



Online Reservation App for HIV Service Delivery Programs

Technical Implementation Brief | FHI 360 | December 2019

Summary

The Online Reservation Application (ORA) is a web application that provides the public with a convenient way to make appointments for sexual health services, including testing and treatment for HIV and sexually transmitted infections (STIs), pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), sexual health counseling, and general health check-ups. At the same time, ORA serves as a single, unified system through which HIV programs can attract new clients from an unlimited number of online outreach and marketing approaches and acquire detailed measurements of the effectiveness of these methods at bringing different populations to physical services. People reached online are directed to an ORA website that takes them through an optional risk assessment to determine their sexual health service needs and then offers clinic reservation options in order of proximity or grouped by city. ORA also automatically sends clients SMS appointment reminders and links to follow-up services. When clients arrive at a clinic or facility, ORA's easy-to-use interface allows reception and clinical staff to record which clients arrived for their appointments and report back to the program about the services provided to clients. This completes the monitoring loop, so programs can understand their impact at a granular level.

ORA uniquely allows clients to self-navigate the process of finding and accessing HIV services on their smartphone; therefore, ORA can work for clients who need anonymity or who prefer self-guided access to sexual health services. While ORA facilitates self-seeking health care, the success of HIV programs using ORA will largely depend on the additional online marketing approaches and buy-in from community networks and organizations that will generate demand and awareness for services available through ORA.

This technical brief explains how ORA can be used by an HIV program within the context of the comprehensive online approach to HIV prevention, care, and treatment described in [LINKAGES Going Online Vision](#).



ORA Purpose

- Helps HIV programs refer clients reached online to physical HIV services, while monitoring these clients' progress along the entire cascade
- Helps clients understand their sexual health needs and book services on their own
- Is easily scalable, allowing programs to add new clinics, service options, and outreach streams
- Supports real-time monitoring and automated dashboards for program learning and improvement

GOING ONLINE TO ACCELERATE THE IMPACT OF HIV PROGRAMS



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Implementation Steps

The following basic sequence illustrates the most effective way to implement ORA.

- 1. Learn and plan:** Collect information about gaps in your HIV program. Use [quick online surveys](#) to understand audience preferences for sexual health services and [social media mapping](#) to list networks and social media influencers that can be engaged in user-centered design of ORA. Hold consultations with the implementation team, target audiences, and community networks to discuss survey and mapping results and plan the outreach and service delivery model suitable to the local context and proposed users. Consider the variety of possible outreach methods that will lead clients to use ORA, such as [social network outreach](#), [social influencer outreach](#), social profile outreach (e.g., online ads), and partnerships with existing community networks and organizations. You also will need to plan the service package to offer through ORA, engage health facilities where clients can receive those services, and determine mechanisms for reporting data and ensuring that clients receive proper follow-up services. Follow the sample checklist in the [Going Online Vision](#) (pages 37–44) to ensure that you plan ORA with client safety and privacy in mind.
- 2. Develop partnerships:** Coordination with clinical service delivery sites is essential for ORA monitoring to function effectively. The preferred method for reporting on ORA is for staff at clinical referral sites to log in to ORA and report the appointments for which clients successfully arrived at their clinic and the services provided to those clients (case managers can also log in and complete data entry on the clinic's behalf). A memorandum of understanding should be signed by participating clinics to formalize the partnership and responsibilities. To be added to the system, each new clinic will need to complete an intake form that will list clinic details, services it provides, and a price list of services, all of which will be entered on the ORA backend and made available for online reservations. You should also seek to develop partnerships with other service providers. These might include providers that offer follow-up services that are not available for reservation on ORA but that are required as part of a comprehensive package, such as annual exams, malaria prophylaxis, or cholesterol checks. Engage other stakeholders that may be willing to host or fund ORA sustainably, such as the national government or local community service organizations.
- 3. Purchase information technology (IT) infrastructure:** Like any website or web application, ORA will need to be hosted at an independent, secure web hosting facility and provided with an easily-recognized domain name.
- 4. Develop the website:** A developer will clone ORA and its basic features from a previous implementation, host it on the new server, and adapt the functionalities to meet your program's needs. Additional localization and customization, including new site branding (e.g., logo, colors, graphics), will need to be developed by a designer or creative agency to appeal to the target audiences. Website content will also need to be adapted, including text for the "About page," data use and privacy policy, and possible adjustments to risk assessment questions and recommendations. Often, translation of site content to local languages is also needed.
- 5. Launch and field test:** Several stages of testing and feedback are required for the new program-specific ORA to reliably function. Once functionality testing is finished and corrections are made, you can add clinics and roll out trainings to onboard new users such as online outreach workers, case managers, virtual counselors, and clinic staff. A scaled approach to implementation will allow the team to identify additional bugs during the first month of routine use before larger scale-up. After thorough testing, the program can launch major online outreach strategies to attract clients and activate all available clinic options for normal ORA use.
- 6. Assess and improve:** As a routine part of outreach and service delivery, your program will leverage ORA's live data visualizations and data export functions to assess program performance and inform improvements over time. Program staff can view real-time results of uptake of services along the HIV cascade, monitor performance over time, and easily compare results from each outreach approach.



CONTACT US


To use ORA and connect with our implementation team, email GoingOnline@fhi360.org



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Global Experience

PERSPECTIVES



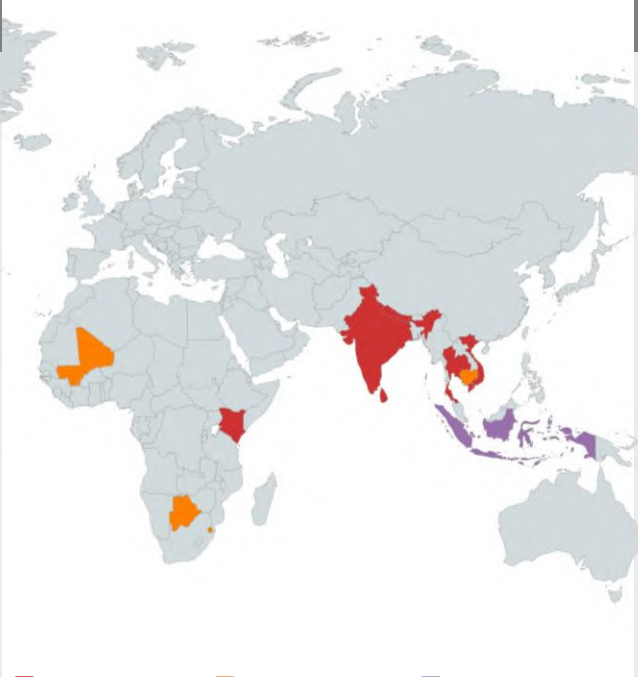
“With ORA we could quickly access our program’s results. It was easier using ORA than our traditional program monitoring tools.”

Njambi Njuguna, Technical Advisor
FHI 360 Kenya









“ORA helped us take online outreach to the next level. We can provide clients with a simple process and the granularity of monitoring helps us better document the return on our investments.”

Matt Avery, Associate Director
Technical
FHI 360 Asia Pacific Regional Office



ORA PLATFORMS

-  **TestMeNow.org**
Thailand (2017)
-  **Yes4Me.net**
India (2018)
-  **MeroSathi.net**
Nepal (2018)
-  **Step1.co.ke**
Kenya (2019)
-  **Know4Sure.lk**
Sri Lanka (2019)
-  **Embedded in government site**
Vietnam (2019)

ORA is used in Thailand, India, Nepal, Sri Lanka, Vietnam, and Kenya by multilateral and bilateral HIV projects (including the EpiC, LINKAGES, and SHIFT projects). ORA is being developed for rollout in Cambodia, Jamaica, Mali, Botswana, Indonesia, and Eswatini through EpiC and LINKAGES.



Client Confidentiality and Data Security

The features below help to ensure data security and client confidentiality, which are also reinforced by the privacy procedures followed by staff in ORA’s ongoing management and administration.

- Secure web hosting** by recognized, high-capacity cloud hosting vendors that ensure hosting infrastructure is maintained to the newest versions with security patches.
- Secure sockets layer (SSL)** encryption secures the communication between the ORA server and clients to ensure that bots, hackers, or malware are not able to intercept data in transmission.
- ORA application maintenance**, such as using well-regarded open-source components, libraries, and software elements that are updated to newest versions and patches, will help secure any emerging vulnerabilities.
- Limited identifying information:** clients are not asked to provide real names, addresses, or government IDs; however, clients’ mobile numbers are required to provide follow-up services.
- Securing client data** through a secure login portal; hidden phone numbers that are only accessed temporarily by case managers; and a data export sheet that replaces phone numbers with a unique identifier code (thereby removing all personally identifying information in data exports).
- Informed consent** obtained from clients before they use ORA; consent language explains in clear terms what data are collected, why they are collected, and how limited data may be shared securely with clinic staff and HIV program staff.
- Staff user guides** are developed to outline user roles, and staff are trained in the crucial elements of protecting privacy and handling exported data responsibly.



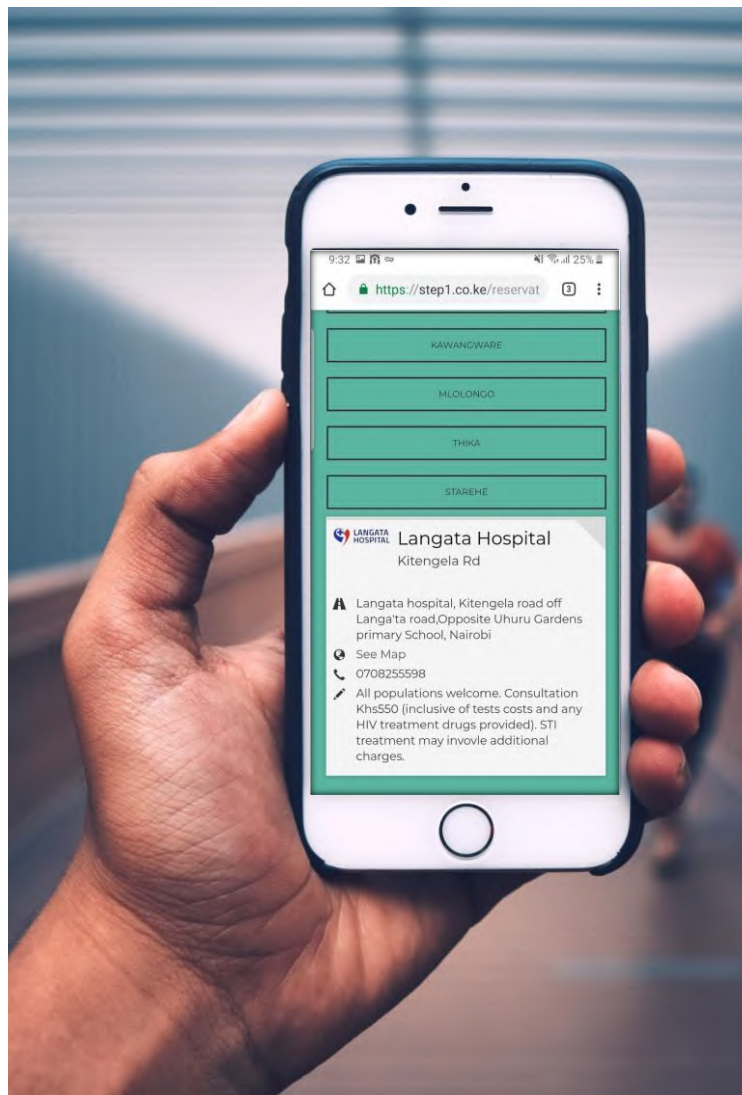
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Features and Functions

ORA has several overall core components, and additional features have been added and used in various country contexts. See the complete list of possible features below:

CLIENT FEATURES

- 1. Risk assessment:** An optional 10-question risk assessment provides clients a customized service recommendation. The assessment includes demographic questions for U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) reporting.
- 2. Appointment booking:** A simple tool to book services by selecting 1) a clinic filtered by location or other convenient filters; 2) an appointment date and time; and 3) the services to receive, such as HIV prevention, testing, and treatment (other services can be added as needed).
- 3. Indirect booking:** Ability for clients to book services that require additional coordination, such as home blood collection for HIV testing, self-test kit delivery, or services that require discussion with a counselor.
- 4. Refer-a-partner:** A tool for clients to refer between one and five sexual partners for HIV or STI testing using a tracked and anonymous SMS notification service.
- 5. Accessibility:** The website is designed for mobile and desktop use without heavy graphics for quick load time. Also, a single ORA website can be made available in up to three languages.
- 6. Help:** Pop-up chat with a counselor on WhatsApp and Facebook Messenger.
- 7. Automated reminders and follow-up:** SMS are messages sent to clients with reservation reminders, links to collect client feedback via an online survey, and links to refer other friends to ORA.



A client books an appointment by first viewing clinics in a nearby neighborhood on [Step1.co.ke](https://step1.co.ke)—an ORA platform used in Kenya.

Budget Items



ORA build

Budget for \$2500–\$5000 in developer costs to clone and adapt the ORA program (this includes a year-long service contract). Costs will increase with requests for new or adapted functionalities.



IT infrastructure

Purchase two years’ web hosting and domain subscription with SSL encryption, which might cost about \$1000. SMS bundles will cost \$250–\$500 per year and depend largely on client volume.



Technical support

Budget for at least 30 days of support from experienced technical support personnel to guide initial needs assessment, design specifications, and provide user training on ORA and remote support.



Other costs

Additional funding may be needed for a graphic designer vendor to develop branding and graphics, and time of local staff to adapt/translate site content and administer the clinics and users in the system.



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Features and Functions (continued)

CLINIC FUNCTIONS

1. **Reporting dashboard:** Clinic login to view upcoming appointments booked and to report which clients arrived, services provided, and key results.
2. **Index testing:** Tool for clinic staff to register new HIV-positive clients and create tracked referral links, allowing for provider- or patient-initiated partner notification for index testing.
3. **Clinic profile details:** Ability to edit clinic details such as logo, name, location, holidays, opening hours, services offered and costs, and more.

HIV PROGRAM FUNCTIONS

1. **Client case management:** Clients' appointments are assigned to outreach and case managers with permissions granted to specific users to view results and provide follow-up services.
2. **Granular tracking:** Create unique website links to track various outreach approaches granularly. Links trigger other ORA functions like website language, logo, and color scheme, and auto-assigning clients to the case management team members.
3. **Live dashboards:** Four live data visualizations—a full HIV services cascade, a longitudinal analysis, a comparative analysis, and table view of granular results by outreach approach.
4. **Data export:** An Excel data export for custom analysis and reporting of all risk assessment and service uptake results.
5. **Numerical risk calculation:** HIV acquisition risk is calculated for clients who are HIV-negative or of unknown status; HIV transmission risk is calculated for people living with HIV; and STI acquisition risk is calculated based on clients' risk assessment responses. Includes an easy function to edit the weighting of each risk variable over time.
6. **Phone number verification:** Ensures accurate record of client phone numbers with SMS pin verification.

7. **Social media integration:** Google Analytics and Facebook Pixel integration for re-targeting ads to previous ORA visitors and monitoring results of online marketing efforts.



A clinic staff worker shows her view of ORA, where she can easily see upcoming appointments booked at her clinic and report services provided to clients.

Limitations



Campaign monitoring

ORA is not suitable to track brand awareness or knowledge, which can be determined through social media analytics.



Long-term case management

ORA does not yet track treatment discontinuation and re-initiation at an individual level.



Low connectivity settings

ORA is not suitable for clients without mobile phones and for clinics without internet or devices.



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Case Study on Yes4Me.net (India)

About Yes4Me.net

The national HIV program in India wanted to build on its successful physical HIV outreach and testing services to include those in the virtual space, including members of key populations (KPs) who use social media and dating apps. To assist in this effort, the FHI 360-led LINKAGES project implemented ORA with an online client support team to help KP members make online reservations and access offline HIV services. ORA was launched in India in May 2018 as Yes4me.net with a service package designed for the online target audience. Yes4Me offers clients the unique ability to access advanced HIV and STI testing at private laboratories in large cities at a heavily discounted rate, all from the convenience of their mobile phone. The confidentiality and convenience of Yes4Me and quality of clinical providers to whom users were referred convinced this previously unreachable audience to access HIV services. Yes4Me expanded the ORA platform’s functionalities to include case management and tracking of service uptake for each client. Yes4Me was initially piloted in three districts, and in March 2019 it was scaled up to 15 cities across the country.



Yes4Me was designed for the mobile generation, which represents a large segment of sexually active young people in urban India.



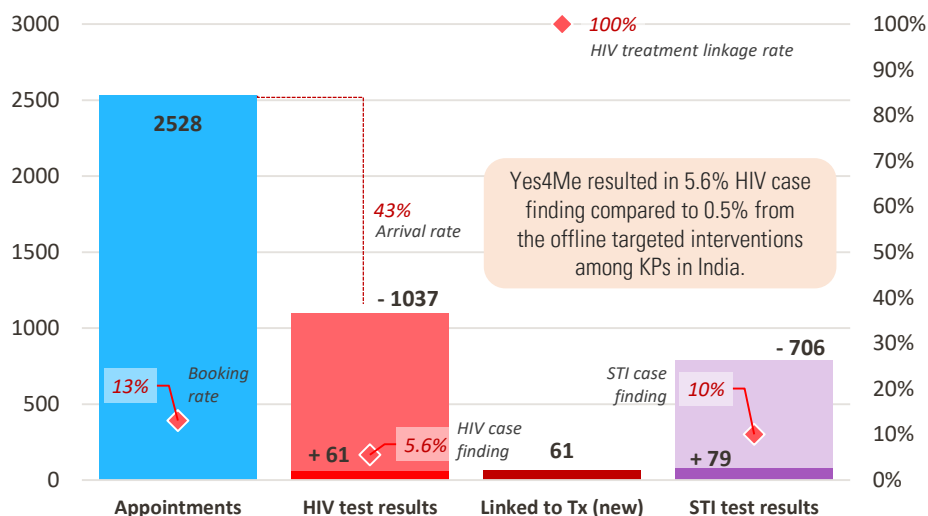
“Thank you for providing a secure platform for getting tested.” - 23-year-old male client, South Delhi

Lessons

- Align ORA with the target audience’s needs and preferences.
- Strive for simplicity with minimal steps for users to book and access services.
- Ensure adequate individual virtual support from a team of online outreach workers and counselors.
- Provide customized risk results on the platform to encourage uses to access services.
- Create a one-stop-shop for clients by offering or linking to a full package of services, including HIV treatment, treatment counseling, PrEP, PEP, condoms, and other HIV-related tests.

HIV Services Cascade from Yes4Me

May 2018 to September 2019



The chart represents data from Yes4Me implementation in 15 cities in India from May 2018 to September 2019 among 43,059 unique website visitors and 19,415 completed risk assessments.

This technical brief is part of a vision for going online to accelerate the impact of HIV programs.



Going Online is an approach for online HIV outreach and service delivery developed by FHI 360. Going Online seeks to broaden inclusion in HIV services to previously unreached populations, improve targeting and efficiency, and provide differentiated options for how people can receive HIV services and information in ways that meet their preferences. Programs using this approach focus outreach efforts on populations at risk of HIV, which can include young people who are dating, who have multiple partners, and who may have transactional sex (which includes, but is not exclusive to, key and other priority populations).

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