

ARISE Virtual Teaching

Management of Newborn Screening Data in Ghana

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Application of Mobile Digital Solution in Management of Newborn Screening Data in Ghana



Sickle Cell Foundation of Ghana

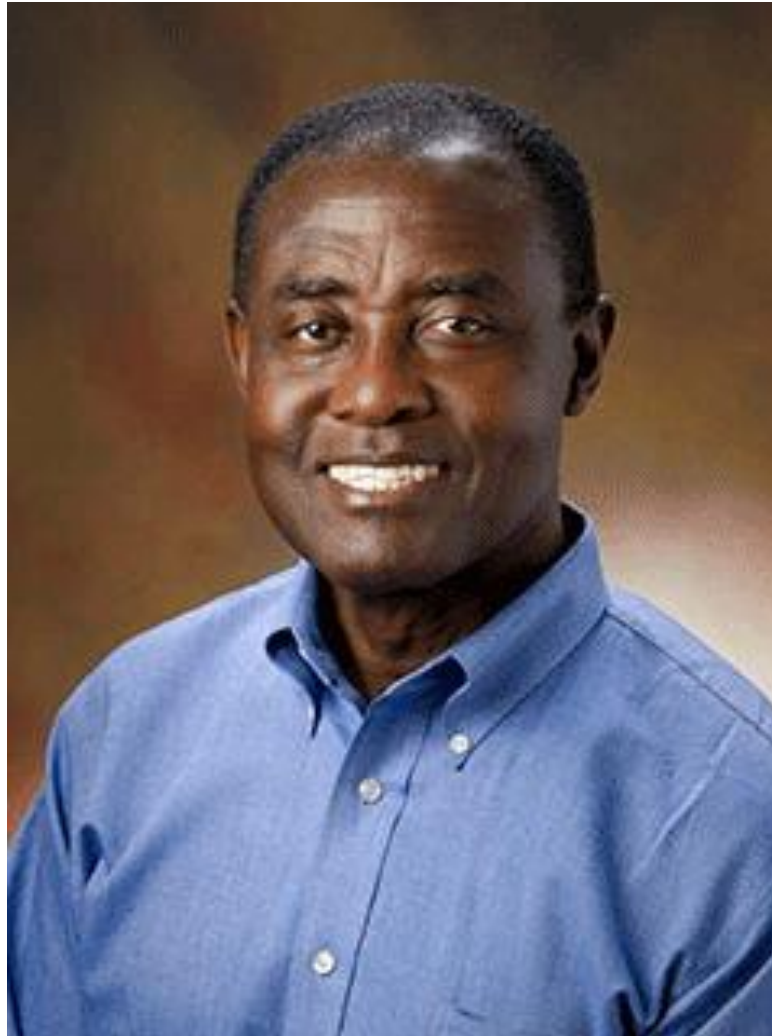


Outline

- ❖ Pre-Lecture Test
- ❖ The Ghana Newborn Screening App
- ❖ App Demonstration
- ❖ Class Discussions/Activity
- ❖ Conclusion
- ❖ Post-Lecture Test
- ❖ Q & A
- ❖ Feedback



Before I begin



Prof. Kwaku Ohene-Frempong, MD



Mobile App for NBS Data Management in Ghana



Management of Newborn Screening Data in Ghana

The Newborn Screening App

- Introduction
- Aim of the Mobile Application
- Method
- Results
- Conclusion



Management of Newborn Screening Data in Ghana

Introduction: A brief history of NBS Sample Forms in Ghana



Management of Newborn Screening Data in Ghana

NBS Sample Form #1

- Designed in Ghana
- Printed in USA
- Triplicate form
- Glued 5-circle filter paper
- Expensive > \$1/form



Management of Newborn Screening Data in Ghana

NBS Sample Form #2

PLEASE PRINT CLEARLY-PRESS FIRMLY
COMPLETE ALL INFORMATION
NEWBORN SCREENING SPECIMEN

NEWBORN SCREENING DATA ENTRY FORM		Sample # No. 07849
Baby's Information:		Parent's Information:
Date of Birth: 18-3-99 <small>Day Month Year</small>	Place of Birth: UST	Mother's Surname: ANSAH ASIAMAH Mother's First Name: OTAVIA Mother's other names: CATHERINE ANSAH ASSIMAH Mother's Home Address Line 1: HOME C I ASAWASTI Mother's Home Address Line 2: Mother's Occupation: HAIR DRESSER Mother's Workplace: ASAWASTI Church/Mosque Mother Attends: PENTECOST Area: ASAWASTI Mother's Landlord: COMFORT MILLS Mother's House Landmark:
Name of Baby: <small>Surname First Name</small>	Sex of Baby: Male YES Female NO Twin? NO	Father's Name: MR. DANIEL A. ASSAIMAH Father's Workplace Line 1: CARPENTER Father's Workplace Line 2: NEBA METHO. CHURCH Family Ethnic Group (Tribe) Father: ASHANTE Mother: FANTI Blood drawn by: E. GTAPA
Was baby Transfused? NO	Baby's First P/N Clinic, Where: UST	Blood collection site: UST Blood collection Date: 19-3-99 Blood collection time: 9:40 AM



Management of Newborn Screening Data in Ghana

NBS Sample Form #2

- Designed in Ghana
- Printed in Ghana
- Triplicate form
- Pressure-sensitive duplicates
- Stapled; no-circle filter paper
- Manually completed
- Inexpensive < \$0.50/form



Management of Newborn Screening Data in Ghana

NBS Sample Form #2: Challenges

- Manually assembled
- Triplicate sheets attached with staples
- Sample Number mismatch
- Hand-filled
- Errors not noted until data entry into database; often too late for correction



Management of Newborn Screening Data in Ghana

NBS Sample Form #4

Hand-glued Filter paper

Data Form

○○○○											
Sample #	1	2	3	4	5	6	7	8	9	10	BARCODE
Use ALL CAPITALS, one letter per box; one space between names and words											
Screening Site: Name						Screening Site: telephone number					
Screening Site: Town											
Screening Site: District						Screening Site: Region (X)					
Baby's Birthdate (mm-dd-yy)			Birthwt/kg		Sex		Twin?		Twin sex?		Trnsfs'd?
- -			. .		F M		Y N		F M		Y N
Baby's Place and Town of birth											
Mother's Surname											
Mother's First & Middle Names (Leave one space between names)											
Mother's other or previous Names (Leave one space between names)											
Mother's Mobile tel. number 1						Mother's Mobile tel. number 2					
Mother's Town of living						Mother's Area of Town					
Mother's House Number											
Mother's House Landmark											
Mother's Landlord's Full Name (Leave one space between names)											
Mother's Workplace (e.g. Suntreso Govt. Hosp. Ksi.)											
Mother's Occupation at workplace											
Mother's Place of worship (e.g. Suame Catholic, Ksi.)											
Father's Full Name (First Name and Surname)											
Father's Mobile tel. number 1						Father's Mobile tel. number 2					
Father's Workplace (e.g. Post Office, Adum, Ksi.)											
Father's Occupation at workplace											
Sample Collection Date (mm-dd-yy)						Sample Collection Time					
- -						: am pm					
Sample Collector's Full Name (First Name and Surname)											



Management of Newborn Screening Data in Ghana

NBS Sample Form #5 with Sample Card

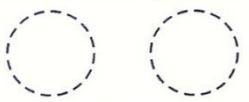
Continual Learning and improvement

Data Form, separated

Design changes out of necessity

National Newborn Screening Programme for Sickle Cell Disease

Paste Sample # Label here		(Bar Code)									
Use ALL CAPITALS, one letter per box; one space between names and words											
Screening Site: Name		Screening Site: telephone number									
Screening Site: Town											
Screening Site: District		Screening Site: Region (X)									
		AS	BA	CR	ER	GA	NR	UE	UW	VR	WR
Baby's Birthdate (mm-dd-yy)		Birthwt/kg		Sex		Twin?		Twin sex?		Trnsl's'?	
-		-		F M		Y N		F M		Y N	
Baby's Place and Town of birth											
Mother's Surname											
Mother's First & Middle Names (Leave one space between names)											
Mother's other or previous Names (Leave one space between names)											
Mother's Mobile tel. number 1		Mother's Mobile tel. number 2									
Mother's Town of living		Mother's Area of Town									
Mother's House Number											
Mother's House Landmark											
Mother's Landlord's Full Name (Leave one space between names)											
Mother's Workplace (e.g. Sunreso Govt. Hosp. Ksi.)											
Mother's Occupation at workplace											
Mother's Place of worship (e.g. Suame Catholic, Ksi.)											
Father's Full Name (First Name and Surname)											
Father's Mobile tel. number 1		Father's Mobile tel. number 2									
Father's Workplace (e.g. Post Office, Adum, Ksi.)											
Father's Occupation at workplace											
Sample Collection Date (mm-dd-yy)		Sample Collection Time									
-		:		am		pm					
Sample Collector's Full Name (First Name and Surname)											

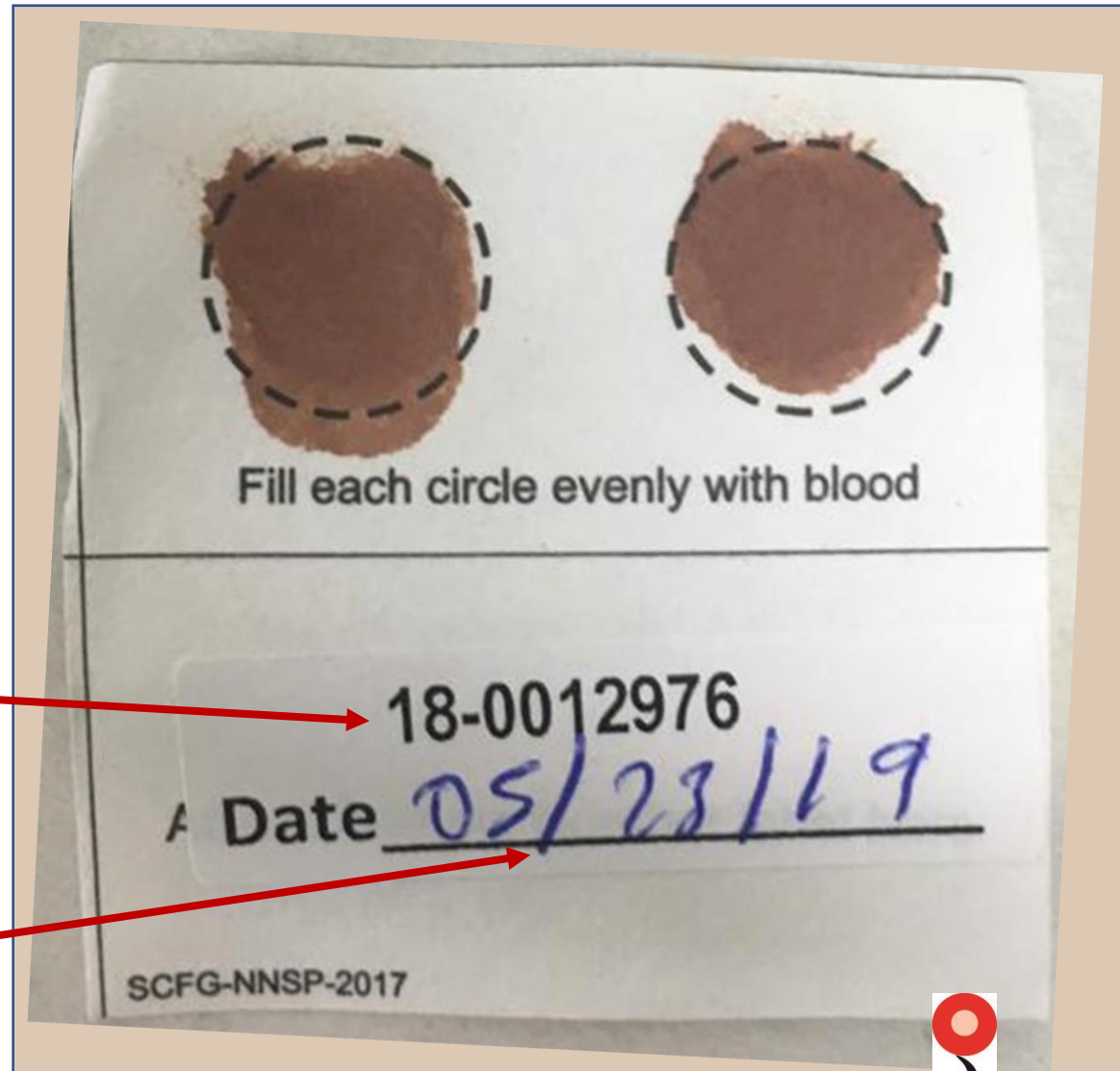

Fill each circle evenly with blood
Attach Sample Number label here
SCFG NNSP 2017

Filter-paper Sample Card



Management of Newborn Screening Data in Ghana

Blood-filled Sample Card



Unique Sample Number

Date Sample Taken



Management of Newborn Screening Data in Ghana

Peeling Sample Number label for Sample Card



Management of Newborn Screening Data in Ghana

Newborn Screening Database

The screenshot shows a web application interface for the National Newborn Screening Database. The browser title is "ALL Screening Combined 1995-2016". The interface includes a navigation bar with a "Records" section showing "1" record and "270109 Total (Unsorted)". There are buttons for "New Record", "Find", "Sort", and "Share". Below the navigation bar, there is a "Layout" dropdown set to "Opening Page" and a "View As" section with icons for list, table, and grid views, along with a "Preview" button. The main content area has a dark blue background and features the title "National Newborn Screening Programme for Sickle Cell Disease". It displays the logos of the "Ministry of Health" and the "Sickle Cell Foundation of Ghana". Below the logos, the text "Ghana National Newborn Screening Database" is centered. At the bottom of the main content area, there are two prominent buttons: "Start New Record" and "Go to Navigation Page".

National Newborn Screening Program -SCD Database:



Management of Newborn Screening Data in Ghana

Newborn Screening Database

Ghana National Newborn Screening Database Navigation Page		Ghana National Newborn Screening Database Screening Entry	
<p>To "Find" one or more records, enter "Find" mode >> <input type="button" value="Enter Find mode"/></p> <p>Choose "Find" criterion, click in adjacent search field of choice, type in or select whom/what you want to find and press "Return/Enter". You may make requests from more than one field on a single "Find".</p>		<p>Creation date <input type="text" value="Apr 29, 2017"/> Modification date <input type="text" value="Apr 30, 2017"/></p>	
<p>Find criteria</p> <p>Find Baby by Sample Number</p> <p>Find Baby by Baby Surname</p> <p>Find Baby by First Names</p> <p>Find Baby by Mother's Surname</p> <p>Find Baby by Mother's First Name</p> <p>Find Baby by Birthdate</p> <p>Find Baby by Screening IEF Results</p> <p>Find Baby by IEF interpretation</p> <p>Find Baby by Sample collection site</p> <p>Find Baby by Sample shipment date</p>		<p>Shipment Date <input type="text" value="4-29-2016"/></p> <p>Baby Sample Number <input type="text" value="K17-1234567"/> <input type="button" value="Retype"/> <input type="text" value="K17-1234567"/></p> <p>Screening Site Name <input type="text" value="Tryp Berlin Mitte"/></p> <p>Screening Site telephone number <input type="text" value="012-345-6789"/></p> <p>Screening Site Town <input type="text" value="Berlin"/></p> <p>Screening Site District <input type="text" value="Berlin1-"/></p> <p>Screening Site Region <input type="text" value="Berlin-2"/></p> <p>Baby birthdate <input type="text" value="Apr 28, 2016"/> <input type="button" value="Retype"/> <input type="text" value="Apr 28, 2016"/></p> <p>Baby birthweight kg <input type="text" value="3.5"/></p> <p>Baby Sex <input type="text" value="M"/></p> <p>Baby is a twin? <input type="text" value="Yes"/></p> <p>Baby twin's sex <input type="text" value="F"/></p> <p>Baby transfused? <input type="text" value="No"/></p> <p>Baby place and town of birth? <input type="text" value="KATH, Kumasi"/></p> <p>Mother Surname <input type="text" value="Boafto"/></p> <p>Mother First and Middle Names <input type="text" value="Ernestina Odi"/></p> <p>Mother other or previous names <input type="text" value="Adwobi"/></p> <p>Mother mobile telephone 1 <input type="text" value="054-123-4567"/></p> <p>Mother mobile telephone 2 <input type="text" value="023-123-4567"/></p> <p>Mother town of living <input type="text" value="Kukurantumi"/></p> <p>Mother area of town <input type="text" value="Asen"/></p> <p>Mother House No. <input type="text" value="A23/45"/></p> <p>Mother house landmark <input type="text" value="White mosque"/></p> <p>Mother landlord full name <input type="text" value="Agya Kwadwo"/></p> <p>Mother workplace <input type="text" value="Kejetia market"/></p> <p>Mother occupation at workplace <input type="text" value="Fruit seller"/></p> <p>Mother place of worship <input type="text" value="Kukurantumi Presvyterian Church"/></p> <p>Father Full Name (First Name and Surname) <input type="text" value="Kwasi Addai Ohene"/></p> <p>Father mobile telephone 1 <input type="text" value="050-123-4567"/></p> <p>Father mobile telephone 2 <input type="text" value="026-123-4567"/></p> <p>Father workplace <input type="text" value="KNUST"/></p> <p>Father occupation at workplace <input type="text" value="Driver"/></p> <p>Baby Screening sample 1 collection date <input type="text" value="Apr 28, 2016"/></p> <p>Baby Screening sample 1 collection time <input type="text" value="11:30 am"/></p> <p>Sample collector Full Name (First and Last Names) <input type="text" value="Afa Owusua"/></p>	
<p>Search fields</p> <p><input type="text" value="K06-035256N"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text" value="Darko"/></p> <p><input type="text" value="Rose"/></p> <p><input type="text" value="Mon, Jan 1, 2007"/></p> <p><input type="text" value="FA"/></p> <p><input type="text" value="No abnormal Hb"/></p> <p><input type="text" value="KATH"/></p> <p><input type="text" value="01/03/2007"/></p>			
<p>To view other layouts:</p> <p><input type="button" value="Go to Screening Entry"/></p> <p><input type="button" value="Go to Test Entry"/></p> <p><input type="button" value="Go to Tracking & Follow-up Results Entry"/></p> <p><input type="button" value="Go to Sickle Cell Centre Results Entry"/></p> <p><input type="button" value="Go to SCD Centre Enrollment Entry"/></p>		<p><input type="button" value="Go to Tracking & Follow-up Form"/></p> <p><input type="button" value="Go to Sample Shipment List"/></p> <p><input type="button" value="Go to Screening Results List"/></p> <p><input type="button" value="Go to SCD Center Enrollment Form"/></p> <p><input type="button" value="Go to Opening Page"/></p>	
<p><input type="button" value="Go to Opening Page"/></p> <p><input type="button" value="Go to Navigation Page"/></p>			

National Newborn Screening Program -SCD Database:



Management of Newborn Screening Data in Ghana

Newborn Screening Database

Ghana National Newborn Screening Database Test Results Entry	
Sample Number	K17-1234567 Retype K17-1234567
Baby birthdate	Apr 28, 2016 Retype Apr 28, 2016
Baby First and Middle Names	
Baby Surname	
Baby place and town of birth	KATH, Kumasi
Baby Screening sample 1 collection date	Apr 28, 2016 Age at test, wk.
Baby screening IEF 1 results	FS Re-enter FS
Baby IEF 1 Hb phenotype	FS
Baby Screening IEF 1 interpretation	Possible SCD
Baby Screening sample 2 collection date	Apr 27, 2017 Age at test, wk. 52.00
Baby screening IEF 2 results	SFA2 Re-enter SFA2
Baby IEF 2 Hb phenotype	SFA2
Baby Screening IEF 2 interpretation	
Baby Confirmatory sample 1 collection date	Age at test, wk.
Confirmatory IEF 1 results date	
Baby confirmatory IEF 1 results	FS
Baby Confirmatory sample 2 collection date	Age at test, wk.
Baby Confirmatory IEF 2 results date	
Baby confirmatory IEF 2 results	SFA2
Baby HPLC sample collection date	Age at test, wk.
Baby HPLC results date	
Baby HPLC results	
Baby HPLC Hb phenotype	
Baby Hb Genotype Final Interpretation	
Father Full Name (First Name and Surname)	Kwasi Addai Ohene
Father IEF date	
Father IEF results	
Father Hb phenotype	
Mother First Name	
Mother Surname	Boafo
Mother IEF date	
Mother IEF results	
Mother Hb phenotype	

Ghana National Newborn Screening Database Tracking & Follow-up Entry Form	
BABY'S INFORMATION:	
Baby's Sample Number	K17-1234567 Baby birthdate April 28, 2016
Baby Surname	Baby First and Middle Names
Baby place and town of birth	KATH, Kumasi Baby Sex M
Is Baby a twin?	F Has Baby Been Transfused? No
Baby's 1st Postnatal Clinic site	
PARENTS' INFORMATION:	
Mother's Full Name	Ernestina Odi Boafo Other Names Adwobi
Mother's House No.	A23/45 Mother's area of town Asen
Mother's occupation	Fruit seller Mother's workplace Kejetia market
Mother's mobile tel. 1	054-123-4567 Mother's mobile telephone 2 023-123-4567
Mother's place of worship	Kukurantumi Presbyterian Church Mother's landlord full name Agya Kwadwo
Mother's house landmark	White mosque
Mother's tribe	
Father's Full Name	Kwasi Addai Ohene Father's tribe
Father's mobile tel. 1	050-123-4567 Father's mobile tel. 2 026-123-4567
Father's workplace	KNUST Father's occupation Driver
BLOOD TESTING INFORMATION AND RESULTS:	
Sample collection site	Tryp Berlin Mitte Noguchi sample receipt date
Sample collector's name	Alia Owusua Initials Baby screening IEF 1 results date
Baby Screening sample 1 collection date	Apr 28, 2016 Baby screening IEF 1 results FS
Baby Screening sample 1 collection time	11:30 am Baby's Screening Results Possible SCD
Baby Screening sample 1 shipment date	Apr 29, 2016
Name of person conducting tracking or follow-up:	
Was mother reached by phone? Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Was father reached by phone? Yes: <input type="checkbox"/> No: <input type="checkbox"/>
1st 4 week expected visit date	Completed with 1st 4 wk visit Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Home visit date	Home visit successful (baby found)? Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Mother's workplace visit date	Mother's workplace visit successful? Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Mother's place of worship visit date	Mother's worship place visit successful? Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Father's workplace visit date	Father's workplace visit successful? Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Date baby was found	Tracking successful (baby found)? Yes: <input type="checkbox"/> No: <input type="checkbox"/>
1st clinic scheduled date	Followup results: Baby referred to clinic? Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Did baby come to 1st clinic visit? Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Reasons for Tracking/follow up failure:
1st SCD Clinic attended date	Family unknown at targeted house (baby not found) <input type="checkbox"/>
STATUS OF BABY AT END OF SCREENING /TRACKING	
<input type="checkbox"/> Enrolled in clinic	<input type="checkbox"/> Still under follow-up
<input type="checkbox"/> Contacted but not enrolled	<input type="checkbox"/> Never found
<input type="checkbox"/> Lost to follow-up	<input type="checkbox"/> Expired before enrolled
<input type="checkbox"/> Expired after enrolled	Wrong house information (baby not found) <input type="checkbox"/>
	Family moved or travelled (baby not found) <input type="checkbox"/>
	Father's workplace wrong (father not found) <input type="checkbox"/>
	Mother's workplace wrong (mother not found) <input type="checkbox"/>
	Mother's workshop place wrong (mother not found) <input type="checkbox"/>

National Newborn Screening Program -SCD Database:

Management of Newborn Screening Data in Ghana



Collecting data on
mobile phone App

CommCare for Newborn Screening



Sickle Cell Foundation
of Ghana



Made possible by



Aim of the Mobile Application



Management of Newborn Screening Data in Ghana

Aim of the Mobile Application

- Decrease time/effort spent on tracking patients
- Decrease clinic enrollment timeline, i.e. the time it takes from discovering a Presumptive Sickle Cell Disease (PSCD) patient to enrolling them in the clinic
- Decrease time/effort of non PSCD results distribution to Screening Sites
- Improve re-screening rates at Screening Sites



Steps in the Ghana Newborn Screening App Development



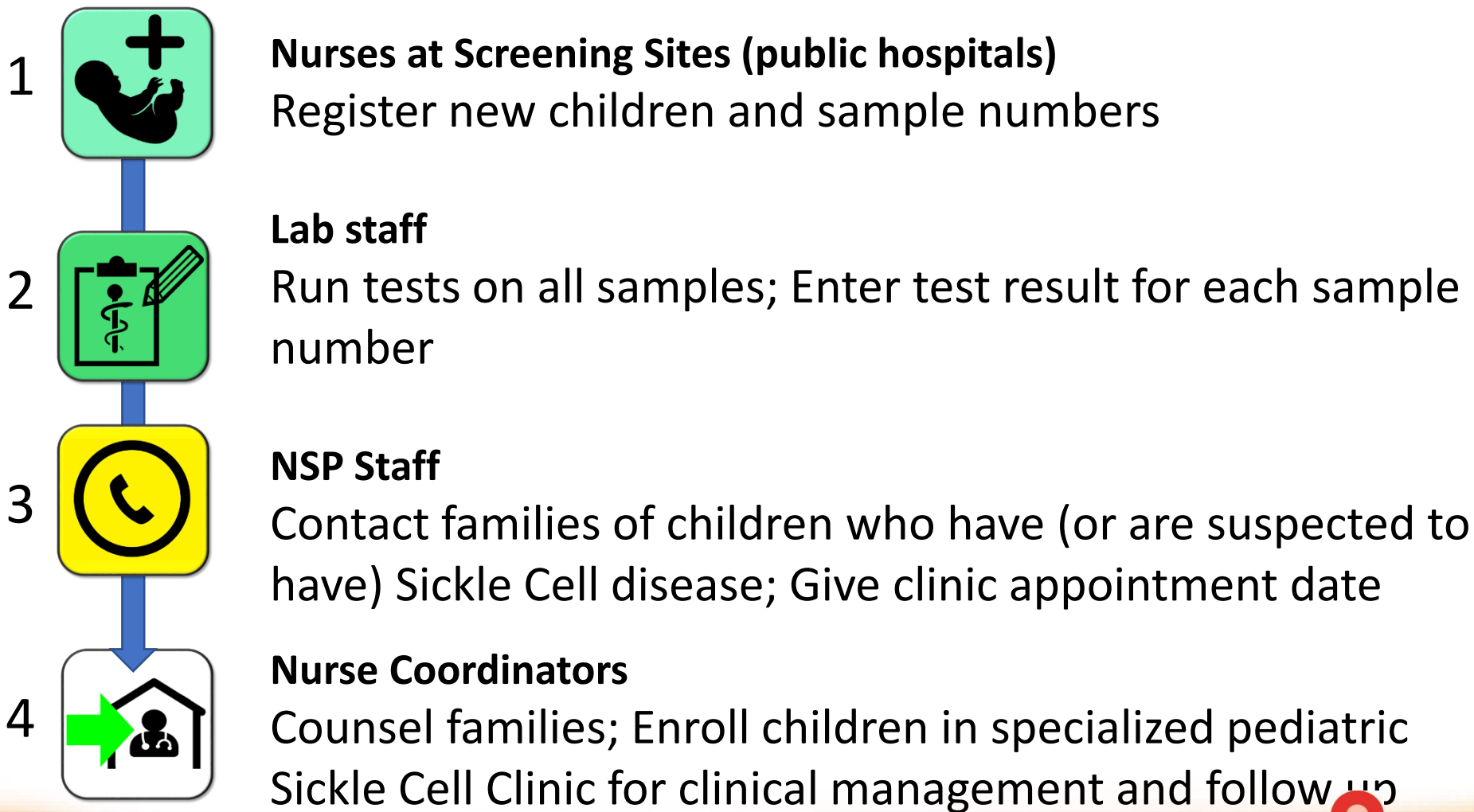
Management of Newborn Screening Data in Ghana

Ghana Newborn Screening App: Steps in the Development

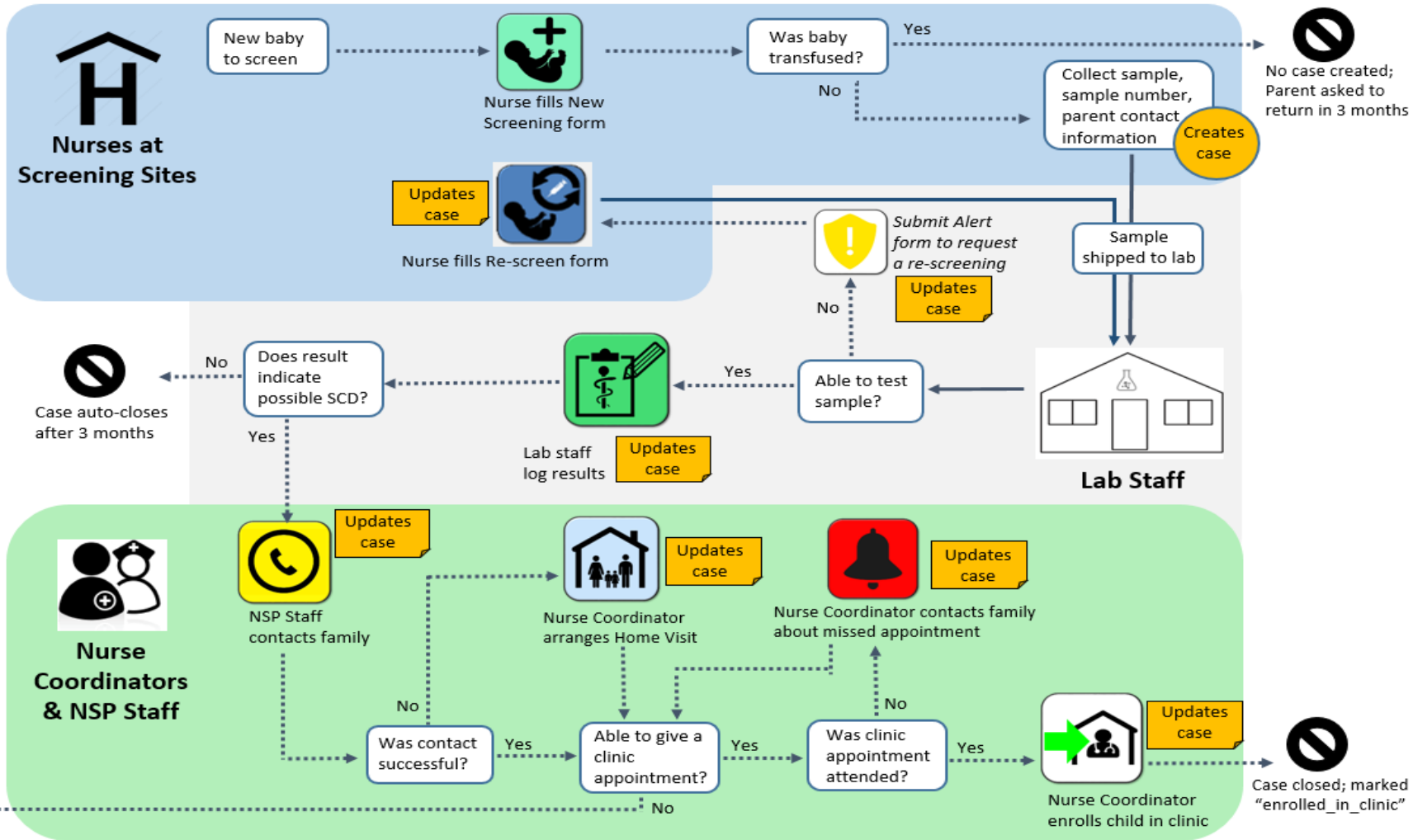
- Scoping Visit to have an overview of the workflow of the program May, 2017
- Prototype Development June-July, 2017
- Field Testing in August, 2017
- Final Application Development after feedback from field testing September-October, 2017
- Final Application Launch in November, 2017



Workflow / Role of each of the 4 user types



Full Workflow Diagram



Management of Newborn Screening Data in Ghana

Ghana Newborn Screening App: Key Features

- Android-based mobile devices; also, web-based access
- Data entered in field, stored on mobile devices until synched to servers
- Synched data become available to lab and central management
- Results entered in laboratory and synched become available at screening sites for follow up
- Weekly data summary provided to management



Management of Newborn Screening Data in Ghana



Results



Management of Newborn Screening Data in Ghana

- After the App was developed, it has been used to successfully manage the information of over **17,800** babies.
- With **13,535** lab results assigned
- **228** Presumptive-SCD (**1.68%**)
- **99** enrollment (**All Enrollment Done through calls**)
- **30** contacted but not enrolled
- **2** Deaths



Management of Newborn Screening Data in Ghana



Management of Newborn Screening Data in Ghana



Management of Newborn Screening Data in Ghana

Web Users



Web Users

SCFG program staff received dedicated, in-person training from Dimagi in November 2017 on relevant sections of CommCareHQ in addition to independently completing

- ✓ CommCare Fundamentals
- ✓ CommCare Application Building for Public Health Students
- ✓ CommCare for Universities

All courses offered by Dimagi Academy



Web Users

Responsibilities include but not limited to:

- ✓ Add and deactivate mobile users as required
- ✓ Add and deactivate web users as required
- ✓ Make changes to the app as desired
- ✓ Set up, modify, and run data exports as needed
- ✓ Access standard reports via the web or by e-mail on mobile user activity, including number, type, and time of form submissions and follow-up rates on patients.
- ✓ Follow-up with low performing mobile users.



Management of Newborn Screening Data in Ghana

Web-Based interface of the Ghana Newborn Screening App

The screenshot shows a web browser window with the URL `commcarehq.org`. The page title is "Welcome Back to CommCare HQ". The interface is organized into a grid of eight main sections:

- Applications:** Contains a list with "Newborn Screening Ghana" and "Village Health", accompanied by a mobile phone icon.
- Reports:** Contains a list with "Augustine Asubonteng", "Monthly Reports", "Pilot Report", and "PSCD for 6 Screening Sites", accompanied by a line graph icon.
- Data:** Contains a list with "Alerts", "baby (created 2018-12-21)", "Baby export - all case properties", "Baby export - for import", and "Baby IEF", accompanied by a bar chart icon.
- Users:** Contains a large blue icon of a person's head and shoulders.
- Messaging:** Contains a large blue icon of a speech bubble.
- Exchange:** Contains a large blue icon of two arrows forming a square loop.
- Settings:** Contains a large blue icon of a gear.
- Help Site:** Contains a large blue icon of a question mark inside a circle.

Thanks for using CommCare HQ! If you have questions, suggestions, or other thoughts, we invite you to join the discussion on the [CommCare User Forums](#).



Reporting on CommcareHQ

Worker Activity

User	Form Data			Case Data		Case Activity		
	↕ # Forms Submitted	↕ Avg # Forms Submitted	↕ Last Form Submission	↕ # Cases Created	↕ # Cases Closed	↕ # Active Cases	↕ # Total Cases (Owned & Shared)	↕ % Active Cases
arise_lab "Arise Lab"	1	0	2020-07-22	0	0	0	0	---
arise_nurse "Arise Nurse"	0	0	None	0	0	0	0	---
arise_tracking "Arise Tracking"	0	0	None	0	0	0	0	---
Total	1	---	1/3	---	---	---	---	---



Reporting on CommcareHQ

Reports

My Saved Reports

Scheduled Reports

[+ Create a New Scheduled Report](#)

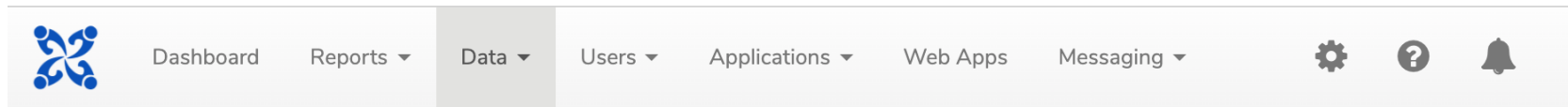
My Scheduled Reports

Other Scheduled Reports

Owner	Reports	Day and Time	Recipients	Actions
asubontenga@sicklecellghana.org	Augustine Asubonteng (Daily Form Activity)	Monday at 7:00	asubontenga@sicklecellghana.org, addoe@sicklecellghana.org, amoahe@sicklecellghana.org, ohene@sicklecellghana.org, mealgh2009@yahoo.com	Edit View Send Now Delete
asubontenga@sicklecellghana.org	Korle-Bu Teaching Report (Daily Form Activity)	Monday at 7:00	csegbefia@gmail.com, irenekanyoke@yahoo.com	Edit View Send Now Delete



Reporting on CommcareHQ



Data > **Export Case Data** > Download Case Data Export

EXPORT DATA

- Export Form Data
- Export Case Data
- Download Case Data Export**
- Export SMS Messages
- Find Data by ID
- Daily Saved Exports
- Excel Dashboard Integration

EDIT DATA

- Reassign Cases
- Import Cases from Excel
- Manage Forms
- Automatically Close Cases

You are downloading the following exports:

- Baby export - all case properties

Case Owner(s)

Date Range*

Export cases modified in this date range

[See Filter Definitions.](#)

Advanced Search: Put your location name in quotes to show only exact matches. To more easily find a location, you may specify multiple levels by separating with a "/". For example, "Massachusetts/Suffolk/Boston"

[Prepare Export](#)



Management of Newborn Screening Data in Ghana



English

Courses

Augustineasuo

My Courses

Search Your Courses



CommCare Fundamentals

CC101
Started - anytime, self-paced



Resume Course



CommCare Calculations

AB300
Started - Aug 1, 2019



View Course



CommCare Application Building for Public Health Students

AB283
Ended - Apr 8, 2019



View Archived Course



Management of Newborn Screening Data in Ghana

A Demonstration of the Ghana Newborn Screening Mobile Application



Participants Activity

Groupings to brainstorm

- G1. Login as screening Nurses register a baby
- G2. Login as a Lab Technician and enter Lab results.
- G3. Log in as a tracking nurse to track and enroll a Baby



Participants Activity

- How to Download Commcare and Install the Ghana NBS App
 1. Search Commcare at Play store
 2. Download and install Commcare
 3. Click enter code
 4. Enter code: **2WMIYBBc**
 5. Finally click on install



Participants Activity

➤ You can Login as

A. As a screening Nurse

Username: **arise_nurse**

Password: **123**

B. As a Lab Technician

Username: **arise_lab**

Password: **123**

C. As a Nurse Coordinator/Tracking nurse

Username: **arise_tracking**

Password: **123**



Participants Activity

Groupings to brainstorm

- G1. Make a list of Screening data to be collected in Nigeria
- G2. Data not captured by the Ghana App but may be important in the Nigerian context.
- G3. Discuss why the Ghana App can help track PSCD in Nigeria



Conclusion



Management of Newborn Screening Data in Ghana

Conclusion

The Ghana Newborn Screening Application has successfully been deployed and it's fully functioning for:

- Registration of sample and family contact information
- Data analysis
- Transmission of lab results
- Supervision of health workers and program staff
- Overall efficiency in time, cost and efforts.



Post Lecture Test

Final Exam



Management of Newborn Screening Data in Ghana



ARISE Virtual Teaching

We want
your feedback!



Management of Newborn Screening Data in Ghana

Thank
You





ARISE

African Research And Innovative
Initiative For Sickle Cell Education

This presentation reflects only the author(s)'s view and the EU Research Executive Agency (REA) is not responsible for any use that may be made of the information it contains.

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