

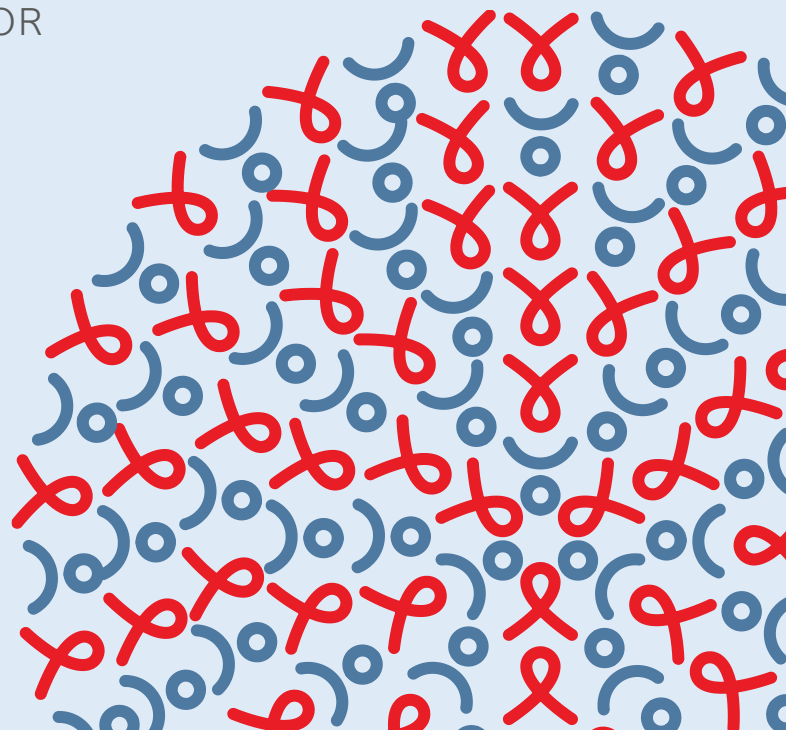
MEETING TARGETS AND MAINTAINING
EPIDEMIC CONTROL (EPIC) PROJECT

COOPERATIVE AGREEMENT NO.
7200AA19CA00002

QuickRes Technical Guide

A GLOBAL ONLINE RESERVATION
AND CASE MANAGEMENT APP FOR
HIV PROGRAMS

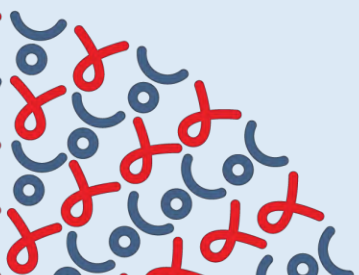
UPDATED MARCH 2021





EpiC. QuickRes technical guide: a global online reservation and case management tool for HIV programs. Durham (NC): FHI 360; 2021.

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Overview of QuickRes

QuickRes is an online application that allows any member of the public to easily make reservations for health services using a smartphone, tablet, or laptop. It uses the existing [Online Reservation and Case Management App \(ORA\)](#) software developed by FHI 360 and used by several HIV programs in Africa, Asia, and the Caribbean. QuickRes also provides clinic and program staff with functions for clinic appointment management and reporting, and case management for HIV-related care. QuickRes is one central application designed to provide standard reservation and case management functions to multiple countries and programs, rather than requiring each country to spend resources in adapting, hosting, and making updates to its own ORA. QuickRes allows HIV programs to rapidly bring outreach, case management, and clinic staff on board to engage clients virtually. This multicountry platform can also be used to mitigate COVID-19-related limitations to standard service delivery models.

Access QuickRes at <https://quickres.org>



Figure 1. Steps for users to (1) select country, (2) review terms and select “start,” and (3) view and select services available in their country

Functions

Outreach and sensitization

- **Easily monitor online outreach and marketing efforts:** Program managers can create hyperlinks with codes specific to each online outreach worker or online promotion, allowing it to track results from these promotional methods on QuickRes' data visualizations and databases. Easily filter results to assess performance of online outreach and marketing campaigns and guide performance improvement efforts.
- **Risk screening:** Clients can take their own anonymous 10-question risk assessment online, which captures the required USAID KP_PREV disaggregation. Outreach staff can also complete the assessment on the client's behalf by communicating questions to clients via chat or phone and entering their responses on QuickRes and taking a screenshot of the risk result page and sharing it back with them. The risk assessment is anonymous; however, it is connected to a client's appointment booking record where some data are shared with case managers and clinic staff members. Shared data include the calculated HIV risk level and experience of violence.
- **Tailored service recommendations:** Clients who complete the risk assessment are shown one of 17 risk result pages with tailored service recommendations, prioritized service booking options, and a list of all other service booking options offered by clinics in the country.
- **Violence screening and service linkage:** Experience of violence within the past six months is a factor noted in the risk assessment. QuickRes flags all appointments if the linked risk assessment reported violence, which helps case managers identify and contact clients in need of post-violence services.
- **Outreach microplanning:** Client records may be assigned to outreach workers on QuickRes. Outreach staff can use their QuickRes login to view and manage their client cohort to check the status of access to services, reschedule appointments, and follow up with clients and clinics to confirm arrival and reporting of services. Outreach staff may also view HIV risk results and violence reports and tailor their follow-up and service referrals with clients accordingly.
- **SMS blasts to clients:** QuickRes allows field staff to send SMS messages to specific groups of clients. They may share program updates such as new service options, changes to clinic hours, or new antiretroviral therapy (ART) dispensing methods. Messages should be reviewed by social and behavior communication (SBC) experts to ensure information does not put recipients at risk and content is communicated clearly. The SMS function will automatically estimate the cost to send messages based on message length and number of recipients.

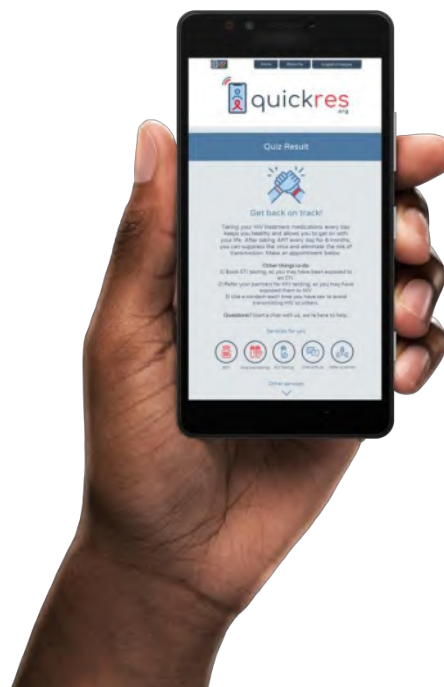


Figure 2. Risk assessment result with tailored service recommendations

Referral

- **COVID-19 screening:** Standard three-question COVID-19 screening will limit clients who have possibly been exposed to COVID-19 from booking services at physical clinics on QuickRes but will allow them to chat with program staff or book home-based services. A message for local information and services for COVID-19 is presented. Clients without COVID-19 risk can continue booking.
- **Book appointments for services:** Clients can choose and book from a range of health services (Figure 3) at any facility or non-facility distribution method that is added to QuickRes. Outreach staff or clinic staff may assist clients with booking or complete on the client's behalf. This serves as an e-referral so no paper or other referral method is required; clients receive an SMS with booking details and the clinic receives an email and new appointment record that appears as a clinic record when a staff member logs in to QuickRes.
- **Online peer referral:** Special links can be created with a unique "token" assigned to a specific outreach method (such as an individual outreach worker, online ads, influencers, or peer mobilizers). These links are shared online and, when clicked, the QuickRes site opens and stores the token in the record so the client's onward case history is tagged, thus measuring the effectiveness of these various promotional methods. This feature can be used to implement an [online enhanced peer outreach approach](#) to track bookings and resulting HIV tests back to original promoters or mobilizers, and any resulting incentives can be calculated on that basis.
- **Online client referrals:** Clients can refer their partners, friends, and children for services on QuickRes. They simply enter the phone number of each person they want to refer, select any STIs for which they recommend the contact should be checked, and then authorize QuickRes to send each contact an SMS notification of the referral. QuickRes will automatically book a placeholder appointment for each referred contact so an assigned case manager can follow up to confirm the appointment date, time, and location. HIV programs can use this function to offer online anonymous partner notification for index testing and risk network referral.

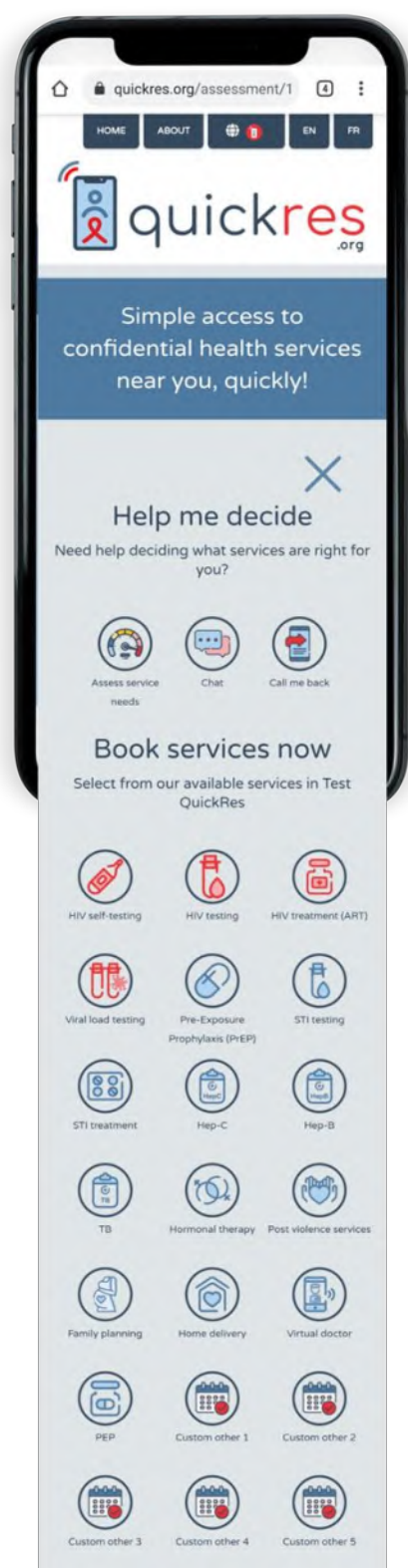


Figure 3. Menu of services for client appointment booking

Pre-appointment support and screening

Outreach and clinic staff log in to QuickRes' back end to view client appointment records.

- **Pre-appointment support:** Outreach staff view only the clients assigned to them (e.g., if a client booked using a token assigned to the outreach staff member or the client was reassigned to them by an administrator). Outreach staff see when their clients have upcoming appointments and contact them to provide reminders, help reschedule appointments, or even coordinate with the clinic to hand-deliver services or commodities so clients need not physically go to the clinic.
- **Manage client flow:** Clinics set their individual hours and days available for online booking and set the duration of each appointment to manage client volume and flow.
- **Telemedicine:** Clinic staff view upcoming appointments booked at their clinic and can use QuickRes to contact clients before their appointments to pre-screen them for COVID-19 symptoms, provide a virtual consultation where feasible, and refer those who require in-person services to a physical provider.
- **Client appointment management:** Clinics use QuickRes to manage their client load and traffic. Reception staff identify the client's appointment record on QuickRes and mark them as "arrived." For walk-ins or clients without an appointment record, clients can be added to QuickRes by using their phone to book a new appointment while waiting or reception staff can add the booking on behalf of the client.
- **Reassign appointments:** Clinic staff can see upcoming appointments and edit the appointment record to select another clinic from the list available on QuickRes for that country. This allows clinics to shed an overload of appointments to other locations.
- **Decentralized service delivery:** Clinic staff can refer a client to receive a specific service from another provider and allow that other provider to complete the service delivery reporting on QuickRes. This is useful when referring clients to laboratories for testing and diagnostic services or to distribution points or pharmacies to pick up ART or pre-exposure prophylaxis (PrEP) refills (see "advanced service reporting functions" in next section for more detail).



Figure 4. Case manager uses QuickRes to manage clients on ART (top) and outreach worker demonstrates booking function to client (bottom) Credit: KP-STAR project Namibia.

Service reporting

Through QuickRes, clinicians view clients who booked at their clinic and mark the client's arrival and specific services provided during their appointment. Additionally, the client's assigned case managers may also be granted access to view and edit all these service reporting buttons on QuickRes, which may be useful when case managers need to follow up with clinics and report service delivery on a client's behalf.

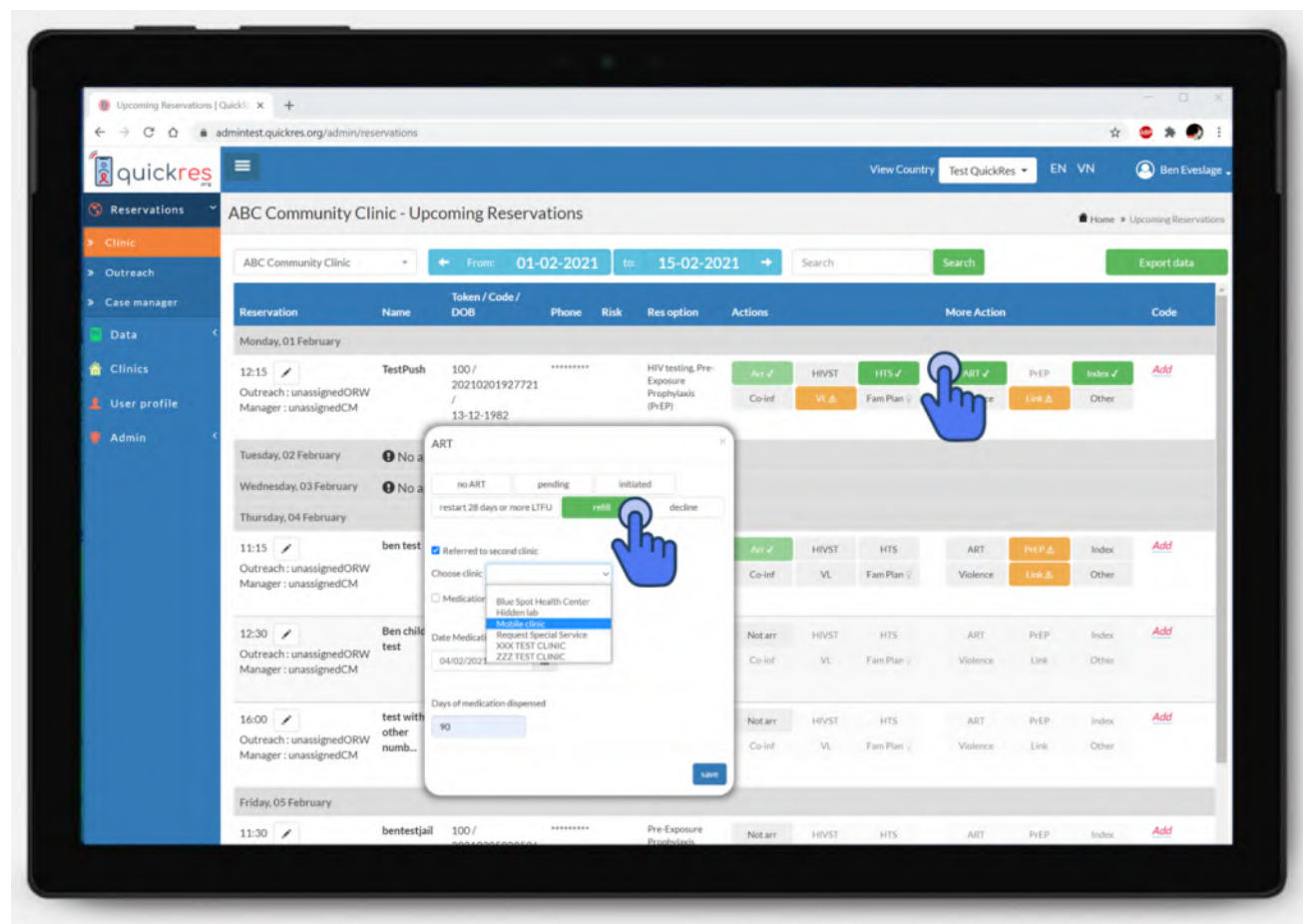























Figure 5. Clinic view of appointments, demonstrating referral for ART refill by a second provider

Advanced service reporting functions:

- **Referrals by second providers for screening and diagnostic services:** Clients may be referred from their primary provider to secondary providers (such as pharmacy or a community distribution point) to receive screening and diagnostic services noted with , and the referral provider can report service delivery and results, supporting differentiated service delivery (DSD).
- **Referrals for decentralized drug distribution (DDD):** Clients may be referred from their primary provider to secondary providers (such as pharmacy or a community distribution point) to pick up their medication, and the referral provider can report dispensation. This is available for ART and PrEP .

- **Second user lock-out:** Several different user types may view the same appointments and service reporting buttons, such as the clinic workers where the appointment is booked, and the assigned case manager and outreach worker. To help protect client–provider confidentiality, service buttons noted with  have a second user lock-out feature. This means that when one user first edits this button, only they can view and edit that button in the future, and it locks out the other user types from viewing and editing the button.
- **Reporting by outreach workers and case managers:** Case managers can be empowered to view and edit some or all the provider’s reporting buttons, which can be set on the case manager’s user permissions (for all clinics) for can be set on the clinic settings (to grant case managers access only on appointments booked at that clinic). Outreach workers may also be granted access to view and edit some of the provider’s reporting buttons. When this is possible, this is noted with .

Reporting buttons for services provided to clients during their scheduled appointment:

- **HIV self-testing:** Enter the kit distribution method and screening result. 
- **HIV testing:** Enter confirmed HIV test result.  
- **Co-infection screening and treatment:** Enter screening/test result for STI, hepatitis B, hepatitis C, tuberculosis (TB), and whether treatment was provided. 
- **PrEP:** Report the offer, initiation, restart, and refill of PrEP and days of medication dispensed.  
- **ART:** Report the offer, initiation, restart, and refill of ART and days of medication dispensed.  
- **Index:** Report when clients are offered to refer other clients for services, including three methods: provider-initiated, client-initiated (anonymous), and pass-it-on (not anonymous). These client referral methods can facilitate index testing. 
- **Viral load testing:** Report a blood draw for viral load testing and update with results as suppressed or unsuppressed. 
- **Family planning:** Report the provision of family planning counseling and uptake, change, or discontinuation of a range of family planning methods. 
- **Violence:** Report violence screening, and for clients with reported violence, the type(s) of violence experienced and post-violence services provided in-house or by referral.  
- **LINK:** Report when clients are offered the opportunity to provide feedback on services received from service providers through QuickRes. This can be a client-initiated and provider-initiated survey.  
- **Other services:** Up to five custom services can be offered for clients to book on QuickRes that providers can report service delivery for, such as for cervical cancer screening, gender-based violence services, voluntary medical male circumcision, opioid substitution therapy, needle exchange, etc.  
- **Code:** Enter a unique ID for the client against their appointment, such as a national ID or unique identification code (UIC), that would allow QuickRes to be synced with another database for deduplication or data sharing (manually).
- **Notes:** Open text field to add notes on each appointment record only viewable by assigned clinic workers (up to 1500 characters).

Case management

Case managers are responsible for supporting a cohort of clients longitudinally (after and between appointments) and across any provider on QuickRes. Case managers are assigned appointment records in QuickRes as determined by the token link used to make the original appointment, or cases may be reassigned to case managers by an administrator. Case managers log in to the back end of QuickRes to view clients assigned to them and their phone numbers, so they may provide follow-up services. By default, case managers can see only if their client arrived at the clinic, but additional user privileges can grant the case manager permission to view and edit other clinic reporting buttons. QuickRes has simple filters for case managers to see only their cohort of longitudinal records for clients initiated on PrEP or ART. Alternatively, they can use the search field “find all records” matching the client’s phone number to view recurring appointments for refills and amount of drugs dispensed, which helps determine a schedule for future appointments and provides a way to offer tailored adherence support.

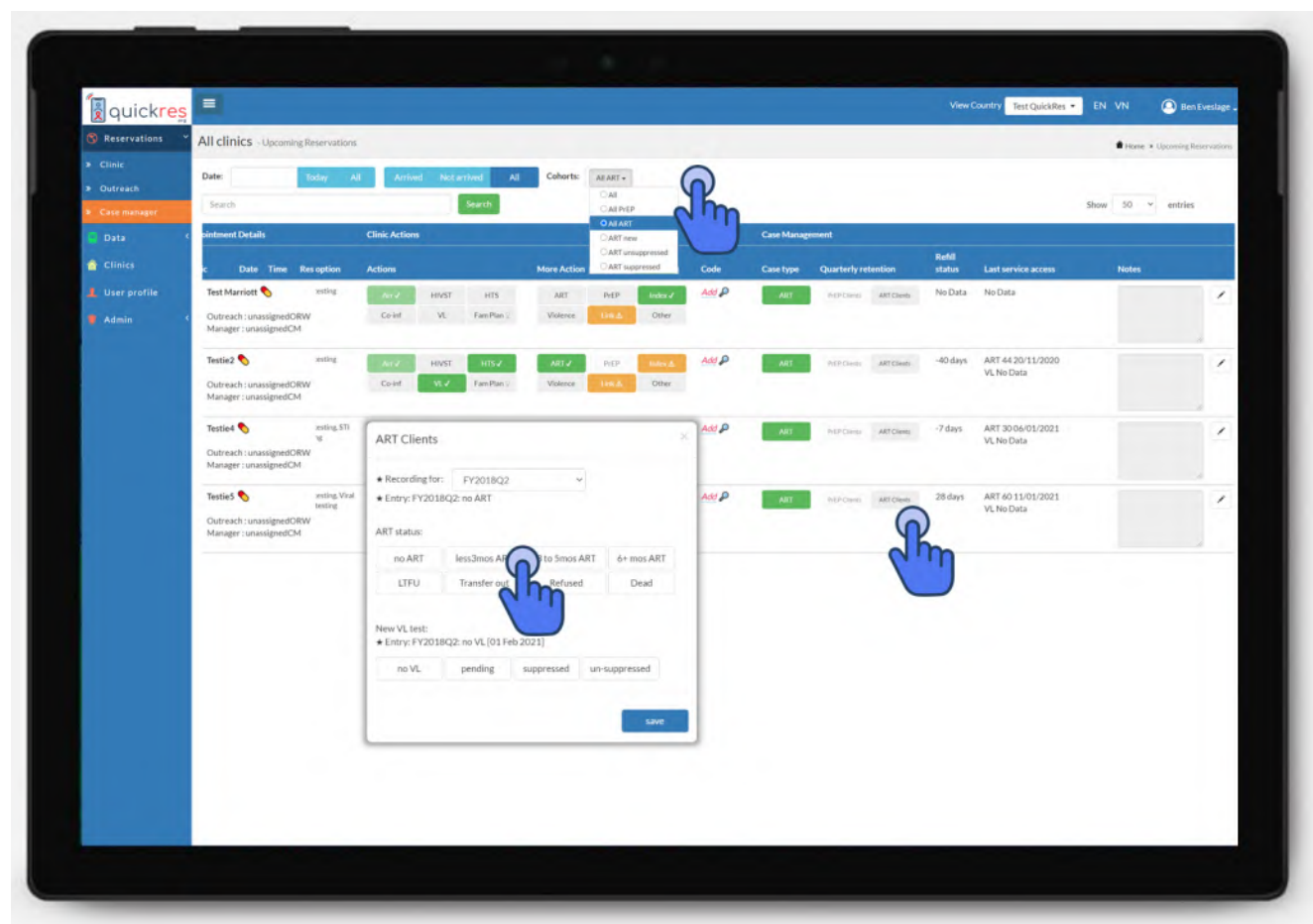


Figure 6. Case manager view of their cohort of client initiated on ART, demonstrating the quarterly reporting function for ART.

Case managers can view and edit the following items for clients assigned to their login ID:

- **View by cohort:** Filter appointments to view a unique list of client records in the case manager's PrEP cohort or ART cohort (including clients newly initiated on ART, clients virally unsuppressed, and suppressed clients)
- **Assign clients to cohort:** Case managers can add an appointment record to their ART or PrEP cohort (i.e., usually the appointment record where the client initiates ART or PrEP). These case management records form the list of unique clients in the case manager's cohort, who can be followed and tracked using the options listed below (quarterly reporting, refill status, last service access, and notes).
- **Quarterly retention reporting:** Clients added to an ART or PrEP cohort can have their quarterly ART or PrEP retention recorded with a simple reporting interface. It includes HIV status of clients in a PrEP cohort and viral load (VL) and multimonth dispensing amounts for clients in an ART cohort.
- **Refill status:** Each case management record displays the number of days of ART or PrEP remaining in the client's stock (based on the client's most recently recorded refill amount and date).
- **Last service access:** Each case management record displays information on the last service accessed by the client. These include PrEP refill amount and date and HIV test result for clients in a PrEP cohort and ART refill amount and date and VL test result for clients in an ART cohort.
- **Notes:** Open text field to add notes on each appointment record only viewable by the assigned case manager (up to 1,500 characters).

Program management and data analysis

- **Country-specific access:** QuickRes program managers and administrators have access only to their country's data, not data from projects in other countries. Back-end users and data on QuickRes are assigned to a specific country, which allows for country-level access (including risk assessment responses, appointments, case manager data, client referral data, web traffic, and clinic records).
- **Data visualization:** Administrators and clinic and community staff can view live data visualizations on QuickRes including the HIV services cascade in various formats. These can be presented by partner, outreach approach, even individual outreach worker (based on a token), as well as key population type. All data may be exported to Excel for additional data analysis and reporting.
- **Data capture:** The following information may be stored in the QuickRes database: site visitors, completed risk assessment responses, calculated HIV and STI risk values, appointments booked, services provided during appointments (see list under "service reporting"), service referrals, client-to-peer or client-to-partner referrals (with tracking from HIV-positive seed to referred clients' test results), quarterly retention on ART and PrEP, and case notes.
- **Data reporting:** Data captured on QuickRes can be cleaned, deduplicated, and disaggregated to report on several PEPFAR indicators mentioned in the [Monitoring, Evaluation, and Reporting \(MER\) indicator reference guide](#). QuickRes includes an export function that automatically calculates several common PEPFAR MER indicators by the required age, population, and other disaggregates. Using QuickRes as the basis for reporting PEPFAR or other custom indicators should be discussed with the HIV program's technical and strategic information/monitoring and evaluation teams. Programs should have a clear plan for when data from QuickRes are used (in combination with other data collection systems) to report service delivery results.

Data and Security

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

- Secure web hosting by recognized, high capacity cloud-host vendors who maintain infrastructure with the newest versions and security patches.
- Secure sockets layer (SSL) encryption on communication between the ORA server and clients to ensure that data in transmission cannot be intercepted by bots, hackers, or malware.
- Site and app maintenance, such as using well-regarded open-source components, libraries, and software elements updated to the newest versions and patches, helping avoid 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.
- Client data are secured through a staff interface that limits risks for exposure: hidden phone numbers are accessed only temporarily by case managers, and the data export sheet replaces phone numbers with UICs (thereby removing all personally identifying information).
- Informed consent is obtained from clients before they use QuickRes; 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.

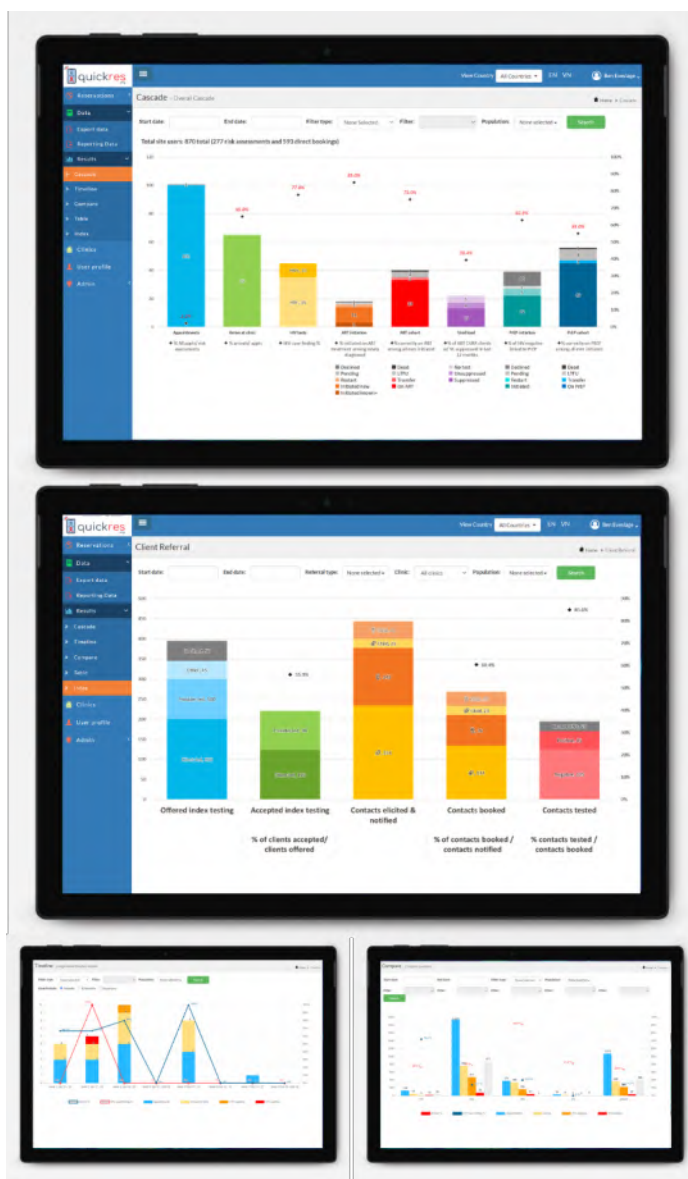


Figure 7. QuickRes' live data visualizations include a full HIV services cascade (top), index testing cascade (middle), timeline results (lower left), and comparison results (lower right), which can be filtered by date, period, population, clinic, token, and worker.

Joining QuickRes

HIV programs and organizations can join QuickRes by receiving technical support from FHI 360. FHI 360 can help programs develop a rollout plan for joining QuickRes; help partners add their clinics, service options, and users to QuickRes; provide training to end users; adapt standard operating procedures (SOPs); and provide ongoing supportive supervision. Interested programs should consider if QuickRes meets their program needs and context and consider if they have the necessary program and budget inputs related to joining QuickRes (see below). Contact us to explore QuickRes and see if it can work for your HIV program: GoingOnline@fhi360.org.

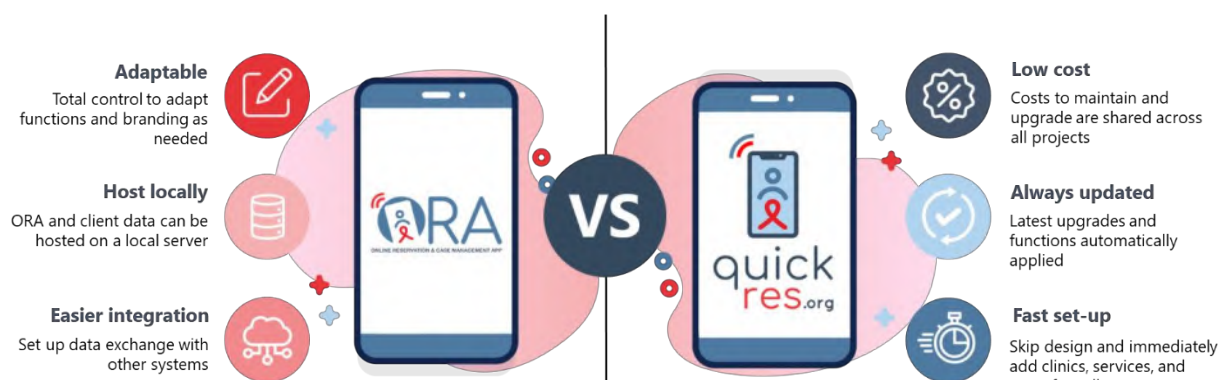


Figure 8. Benefits of ORA (country-specific) versus joining the global QuickRes platform

When to use QuickRes

Useful in these cases:

- Private sector service delivery partnerships
- New programs or civil society organization (CSO) partners without existing client tracking and reporting tools
- Existing programs or CSOs wanting to shift from paper-based systems
- There is a specific subsegment of beneficiaries or target audience you want to reach online

Maybe useful in these cases:

- When providers or case managers report results in QuickRes and another system (double entry)
- Data collection on QuickRes needs to be integrated with government EMR or other systems
- Local partners want customized features and functions (should use their own ORA)

Avoid in these cases:

- Electronic client management systems already exist and do not limit program performance
- Programs do not meet the standard requirements (see below)
- Data sharing with government is mandatory or local ownership is required (should use its own ORA)
- QuickRes data collection and use may put beneficiaries at risk

Limitations

QuickRes is a global platform shared by many countries and therefore several features and design aspects must be standardized. These limitations do not apply if an HIV project or organization would like to use its own ORA platform hosted on its own server, which allows for custom functions and unique branding and website domain.

Some limitations for programs or organizations joining QuickRes include:

- Standardized risk assessment structure, risk calculation, and result page logic.
- Standard set of available service and reporting options for clinics (clinics can select which services they offer from the available list and individual countries can add up to five custom services).
- Standard set of available case manager functions and reporting options.
- Data hosted in a cloud server (not in-country).
- Limited to three back-end languages (English, French, Spanish), and two front-end languages (client-facing) per country.
- Back-end users are assigned to a specific country, not a specific project. Therefore, multiple projects within a country will need to collaborate on data use and sharing (administrators see data across projects within a country).
- The website domain (<https://quickres.org>) and website design including logo and colors are standardized. Only the home page welcome text can be modified per country.

Minimum requirements

- Clients use or access a basic phone (with number for SMS and voice calling). If clients have a smartphone and mobile data (or other device for accessing the web), they can assess their risk and book services themselves without assistance from outreach staff.
- Outreach workers and case managers have a simple phone to reach out to clients to coordinate bookings and follow-up, which can be communicated to a central staff member to update on QuickRes. Ideally, outreach and case manager staff have their own smartphone or tablet with program-supported mobile data so they can book appointments for clients and log in to QuickRes and report results.
- Clinic staff are equipped with tablet or laptop with program-supported mobile data to report client arrivals and services provided (or case managers can be empowered to report on clinic's behalf).
- Budget is available for FHI 360 headquarters technical assistance for rollout and help with ongoing technology and developer fees (see details below).
- Data sharing and confidentiality agreement is in place with FHI 360, the manager of QuickRes.

Budgeting

QuickRes is a custom-built website based on the ORA software developed by FHI 360. QuickRes does not have license fees; however, HIV programs interested in joining QuickRes should consider the following estimated budget requirements:

- **Technical assistance:** Approximately 12 days of work (level of effort—LOE) for remote rollout support and drafting of SOPs for using QuickRes, and approximately 15 days LOE for routine QuickRes implementation support for one year after rollout (approximately \$20,000 per country or program)
- **Technology costs:** Annual service contract with AD Systems Asia for routine service support and SMS bundle to send clients reminders via SMS (approximately \$1,400 per country or program)
- **Demand generation:** Online marketing budget (ads/influencer promotions); contract with creative agency to develop marketing plan and creative assets (i.e., social media campaign)
- **Staff training and devices:** Additional training, supportive supervision, and tool development on use of QuickRes and conducting appropriate online HIV outreach and case management; purchase of new devices (e.g., smartphones, tablets) and airtime/mobile data for staff to connect with clients
- **Local support:** Consultants or staff time to coordinate field program input and review/translate QuickRes website text and SOPs

Contracting with FHI 360 to Use QuickRes

HIV programs may engage FHI 360 for technical assistance to join and use QuickRes through any of the methods below:

- A USAID mission can buy in to the EpiC project or request FHI 360 to provide technical assistance through an existing global or bilateral project implemented by FHI 360.
- Other organizations interested in technical assistance from FHI 360 should contact: GoingOnline@fhi360.org.

Version: This technical guide describes functions on QuickRes version 2, which has similar functions as ORA version 5.