in departments like production and sales, and especially among the supervisors.
- ⌘ Worker sensitisation was carried out along with testing. Educating the workers about the benefits of testing helped in spreading the word and in increasing test uptake among their colleagues.
- ⌘ Optimisation of testing time and testing site setup was prioritized to ensure that the factories did not see high dropout rates among the workers. We are in the process of trying out different employee workflows to increase the number of tests conducted in a testing event.
- ⌘ Biohazard waste collection was supported by a partner agency, as the local authorities were unable to pick up bio-waste from an industrial setting. All the biohazard waste collected during testing was sealed and safely shipped in bags to the nearest wellness centre through a local vendor. The testing waste was collected from the wellness centre by the local authorities.

- ⌘ We found that using phones owned by supervisors or peer assistants was not appropriate because of privacy concerns. Several people also received calls in the middle of the data-entry process, causing delays and interruptions. Dedicated phones and devices at the factory will need to be procured to enter data.

The Learning Action

- ⌘ Self-testing needs to be maintained as a priority even when citywide data shows the reduced levels of COVID-19.
- ⌘ The management needs to support employees to step away from their work to undergo testing, especially when their roles and duties are time bound or time sensitive.
- ⌘ Workers need to be part of the decision-making process around self-testing and should be supported in understanding and owning the processes and requirements for self-testing.
- ⌘ In the planning phase, nuanced localised workflows to optimize the testing time and the testing site setup should be a key activity of the project steering committee in order to ensure a smooth rollout phase.
- ⌘ It is often assumed that biohazard waste collection will be taken care of by entities such as municipalities, local health authorities, sanitation departments, and third party agencies. However, in most Low and Middle Income Countries, this activity is based on jurisdiction and local laws, and must be addressed during the planning phase.
- ⌘ In most Low and Middle Income Countries, the existence of a notable digital divide means that not all those from marginalized communities can use mobile devices to register their test results in the appropriate or required manner. Hence, it is important to factor in the need to provide dedicated devices at workplaces to address this aspect of reporting.

LINING SECTION-1



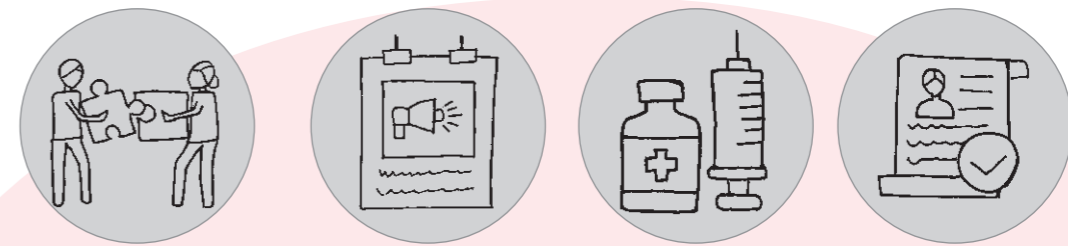
STAGE

This section covers Frequently Asked Questions, Tips and Tricks, and Takeaways from the Feasibility and Usability Studies.

noun. an instruction written into the script of a play, indicating stage actions, movements of performers, or production requirements

DIRECTION

Ten Frequently Asked Questions (FAQs)



#1

How can I tell if my symptoms are from COVID-19?

To determine whether your symptoms are due to COVID-19, consider your vaccination status, recent exposure to COVID-19 cases, and the nature of your symptoms. COVID-19 shares common symptoms with other respiratory illnesses, like the common cold and flu, making it important to assess the presence of distinct symptoms like loss of taste or smell. Gastrointestinal symptoms and travel history to high-prevalence areas can also be indicative. If you are uncertain, it's advisable to get tested and consult your supervisor or designated peer assistant for guidance, especially if symptoms are severe.

#2

Should I conduct a test only if I am symptomatic?

No, you can remain asymptomatic and still have the infection. In case, you have attended a crowded event, met a positive person, or if a family member is positive, then it is advisable to conduct a self-test for your own safety and for the safety of your loved ones.

#3

From where can I procure a self-test kit?

Self-test kits can be procured by reaching out to your supervisor or any member of the project steering committee.

#4

What are the important things to keep in mind for a successful self-test?

For a successful self-test, it is essential to maintain sanitized surfaces, to keep your hands clean, and to adhere strictly to the steps described in the IFU. Also, it is crucial to keep in mind the incubation period of three to four days after being exposed.

#5

When should I get a PCR test?

If you have symptoms but the self-test or RAT has given a negative result, then you must undergo a PCR test.

The PCR test is very important when:

- ♦ An individual is at high risk: is over 60 years of age, is unvaccinated, is immunocompromised, or has another serious illness as determined by the nurse.
- ♦ Any COVID-19-related government entitlements are tied to having a positive PCR result.

#6

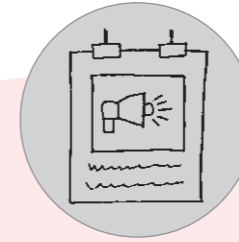
How will my results be documented?

You will be expected to fill out a Google form/register with your details. Your test results will not be disclosed if you choose to keep this information private. But for our data collection, documentation, and record purposes, this information will be stored on Google Drive. You can also request the peer assistant to share a picture or document of your results if you need to submit this as a certificate of your COVID-19 status.

#7

What happens if I test positive?

You will be expected to practise heightened precautions immediately and refer to the people who were in contact with you (like your team members and family members) in the past few days, so that they can undergo a self-test to stop the chain of disease / infection spread. In case your team members or family members test negative, it is advisable that they should be re-tested after three or four days.



#8

Why should I get a test if I am vaccinated?

There have been cases where fully vaccinated people have turned out to be positive. Please note that the vaccination is a protection against the danger posed by the infection and not a protection against the infection itself. Vaccination reduces the chances of being hospitalized and requiring extensive health care and treatment. Even though you are vaccinated, you can still be a carrier of the infection. Hence, in such cases, it is advisable to get a test done if you have symptoms, if you have come in contact with a positive person, if you have travelled, and/or if you have attended a crowded event.

#9

I came in contact with a positive person today. Should I get a self-test?

You should definitely go for a test, but only after the incubation period of three to four days, which will allow the test to detect the infection. If you go for a test today, you might test negative and still be infected, so it is advisable to go for a test in a few days. Meanwhile, you should practise heightened precautions to avoid spreading the infection.

#10

The self-test produced a negative result, but I am still exhibiting symptoms. Does this mean I do not have the infection?

If you are facing symptoms as mentioned in Question 1, it is advisable that you go for a PCR test to confirm the infection. Meanwhile, you should practise heightened precautions to avoid spreading the infection, if this is indeed the case.

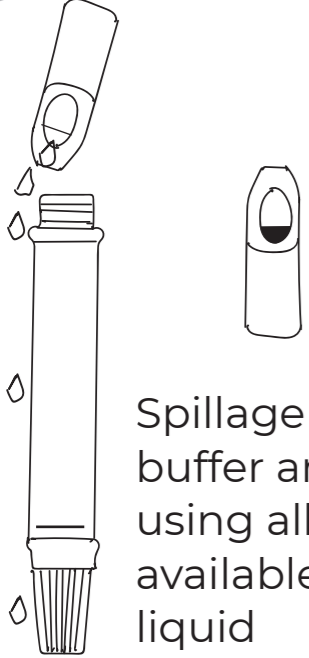
Tips and Tricks

Guidance on how best to design a structured and effective peer-assisted self-testing programme for a workplace

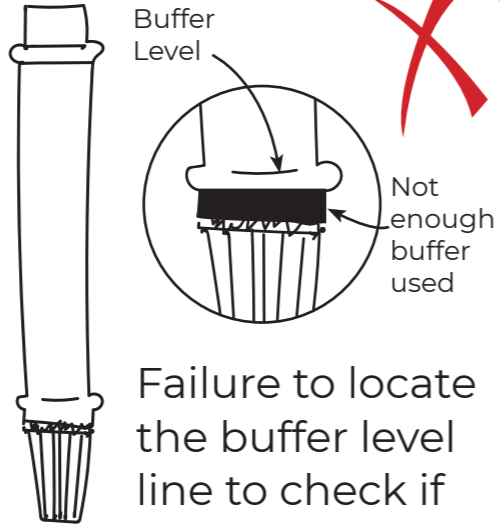
	Mobilize	Test	Refer
WHEN	<ul style="list-style-type: none"> What is the best time of the day and/or day of the week to provide mobilisation and orientation activities? How frequently should mobilisation be done? 	<ul style="list-style-type: none"> What is the best time of the day and/or day of the week to provide testing? How frequently should testing be offered? 	<ul style="list-style-type: none"> What is the optimal time period for linkage to COVID-19 disease management services and follow-up?
WHERE	<ul style="list-style-type: none"> Where should the mobilisation take place? 	<ul style="list-style-type: none"> Where should the testing take place? Do you have an in-house clinical facility? Or an isolation room? 	<ul style="list-style-type: none"> Where should the referral activities take place? At the clinic? At the testing site?
WHO	<ul style="list-style-type: none"> Who does the mobilisation for the testing activities? 	<ul style="list-style-type: none"> Who is available to assist with self-testing? Who should be tested? Who will collect and manage the data? 	<ul style="list-style-type: none"> Who provides post-test counselling? Who provides linkage to further testing (RT-PCR) and clinical services if required?
WHAT	<ul style="list-style-type: none"> What are the tools required for mobilisation? Will you be doing mobilisation as a part of other activities, e.g. meetings or workshops? How will you deal with individuals who refuse to be tested? 	<ul style="list-style-type: none"> What support will be offered to workers who are being tested? To those have tested positive? What test will you be using? What data do you want to collect to manage the programme? 	<ul style="list-style-type: none"> What services will be offered as a part of the referral or linkage? Free RT-PCR / another diagnostic test? Home isolation support? Use of a telehealth service for counselling?




Look out for these common errors made by individuals while performing the self-test, leading to incorrect results.



Spillage of the buffer and not using all of the available buffer liquid

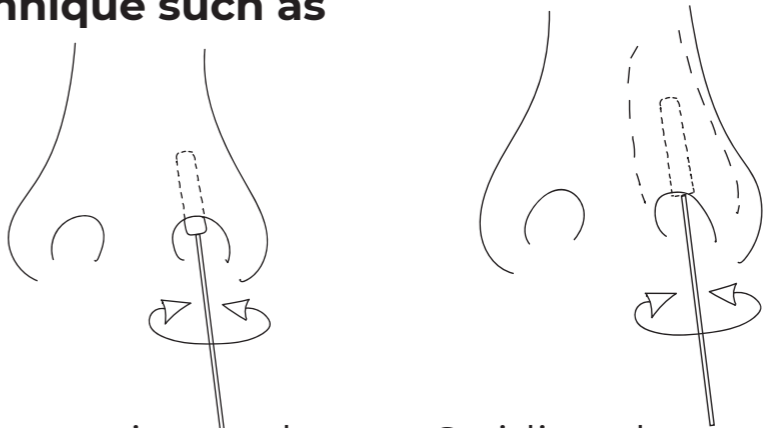


Failure to locate the buffer level line to check if enough buffer is being used



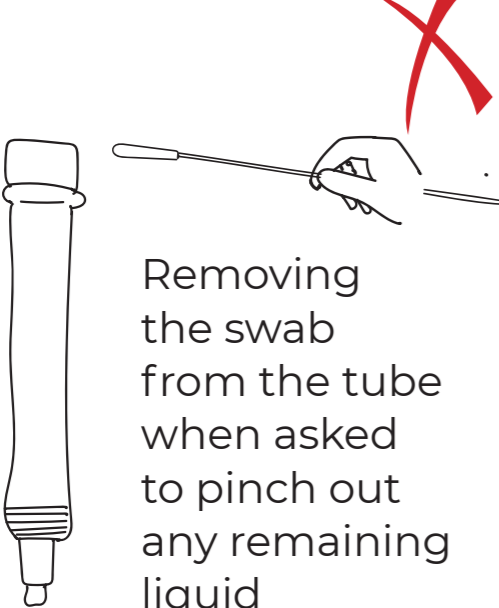
Dropping the nasal swab or touching the soft end of the swab while unwrapping it

Improper application of the sampling technique such as

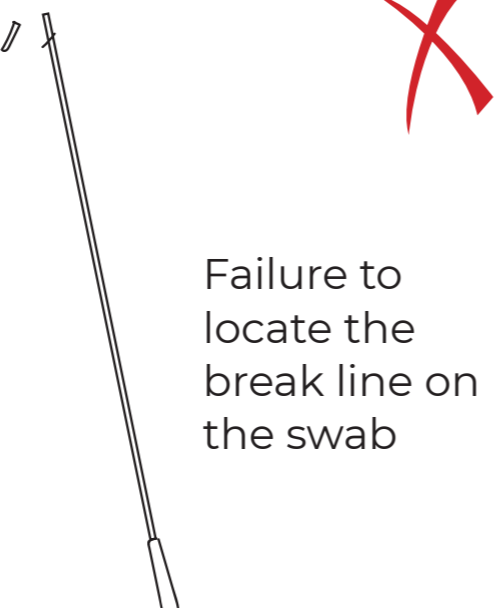


Failure to insert the swab to the correct depth

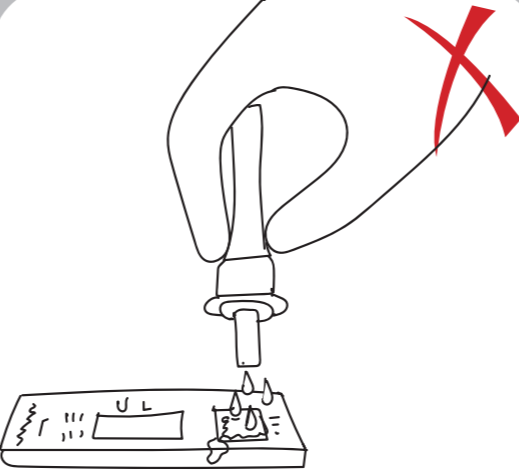
Swirling the swab inside the nose without touching the nasal walls



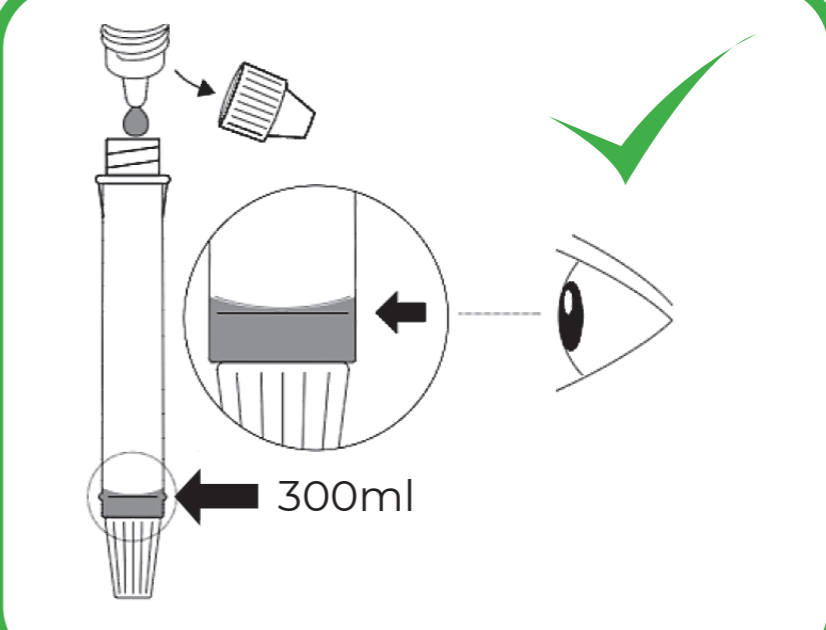
Removing the swab from the tube when asked to pinch out any remaining liquid



Failure to locate the break line on the swab



Putting excessive test liquid into the well



300ml

On supporting peer assistants and optimizing their time

- ⌘ Most peer supporters need some hand-holding on the job before becoming sufficiently confident about supporting testing. However, once this was accomplished, we found that a ratio of one peer assistant to two workers works best in terms of time and efficiency without compromising the testing quality.
- ⌘ Peer assistants found that the IFU combined with verbal instructions was a more effective mode of assistance than providing only verbal instructions. This combination boosted the confidence of the peer assistants in terms of (a) providing support; and (b) using the pictorial representation of the IFU to clarify certain steps of the testing procedure to the participants.
- ⌘ The factory management was concerned that peer assistants would be required to spend large amounts of time on testing, thereby cutting into their work and reducing the productivity of the unit. To address this concern, the number of peer assistants will be increased and the peer assistants will be picked from different units, allowing individual workers to undertake shorter shifts and ensuring that no one unit is negatively affected as a result of reduced working hours.
- ⌘ Testing for peer assistants was conducted before general testing began each day. During the third wave of the pandemic, we found peer assistants to be positive. Peer assistants also demanded testing because they perceived a higher risk of exposure, but they did not request that they should be allowed to stop participating in testing events.

**LINING
SECTION-1**



Closing Note

To be added



@angelachaudhuri



Dr. Angela Chaudhuri
Chief Catalyst
Swasti, The Health Catalyst

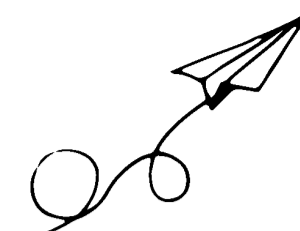


References

- ⌘ Percentages of Vaccination Coverage Required to Establish Herd Immunity against SARS-CoV-2 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9144560/>
- ⌘ Advisory for COVID-19 Home Testing using Rapid Antigen Tests (RATs) https://www.icmr.gov.in/pdf/covid/kits/Advisory_Home_Test_kit_19052021_v1.pdf
- ⌘ COVID-19 Home Testing using Rapid Antigen Tests (RATs) https://www.icmr.gov.in/pdf/covid/kits/COVID_Home_Test_Kit_12052022.pdf
- ⌘ WHO Emergency Use Listing for In vitro diagnostics (IVDs) Detecting SARS-CoV-2 https://cdn.who.int/media/docs/default-source/in-vitro-diagnostics/200922-eul-sars-cov2-product-list_94b2eb36-58b6-43c6-be1e-ceedc188f52a.pdf?sfvrsn=11246c08_6&download=true



Factory Readiness and Risk Assessment



Employers are recommended to use this workplace readiness assessment to make an informed decision about workplace testing programs for SARS-CoV-2 for their employees.

Section 1: ASSESS YOUR INFORMATION

Are you using the latest COVID-19 Information to track your local risk and set safety rules for Infection prevention?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you know your employees' vaccination status?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are employees routinely tested for COVID-19?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you do daily temperature checks and health assessments?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you tracking the risk level in communities where employees may travel for work?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you reporting cases to BBMP/ICMR (Reporting authority)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is your company in regular touch with your local public health department for up-to-date information on community resources and opportunities to collaborate on community health?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Section 2: ASSESS YOUR POLICIES

Do you have a vaccination policy?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you offer paid leave for employees to get themselves and their family members vaccinated?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you offer paid sick leave to allow workers to stay home when they fall sick or need to isolate themselves?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you conducting health education sessions and continuing to address myths and misinformation about COVID-19 and vaccination?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you have a way for employees to report safety concerns and issues anonymously?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Section 3: ASSESS YOUR OPERATIONS

Are there any areas of your company that lack indoor ventilation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your company have enough supply of tests for workers?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you have a stock of masks to distribute as needed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your workspace accommodate social distancing?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are your sanitation protocols up to date?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have you reduced frequent touchpoints with hands-free solutions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is your workplace prepared to offer on-site booster shots if a new variant requires them?	<input type="checkbox"/> Yes <input type="checkbox"/> No

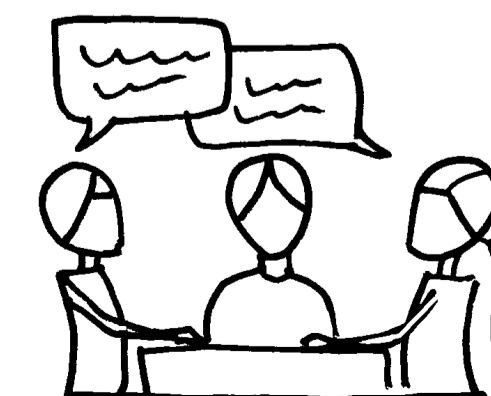
Section 4: ASSESS SYSTEMS OF SUPPORT

Do you support employees who want to continue wearing masks?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you have a policy to address employee concerns about working with unvaccinated coworkers or in unsafe conditions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you considering and incorporating employee feedback—including that of employees who belong to adversely affected populations—into your planning for upcoming health challenges?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you offer support/flexibility for employees with new family care responsibilities or continued vulnerability to disease?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are your company managers trained to check in on employees' mental well-being and needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your company offer support for employees' mental well-being and needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Do your company have employee-led groups for women, people with disabilities, mental health, or other affinity needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do your employees access affordable healthcare through your company's health insurance?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your insurance plan comply with the Mental Healthcare Act, of 2017?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your company offer a Worker well-being/Welfare Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have you assessed its offerings to meet your current challenges or demands?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you regularly informing your staff about benefits such as employee insurance and paid sick leave?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Section 5: ASSESS YOUR FLEXIBILITY

Are you inviting your workers to help identify creative and flexible solutions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are employees cross-trained in other company functions in the event of an outbreak at your workplace?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you prepared to hire temporary workers to supplement your workforce if employees get sick?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have you identified ways to expand social distancing protocols if needed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are there any operations appropriate to move outdoors?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you working with other local businesses to identify cooperative and creative solutions during a public health crisis?	<input type="checkbox"/> Yes <input type="checkbox"/> No



Factory Readiness and Risk Assessment

Employers are recommended to use this workplace readiness assessment to make an informed decision about workplace testing programs for SARS-CoV-2 for their employees.



Low Risk

IF

Community spread is low (less than 5%)

AND

The vaccination rate among the workforce is high (greater or equal to 90 percent vaccination coverage)

There are no outbreaks among your workforce.

THEN

- ⌘ Help employees keep their vaccinations up-to-date
- ⌘ Upgrade indoor ventilation systems
- ⌘ Support employees who choose to keep wearing masks
- ⌘ Post visual cues for social distancing recommendations
- ⌘ Consider making masks available on site for workers at high risk or for those who choose to wear a mask
- ⌘ Continue to follow ICMR quarantine and isolation guidance for workers who are exposed or who test positive for COVID-19.

To access data on community transmission and vaccination rates in your area, refer to reports shared by your local municipal health department or national health department.



Medium Risk

IF

Community spread is moderate (between 5-10%)

OR

The workforce vaccination rate is low

There is an outbreak among the workforce

THEN

- ⌘ Make masks available for workers at high risk
- ⌘ Consider requiring masks for unvaccinated workers
- ⌘ Require masks for workers who have been exposed to COVID-19
- ⌘ Consider weekly testing of unvaccinated employees
- ⌘ Consider expanding hybrid or remote work options
- ⌘ Implement protocols for social distancing
- ⌘ Consider allowing business travel only for vaccinated employees
- ⌘ Help your employees keep their vaccinations and booster doses up-to-date
- ⌘ Upgrade or improve the indoor ventilation systems
- ⌘ Continue to follow ICMR quarantine and isolation guidance for workers who are exposed or who test positive for COVID-19



High Risk

IF

Community spread is high (above 10%)

THEN

- ⌘ Require masks indoors for all workers
- ⌘ Require weekly testing for all workers
- ⌘ Pivot to remote work where possible
- ⌘ Enforce social distancing protocols on site
- ⌘ Consider suspending company travel
- ⌘ Help employees keep their vaccinations and booster doses up-to-date
- ⌘ Maintain improved ventilation
- ⌘ Continue to follow ICMR quarantine and isolation guidance for workers who are exposed or who test positive for COVID-19
- ⌘ Consider reducing the number of workers in each shift to allow the maximum social distancing possible



Appendix B

Advisory for COVID-19 Home Testing using Rapid Antigen Tests (RATs)



भारतीय आयुर्विज्ञान अनुसंधान परिषद
स्वास्थ्य अनुसंधान विभाग, स्वास्थ्य और परिवार
कल्याण मंत्रालय, भारत सरकार
Indian Council of Medical Research
Department of Health Research, Ministry of Health
and Family Welfare, Government of India

Date: 19.05.2021

Advisory for COVID-19 Home Testing using Rapid Antigen Tests (RATs)

- Home testing by RAT is advised only in symptomatic individuals and immediate contacts of laboratory confirmed positive cases.
- Indiscriminate testing is not advised.
- Home testing should be conducted as per the procedure described by the manufacturer in the user manual (*pictorial and video link of the user manual is provided below against the name of the approved test kit*).
- The home testing mobile app is available in Google playstore and Apple store and must be downloaded by all users.
- The mobile app is a comprehensive guide of the testing procedure and will provide a positive or negative test result to the patient.
- All users are advised to click a picture of the test strip after completing the test procedure with the same mobile phone which has been used for downloading the mobile app and user registration.
- Data in the app of your mobile phone will be centrally captured in a secure server which is connected with the ICMR COVID-19 testing portal, where all data will be eventually stored.
- Patient confidentiality will be fully maintained.
- All individuals who test positive may be considered as true positives and no repeat testing is required.
- All test positive individuals are advised to follow home isolation and care as per the ICMR & Ministry of Health & Family Welfare (MoH&FW) protocol which can be accessed at: <https://www.icmr.gov.in/chomecare.html>.
- All symptomatic individuals who test negative by RAT should get themselves immediately tested by RTPCR. This is especially important as the RATs are likely to miss few positive cases presenting with a low viral load.
- All RAT negative symptomatic individuals may be treated as suspect COVID-19 cases and are advised to follow the ICMR/MoH&FW home isolation protocol while awaiting the RTPCR test result.
- All results may be interpreted as per the protocol laid down by the manufacturer in the user manual (*pictorial and video link of the user manual is provided below against the name of the approved test kit*).
- Manufacturer's instructions must be strictly followed for disposal of the test kit, swab and other materials.

Appendix C COVID-19 Home Testing using Rapid Antigen Tests (RATs)



भारतीय आयुर्विज्ञान अनुसंधान परिषद
स्वास्थ्य अनुसंधान विभाग, स्वास्थ्य और परिवार
कल्याण मंत्रालय, भारत सरकार
Indian Council of Medical Research
Department of Health Research, Ministry of Health
and Family Welfare, Government of India

Date: 12.05.2022

COVID-19 Home Testing using Rapid Antigen Tests (RATs)

Please Note:

- Acceptance criteria:
 - For already approved RAT kits with alternate sample:
Concordance between already approved RAT and home/self test: 95% and above
 - For new RAT kits as home/self test:
Sensitivity: 50% and above; Specificity: 95% and above
- Below listed kits have been validated with the mentioned batch number only. Responsibility for batch-to-batch consistency does not lie with ICMR.
- US-FDA approved Antigen based COVID-19 Home/Self tests are exempted from ICMR validation.

Till date, 17 Rapid Ag based Home / Self Test Kits have been validated and the following are found to be satisfactory

S. No.	Name of company	Name of the kit	Lot no. / Batch no.	Test Sample	Guidance Documents
1.	Mylab Discovery Solutions Ltd., Pune (Maharashtra), India	CoviSelf™ (PathoCatch) COVID-19 OTC Antigen LF device	AG00003-A-0421001E AG00003-A-0421002E AG00003-A-0421003E	Nasal swab	A. IFU: http://coviself.com/ifu/ B. Video Link for demonstration video along with illustrated Video In English and Hindi http://coviself.com/video/
2.	Abbott Rapid Diagnostics Division, Chicago (Alere Medical Pvt. Ltd., Gurugram)	PanBio COVID-19 Antigen Rapid Test Device	41ADF315A 41ADF316A 41ADF317A	Nasal swab	A. IFU- Hindi ; English B. Link for demonstration video - Link for Demonstration Video
3.	Meril Diagnostics Pvt. Ltd., Vapi (Gujarat), India	CoviFind COVID-19 Rapid Ag Self Test	MRDLF130221	Nasal swab	A. IFU https://www.merillife.com/assets/pdfs/medical-devices/Covifind-IFU.pdf B. Video link for demonstration https://youtu.be/dA_A0cZ_4M
4.	Angstrom Biotech Pvt. Ltd.	Angcard COVID-19 Home test kit	BCOVN01 BCOVN02 BCOVN03	Saliva	A. IFU https://drive.google.com/file/d/19IiCi8gjO32m08DkyabrZM2lmg7Xn0t/view?usp=sharing B. Video link for demonstration: https://www.youtube.com/channel/UCQ0pG0I-GH-qqi6SVcrKlkg
S. No.	Name of company	Name of the kit	Lot no. / Batch no.	Test Sample	Guidance Documents



भारतीय आयुर्विज्ञान अनुसंधान परिषद
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5.	Healgen Scientific Limited, USA (Siemens Healthcare Pvt. Ltd., Gurugram)	CliniTest COVID-19 Antigen Self Test	2104730	Nasal Swab	A. IFU- English ; Hindi B. Video link for demonstration https://www.siemens-healthineers.com/en-in/clinitest-rapid-covid-19-self-test
6.	S. D. Biosensor Healthcare Pvt. Ltd., Gurugram (Haryana), India	ULTRA Covi-Catch™ SARS-CoV-2 Home Test	T070001/RK07-0-01 E070002	Nasal swab	A. IFU- English ; Hindi B. Video link for demonstration English: https://sdbiosensor.co.in/english-video-5.php Hindi: https://sdbiosensor.co.in/hindi-video-3.php
7.	Nulife Care, Noida (Uttar Pradesh), India	AbCheck Rapid Antigen Self Test - Nasal	COV/AG/RND/21/06/01/B3	Nasal swab	A. IFU- English ; Hindi B. Video link for demonstration Nulife Care
8.	SD Biosensor, Korea (Supplied by Roche Diagnostics)	COVID-19 AtHome Test Kit (Nasal)	QC03810411 QC03810471 QC03810521	Nasal swab	A. IFU- English ; Hindi
9.	Genes2Me Pvt. Ltd., India	CoviEasy COVID-19 Rapid Ag Self Test kit	G2M550001	Nasal swab	A. IFU- English ; Hindi B. Video link for demonstration: bit.ly/3IQYllg
10.	Premier Medical Corporation, Valsad (Gujarat), India	SureStatus COVID-19 Ag Card test (Home Test) kit	106F0121S	Nasal swab	A. IFU- English ; Hindi B. Video link for demonstration: https://youtu.be/ilv_Z17dRUs
11.	NeoDx Biotech Labs Pvt. Ltd., Bengaluru (Karnataka), India	NeoCheck - Covid-19 Rapid Antigen Self test Kit	COV1070022 COV1070027 COV1070028	Nasal swab	A. IFU- English ; Hindi B. Video link for demonstration: https://youtu.be/j1XEI5oZjkk

Annexure I

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भारतीय आयुर्विज्ञान अनुसंधान परिषद
स्वास्थ्य अनुसंधान विभाग, स्वास्थ्य और परिवार
कल्याण मंत्रालय, भारत सरकार

Indian Council of Medical Research
Department of Health Research, Ministry of Health
and Family Welfare, Government of India

Rapid Ag based Home / Self Test Kits, NOT approved by ICMR

S. No	Name of Company	Name of Kit	India/ Other countries	Name of the supplier
1.	Trivitron Healthcare Pvt. Ltd.	MyCoviTest Self Test Kit	India	Trivitron Healthcare Pvt. Ltd.
2.	Oscar Medicare Pvt. Ltd., Delhi	OSKIT Corona Ag Home Test	India	Oscar Medicare Pvt. Ltd.
3.	Oscar Medicare Pvt. Ltd., Haridwar (Uttarakhand)	OSKIT Corona Ag Home Test	India	Oscar Medicare Pvt. Ltd.
4.	Pathkits Healthcare Pvt. Ltd.	COVIatHome	India	Pathkits Healthcare Pvt. Ltd.
5.	Labcare Diagnostics (India) Pvt. Ltd.	Accucare COVID-19 Antigen Saliva Rapid Test kit	India	Labcare Diagnostics (India) Pvt. Ltd.
6.	DNA Xperts Pvt. Ltd.	Xperts Covid Self Check COVID-19 Rapid Ag kit	India	DNA Xperts Pvt. Ltd.

Appendix D WHO Emergency Use Listing for In vitro diagnostics (IVDs) Detecting SARS-CoV-2



WHO Emergency Use Listing for In vitro diagnostics (IVDs) Detecting SARS-CoV-2

Last update: 2 October 2020

Rapid Antigen Tests

Date Listed	Product name	Product code(s)	Manufacturer
02 October 2020	Panbio COVID-19 Ag Rapid Test Device (NASOPHARYNGEAL)	41FK10	Abbott Rapid Diagnostics Jena GmbH
22 September 2020	STANDARD Q COVID-19 Ag Test	09COV30D	SD Biosensor, Inc

Nucleic Acid Tests

Date Listed	Product name	Product code(s)	Manufacturer
15 September 2020	SARS-CoV-2 Nucleic acid detection kit based on Real-Time PCR platform	PGA4102P1 (liquid) / PGA4102P2 (lyophilized form)	Tellgen Corporation
02 September 2020	Novel Coronavirus (2019-nCoV) RT-PCR Detection Kit (commercial name: Fosun 2019-nCoV qPCR)	PCSYHF	Shanghai Fosun Long March Medical Science Co., Ltd.
28 August 2020	SARS-CoV-2 Virus Detection Diagnostic Kit (RT-qPCR Method)	XC25073	Ningbo Health Gene Technologies Co., Ltd.
14 August 2020	TaqPath COVID-19 CE-IVD RT-PCR Kit	A48067	Thermo Fisher Scientific
14 August 2020	Wantai SARS-CoV-2 RT-PCR	WS-1248	Beijing Wantai Biological Pharmacy Enterprise Co., Ltd
09 July 2020	COVID-19 Coronavirus Real Time PCR Kit	JC10223-1NW-50T	Jiangsu Bioperfectus Technologies Co.,Ltd
06 July 2020	Simplexa COVID-19 Direct and Simplexa COVID-19 Positive control Pack	MOL4150, MOL4160	DiaSorin
23 June 2020	Xpert Xpress SARS-CoV-2	XPRSARS-COV2-10	Cepheid AB
15 June 2020	COVID-19 Real-Time PCR Kit	HBRT-COVID-19	Chaozhaou Hyribio Biochemistry Ltd.
11 June 2020	Novel Coronavirus 2019-nCoV Nucleic Acid Detection Kit (Real Time PCR)	GZ-D2RM25	Shanghai GeneDx Biotechnology Co., Ltd
08 June 2020	Diagnostic kit for SARS-CoV-2 Nucleic acid (Real-time PCR)	KH-G-M-574-48	Shanghai Kehua Bio-engineering Co., Ltd.
22 May 2020	Novel Coronavirus (SARS-CoV-2) Real Time Multiplex RT-PCR Kit	RR-0485-02	Shanghai ZJ Bio-Tech Co., Ltd



WHO Emergency Use Listing for In vitro diagnostics (IVDs) Detecting SARS-CoV-2

Last update: 2 October 2020

21 May 2020	FTD SARS-CoV-2 (FTD-114-32)[]	11416300	Fast Track Diagnostics Luxembourg S.à r.l.
19 May 2020	Multiple Real-Time PCR Kit for Detection of 2019-nCoV	CT8233-48T	Beijing Applied Biological Technologies Co. Ltd., (XABT)
14 May 2020	Detection Kit for 2019 Novel Coronavirus (2019-nCoV) RNA (PCR-Fluorescence Probing)	DA0930, DA0931 and DA0932	Da An Gene Co., Ltd. Of Sun Yat-sen University
07 May 2020	Real-time fluorescent RT-PCR kit for detecting 2019-nCoV	MFG030011	BGI Europe A/S
24 April 2020	PerkinElmer SARS-CoV-2 Real-time RT-PCR Assay	SY580	PerkinElmer Inc.
09 April 2020	Abbott Realtime SARS-CoV-2	09N77-090 and 09N77-080	Abbott Molecular Inc.
07 April 2020	Primerdesign Ltd COVID-19 genesig Real-Time PCR assay	Z-Path-COVID-19-CE	Primerdesign Ltd.
03 April 2020	cobas SARS-CoV-2 Qualitative assay for use on the cobas 6800/8800 Systems	09175431190 and 09175440190	Roche Molecular Systems, Inc.

Final Public Reports to be posted on the website once completed

End of document



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