



Making a difference in Universal Health Coverage and the SDGs with Big Data

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The Conundrum of UHC and tracking progress toward SDGs

- **Africa and the SDG dilemma:** the baseline, access measurements and data; lessons from the past
- **Equity:** finding and reaching the extreme poor with essential services for universal health coverage and attain SDGs
- **Results:** tracking progress in a complex environment
- **Means:** Leveraging technological opportunities
- **Use:** what next ?

Ghana Country Poverty Brief

COUNTRY POVERTY BRIEF		
SUB-SAHARAN AFRICA		
GHANA		
October 2017		
POVERTY	Rate (Number of Poor)	Period
National Poverty Line	24.2% (6.2 million)	2012
International Poverty Line 2.0 in Local Currency Unit or US\$1.90 (2011 PPP) per day per capita	13.6% (3.5 million)	2012
Lower Middle Income Class (IC) Poverty Line 3.3 in Local Currency Unit or US\$3.20 (2011 PPP) per day per capita	34.9% (9.0 million)	2012
Upper Middle Income Class (IC) Poverty Line 5.7 in Local Currency Unit or US\$5.50 (2011 PPP) per day per capita	63.2% (16.3 million)	2012
SHARED PROSPERITY		
Income or Consumption growth of the bottom 40 percent	N/A	N/A



MINISTRY OF GENDER, CHILDREN
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MARIE STOPES
GHANA
Children by choice, not chance

PHARMACCESSGROUP

Ghana Poverty Country Brief

SHARED PROSPERITY		
Income or Consumption growth of the bottom 40 percent		N/A
INEQUALITY		
Gini Coefficient		0.42
Shared Prosperity Premium		N/A
Difference between the income or consumption growth of the bottom 40 percent and that of the average		2012
GDP GROWTH		
Annualized GDP per capita growth		N/A
Sources: WDI, SSATSD using GLSS-VI/SSAPOV/GMD. National poverty lines are provided by national statistical offices.		
PROGRESS ON POVERTY AND EQUITY		

Ghana's strategy for UHC



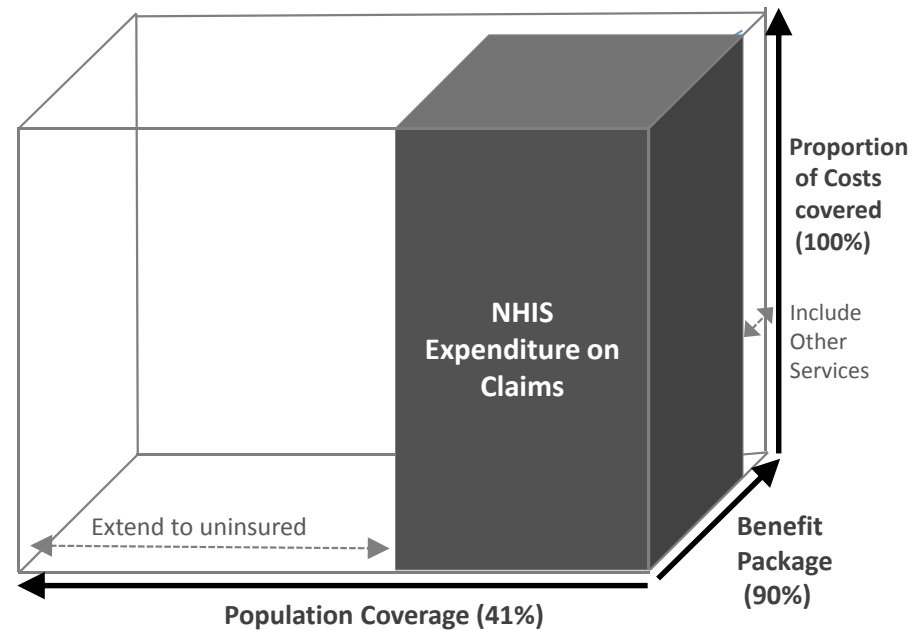
- **The NHIS was established by an Act of Parliament in 2003 (Act 650).**
- **Initiative by Government to secure financial risk protection against the cost of healthcare services for all residents in Ghana.**
- **Act was revised in 2012 – NHIS Act 850**



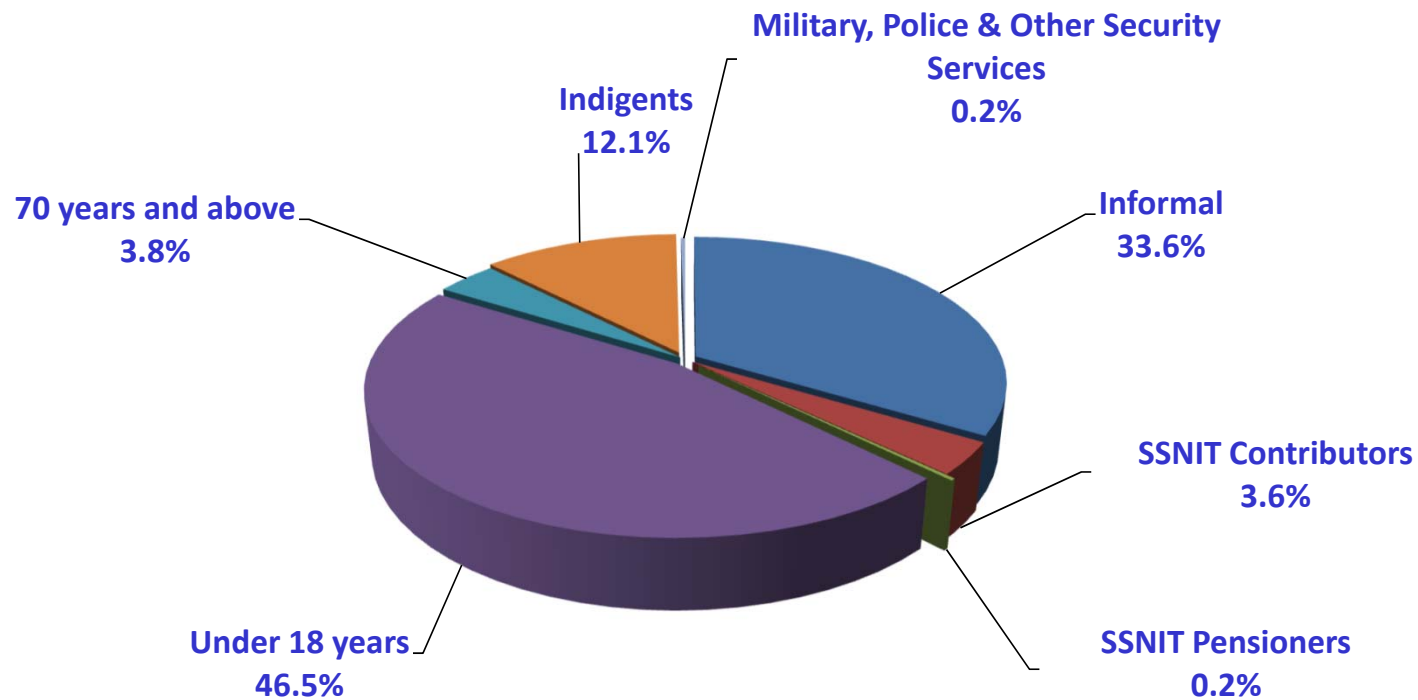
Dimensions of NHIS Coverage



- i. **Breadth**
(Population Coverage)
- ii. **Depth**
(Benefit Package)
- iii. **Height**
(Proportion of Costs covered)



Distribution of Active Membership



Active membership as at December 2016 - **11.4 Million**

DHS, Big Data and Reaching the poor –who are we looking for

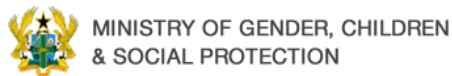


Project Overview

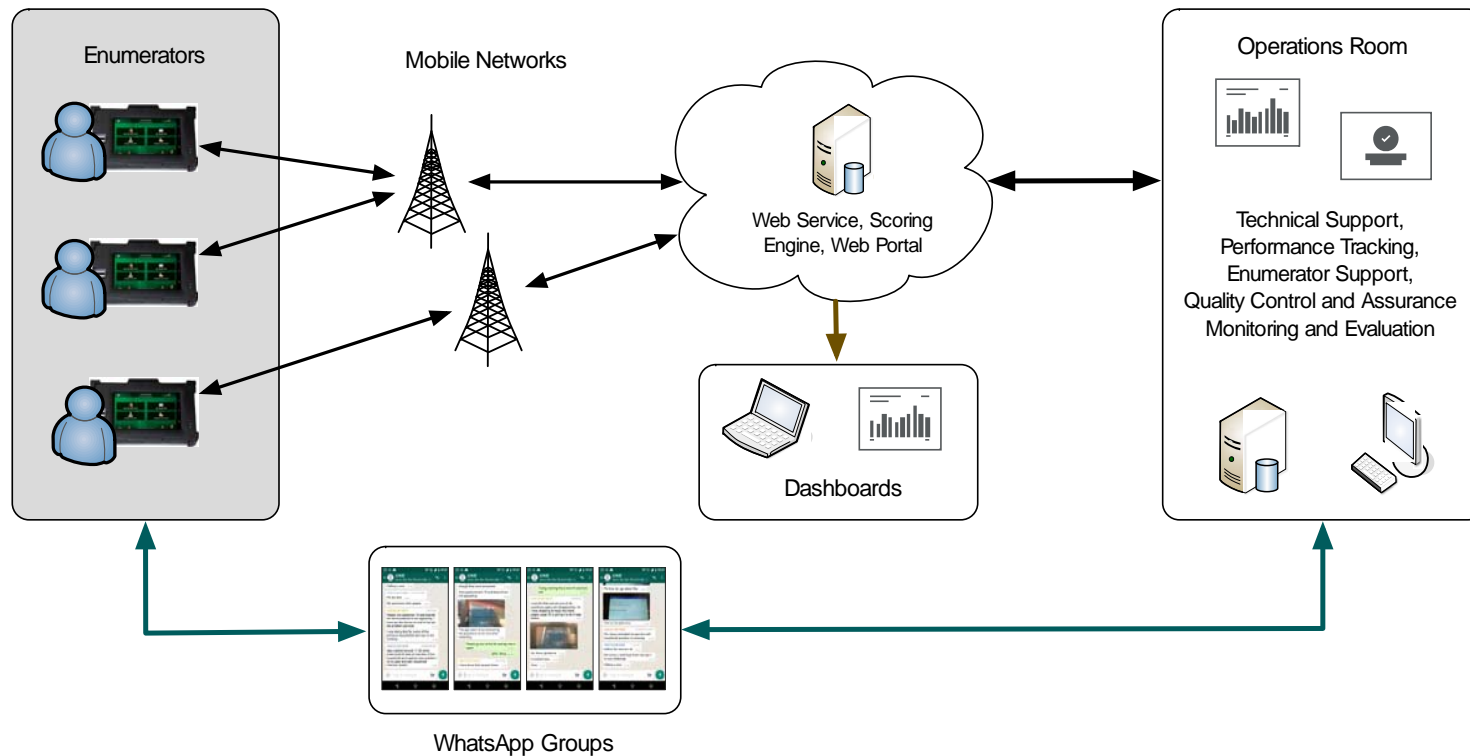
The African Health Markets for Equity (AHME) partnership is a \$60 million investment by the Bill and Melinda Gates Foundation and the UK's Department for International Development to increase coverage of priority health interventions amongst the poor.

The Health in Africa Initiative of the World Bank Group engaged with the process aimed at demonstrating the effective use of a technology based e-version of the Proxy Means Test Tool in identifying and targeting the poor.

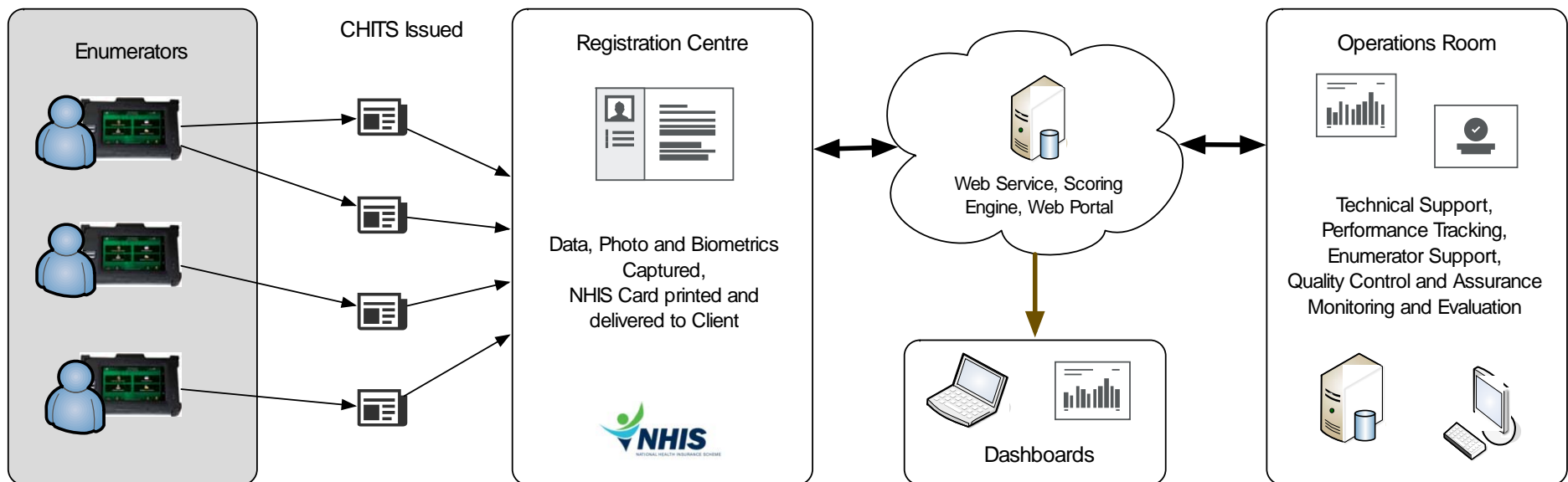
The PMT was already being implemented manually by the Ministry of Gender, Children and Social Protection on behalf of government for its cash transfer program but used a community targeting approach.



Targeting Process



Registration into NHIS Process



Field Data Collection: House-to-house Enumeration

Enumerators visited each household and interviewed the Head of Household.

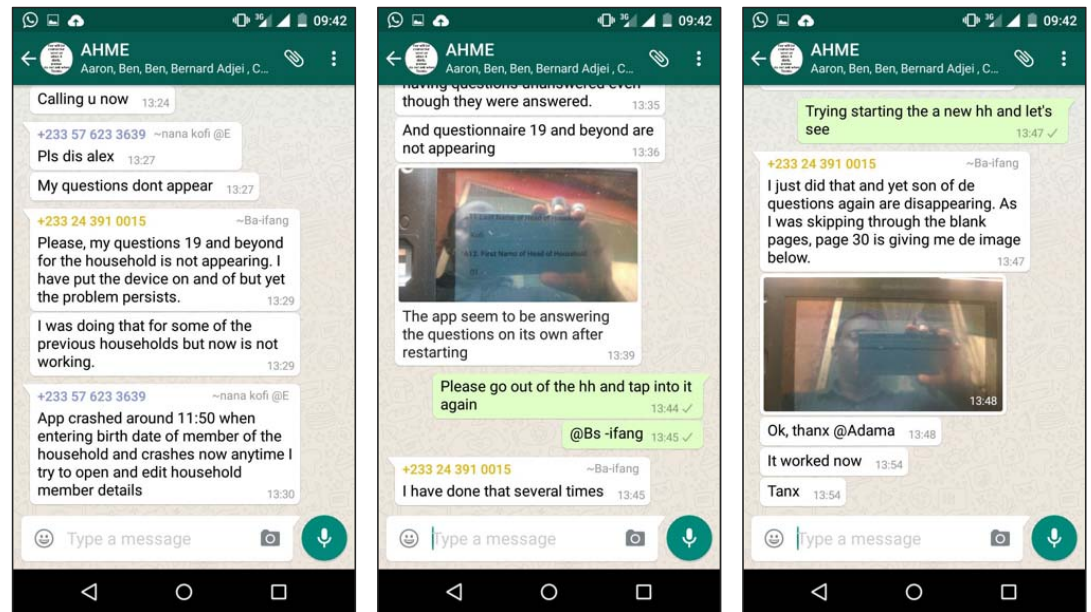
Photographs of available Household members as well as the Household Dwelling were captured and synced to the Web Service.



Enumerator WhatsApp Group.

A WhatsApp group was setup for each Team of Enumerators. This enabled the Operations Centre to communicate with the enumerators in real-time and provide support to the Enumeration Supervisors.

This was also useful for complementing the training the enumerators has received and for troubleshooting and debugging the App during the initial roll-out.

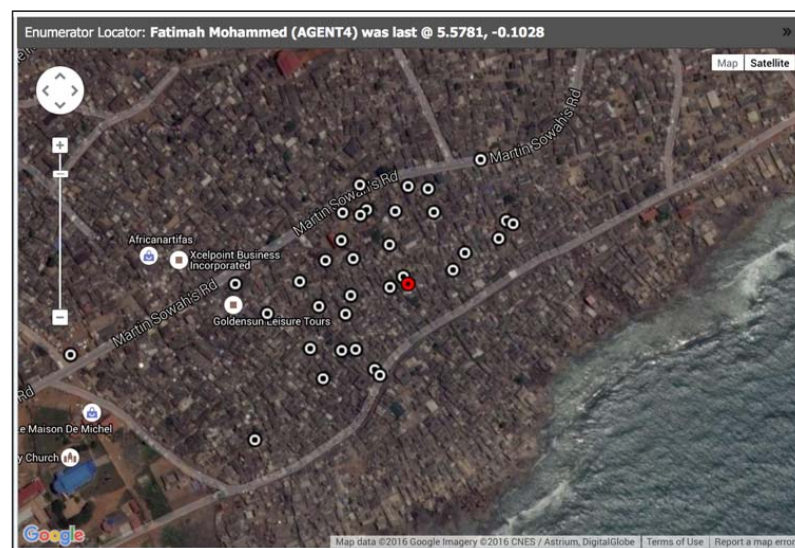


Enumerator Activity Tracker and Locator Map

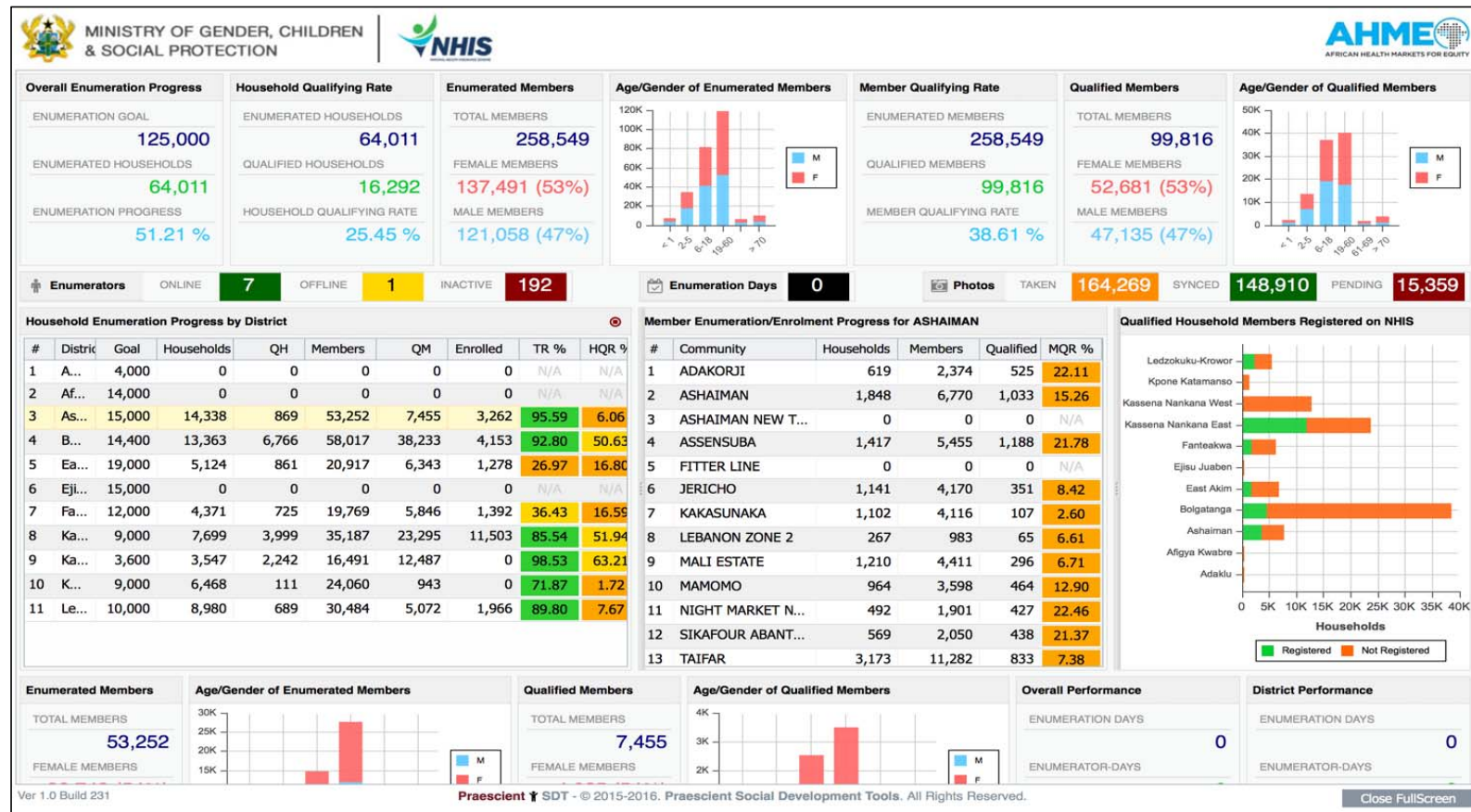
The Enumerator Activity Tracker gives us an overview of each enumerator's performance and the functionality to detect abnormal activity and data and thereby, prevent 'gaming'. Further, we also have the ability to view the location of the enumerators on a Map.

On one occasion in the Upper East Region, the Operations Centre was able to alert some of the enumerators that they had strayed into Burkina Faso !

#	Enumerator	Status	HHS	Submits	Eff. %	Qualified	QR %	Errors	Last Login	Last Submission	Last Location
1	Bernard Adjei Oppong	Inactive	22	23	95%	0		8	21-Jan-2016 09:32:46	16-Jan-2016 04:14:26	5.5846, -0.1277
2	Erica Afiadefa	Inactive	4	7	25%	0		0	06-Jan-2016 12:33:18	01-Dec-2015 09:33:48	0.0000, 0.0000
3	Philip Amoaning (AGENT1)	Inactive	26	27	96%	0		0	22-Dec-2015 09:39:58	23-Dec-2015 15:53:36	5.6060, -0.0803
4	Delight Ebedi (AGENT2)	Online	249	284	86%	21	8%	3	26-Jan-2016 08:40:47	27-Jan-2016 15:25:03	5.5791, -0.1028
5	Fatimah Mohammed (AGENT4)	Online	194	226	84%	36	19%	4	26-Jan-2016 07:43:36	27-Jan-2016 14:39:13	5.5781, -0.1028
6	John Larley (AGENT3)	Online	210	237	87%	13	6%	7	27-Jan-2016 08:52:17	27-Jan-2016 15:18:48	5.5785, -0.1030
7	Elizabeth Djanie (AGENT6)	Online	159	706		10	6%	17	27-Jan-2016 09:59:44	27-Jan-2016 13:32:53	5.5773, -0.1066
8	Maud Amengor (AGENT8)	Online	288	355	77%	13	5%	10	26-Jan-2016 09:24:21	27-Jan-2016 14:03:13	5.5773, -0.1039
9	Bright Sodoke (AGENT5)	Online	217	1104		28	13%	6	23-Jan-2016 12:07:20	27-Jan-2016 15:14:01	5.5781, -0.1029
10	Rosamond Obeng (AGENT10)	Online	224	232	96%	25	11%	3	20-Jan-2016 10:55:59	27-Jan-2016 14:56:28	5.5791, -0.1026
11	Joseph Quansah (AGENT12)	Online	200	221	90%	9	5%	12	18-Jan-2016 09:36:05	27-Jan-2016 15:07:09	5.5789, -0.1025
12	Samuel Acculey (AGENT7)	Online	185	669		13	7%	1	19-Jan-2016 09:39:09	27-Jan-2016 13:39:22	5.5777, -0.1035
13	Theophilus Darkwa (AGENT9)	Offline	253	937		8	3%	3	16-Jan-2016 09:58:18	27-Jan-2016 13:08:20	5.5783, -0.1034
14	Bernard Budu (AGENT14)	Online	181	196	92%	36	20%	3	15-Jan-2016 09:47:41	27-Jan-2016 13:51:59	5.5781, -0.1047
15	Eugene Barfour (AGENT11)	Online	152	182	80%	10	7%	5	19-Jan-2016 08:50:52	27-Jan-2016 15:16:16	5.5780, -0.1030
16	Bridgette Agbolosu (AGENT16)	Online	120	130	92%	7	6%	1	15-Jan-2016 11:23:32	27-Jan-2016 15:21:47	5.5778, -0.1038
17	Ebenezer Acquah (AGENT13)	Offline	164	169	97%	4	2%	5	26-Jan-2016 15:51:57	27-Jan-2016 12:15:42	5.5785, -0.1036
18	Emmanuel Koby Mensah (AGENT15)	Online	124	175	59%	8	6%	7	27-Jan-2016 08:49:12	27-Jan-2016 14:11:01	5.5788, -0.1035
19	Theodora Kunyegbe (AGENT15)	Online	139	186	66%	8	6%	1	20-Jan-2016 14:45:54	27-Jan-2016 15:15:28	5.5792, -0.1033
20	Stephen Bortse (AGENT20)	Inactive	159	203	72%	16	10%	9	15-Jan-2016 09:39:25	26-Jan-2016 15:31:11	5.5763, -0.1045



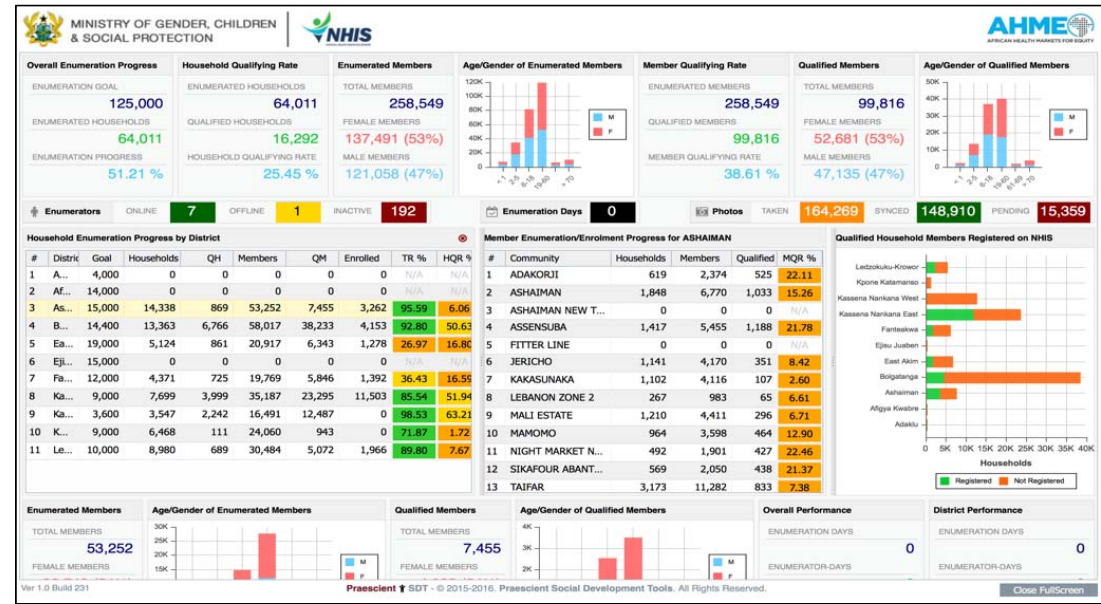
Dashboard for Tracking Progress and Monitoring Performance



Dashboard for Tracking Progress and Monitoring Performance

Dashboard provides the necessary indicators to visually observe the progress of the Targeting Exercise.

This provided useful insights to the challenges that teams were facing and enabled the Operations Centre to react pro-actively to ensure that project goals would be met.




Household and Member Data Viewer

The Household Data Viewer enables our Quality Control team to view and further Quality Assure that household data coming from the enumerators.

This enabled us to continuously train the enumerators to ensure that data quality was maintained throughout the enumeration exercise.

Households									
#	ID	Head Name	Status	Head Phone	Hse Number	Address	Members	Enumerator	
1	03-06-006-0001	Hawa Moro	Not Qualified	0243814796	sookpoti b	near traditional council	4	Joseph Oduro (AGENT36)	
2	03-06-006-0002	Ernestina Odai	Not Qualified	0265541398	J498/3 Man	Nungua Traditional Authority	5	Theophilus Darkwa (AGENT9)	
3	03-06-006-0003	Richard Okyere	Not Qualified	0249394626	j13/3	sookpoti street	1	Bernard Budu (AGENT14)	
4	03-06-006-0004	Stephen Techie	Not Qualified	0243921634	jh453/3	authority	3	Irene Acquaye (AGENT 35)	
5	03-06-006-0005	Esther Awortwe	Not Qualified	999	j10/6	nungua manhean near or adjacentb...	1	Daniel Essel (AGENT28)	
6	03-06-006-0006	Farouck Bortey	Not Qualified	0576283726	j13/3	j13/3, sookpoti street	1	Bernard Budu (AGENT14)	
7	03-06-006-0007	Charlotte Atiakpe	Not Qualified	0574835220	sogboto bl	near traditional council	3	Joseph Oduro (AGENT36)	
8	03-06-006-0008	Sofo Munira	Not Qualified	0261370841	H/No J241A	in the house of don't mind your wife...	3	Maud Amengor (AGENT8)	
9	03-06-006-0009	Cliford Anku Mawusi	Not Qualified	0242457313	j10/6	sokpoti street	4	Nana Yaw Owuahene (AGENT34)	
10	03-06-006-0010	Stephen Etomam Dosu	Not Qualified	0542002070	j13/3 Joe	adjacent to the nungua market	6	Stephen Bortsie (AGENT20)	
11	03-06-006-0011	Cynthia Okeley	Not Qualified	0208485920	manheah	opposite nungua station	2	Samuel Aculey (AGENT7)	
12	03-06-006-0012	Anum Fofo	Qualified	0556433048	7block4 ma	traditional stool	4	Joseph Quansah (AGENT12)	
13	03-06-006-0013	Rosa Agbashie	Qualified	0267776125	j16/3	Mahean- game traditional authority	7	Adolf Amoo (AGENT32)	
14	03-06-006-0014	Constance Odai	Not Qualified	0242505727	J489/3 Man	Nungua Traditional Authority	8	Theophilus Darkwa (AGENT9)	
15	03-06-006-0015	Susan Momo Anum	Not Q						
16	03-06-006-0016	Nii Otu Blemanyo 1	Not Q						
17	03-06-006-0017	Borley Quashie	Que						
18	03-06-006-0018	Gladys Otiko	Not Q						

Household Members									
#	ID	Member Name	Phone	Gender	Date of Birth	Age	Relationship	Has Photo	Photo Download
1	03-06-006-0012-01	Annum Fofo	0556433048	Female	01-Dec-1955	60	Head	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	03-06-006-0012-02	Eric Annum	0	Male	01-Dec-2011	4	Grandchild	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	03-06-006-0012-03	Lydia Tetley	0556433048	Female	01-Dec-1998	17	Grandchild	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	03-06-006-0012-04	Eunice Atoey	0243384042	Female	01-Dec-1994	21	Child	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

 <p>Member Name: Eric Annum Gender: Male Date of Birth: 01-Dec-2011 Age: 4 Relationship: Grandchild</p>
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The Data Terrain



Targeting and Identification in Numbers



5 Regions

12 Districts

312 Communities

221 Enumerations Days

164 Enumerators deployed at Peak

125,683 Households Enumerated

667,169 Individuals Enumerated

Registration into NHIS Experience in Pictures



Registration into NHIS Results



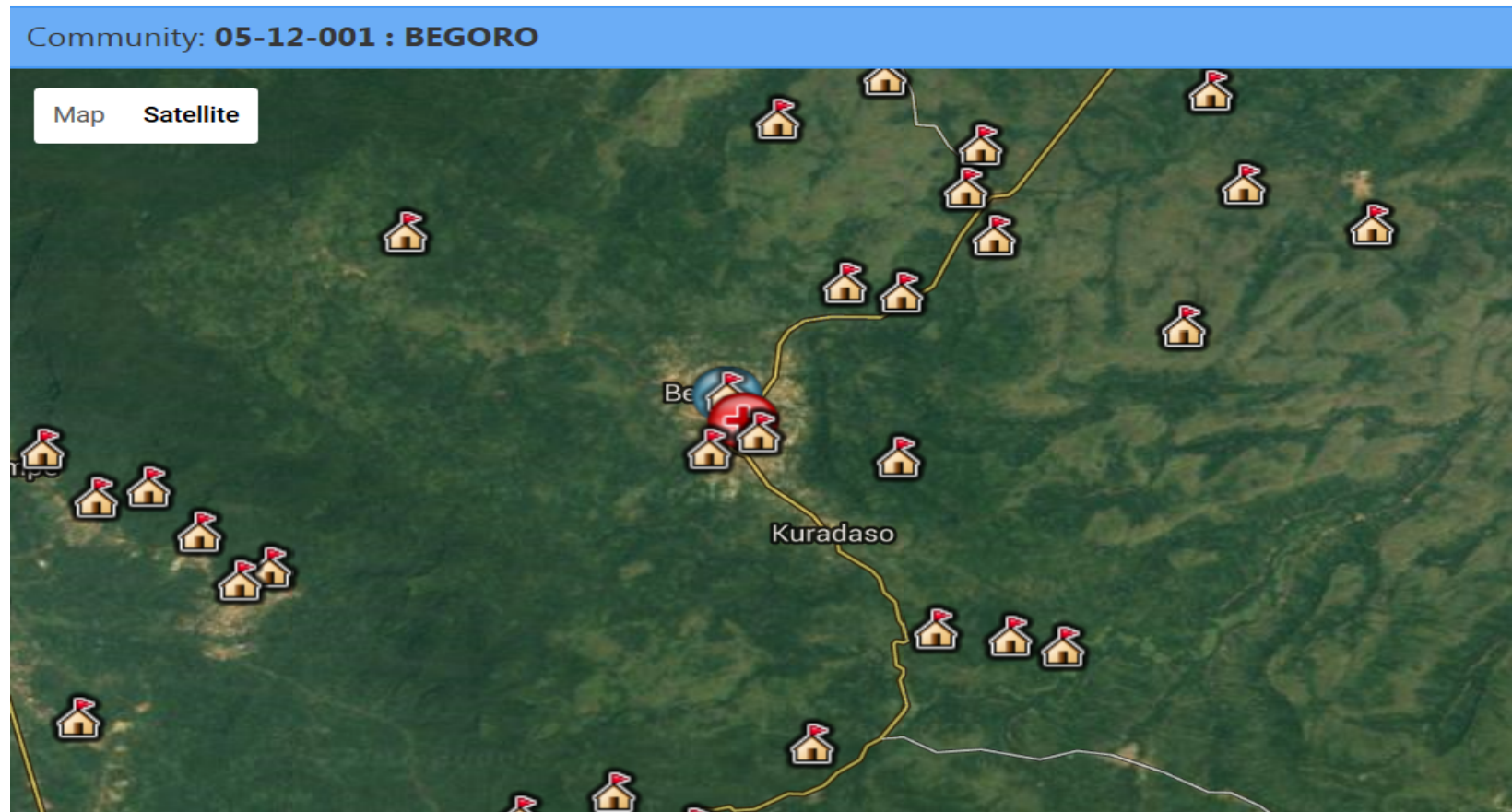
27,711 Households Qualified

179,972 Individuals Qualified

150,858 Total Registrations

416,166 Paying Members Registered
for the first time

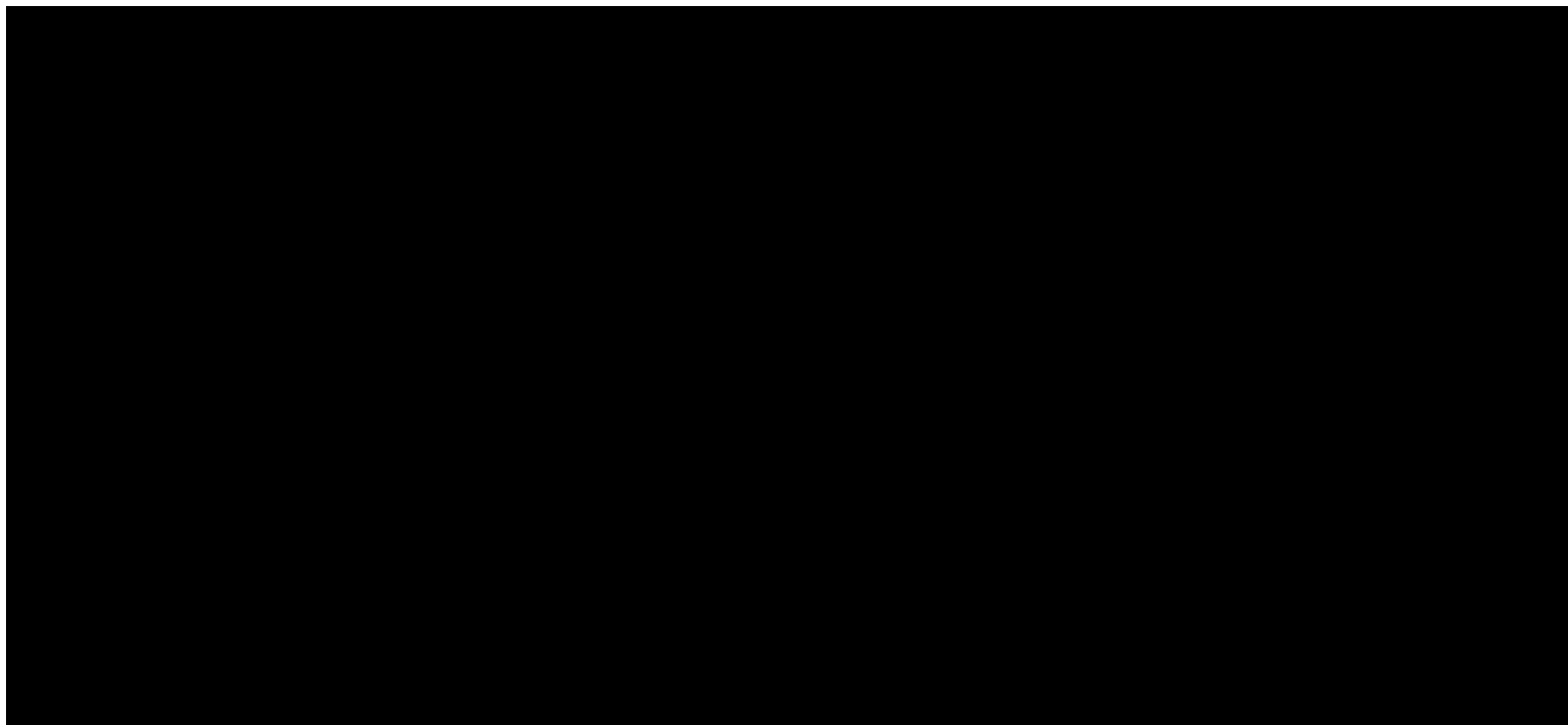
Identified poor – facilities overlap



Key Results / Lessons Learnt

1. Enumeration errors due to inconsistent data was eliminated as a result of the Electronic Data Collection.
2. The time between enumeration and qualified households receiving benefits was reduced as a consequence of the electronic data collection, combined with the real-time data transmission and scoring.
3. Collecting GPS data on the location of each household, makes it easier for ensuring that an area has been adequately covered, locating households on subsequent visits and also for supporting other social intervention programs.
4. Real-time communication (via WhatsApp Group) improved enumerator output, both in terms of Data Quantity and Quality.
5. Real-time monitoring is important for preventing 'gaming' and pro-actively addressing enumeration challenges to ensure that project goals are achieved.
6. It is important to continuously monitor and update Enumerator training to address local issues.

LIGHTS OUT



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THANK YOU

