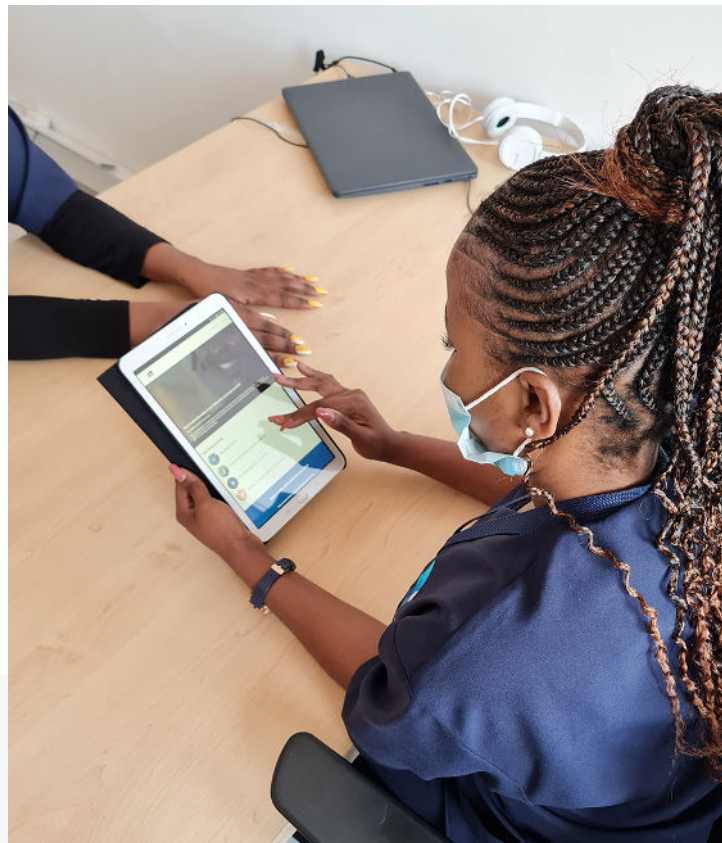




# Digitising a critical CHARISMA Assessment Tool.

How RTI digitised resources to empower women  
in their relationships and safe use of Pre-Exposure  
Prophylaxis (PrEP).

**The high rate of gender-based violence in South Africa leaves many women vulnerable to HIV. Pre-exposure prophylaxis (PrEP), is an HIV prevention medicine that reduces the risk of catching HIV when exposed to the virus.**



Our client, RTI, designed a community health clinic model to address how these relationships affect women's ability to use PrEP safely and consistently. However this relied on women visiting a clinic to complete a relationship assessment tool called HEART (Healthy Relationship Tool), followed by tailored counselling using manual content and videos administered by trained counsellors. Barriers to interventions include limited resources, limited number of available counsellors and geographical barriers for participants in accessing the assessment and counselling. In order to make the Community Health clinic model for Agency in Relationships and Safer Microbicide Adherence (CHARISMA) counselling accessible to a wider population of women, RTI asked Equal Experts to help them build a scalable solution to digitise the assessment and counselling content.

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A new mobile site in 3 months

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A portable system that can be used across different platforms and geographies

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Scalable solution and API with CMS hosting

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Minimal costs of hosting and maintenance



# About RTI.

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Research Triangle Institute, trading as RTI international, is an independent non-profit research institute headquartered in the US. RTI's vision is to address the world's most critical problems with science-based solutions in pursuit of a better future.

## INDUSTRY



Non-profit

## ORGANISATION SIZE



25 offices  
worldwide

## LOCATION



Headquartered  
in North  
Carolina

## SERVICES



Platform build,  
advisory

## Making information available to a wider population while maintaining confidentiality.

The CHARISMA counselling intervention aims to empower women in vulnerable situations to use PrEP safely in their relationships. It does this by giving them access to the HEART relationship assessment and skills-focused, targeted information on either general communication and conflict negotiation, communicating about HIV prevention, or seeking help for violent relationships. The intervention helps users understand what a healthy relationship entails and to better navigate their specific situation. This intervention was administered at a single clinic located in Johannesburg. It became obvious that only by digitizing the intervention, could they make it accessible to a wider population. Equal Experts worked with RTI to deliver a new mobile site, to take the fully manual process and make it available to a wider female population in **just three months**.



# Making information and counselling accessible and available.

As a content heavy application, the CHARISMA tool needed to perform two roles. To assess relationships, and to provide information. It was important that all the content communicated in a way that could be understood by a range of female demographics, from varied and different backgrounds. Basically a virtual counselor. With this in mind, it was designed with UX/UI principles, to present counselling material in a manner that is relatable, conversational, and easy to understand. This was achieved by providing personalised information and action plans, helping users understand their own relationships and providing the ability to monitor improvements. Making the tool and counselling content accessible and online has given women access to relevant relationship and HIV prevention material on their mobile devices, meaning **those in vulnerable situations can access the material and content in a safe location** of their choosing.

## Technical guidance that considered scalability and cost.

Scalability and the use of open-source solutions were important for RTI such that the tool could be adapted and used in different settings by other interested parties at a low-cost. These were therefore kept in mind when making technical decisions. Following lean principles, we also answered RTI's request for:

- An infrastructure agnostic solution
- An easy to maintain solution
- The ability to deploy in any environment
- Low hosting costs

The application was containerised in Docker to support multiple cloud providers. Amazon Web Services (AWS) is RTI's approved cloud hosting provider, with the most economical and scalable option for hosting being AWS Fargate, EFS. The APIs were built in Kotlin with KTOR for API. This allowed for a lightweight interface between the Content Management System (CMS) and the Front end that is loosely coupled. The service choice also presents an opportunity to be publicly available without impacting the CMS or Front-end side. Flutter/Dart was used for the mobile application for its ability to support both iOS and Android using a single code base.

## Empowering the client to own the application.

RTI is a research institution. This means that the content on the mobile site has to have the ability to constantly evolve. To make this possible, it was important to ensure that RTI did not have a dependency on Equal Experts for changes. The choice of CMS was key. Directus is an open-source self-hosting CMS that is affordable and user friendly. And importantly, it empowers RTI, or other future users, to customise the content as needed. In addition to implementation of this, it was important that the client team all felt comfortable with this. Here they were able to make changes in a test environment and promote them to production. This helped to **build confidence** in using the application and making changes prior to working on the live site.

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*While we still hope to further the design of the website, our initial feedback from women has enhanced our view of it's relevance. Women are learning about healthy relationship qualities and have expressed that the site meets their hopes and expectations. One woman even described relief in learning how to keep safe in an abusive relationship, expressing how heavy her heart had been given her current relationship context. She said she now understands what needs to be done for herself and her children to stay safe.*

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RTI Product Owner



# Want to know more?

Are you interested in this project?

Or do you have one just like it?

[Get in touch](#). We'd love to tell you more about it.