



Use of mobile technology for real-time data collection and improved decision-making in IRS: The Burkina Faso experience

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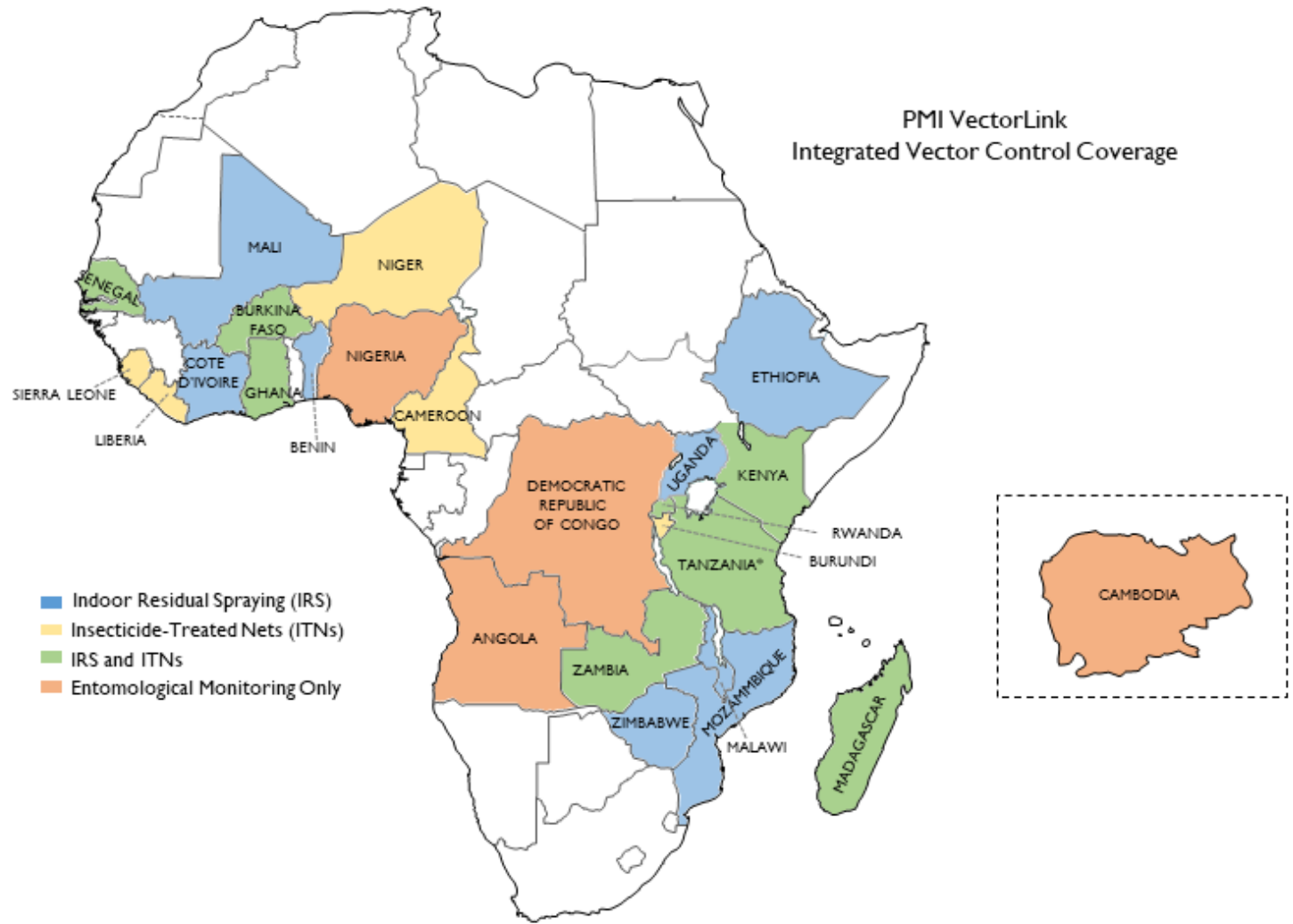
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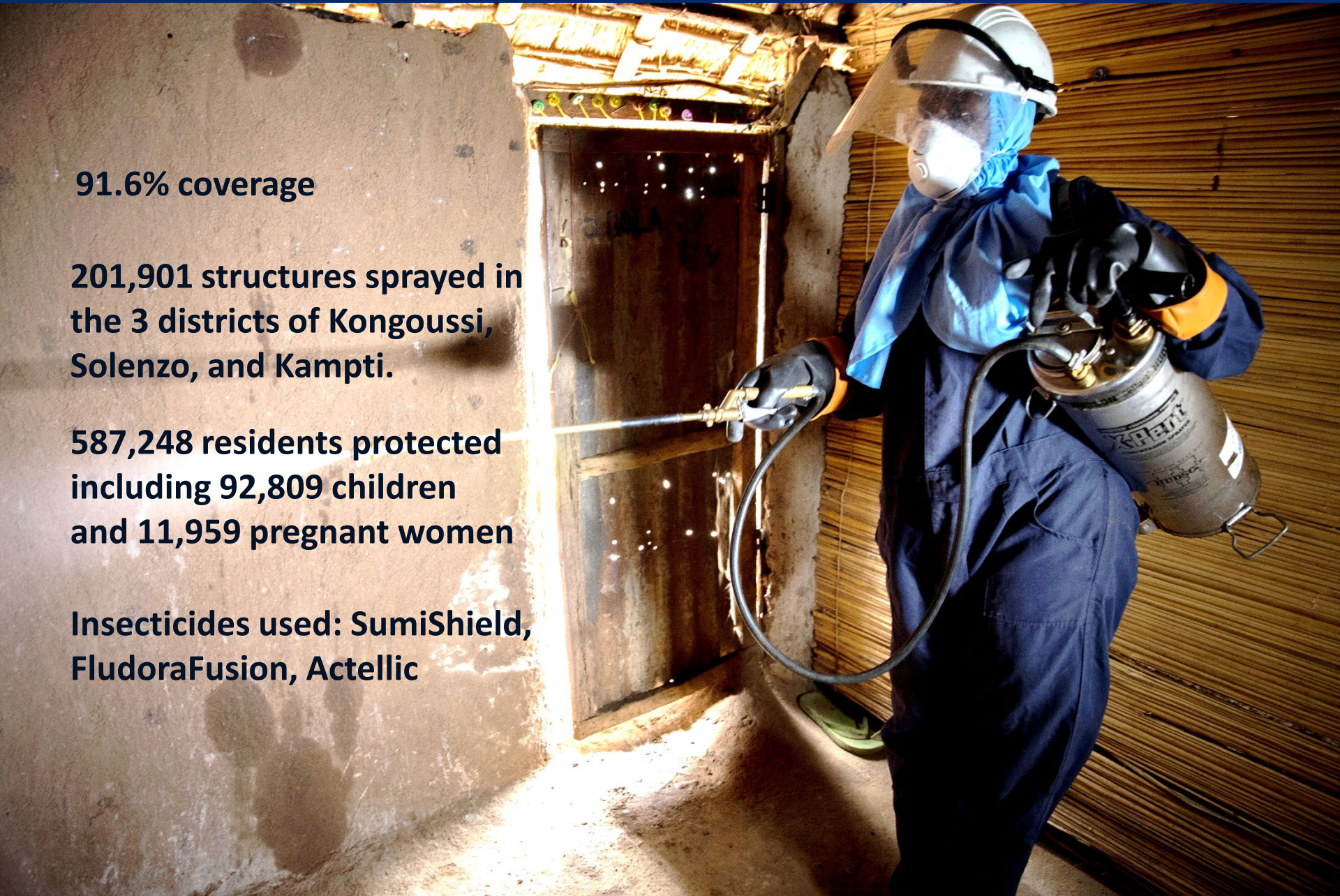
Burkina Faso 2019 spray campaign at a glance

91.6% coverage

201,901 structures sprayed in the 3 districts of Kongoussi, Solenzo, and Kampti.

587,248 residents protected including 92,809 children and 11,959 pregnant women

Insecticides used: SumiShield, FludoraFusion, Actellic





Objectives of Burkina Faso mobile data collection pilot

1. Evaluate feasibility and ease of use of mobile data collection tools during the IRS campaign by Spray Operators (SOPs).
2. Provide close to real-time spray data to enable data-driven programmatic decision-making during IRS campaign.
3. Enhance validation of spray coverage data, and data processing time and reporting.



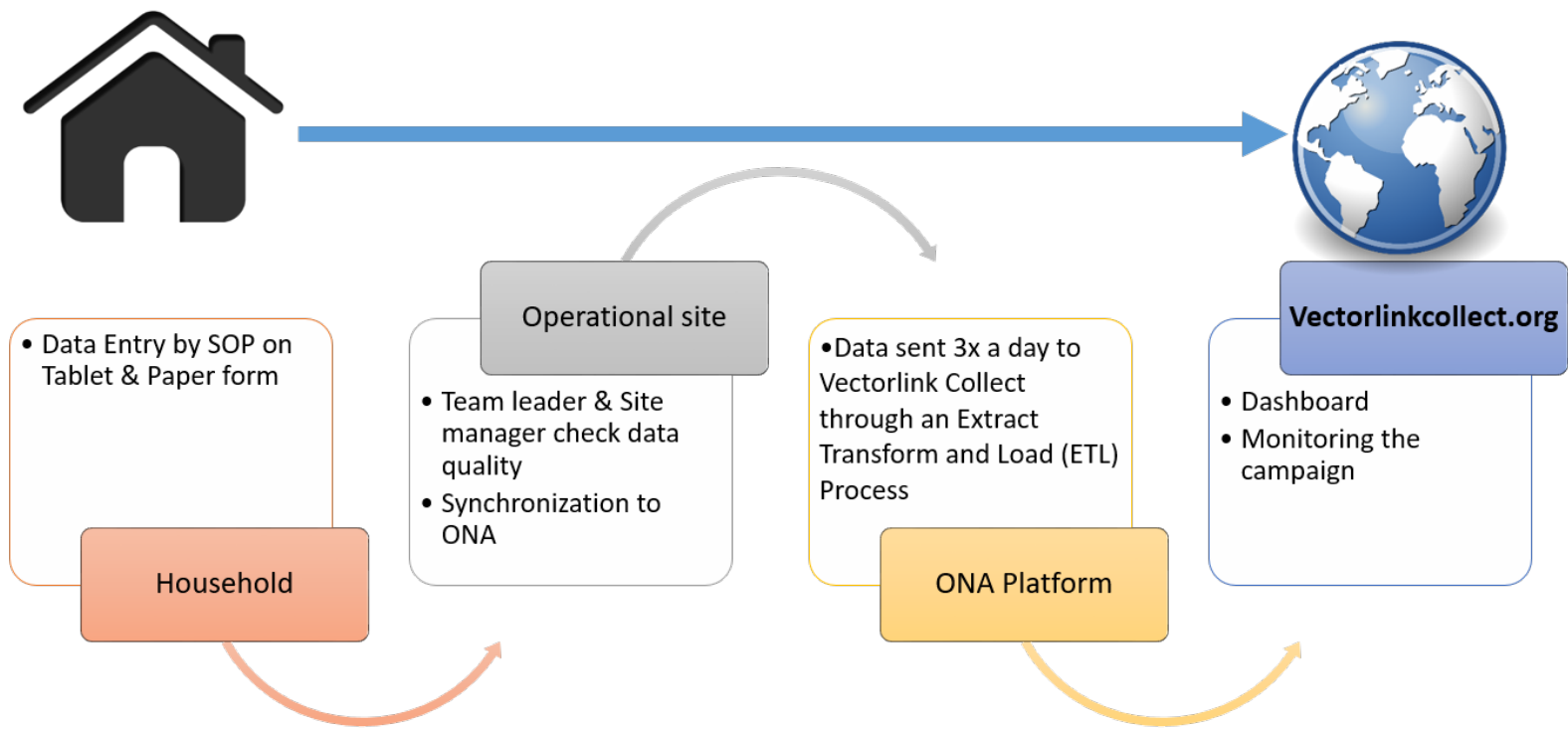
Burkina Mobile Data Collection Pilot

- Created an adapted ODK Collect form on tablet
- Procured and set up tablets, and delivered trainings for 656 SOPs
- Synced data with project's DHIS2-based VectorLink Collect





Mobile data flow






Easier data collection

burkina_XLS_v6

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* 7. Combien d'enfant de moins de cinq ?




1

- + , 1 2 3 ✕
* / . 4 5 6 ←
() = 7 8 9
_ * 0 #

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* 6. Combien de femme Enceinte ?




1

- + , 1 2 3 ✕
* / . 4 5 6 ←
() = 7 8 9
_ * 0 #

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* 8. La structure a été pulvérisée ?



Verifier le nombre enregistre sur la fiche de l'operateur


Pulvérisées

Non pulvérisées

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3. Combien de personne vivent dans la structure ?



- + , 1 2 3 ✕
* / . 4 5 6 ←
() = 7 8 9
_ * 0 #

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2019 - PMI VectorLink Burkina Faso | Spray Progress

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In 2019, VectorLink Burkina Faso has aim to spray 221,255 structures in 3 districts, Kampti (South West region), Kongoussi (Central North region), and Solenzo (Boucle du Mouhoun region), and protect about 663,765 inhabitants in these three districts. The project will use three types of insecticide in 2019: organophosphate Actellic®300CS in Kongoussi, Sumishield in Kongoussi and Solenzo, and Fludora Fusion in Kampti. All the IRS data will be collected using a tablet by Spray Operators at the household level. The IRS operations will begin in three districts on June 6th and all districts are scheduled to end after 30 operational days. A summary of spray data to date, broken out by District and Operational Site, is provided in the tables, graphs, pie chart below.

Standard definitions: Spray coverage = (structures sprayed by SOPs in the current campaign)/(structures found by SOPs in the current campaign)
 Spray progress = (structures sprayed by SOPs in the current campaign)/(structures found by SOPs during the previous campaign)

BF- 2019 - IRS Cumulative Daily Spray Progress

Cumulative Daily Spray Progress
Burkina Faso

Date	Structures Found	Structures Sprayed	Spray Targets GLO
2019-06-06	3,418	7,803	12,980
2019-06-07	7,803	12,980	18,513
2019-06-08	12,980	18,513	24,896
2019-06-09	18,513	24,896	31,924
2019-06-10	24,896	31,924	39,492
2019-06-11	31,924	39,492	47,013
2019-06-12	39,492	47,013	54,599
2019-06-13	47,013	54,599	62,364
2019-06-14	54,599	62,364	69,948
2019-06-15	62,364	69,948	77,681
2019-06-16	69,948	77,681	86,096
2019-06-17	77,681	86,096	94,208
2019-06-18	86,096	94,208	102,714
2019-06-19	94,208	102,714	110,313
2019-06-20	102,714	110,313	125,952
2019-06-21	110,313	125,952	142,332
2019-06-22	125,952	142,332	150,691
2019-06-23	142,332	150,691	167,804
2019-06-24	150,691	167,804	184,230
2019-06-25	167,804	184,230	199,714
2019-06-26	184,230	199,714	208,746
2019-06-27	199,714	208,746	219,293
2019-06-28	208,746	219,293	200,788
2019-06-29	219,293	200,788	
2019-06-30			
2019-07-01			
2019-07-02			
2019-07-03			
2019-07-04			
2019-07-05			
2019-07-06			
2019-07-07			
2019-07-08			
2019-07-09			
2019-07-10			

BF- 2019 - Summary Spray Data by District

Summary Spray Data by District								
2019								
Organisation unit / Data	Spray- Structures found (Details)	Spray- Structures sprayed (Details)	Spray- Pregnant women protected (Details)	Spray- Children <5 years old protected (Details)	Spray- Females protected (Details)	Spray- Males protected (Details)	Spray- Spray coverage (Details)	Spray- Spray progress (Details)
Kampti District	24 377	21 129	1 323	11 821	37 442	32 819	86.7	71.9
Kongoussi District	85 342	79 117	4 218	35 240	117 116	102 113	92.7	91.8
Solenzo District	110 764	101 655	6 418	45 748	151 587	146 171	91.8	96.2
Total	220 483	201 901	11 959	92 809	306 145	281 103	91.6	91.3



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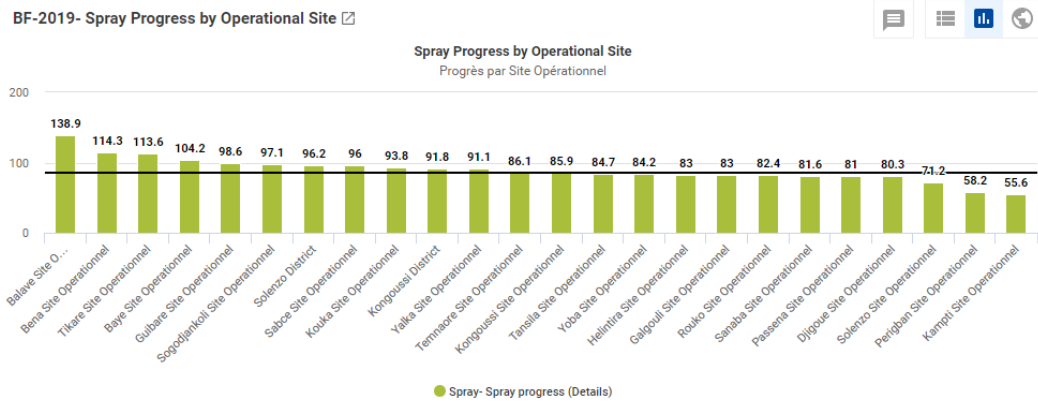
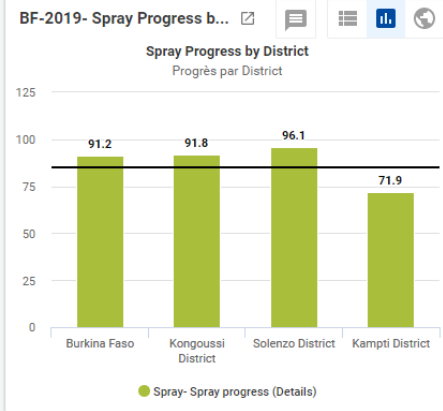
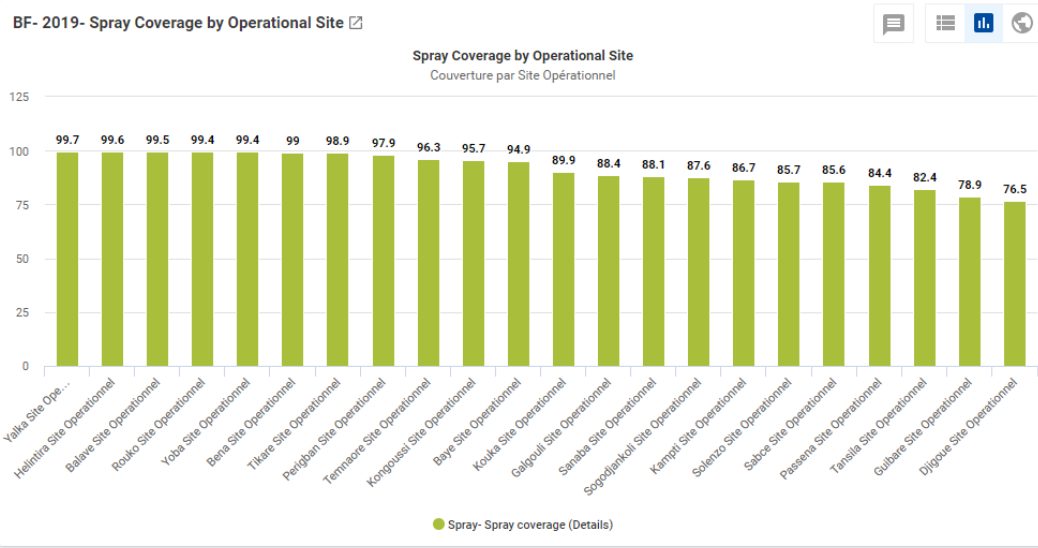
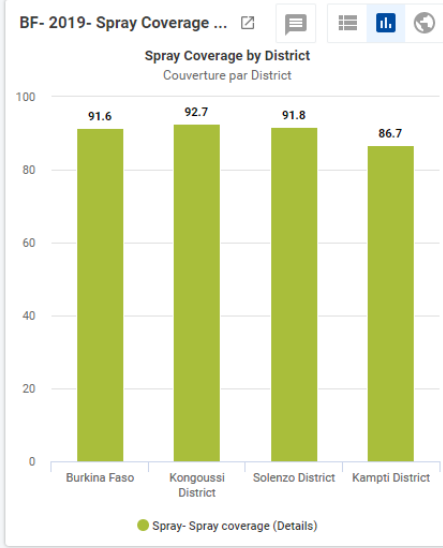
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BF- 2019 - Reasons not spray

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BF-2019- Spray Progress by District

Spray Progress by District
Progrès par District

District	Spray Progress (%)
Burkina Faso	91.2
Kongoussi District	91.8
Solenzo District	96.1
Kampti District	71.9

BF-2019- Spray Progress by Operational Site

Spray Progress by Operational Site
Progrès par Site Opérationnel

Operational Site	Spray Progress (%)
Balawe Site Op...	138.9
Bena Site Opérationnel	114.3
Tikare Site Opérationnel	113.6
Baye Site Opérationnel	104.2
Gubare Site Opérationnel	98.6
Sogodjankoli Site Opérationnel	97.1
Solenzo District	96.2
Sabco Site Opérationnel	96
Koukua Site Opérationnel	93.8
Kongoussi District	91.8
Yalka Site Opérationnel	91.1
Termaore Site Opérationnel	86.1
Kongoussi Site Opérationnel	85.9
Tambala Site Opérationnel	84.7
Yoba Site Opérationnel	84.2
Helmitra Site Opérationnel	83
Gagouli Site Opérationnel	83
Rouko Site Opérationnel	82.4
Samaba Site Opérationnel	81.6
Pasenga Site Opérationnel	81
Djigoue Site Opérationnel	80.3
Solenzo Site Opérationnel	80.3
Pengiban Site Opérationnel	71.2
Kampti Site Opérationnel	58.2
Kampti Site Opérationnel	55.6

BF-2019 - Cumulative Population Protected

Cumulative de la Population Protégée

Category	Population Protected
Spray- Pregnant women protected	11 959
Spray- Children <5 years old protected	92 809
Females protected	306 145
Males protected	281 103

BF- 2019- Average sprayed structure per SOP

Data	Average Sprayed per SOP		
	Boucle du Mouhoun Region	Centre-Nord Region	Sud-Ouest Region
2019-06-06	4.9	8.2	7.4
2019-06-07	7.1	8	7.3
2019-06-08	8.5	8.8	7.1
2019-06-10	8.9	7.8	8.7
2019-06-11	8.9	10.1	9.1
2019-06-12	9.4	11.9	8.9
2019-06-13	10.2	13.3	9.6
2019-06-14	10.1	13.2	8.5
2019-06-15	10	12.9	10.2
2019-06-17	10.5	12.6	9.1
2019-06-18	10.3	12.2	8.1
2019-06-19	9.5	13.8	8.4
2019-06-20	9.9	13.6	9.3
2019-06-21	10	13.3	9.2

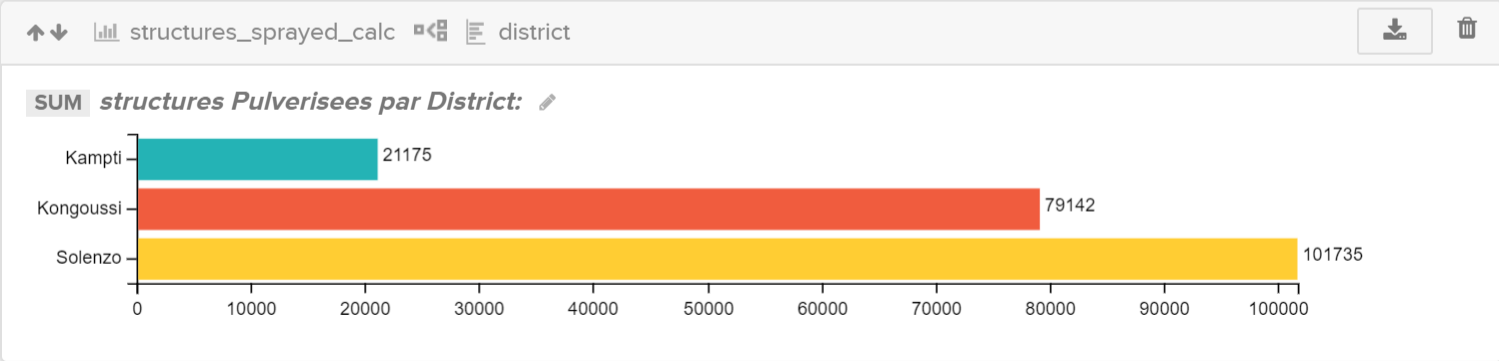
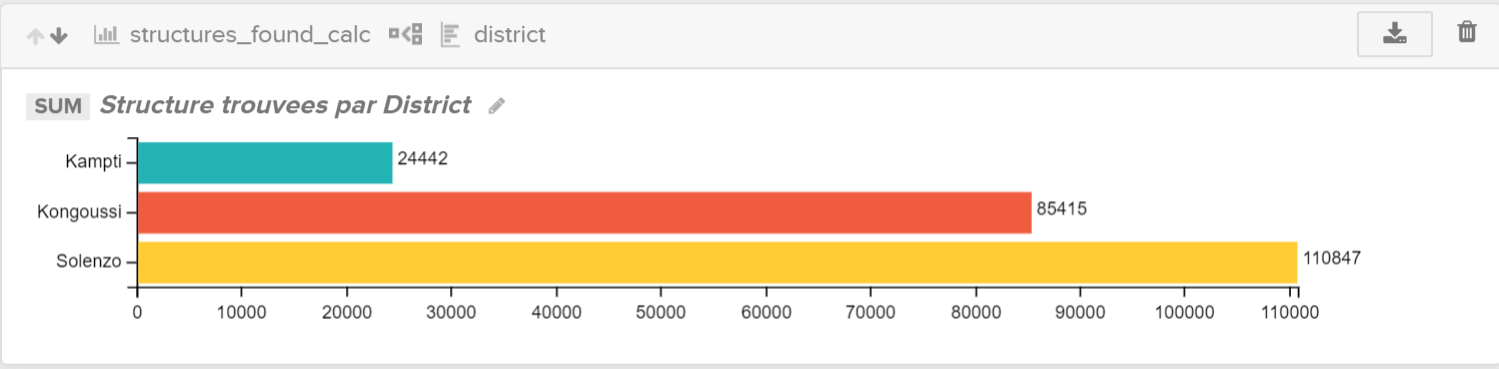
BF- 2019 - Reasons not spray

Raisons de non Pulvérisation

Reason	Count	Percentage
CL-Locked	6732	36.4 %
CL-Refusal	7409	40.0 %
CL-Temporary food storage	2173	11.7 %
CL-Missed	833	4.5 %
CL-Other-	763	4.1 %
CL-Sick	434	2.3 %
CL-Funeral	160	0.9 %

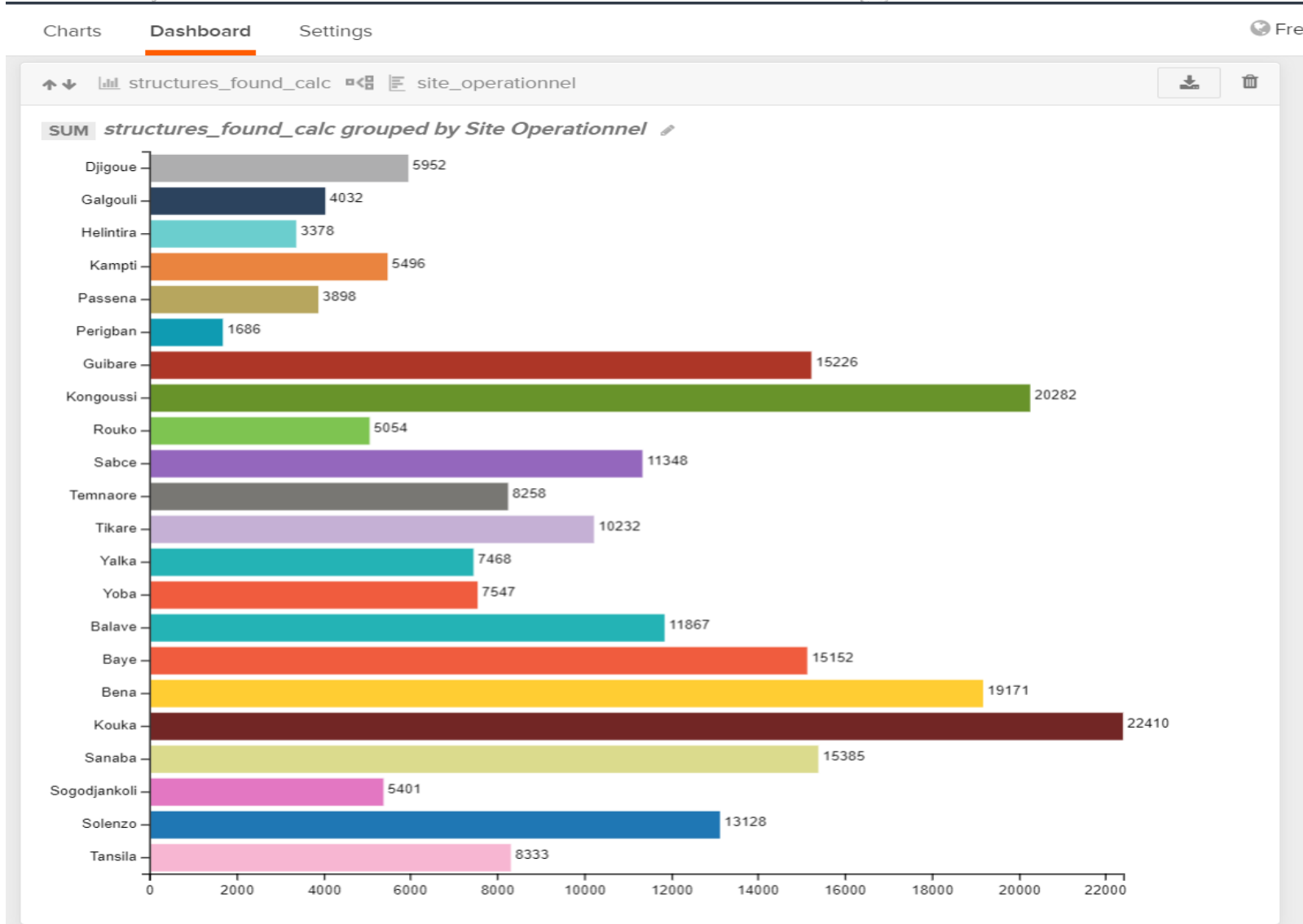


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Data used for decision-making during campaign

- Mobile data collection system allowed for immediate corrective actions when the team noticed the following challenges:
 - High refusals
 - **Response:** intensified mobilization activities
 - Daily insecticide management
 - **Response:** Sensitize spray operators about full use of insecticide prior to returning from the field.
 - Assessed individual SOP insecticide use based on number of structures they sprayed.
 - Sensitized SOPs about improving spray techniques
- Data was also used every evening to strategize and plan for the next spray day
- WhatsApp groups were created to share data regularly



Mobile Data Collection Challenges



1. Unique Structure Number (VectorLink is working to generate the Unique Structure Number automatically within the tablet)
2. Geography selection (working to be able to filter by SOPs Code)
3. Connectivity



Other mobile data collection pilots

- Migori County, Kenya (Jan-March 2019)
 - 30 spray operators, 5 team leaders
 - SOPs preferred mobile over paper
 - Reduced work load of data-entry clerks
 - GPS recording was a plus (though not always consistent)
 - Similar challenges to those found in Burkina
 - Implications for scale-up in 2020 (160 SOPs in Migori and Homa Bay)



Conclusions

- Mobile data collection proved to improve use of data for decision-making during spray campaign
- Minimized the amount of paperwork
- Reduced number of data entry clerks needed
- Eliminated daily transport time, cost and delays in getting the spray forms to the data entry centers
- Going mobile could save costs in the long-run provided that mobiles devices are regularly maintained



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