National Sickle Cell Anaemia Elimination Mission

User Manual For Sickle Cell Mobile Application



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App Developed by



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Objective

The objective of 'Sickle Cell' mobile application is to facilitate beneficiary registration, test details (solubility, HPLC/Electrophoresis or Point of Care) captured in both online and offline mode. Furthermore, the application has been integrated with ABDM (Ayushman Bharat Digital Mission) ecosystem. The application supports ABHA ID based registry as well as ABHA ID creation using Aadhaar ID with OTP or Fingerprint based or Face based or Demo based Biometric Authentication.

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1.Introduction

Sickle Cell:

Sickle Cell Disease (SCD) is a group of blood disorders typically inherited from a person's parents. It results in an abnormality in the oxygen-carrying protein hemoglobin found in red blood cells. This leads to a rigid, sickle-like shape under certain circumstances. A number of health problems may develop, like attacks of pain, anemia, swelling in the hands and feet, bacterial infections and stroke. Long-term pain may develop as people get older.

National Sickle Cell Disease Control Programme:

To address this serious issue of Sickle Cell Disease and to prevent morbidity, mortality and reduce prevalence rate, '*National Sickle Cell Disease Control Programme*' has been proposed and is being launched in 17 states and UTs where this disease is most common. Under this programme, NIC has developed following software:

- Web Application/portal
- Common API to migrate state existing data
- Mobile Application

Administrative Information

App Name	Sickle Cell
Department	National Health Mission, Ministry of Health and Family Welfare, GoI
Sector	Health
Category	G2G
Coverage	All Government Health Facilities in India
Developer	National Informatics Centre

Technical Details

Back-end Office Application	https://sickle.nhm.gov.in/sickle2.0/
Platform	Android
Size	15 MB
Language	English
Last Update	18-March-2023
User Authentication	Required, through Mobile number and OTP of associated Health
	Facility In-charge
Auto Alerts	Yes, through SMS and in app
Special Permissions	Camera
Internet Requirement	Required. But app will work offline also after successful login
	while connected.
Associated Parent website	https://sickle.nhm.gov.in/sickle2.0/
URL	

2. Pre-requisites:

 Before downloading the mobile app, the Health Facility In-charge must get her/his mobile number registered through concerned District User / State User / State Admin. Health facility user will be able to login only if her/his mobile number is registered. Mobile number registration is mandatory as the facility user will received OTP on the registered mobile number.

2. Installation of RD Service for Finger Print Biometric from Play Store is mandatory. Example :-

- Morpho SCL RDService application for MORPHO Biometric Fingerprint sensors.
- Mantra RD services application for MANTRA MFS100 Biometric Fingerprint sensors.

3. It is mandatory for user to download *AadhaarFaceRd* from Play Store for Face Authentication.

3. Mobile App Download:

The user can download the app from the home page of portal

https://sickle.nhm.gov.in/sickle2.0/home or download directly using the link

https://sickle.nhm.gov.in/sickle2.0/home/app_download_count_ <u>s.</u>

Once downloaded the user is suggested to go through the Privacy Policy, link given on login page before using the app. At present, the app is available in android and will be made available in iOS in future.

11:02 📴 🖪 🕓 🗣 📕 • 🔃 🛈 🖽 👍 🎾 🔒 4 **Privacy Policy**

Privacy Policy for SICKLE CELL Mobile App

Privacy Policy for SICKLE CELL Mobile App This privacy policy governs your use of the software applications ("Applications") for mobile devices that was hosted at NIC e-Gov Mobile App Store in Google Play. The Applications mainly provide Governance Services by the government. The contents published on these Applications were provided by the concerned Ministries/Departments of Government of India or the allied government establishment. This information provided through these applications may not have any legal sanctity and are for general reference only. unless otherwise applications. Users are advised to verify the correctness of the facts published here from the concerned authorities. Neither National Informatios Centre nor Government of India and its alled establishments will not be responsible for the accuracy and correctness of the contents available in these applications. User Provided Information:

User Provided Information:

The Applications may obtain the information you provide when you download and register the Application. Registration is optional. However, please keep in mind that you may not be able to use some of the features offered by an Application unless you register.

When you register and use the Application, you generally provide (a) name.age, mobile number, blood group, gender and other registration information. (b) Provide screening test(POC or Solubility Test) details. (c) Confirmatory Test (HPLC/Electrophoresis) Details. (d) Aadhaar numbermay be required while creation of ABHA ID if ABHA ID does not exist (c) ABHA ID may be



4. Screens:

4.1 Login

12:42 🛈		
	Sign In Enter mobile number	Time: 2:16 min
		Enter OTP code send to your mobile no.
	Enter captoha	Proceed To Verify Description Description
In orde to ente then c Interne	er to Login into the Application, user has er her/his mobile no. and captcha and lick on ' <i>Proceed to verify</i> ' button. et is required to Sign In.	Next, user will be asked for OTP received on the registered mobile number. User will have to enter OTP and then click on <i>'Proceed to</i> <i>verify'</i> button. Internet is required to proceed.

4.2 MPIN

Next, user has to generate the MPIN which will be used to enter into the app next time onwards.

Now user will be redirected to Home Screen. Internet connection is not mandatory to set the MPIN.



4.3 Home

Internet connection is not mandatory to access Home.

This app contains following features:

- **Registration:** To record the screened person's details.
- **Test Reports:** To record the Screeningand Confirmatory test of beneficiary.
- View/Add Result: To check and edit the test details of the beneficiary.
- **Syncing:** To Sync offline (local database) data with the server's data.
- Media Gallery: To download the Videos, Links, PDFs etc.
- Note: Notifications are rendering direct from the server.
- Master Data: Master based Subtypes, Total Registrations done by Health Facility, State and District LGD data can be configurable by clicking the arrow on the top right corner of the Home Page.



4.3.1 Unsync Records



4.4 Registration

Relevance of registration through ABHA ID:

ABHA number is a 14 digit number that will uniquely identify you as a participant in India's digital health care ecosystem.

It is important to standardize the process of identification of an individual across health care providers, to ensure that the created medical records are issued to the right individual or accessed by a Health Information User through appropriate consent. The ABHA Number will be used for the purposes of uniquely identifying persons and authenticating them.

Thus, the registration records created in mobile app through ABHA will be able to link themselves with health records created in other integrated programmes.

Hence, the facility user is recommended to register the screened people through ABHA ID.

Registration of the screened person can be done through following ways:	
• Through ABHA ID	
• Proceed without ABHA	ABHA Registration Test Details
Other fields in Registration:	0
• Name	
• Gender	Upload Profile image
Marital Status	
Father/Husband Name	Name
Blood Group	
• DOB	Gender
Address	O Male O Female
Mobile Number	
Category	O Transgender
Registration Date	Date of Birth / Age
	O Date of Birth
• Save & Test	
	O Age
• Saves screened person's details.	Enter Mobile Number
• To record test details immediately	
following registration.	
	11 (S. 1963)
• Save	
• Saves screened person's details.	
 User needs to open 'Screening Test Details' to add test details later. 	
Note : Registration can be done online as well as offline. In offline mode user can fill details manually and register themselves without ABHA and AADHAR ID.	

4.4.1 With Aadhaar/VID (Create ABHA)

Have ABHA Number

- No
- \checkmark If not then you can:
 - Create ABHA through AADHAAR no. or VID.
 - Proceed without ABHA and entering the details manually
 - Internet Connection is mandatory.

Note: The screened person is required to carry AADHAARID for creation of ABHA ID.

To create ABHA ID, following options are available:

- Through Aadhaar ID
- Through Virtual ID



 To create the ABHA ID through Aadhaar ID/Virtual ID the user is recommended to use any of these options in the ordergiven below: Through OTP verification Through Finger Print Authentication: Can be used if the screened person's mobile number is not seeded with her/his Aadhaar ID. Through Face Authentication: In absence of Aadhaar seeded mobile number and STQC certifiedBiometric device, the user is advised to use this option. 	Create ABHA Registration Test Details Do you agree with the Terms and Conditions? Image: Ima
Mobile no. asked, willbe used to send the ABHA creation message.	14:17 Congratulations Agrawal. You have taken the first step towards your digital health journey! Here is your ABHA 53 Click here https://healthidsbx .ndhm.gov.in to login. ABDM, National Health Authority Image: Compare the preview 14:17 + SIM1

4.4.1.1 Using OTP

Through OTP Verification

• AADHAR OTP will be received on AADHAAR registered mobile no.

4.4.1.2 Using Fingerprint Bio Auth

• The RD Service of the Biometric device used needs to be installed from Play Store.

Note:

- 1. State NHM procure any STQC certified Biometric Device from market.
- 2. Each device provider should have RD Service available on Android Play Store.
- *3. Before placing the order, state NHM official may link the device with Sickle mobile app.*
- 4. Finger authentication not available in iOS due to unavailability of Finger Rd services on AppStore.

4.4.1.3 Using Face Bio Auth

Through Face Authentication:

• To access this feature the user needs to download AadhaarFaceRd from Play Store.

https://play.google.com/store/apps/details?id=in.gov.uidai.facerd

The user is requested to follow the instructions shown in RD service Application to capture her\his image successfully.

Note:

• USB debugging should be off while capturing the image.

• Face authentication not available in iOS due to unavailability of FaceAdharRd in respective of Rd services on AppStore, the option of Face Auth has not been provided in iOS at present.



Device Specifications:

Feature	New Procurement
Android API version	Android 9 (SDK 28) or greater
RAM	4+ GB
Disk Space	64 GB (Minimum 500MB free diskspace)
Display Size	8 inches or greater
Connectivity	Internet Connectivity required
Camera Resolution	5MP or greater
Camera Types	Integrated Rear and Front camera
Non-Rooted OS (Google Play Store Compatible)	Yes

4.4.1.4 Using Demo Auth

Through Domo Authorization	
 Through Demo Authentication: Screened person can create ABHA through Demo Auth for this screened person have to fill their details as follows: Name 	REGISTRATION
GenderDate of Birth	Gender O Male O Female
• State	O Transgender
• District	Date of Birth State Select
	Save and Next

4.4.2 With ABHA ID

Have ABHA Number **(**) ABHA Yes If have then enter ABHA Have ABHA Number? Numberusing the following Yes O No options similar to ABHA ID creation. Verify ABHA ID **Through OTP verification** • Enter ABHA Number **Through Finger Print** • Authentication: Can be Verify with used if the screened OTP person's mobile number is Face Auth not seeded with her/his Aadhaar ID. **Through Face** • Authentication:In absence of Aadhaar seeded mobile number and STQC certified Biometric device, the user is advised to use this option. Internet Connection is • mandatory. Note: The screened person is required to know ABHAID.



4.4.3 Offline/Manual Entry

To enter all registration details manually including the person's image (by clicking camera icon). The user can opt this by selecting *Not Create ABHA* option or if she/he is offline.



4.5.1 Screening Test List

- Displays the list of people registered and screening test details are not entered.
- Can be accessed offline.

• By sliding the record User is able to delete the record but First the record will sync with the server then it will be deleted.



4.5.2 Screening Test Details

Disease Type - Sickle Coll	Disease Type *
Disease Type. Sickle Cell	● SICKLE
1 Solubility Test	O THALASSEMIA
Date of Sample Collection	O OTHER VARIANTS
	Test Method *
• Date of Result	SOLUBILITY/SLIDE METHOD
	Date of Sample Collection *
• Solubility Test Result	(DD-MM-YYYY
2 Point of Care Test	Date of Result *
Vendor Name	(DD-MM-YYYY
	Test Result *
• Result	O NEGATIVE
	POSITIVE
Result Sub Type	Sent for HPLC/Electrophoresis
	Sent for HPLC/Electrophoresis
	Subout
Disease Type : Thalassemia	← TEST DETAILS
	Disease Type *
• Type of Test	○ SICKLE
	THALASSEMIA
• Date of Sample Collection	O OTHER VARIANTS
	Test Method *
• Date of Result	
• Kesuit	Date of Sample Collection *
Result Subtype	
Roban Subtype	Date of Result *
	Test Result *
	O NEGATIVE
Details can be saved offling	O POSITIVE
Details can be saved offinite.	
	Submit
Note: No Screening of beneficiary can be done after	
Confirmatory.	

4.6.1 Confirmatory Test List

- Displays the list of people whose solubility tests were found positive but the results of HPLC/Electrophoresis tests are not entered.
- Can be accessed offline.

Note:

- 1. Provision to enter confirmatory test details directly with or without completing screening test details.
- 2. POC to come under confirmatory test and not under Screening Test.



4.6.2 Confirmatory Test Details

TEST DETAILS Disease Type : Sickle Cell Disease Type 1. Solubility Test SICKLE O THALASSEMIA Date of Sample Collection • O OTHER VARIANTS Test Method Date of Result . POC O HPLC Solubility Test Result • O ELECTROPHORESIS 2. Point of Care Test Test Vendor * O HEMOTYPE SC Vendor Name O SICKLE SCAN O GAZELLE Result • Test Result * Result Sub Type • NEGATIVE O CARRIER Disease Type : Thalassemia O DISEASED Test Sub Result Type of Test • Date of Sample Collection TEST DETAILS • Disease Type O SICKLE Date of Result THALASSEMIA Result O OTHER VARIANTS • Test Method * **Result Subtype** • HPLC ELECTROPHORESIS Disease Type : Other Variants Date of Sample Collection * (DD-MM-YYYY Type of Test • Date of Result * DD-MM-YYYY Date of Sample Collection • Test Result * CARRIER Date of Result • O AFFECTED Result Test Sub Result * O Beta Thalassemia minor Result Subtype O Inter Media Details can be saved offline.

4.7 View/Add Result

- ABHA seeding provision is given for the records registered previously without ABHA.
- Repeated tests(screening and confirmatory) can be recorded for any registered person if required.

Note : Internet is required.

given for the without	← View/Add Result(online)
d ed for any	Search Criteria * Mobile No. Sickle Id ABHA No. ABHA Address
	Search Q 0 /10
	Search Registration Details



ABHA and Photo can be updated with beneficiary's 4 View/Add Result(online) profile in registration record through View/Add result. Photo can be updated through Click and Upload Click and Upload Image image or by seed ABHA option (recommended). **Registration Details** Sickle ID 442 ABHA can be seeded by clicking on seed ABHA ABHA ID option. ABHA Address Name heyy F Gender Date of Birth 15-09-2023 Father/Husband fjh vg Mobile No. 88899999999 15-09-2023 Date of Registration Seed ABHA ->> Disease Type * O SICKLE O THALASSEMIA O OTHER VARIANTS

4.8 Syncing

- To sync the offline registration and test details to server.
- Internet is required to sync the data.

Note:

• The users are requested not to uninstall the app in any case, if mandatory to uninstall then before uninstalling they must sync all local data with server to ensure that no data gets lost.



4.9 Media Gallery



4.10 PULL MASTER DATA

Options to download through "Pull Master data" and offline LGD data option has been provided in the Pull Master data option.	← DOWNLOAD MASTERS	
	Test details form fields	
	LGD Data	
	Count of Registrations synced by the user	
	Blood Group List	

5. Error Conditions

5.1 Syncing error

While Syncing the data user get this error to resolve this error user have to click on show button and then she/he will be able to edit the data.

Following are the reasons of this error:

- Mobile number already registered with 5 records.
- Duplicate Record entered.



5.2 Handshake Exception

While Login getting this error means your android version is lower than 7 and Sickle cell application not running on version lower than 7.



5.3 Developer Mode error

The application won't work when the developer option is ON.

5.4 Mobile number not exist



5.5 Invalid Token

When any Facility user login to another mobile and then try to use the app in old phone then she/he will get this error. Anyone can use this app in one mobile at a time.

5.6 Kindly Pull The LGD Masters.

The alert suggests that the user has not downloaded the LGD data i.e. state, district, blocks etc.. To fix this, the user may click ok and download the LGD data from master download option.



5.7 Registration details and Test Details already present.



5.8 Developer Mode and Emulators

When the developer mode option is enable on the User's mobile then she/he will get this alert. For the security purpose the user is not allowed to use the application in developer mode.



5.9 Test Details Blank Fields Error.

When user do not finds any field then she/he have to click on the down arrow of Home screen and pull the 'Test details form fields'.	TEST DETAILS	
	Sickle ID 7017	
	ABHA ID	
	ABHA Address	
	Name jvgvgvgic	
	Gender F	
	Date of Birth 10-01-2024	
	Father/Husband uytutduutct	
	Mobile No. 6885257125	
	Date of Registration 10-01-2024	
	Skip And Enter Confirmatory Details -> Submit	

5.10 Demo Auth Profile Photo no Exists.



5.11 Registration details already exists. Test details needs to enter.



5.12 ABHA Creation/Verification using fingerprint Bio Auth

If the user is getting the given alert, then user should disconnect the Biometric device, quit the app, followed by enabling the OTG connection if disabled and reconnecting the device and restarting the app. The user is also suggested to repeat the steps after restarting the mobile if the above steps don't resolve the issue.



At this point the user has to enable the OTG	\leftarrow System settings	
connection from your system's settings.	Scieenanor	*
	Screen recording	>
	Schedule power on/off	>:
	Power menu Hold for Assistant	>
	Search	>
	Get recommendations	>.
	Wake Google Assistant with Power button Hold down the Power button for 0.5 s to wake Google Assistant, or 3 s to enter the power off screen.	
	Process manager	>
	Back up and reset	>



5.13 ABHA Creation/Verification using Face Bio Auth

Please focus towards the camera	Image: Control of the con
Please improve lighting and hold still	Camera Motion or Poor Lighting







6. Help

- To raise an issue, the user is requested to visit <u>https://sickle.nhm.gov.in/sickle2.0/home</u> and clickon *Raise Ticket* Image on the footer.
- The user will land on iTMS web application, where the user can click on *Raise Ticket* option on top right corner.
- On clicking the *Raise Ticket*, The user can give the mobile number followed by OTP verification.
- Click on Action Radio Button and click Raise Ticket.
- Select *Mobile App* in *Module*, select Sub Module and Form, enter issue, attach supporting file and submit.



	INTEGRIED TOJET WAVGENENT SYSTEM				Home I Admit Login					
Sickle Cell Disease C	Sickle Cell Disease Control Programme Raise Ticket									
Mole Number 🖲										
8853172823										
UserList										
_	ler t		Dar Kere			be diffe	Gentler	Action		
	pallar (222) ĝigmali com		Palari SC							
	TidetList Travelage									
Real	_	Million .	lan.			Intelle	Michael	. This		
								_		
	Items per page: 5 0 or 0 IC C >>I									
				Tidat	Detail					
TicketType Eror () No	= Regirenert: O Charge Re	quest O Stormess O Functional O								
Module			Sd-Wodale				Fam			
Mobile-App			Registration			٣	create abha through 01P			
love					Renarks					