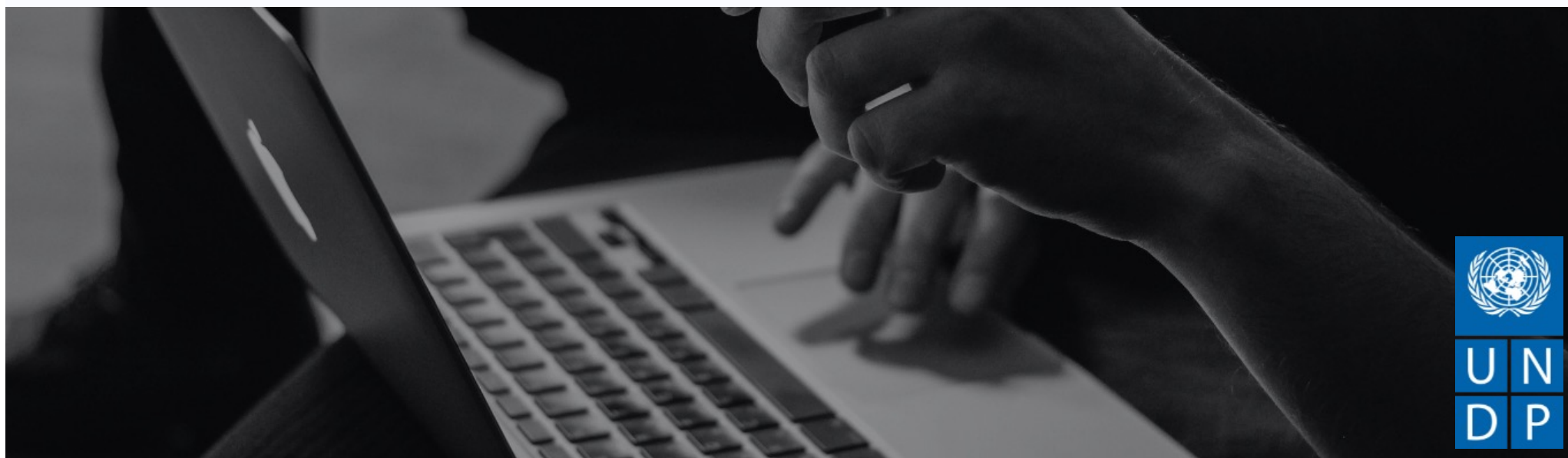


PROMOTING PEOPLE-CENTERED DIGITAL HEALTH TRANSFORMATION

# UNDP WORK ON DIGITAL HEALTH

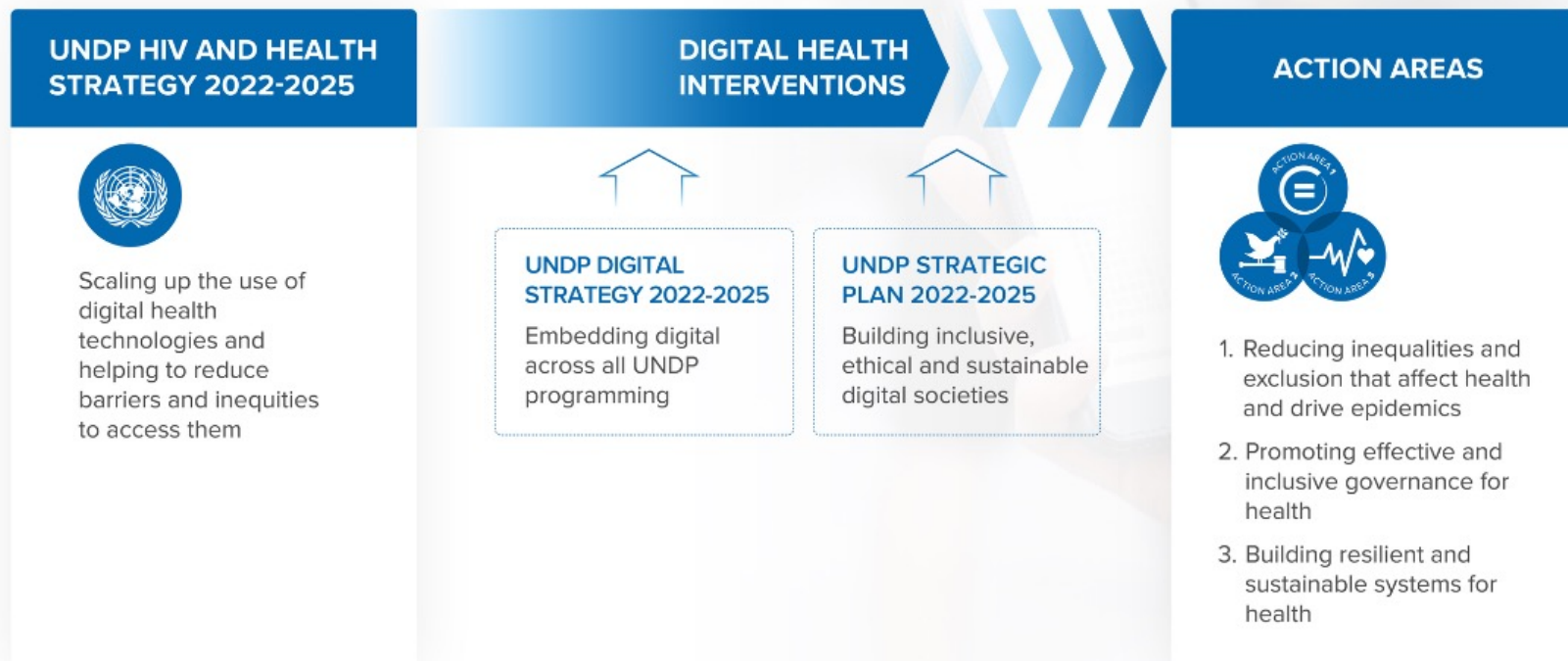
## OVERVIEW

Dr Manish Pant  
Policy Specialist, Digital Health  
Angela Anna De Tommasi  
Programme Advisor, GFPHST  
Aicha Mohamed Ali, Head of  
Programme and M&E, UNDP Burundi  
Angela Marques, Programmes  
Specialist, GFPHST



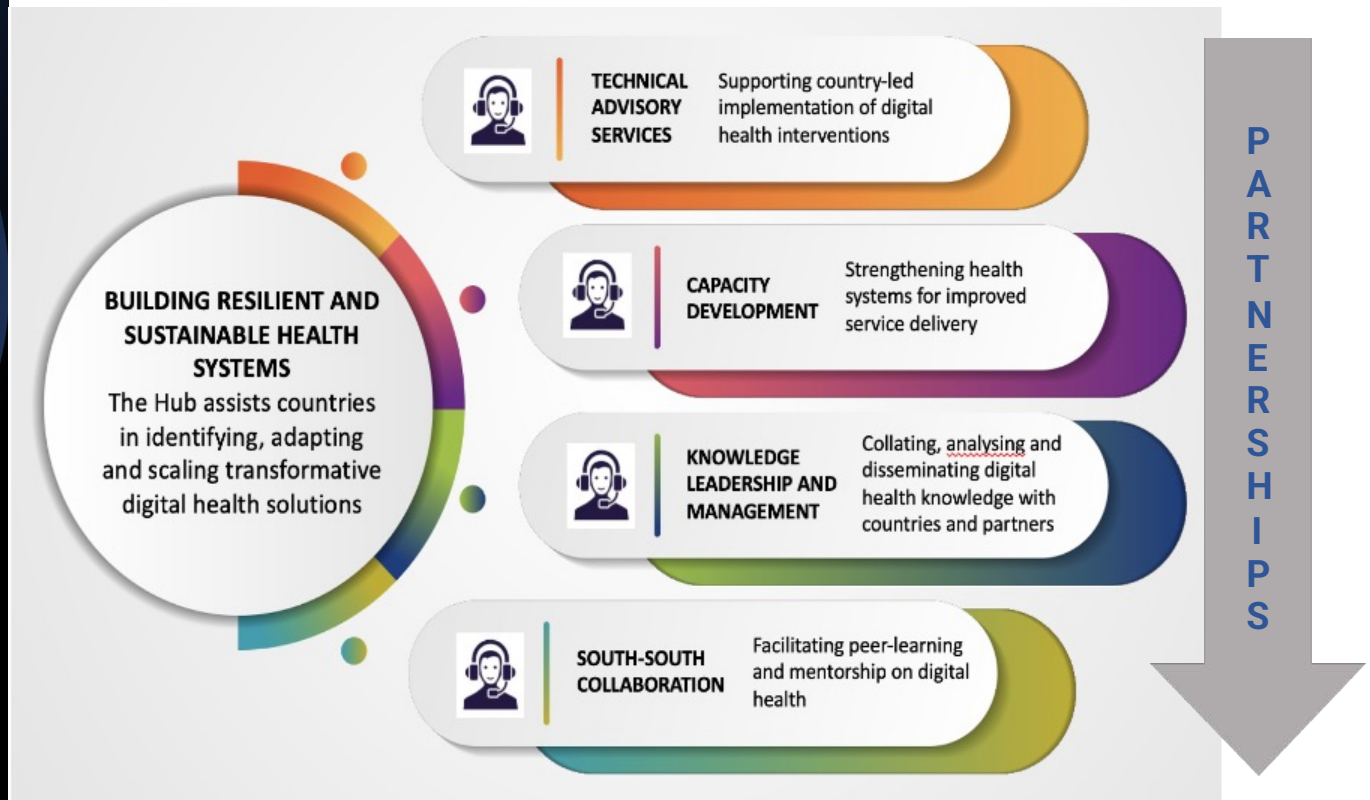
# UNDP DIGITAL HEALTH FRAMEWORK

INTEGRATED WITHIN THE UNDP HIV AND HEALTH STRATEGY 2022-2025 WITH THREE INTERLINKED AND MUTUALLY REINFORCING ACTION AREAS

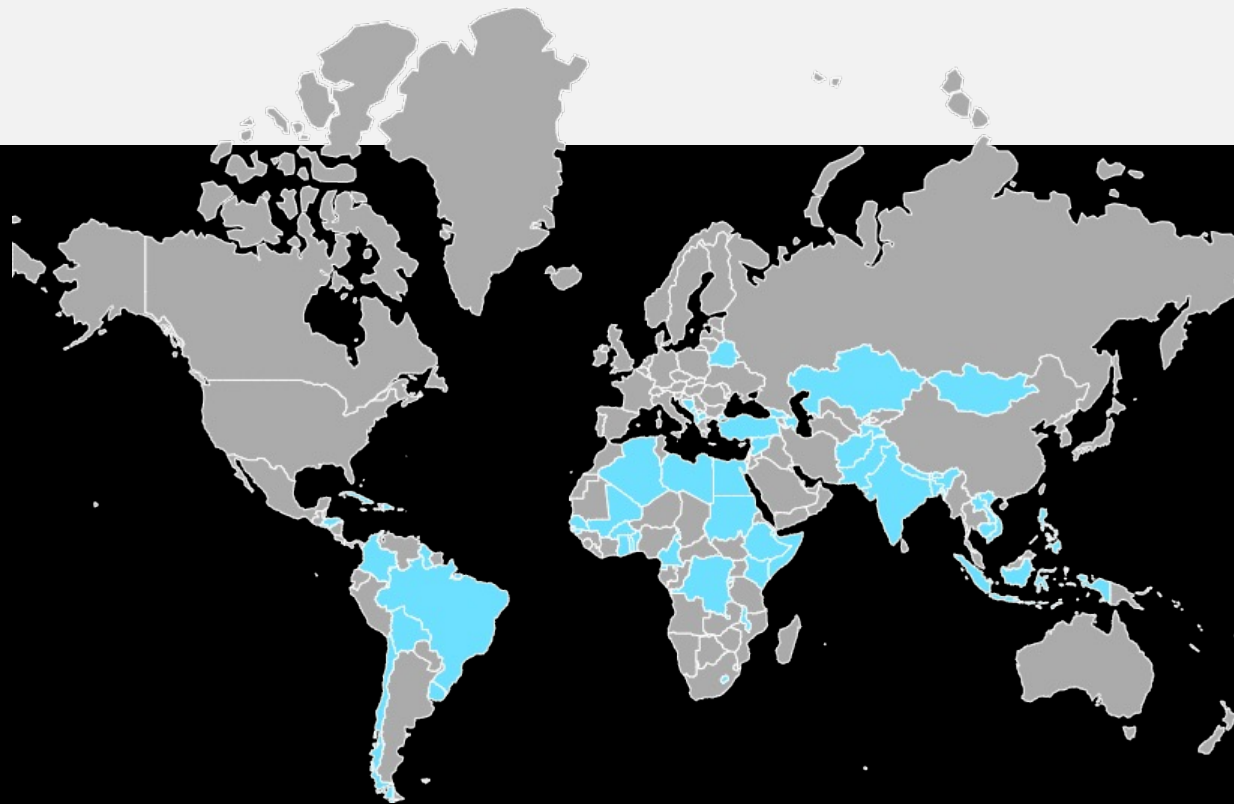


# UNDP DIGITAL HEALTH FOR DEVELOPMENT HUB

## What The Hub Does



# Coverage of UNDP's Digital Health Interventions 2025



# UNDP Digital Health Offer

Key strategic directions that underpin Hub's policy and program interventions

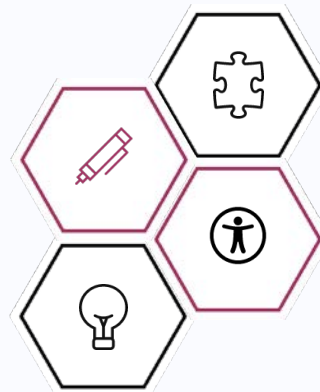


## Digital Health Transformation

Integrate DH support as part of country's digital transformation through strengthened governance, capacity development and interoperable digital health solutions to be used across all national health programs.

## Digital Foundations in Health

Work with open-source digital health solutions aligned to WHO standards, that can be offered as DPGs and DPIs across countries, facilitating sustainable local digital ecosystems.



## Digital Innovations in Health

Promote innovative solutions in health like AI, digital wallets, virtual care, verifiable digital credentials etc, to strengthen systems at the nexus of climate, environment and health.

## Inclusion and Human Rights

Support digital health technologies that protect human rights and address challenges of privacy, discrimination, ethics, gender and equity.

# UNDP Digital Health Guiding Principles

## Place human rights at the centre



Promote digital platforms and services that have a people-centred design, protect human rights and meet health needs

## Leave no one behind



Advocate on inclusive and gender-sensitive approaches to digital transformation to reduce inequity and the digital divide

## Contribute to shared global frameworks



Ensure alignment with principles for digital development, the UN Charter and the Universal declaration of human rights,

## Promote open digital standards



Promote digital public goods for health that are based on open standards, open source, open data and interoperability

## Strengthen local digital ecosystems



Develop solutions with local leaders, companies and innovators that reflect local diversity and knowledge

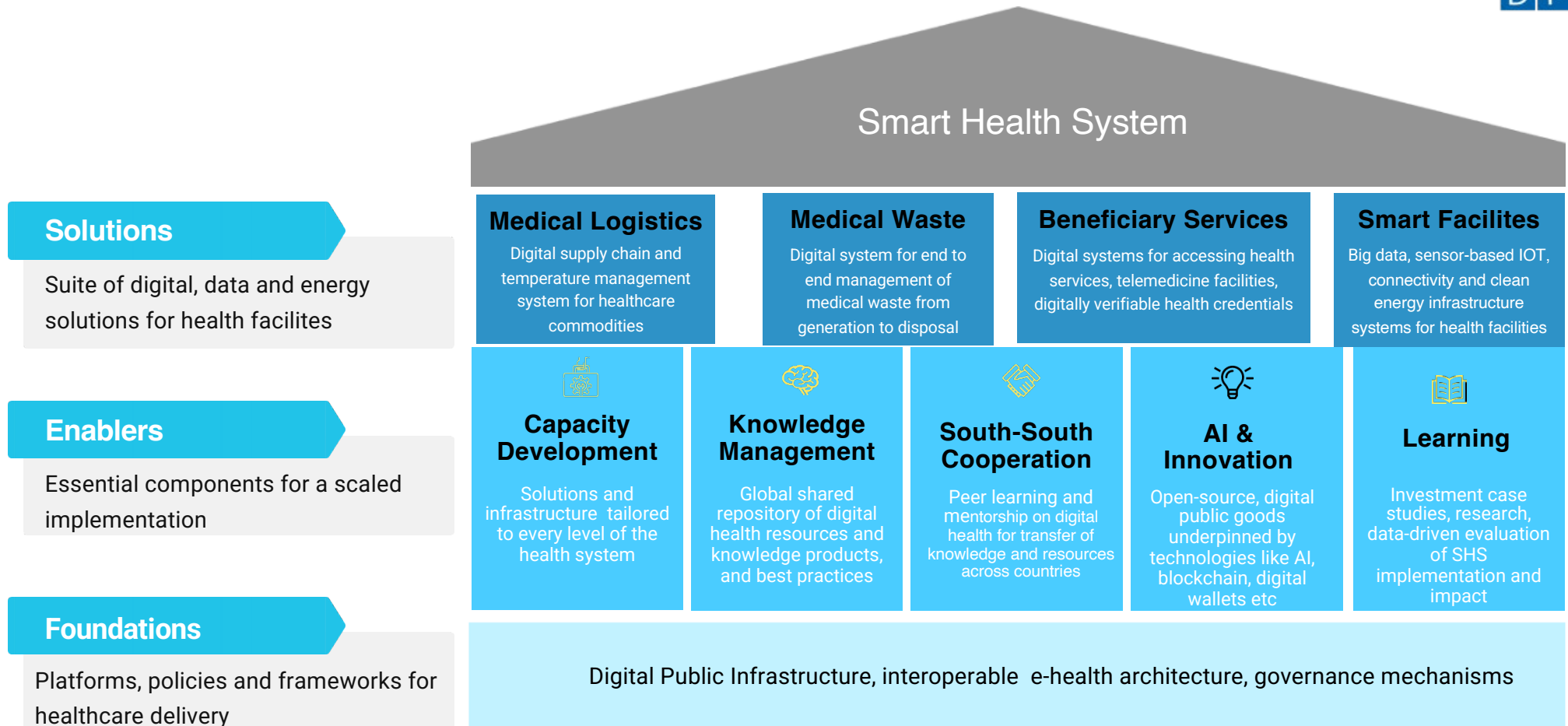
## Leverage strategic partnerships



Pursue partnerships with governments, communities of developers, academia, donors, private sector and UN agencies on digital solutions in health

# Supporting National Digital Health Transformation

UNDP's Approach to Building Resilient Health Systems





# Addressing the Challenge of Malaria in Chad



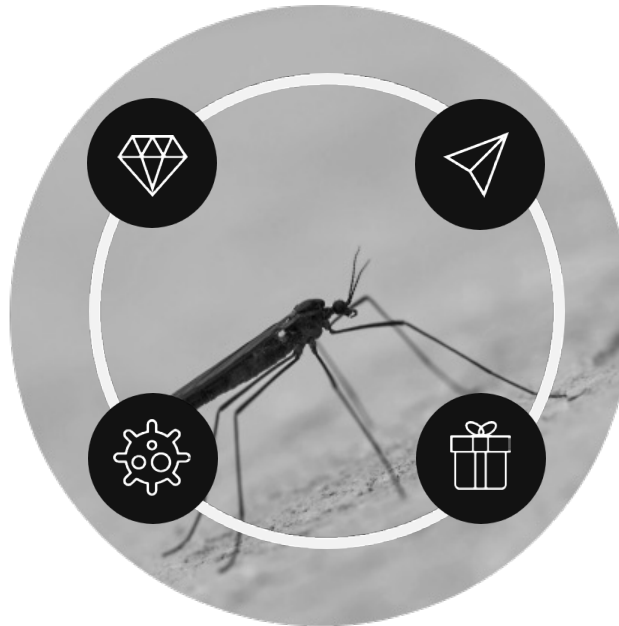
UNDP partnered with Chad's Ministry of Health on digitizing the campaign for mass distribution of long-lasting insecticidal mosquito nets (LLINs)

## High Transmission Areas

Two-thirds of Chad's population live in high-risk zones with 1.7 million cases and 2,700 deaths in 2022.

## Paper-Based Limitations

LLIN distribution using paper forms compromised coverage tracking, stock management, and data quality.



## Weak Health System

Fragile and vulnerable to epidemics and outbreaks

## Obstacles to Effective Response

Lost or damaged paper forms led to poor data quality, inability to review and analyse ground information.



# Campaign Implementation Process

A systematic approach to digitizing LLIN distribution for enhanced efficiency and data accuracy



## Process Optimization

Conversion of paper-based workflows into standardised digital procedures across all campaign phases



## Capacity Building

Cascade training approach with simplified materials to effectively transfer knowledge from central teams to field personnel



## Digital Platform Integration

KoboToolbox for offline household data collection with DHIS2 and PowerBI dashboards enabling real-time monitoring and decision-making



## Pilot Testing

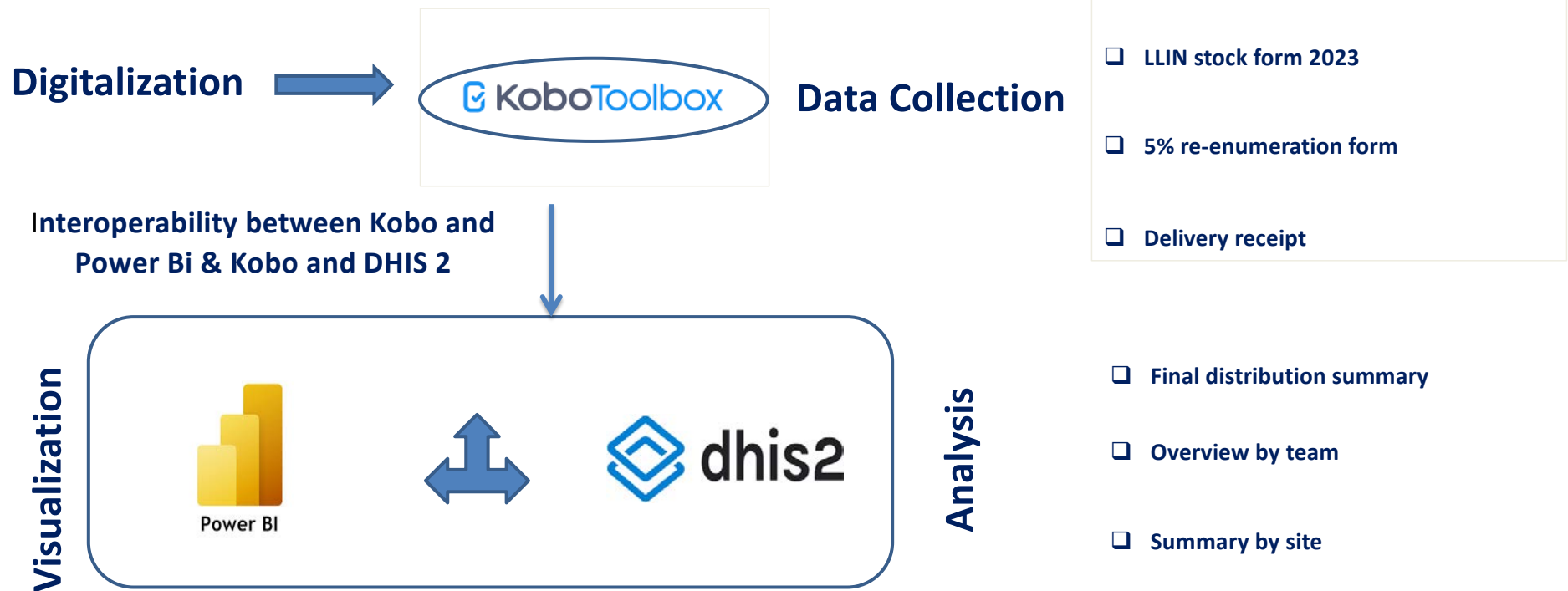
Targeted testing in one district (2,671 households) to evaluate collection methods before wider rollout



## Interventions Scale-up

Province-by-province implementation with tracking of bednet distribution progress

# Digitalization system implemented



# Implementation Challenges



## LIMITED INTERNET CONNECTIVITY

Remote areas had poor internet access, which delayed data uploads.



## MITIGATION

Used offline data collection and set up sync points in areas with better connections.



## END-USER SKILL GAPS

Health workers had trouble using tablets and district health teams were less engaged.



## MITIGATION

Provided focused training, simple guides, and used district technicians as mentors.



## DATA QUALITY PROBLEMS

Multiple form updates caused version confusion. Data in paper registers and tablets didn't always match.



## MITIGATION

Set up central checking systems and improved workflow process

# Main Achievements For The 2023 Campaign



17

provinces

Supported with the distribution of mosquito bed nets

3.9

million

Households counted and geolocated for the campaign.

9.4

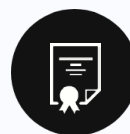
million

Bed nets distributed.

150

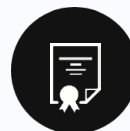
thousand

Additional bed nets provided to refugees from Sudan



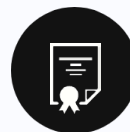
## SUPPLY CHAIN MANAGEMENT

LLIN stock data at all levels allowed staff to anticipate potential shortages and quickly respond with stock replenishments.



## REAL-TIME DASHBOARDS

Allowed program monitoring and data-driven decision making.



## PROGRAM MANAGEMENT

Effective supervision of staff engaged in enumeration and distribution activities.

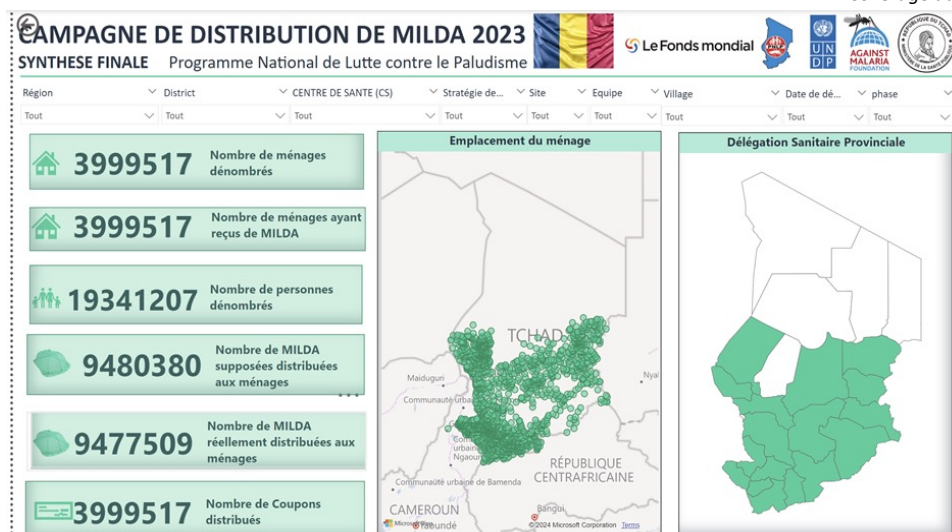
# Data visualization (1)

Results by province by data source Tablet via register

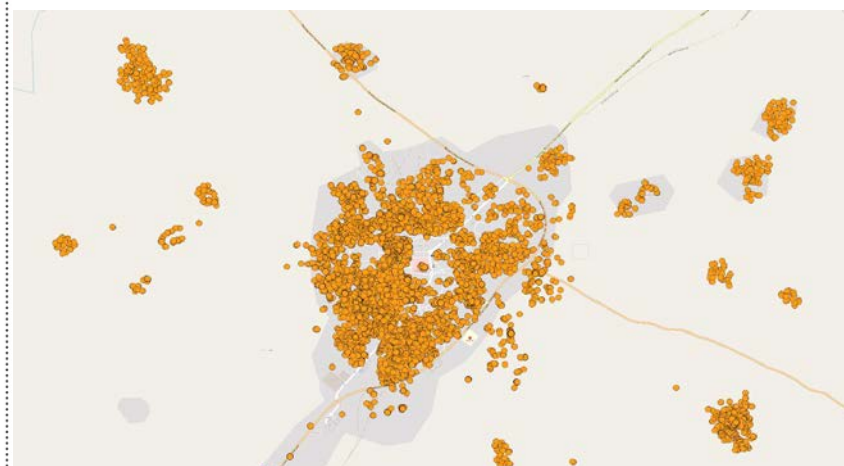
Phase	Provinces	Données registres			Données tablettes		
		Ménages (#)	MILDA (#)	Personnes dénombrées (#)	Ménages (#)	MILDA (#)	Personnes dénombrées (#)
1	HADJER-LAMIS	271,126	629,270	1,265,928	259,820	623,487	1,266,350
1	MANDOUL	287,034	655,260	1,238,343	277,763	642,212	1,240,470
1	MOYEN-CHARI	243,829	556,517	1,109,060	239,738	555,754	1,118,624
1	SALAMAT	113,950	266,554	521,953	112,631	267,161	543,731
2	LOGONE OCCIDENTAL	318,620	754,982	1,515,160	320,755	756,760	1,539,960
2	LOGONE ORIENTAL	370,102	866,621	1,763,618	359,276	862,913	1,766,304
2	TANDJILE	271,782	606,951	1,189,772	260,116	596,339	1,185,121
3	CHARI-BAGUIRMI	236,474	554,994	1,121,693	233,544	552,566	1,135,625
3	MAYO-KEBBI EST	301,224	696,770	1,349,187	295,752	692,341	1,421,349
3	MAYO-KEBBI OUEST	213,637	515,569	1,063,519	217,280	524,670	1,109,603
4	BATHA	193,369	457,713	987,809	195,628	468,225	977,615
4	GUERA	231,415	539,003	1,083,625	226,256	531,876	1,079,008
4	KANEM	132,049	304,871	599,313	133,412	311,174	610,803
4	LAC	226,706	530,477	1,093,327	224,274	535,206	1,104,477
5	OUADDAI	357,357	848,306	1,729,367	329,742	787,824	1,647,120
5	SILA	176,636	437,135	888,617	160,280	398,926	837,875
5	WADI FIRA	211,909	492,832	908,073	153,250	370,075	757,172
	<b>Total</b>	<b>4,157,219</b>	<b>9,713,825</b>	<b>19,428,364</b>	<b>3,999,517</b>	<b>9,477,509</b>	<b>19,341,207</b>

Provinces	Couverture Ménages (Registre)	Couverture MILDA (Registre)	Couverture Population (Registre)	Couverture Ménages (Tab)	Couverture MILDA (Tab)	Couverture population (Tab)
HADJER-LAMIS	99%	95%	95%	95%	94%	95%
MANDOUL	105%	101%	94%	102%	99%	95%
MOYEN-CHARI	106%	100%	99%	104%	100%	100%
SALAMAT	102%	100%	98%	101%	100%	102%
LOGONE OCCIDENTAL	102%	101%	100%	103%	102%	102%
LOGONE ORIENTAL	110%	107%	109%	107%	107%	109%
TANDJILE	102%	95%	93%	98%	94%	92%
CHARI-BAGUIRMI	109%	106%	107%	108%	106%	109%
MAYO-KEBBI EST	113%	108%	105%	111%	108%	110%
MAYO-KEBBI OUEST	106%	107%	110%	108%	109%	115%
BATHA	111%	110%	116%	112%	113%	115%
GUERA	98%	124%	134%	96%	122%	133%
KANEM	82%	78%	77%	83%	80%	79%
LAC	110%	107%	110%	109%	108%	112%
OUADDAI	153%	136%	154%	141%	126%	147%
SILA	147%	88%	153%	133%	80%	144%
WADI FIRA	108%	101%	96%	78%	76%	80%
<b>TOTAL</b>	<b>109%</b>	<b>104%</b>	<b>107%</b>	<b>105%</b>	<b>102%</b>	<b>107%</b>

Coverage data for the three key indicators in number and percentage

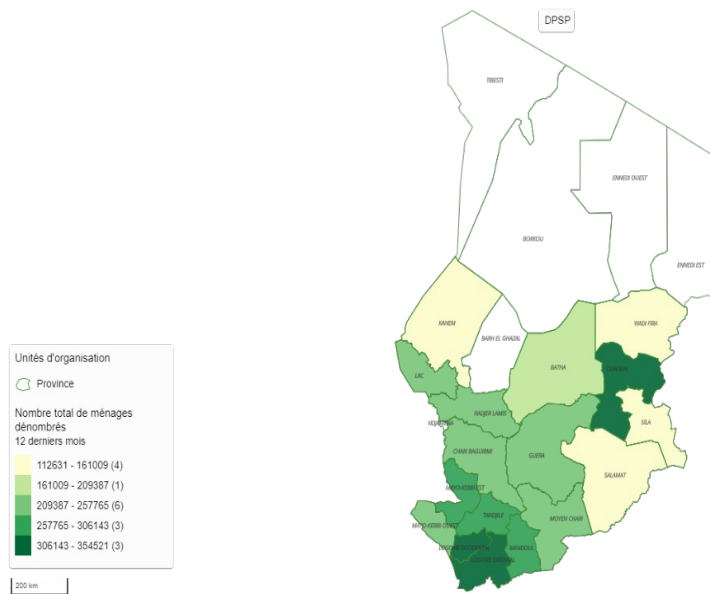


Dashbord Power BI data 5 phases

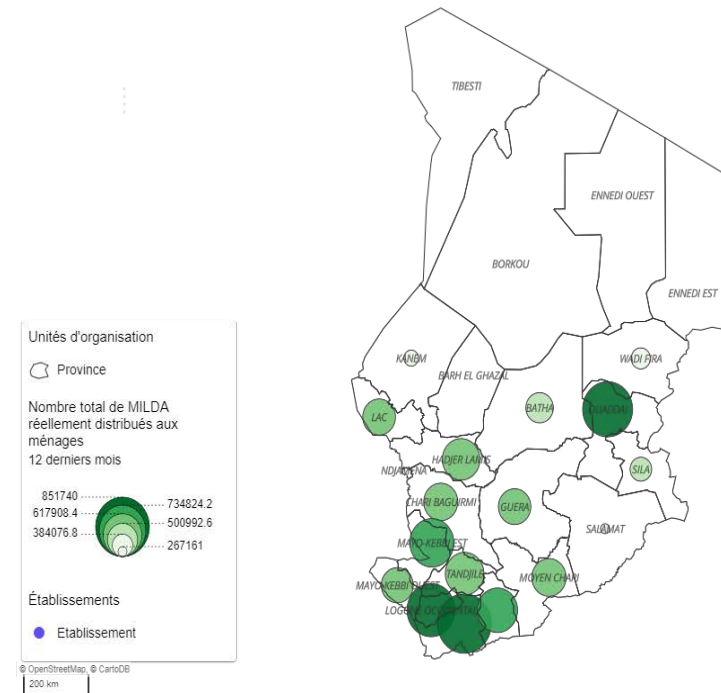


Overall view of households having received LLINs CS example Massakory1 and 2

# Data visualization (2)



Source: DHIS2 of the MSPP



Overall view of households having received LLINs in the 17 provinces of the CDM

# Key Learnings From Our Experience

1

## Program Workflows And SOPs are Essential

Clear workflows help ensure collective understanding of roles for all involved.

Finalize digital solutions only after the program SOPs are well defined.

2

## Leverage Existing Digital Solutions For Last Mile

Deploy offline-capable solutions and cloud-based dashboards for real-time monitoring

Ensure that digital solutions are interoperable.

3

## Local Technical Support Is Needed

On-site technical assistance improves field team efficiency, especially in connectivity-challenged areas.

Deploy technical experts locally with offline problem-solving capabilities.

4

## Multiple Support Methods Work Better Than One

Technology adoption improves with diversified learning approaches for the end-user.

Implement tiered training, learning guides, mentorship models.

5

## Stakeholder Ownership Drives Success

Local leadership has better knowledge of their issues and challenges.

Collaborate with all partners, prioritizing field workers.





# Future SMART Partnership(s)

Building on the key learnings and to address identified main challenges - UNDP's HIV and Health Group, through its Digital Health for Development Hub (DH4DH) and Global Fund Partnership and Health Systems Team (GFPHST), established a [global partnership agreement with the eGovernments Foundation](#). The HIV and Health Community of Practice hosted an [information session](#) to provide details about the global partnership and [eGov's](#) digital health service offer.



Currently **Burundi** is running the pilot for digitalization of their 2025 Malaria mass campaign with Guinea-Bissau starting to plan theirs planned for 2026. Through Country Office to Country Office engagement, both countries promote peer exchanges (virtual and in-country missions) to learn and adapt faster towards a successful implementation. A webinar will be organized in next months for other countries to enroll in the **Digital Journey**.

## Next-generation partnerships:



### Country Enablement:

- ✓ Strengthening our corporate offer to support countries in being future ready aligned with next UNDP Strategy
- ✓ Building opportunities with optimized resources, reskilling, developing a sustainable data infrastructure for increased transparency, traceability and accountability.

### Flagship Initiatives:



- Establishing Global Agreements that can be use immediately without further procurement processes for adaptation to the new world context, stepping up for implementation readiness while preserving quality and compliance.
- Identifying flexible mechanisms to engage the (local and cloud management) partners to promote a healthy flow on the cascade implementation.

# THANK YOU

For more information

<https://digitalhealthfordevelopment.undp.org/>

