



Geospatial Tracking System (GTS) Project

CASE STUDY:

Enhancing Polio Immunization Coverage in
Security-Compromised States in Nigeria

www.ehealthafrica.org



Challenge:

Although Nigeria was certified free of Wild Polio Virus (WPV) in August 2020, the *circulating Variant Polio Virus type 2 (cVPPV2)* continues to threaten vulnerable communities, particularly in the security-compromised states of Kaduna, Katsina, Kebbi, Niger, Sokoto, Yobe, and Zamfara.

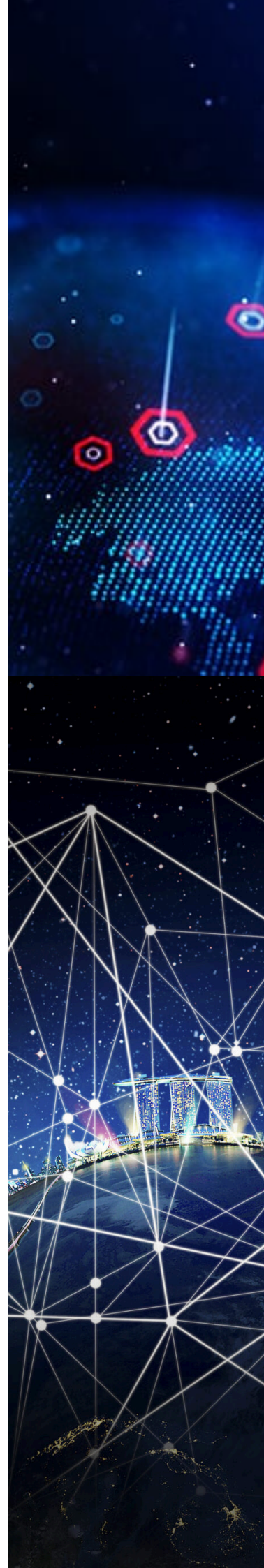
In these areas, security challenges, inaccessibility, non-compliance, and population growth make it difficult to ensure every child receives life-saving vaccines.

Before GTS, field teams and health officials relied on paper-based records and anecdotal reporting, leaving large “grey areas” where vaccination coverage was uncertain or falsified. Many settlements went unvisited for years, exposing children to preventable diseases. As Sa’adatu Ibrahim, Kano State Immunization Officer, recalls:

“Before GTS, we had difficulties in identifying unvisited areas... After GTS, we could see things crystal clear, these are the areas that still need to be visited. The number of red (missed) settlements has drastically reduced to the barest minimum compared to previous years.”

Solution:

Funded by the Gates Foundation and implemented by eHealth Africa in collaboration with the National Primary Health Care Development Agency (NPHCDA), WHO, UNICEF, and other Global Polio Eradication Initiative partners, the Geospatial Tracking System (GTS) was introduced to transform immunization monitoring from analog to digital.



The project has two core components:

Real-time GPS tracking of vaccination teams during campaigns—covering up to 50 LGAs per campaign in National Immunization Plus Days (NIPDs), Sub-national Immunization Plus Days (SIPDs), and Outbreak Responses (OBRs).

Updating the Master List of Settlements (MLoS) through active geo-mapping to ensure every community, new or old, is accounted for in campaign plans.

Key activities included:



Training
**15,815 data
collectors**
and LGA teams on
map use and
tracker handling.



Deploying
**25,058
tracking
devices**
for field operations.



Producing
**ward and
LGA-level
maps**
to guide
vaccination teams.



**Daily geospatial
coverage**
analysis during
campaigns, with results
fed back to state and LGA
teams for immediate
mop-up action.

Suhail Sheikh Osman Anagar, UNICEF State Team Lead in Kebbi, notes:

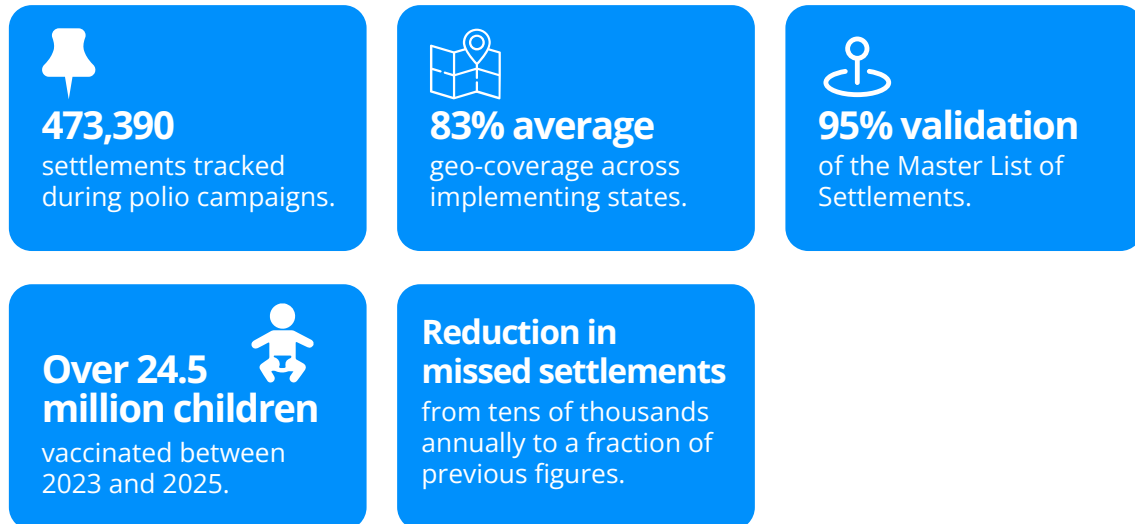
“Before GTS, vaccination drives were not trackable... With GTS, we can now identify partially covered, fully covered, or untouched settlements and hold teams accountable. If you sit under a tree and claim to vaccinate, you will be caught.”



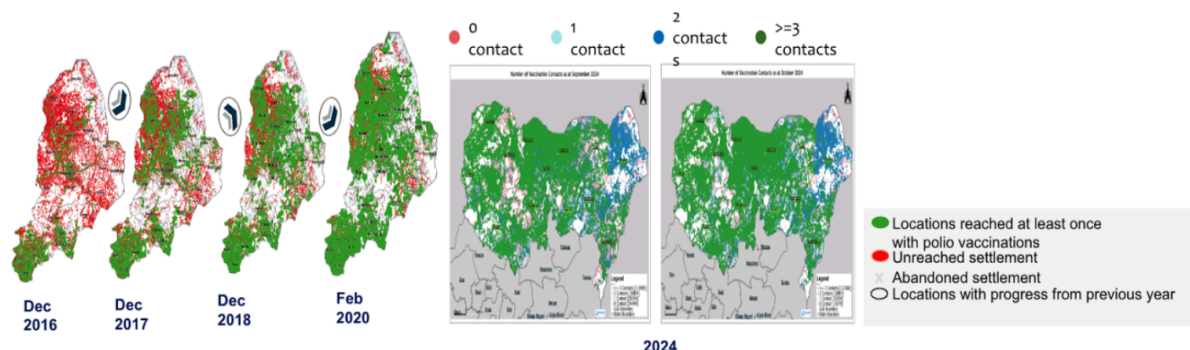
Impact:

Since its introduction, GTS has significantly improved transparency, efficiency, and coverage in high-risk states.

Aggregate results (2023–2025):



Trend in geo-coverage rate



Bello Mohammed, Zamfara State M&E Officer, shared a striking example:

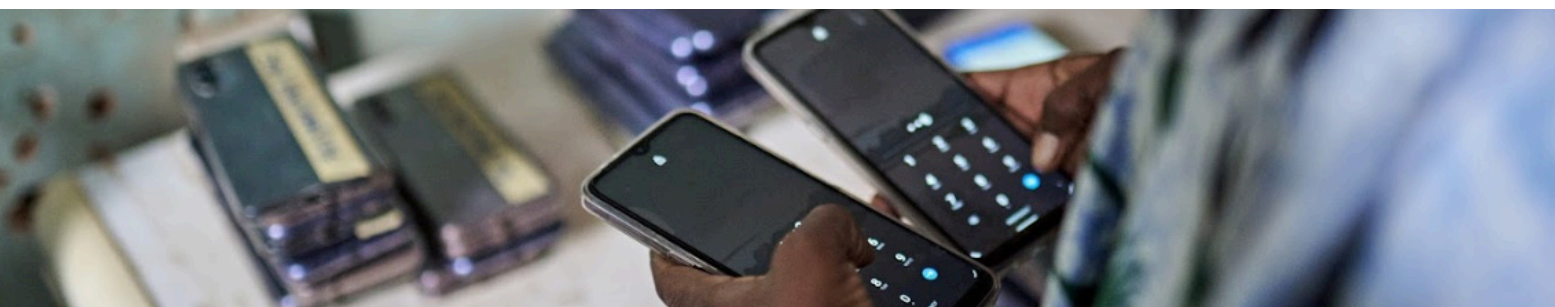
“Before, people could swear they had gone to a settlement even if they hadn’t... With GTS, we can see the movement. In one community, we discovered that they had never been vaccinated for years, something that paper records had previously hidden. Now we know, and we act.”

Field-level change is evident. Julius Daniel, LGA Coordinator in Sokoto, described how GTS revealed poor practices in his teams:

“Some vaccinators would sit in one place and send fake reports. GTS exposed this, and after training, they began proper house-to-house visits. Missed settlements dropped, and more children were reached.”

Beyond numbers, GTS is enabling planners to keep pace with Nigeria’s rapid urban growth. As Sa’adatu Ibrahim notes:

“Kano grows so fast, new settlements appear within weeks. GTS helps us see these new areas so they can be included in the next campaign.”



What’s Next?

Building on its success in polio campaigns, the GTS platform has potential for wider health applications, from measles control to maternal health outreach. Planned next steps include:

- Expanding real-time tracking to additional states and health interventions.
- Strengthening the capacity of state teams for independent GTS operation.
- Exploring AI-assisted mapping to anticipate settlement growth.

Call to Action

The fight against polio and other vaccine-preventable diseases is not over. Sustaining high-quality surveillance and reaching every child requires continuous investment in technology, training, and local capacity.

Partners, governments, and donors are invited to join in scaling the GTS approach, ensuring no settlement, however remote or insecure, is left behind.



Contact:

info@ehealthafrica.org | www.ehealthafrica.org.