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

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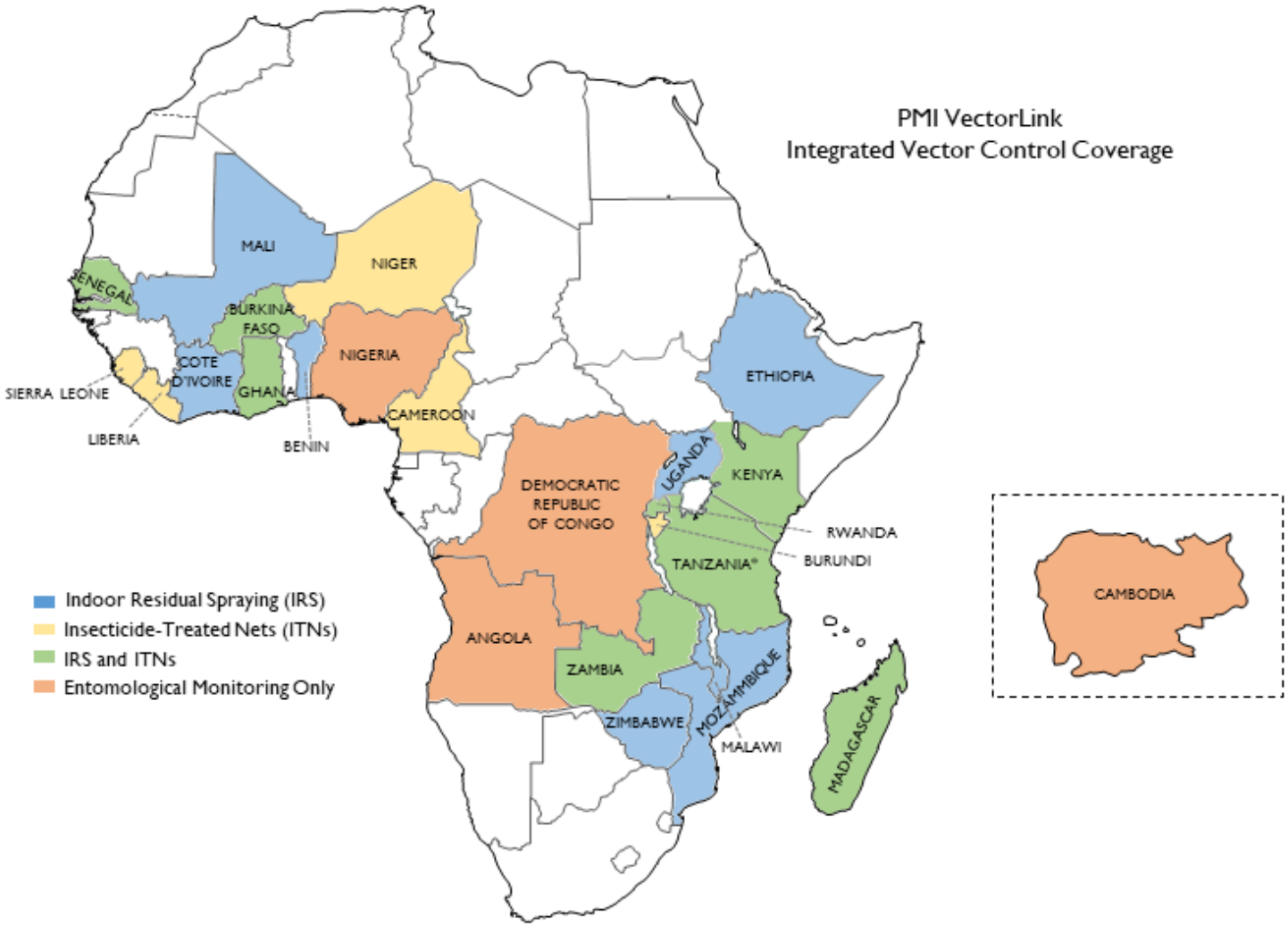
Where we work



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).

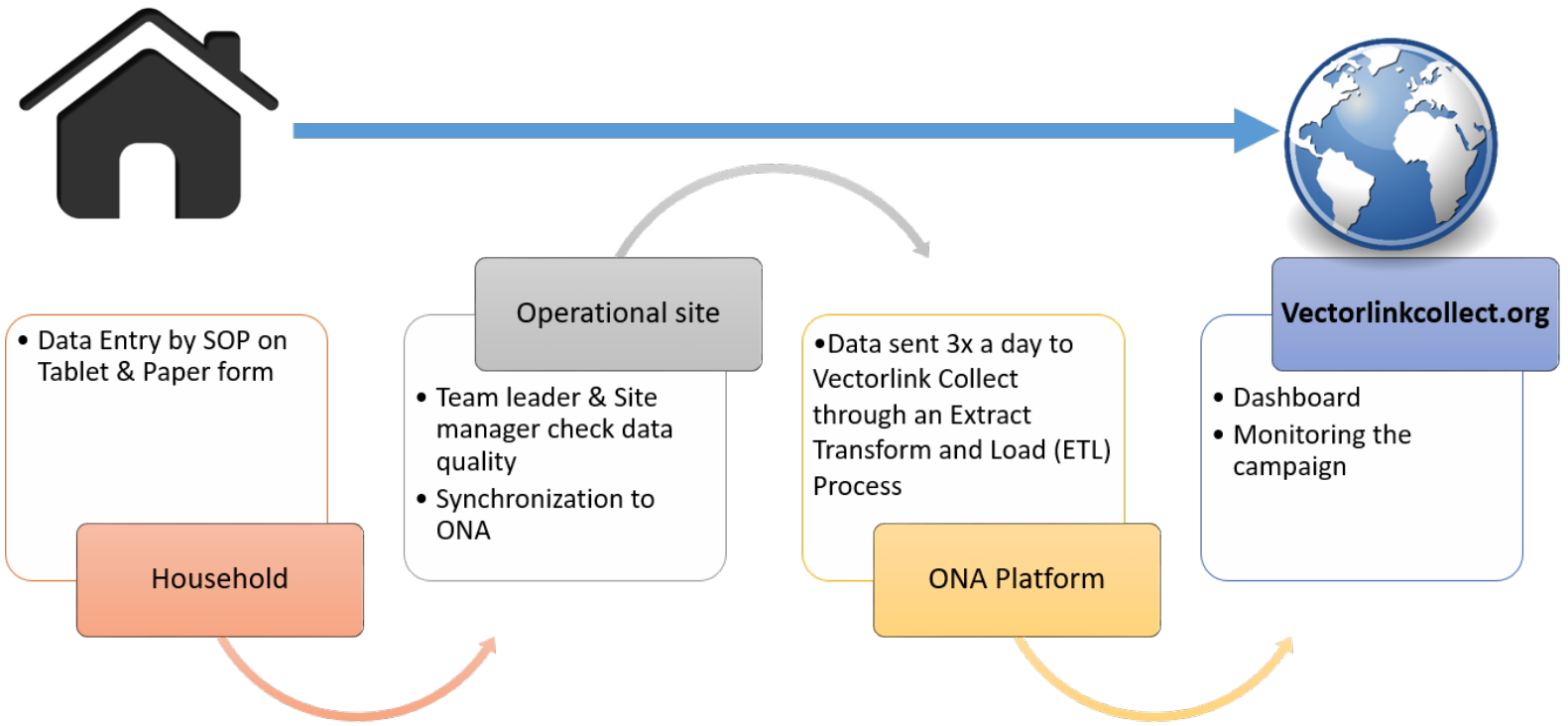
2. Provide close to real-time spray data to enable data-driven programmatic decision-making during IRS campaign.

3. Enhance validation of spray coverage data, and data processing time and reporting.

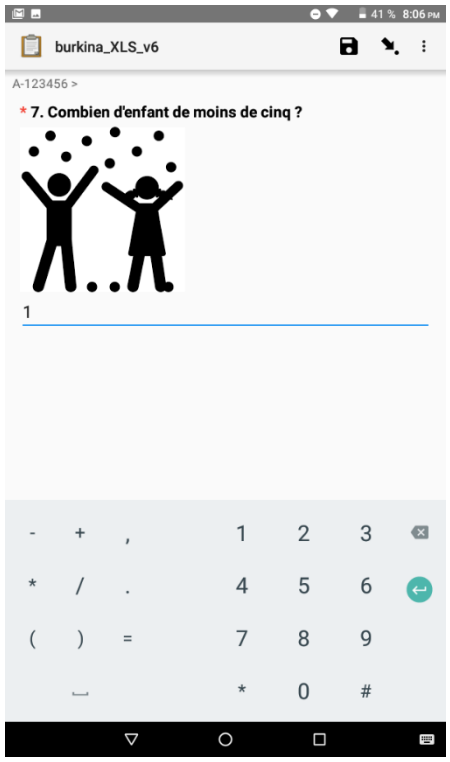
Burkina Mobile Data Collection Pilot

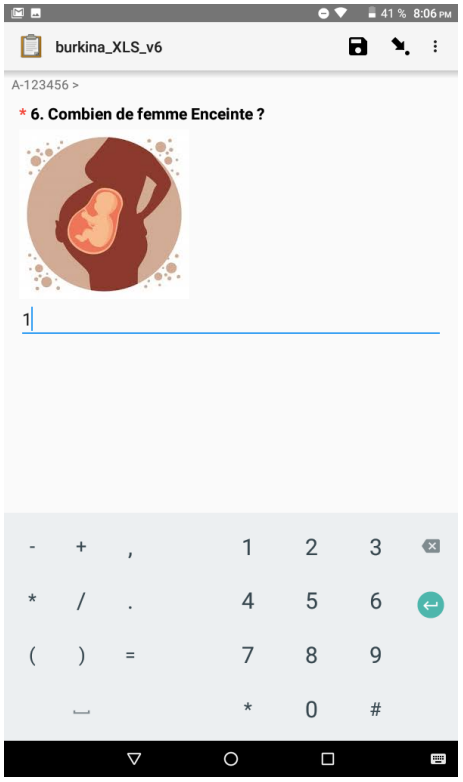
- Created an adapted ODK Collect form on tablet
- Procured and set up tablets, and delivered trainings for 656 SOPs
- Synched data with project's DHIS2-based VectorLink Collect

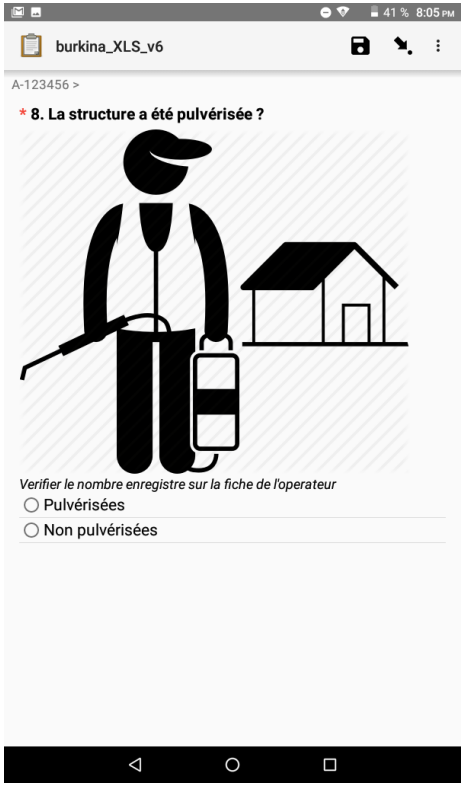
Mobile data flow

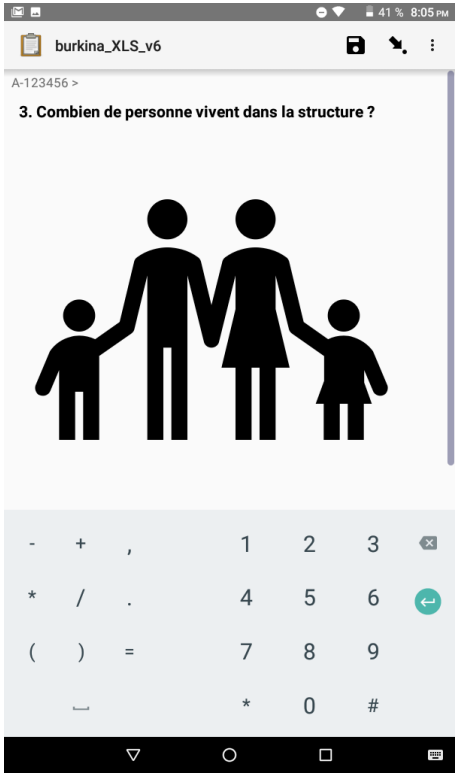


Easier data collection

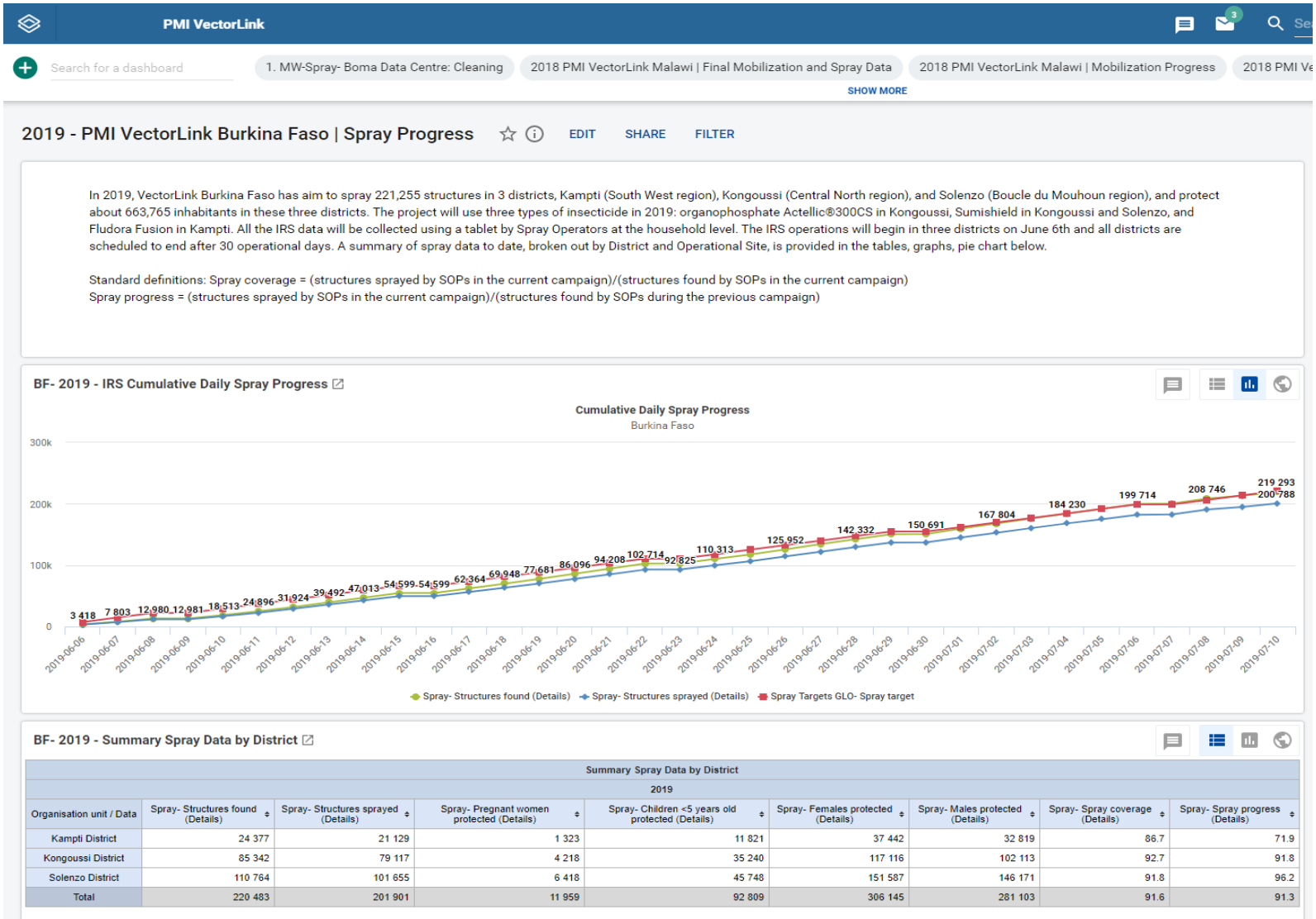








VectorLink Collect and Ona: More visuals for better, easier decision-making



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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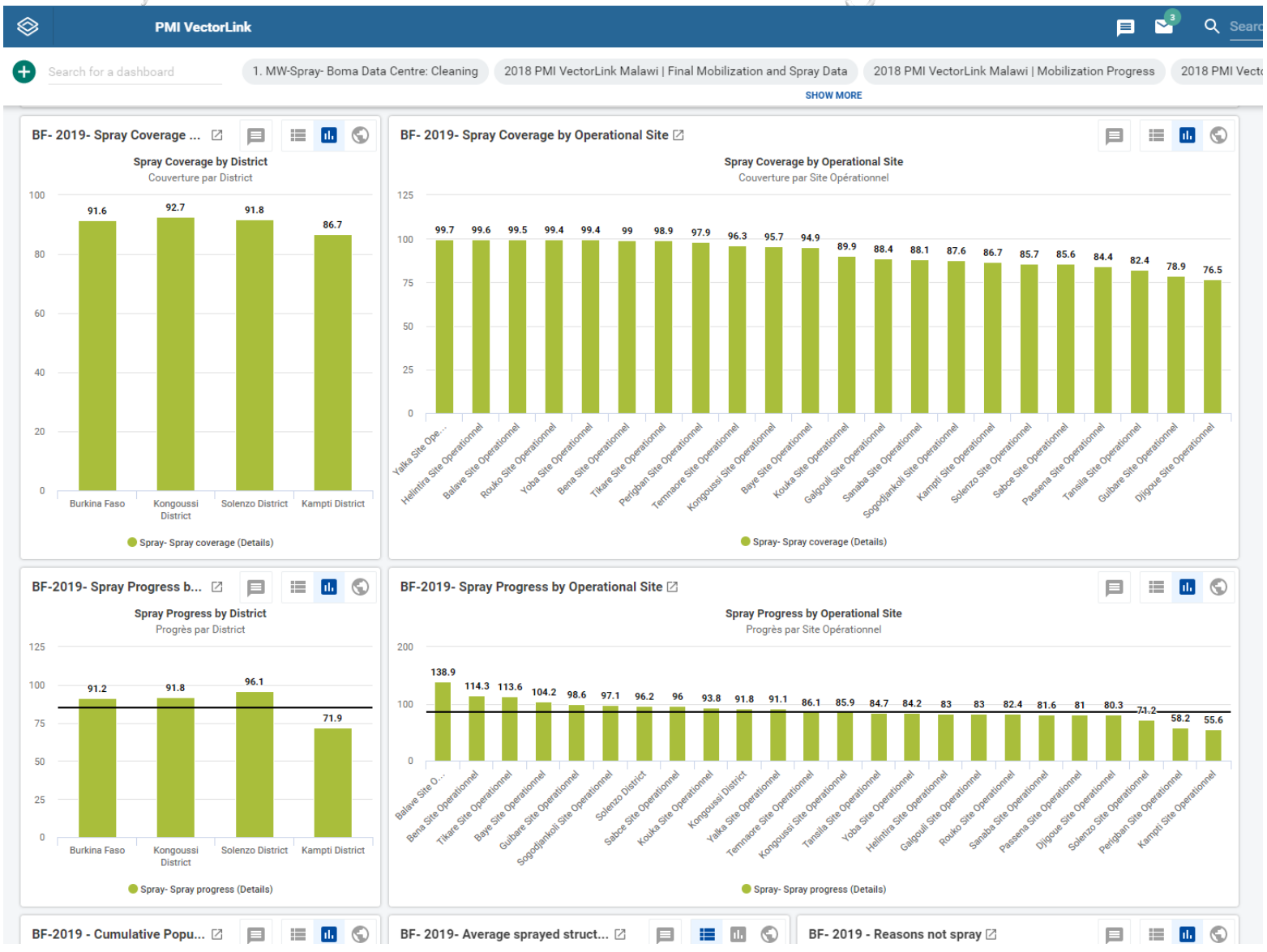

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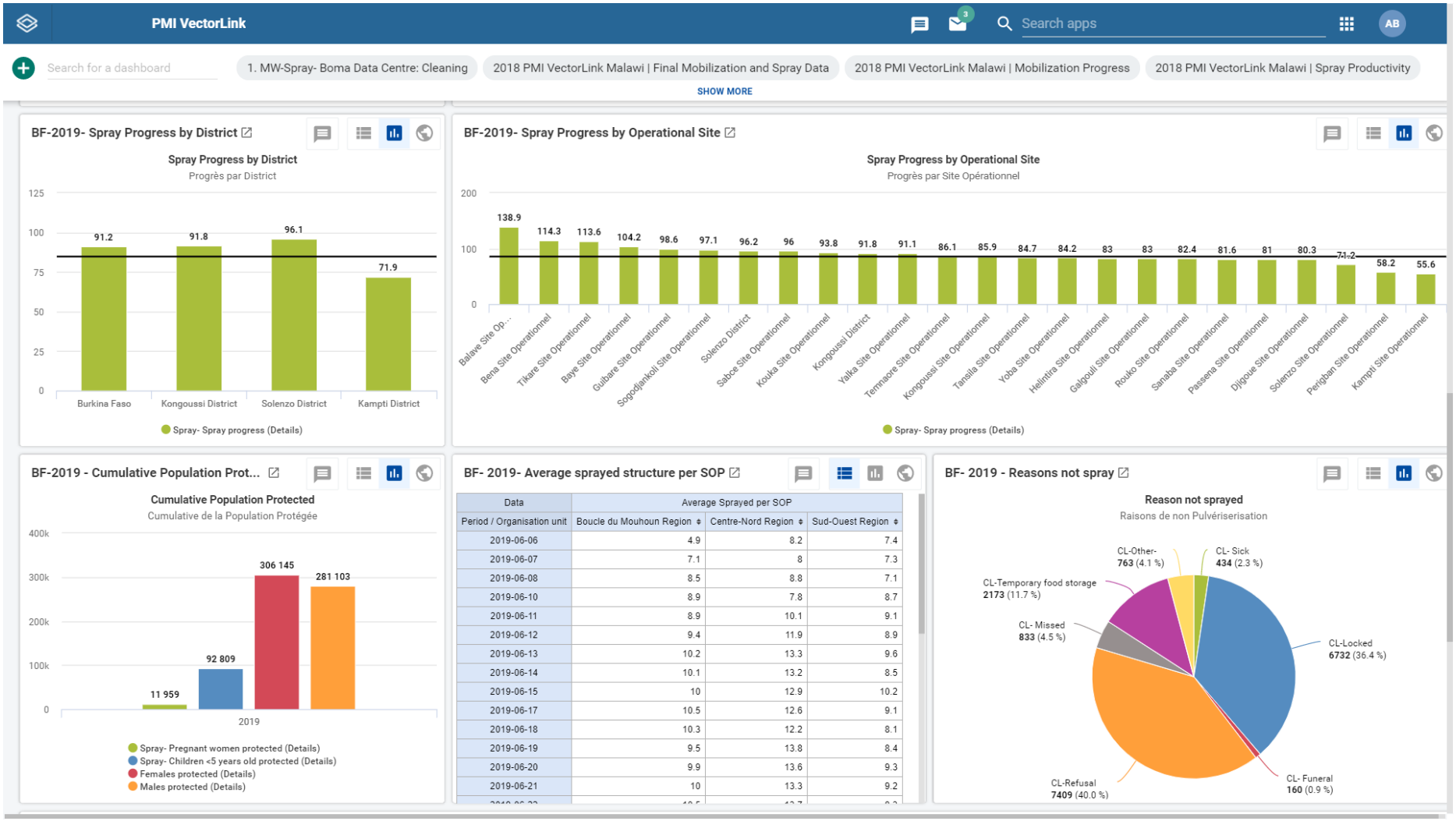

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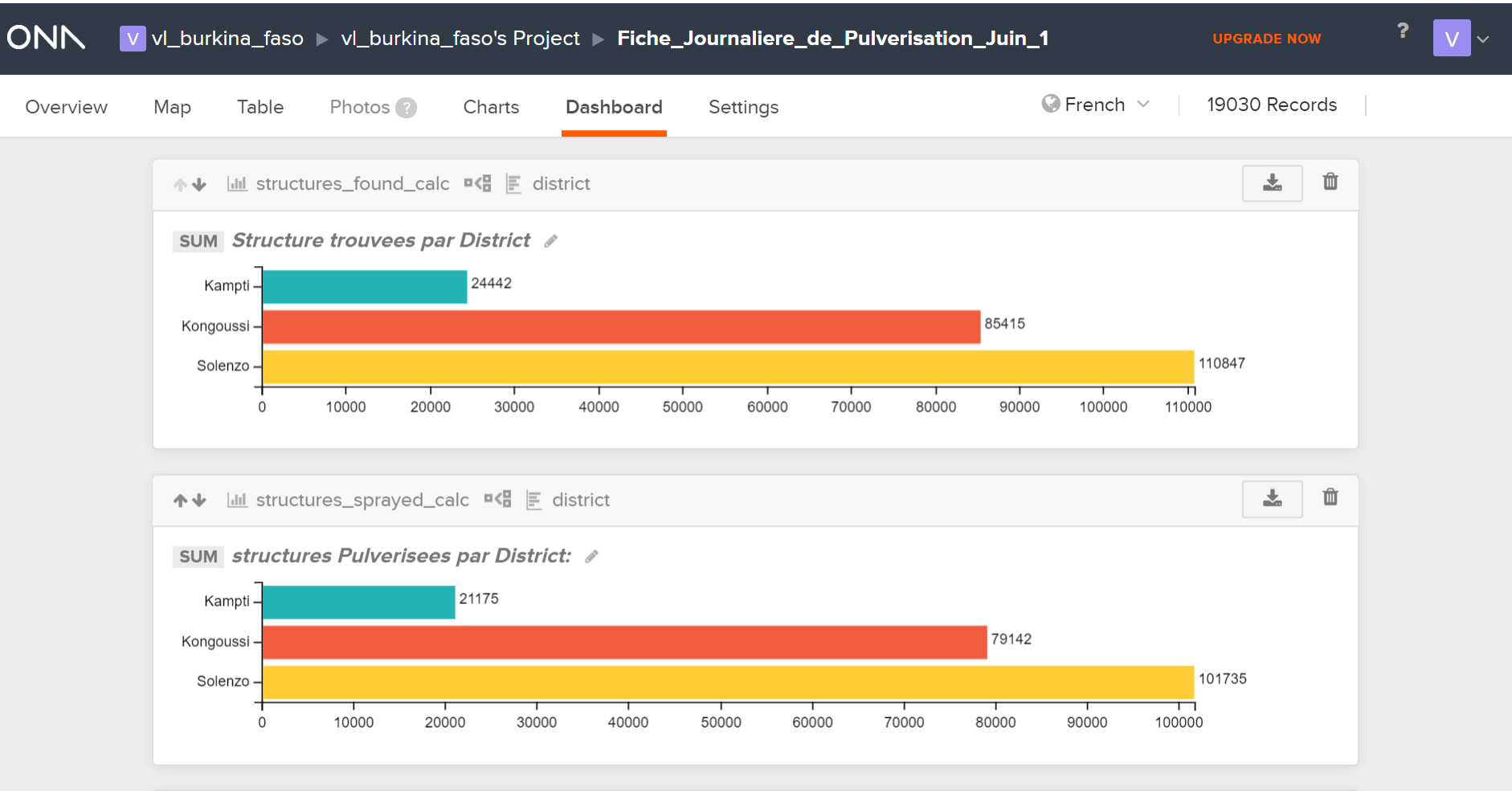

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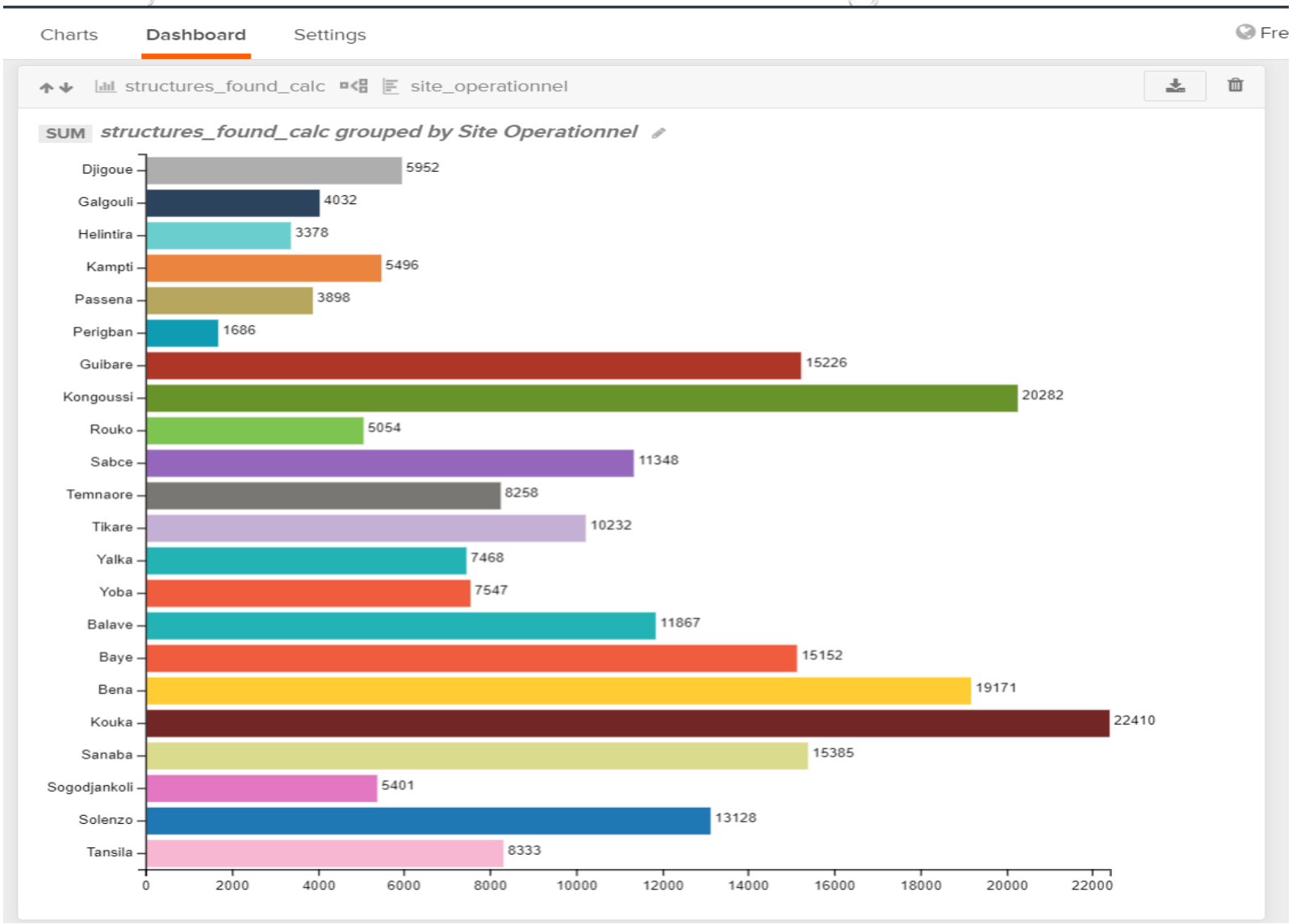

Data used for decision-making during campaign

- 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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