



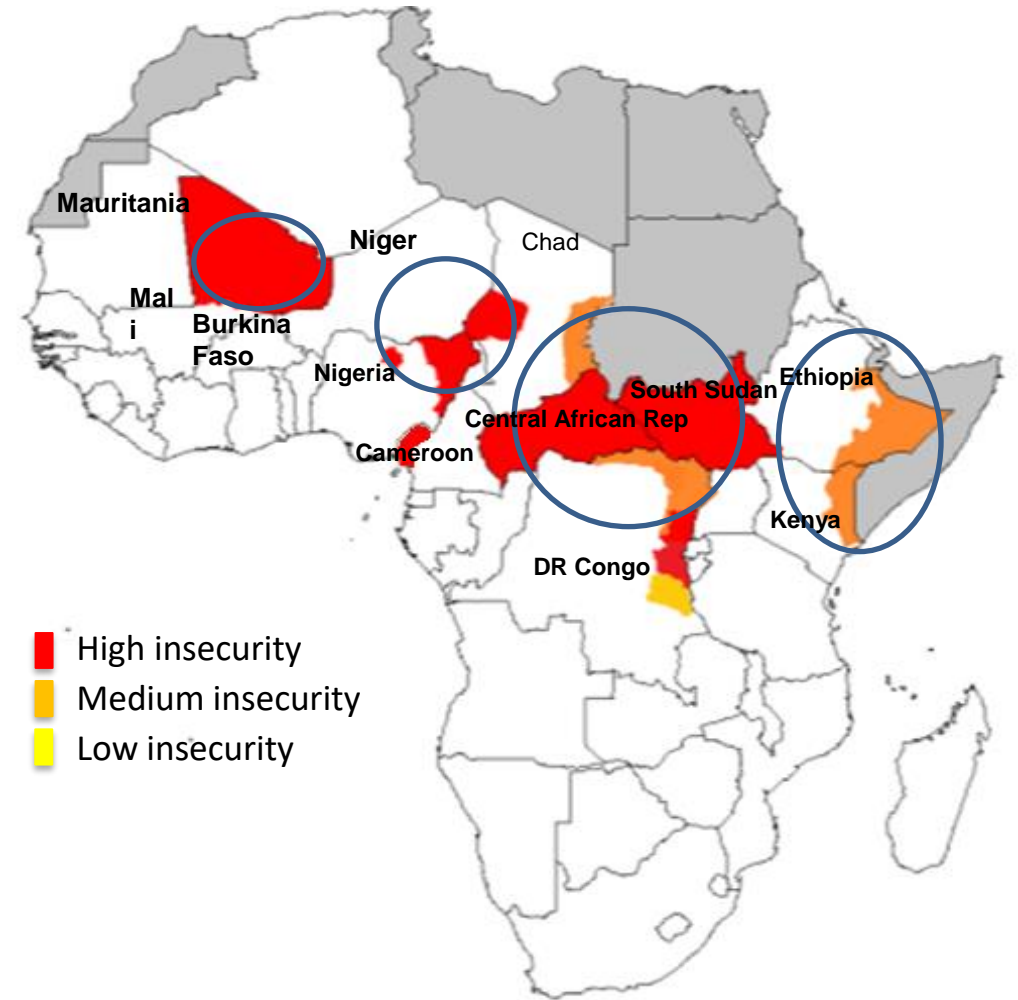
GPEI Electronic Data Platforms

Overview of AVADAR, eSURV, ISS and their future

**Virtual Meeting of the Global Polio Partners Group
(PPG) - Surveillance “Deep Dive - I”
May 11, 2022**

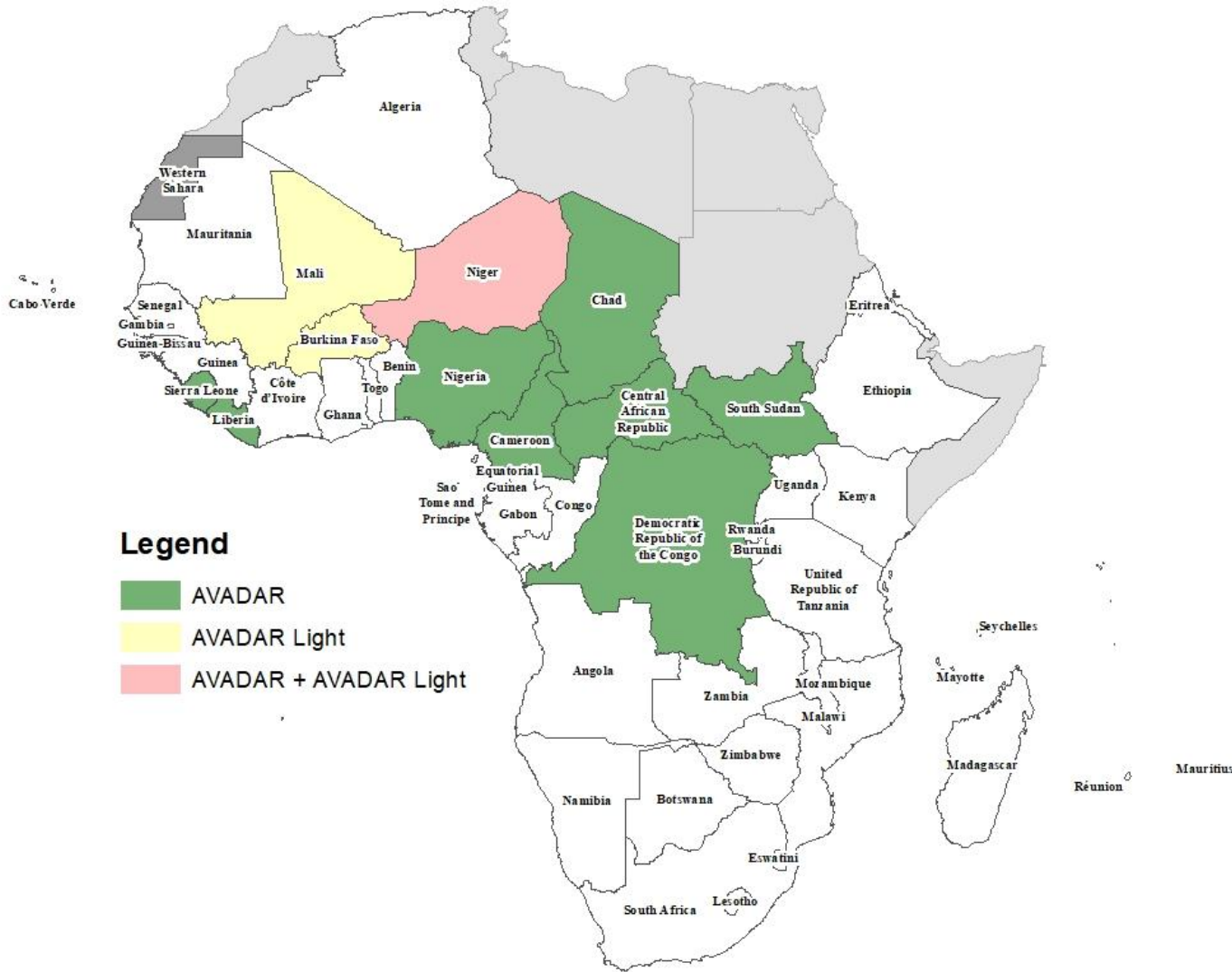
Polio Eradication Program, WHO AFRO

- “One thing is inescapable: polio will not end everywhere until everywhere has ended it. The challenge for the Polio Programme now is to create an unrelenting focus on the smaller areas where the virus is still present, where children are being repeatedly missed where immunity levels are low, and where surveillance is weak” ¹
- **AVADAR, ISS and eSURV** are mHealth interventions focused on community based surveillance and Surveillance at health facilities designed to put **unrelenting focus on the smaller areas** to improve Disease surveillance and Immunization



¹ Independent Monitoring Board meeting, August 2016

AVADAR (Auto Visual AFP Detection And Reporting)

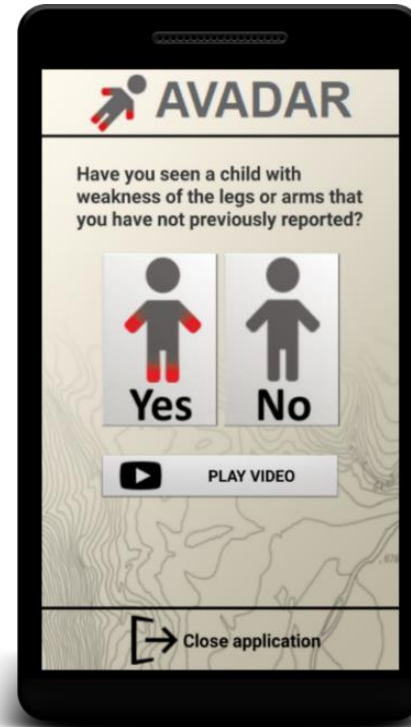
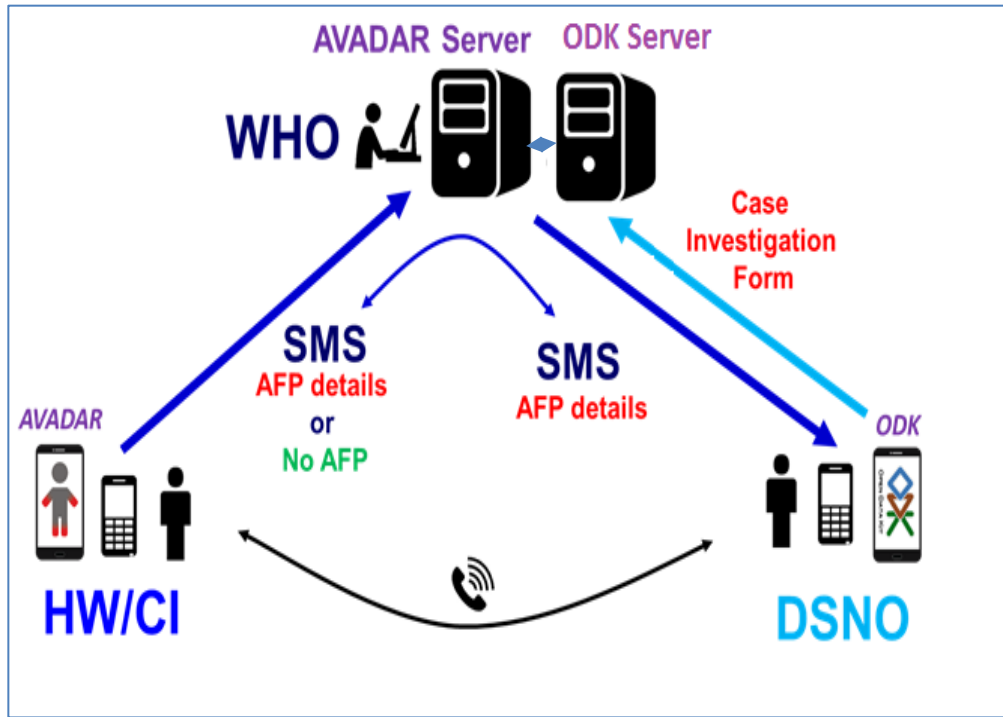


AVADAR was initiated to strengthen community surveillance to support polio certification efforts, especially in high-risk, high-mobility, or conflict affected areas

AVADAR improves the detection and investigation of AFP cases using smart phones

By December 2020, 11 polio priority countries were using this system for reporting AFP cases through a network of community informants

Partners include WHO AFRO/WCOs, MOH, BMGF, eHealth and Novel-t



- **Auto-Visual:** show a video, in your local language, what does AFP look like?
- **In your hands:** Mobile tool (phone) for community informants and health workers (24/7)
- **SMS is fast:** Sends reports or suspected case and location to your supervisor or DSNO immediately.

Key features of the AVADAR system for AFP surveillance

The increase in the number of persons who search for cases in the communities

Timely reporting of alerts on suspected AFP with a network of surveillance officers very close to the location of the informants

Trainings and continued capacity building of informants through joint field investigation of alerts

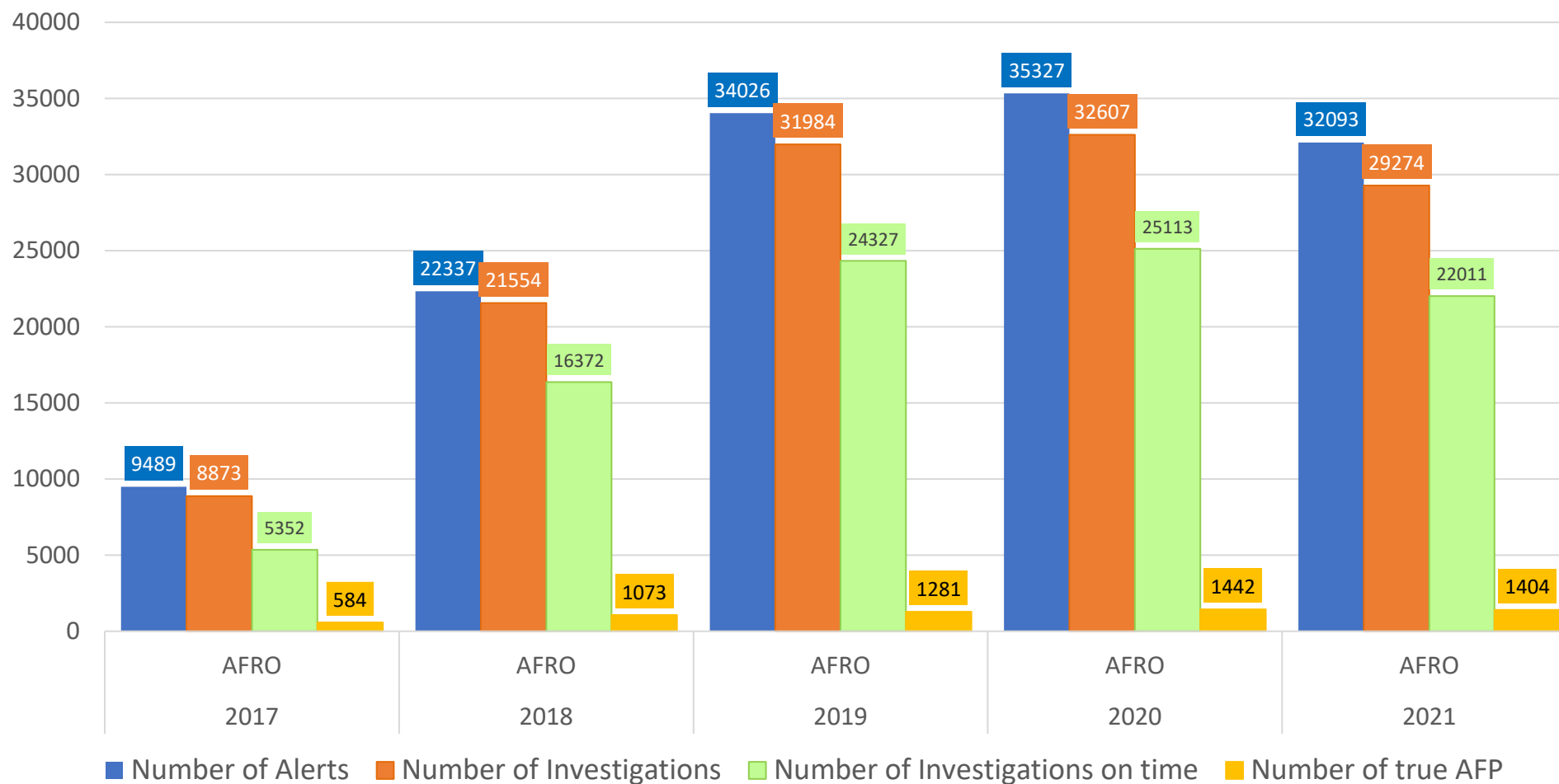
Regular meetings of informants and surveillance officers at the field level

Routine field supervisions

The audio-visual message on the phones is also used by informants to sensitize other persons in the communities thus increasing the number of persons searching for suspected AFP cases

Key indicators of AFP active detection on AVADAR System/ Regional Summary (AFRO 2017 - 2021)

Status of Alerts, Investigations and AFP cases detected from 2017 to 2021



Alerts:
133,272

Alerts Investigated:
124,292 (93%)

True AFP
5,784 (4.7%)

- AVADAR is one of the key innovative surveillance strategies used as evidence of on-going surveillance and immunization activities in priority countries for polio certification
- Through the engagement of local community informants, significant improvements in surveillance were noted in inaccessible and hard to reach areas where traditional surveillance was weak:
 - **Early notification of AFP cases:** increase in the number of persons who search for cases in the communities (over 9000 informants in 11 countries) ensures early detection within 14 days of onset of paralysis
 - **Timely investigation of notified AFP cases:** alerts notification through SMS involving the entire surveillance network from district, regional and national levels, provided a mechanism for conducting investigations within 48 hours of notification
 - **AVADAR Accountability Framework:** provides an incentive for improving staff performance and strengthen surveillance especially at community level
- AVADAR is part of the innovative solutions the ARCC considered in reviewing country documentation for a polio free status as it provided key evidence on the absence of WPV circulation in implementing countries

- August 2020 - The African Region was certified wild poliovirus free
- Funding for the AVADAR program ended for 10 countries, Nigeria ongoing
- 2021 - AVADAR transitioned into the current active surveillance solution, eSURV
- **With continued support**, there is an opportunity for a future iteration of AVADAR, AVADAR Multi-Disease

Engage countries through virtual sessions and conduct country visits to discuss the transition



Maintain AVADAR operations until December 31, 2021



Transition all countries by end of December 2021 and integrate some features of AVADAR into eSURV by January 1, 2022

AVADAR Multi-Disease Opportunity

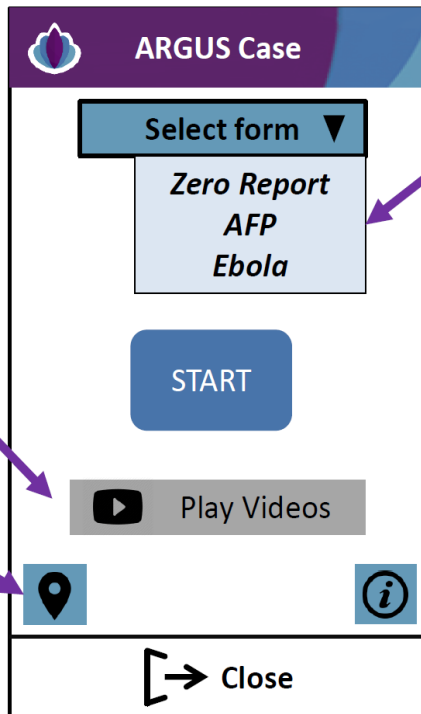
AVADAR Multi-disease

Countries have often suggested that the AVADAR solution should be enhanced to support multiple diseases and eSURV

The AVADAR Multi disease tool, which uses an AVADAR-like solution for multi-disease reporting, could be used by other public health programmes with funding / interest to deploy the new tool

It would facilitate long term sustainability and country appropriation

Outbreak support is a recent addition because of COVID

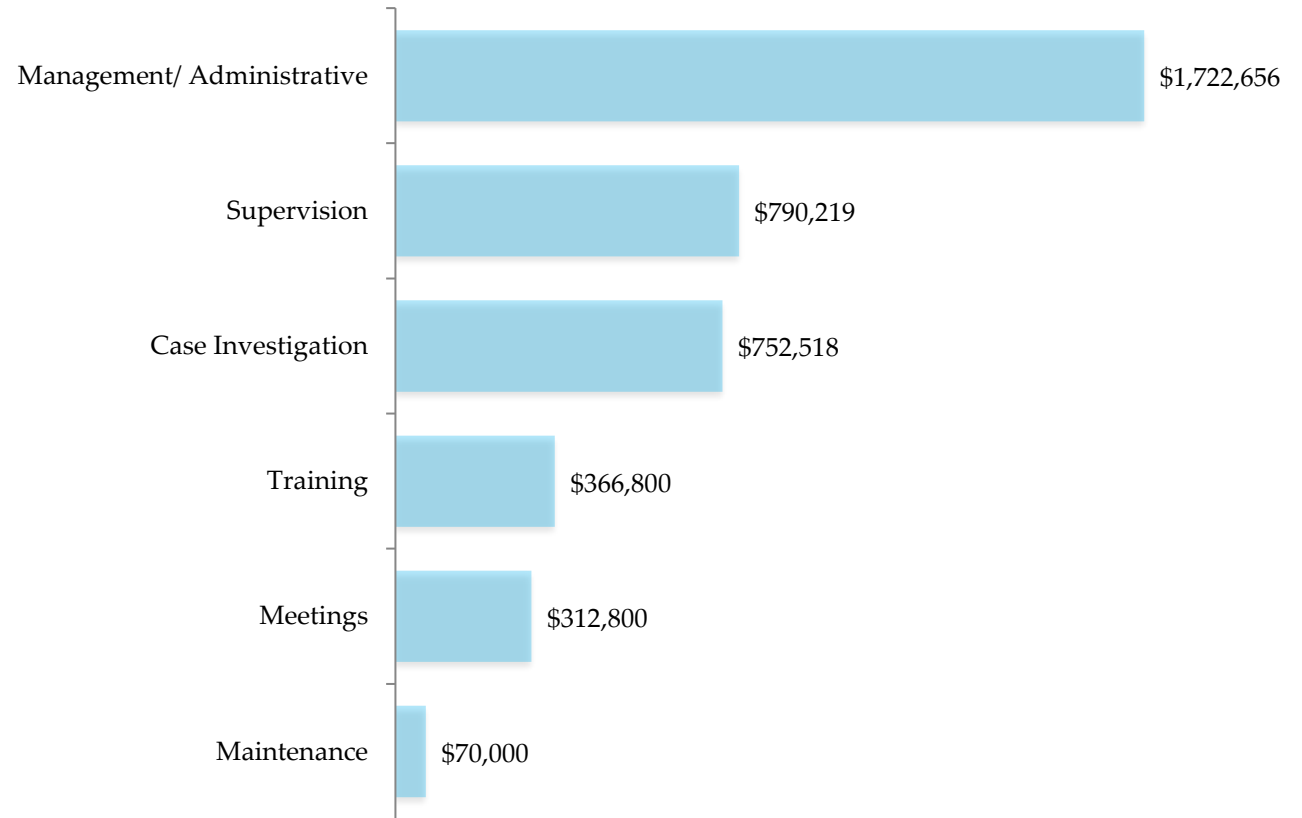


Multiple videos

Informant location

- The cost components of AVADAR included:
 - 37% human resources
 - 38% Field Operations
 - telecoms, smartphones, investigations
 - 28% program coordination
- Existing assets can be leveraged
- Cost drivers can be modified

Example: Combined costs of AFRO and eHealth Africa AVADAR activities, 2019

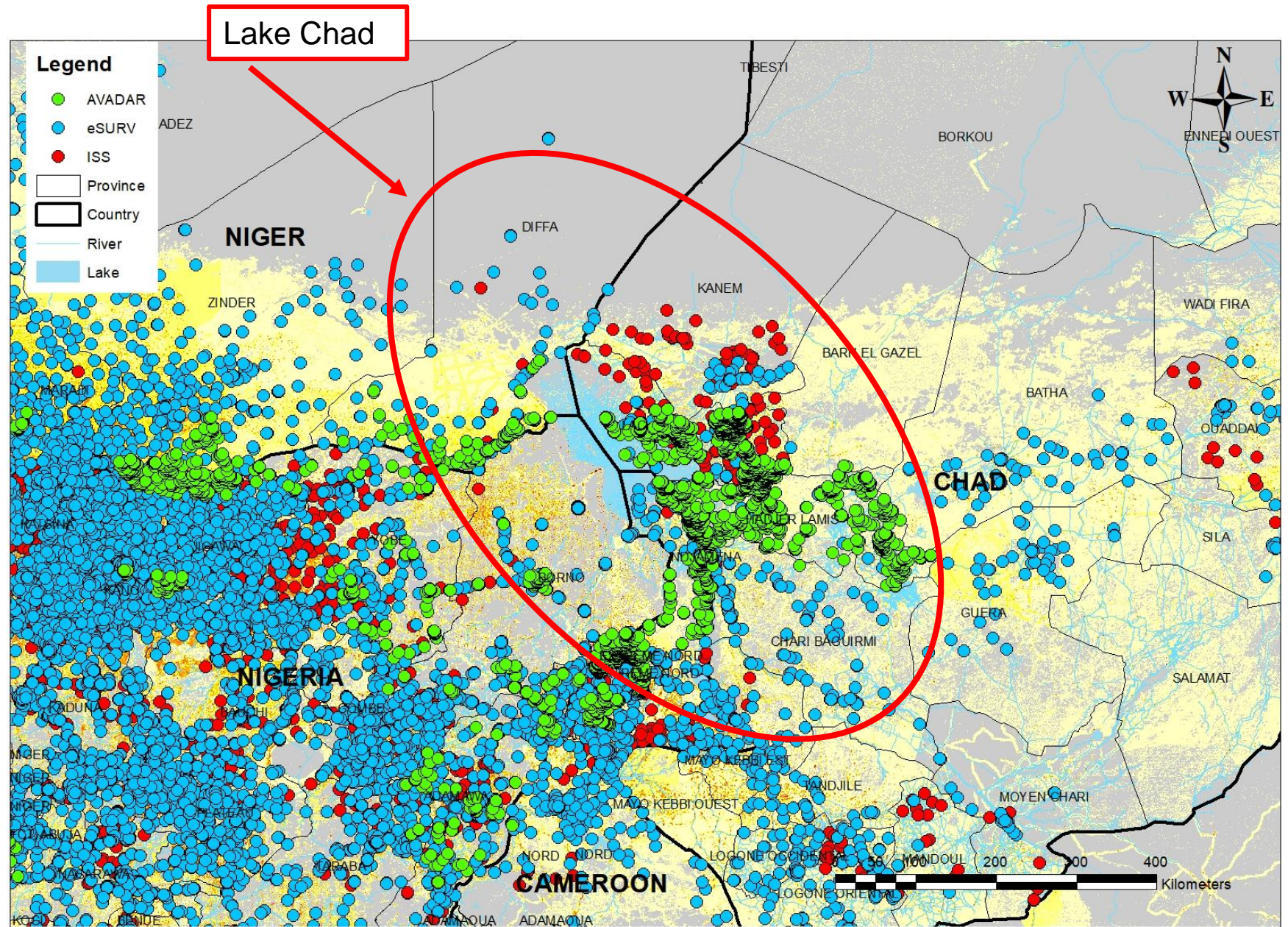


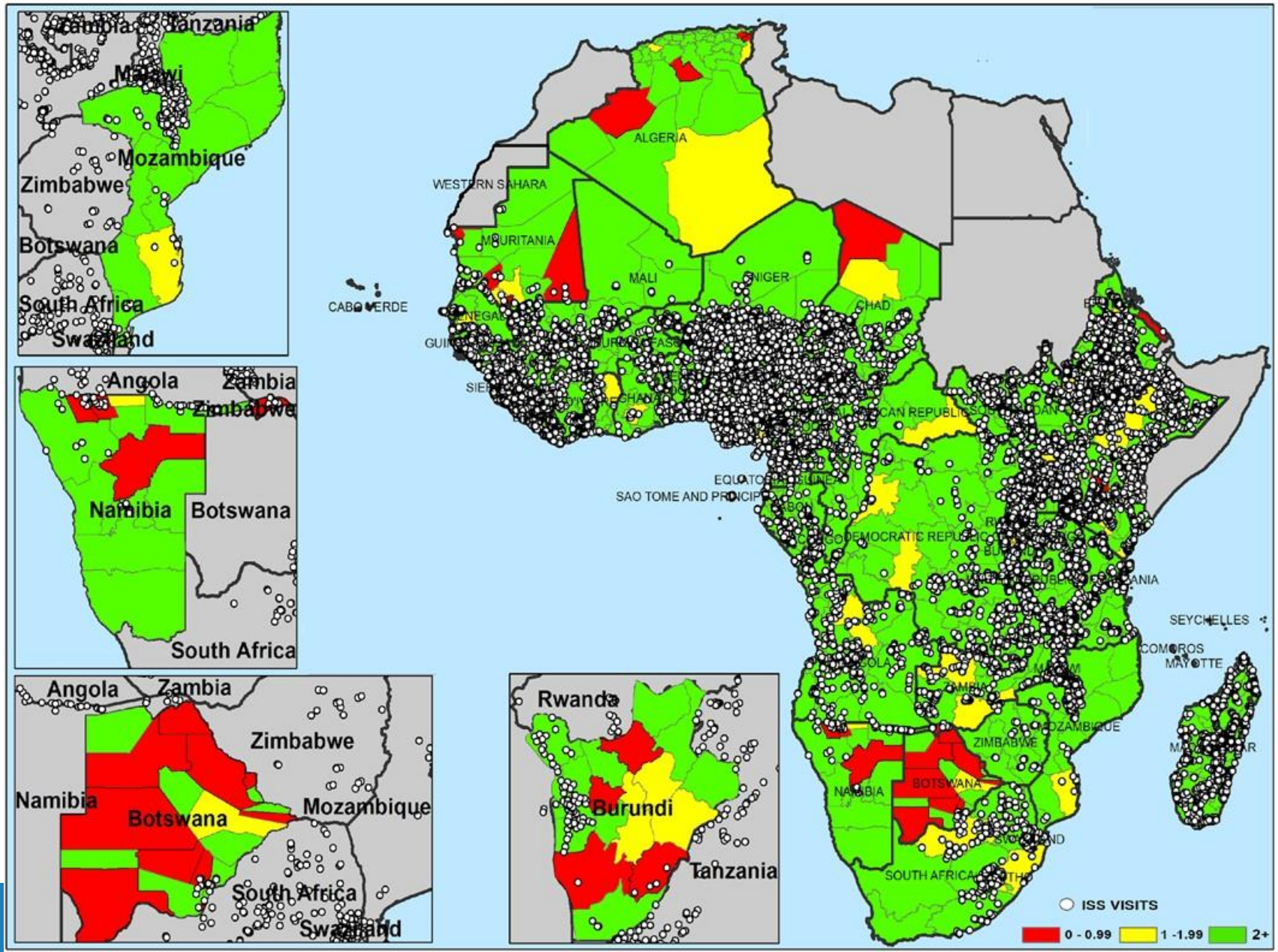
ISS and eSURV

- As Polio certification became more palpable, there was a dire need for more evidenced based and systematic surveillance – active case search etc. through electronic reporting of surveillance activities via notably ISS and eSURV visits.
- Thus in 2016 alongside the transformation agenda mandate – AFRO launched an initiative to elucidate surveillance gaps using active surveillance.
- As of September 2021, 45 countries in AFRO except Algeria and Cabo Verde were conducting some sort of electronic surveillance activities with hybrids or standalone versions of eSURV and or ISS with monitoring at District levels.

- **ISS**, Integrated Supportive Supervision: is an integrated electronic checklist used for supervision on active case finding and routine immunization.
- **ISS** is mainly administered by WHO and government staff through Android Phones in health facilities and at surveillance sites.
- **eSURV** stands for Electronic Surveillance. It is also an mHealth solution to ensure that government surveillance agents conduct active searches using mobile phones in health facilities and in the community.
- The active case search is automatically recorded on country-specific modules on the servers and provides a basis for the evaluation of the surveillance system.

Improvements in closing surveillance gaps in the Lake Chad mHealth Intervention 2019 - Zoom: Cameroon, Chad, Niger & Nigeria- eSurv , ISS & AVADAR activities





Quick notes

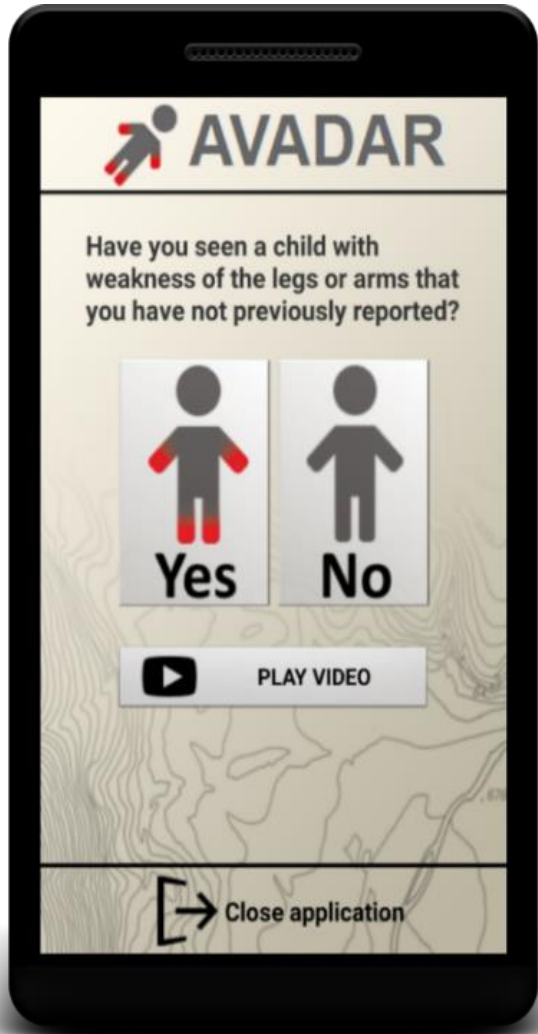
1. Where there is no active case search there are pockets of low NP-AFP rate
2. This is observed in Mozambique, Botswana, Namibia, Burundi, CAR, Chad, Mauritania, DRC and Algeria.



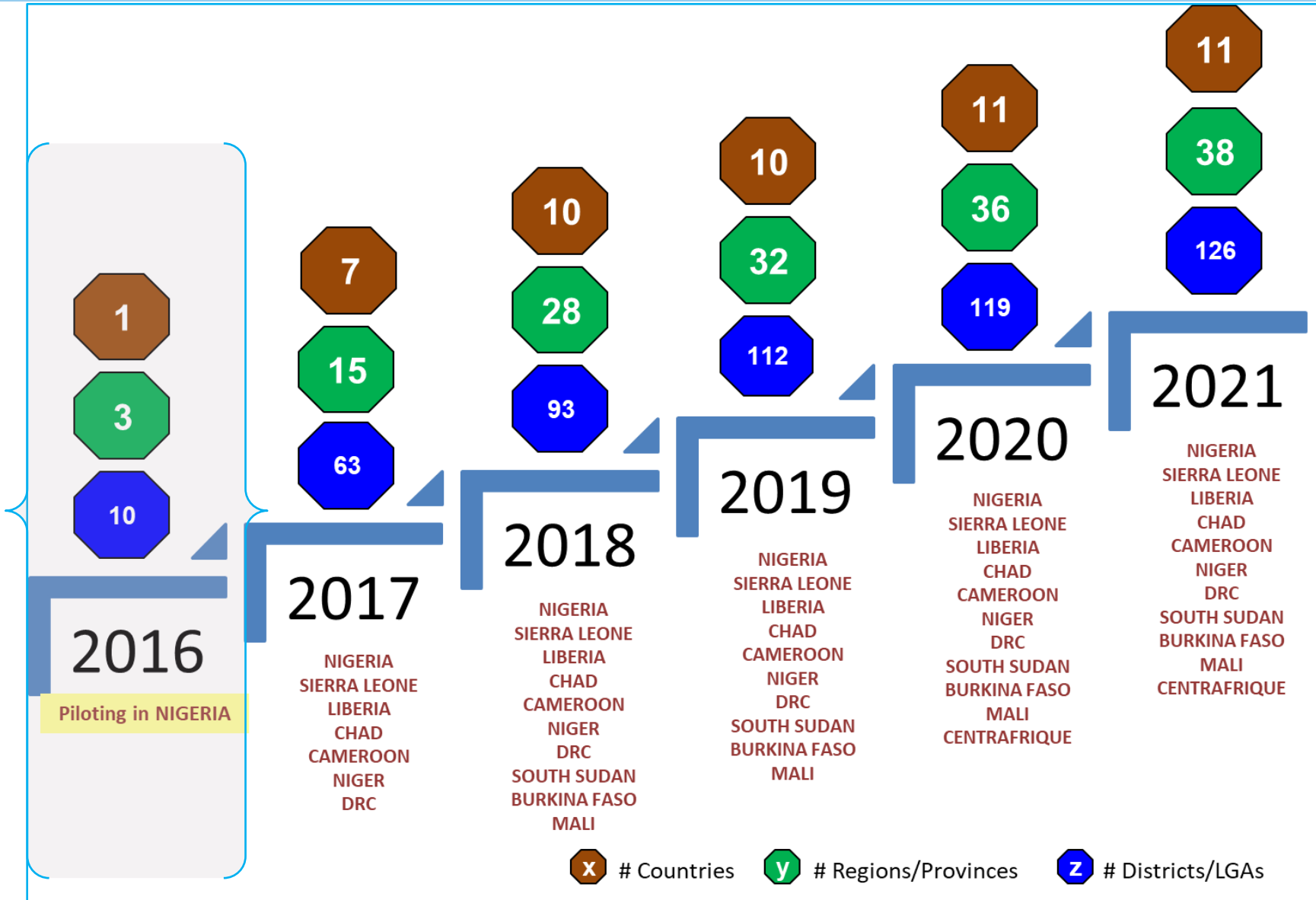
- The AVADAR Multi Disease tool provides a huge opportunity for the WHO African region to use a single platform to report different diseases and thus has a great potential to reduce the overall surveillance overhead cost
- Strengthen and sustain ISS and eSURV electronic surveillance platforms for polio and other priority diseases
- Pilot the AVADAR Multi-Disease tool in Nigeria in May 2022
- Conduct further advocacy with countries, other WHO programs, partners
- WHO is ready to provide technical guidance to support implementation by other programmes and agencies
- For further enquiries or expression of interest, you may send an email to AFGISCenter@who.int

Thank you

Extra Slides



- AVADAR is a mobile-phone based reporting system to improve the detection and reporting of AFP cases among health workers and key community informants using a video prompt
- On a set date and time of the week, the application on the phone displays a video showing a child with symptoms of paralysis/weakness of limbs which precipitates the community informant to say Yes or No to having seen a child like the video context



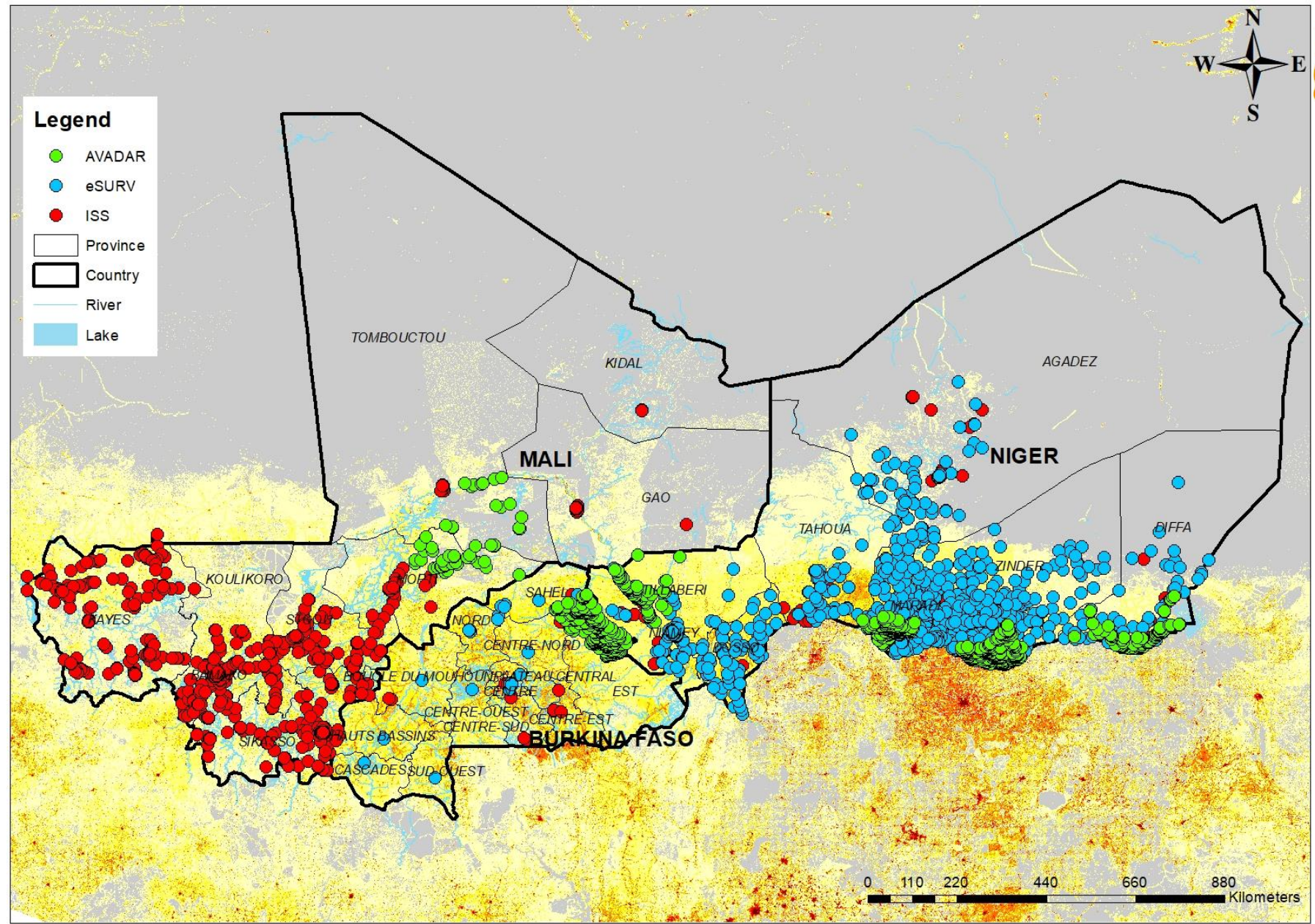
Sahel electronic Surveillance Interventions 2019: Mali, Burkina Faso & Niger - ISS, eSurv & AVADAR Investigation

ISS = 1379

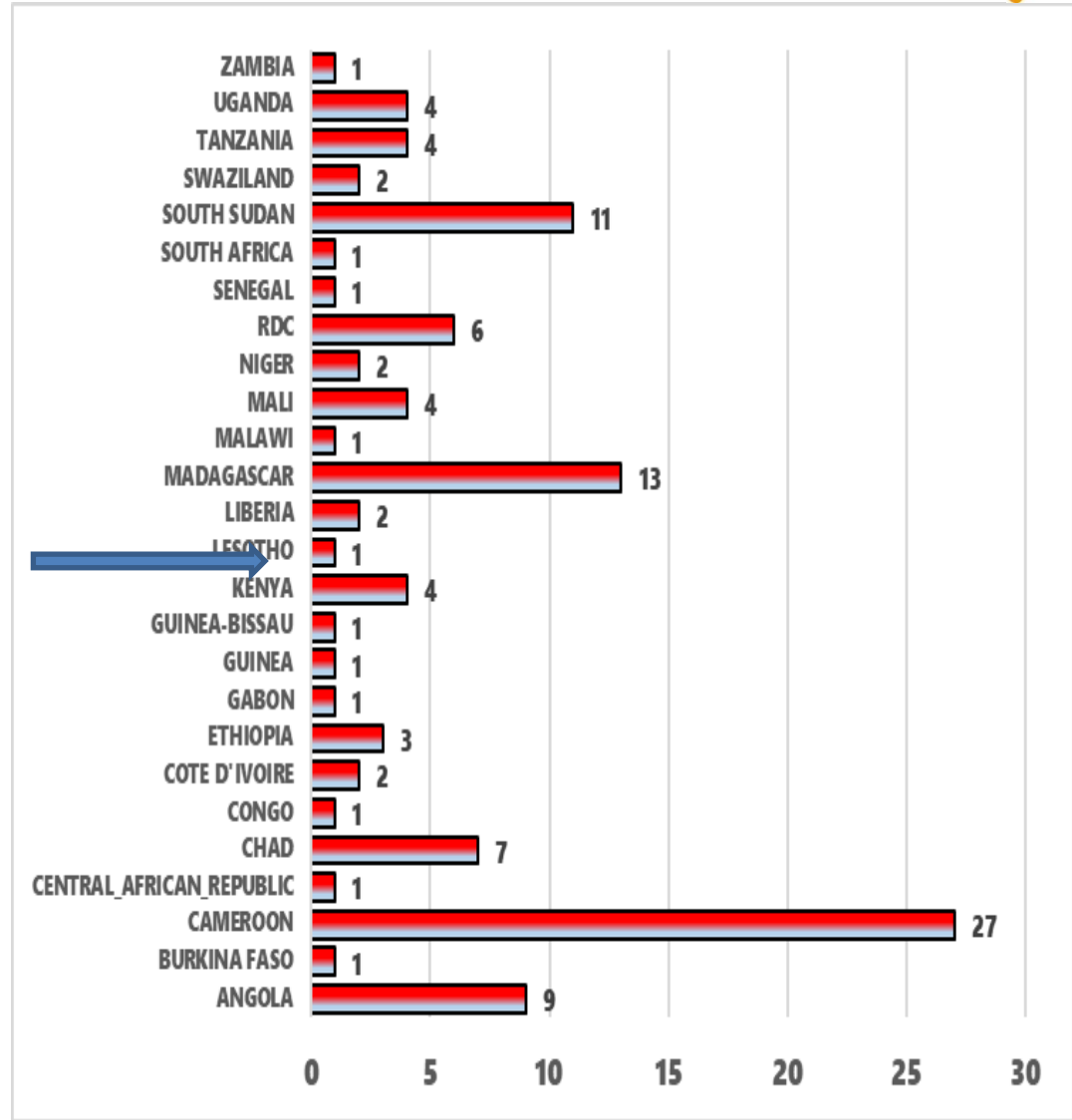
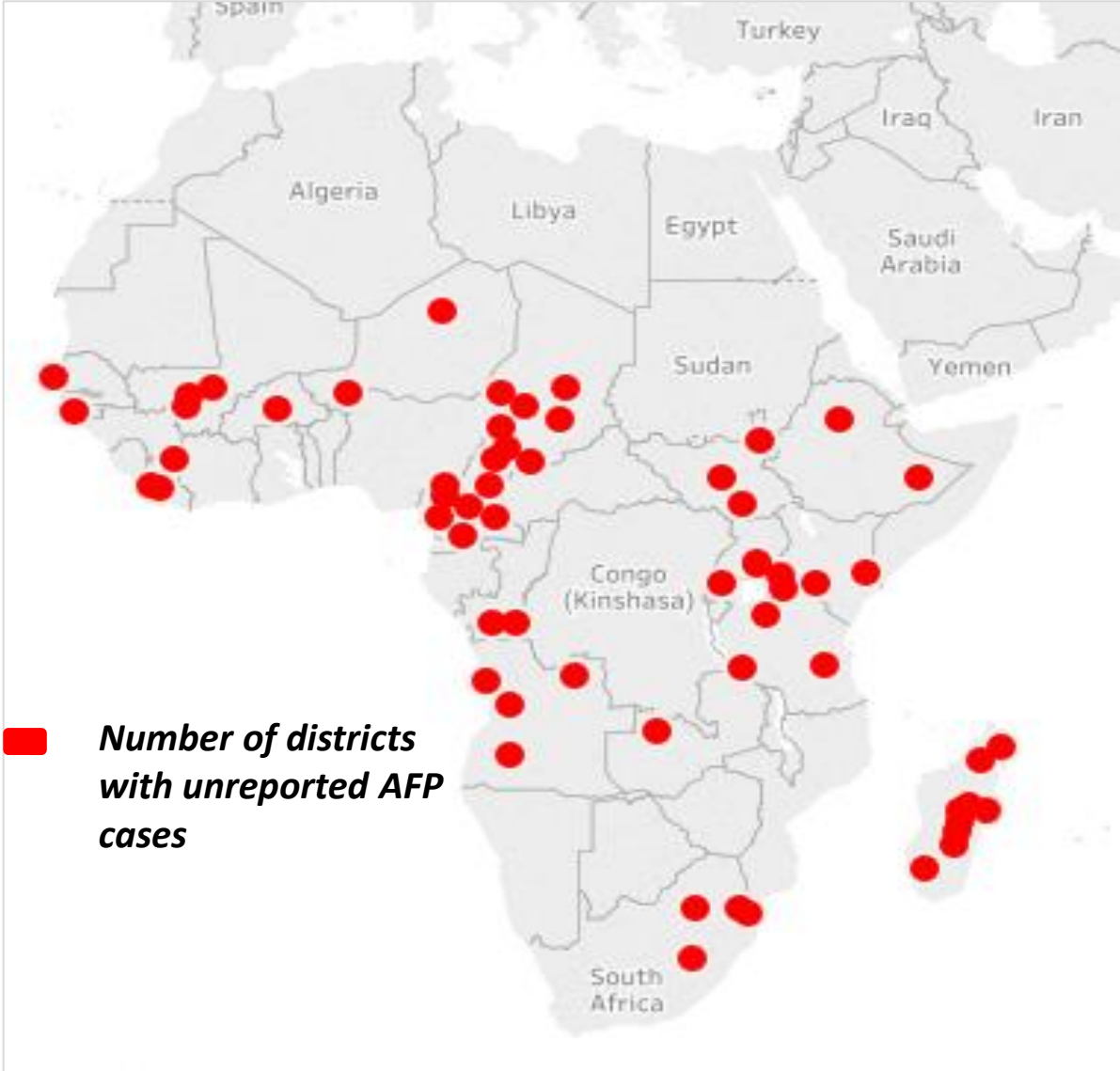
eSurv = 4858

AVADAR

Investigation = 4484



Missed reporting: Unreported AFP cases found during supervision



- Supportive supervision remains the basis for highlighting good routine surveillance and immunization best practices through systematic visits to priority sites for monitoring, evaluation and on-the-job training of health workers and improvement of health system as a whole.
- WHO AFRO has gone further in institutionalizing supportive supervision by configuring / integrating the activity in a mobile format that can be administered using Android phones.
- The aim is for all countries under the African regional office to carry out all of their supportive supervision using smart phones to promote the accountability of WHO and government staff.