Motivating HIV testing uptake through online risk assessments among key populations in Namibia

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BACKGROUND

QuickRes is a web application developed by FHI 360 and deployed across 22 countries. In 2020, it was introduced in Namibia by IntraHealth Namibia through the Key Populations Strengthening Technical Assistance Response (KP-STAR) project, funded by USAID. The primary aim of KP-STAR is to enhance HIV prevention strategies for key populations (KPs) and scale up innovative, evidence-based approaches to decrease HIV incidence and alleviate its impact.[1]

QuickRes includes an optional, self-guided online risk assessment (RA) tool designed to adapt based on user inputs.[2] The initial step in the RA requires users to meet the age eligibility criteria to proceed. This tool then generates personalized health service recommendations based on each user's risk profile and service history. In Namibia, these services include HIV self-testing (HIVST), HIV testing services (HTS), antiretroviral therapy (ART), and pre-exposure prophylaxis (PrEP). Clients on PrEP and ART can continue using QuickRes for appointment scheduling and virtual case management, facilitating ongoing support and medication refills.

On the operational side, staff in outreach, clinics, and case management can track client visits and report the specific services provided or referred. Short message service (SMS) reminders are sent to clients about appointments, and a satisfaction survey link is delivered at the end of each session.

QuickRes is promoted in Namibia through online peer referrals and organic social media outreach[3] with unique tracking links known as tokens that help with analyzing audience engagement and entry points. These efforts are supported by IntraHealth Namibia, Walvis Bay Corridor Group, and several KP-led civil society organizations, including Rights not Rescue Trust, Rights for All Movements, and Wings to Transcend Namibia Trust.

DESCRIPTION / METHODS

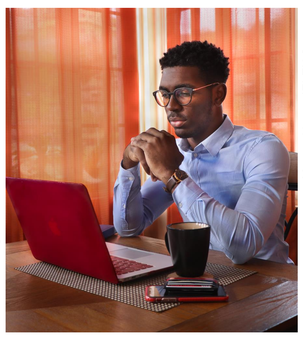
Data collected through QuickRes facilitates comprehensive analysis of trends and outcomes for various user interactions. The KP-STAR program and other initiatives leverage this data, exporting results for independent evaluation to enhance their effectiveness and improve service quality. Our analysis concentrates on variables like risk profile, demographic details (population type, age, sex), and HIV testing history to assess their influence on client adherence to scheduled HIV testing appointments.

To examine the link between RA outcomes and appointment attendance among KPs — men who have sex with men (MSM), female sex workers (FSWs), and transgender women — we employed statistical methods including Chi-Square tests for categorical data analysis and logistic regression to calculate odds ratios. These methods help us understand the factors that significantly affect the likelihood of clients attending their HIV testing appointments.

LESSONS LEARNED / RESULTS

The total number of appointments recorded in the Namibia dataset is 16,867, spanning from October 1, 2020, to September 30, 2023. Of these, 6,134 (36.4%) clients underwent a risk assessment prior to making an appointment, with an 81% arrival rate. In contrast, clients who did not take a risk assessment exhibited a 73% arrival rate.

Further analysis showed that individuals who completed the online RA had 1.56 times the odds of attending appointments (p<0.001). Generally, MSM were more likely to attend, with 1.84 times the odds compared to other groups (p<0.001). The odds of attending appointments increased by 0.77% per year of age (p<0.001), and men were less likely to attend compared to women, with 0.78 times the odds (p=0.002).

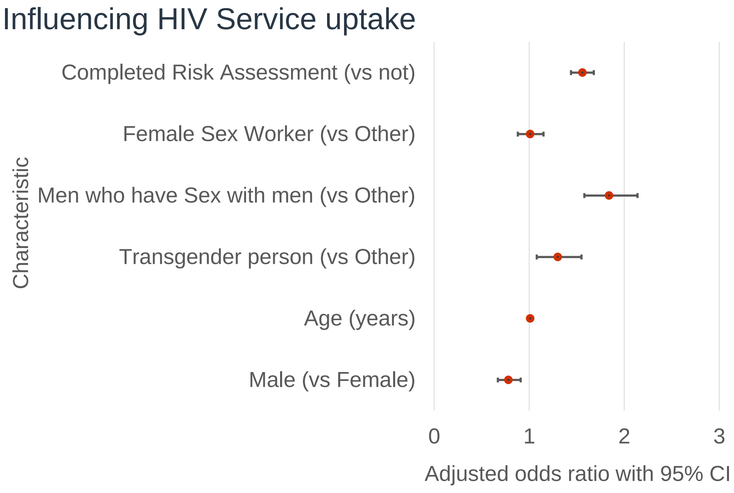


Mikhail Henry, IFLEX Jamaica

An online outreach worker using an Online Reservation App (ORA) like QuickRes to manage appointments in Jamaica

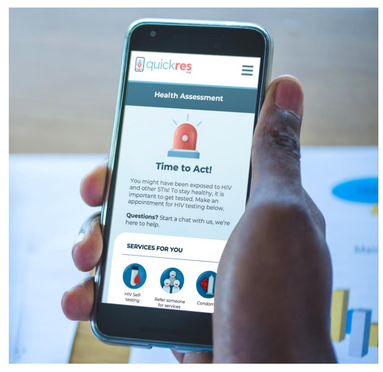
Individuals who had not undergone HIV testing in the past three months had 1.41 times the odds of attending their appointments (p<0.001). Additionally, in the RA questionnaire, users report activities that elevate their HIV/STI risk exposure. Data reveals probability of arriving for appointment decreases with higher risk assessment score (p<0.001): attendance rates are 90% for those reporting no risks, 79% for those with 1-3 risks, and 74% for those with 4 or more risks reported.

FIGURE 1. Adjusted Odds Ratios for Factors Influencing HIV Service uptake



CONCLUSIONS/NEXT STEPS

Online RAs through a client-centered approach — exemplified by QuickRes — equips users with the essential information necessary for making informed health decisions. QuickRes represents an evidence-informed model that demonstrates how self-paced assessment tools effectively triage services based on each person's unique history, preferences, and needs. Our findings indicate that this approach not only fosters greater engagement with HIV services but also ensures that these services are more tailored, significantly improving the likelihood of their uptake.



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Client view of QuickRes when completing the Risk Assessment Tool

However, the full potential of these online RAs can only be realized with a deep understanding of the barriers and motivations that affect user engagement. It is crucial to explore why certain populations are less likely to attend appointments despite higher risk profiles, as shown by our data. Such insights are essential for refining RA tools to address specific user concerns and for supporting the design of targeted interventions that enhance service uptake.

By continuously analyzing user feedback and behavior patterns, QuickRes and similar platforms can evolve beyond mere screening tools; they can become comprehensive service navigators guiding users throughout their health service journey. This evolution will not only improve user experience but also significantly contribute to public health outcomes by promoting higher engagement rates and consistent medical follow-ups among the populations most at risk.

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