Self-Testing in Communities

A Playbook for Global Pandemic Preparedness
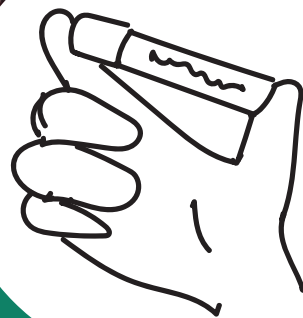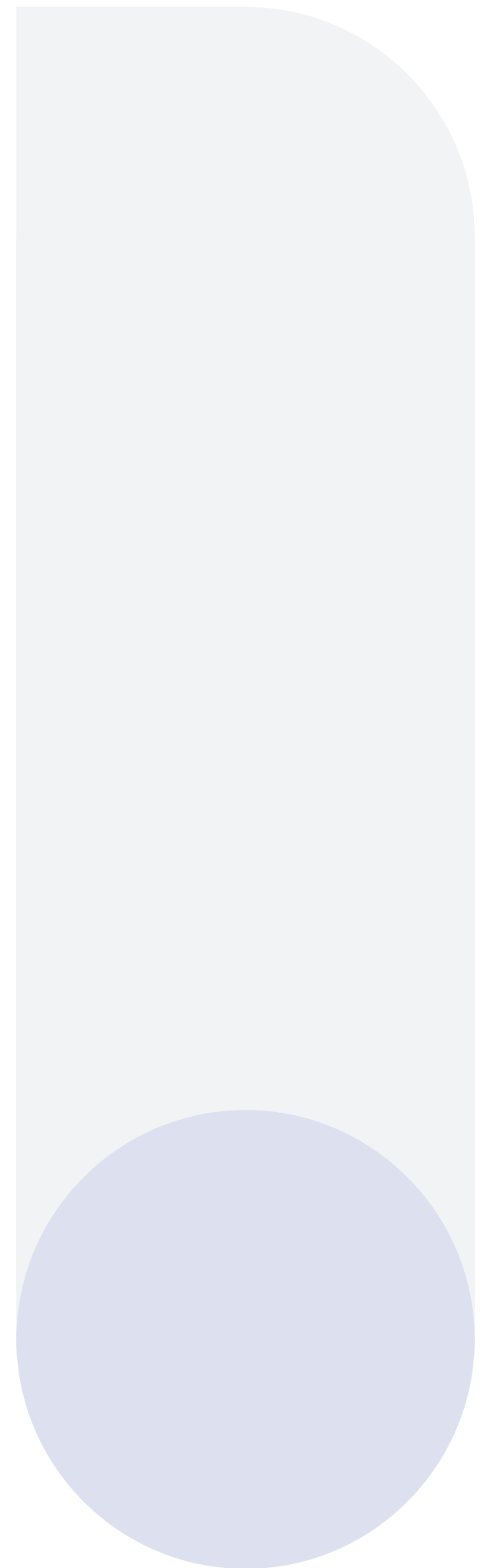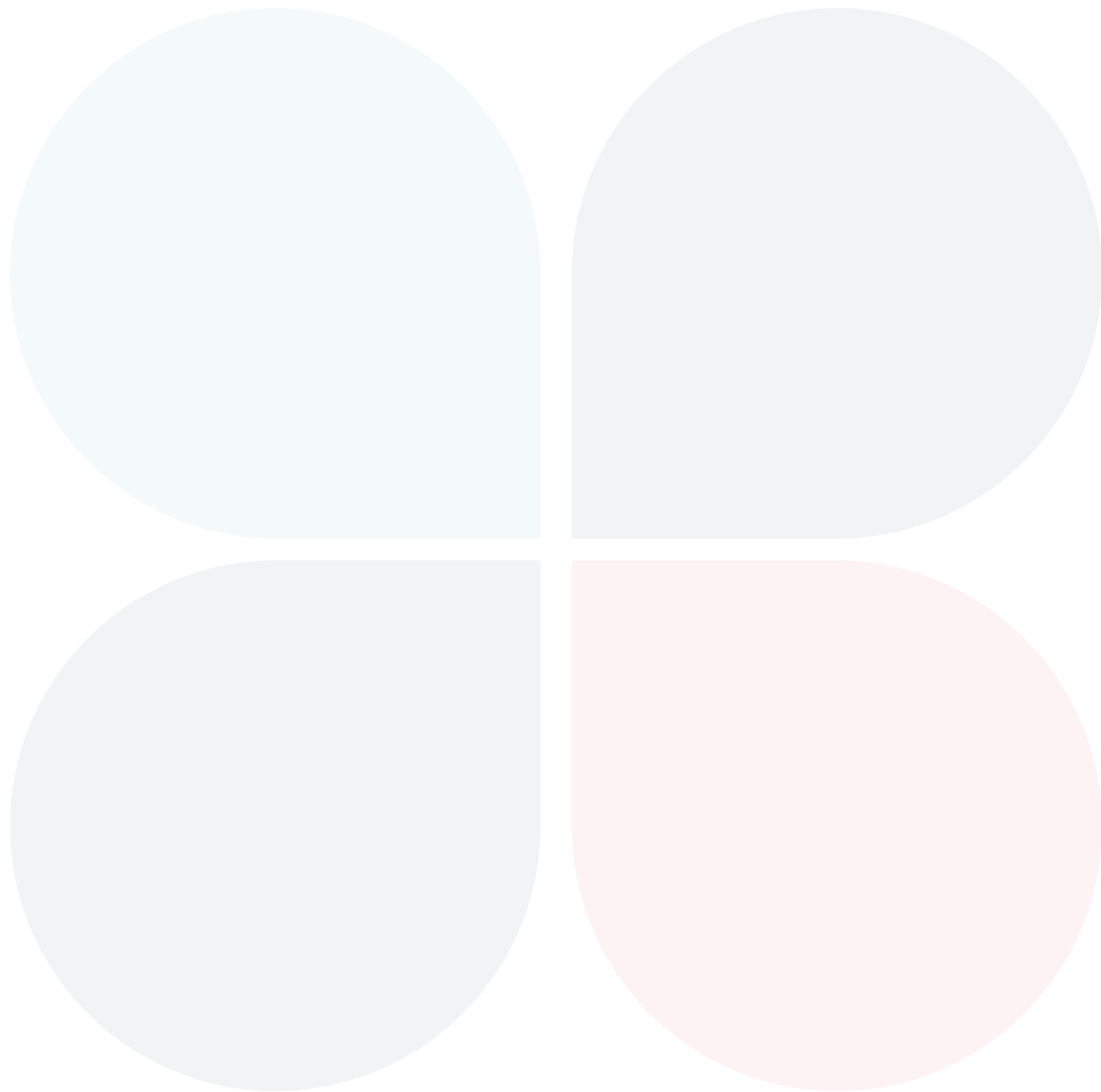
FOREWORD

I write this amidst the global reckoning that 3.3 billion people who are least responsible for total emissions are bearing the greatest health impacts from climate change. We need a transformation of health systems to better prevent, predict, detect, and respond to disease outbreaks caused or worsened by climate change.[1]

Against this backdrop, Self Testing is an increasingly valuable tool to assess personal health status, especially in the most marginalized communities that lack access to health systems. The introduction of Self Testing shifts the agency of personal health care to the hands of the people, while simultaneously reducing health system burden and strengthening community health systems.

During the COVID-19 pandemic, it was critical that Self Testing as a preventive measure was adapted in a widespread manner and not limited to a few. We, therefore set out to understand the usability, feasibility and affordability with regards to uptake of Self Testing.

Our learnings were manifold, and we are confident that Self Testing can be introduced successfully into communities with peer assistance. This journey has also shown us that when communities are armed with their own health information, they have the tools and confidence to not only tackle myths and misconceptions in their own groups, but also overcome hesitancy. The ability to conduct Self Testing in the privacy of their own space also increased comfort levels with and sustainable use of the approach.

This playbook is a result of an Action Research project undertaken by Swasti, The Health Catalyst - a public health non profit headquartered in Bengaluru, India with support from The Rockefeller Foundation. The playbook breaks down the "how to" along with relevant forms, formats and documentation, offers information and insights including community voices and stands in as a toolkit and resource guide for the introduction of self testing in community settings.

As we collectively gear up to protect the most marginalized from the greatest health impacts from climate change - including possible future pandemics – we hope this playbook will help in setting up the required systems - towards community systems strengthening for health systems strengthening.

Deepali Khanna
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1 https://www.rockefellerfoundation.org/our-new-climate-strategy-advancing-opportunity-while-reversing-climate-crisis/

Self Testing in Communities :
Highlights

This intervention can lead to:

- Reduction of overburdened hospitals
- Increased comfort for accessing care and reduced stigma of COVID-19 among community members
- Reduction of hospital visits for low-risk individuals
- Increased awareness among community members
- Reduced rate of COVID-19 transmission to vulnerable community members
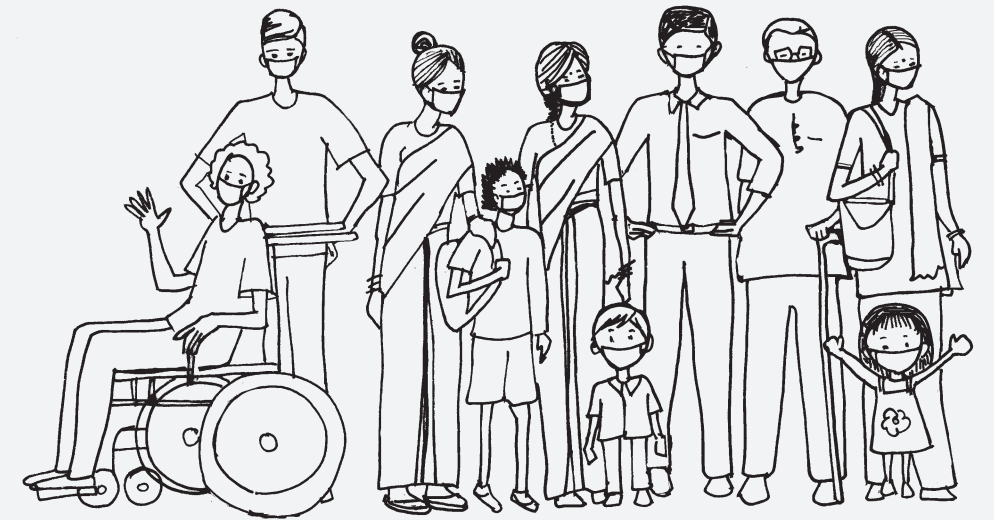
Why self-test?

- Rapid Antigen Tests which can be done at home are easy to perform as compared to RT-PCR.

- It gives quick results within 15 minutes and can help in containing the infection with ease of accessibility and availability of the tests.

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

Table of Contents

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."
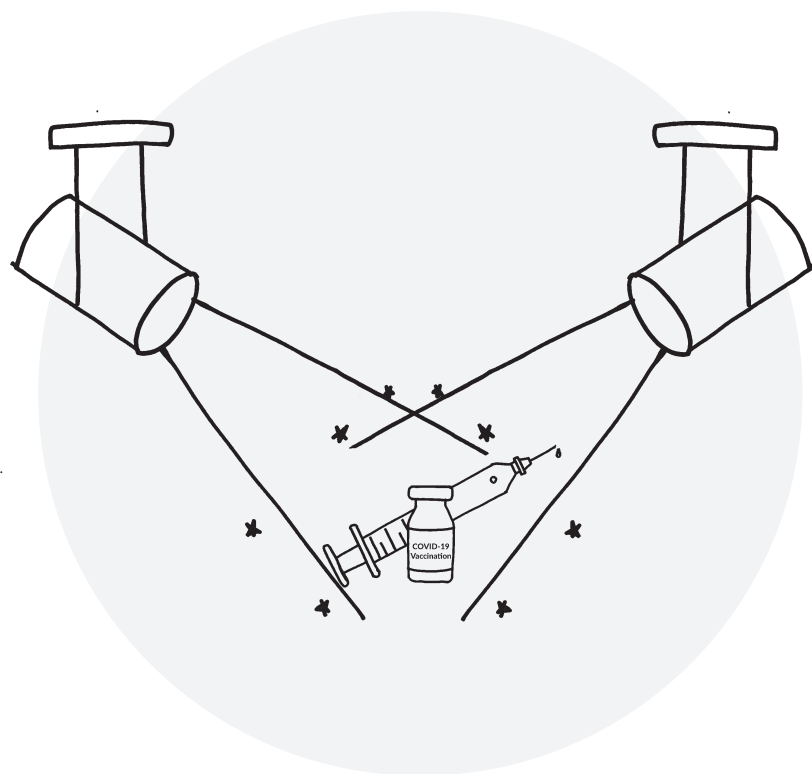
Character   The agents of the plot. The People.

Theme   The reason for the play. The Purpose.

3 of the 6 Aristotelian elements of the play

Over the month of April 2021, a deadly second wave of COVID-19 has

caused devastation in India. The daily case counts of COVID-19 have been repeatedly setting world records, with the new daily case count surging to 392,000 on May 1st. This second wave has brought a unique set of challenges, including an initial complacency towards the virus. The highly contagious U.K. variant B.1.1.7 and the Indian variant B.1.617 have accounted for a substantial portion of cases, and only an estimated 2% of the total population have completed their vaccination. Hospitals in cities across the country have been pushed to capacity and are turning patients away. Healthcare facilities are facing a severe shortage of oxygen supplies, critical drugs to address respiratory symptoms, and ICU beds, preventing critically ill patients from receiving the care they need.

Low-income and marginalized communities living in urban regions are particularly at risk due to these supply side limitations, coupled with the disadvantage they face navigating the healthcare system along with environmental and social determinants. Access to healthcare in general is poor among this community due to several reasons such as distance, cost and time of travel, long wait times, lost wages, stigma or perceived stigma by those around them. These communities are also at the highest risk of infectious diseases such as COVID-19 due to poor sanitation facilities and overcrowding, which makes social distancing impractical and allows for an uncontrollable spread of the virus in these communities. The varied realities and circumstances that negatively impact urban poor communities' ability to access services and ensure social protection needed to be taken into account.

The Problem

As COVID-19 has struck low-income urban communities, they face a range of problems that hinder access and utilization of COVID-19 services from prevention to treatment.

Testing in the community, especially within hard to reach and extremely vulnerable populations, remains difficult. Limited access to testing leads to delayed identification of COVID-19, leading to both poor health outcomes for the infected individual and increased transmission in the community. Furthermore, having a test alone is not enough- unless testing is integrated with referral systems for compassionate care, home isolation, institutional quarantine and hospitalization where needed, healthcare will remain fragmented and inefficient and the likelihood of an explosive epidemic increases. Effective testing is also constrained by the fact that there is a palpable fear of getting tested, especially amongst vulnerable communities, due to:

- Lack of trust in institutional quarantine and fear of forced institutional quarantine away from their communities
- Loss of livelihood and ability to survive in quarantine
- Stigma from the community and care providers

In addition the challenges of COVID-19 testing in communities, ensuring that individuals who are COVID-19 positive are able and willing to isolate and receive care poses another problem. For those from these communities who do test positive, home quarantine is virtually impossible as most of them live in houses with a single room and/or lack of access to water and bathing facilities within the house. With hospitals across the country overwhelmed and the pressure showing no sign of reducing amidst the second wave - there is an urgent need for interventions to serve COVID positive patients from vulnerable communities in order to ensure these patients are cared for and to reduce the burden on the healthcare system.

So far, the inability to control spread of the virus has led to a massive burden on the health system, leading to loss of life. The shortage of healthcare professionals and supplies both contribute to the inability to cope with the influx of cases. Many cases arrive late at hospitals, already in need of critical care that could be avoided by early intervention. The number of patients with severe cases continues to rise, and hospitals do not have enough ICU beds in some cases or even simple oxygen support therapy and equipment to manage the demand. In order to address this challenge, there is a need for innovative solutions that can support the healthcare system.
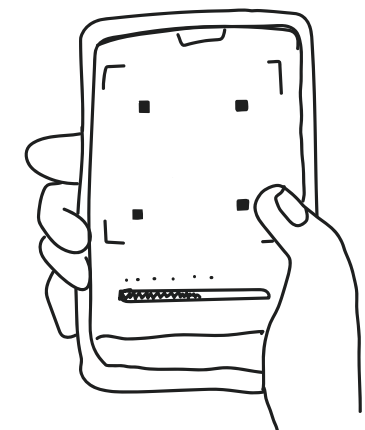
Plot: Problem Statement

The most marginalized and vulnerable communities were the worst hit during COVID-19 where their long standing struggles with access to health services such as testing became a chasm so large that it led to communities fearing testing and the possible consequences if they tested positive - ranging from being further pushed into poverty to becoming stigmatized. As the COVID-19 outbreak continued to impact the country, the need for dedicated, focused and sustained efforts to protect and serve the most vulnerable in India remained a priority.

Community Based Testing engages and screens vulnerable populations for COVID-19 risk through trusted community champions. It operates across the care continuum and creates service awareness and a database of individuals who are at risk of COVID-19 and need regular follow-up and support.

Those at high risk of COVID-19 were referred for testing through our mobile clinics and those at moderate risk and pre-existing conditions will have regular follow ups. We partner with local governments and NGOs to ensure referral to health or quarantine facilities for the COVID-19 positive and with individuals so they are empowered and cared for.

Our anti-stigma initiatives generate demand, de-stigmatize COVID and ensure early detection so that transmission can be curtailed efficiently.

Plot: Problem Statement

Limited access to facility based covid tests affected the prompt detection of cases and increased the risk of community spread of COVID especially among vulnerable populations like urban poor, who are already living in conditions that exacerbate the risk of COVID-19.

Affordable, safe to use and easily available point of care diagnostics that empower communities, facilitate access to testing and subsequent adoption of other IPC measures would be a great value add for controlling pandemics - current and future. With the onset of third wave of COVID pandemic with the highly infectious omicron variant in India in early 2022, the use of self-administered RATs were approved by ICMR, the apex body as a way to curb the spread of the pandemic as well as ease the burden on already stressed health systems.

Key to delivering this public health response effectively means there is a need to ensure the availability and feasibility of these self-testing kits at the community level.
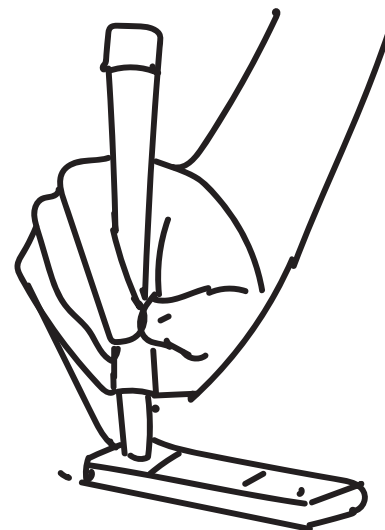
The Solution

We took healthcare to the doorstep of our communities. Community based symptom surveillance and antigen testing was rolled out in high density urban slums where there was high risk of COVID outbreak due to the migrant nature and occupation of the population, poor sanitation facilities and overcrowding. In addition to COVID testing, for those who come back positive a tele-medicine platform was used to support home or community based isolation and care for mild to moderate cases.

Tele-care was leveraged to provide both mental and physical health support for patients and identify cases that needed to be escalated to health facility level care early.

A comprehensive package of care including support for COVID screening and testing, home isolation, referral and transport to hospitals and tele-consultation was put in place. This included providing home care kits with basic equipment, PPE and medications. Back up oxygen concentrators were made available for moderate COVID patients who could end up needing these. In addition, those individuals for whom home isolation was not practically possible, temporary quarantine and isolation locations within the locality such as schools, rooms in primary health centers or rented rooms or houses were identified to support community based isolation.

Syama Syam
Public Health Specialist
Swasti

Agency and Self Testing

The most poor and marginalized communities often struggle to navigate the formal healthcare system perceiving it with a fair amount of fear, trepidation and labeling it unfriendly, or costly, or both. The systems and processes of health care service delivery often means loss of a days' wages for the poor in attempting to navigate the same. On the other hand, health is not a priority for the poor, unless it affects their work, and generally only symptomatic relief is sought.

This results in repeat episodes of preventable illness and also drug resistance to treatment. The poor lose one to two months of productive time a year due to illness in their family, and nearly 50-60 percent live with some form of undiagnosed illness and die earlier than those economically better off. In India alone, about 50-60 million people in the last decade have been pushed to the brink of poverty because of health-related expenditures.

The central problem is often agency of the human being over their own health and access to testing. Self-testing is bringing that agency back to the people to a large extent where they can test themselves in the safety of their home - or wherever they feel safe. It does not require a long turn around time for receiving the test result and they can then work with a community health worker to navigate their next steps around the health concern. It also takes away the fear of possible consequences of a positive result - instead ensuring that with the test in their hands and them in their own safe space - they take the agency and responsibility of the right next steps.

In the context of a situation like COVID-19, self-testing allows people to decide whether to go out or self-isolate at home or seek care. The term "going out" would include work, socializing, shopping, and eating out. The decision making is no longer a diktat but a conclusion arrived at by oneself based on ones' own self testing.
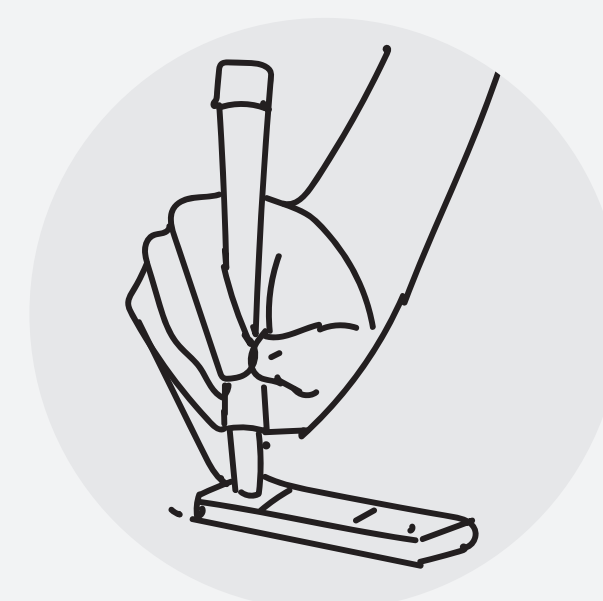
The Thoughts Behind The Solution Action of Self Testing in Communities

Test and isolate early to break the chain:

Detect early symptomatic cases of COVID19 among poor communities using active screening and community based testing in project areas identified as hot spots or potential hot spots for COVID

Treat at home and intervene early:

Support safe community level and home based isolation and care for COVID patients with mild and moderate symptoms, identify and escalate issues early to reduce morbidity and mortality

The theory of change is that using trust capital within the communities and creating safe alternatives for testing and isolation will remove hesitation for early testing and isolation, curbing the spread of outbreaks within these vulnerable communities.

Adjusting intensity of pushing for Community Based Testing

	When there are outbreaks in the neighbouring areas or in the city		*When there are no outbreaks / an epidemic has slowed*
	High intensity of encouraging CBT - with intentional programming on ground to ensure more and more people have occasion and opportunity to self test - including rolling out door to door campaigns as required		Continue to screen and test individuals to prevent the next outbreak and have infrastructure in place to respond to another wave should it arrive - and also to create the habit of pandemic preparedness.

Towards the tail end of the first wave of COVID-19 in India, we experienced the incredible usefulness of setting up similar programs with communities of M-East ward, in one of the most socio-economically disadvantaged areas in Mumbai. With the program, we saw that the community there had access to antigen and PCR testing close to their homes and with quick turnaround times, at a time where the rest of the city was struggling to get tested.

Pandemic Preparedness & Self Testing in Communities

These systems and habits are strongly systems oriented yet agile - where it will remain in place and continue to support people who could come back positive after testing and it can also roll out a a higher level of response in case of rise in cases, ensuring that communities are better prepared as more waves of the pandemic arrive.

We also built in surge capacity for times when infections increase and taking a surveillance approach when there is a lull in the outbreak.

Depending on the geography and the outbreak, repeat antigen testing in highly exposed individuals such as community workers, factories, nearby construction sites could be set up to identify outbreaks early.
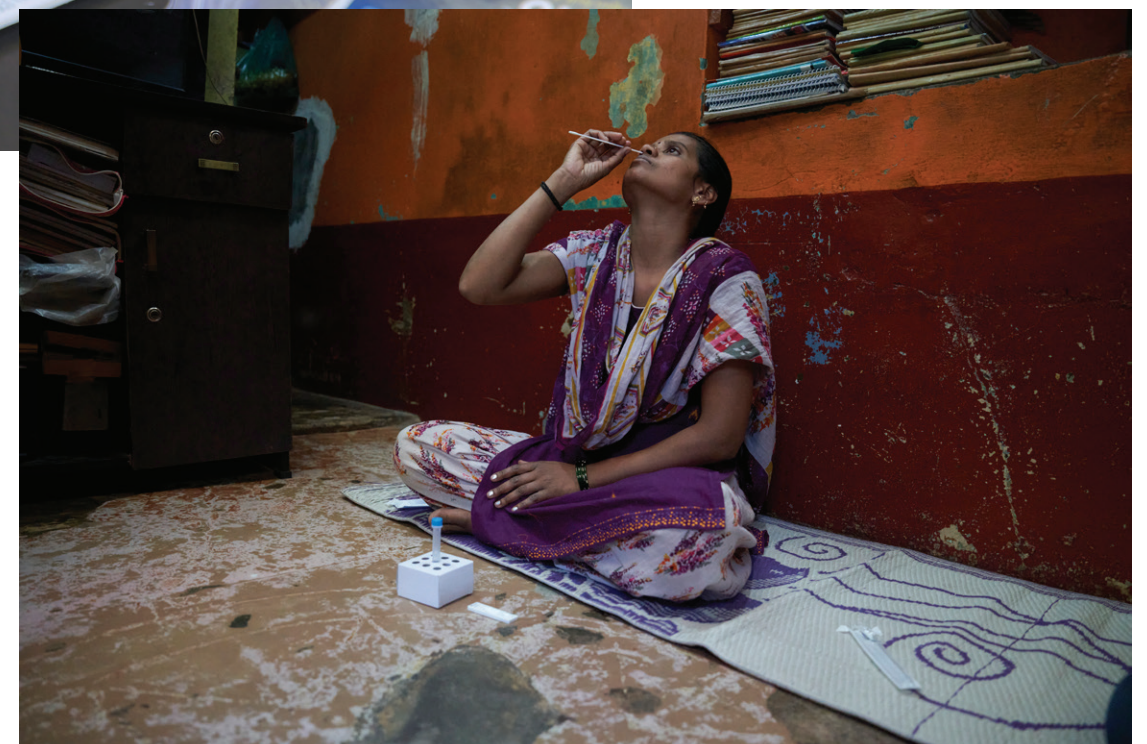
Purpose and Objective Of This Playbook

The Self-Testing in Communities Playbook offers guidance to help communities explore the suitable options of self-testing for vulnerable populations, insights on what works and what does not and communication strategies to address myths and misconceptions. The document outlines the steps required for incorporating self-testing activities that can be undertaken for smooth planning and rolling out of self-testing in communities.

In the playbook, you will find:

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

The playbook divides the entire process into 3 Acts, which are as follows:

- Act 1
- Scene 1 : Planning phase
- Scene 2 : Pre-roll out phase
- Act 2 : Roll out of self-testing phase
- Act 3 : Post self-testing phase

PEOPLE

The Main Actors!

Trusted community members are employed for surveillance, mobilization and demand generation and are nested within the programs, these will be the point of entry to the work.

These individuals have local knowledge on the needs of the community, context, and barriers to care which will inform the package of services.

They also help in identifying key people who could then be trained to support in various services from the ground level.

Utilising existing local workforce like community health workers, volunteers would be crucial for the success of the program that would enable, empower the local team to care for their own communities.

Who are the people?

Program Manager

Role:

- Develop the testing strategy for the communities based on the risk assessment and information gathered from communities
- Orchestrate training and orientation for the clinical and non-clinical team involved in testing
- Facilitate and ensure availability of resources required for testing

What does the Program Manager need to know?

- Information regarding the community spread of COVID
- Access to and information on referrals and linkages to care
- Technical support for the team of healthcare workers

Field Notes : On the role of the Program Manager

The Program Manager could be the manager of the community health workers themself.

So either they manage the program of introducing and sustaining self testing in communities or they're the supervisor of the community health workers or working at a community health centre.

This individual is a central focal point who can manage the administrative bit in the sense of determining :

- How are the tests getting distributed?
- Where are the tests being conducted?
- Who are the people who are positive and need help?
- Who are the people who are concerned about their status due to exposure but are testing negative? Do they need help with a repeat test?

And manage administrative responsibilities such as maintaining inventory of tests, understanding insights around self testing behaviour and addressing any hurdles to uptake, making sure that social behaviour change communication is appropriate.
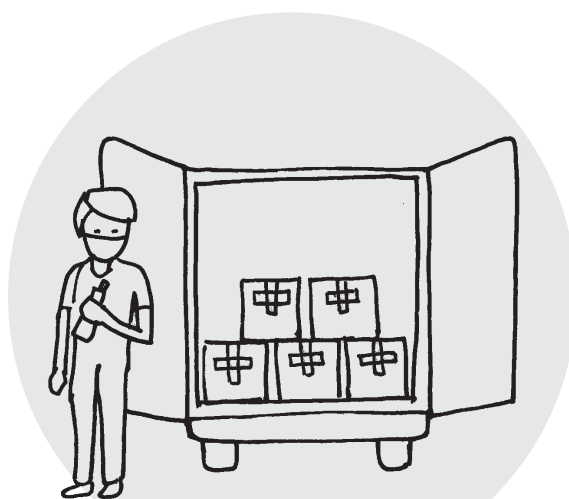
Clinical Team

What does the Clinical Team need to know?

It is important to have sensitisation sessions on the importance of providing respectful care and its impact among vulnerable populations. At the outset it is important for the clinical team to skip any assumptions that the community has all the information or would be able to find it by themselves. Communities, particularly marginalized and vulnerable communities, may have poor experiences interacting with health systems historically and specific health-related questions that, clinical teams should be briefed on answering most sensitively.

During COVID many people did not access general care, even when they needed it, due to health systems being overloaded. So if testing initiatives for vulnerable populations are implemented during a pandemic, clinical teams may also use these occasions to address the communities' general clinical concerns.

The following functions are imperative for the trained clinical team to carry out in this context:

- Provide pre- and post-counsel on what to expect.
- Actively assist the community members in conducting the self-test
- Ask if there are any questions and respectfully answer any questions or concerns, however basic they may seem.
- Help community members read the test results and address the concerns of treatment and stigma if tested positive while deploying the protocol on positive test results.
- Request community members to repeat the test the next day if they test negative and are experiencing symptoms.
- Explain the importance of attending routine testing program when selected for random testing for those who test negative.

Field Notes :: On the role of the Clinical Team

Self Testing can be uncomfortable and scary for communities - especially those who come from marginalized communities.

Most Self Testing tests come with paraphernalia that looks complex and can be confusing - the booklets although much improved - come with written text often in very small font and the steps need to be explained patiently to community members attempting self testing - be it the first time or repeatedly.

The fear associated with the result can also be a cause of major anxiety.

And therefore it is critical for the clinical team to be able to practice empathy while playing the role of the expert for the community and help decode the results and the next steps.

"When Lata* came with her mother to get her fever checked, I also tested her for Covid-19 using a self-testing kit. When the result came back positive, Sneha got very scared. But I counseled her and assured them that she would recover within a week. If we did not have access to self testing kits, we wouldn't have been able to detect it early and it may have spread to other people. But I am happy that we were able to avoid it."

Sharmila
Nurse

Community Health Workers

Who are they: Community Members

Community Health Workers are community members who take lead in the program and train to become frontline workers anchoring health and wellbeing initiatives in the community, engaging with their community to facilitate their wellbeing journey - as individuals and families.

They may be part of government programs or programs run by community institutions or non governmental institutions.

Community Health Workers are truly at the frontlines where they implement projects as per project design and have powerful valuable insights for behaviour change communication and trainings for communities to lead healthier lives. They are often tasked with review and pre-test of programs, documentation of the feedback using tools as appropriate, and are tasked to incorporate changes in order to respond to community urgencies and actively scale-up programs - ranging from immunization to mobilising for testing for communicable and non communicable diseases - based on community requirements. They often co-design and develop appropriate behaviour change display and training aids/ props that are cultural and language sensitive.

What do the Community Health Workers need to know?
- How to demonstrate self testing efficiently and help community members learn the same
- Importance of providing respectful instructions, informations and link to care
- Digital literacy for those doing data entry
- Understand how to escalate any concerns including quality issues with the kit to the clinical team

The following functions are imperative for the community health workers to carry out in this context:
- Assuage all doubts with the help of the clinical team
- Arrange for self test kits from the clinical team / program manager
- Be prepared to demonstrate and help
- Support data entry on the apps

Community members mentioned that the trust in the community health worker was the key factor that motivated them to undergo self-testing resulting in was their trust in the health workers and positive experiences from the program. They felt that the unwavering support offered by the health workers helped them overcome the initial fear and hesitancy from their family which prevented them from accessing these tests. Continuous sensitization campaigns and mass capacity building sessions conducted by the program induced a mindset change among the larger community thereby increasing the overall acceptance and willingness to test among communities.

"

"When we did the test, we received clear instructions from the health worker. Initially I was a bit scared! Ma'am told us that we have to follow instructions, and not worry! So we followed instructions and completed the test." *- Shantalata*, Mohammadpur*

"

"They will be scared that if we go there, the result will be positive and others will also know. But when they shared this with us we assured them that, nothing will happen to you, we can test at home only, result will be out in 15 minutes. If in case, you got the positive result, you can isolate at home only and stay away from others. How to stay and how to maintain the hygiene, we supported them in this way, they got little comfort feeling." *- Wellness Facilitator FGD, Kamakshipalya*

Community members claimed that the assistance from the Community Health Worker was a critical component of self-testing, finding comfort in performing the test after receiving instructions about the test process.

"

"I had symptoms like cold, throat pain, and fever sensation, one fine day Meenakshi - our community health worker - came to my house for screening, after seeing my condition Meenakshi asked me to take a COVID test, after the test I tested positive, and nurse ask me to isolate and test my family members. After trying my husband and grandson also tested positive, self-test facility really helps our family with early detection, and we do not have interested to visit a government hospital for a COVID test because it is a very difficult waiting time and we are afraid of stories of COVID time." *- Rima**

ONCE THE **TEST IS DONE**, AND IF THE RESULT IS POSITIVE, THEY CAN **QUARANTINE** THEMSELVES AT **HOME**.

Things to remember for the Community Health Worker when preparing for Community Based Self Testing at the Community.

Conducting a self-test

⌘ Maintain sanitary conditions of the testing site, clean surface and hands before conducting the test.

⌘ Follow all the steps as mentioned in the annexure in the defined manner. In case any of the steps are not followed/,missed then the test might result invalid and in such cases, a retest should be done.

⌘ Following the above two steps will result in an accurate test. Waiting time for the results is 15 minutes which should be timed properly.

⌘ Training materials related to self-testing are attached in the annexure.

Steps to follow when someone tests positive

#1
Counsel the family, do not create a sense of panic.

#2
Make a note of everyone in the household and recommend that the patient isolates-provide isolation guidelines

#3
Update the community surveillance form and at the same time using the community member's phone, call the telecare helpline and connect the member to the nursing team. If there is no telecare program available connect with the nearest health centre

#4
Provide a home isolation kit to the household along with relevant ration kits

#5
Follow up with the family to check if other members of the family have developed symptoms.

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PLACES

How to choose the right place to set up health worker-assisted self-testing?

In partnership with peers, choose the location for peer-assisted self-testing that is most convenient and safe for them. Identify a location to conduct testing in the community. This could be a at wellness centers, during house-to-house visits, or during NCD camps. Following are some examples of places where you can conduct testing for your community members:

- Homes of the individuals
- Clinic or Medical room
- Isolation room
- Self-help group meetings
- Dedicated kiosks set up at NCD camps
- Community events
- At the community member's workplace (if it allows for privacy)
- Outside the workplace
- Open space with a shelter/roof
- Kiosks set up outside or at the entrance

Accessible | Affordable | Available

25

If there are multiple sites/locations within the community ensure that all the sites meet the following criteria.

The testing location should be:

- Well ventilated - to prevent infection among people testing together
- 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 accessible to access and perform the test quickly to minimise disruption to production
- Well equipped - with a flat and stable desk or table to perform the test, chairs without armrests for the community members, and large bins with biohazard bags to dispose of the used test kits

The place should also have an accessible drinking water facility, medical care, privacy and washroom.

Ensure that the self-testing space is accessible for people with disabilities. If that is not possible, alternative arrangements need to be made - this may involve discussing with the Medical Officer at the vaccination centre to explore alternatives such as Mobile Vans

Accessible | Affordable | Available

"

When my wellness facilitator taught me how to use a self-testing kit, I was very excited to also teach the same to my family members. In the last one year, whenever I have gotten down with fever and cold, I've tested myself for Covid-19 using the kit. Self-testing kits have made our lives so much easier. They are so easy to use and are the best way to protect ourselves and our families from Covid-19. *- Ranju, Community Member, Mohammadpur*
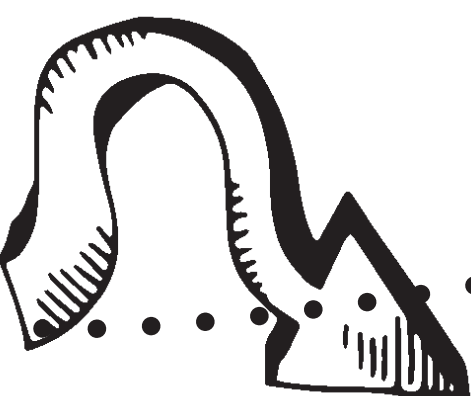
If the person has COVID-19 symptoms, such as fever, cold, cough, sore throat or related symptoms, then a test should be issued or referred.
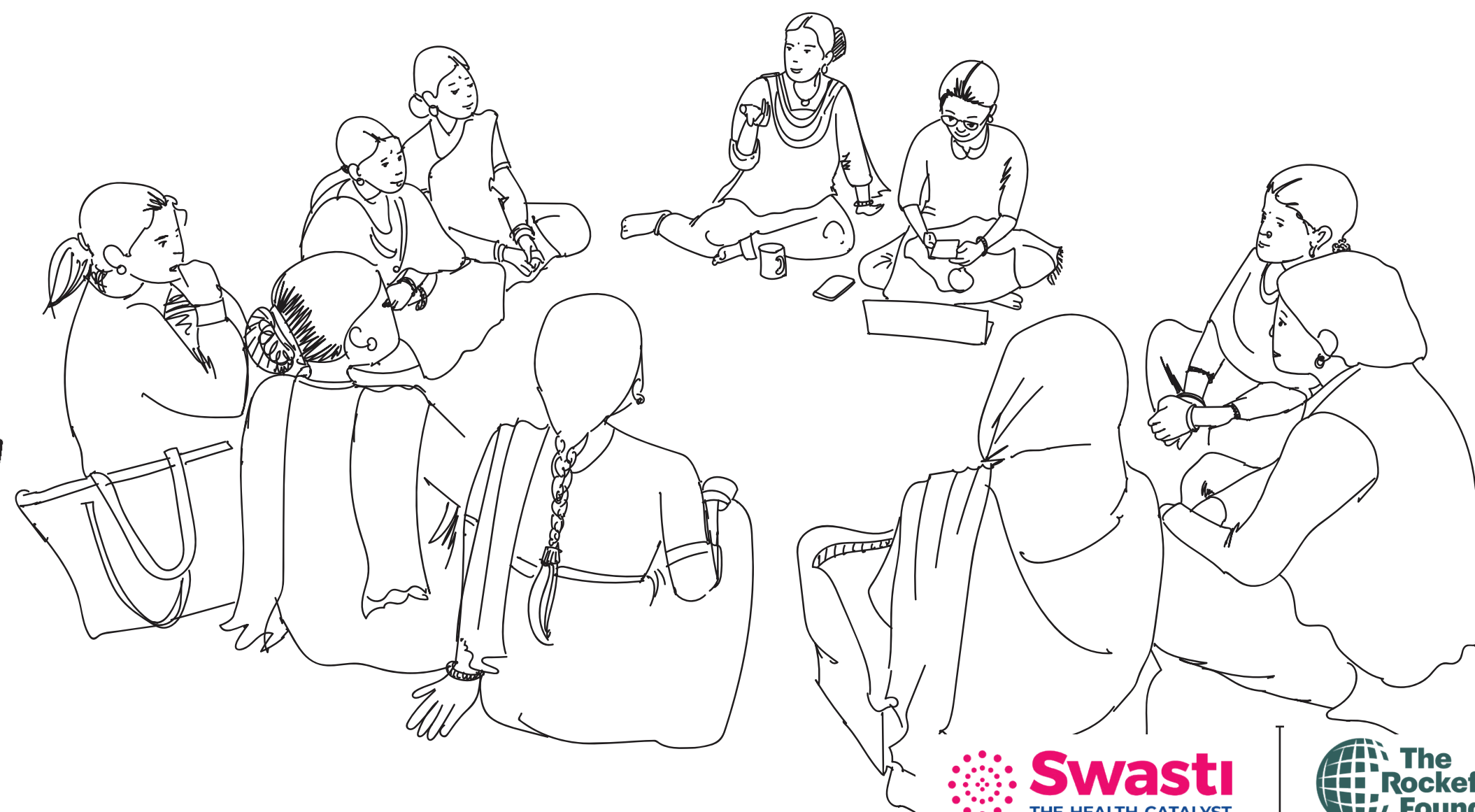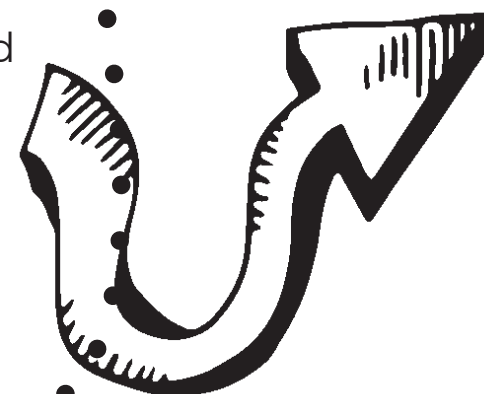
⌘ Survey family members and close contact of known positive for symptoms for the week following a positive member being identified. If symptoms appear then a test should be issued.

⌘ Assume all close family contacts will be positive and recommend heightened precautions.

⌘ Test —o Trace —o Track

When a person comes positive after the test, then you should trace the contacts he has come in contact with in the past few days and track their symptoms. Incase of developing symptoms, then a test should be issued or referred.

How do we define a close contact: Anyone the positive individual has spent significant time with (more than 30 mins) without a mask, in a closed space 4-5 days before testing positive.

How do we define heightened precautions: with increased level of precautions and protective measures to restrict spreading of virus with steps like constant double masking, hand washing, not stepping out of the house unless critical, staying away from high risk individuals etc.
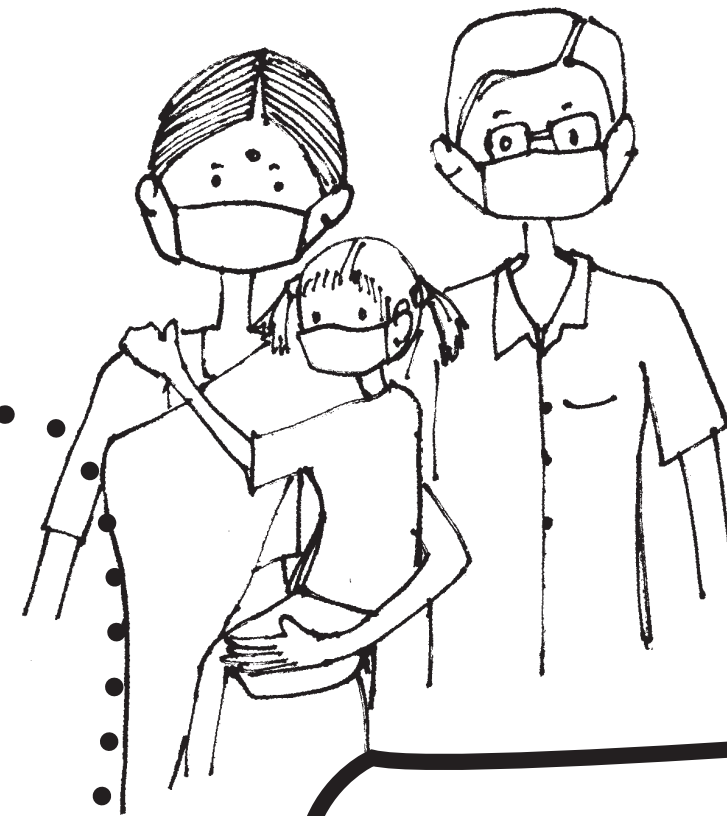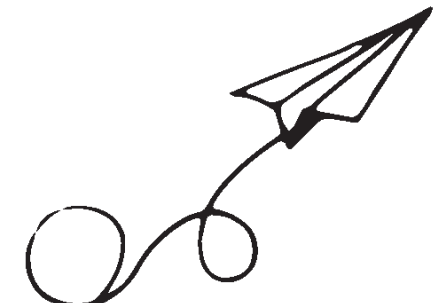
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When should a test be issued?

Scenario 1: Tele-care or clinic receives a call from a person falling under any one of the above categories.

Scenario 2: Frontline workers identify people falling under any one of the above categories.

Scenario 3: Ask for symptoms in family members of the person who tested positive, remind them to assume that they will be positive and act accordingly. Follow up with the family daily and provide a test as soon as symptoms appear.

What are possible implementation scenarios?

Walk-in tests at the existing clinics:

⌘ If a person is facing symptoms and reaches out to the clinics for a test.

Through telecare surveillance:

⌘ If a person is facing symptoms or is in need of a test, reach out to the telecare for support.

Through on-ground in-person surveillance:

⌘ Utilising on-ground network for surveillance, in cases where any family member has been tested positive or is showing symptoms.

⌘ In either case, a test should be conducted in an open ventilated space. Clinics can dedicate a portion for this. Or at home, a well ventilated, well lit space should be utilised for the test and NOT a closed room if possible.

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Summary Checklist

Planning Phase

- Demand Generation Activities
- Choosing a Test Kit
- Decision on roll out

Pre-roll out Phase

- Training of staff
- Establishing Data Collection and Monitoring Mechanisms
- Establishing test kit tracking mechanisms

Roll out of self-testing

- Conduct self-testing with peer assistance
- Manage documentation of results

Post self-testing Phase

- Result based actions

ACT 1. SCENE 1.
THE PLANNING PHASE

Action Guidance:
Based on the Community Needs Assessment

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.**

Low Risk

IF

Community spread and hospitalisation rates are low

AND

The workforce is highly vaccinated - >=90% vaccination coverage.

There are no outbreaks among your community

THEN

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

Medium Risk

IF

Community spread and hospitalisation rates are moderate

OR

The community vaccination rate is low

There is an outbreak among the community

THEN

- Make masks available for high-risk members
- Consider requiring masks for unvaccinated members
- Require masks for members who have been exposed to COVID-19
- Consider weekly testing of unvaccinated members
- Implement protocols for social distancing
- Help your members keep their vaccinations and booster doses up to date
- Push messaging to upgrade indoor ventilation
- Continue to follow ICMR quarantine and isolation guidance for members who are exposed to or test positive for COVID-19

High Risk

## IF

Community spread and hospitalisation rates are high

THEN

- Make masking mandatory for all
- Require weekly testing for those in high risk areas
- Assess if exposure can be limited where possible
- Help members keep their vaccinations and booster doses up to date
- Push for maintenance of improved ventilation
- Continue to follow ICMR quarantine and isolation guidance for members are exposed or test positive for COVID-19
- Consider reducing the number of members coming in to the health centre at a time to allow maximum social distancing possible

Planning Phase :
Demand Generation Activities

Demand Generation Activities

- Posters
- Videos
- Training Tutorials
- Whatsapp messages and videos
- Utilising local networks like Self Help Groups, local leaders, etc
- Call-outs through telecare which will discuss availability and accessibility of tests

THE ONLY REASON TO AVOID TESTING WAS THAT
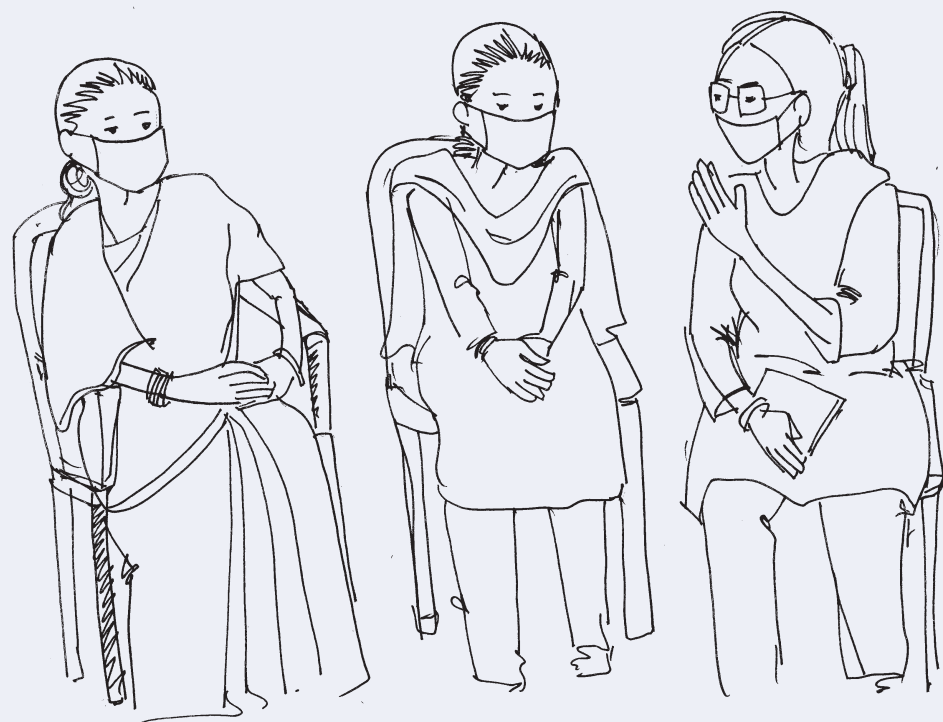
Planning Phase:
Choosing a Test Kit

Rapid Antigen Tests can be done at home/ workplace and are easier to perform compared to RT-PCR. 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.

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

I. Certification and Approval by regulatory authorities

Refer to the latest COVID-19 Home testing guidelines at **https://www.icmr.gov.in/** chometest.html before you choose a test. To date, 17 Rapid Ag-based Home / Self-Test Kits have been validated, and the following are found to be satisfactory: **https://www.icmr.gov.in/pdf/covid/kits/ COVID_Home_Test_Kit_12052022.pdf**

Accessible | Affordable | Available

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 nonclinical and clinical settings. 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 nonclinical and clinical settings. WHO first released interim guidance on RAT use in September 2020, with revisions issued in October 2021. RATs were recommended for use in India in June 2020 by the Indian Council of Medical Research (ICMR) and have been widely used since then.

II. Opt for Test Kits that are affordable and easily available and usable by the Community

A copy of the above linked content with access dates can be found in the Appendices.

Note: The test kits should be stored in a secure, environmentally controlled, and monitored (manual 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 community

The ideal volume of tests to be issued in the community is based on the positivity rates in the city and taking into account the positivity within the community, i.e., if there are more infections within the community, it is recommended to increase testing volume regardless of the city-wide positivity rates.

The following scenarios illustrate how testing volumes will be changed based on positivity rates:

#1
Positivity rate within the city <5%:
On-demand tests and tests for persons presenting with symptoms.

#2
Positivity rate within the city 5 - 10%:
Test 20% of persons randomly and monitor positivity rates

#3
Positivity rate within the city =>10%
Testing for all persons (Census Testing)

#4
The positivity rate within the factory exceeds 10%,
even though scenarios 1 & 2 apply then, and census testing will be conducted the week after.

In addition to the above testing, all close contacts of known positives and individuals exhibiting symptoms will need to be offered testing.

Individuals who know they have been exposed outside the community setting or feel 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 on the next page:

Scan this QR Code for peer assistant training and assessment materials:
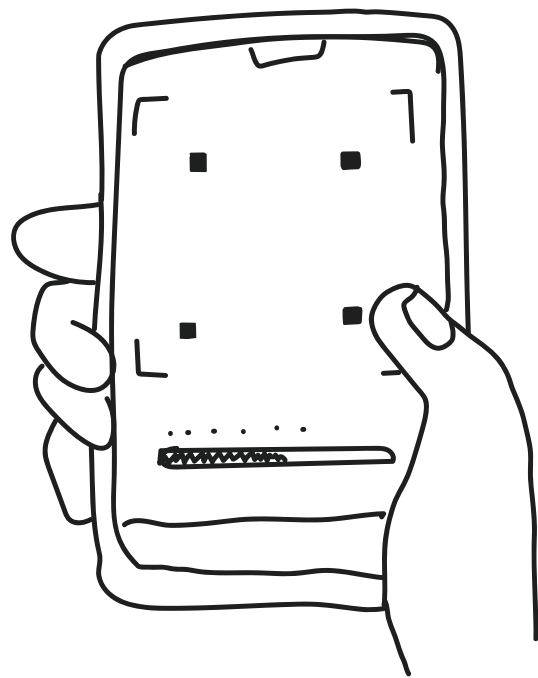
IT WILL BE **HELPFUL** IF IT'S AVAILABLE FOR **OTHER DISEASES**

ACT 1. SCENE 2.
THE PRE - ROLL OUT PHASE

Pre Roll Out Phase: Training

Training of-ground staff- curriculum

Training for staff should contain the following aspects. Tools for each are linked in the below table.

Topic	Who should be trained	Tools
1. What this program 2. Who to test 3. When to test 4. Where and how can people access tests The program set up and flow	PMs, Supervisors, Frontline staff	For who and when to test, refer to cheat sheet **here**
How to perform the test • including performing proficiency testing	PMs, Supervisors, Frontline staff	**PPT** **Guidelines** **Annexure**

Self protection while supporting training
  • Masks
  • PPE kits
  • Sanitisers
  • Well-lit and well-ventilated area for testing
	PMs, Supervisors, Frontline staff	Resources from **Noora**

Contact tracing Those who came in contact with the person, and test if any one of them is showing symptoms.	PMs, Supervisors, Frontline staff	Refer **here**

| Topic	Who should be trained	Tools
Disposing tests • Setting up disposal mechanisms for biowaste management • Disposing on a daily basis	PMs, Supervisors, Frontline staff	**FAQs page**
Escalation mechanism after a positive result • Advise heightened precautions as explained here • Contact tracing who came in contact with the person, and test if any one of them is showing symptoms.	PMs, Supervisors, Frontline staff	For telecare mechanism, refer **here** For non-telecare mechanism, refer **here**
Referring a PCR • Cases where symptoms exist but self-test gave negative result • For high risk individuals, such as over 60, unvaccinated, immunocompromised or has another serious illness as determined by the nurse	PMs, Supervisors, Frontline staff	Refer to **FAQs** For more details, see **here**
Documentation • What needs to be documented and why • Tools for documentation • Reporting mechanisms • Who will monitor the data, when and how	PMs, Supervisors, Frontline staff	Monitoring and Evaluation **Resources**
Inventory management • Looking at expiry dates and LOTs on hand • Tracking stock on hand and usage • Managers tracking central stock on hand and ordering kits on time • Mechanism for requesting additional kits • Time needed to orders etc	PMs, Supervisors, Frontline staff	**Excel sheet**

Pre - Roll Out Phase:
Establishing Data Collection and Monitoring Mechanisms

Data collection and monitoring

- Data will be collected using a **Google Form** which will get displayed on an active **Self-Testing Dashboard**.

- Additionally, if anyone is not comfortable with google sheets, a register corresponding to the format used in the form can be used. Thereafter, it can be entered manually in the database. The link to printable format is **here**.

- Live dashboard can be utilised to look at the increasing/ reducing infection numbers at their respective site. The link to an example dashboard can be found **here**.
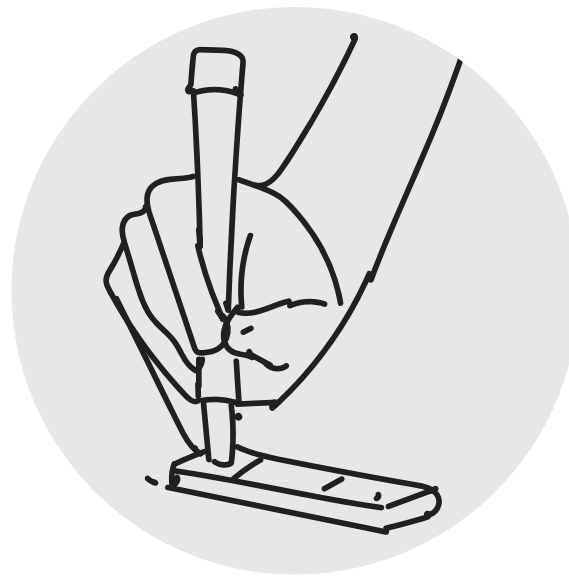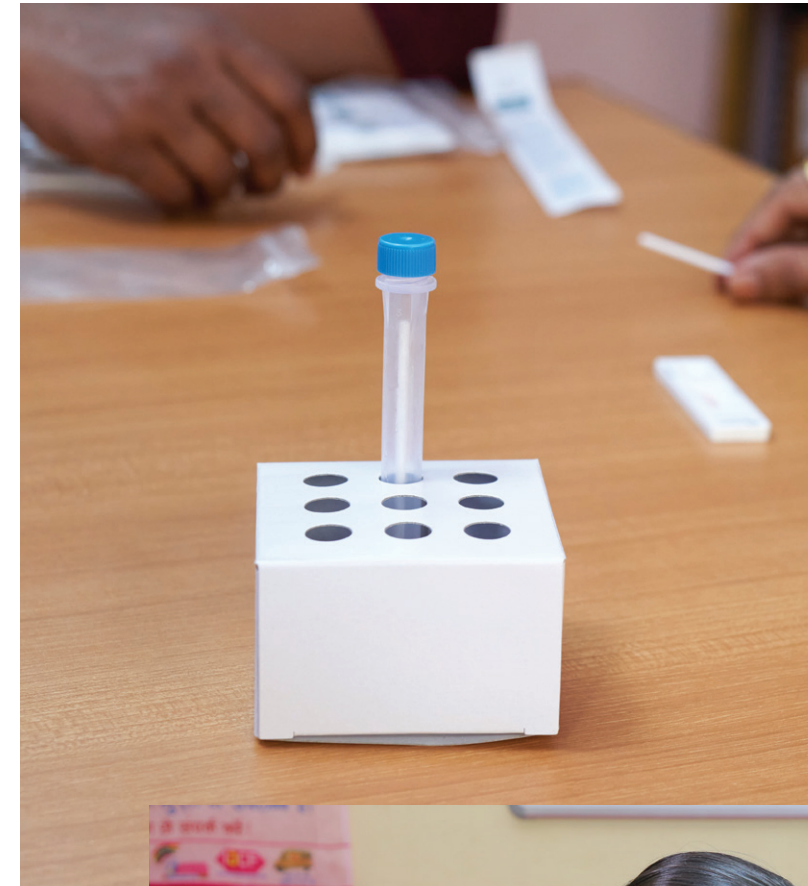
Pre - Roll Out Phase:
## Establishing test kit tracking mechanisms

To avoid a shortage of test kits and use of expired test kits, it is encouraged to keep stock of the test kits and other materials required for the testing program.

*3 common challenges to address early on to prevent stock outs:*

- **Financial issues:** Reduce over reliance on unpredictable external funding and run willingness to pay surveys to understand to what extent the costs of the test kits can be covered either by the community institution or community members themselves before roll out.

- **Governance and coordination of procurement:** Procure locally to the extent possible. Avoid designing lengthy and unclear procurement processes or dependencies on frequent changes in key leadership positions.

- **Logistic management:** Improve forecasting based on the action guidance in the planning phase. Avoid over reliance on community health worker to pick up kits and instead set up a supply chain from the procurement point.
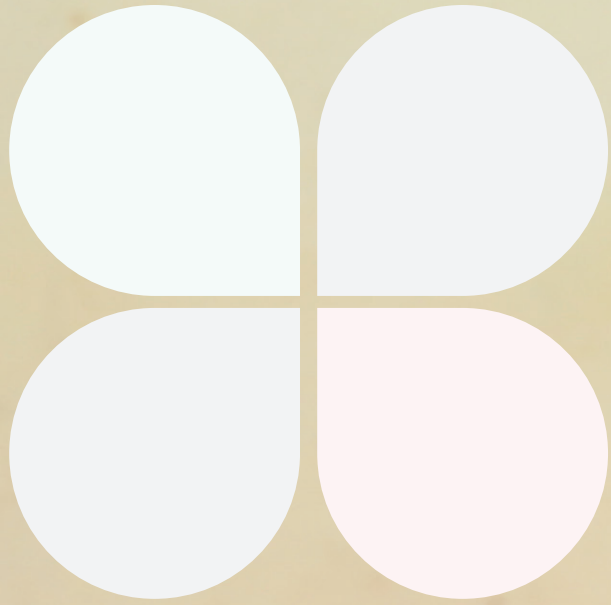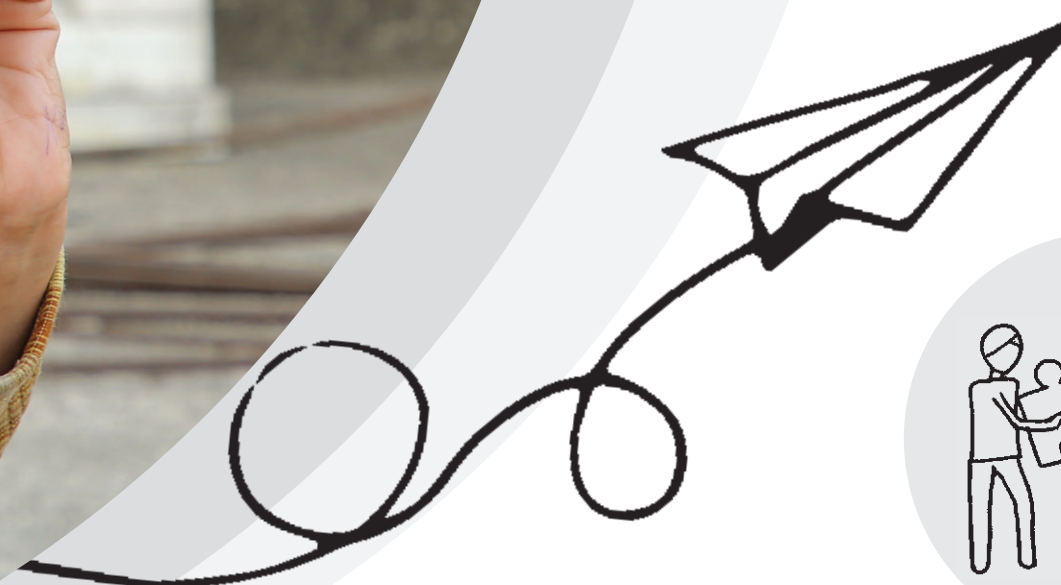
ACT 2.
ROLL OUT OF SELF-TESTING

Roll Out Phase:
Conduct Self-testing with peer assistance

Logistics Checklist for set up

- Tables & Chairs
- Peers to workers ratio
- Training for Peers
- Demonstration Kit / Communication Aid for Workers
- Location Identified
- Sanitizers for everyone
- Gloves, Masks & PPE kits for Peers
- Timers
- Test Kits (Checked for date of expiry)
- Dustbins (Large sized, depending on the number of workers testing)
- Bio-Waste pick-up bags & service set up
- Printed Instruction notes for those testing positive
- Device for data collection, uploading & entering test results
- Reference image posters/show cards for positive (double line on test kit), negative (Single line on test kit) results, inaccurate results

Talking points: Conversational pointers when advocating for self-testing in communities**.**

Why is regular testing necessary for communities?

- Periodic COVID-19 testing and screening in the community using Rapid Antigen Tests can:
  - Reduce the risk of outbreaks due to asymptomatic cases.
  - Help test, trace, and isolate positive cases to slow the spread of COVID-19.
  - Keep your community safe.

Roll Out Phase: Conduct Self-testing with assistance

Accessing a self- test by the community

- **Self-referral:**

  Community member identifies they have symptoms and approaches the telecare number or the health worker directly

- **Health worker referral:**

  Health worker identifies community member with symptoms and recommends a test (during a wave)

- **Telecare referral:**

  A telecare nurse identifies a community member with symptoms, makes a suggestion that the community member takes a test, the health worker administers this test.

- **Peer Assistant referral:**

  A self-test can be procured by community champions, or frontline workers.

Notes on test administration

- The peer assistant/ community health worker should provide an overview of the test components, orient the study participant to the manufacturer-provided IFU, and assist the employees as they perform each step of the test.

- Peer assistants should be present while the test is conducted to provide assistance during the test operation.

- Individual employees should collect their samples using swabs and finish their test in line with the approved test's instructions for use.

- Once the test is finished, the employees should wait for the recommended time before reading and interpreting the results.

- They 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 peer and proceed to reporting of results.

IT WAS SIMILAR TO
HOW IT WAS DONE IN THE LAB.

WE CAN RESUME
OUR WORK.
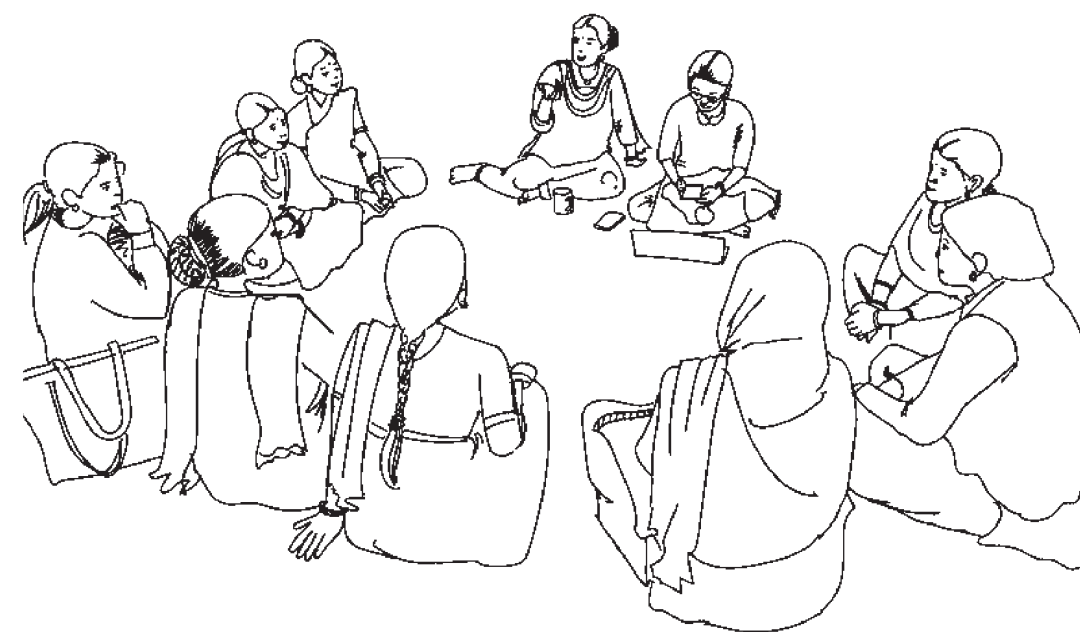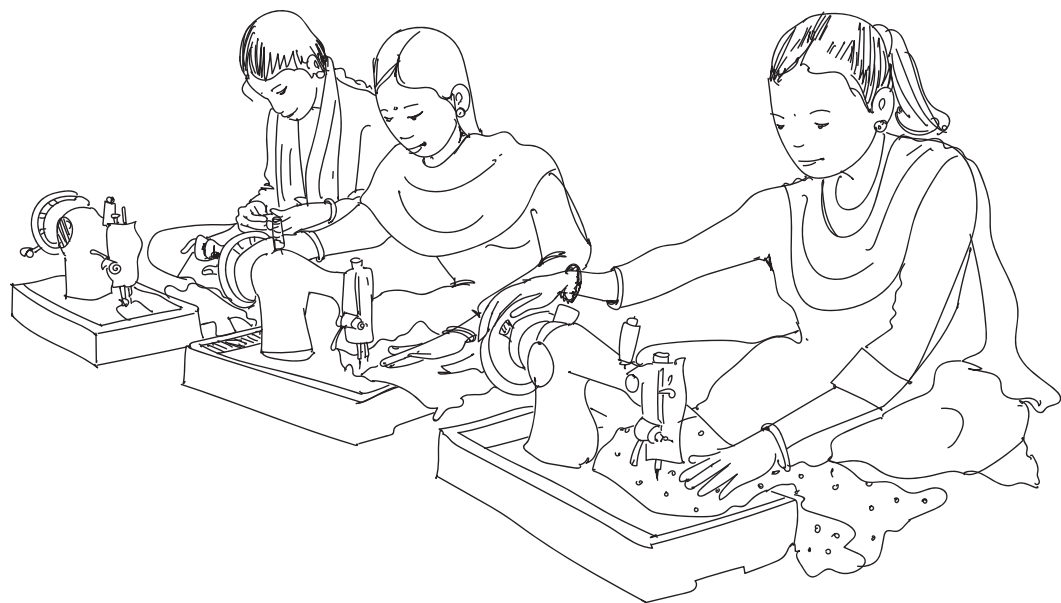
Roll Out Phase: How to manage documentation of results

- Align to Data Collection and Monitoring Mechanisms established in Pre Roll Out Phase
- Based on the documentation of the results, the clinical staff and frontline health workers step in to support the individuals who test positive through a range of community based mechanisms from food delivery to tele-care to leveraging social protection schemes to address loss of pay.

"

"When we did the test, we received clear instructions from the health worker. Initially I was a bit scared! Ma'am told us that we have to follow instructions, and not worry! So we followed instructions and completed the test." - **Female member, Mohammadpur**

"

"They were scared that if the result will be positive, others will know. But when they shared this with us we assured them that, they shouldn't fear as they can test at home only and the result will be out in 15 minutes. If in case, the result is positive, they can isolate at home only and stay away from others. How to stay and how to maintain the hygiene, we supported them with it and it gave them a comforted feeling." - **Wellness Facilitator FGD, Kamakshipalya**

Insight

A reason cited by most participants for uptake was the comprehensiveness of the initiative that focused beyond testing, on the follow up actions in the event of a positive result. Provision of necessary support for the affected individuals by providing medicines and ration kits, etc. built further trust in the program. The participants also discussed how the collective support offered by the community groups like self help groups gave them courage and confidence to test as well as refer it to others in the community.

"When they go to the doctor, they would never touch them. They will just get the test results, but they would not get any support. Here they get more support - support from nurse, support from doctor and the wellness facilitator. We will check your condition every morning and evening. One more thing is, it will be confidential. When we explain all these to them, a trust will be built and they start accepting this openly." - **Wellness Facilitator FGD, Kamakshipalya**

"If we have cold, cough or fever we do the self test. We do it on our own. And we are ready to take the decision without any fear. Our group has given us the courage, they have motivated us saying, there is no problem. If anything happens we will all be there together. Now we are ready to take medicine. We are ready to take medicines and to tell ten more people about this." - **Female Member, Bangalore**

ACT 3.
THE POST SELF-TESTING PHASE

Post Self-Testing Phase

RESULT BASED ACTIONS FOR INDIVIDUALS-

- **If Tested Positive:** Isolate the community member until RT-PCR sample is taken and proceed to quarantine for until symptoms last/7 days
- **If Tested Negative and symptomatic:** Isolate the member until RT-PCR sample is taken and advise for home quarantine if positive.
- **If Tested Negative:** Member is monitored for symptoms/ to be tested in the next cycle on the basis of needs assessment.

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

RESULT BASED ACTIONS FOR COMMUNITY INSTITUTIONS -

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

CLEAN AND SANITIZE SITE

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

DEBRIEFS AND NEXT STEPS

- Debrief clinical team on the community health worker assisted self-testing - what went well, what were challenges, what could be improved etc.
- Discuss and decide on the next steps - organizing self-testing for those who could not make it, contact tracing etc.

**DATA VERIFICATION** - Data uploads, Verify data collected / fix any issues with the data collection app.

STOCK & SUPPLY - Take stock of test kits and PPE used. In a low prevalence scenario, procure test kits and PPE equipment if number of units in hand is less than 10% of the number of community members who need to self test. In a high prevalence scenario you should have enough tests to test your entire workforce.
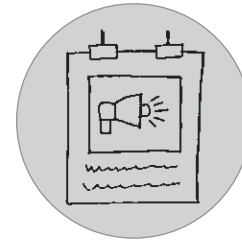
Learning Vignette
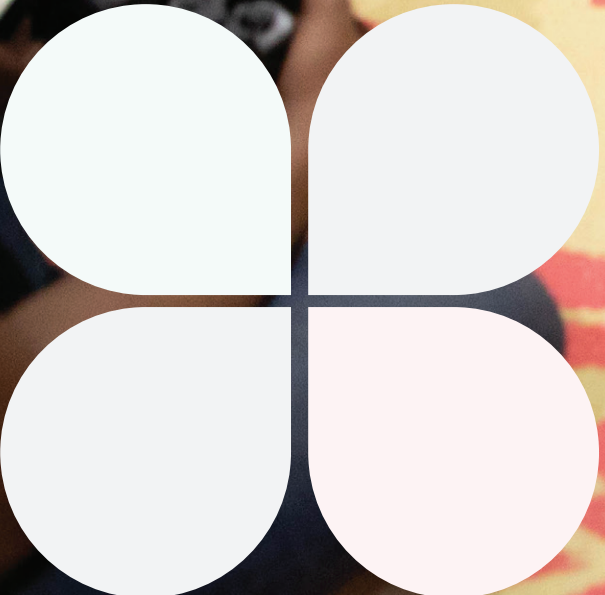
STAGE DIRECTION

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

10 Frequently Asked Questions (FAQs)

#1

What type of symptoms should I look for?

If you are experiencing any symptoms such as fever, runny nose, fatigue, sore throat and/or sneezing, it is likely you are positive and should undergo a test.

#2

Should I conduct a test only if it is symptomatic?

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

#3

From where can I procure a self-test?

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

#4

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

Sanitised surfaces, clean hands and proper following of the steps in the Instructions For Use are important for a successful test. Also, keeping in mind the incubation period of 3-4 days after being exposed is crucial.
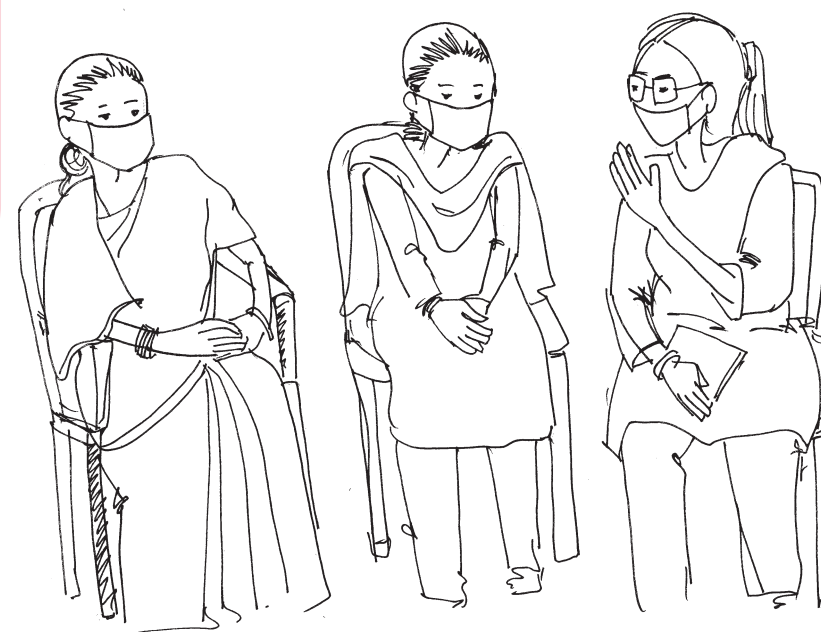
#5

When to get a PCR test?

If you have symptoms but the self-test or antigen test has given a negative report then you must go for a PCR test.

PCR is very important:

- When an individual is high risk: over 60, unvaccinated, immunocompromised or has another serious illness as determined by the nurse.

- When any COVID-19 related government entitlements are tied to having a positive PCR result.

#6

How will your results be documented?

You will be expected to fill a google form/ register with your details. Your results will not be disclosed if you choose to. But, for our record purposes, it 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 it as a certificate of your COVID-19 status.

#7

What if you are tested positive?

You will be expected to practice heightened precautions immediately and refer to the people who were in contact (like your team members, and family members) with you in the past few days, for a self-test to stop the chain of spread. In case, your team/ family members turn out negative, it is advised to re-test after 3-4 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 fatality posed by the infection, and not by the infection itself. It reduces the chances of getting hospitalised and extensive healthcare. Even though you are vaccinated, you can still be a carrier so in such cases, it is advisable to get a test done if you have symptoms, came in contact with a positive person, travelled, and/or 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 after the incubation period of 3-4 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 practice heightened precautions to avoid spreading the infection.

#10

Self-test gave a negative result but I am still facing the symptoms. Does it mean I don't have the infection?

If you are facing symptoms as mentioned in question 1, it is advisable you go for a PCR test to confirm the infection. Meanwhile, you should practice heightened precautions to avoid spreading the infection, if there.
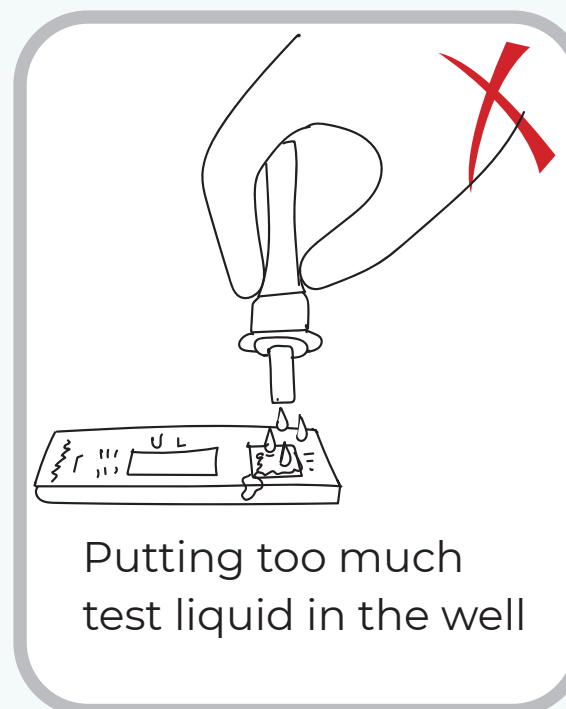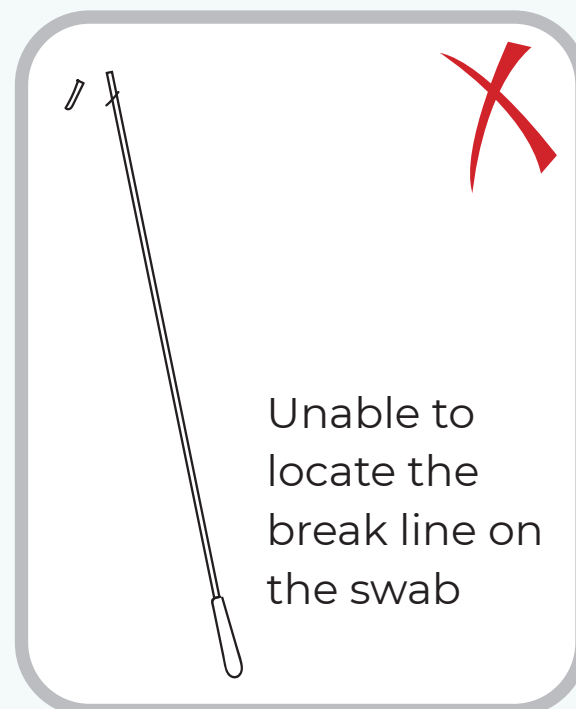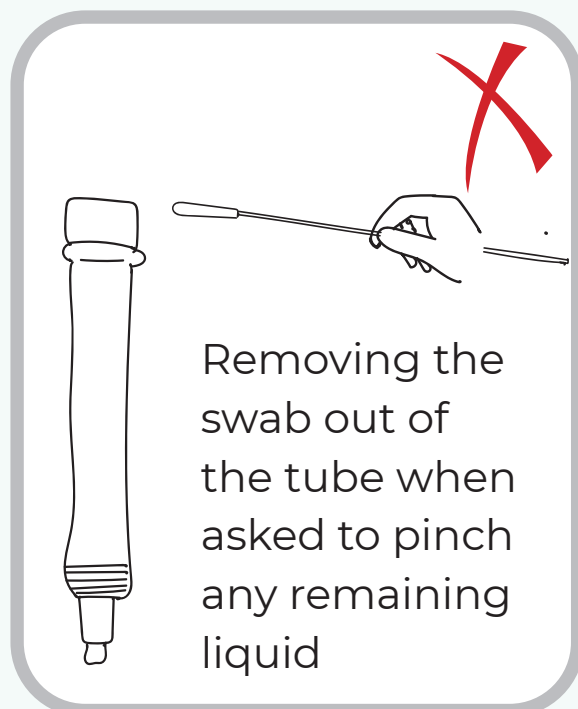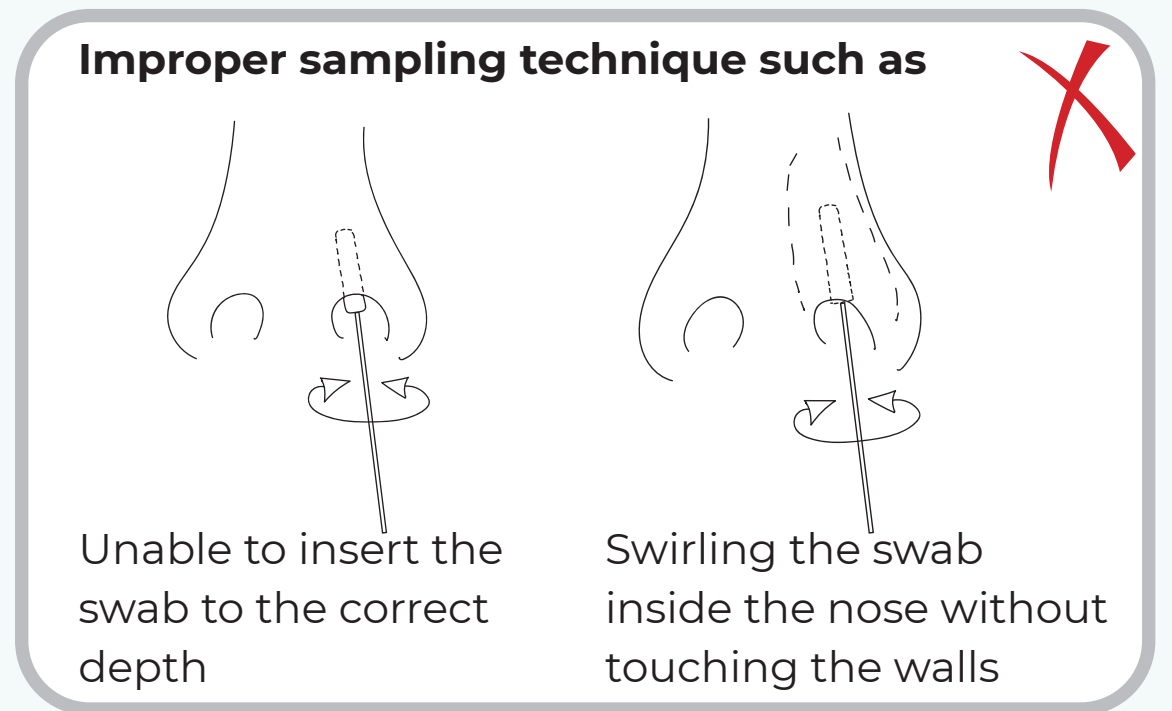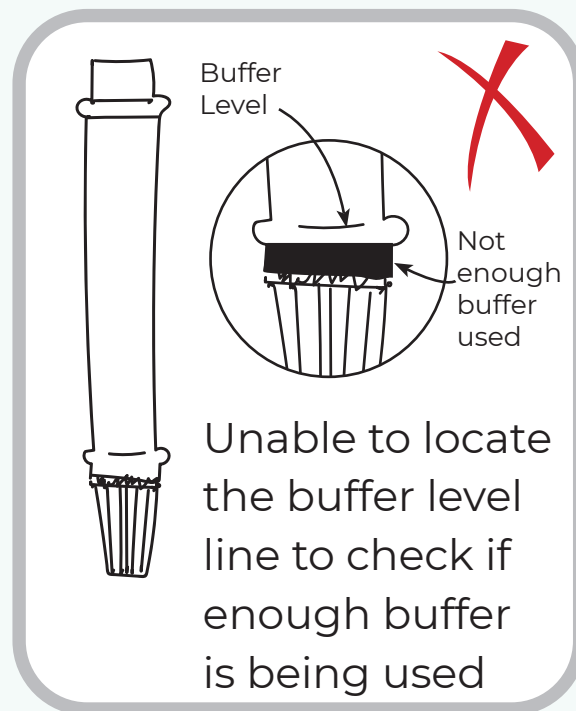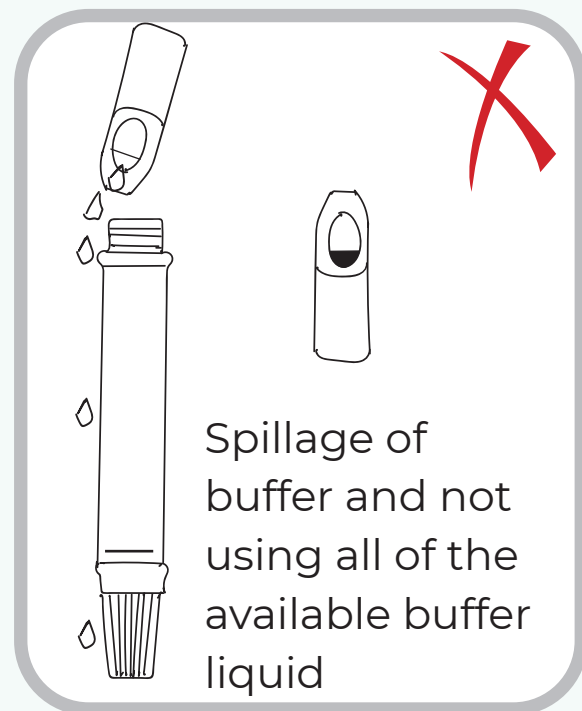
Tips & Tricks

Lookout for these common errors that individuals make while performing the self-test leading to incorrect reports.

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

Buffer Level

Not enough buffer used

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

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

Improper sampling technique such as

Unable to insert the swab to the correct depth

Swirling the swab inside the nose without touching the walls

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

Unable to locate the break line on the swab

Putting too much test liquid in the well

The Power of the Collective

The introduction of self testing in communities was undertaken in Swasti's flagship primary health program - Invest4Wellness (i4We) which partners community institutions to co-create and take to the doorstep of communities - primary health care services - tailored to their needs.

This made our work easier. We ran a study in parallel to understand the impact of the intervention and we found that in general, a large proportion of the participants were aware about the various aspects of COVID-19 self-testing. More than 3/4th of the respondents had heard about COVID-19 self-testing (79.2%) through the i4We wellness program with the community health workers being the primary source of information (76.2%) followed by the self-help group (SHG) meetings in the community (45%). 69% of the respondents were part of the self-testing initiative delivered by the i4We program, out of which almost 61% reported that the awareness generation by community health workers was most useful followed by training on doing self-testing (37.6%) which the community health workers provided.

Majority of the participants were aware of 'when' (86%) and 'why' (81%) to take the self-tests. Considerable proportion of the study population mentioned that they were aware of the duration of self-testing (73.6%) and knowledgeable about an incubation period that needs to be considered before taking the test once the symptoms develop (79.1%).

The in-depth interviews revealed similar findings with most participants being well informed of the 'why, when and what' of self-testing. Most of them reported that they would never be aware of availability of self-tests had it not been for the i4We initiative. The community-based program and community health workers were their primary source of information and training on the use of self-tests, with members in both locations appreciative of the hand-holding support and capacity building. From the interviews it was clear that the participants also knew where else to procure the test from, if it was not available through i4We.

To me, this means - the linkage with a primary health program and its frontline workers / community health workers - whether government or non governmental / community institution anchored - ensures that there is more comfort among community members with regard to self testing.

Neha Parikh
Portfolio Manager - Research
Swasti, The Health Catalyst

Highlights from the acceptability, feasibility and usability study for self testing in urban poor communities.

Overall, the respondents had a positive attitude towards COVID-19 self-testing. About 92% of the respondents reported that self-testing for COVID-19 is helpful in a community setting and an equal proportion responded that they would be willing to undergo testing if it was available in the community. While 56% of the sample reported that they would require some assistance in performing the tests, around 59% mentioned that they are also confident to test independently, with 85% reporting that they can guide others in the community on the process. Majority of the participants preferred in-person assistance (66.3%) compared to virtual assistance and reported that they would like to be supported by the program health worker (81.2%) followed by other community health workers like ASHA or Anganwadi worker, etc. (49%).

While 35% of the respondents believed they will face stigma if they undergo self-testing, 95% of the sample population reported that they will share the results of the test with a health worker and majority of them also considered it important to seek counselling and support after a positive result (96.3%). There was high willingness among the respondents to buy the tests (83%) even though 63% reported that they would prefer the tests to be made available for free of cost. The average maximum amount that the respondents were willing to pay for the tests was 1.5 USD and the average minimum amount was 0.5 USD

Syama
Manager- Research
Swasti, The Health Catalyst

Appendix

Scan the QR Code for our Standard Operating Procedure Document

Scan the QR Code for Self Test Steps

Indicators

A. Program coverage/reach indicators:

- Number of families and people within the vulnerable groups targeted, screened for COVID19 risk by community workers
- Number of individuals identified as needing follow up that were followed up in the community

B. Indicators for testing and linkage to care

- Number of COVID19 positive individuals identified and linked to care
- Number of new COVID-19 positive individuals admitted into the home/community care model
- Number of Tele-consultation calls received by each individual in community/home quarantine
- Number of people that needed to be escalated to secondary/tertiary care
- Number of individuals that need low-flow oxygen therapy at home/community level

C. Facilities support

- Number of facilities supported with materials/ Tele-ICU set up
- Type and number of items supported with

How to measure:

An M&E Manager will be appointed to conduct monitoring and tracking activities for all three interventions.

The CBT intervention will be tracked through 2 primary methods:

- Regular analysis and dissemination of real time beneficiary data entered into a mobile application by staff while providing services.
- In person supervision visits to mobile testing sites.

Regular monitoring, supervision and mentorship will be done using the following means::

- Fortnightly data analysis will be performed on key parameters collected using mobile application for registration and patient tracking. This will be used to closely track program progress and identify potential issues for follow up.
- Intensified supervision and mentorship visits to testing sites will be performed during the first month of program kick off to ensure program begins smoothly. Thereafter for each site, two supervision visits per month will be conducted randomly. Checklists will be created for supervision visits and corrective measures followed up over the next visit.
- Fortnightly conference calls will be held with community managers and champions to discuss trends from data gathered and provide a platform to discuss issues, re-align priorities and adapt program design based on implementation experience. This will promote a culture of data utilization for each member of the team.

The COVID Care Centre intervention will be tracked using a combination of monitoring mechanisms including resident feedback, tracking referrals, regular reporting by staff, supervisory visits and assessments, and others.
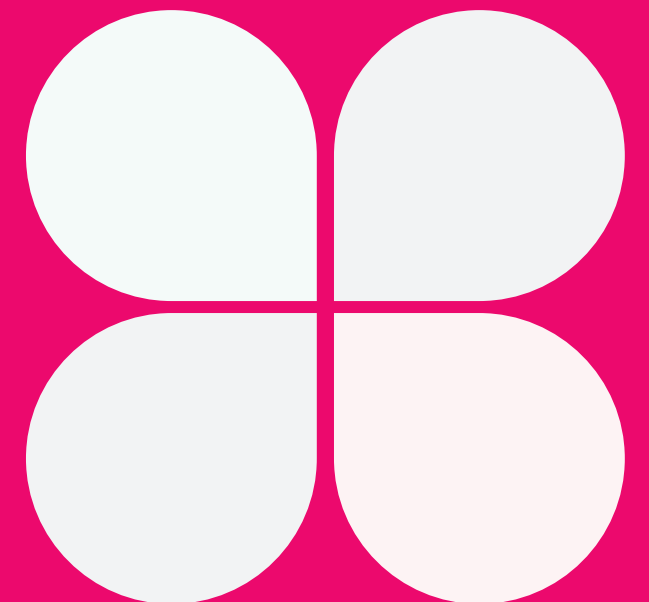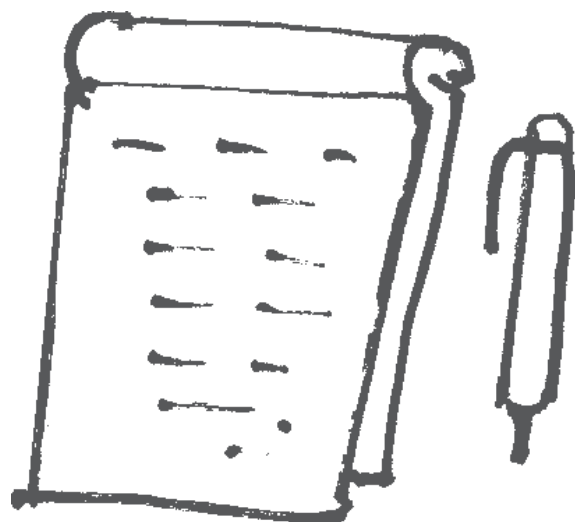
The Last Word

"Linkage with a primary health program / a wellness centre and its frontline workers / community health workers - whether government or non governmental / community institution anchored - ensures that there is more comfort among community members with regard to self testing. This becomes a critical success factor for self testing to be successful in communities."

Neha Parikh
Portfolio Manager - Research
Swasti, The Health Catalyst