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# INNOVATIONS IN MONITORING VITAMIN A SUPPLEMENTATION PROGRAMS

**Jessica Blankenship PhD**



# 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.

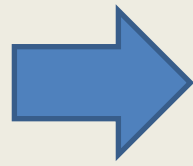
# CREATING SURVEY FORMS



SURVEYS ARE AUTHORED IN EXCEL...

...AND UPDATED TO SERVER AND PHONES

Excel spreadsheet showing survey questions and dropdown menus. The questions are related to water source and lift mechanisms. The dropdown menus are set to 'Select one' or specific options like '\$water\_source\_type' and '\$water\_lift\_mechanism'.



Formhub website showing the 'Publish a Form' interface. The page displays the 'Published Forms' section, listing various forms with their submission counts and last submission dates. The forms are organized in a table with columns for Name, Submissions, Last Submission, Data, and View.

Name	Submissions	Last Submission	Data	View
_01_Settlements_train3	29	April 22, 2012	csv xls xml	🔍 📄 🗑️
_02_Govt_NGO_Coop_Office_train3	31	April 22, 2012	csv xls xml	🔍 📄 🗑️
_03_Market_Trading_Center_train3	6	April 21, 2012	csv xls xml	🔍 📄 🗑️
_04_Mobile_phone_tower_train3	7	April 21, 2012	csv xls xml	🔍 📄 🗑️
_05_Commty_Reig_Center_train3	62	April 22, 2012	csv xls xml	🔍 📄 🗑️
_06_Food_Storage_Process_train3	4	April 22, 2012	csv xls xml	🔍 📄 🗑️
_07A_Transport_infrastructure_train3	267	Feb. 29, 2012	csv xls xml	🔍 📄 🗑️
_07B_Transport_center_train3	1	April 22, 2012	csv xls xml	🔍 📄 🗑️
_08_Water_points_train3	255	April 22, 2012	csv xls xml PUBLIC	🔍 📄 🗑️

# 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

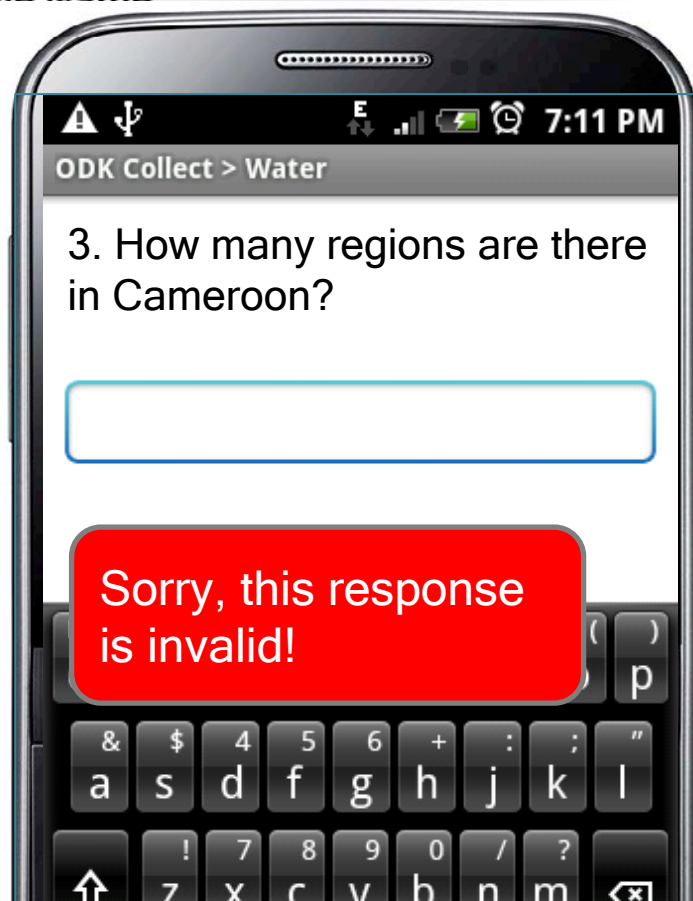
### School Inform

#### Section 1: Locati

A-1.1.1 Geocode

latitude (x,y °)

longitude (x,y °)



Sorry, this response is invalid!





# 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	
<a href="#">Agent Communautaire PEC MTN Mars 2014</a> <small>CREATED: March 22, 2014</small>	16	Web		csv  xls  kml	March 28, 2014	
<a href="#">Agent de Santé PEC MTN mars 2014</a> <small>CREATED: March 22, 2014</small>	10	Web		csv  xls  kml	March 28, 2014	
<a href="#">Agents_communautaires_15-11-13</a> <small>CREATED: Nov. 15, 2013</small>	31	Web		csv  xls	Nov. 23, 2013	
<a href="#">Meres_gardiennes_15-11-13</a> <small>CREATED: Nov. 15, 2013</small>	1,014	Web		csv  xls  kml	Nov. 23, 2013	
<a href="#">PECS MDA Juin 2014 Agent Communautaire</a> <small>CREATED: May 31, 2014</small>	0	Web				
<a href="#">PECS MDA Juin 2014 Agent de santé</a> <small>CREATED: May 31, 2014</small>	0	Web				
<a href="#">PECS MDA Juin 2014 Ménage</a> <small>CREATED: May 31, 2014</small>	0	Web				
<a href="#">Personnel_de_sante_15-11-13</a> <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](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

2011 R2 2012 R1 2012 R2 2013 R1 2013 R2

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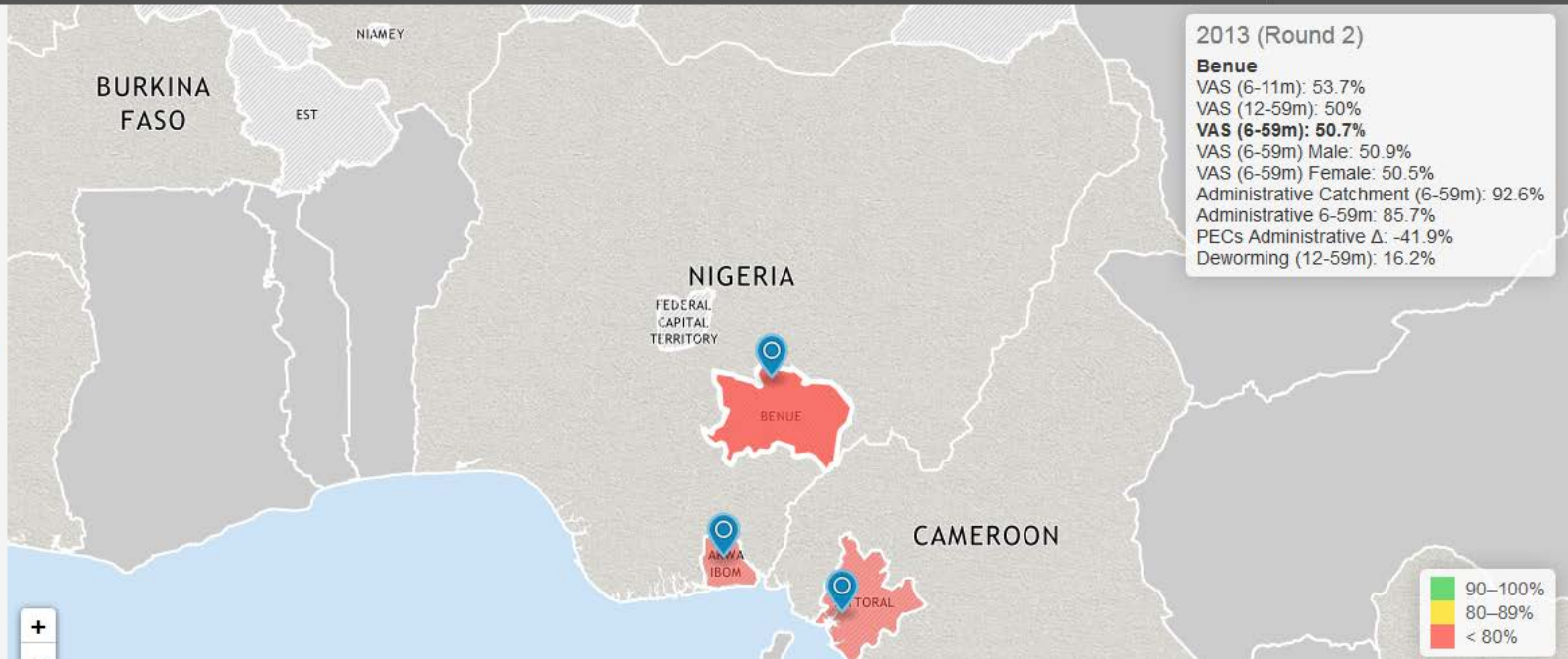
### PECS Data

#### ▶ 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

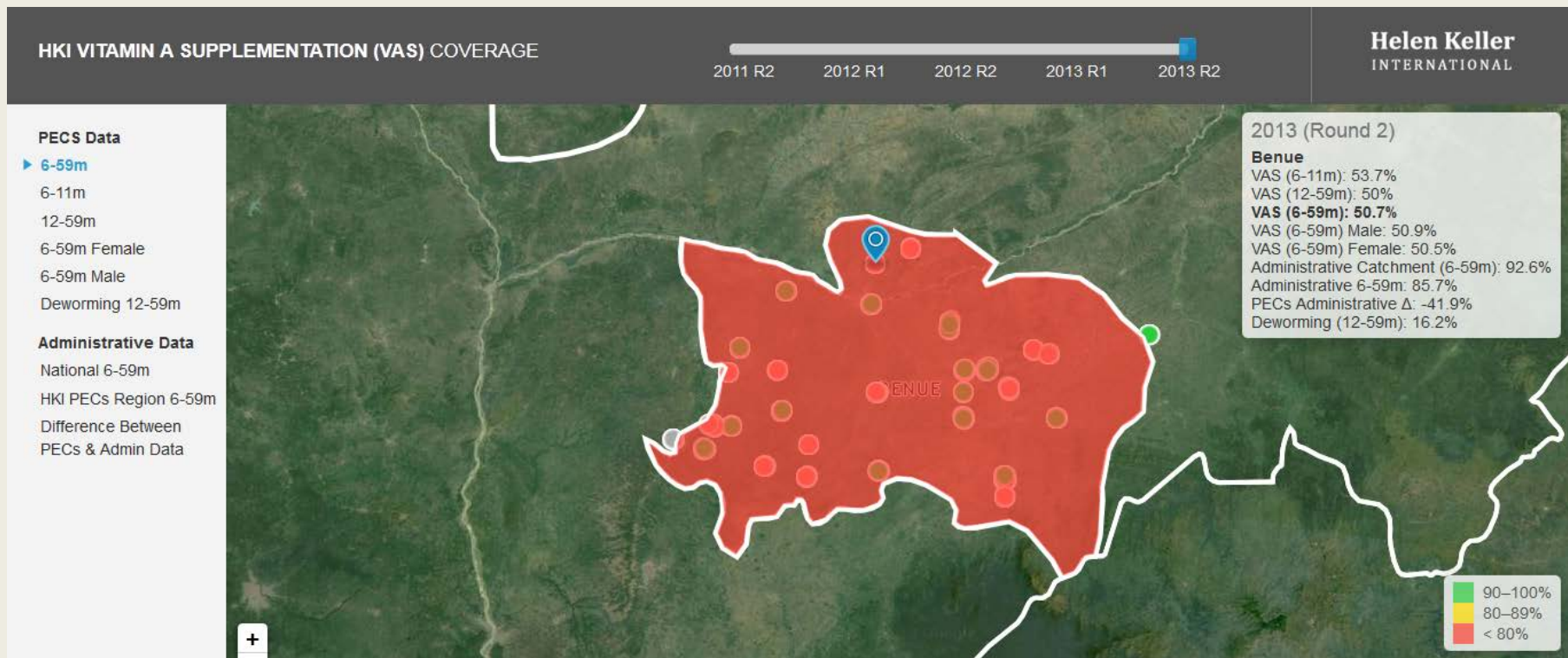




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[Leaflet](#) | [Terms & Feedback](#)

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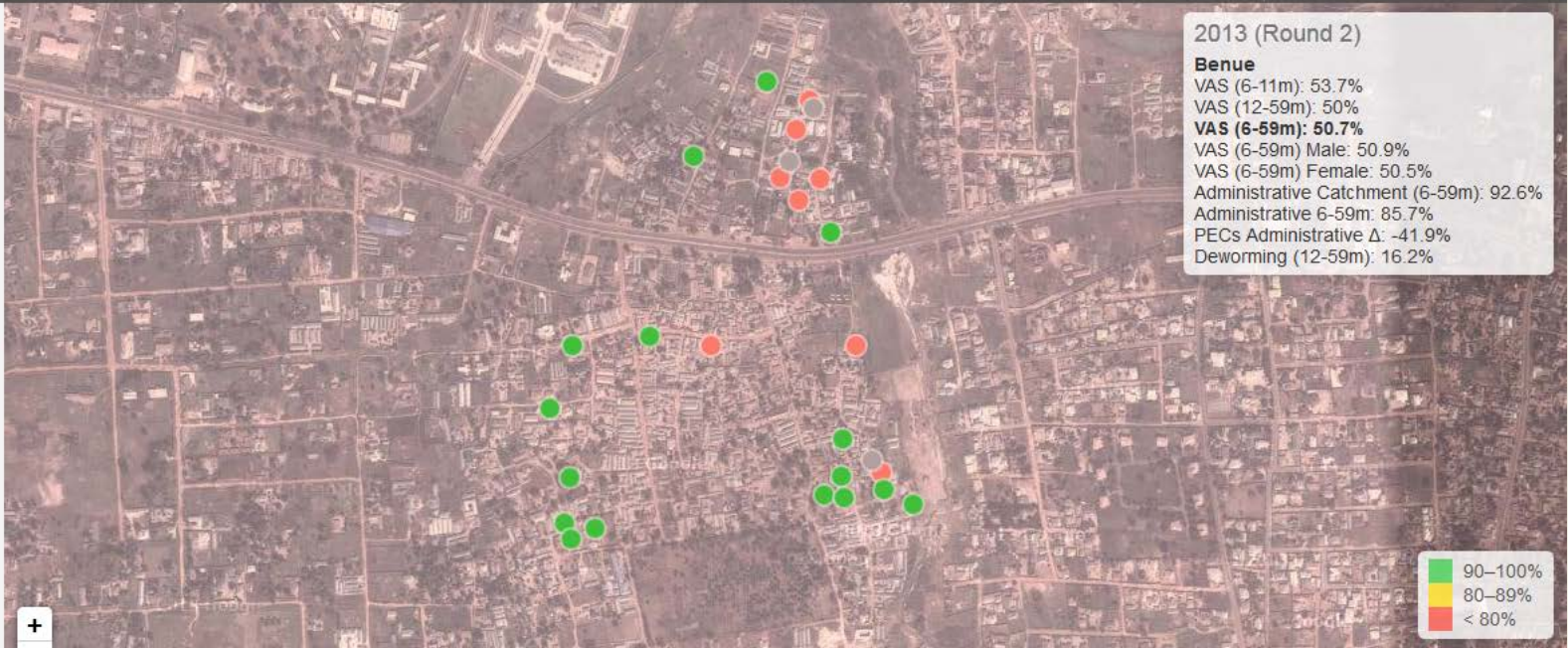
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2011 R2 2012 R1 2012 R2 2013 R1 2013 R2

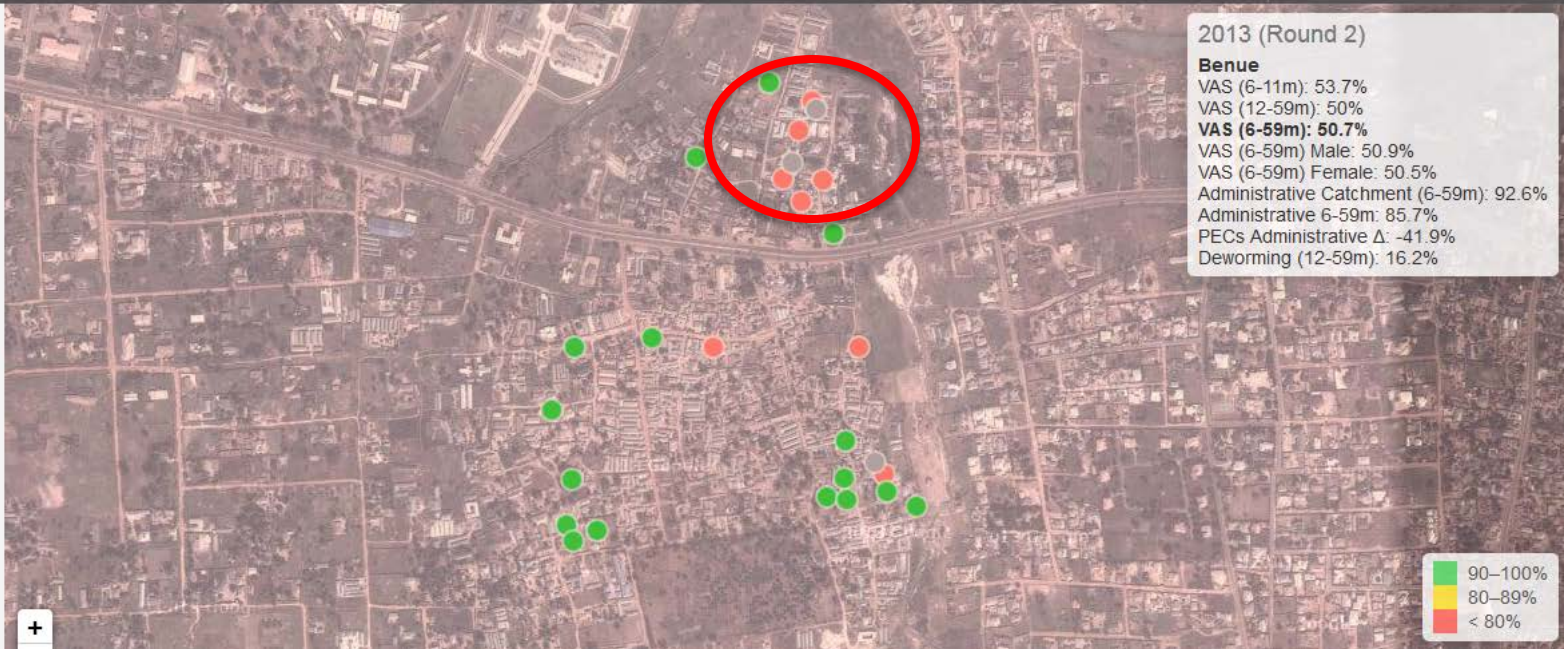
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# Geo-spatial visualization of Vitamin A coverage

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 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

# MAPPING OF SUPPORTIVE SUPERVISION VISITS



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FIND Uganda - Home - RapidSMS

http://findug.kibotech.com/findug/map

RapidSMS

Dashboard Health Units Reporters Map Message Tester Reporters and Groups Messaging Message Log FIND

Map

Health Units Map

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

Lacor Hospital

Alokolum HC II

Aywee HC III

Layibi Techo HC III

Unyama HC II

Lapinat HC II

A 104

Gulu-Katgam Rd

POWERED BY Google

Done

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 5<sup>th</sup> –  
17<sup>th</sup> 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.**



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of Canada

Gouvernement  
du Canada