



Engaging frontline community health workers in providing oral rapid HIV testing to pregnant women in India

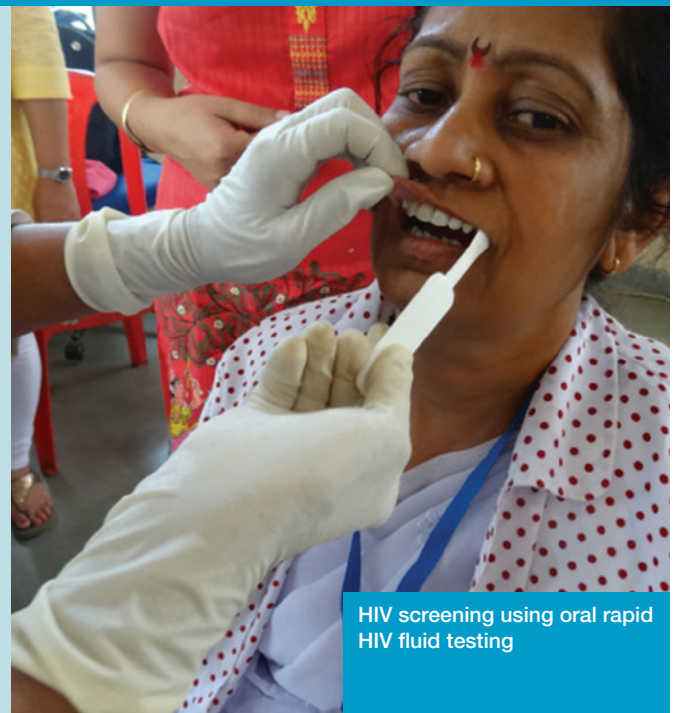
Key messages

Barriers to HIV testing of pregnant women

- HIV testing is commonly based on detecting the HIV virus in blood samples. Fear of needles and the inconvenience of finger pricking can deter pregnant women from getting tested for HIV.
- In addition, HIV testing is usually performed by trained healthcare providers, who are often in short supply and overloaded with other duties.
- Distance to Integrated Counselling and Testing Centres (ICTC) from remote villages is a barrier to timely HIV testing for pregnant women.

Solutions

- New methods of testing HIV using oral fluid instead of blood samples can increase uptake of HIV testing.
- Non-invasive HIV testing methods are easier to administer.
- Frontline community health workers can be trained to provide effective oral rapid HIV testing to pregnant women.



HIV screening using oral rapid HIV fluid testing

Recommendation

- Auxiliary nurse midwives (ANMs) and other community health workers should be trained to provide non-invasive HIV screening and timely referrals of pregnant women and other populations. Collaboration with public health officials would be required to facilitate the necessary task-shifting policies.

Background

Testing pregnant women for HIV is an essential entry point into treatment, care and prevention of HIV. It facilitates enrolment into treatment and care for those diagnosed HIV positive. It also promotes positive prevention among those who are HIV positive and HIV risk reduction behaviours among those who are HIV negative. These strategies also contribute to the prevention of mother-to-child transmission.ⁱ Therefore, it is important to identify HIV-positive pregnant women and help them to access care, support and antiretroviral treatment.

However, only 20% of the 27 million annual pregnancies in India are currently tested for HIV. This is because many rural women who present at health facilities for delivery will not have received prior antenatal care, or may not have been tested for HIV as part of their antenatal care because of deficiencies in HIV testing and counselling services.ⁱⁱ These include a shortage of skilled and trained healthcare providers, insufficient universal and high-quality laboratory services for HIV testing, and a lack of health services for rural and other marginalised populations.

To respond to these challenges, MAMTA Health Institute for Mother and Child, with funding support from the International HIV/Alliance, is introducing oral rapid, point-of-care HIV testing in rural India.^{iv,v} This new testing method detects HIV in oral fluid instead of blood samples, making it more convenient for clients. The testing is being delivered by frontline community health workers, known as auxiliary nurse midwives (AMNs), instead of doctors and nurses. This task-shifting innovation is helping to overcome the shortage of formally trained healthcare providers.

The project, which is being implemented in the high-prevalence districts of Nagpur and Adilabad, will contribute to earlier identification, care and support of HIV-positive pregnant women and to successful prevention of mother-to-child transmission of HIV. The new technology is likely to be cost-effective, enabling vulnerable areas of rural India to be reached successfully with HIV testing.ⁱⁱⁱ

The project is also testing the feasibility of improving referral, care, support and uptake of HIV and maternal, neonatal and child health services through enhanced community and health systems linkages and participation. This is being achieved by strengthening inclusive community mobilisation processes with the involvement of frontline functionaries and other community health workers for early identification of vulnerable¹ pregnant women. The project is integrating non-invasive testing HIVⁱⁱ into a continuum of care framework using a rights-based approach to ensure that maternal health outcomes are improved in resource-poor settings.



OraQuick® oral rapid HIV fluid test kit © OraSure Technologies

1. 'Vulnerability' in this project is defined as all pregnant women who fall into socially and economically marginalised categories, and all those who have had one or more risky sexual encounter in the past year.

How does an oral fluid rapid HIV test work?

The oral rapid HIV test is an FDA²-approved method that can detect HIV in oral fluids accurately without the need for the sample to be sent to a laboratory for processing. The procedure simply involves swabbing the mouth and gums for an oral fluid sample and then using a kit to test it. To date, only one test, OraQuick[®] manufactured by OraSure Technologies, has been approved for oral use. This new method of testing, without the need for blood samples, provides results within 20 to 30 minutes. If positive, a follow-up confirmatory test is recommended.^{v, vi}

Building the capacity of community health workers to provide oral rapid oral HIV testing

Introducing this new testing method has required building the capacity of ANMs (frontline community health workers at the lowest 'point of care' in rural India) to conduct testing effectively and to understand how testing contributes to preventing transmission of HIV from parent to child. To achieve this, MAMTA organised a training programme for ANMs in Nagpur district of Maharashtra and Adilabad district of Telangana focusing on how to screen pregnant women for HIV using this method.

The project has also needed to work closely with public health and academic partners. Approvals had to be obtained from district health officials for training ANMs and involving ANM supervisors in the training programme. The project also received approval to conduct the trainings from Maharashtra and Telangana states. The training agenda was shared and finalised in consultation with district healthcare providers, and the training was supported by experts from the Mahatma Gandhi Institute of Medical Sciences, Wardha; the State AIDS Society, the National AIDS Control Organisation (NACO) and MAMTA.

Selecting ANMs for training

A list of all ANMs in post over the past year, together with their contact details, was obtained from the district health office, and 89 of them were selected for training based on their availability. The selection was supported by the relevant authorities, such as health and medical officers.



Using the oral rapid HIV fluid test kit



Conducting the trainings

The purpose of the trainings was to build the capacity of ANMs to conduct effective oral rapid HIV testing and to enhance their knowledge of HIV, together with their attitudes and behaviours towards people living with HIV. The trainings focussed on improving ANMs' HIV testing and counselling skills, their skills to understand, interpret and communicate the test results, and ability to refer those with positive tests to confirmatory testing. Training sessions also focussed on HIV prevention, nutrition and antenatal and postnatal pregnancy care. The training gave participants an opportunity to discuss strategies for early identification and screening of pregnant women in their communities, timely referrals to relevant health services, and comprehensive management of their health.

Training objectives

- Build the capacity of ANMs on technical issues related to integrated maternal health and HIV services.
- Demonstrate oral rapid HIV fluid testing as an innovative means of reaching communities.
- Dialogue with ANMs on technical themes related to integrating prevention of mother-to-child risk reduction into community-based family planning, essential maternal and newborn care, and child survival programmes.



The training sessions followed the sequence recommended in the abridged training manual³ and were participatory, involving group discussions between participants on HIV and maternal health issues. The trainings used innovative methodologies to make them more effective, including questions and answers, role plays, games, presentations, case studies/story analysis, educational videos on HIV, experience-sharing, brainstorming and demonstrations.

During the training sessions, participants were made aware of the different HIV screening tests available and how to interpret tests. Then they were introduced to the concept of non-invasive HIV testing using oral rapid HIV fluid testing, and the testing process was demonstrated to them. During the training it was emphasised that HIV screening during pregnancy is important for preventing mother-to-child transmission of HIV. Participants learnt that testing should be conducted early in pregnancy and may be repeated during the third trimester.

Throughout the training, participants were reminded of the need to confirm oral test results. This could be achieved by using a unique identification number for each beneficiary and then referring them to integrated counselling and

3. Prevention of HIV Transmission (PPTCT) from Mother to Child in Rural India.

testing centres (ICTC) for confirmatory testing irrespective of the test results obtained using rapid test kits. Participants were also reminded of the need to maintain privacy and confidentiality while conducting the test, and to ensure that information shared between ANMs and their clients was kept private and confidential after the testing sessions.

Participants were made aware of universal safety measures to observe while conducting the test, along with techniques for safe disposal of kits. An educational video on oral rapid HIV testing was shown to all participants, followed by a question and answer session for resolving any remaining queries on HIV testing. The session ended with a role play among ANMs on oral rapid HIV testing, with key messages.

Participants were also trained in completing a feasibility questionnaire to be used while testing rural pregnant women to assess and document whether the oral rapid HIV test could be performed accurately in that setting. After the demonstration session, some participants expressed willingness to be voluntarily tested for HIV using the oral rapid test kits. **A total 89 ANMs were trained in Nagpur (40) and Adilabad (49) districts, India.**



Training sessions at Adilabad

Feedback from community health workers on the trainings and the test kits

Our experience suggested that the new oral fluid HIV rapid testing kits were acceptable to frontline functionaries and community health workers:

“I enjoyed all the technical sessions conducted by the experts from MAMTA and NACO, especially on the use of oral rapid HIV fluid testing for screening pregnant women. This test kit is non-invasive, user-friendly and provides results in 20–30 minutes. I am excited to use these kits for screening women in hard-to-reach areas.” ANM, Nagpur

Many of them identified advantages to the non-invasive technology:

“The workshop helped us to know new technologies for early HIV screening. The use of these non-invasive kits can be very helpful in reaching far-off villages and HIV screening will become easier now. The best part of it is that it can be easily carried and provides results in minutes.” ANM, Nagpur

“This test is very simple and we can take the kit to hard-to-reach villages. The interesting fact is that it is non-invasive and doesn’t require a lab.”

ANM, Adilabad

Conclusions and lessons learnt

Training ANMs – the first stage of implementing the new rapid oral fluid HIV testing method – provided us with a number of examples of good practice and lessons learnt.



Key message 1

Frontline community health workers can be trained to provide effective rapid oral fluid HIV testing, with a good level of acceptance from this group.

The introduction of this new testing technique also provided an entry point to refreshing their knowledge on obstetric care and HIV prevention.



Key message 2

Collaboration with and support from public health authorities and academic partners is essential to ensuring that ANMs and other community health workers can be effectively involved in training and the necessary task-shifting for HIV testing.

The active engagement of public, district and state health officials was critical to introducing the new intervention, as they issued circulars authorising the release of ANMs for training. This collaboration also prepared the ground for an eventual change in policy to allow task-shifting, based on further implementation and research outcomes. The involvement of experts from the Mahatma Gandhi Institute of Medical Sciences, Wardha; the State AIDS Society and NACO was appreciated by participants and added to the credibility of the training. For their part, the district officials appreciated the programme implementation and early HIV screening in their districts.



Key message 3:

Rapid oral HIV testing may be particularly valuable for reaching rural communities, including pregnant women.

Oral fluid sampling for HIV could particularly improve the uptake of HIV testing services among pregnant women and children in remote areas, and among those who are afraid of needles or who have collapsed blood vessels. This is why in the early stages of the project we chose rural districts for training and implementation so as to improve patient care and obstetric management for hard-to-reach groups through outreach.

References

- i. Higgins DL et al. (1991), 'Evidence for the effects of HIV antibody counseling and testing on risk behaviors', *Journal of the American Medical Association* 266(17):2419–29.
- ii. Pai NP et al. (2008), 'Impact of round-the-clock, rapid oral fluid HIV testing of women in labor in rural India', *PLoS Medicine* 5(5):e92. doi:10.1371/journal.pmed.0050092.
- iii. Rotheram-Borus MJ, Newman PA, Etzel MA (2000), 'Effective detection of HIV', *Journal of Acquired Immune Deficiency Syndromes* 25(2):105–14.
- iv. Arora DR, Maheshwari M, Arora B (2013), 'Rapid point-of-care testing for detection of HIV and clinical monitoring', *ISRN AIDS Volume 2013*, Article ID 287269, 5 pages.
- v. Pai NP, Tulsy JP, Cohan D, Colford JM Jr, Reingold AL (2007), 'Rapid point-of-care HIV testing in pregnant women: a systematic review and meta-analysis', *Tropical Medicine and International Health* 12(2):162–73.
- vi. www.cdc.gov/hiv/basics/testing.html



Training sessions at Nagpur



About the International HIV/AIDS Alliance

We are an innovative alliance of nationally-based, independent, civil society organisations united by our vision of a world without AIDS.

We are committed to joint action, working with communities through local, national and global action on HIV, health and human rights.

Our actions are guided by our values: the lives of all human beings are of equal value, and everyone has the right to access the HIV information and services they need for a healthy life.

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About MAMTA Health Institute for Mother and Child

MAMTA Health Institute for Mother and Child is an internationally recognised non-governmental organisation (NGO), established in New Delhi in December 1990. The organisation started working on the sexual and reproductive health of adolescents, moving on to address HIV and AIDS more comprehensively. Today MAMTA-HIMC is present in 14 States of India and has extended its reach beyond national borders to Nepal and Bangladesh. MAMTA-HIMC and its partner NGOs (members of National Alliance Coordination Group (NACG) and Sexual and Reproductive Health Initiative for Joint Actions Network (SRIJAN)) have been working on sexual and reproductive issues. MAMTA-HIMC has been working intensively on preventing HIV and AIDS since more than a decade.

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Acknowledgements: Special thanks to the district functionaries, ANMs and our project staff in Nagpur and Adilabad for their support in conducting the successful training programme on oral rapid fluid testing.