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INNOVATIONS IN MONITORING VITAMIN A SUPPLEMENTATION PROGRAMS

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Use of Mobile Data collection for VAS Programming



The use of mobile phones improves the ability to collect, review and interpret data from surveys and to provide timely feedback to inform campaign strategies and routine distribution.

- Using mobile phones:
 - Collect survey data after VAS distribution events
 - Collect and review supportive supervision and routine monitoring data
 - Report tally sheet data
- Mobile technology is not a stand alone programme, it complements and enhances strong monitoring systems to provide timely data and encourage the use of data to inform programme strategy

Use of Mobile Data collection for surveys and routine monitoring



How it Works

1



Design

Author surveys quickly and easily in Excel and have instant access on your Android phone. No advanced technical degree required.

2



Collect

Easily distribute your survey on an Android device or on the web. Data connection not needed.

3



Analyze

Visualize your data as it is collected, and gain understanding with our powerful insights tools.

CREATING SURVEY FORMS

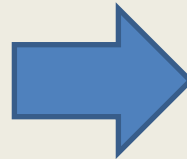


SURVEYS ARE AUTHORED IN EXCEL...

...AND UPDATED TO SERVER AND PHONES

The screenshot shows an Excel spreadsheet with the following data:

	C	D	E
	A-6.2 What is the basic condition of the water source/scheme's physical infrastructure?	Select one	
39			
40	A-6.3.1 What kind of water scheme/s	Select one	
41	A-6.3.1.1 Please specify		\$(water_source_type)=
	A-6.3.2 Is this source connected to a piped water system?	Select one	
42			
	A-6.4 Does this water point include any kind of lift mechanism (such as human, animal or motor pump, pulley, etc.) Please select ONLY one.	Select one	
43			
	A-6.4.1 What is the lift mechanism at this water scheme/source?	Select one	\$(water_lift_mechanism
44			
	A-6.4.2 If the water source has a motor pump of any kind, can the power or capacity rating can be read from the metal "nameplate" attached to the pump?)	Select one	\$(water_lift_mechanism
45			
	A-6.4.2.1 Please record this value (both the number and units). What is the number?	Enter a whole number. Do not leave blank.	\$(water_mechanism_p
46			
	A-6.4.2.2 Please record this value (both the number and units). What are the units?	Select one	\$(water_mechanism_p
47			



The screenshot shows the Formhub web interface with the following components:

- Header:** formhub logo, navigation links (Forms, People, About, Syntax, Support, Blog), and user profile (north_ghana | North Ghana).
- Section: Publish a Form**
 - Upload XLSForm
 - For a quick introduction on how to publish a form check out the tutorial, and try publishing tutorial.xls
 - Learn about the XLSForm syntax here, email formhub users mailing list if you have questions, and checkout examples at Formhub University.
 - Upload URL:
 - XLS File: No file chosen
 -
- Section: Published Forms** Export, map, and view submissions.
 - Show inactive: Search:

Name	Submissions	Last Submission	Data	View
...01_Settlements_train3	29	April 22, 2012	csv xls xml	<input type="button" value="View"/> <input type="button" value="Download"/>
...02_Govt_NGO_Coop_Office_train3	31	April 22, 2012	csv xls xml	<input type="button" value="View"/> <input type="button" value="Download"/>
...03_Market_Trading_Center_train3	6	April 21, 2012	csv xls xml	<input type="button" value="View"/> <input type="button" value="Download"/>
...04_Mobile_phone_tower_train3	7	April 21, 2012	csv xls xml	<input type="button" value="View"/> <input type="button" value="Download"/>
...05_Commty_Reig_Center_train3	62	April 22, 2012	csv xls xml	<input type="button" value="View"/> <input type="button" value="Download"/>
...06_Food_Storage_Process_train3	4	April 22, 2012	csv xls xml	<input type="button" value="View"/> <input type="button" value="Download"/>
...07A_Transport_infrastructure_train3	267	Feb. 29, 2012	csv xls xml	<input type="button" value="View"/> <input type="button" value="Download"/>
...07B_Transport_center_train3	1	April 22, 2012	csv xls xml	<input type="button" value="View"/> <input type="button" value="Download"/>
...08_Water_points_train3	255	April 22, 2012	csv xls xml	<input type="button" value="View"/> <input type="button" value="Download"/> PUBLIC
...09_Schools_train3	31	April 21, 2012	csv xls xml	<input type="button" value="View"/> <input type="button" value="Download"/>

DATA CAN BE COLLECTED VIA WEBFORM OR MOBILE



Schools

A-0.10 Location / Village Name

School Information

Section 1: Location and

A-1.1.1 Geocode

latitude (x.y °)

longitude (x.y °)



ADVANTAGES OF MOBILE DATA COLLECTION FOR SURVEYS



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- Quick turn around time from data collection to interpretation
 - No double data entry

ADVANTAGES OF MOBILE DATA COLLECTION FOR SURVEYS



- Quick turn around time from data collection to interpretation
 - No double data entry
- Improved data quality as surveys can be designed with constraint checks and skip logic

IMPROVED DATA QUALITY AS SURVEYS CAN BE DESIGNED WITH CONSTRAINT CHECKS AND SKIP LOGIC

Schools

A-0.10 Location / Village Name

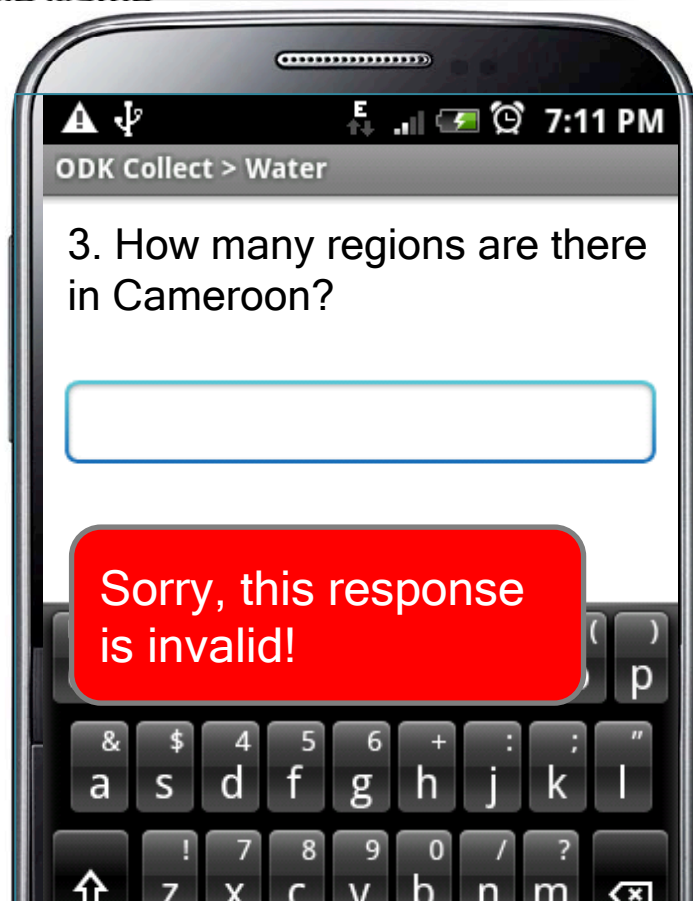
School Inform

Section 1: Locati

A-1.1.1 Geocode

latitude (x.y °)

longitude (x.y °)



SUPERVISORS CAN VIEW AND MODIFY COLLECTED DATA



Published Forms Export, map, and view submissions.

Show inactive: Search:

Name	Submissions	Enter Data	View	Download	Last Submission	
Agent Communautaire PEC MTN Mars 2014 <small>CREATED: March 22, 2014</small>	16	Web		csv xls kml	March 28, 2014	
Agent de Santé PEC MTN mars 2014 <small>CREATED: March 22, 2014</small>	10	Web		csv xls kml	March 28, 2014	
Agents_communautaires_15-11-13 <small>CREATED: Nov. 15, 2013</small>	31	Web		csv xls	Nov. 23, 2013	
Meres_gardiennes_15-11-13 <small>CREATED: Nov. 15, 2013</small>	1,014	Web		csv xls kml	Nov. 23, 2013	
PECS MDA Juin 2014 Agent Communautaire <small>CREATED: May 31, 2014</small>	0	Web				
PECS MDA Juin 2014 Agent de santé <small>CREATED: May 31, 2014</small>	0	Web				
PECS MDA Juin 2014 Ménage <small>CREATED: May 31, 2014</small>	0	Web				
Personnel_de_sante_15-11-13 <small>CREATED: Nov. 15, 2013</small>	34	Web		csv xls kml	Nov. 23, 2013	

ADVANTAGES OF MOBILE DATA COLLECTION FOR SURVEYS



- Quick turn around time from data collection to interpretation
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- Improved data quality as surveys can be designed with constraint checks and skip logic
- Improved accountability by integrating GPS and time stamps into data collection

IMPROVED ACCOUNTABILITY BY INTEGRATING GPS AND TIME STAMPS INTO DATA COLLECTION



← → ↻ https://www.formhub.org/wkcdd/forms/poultry_project_registration/map 🔍 ☆ ☰

formhub wkcdd / Poultry Project Registration 14/15 submissions Refresh Map Data

Data View By

Br...


Soy

Eldoret

Musoriot

Kapsabet

Leaflet



fields

Question	Response
start	2013-08-15T13:38:33.192+03
end	2013-08-21T09:52:41.988+03
County	busia

Map labels: Nagongera, Tuba, Busia, Bomala, Busonga, Chavakali, Kapsabet, Eldoret, Musoriot, Soy.

ADVANTAGES OF MOBILE DATA COLLECTION FOR SURVEYS



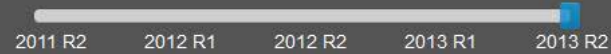
- Quick turn around time from data collection to interpretation
 - No double data entry
- Improved data quality as surveys can be designed with constraint checks and skip logic
- Improved accountability by integrating GPS and time stamps into data collection
- Improves ability to interpret data by adding geo-spatial level analysis

GEO-SPATIAL ANALYSIS OF COLLECTED SURVEY DATA



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HKI VITAMIN A SUPPLEMENTATION (VAS) COVERAGE



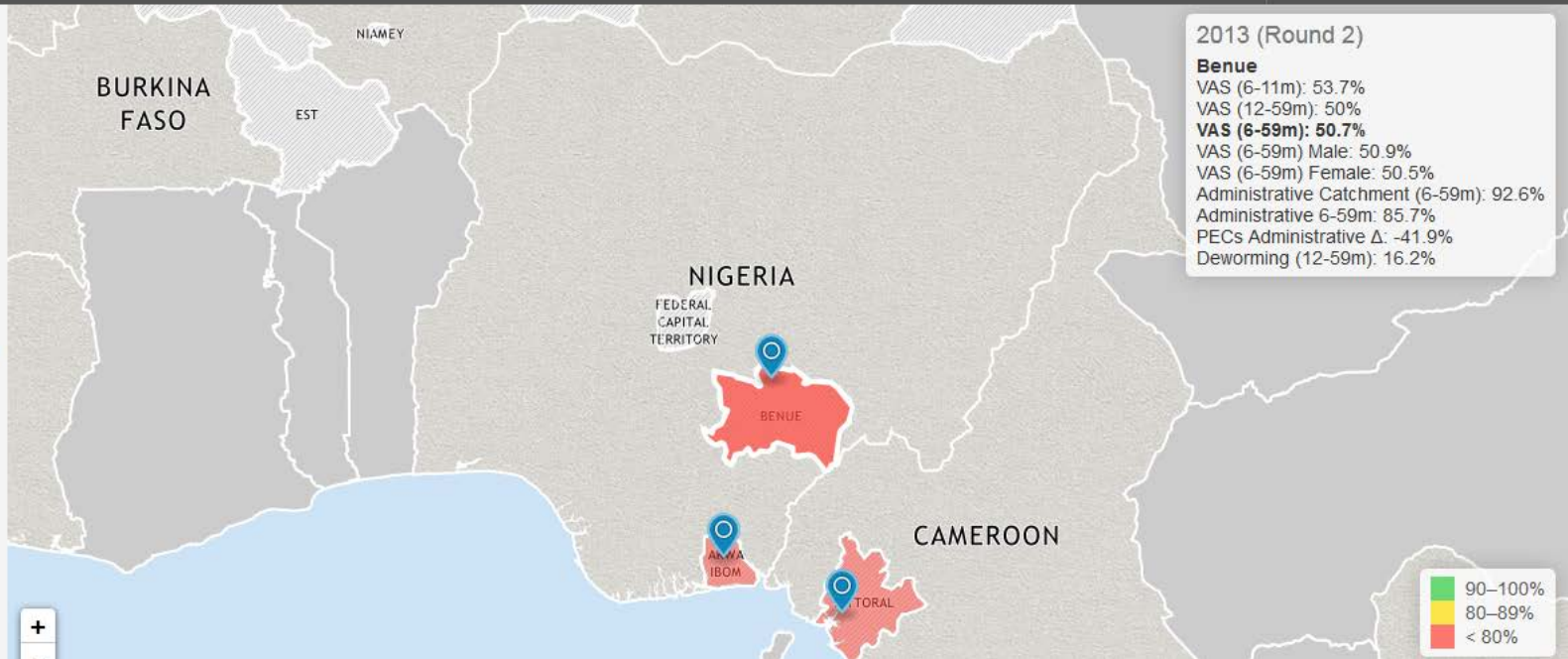
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PECS Data

- ▶ **6-59m**
- 6-11m
- 12-59m
- 6-59m Female
- 6-59m Male
- Deworming 12-59m

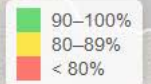
Administrative Data

- National 6-59m
- HKI PECs Region 6-59m
- Difference Between PECs & Admin Data



2013 (Round 2)

Benue
 VAS (6-11m): 53.7%
 VAS (12-59m): 50%
VAS (6-59m): 50.7%
 VAS (6-59m) Male: 50.9%
 VAS (6-59m) Female: 50.5%
 Administrative Catchment (6-59m): 92.6%
 Administrative 6-59m: 85.7%
 PECs Administrative Δ: -41.9%
 Deworming (12-59m): 16.2%



GEO-SPATIAL ANALYSIS OF COLLECTED SURVEY DATA



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HKI VITAMIN A SUPPLEMENTATION (VAS) COVERAGE

2011 R2 2012 R1 2012 R2 2013 R1 2013 R2

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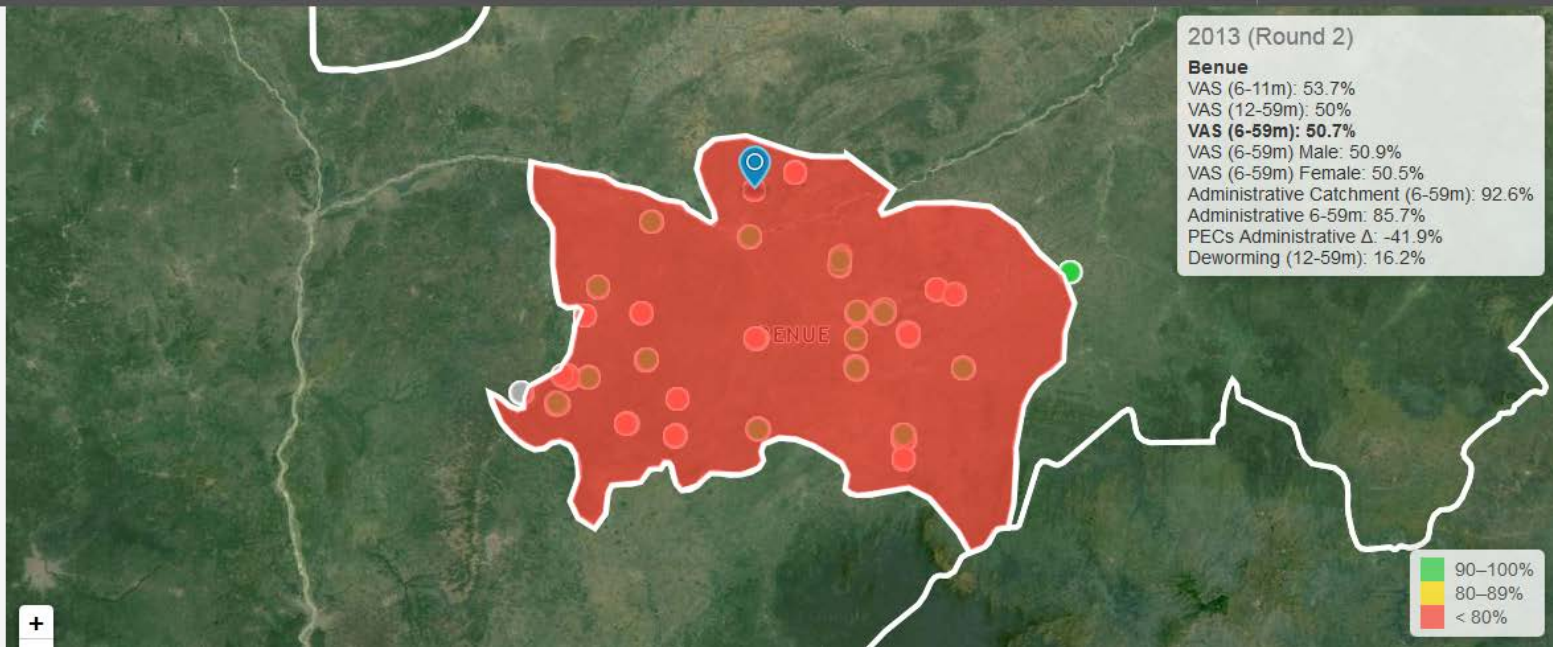
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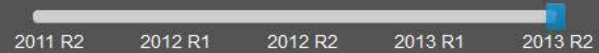
[Leaflet](#) | [Terms & Feedback](#)

GEO-SPATIAL ANALYSIS OF COLLECTED SURVEY DATA



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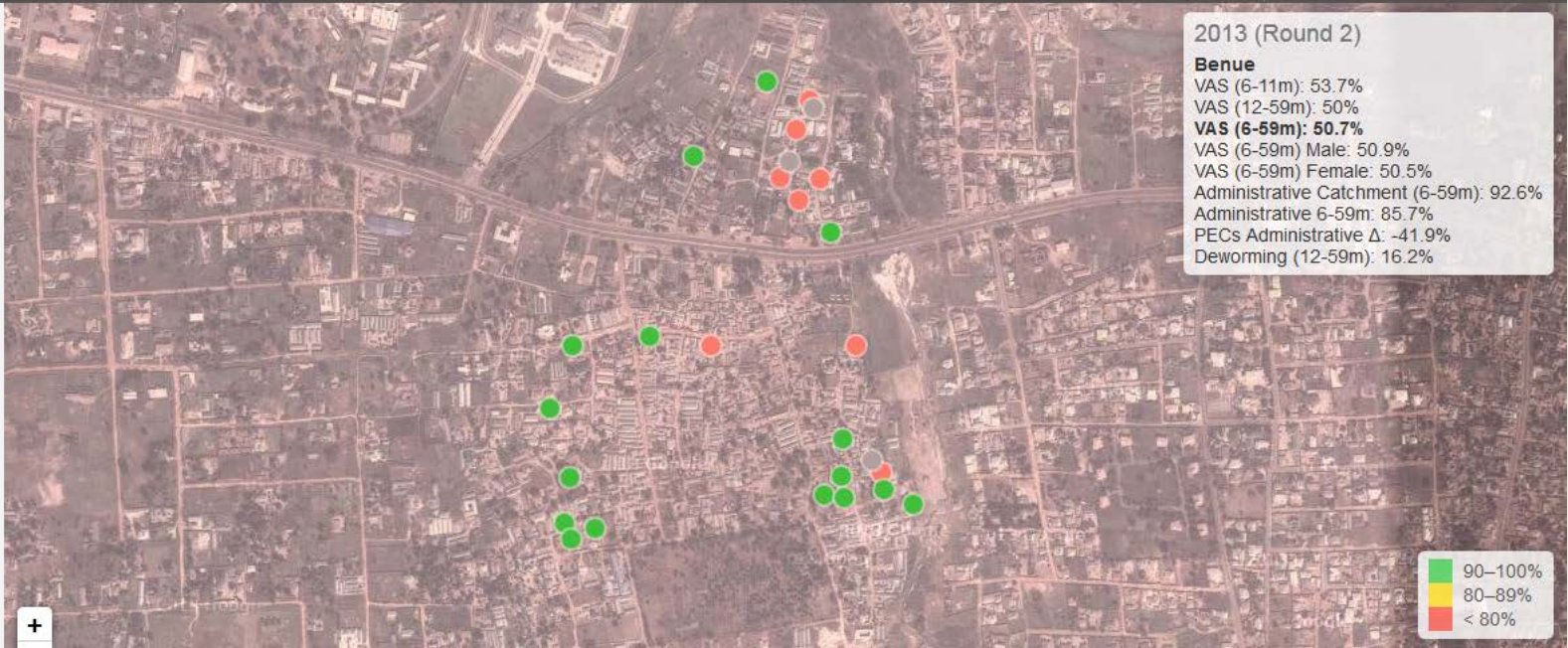
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2011 R2 2012 R1 2012 R2 2013 R1 2013 R2

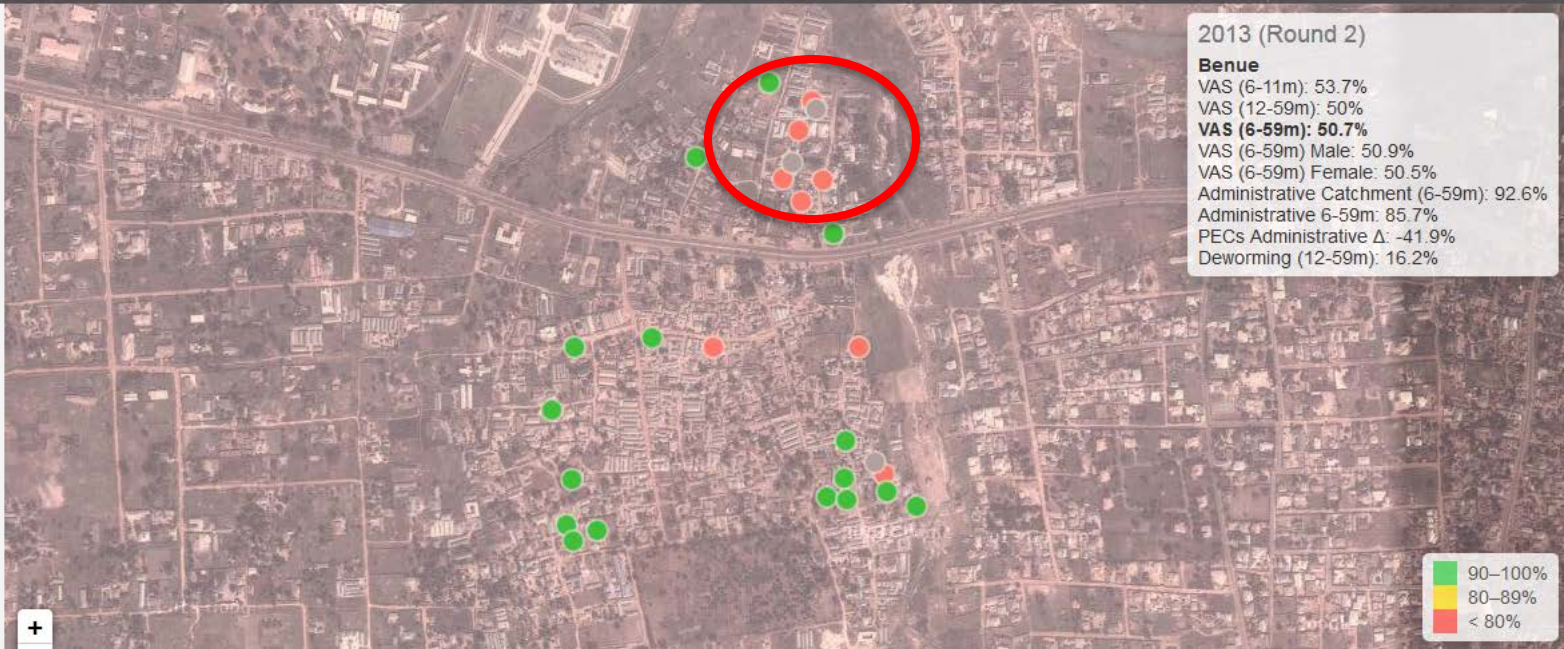
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Geo-spatial visualization of Vitamin A coverage

16) Votre enfant a-t-il reçu une capsule de vitamine A comme celle-ci au cours des 2 dernières semaines surtout pendant la campagne? (montrer capsule)

Non	249
Oui	646
Je ne sais pas	12

Display options without data

Children missed are in green



INTEGRATION OF MOBILE TECHNOLOGY INTO ROUTINE PROGRAMME MONITORING



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- In addition to collection of survey data, mobile technology has been integrated in the collection of routine monitoring data.
- Use of mobile technology is advantageous due to:
 - Speed of information transfer
 - Allows data to flow both ways with feedback loops and triggered responses
- Does not replace oversight systems, only facilitates the ability to use data to inform programmatic decisions

USE OF MOBILE TECHNOLOGY FOR TALLY SHEETS/ADMINISTRATIVE DATA



Use of structured SMS for tally sheets



Tally Sheet Vitamin A

+POST	235	Post Number		
		Received	Used	Returned
+V100	1000	800	100	
		Received	Used	Returned
+V200	1200	950	126	
		6-11M	12-59M	
+VITA	201	468		

+POST 235 +V100 1000 800 100 +V200 1200 950 126 +VITA 201
468

SUPPORTIVE SUPERVISION



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- Aggregation of supervision data for review
 - Improved accountability of supervision
 - Triggered response to address immediate actions needed
 - Stockouts

Code	Name	Type	HSD	Reporters	Last Report
GULU008	Awach	HC IV	Aswa HSD	3	16/11/2009
GULU085	Paibona	HC II	Aswa HSD	3	23/11/2009
GULU057	Coope	HC III	Aswa HSD	2	24/11/2009
GULU034	Pabwo	HC III	Aswa HSD	2	23/11/2009
GULU052	Punena	HC II	Aswa HSD	2	23/11/2009
GULU058	Kal-Ali	HC II	Aswa HSD	4	23/11/2009
GULU046	Tegotato	HC II	Aswa HSD	5	23/11/2009
GULU029	Omel	HC II	Aswa HSD	2	23/11/2009
GULU013	Cwero	HC III	Aswa HSD	2	23/11/2009
GULU087	Lapeta	HC II	Aswa HSD	2	23/11/2009
GULU047	Unyama	HC II	Aswa HSD	2	23/11/2009
GULU019	Labworomor	HC III	Aswa HSD	2	25/11/2009
GULU088	Oroko	HC II	Aswa HSD	1	23/11/2009
GULU037	Lugore	HC II	Aswa HSD	2	24/11/2009
GULU036	Patiko	HC III	Aswa HSD	4	23/11/2009
GULU040	Pugwinyi	HC II	Aswa HSD	2	23/11/2009
GULU015	Gulu Referral	Hospital	Gulu Municipality HSD	1	N / A
GULU1105	Karin	HC II	Gulu Municipality HSD	0	N / A

Done

2 active downloads (Unknown time remaining)

MAPPING OF SUPPORTIVE SUPERVISION VISITS



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The screenshot displays a web browser window titled "FIND Uganda - Home - RapidSMS". The address bar shows the URL "http://findug.kibotech.com/findug/map". The browser's taskbar includes icons for Gmail, MMS software, and the current page. The RapidSMS interface features a teal header with the "RapidSMS" logo and a navigation menu with tabs for Dashboard, Health Units, Reporters, Map, Message Tester, Reporters and Groups, Messaging, Message Log, and FIND. The "Map" tab is selected, showing a "Health Units Map" powered by Google. The map displays various health units marked with colored icons: green for HC II, purple for HC III, and red for hospitals. Labeled units include Punena HC II, Coope HC III, Pabwo HC III, Lapeta HC II, St. Mauritz HC II, Bardege HC II, Karin HC II, Laroo HC II, Unyama HC II, Lacor Hospital, St. Philips Hospital, Alokolum HC II, Aywee HC III, Layibi Techo HC III, and Lapaikat HC II. Major roads like A 104, Gulu-Katgam Rd, and Gulu-Katg are also visible. The bottom status bar shows "Done" and "2 active downloads (Unknown time remaining)".

REMINDERS FOR COMMUNITY MOBILIZERS AND CAREGIVERS



Bring your child for
Vitamin A and
Deworming to Child
Health Days from 5th –
17th October at your
nearest health facility at
no cost



Attention: *Abdoulaye Diop* qui a 6 mois aujourd'hui, doit se rendre au poste de santé *Cs Ouakam* pour recevoir une dose de supplémentation en Vitamine A.

DATABASE OF KEY STAKEHOLDERS FOR COMMUNITY MOBILIZATION INITIATION



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vitamin.herokuapp.com/add/ - Google Chrome

vitamin.herokuapp.com/add/

vitamin Dashboard Data Reporters About Account


Add Reporter

Name:

Phone:

Current Reporters

Name	Phone Number
Michael Turek	18579287141



CONCLUSION



- Mobile phone technology improves the speed and accuracy of data collection for surveys and routine monitoring.
- Reduced turn around time from data collection to interpretation improves the ability of programme managers to use data to implement course correction in a timely manner



ACKNOWLEDGEMENTS



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HKI gratefully acknowledges the generous support of the Canadian Government for this work.



Government
of Canada

Gouvernement
du Canada