Bohemian Smartlytics Comprehensive HIV AIDS Review and Treatment – BSmart Chart App User Manual

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1. Intended Use

BSmart Chart App is intended for use by people living with HIV (PLHIV). The app puts HIV patients' interest at the centre of disease management that will help take charge of their disease, achieve better health outcomes and improve the quality of life. A first of a kind app that supports the optimization of HIV therapy in eleven ways:

- 1. **Monitor**: by monitoring your parameters in day-to-day life, you are assisted in making better-informed therapy decisions.
- 2. **Connect with Your Healthcare Professional**: by connecting with your healthcare professional, you can be involved in your disease management by sharing your data reports for discussion of therapy.
- 3. **Connect with your Buddy**: by connecting with a Buddy, you can have open, honest conversations about your HIV disease management.
- 4. **Therapy Compliance**: by receiving motivational triggers (e.g., medication and appointment reminders), feedback on your current therapy status and rewards, you increase therapy compliance
- 5. **Knowledge Hub**: by accessing your desired information from legitimate sources on HIV-related issues and general health, you will get the intended benefit with up-to-date information and ensure the care you get is truly around your needs.
- 6. **Support Engagement**: by improving engagement in care, ART adherence and social support with other people living with HIV, through daily discussions, peer sharing, you will empower your mental and emotional wellbeing, leading to better health outcomes.
- 7. **Brain Teasers**: by enhancing your knowledge and skills in HIV disease through interactive quizzes and exercises, you will better

- understand its symptoms, how it may progress, what treatment options are available, and understand what your doctor is doing and be part of the treatment journey.
- 8. **Status Disclosure**: by disclosing your HIV status using BSmart Chart app, you can combat stigma without having to face anyone and feel comfortable.
- 9. **Access to Medicine**: by participating in clinical trials, you will have the possibility to access innovative therapy.
- 10. **Uptake of HIV testing**: by enabling persons at risk of HIV infection to get tested and report their results confidentially, by connecting them to the nearest facilities where HIV testing are conducted or where HIV home testing kits can be obtained.
- 11. **Lab Reporting:** by receiving laboratory test results via the app (e.g., viral load tests), you will have the convenience of accessing your results and reduce the need to attend the clinic (save time and money).

2. Key Features

Some of the key features include:

- Connect with your clinician and buddy in real-time, notify them of changes, and share your HIV health and well-being status.
- Monitor your HIV health and well-being over time via easyto-understand visualization.
- Express your views freely, speak out loud and let your voice be heard.
- Disclose your HIV status without the fear of facing anyone.
- Track your adherence, nutrition, social, cognitive, emotional and quality of life over time.
- Become a mentor, to patients like yourself, through solving challenges with the opportunity of winning a gift.
- Take charge of your HIV by getting individualized evidencebased information.

- Set appointment and medication reminders.
- Monitor your metabolic and cardiovascular risk scores.
- Receive daily motivational quotes; an inspiration to start each day energized.
- Manage your HIV & non-HIV medication, examine drug interactions and keep track of your medications and refills.
- Set goals and build knowledge and skills.
- Gain knowledge and skills about HIV disease via quizzes and interactive exercises
- Access up-to-date information depending on your needs.
- Support engagement through daily discussions and connect with others around the globe.
- Check your Lab report to know your health progress.
- Know when you are due for medication refill and connect to Pharmacy refill.
- The At-Risk feature is for people who want to get tested because they might be at risk of HIV.

3. Getting Started

To use BSmart Chart app you must create an account using your email or phone number.

3.1. My Survey

To unleash the full capabilities of BSmart Chart, you start by completing *My Survey*. BSmart Chart app needs to know some details about your HIV disease management to function properly. For example, your medication adherence, your emotional, cognitive and physical symptoms, your quality of life and treatment preferences, and your viral load and CD4 count measurements. If you do not know the answer, ask your healthcare professional for help.

The survey may take up to 10 minutes – please be as accurate (and patient)

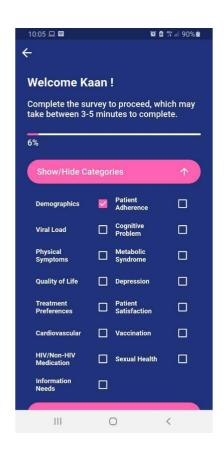
as you can, and if you are not able to answer a question, you could always come back to it.

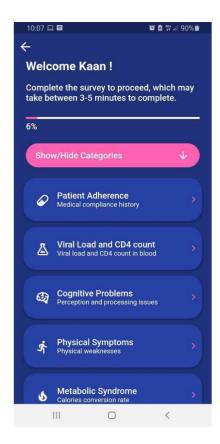


Note that it is **mandatory** to complete all questions in *My Survey* for the first time. We understand it's a little daunting and time consuming, but it's well worth the effort.

You are strongly advised to repeat the survey regularly so that you keep track of your HIV health status, e.g., monthly, quarterly, or even before your next doctor's appointment (or a routine check-up). The frequency of survey completion can also be agreed with your healthcare professional too. By default, you will receive a notification reminder to complete *My Survey* every 90 days.

You have the choice to select the categories you would like to complete more regularly within the Survey. Tap on *Show/Hide Categories*. If you want the same responses to be submitted in *My Survey*, you could skip completing some of those categories by checking the checkbox, e.g., to skip demographics, which does not change very often, click the check box.





4. HIV Health Status

HIV Health Status is the main dashboard, which can be accessed by tapping on the side menu bar, to see high-level health and well- being statuses, such as your medication adherence, expected suppression and risk scores. This is also where you manage your medications, list your appointments to get a reminder before time, access your information needs, and alert your clinician for any issues of critical importance.





4.1. Medication Management

Depending on the number of times you take your HIV medicine and time of day, to receive your notifications and refill reminders, you need to set your medication management plan. To do this, tap on *MEDICATION* in the *HIV Health Status* dashboard, then *ADD*+ or the plus icon (), and set your medication.





Once the medication details are provided and added to the list, you could always go back and make changes or remove them from the list. To do this, select the medication in *Active Meds*, then tap *Edit* in the top right and change accordingly.

4.1.1. Drug-drug Interaction

Patients get to check if the prescribed non-HIV medication interacts with their HIV medication. You need to make sure you have selected your HIV medication and non-HIV medications in *My Survey* (under *HIV/Non-HIV Medications*). Go to main dashboard, tap on *MEDICATION*, then *Drug-Drug Interaction*.

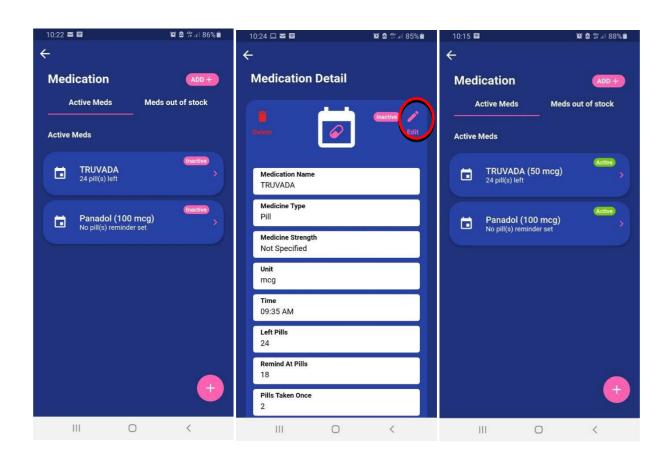




4.1.2. Re-activating Inactive Medication Reminders

VERY IMPORTANT INFORMATION: If you log out of the app and log back in, medication reminders are inactivated. To reactivate, tap on the medication in the *Active Meds* list, tap on *Edit* (top right), check all the entries, finally tap on *UPDATE REMINDER*. Repeat this process for all medications. *Inactive* (circular pink) should turn *Active* (circular green) – see further details below with an example.

- **1.** Tap on the medication to be activated in *Active Meds*.
- **2.** Tap on *Edit* and update the information.
- **3.** Finally tap on *UPDATE REMINDER*.



Inactive (circular pink) medication reminders should turn *Active* (Circular green).

4.2. Suppression

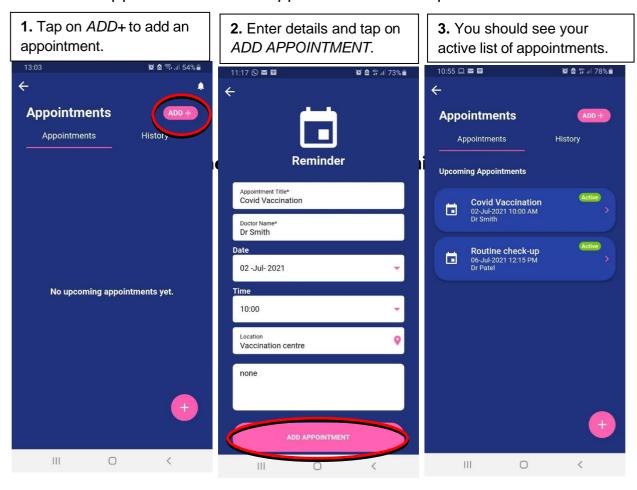
Your HIV medicine reduces the amount of HIV in the body (known as viral load) to a very low level, which keeps the immune system working and prevents illness. This is called viral suppression. Taking HIV medicines every day and exactly as prescribed by your doctor is called medication adherence.

BSmart Chart provides your expected overall suppression from taking your medication and the expected adherence necessary for your HIV regimen on a scale of 0% to 100% (the higher the better) to guarantee suppression. This is presented in the *SUPPRESSION* section of the *HIV Health Status* dashboard. Make sure you have chosen the correct HIV medication you are taking in *My Survey*, category *HIV and Non-HIV Medications*.



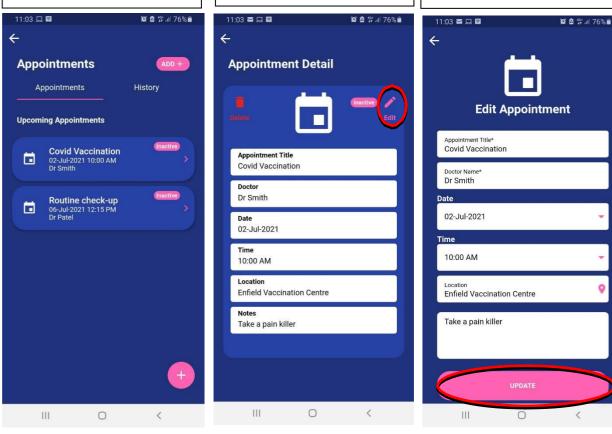
4.3. Appointment Reminder

We've all forgotten an appointment before and felt the sting of guilt. BSmart Chart has this covered too. In the *HIV Health Status* dashboard, tap on *APPOINTMENT REMINDER*, then *ADD*+ to set your doctor's appointments and check-ups and receive timely notifications (i.e., 24 hours prior to your appointment). Should you want to make changes later, select the appointment under *Appointments* and tap on Edit.



VERY IMPORTANT INFORMATION: If you log out of the app and log back in, appointment reminders are inactivated. To reactivate, tap on *Appointments*, tap on the appointment that needs to be reactivated; tap on *Edit* (top right), check all the entries, finally tap on *UPDATE*. Repeat this process for all appointments. *Inactive* (pink text) should turn *Active* (green text) – see further details below with an example.

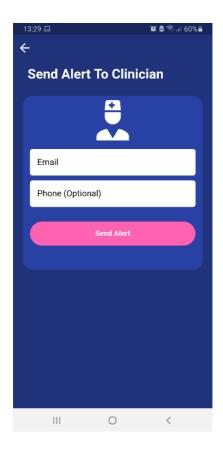
- **1.** Tap on the appointment to be reactivated.
- **2.** Tap on *Edit* (top right).
- **3.** Check details and tap on *UPDATE* to reactivate.



Inactive (circular pink) appointments should turn *Active* (circular green).

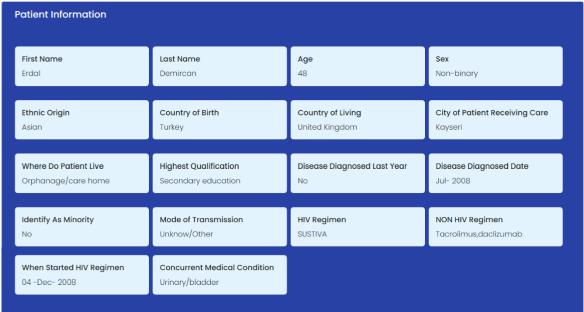
4.4. Alert to Clinician

You could allow your clinician to access high-level set of reports generated by BSmart Chart. To do this, you need to alert your clinician by providing their contact details (i.e., email address and/or phone number) in *Alert to Clinician* section of *HIV Health Status* dashboard.



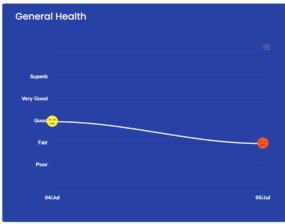
A personalized link will be generated and shared with your clinician for them to access our secure web-based portal with your data report, known as **SmartHIV Solution** (a small extract of the report is presented below). The link expires within 48 hours.

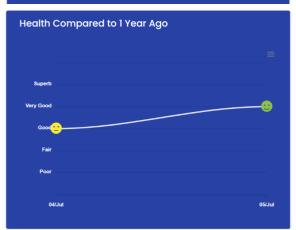
Note that a more comprehensive set of easy-to-understand data reports in real time can be viewed by your clinician only when they download the app, create an account, and establish a connection with you (see section 7 for further details).







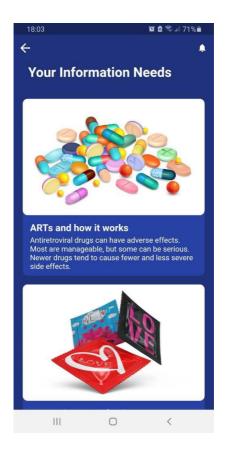




4.5. Your Information Needs

BSmart Chart provides your information needs on both HIV-related issues and general health by gathering a bank of credible online resources, including up-to-date publications, reports and latest developments.

To activate this feature, you must select *Your Information Needs* from a list of 15 categories in *My Survey*. All your selected information needs are updated with new sources provided on a regular basis. Watch this space!

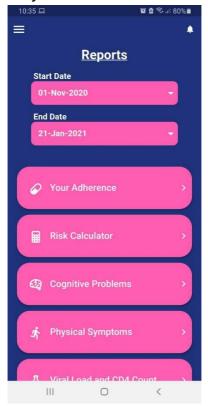


5. Reports

Reports from the menu bar allows you to see an exhaustive set of easy-to-understand vital metrics necessary to support the management of your HIV over time.



At the top of the *Reports,* there is an option for you to specify the period you would like to generate your report (*Start Date* to *End Date*), e.g., 6 months, 1 year or 2 years. By default, it's set to 3 months.



5.1. Your Adherence

Tap on *Your Adherence* to check your level of adherence to medication (ranging from 0%-100%) and if it is below the threshold of 50%, tap on *What's Holding Me Back* to find out how you could improve your adherence. Remember, 100% means you are committed and adhering to your treatment plan, whereas 0% means NO adherence.



5.2. Viral Load and CD4 Count

Tap on *Viral Load and CD4 Count* to check your viral load and CD4 count measurements over the specified period.

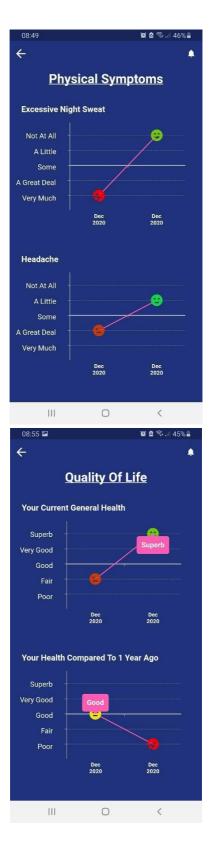
A happy emoji face (S) would indicate an HIV viral load less than 50 copies/mL (HIV suppressed), whereas a sad emoji face (E) means greater or equal to 50 copies/ml (unsuppressed).

A similar interpretation is valid for CD4 count measurements.



5.3. Cognitive Problems, Physical Symptoms and Quality of Life





Our easy-to-understand graphs will allow you to keep track of your general health and well-being. Tap on *Cognitive Problems, Physical Symptoms* and *Quality of Life*.

5.4. Risk Calculator

BSmart Chart predicts your risk of metabolic syndrome (MS) and cardiovascular disease (CVD). Your CVD risk score is calculated as a percentage (the lower the better) and grouped as "Low", "Moderate", "Increased" and "Markedly Increased", whereas the risk of MS is presented as "Yes" or "No".

Metabolic syndrome is the medical term for a combination of blood sugar, high blood pressure (hypertension) and obesity, whereas CVD is a group of disorders of the heart and blood vessels, such as coronary heart disease (heart attack).

VERY IMPORTANT INFORMATION: To see your risk scores, you must complete all the questions in *My Survey* for *Metabolic Syndrome* and *Cardiovascular*. Any unknown information will result in no risk score calculation. CVD and MS risk scores cannot be calculated for non-binary.





6. Profile and Settings

Use the side menu to access *Profile & Settings*.

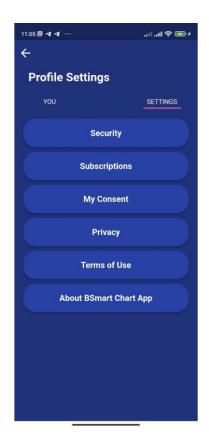
If you need to change your password, photo, name and surname, it all happens here. Tap on *YOU*, then *Edit* () to make these changes.

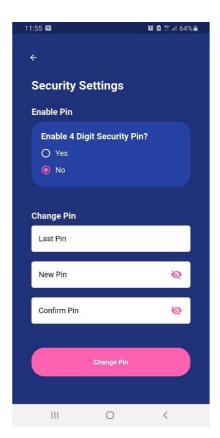
You can set your 4-digit PIN and make relevant changes (e.g., disable PIN and change your PIN number) in *Security* under *SETTINGS*.

Very Important Information: If you have enabled your 4-digit PIN, it is in-activated when logged out of the app. You must re-enable your PIN after logging back into the app (in *Security* under *SETTINGS*).

If you want to give consent for your clinician to access your data and reports; Bohemian Smartlytics Limited to process your medical data for

research purposes and willingness to participate into a clinical trial, then tap on *SETTINGS* then *My Consent*.





7. Connect

7.1. As a Patient, How Do I Connect with My Clinician?

The most unique feature of the BSmart Chart app is the ability to connect with healthcare professionals, most often your HIV Doctor.

There are two ways to connect with your clinician, 1) find your clinician by specifying *Country*, *State*, *City* and *Organisation*, 2) if your clinician cannot be found, invite by entering their email (phone number is optional).

An invitation will be sent for your clinician to download and install the app, and upon acceptance, your clinician will have access to your report, as and when changes and updates are made in real-time, via a dedicated platform for clinicians within the BSmart Chart app and web-portal (known as **SmartHIV Solution**).

This process starts by tapping *Connect* in the menu bar.



VERY IMPORTANT INFORMATION: Connection can only be established if your HIV service (and Clinician) can be found in our database (under *Connect to Clinician*) and the invitation to connect is accepted by your clinician.

If your organization (HIV service) cannot be found, you need to invite your clinician by tapping on the + sign in *Connect to Clinician* and enter their email address and/or phone number. An email/txt message explaining this process will be sent to your clinician. The app needs to be downloaded, installed and registered as "I'M A CLINICIAN". A section of the app is dedicated for clinicians.

Please contact your clinician to find out if they have registered.

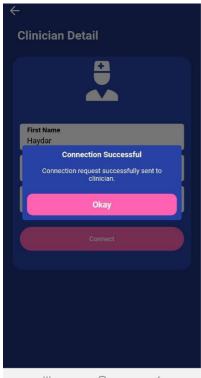
If your clinician has registered and added their organizational information (HIV service), use the following instructions to establish connection. Tap on *Connect* in the side menu bar.

- 1. Select *Country*, *State* and *City*, then your *organization* from the list. Tap *Find*.
- **2**. HIV professionals within the organization is listed. Find your clinician.
- **3**. Check your clinicians' detail. Are they correct? If so, tap on *Connect*.







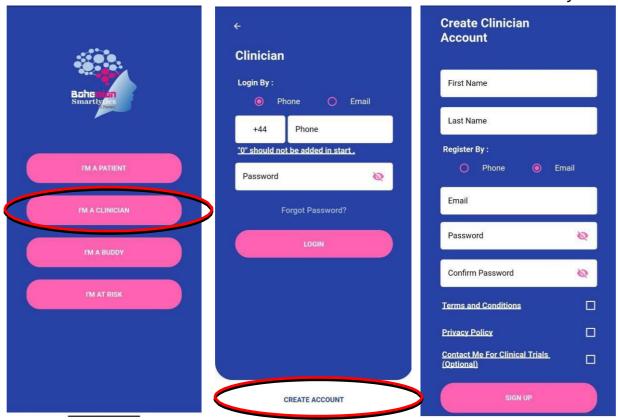


4. A request to establish connection with your clinician is sent (via the app and email).

If accepted or rejected, you will receive a confirmation email/txt.

7.2. As a Clinician, How Do I Connect with My Patient?

If an account isn't created, register to BSmart Chart by tapping on I'M A CLINICIAN and CREATE ACCOUNT. This is dedicated to Clinicians only.



After creating your account, login to access your clinician dashboard.

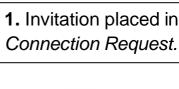
VERY IMPORTANT INFORMATION: To be able to manage your patient via the app dashboard your email must be connected to your organization or facility clinician manage organization dashboard. If not, you need to inform your organization or facility to add your account as a clinician in order to manage your patient. You can confirm if your account is connected to your organization or facility dashboard through the profile and settings icon.

There are **three ways** to connect with your patient:

1) Your patient sends an invitation (as described in section 7.1). You receive an email, or a txt message (sms) and the invitation is placed in *Connection Request*. All invitations sent by your patients will be available in *Connection Request*. Find the patient from the list, accept or reject. If accepted, the patient will be added to My Patients list. Connection is established. Tap on the name and you will see your patients report dashboard.

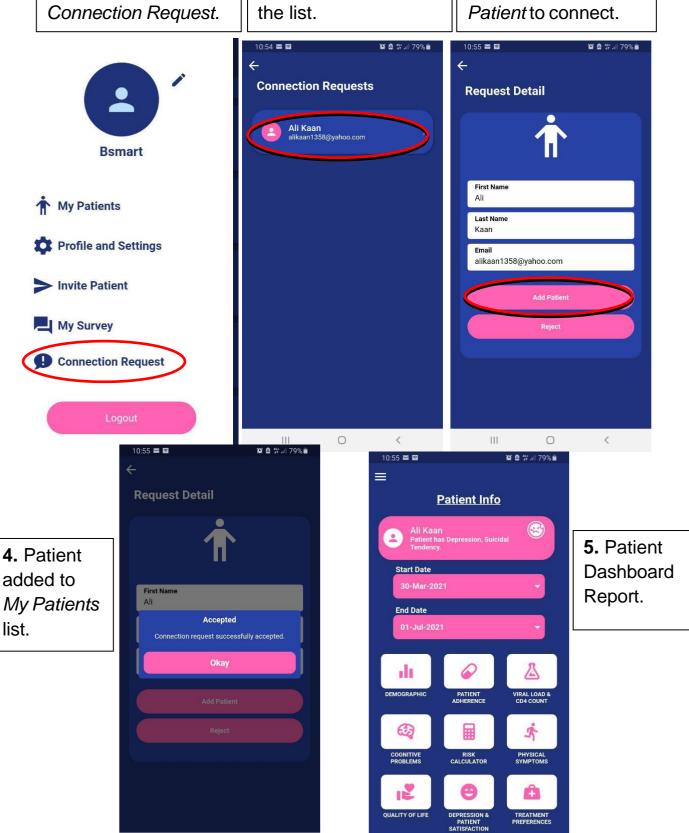
See below for instructions (with an example).

- 2) The second option is to invite your patient by tapping on *Invite Patient* and enter their email and/or phone number. An email/txt message will be sent for them to download the app, register, and connect as described above.
- 3) The third option, patients are invited to download/install in large numbers using an Excel template, e.g., registered users will automatically be connected with their corresponding healthcare professional (HP). HP does not need to do anything.



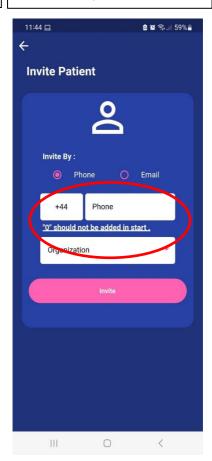
2. Find patient from the list.

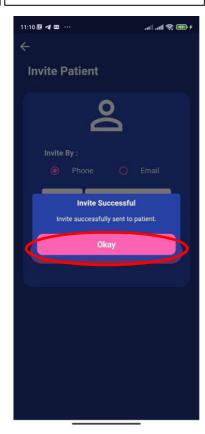
3. Tap on Add



- **1.** Click on the invite patient on the dashboard.
- **2.** Enter patient email or phone number and select organization
- **3.** Click invite to confirm







Your Patient's Report

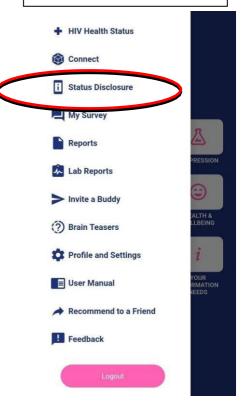
Once connection is established with your patient, you have access to a comprehensive set of reports as described in Section 5. Tap on *My Patients* and select your patient or search using the search facility at the top (by name and last name). Additional outputs are provided, such as quality of life, patient satisfaction and depression and treatment preferences.

Attention requiring issues are alerted at the top of *Patient Info*, just below their name and last name, e.g., if your patient adherence is below a threshold of 50%, if they have suicidal thoughts, etc.

8. Disclosing Your HIV Status

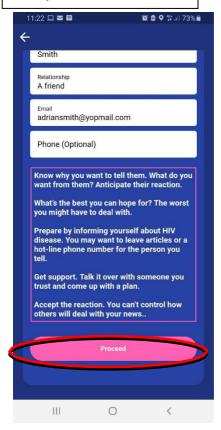
1. Tap on Status Disclosure

2. Enter details of the person



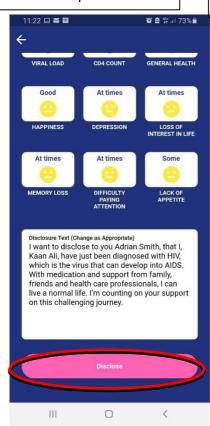


3. Tap on Proceed

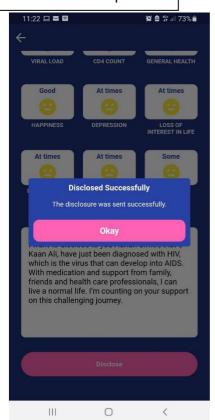


4. Check Patient Details, Disclosure Text and tap on Disclose

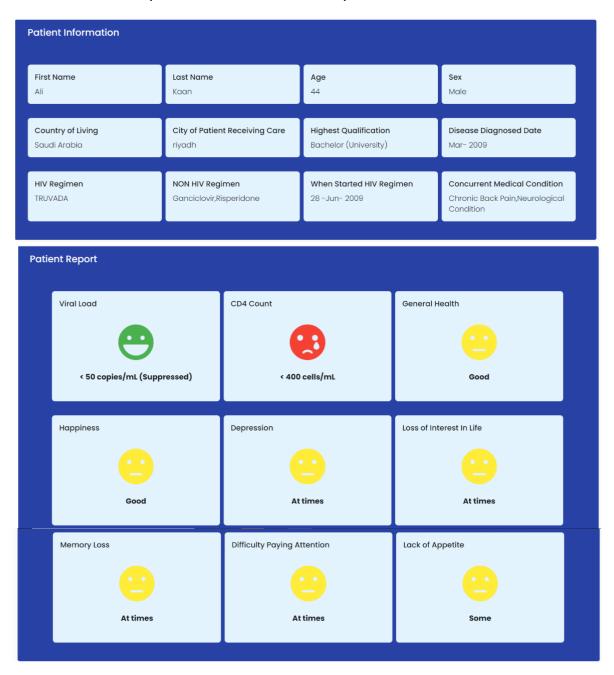




Email/txt sent to person.



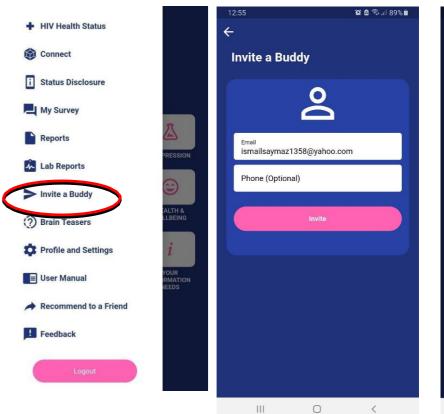
The person your disclosing will receive an email (or a text message if phone number is entered) with a link to access your report within our secured platform as shown in *Disclosure Details* section of the app (see below for an example of the dashboard report).



9. Invite a Buddy

1. Invite by tapping on *Invite a Buddy* and enter their email or phone number.

2. An email/txt sent to Buddy.





Buddy downloads the app and registers as *I'M A BUDDY*. Links to download the app will be provided in the email (see next page for instructions).

Buddy's Account

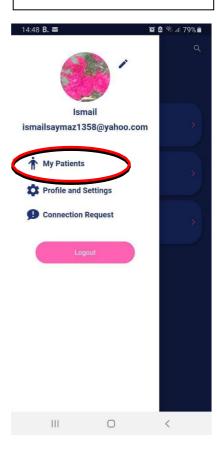
Very Important Information: If Buddy's registered email (or phone number) during the activation process matches the invitation email (or phone number) sent by you, connection will be established by default. If not, you will need to send another invitation to connect using your Buddy's registered email address or phone number. Once connection is established, a confirmation email (or a txt message) will be sent to you. A buddy can connect with many people living with HIV.

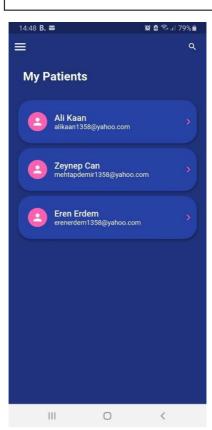
Buddy can use the side menu to access *Profile & Settings*. If they want to change their account password, photo, name and surname, it all happens here.

Buddy can also set a 4-digit PIN and make relevant changes (e.g., disable PIN and change PIN number) by tapping on *Security Settings*.

Very Important Information: If Buddy enables a 4-digit PIN, it is inactivated when logged out of the app. He/she must re-enable PIN after logging back into the app (in *Security Settings*).

- 1. Tap on *My* Patients.
- **2**. List of people Buddy is connected with.
- **3**. Patient Report Dashboard panel.

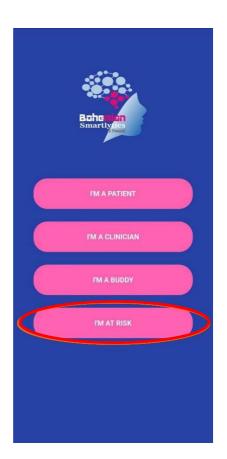


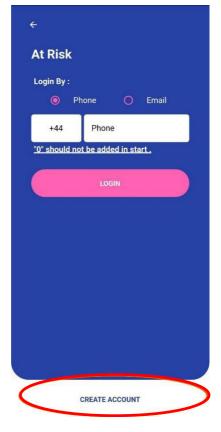


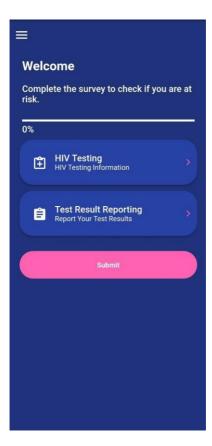


10. I'M AT Risk, How Do I Connect to Test?

If an account isn't created, register to BSmart Chart by tapping on **I'M AT RISK** and **CREATE ACCOUNT**. This is dedicated to people who want to get tested because they might be at risk of HIV.





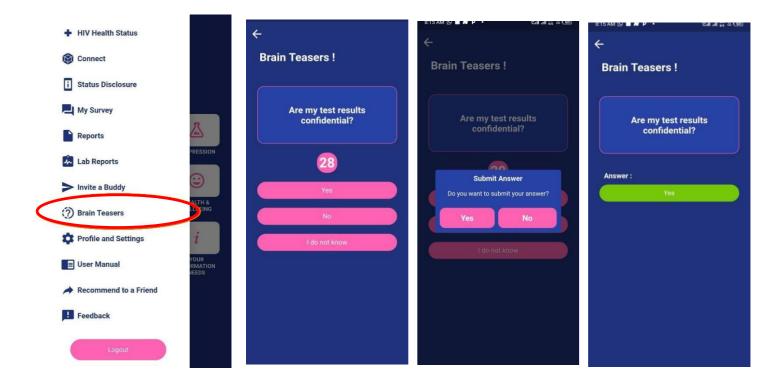


Upon creation of an account, you will be required to enter your email or phone number, afterward, an OTP will be sent to you for verification. Once this is done you will be allowed to access, I'M AT RISK feature.

VERY IMPORTANT INFORMATION: Upon completion of creating an account, you are expected to complete the survey so to check if you are at risk. The process is to ensure you fill in the right HIV testing information. After completing the HIV testing information, you are expected to conduct an HIV test before completing the Test Result. Reporting section of I'M AT RISK. This feature helps provide you with further information and links you to the best facility for HIV treatment or prevention.

11. Brain Teasers

This feature will enable users to enhance their knowledge on HIV, treatment, and prevention. Every Monday and Friday at 9am local time users will be notified with a question to be answered (multiple choice) in the form of a quiz. Users can also access the Brain Teaser through the dashboard by tapping on the side menu (a) bar, to see the Brain Teasers icon.



12. Lab Report

This feature help patient to have access to their lab results via the app after visiting the facility for various tests. This will help patient monitor their health by going through the Lab Report to check their lab parameters.

A patient can access the Lab report through the dashboard by tapping on the side menu (a) bar, to see the Lab Report icon. Note that this feature is only available for HIV facilities where their medical laboratory supplier is integrated to BSmart Chart app.





