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Updates on DRC's ongoing digital health transformation and an overview of current COVAX digital platform

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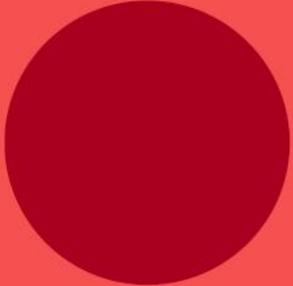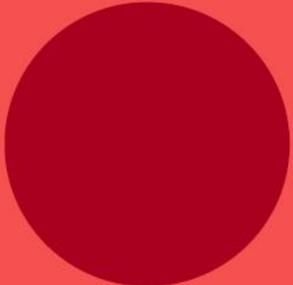
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PATH is a global team of innovators working to eliminate health inequities so people, communities, and economies can thrive.

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Today, we are a global team of 1,500+, working in 70+ countries.
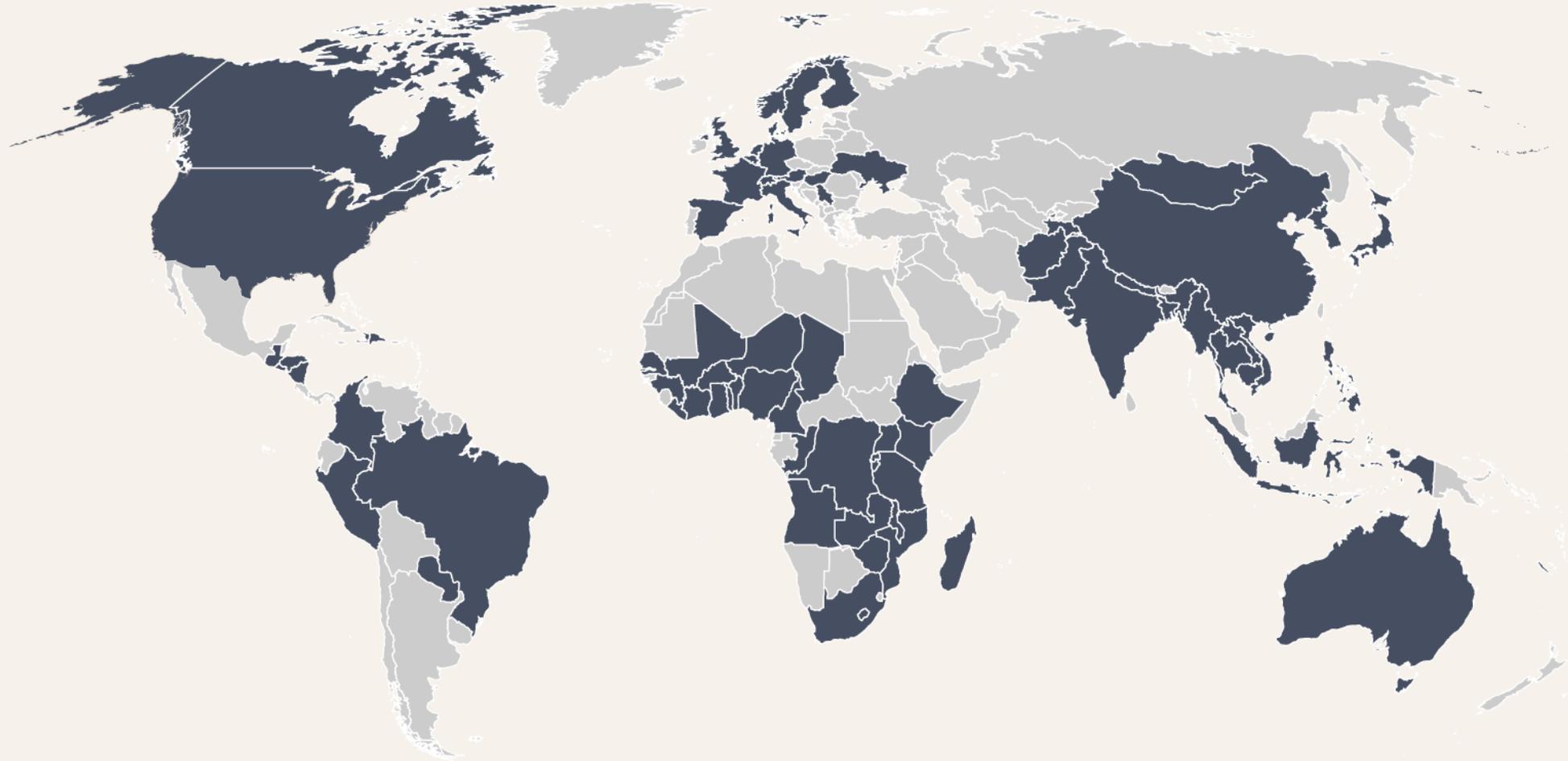
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PATH DRC has been supporting the DRC government to improve health outcomes since 2010.

120 *Staff in 5 provinces- Kinshasa, Haut Katanga, Kasai Oriental, Tanganyika and Haut Lomami*

- PATH DRC is a **trusted and close partner of the DRC MoH and the Presidency.** PATH DRC is known for its strong relationships, unique convening power and ability to build innovative and energetic partnerships.

- PATH launched operations in DR Congo in 2010**.** Our portfolio has significantly grown and diversified to cover other health areas, such as **HIV/AIDS, malaria and NTDs, immunization systems and advocacy, digital health, epidemic preparedness and response**.

Kinshasa

Legend

PATH offices in DRC

Other provinces of intervention
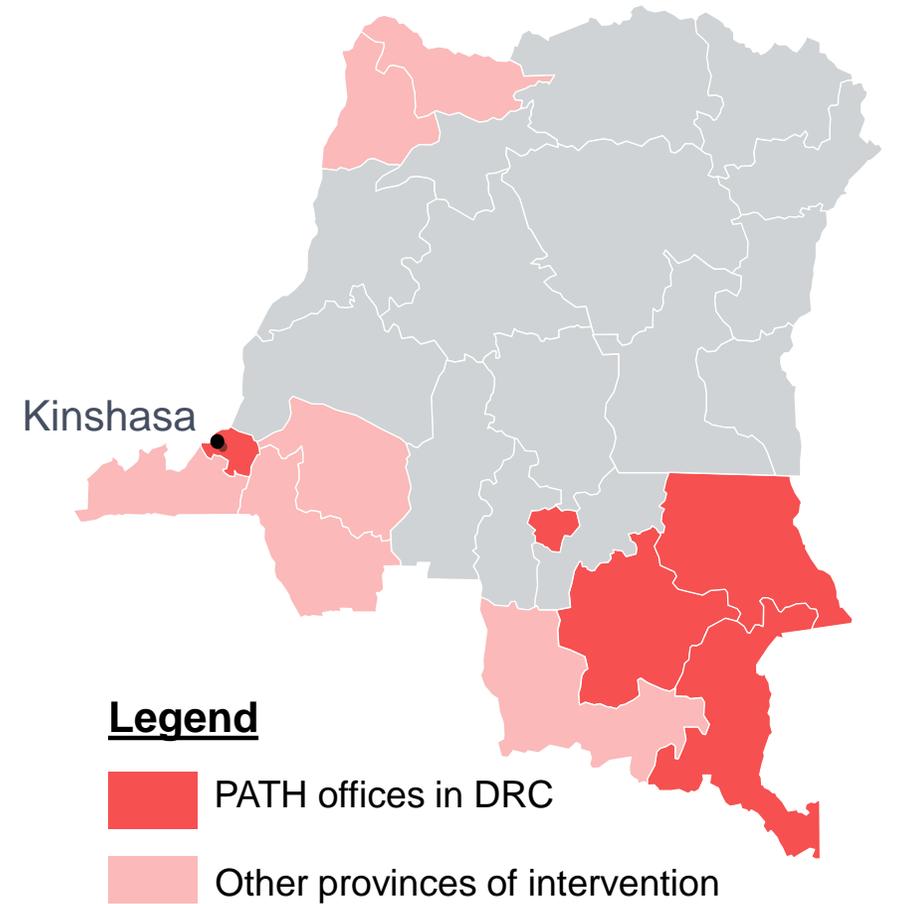
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Our work in DRC spans 6 thematic areas
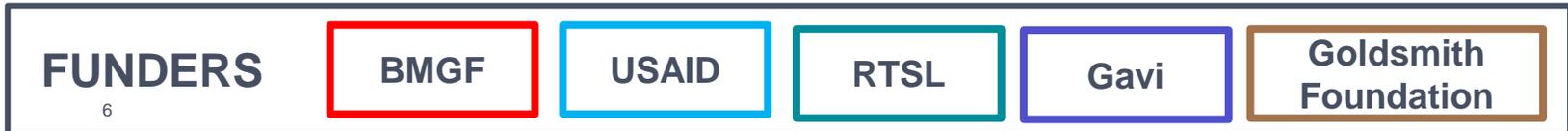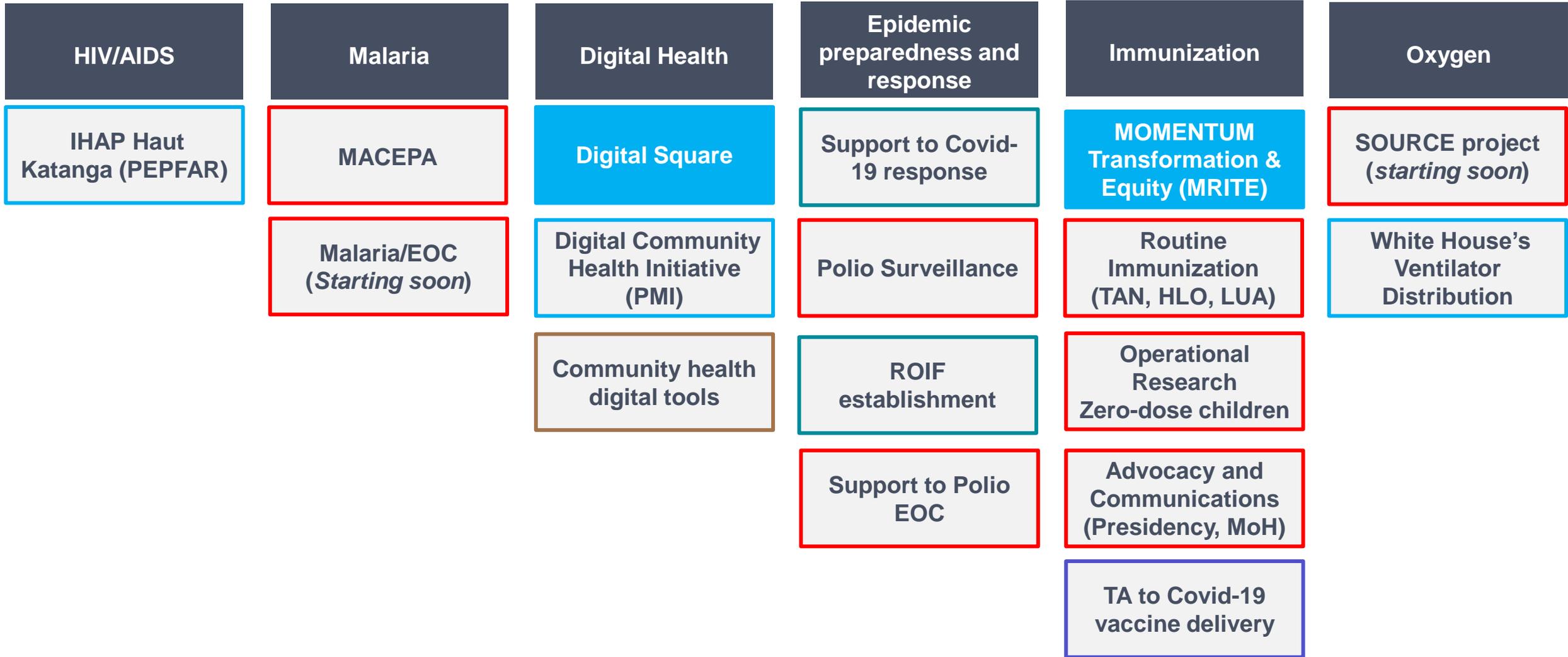
HIV/AIDS	Malaria	Digital Health	Epidemic preparedness and response	Immunization	Oxygen
IHAP Haut Katanga (PEPFAR)	MACEPA	Digital Square	Support to Covid-19 response	MOMENTUM Transformation & Equity (MRITE)	SOURCE project (*starting soon*)
	Malaria/EOC (*Starting soon*)	Digital Community Health Initiative (PMI)	Polio Surveillance	Routine Immunization (TAN, HLO, LUA)	White House's Ventilator Distribution
		Community health digital tools	ROIF establishment	Operational Research Zero-dose children	
			Support to Polio EOC	Advocacy and Communications (Presidency, MoH)	
				TA to Covid-19 vaccine delivery	

FUNDERS
6

BMGF	USAID	RTSL	Gavi	Goldsmith Foundation

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Digital Square is a PATH-led initiative funded by the United States Agency for International Development (USAID), the Bill & Melinda Gates Foundation, and a consortium of other partners.

Digital Square creates resources, advances technology, and fosters alignment to improve how countries and the global health community design, use, and pay for digital health tools and approaches.

How?

- **Identify** promising investments and provide operational support to streamline procurement and getting started.

- **Promote** the development, adoption, and reuse of global goods, and help increase their availability, adaptability, and maturity.

- **Strengthen** national-level digital health expertise to enable informed decision-making and sustainable implementation.

Why?

To improve health and well-being through achieving health equity, which increasingly relies on ensuring equitable access to digital health.

DRC is on the cusp of a digital transformation with strong political buy-in and leadership to accelerate use of digital tools for improved health outcomes. With support from USAID and the Goldsmith Foundation, PATH has been supporting DRC's digital health transformation, culminating in ANICiiS formation and development of a digital health strategy.

Our approach

1 Ensure **national Digital Health Leadership and Governance**

2 Support the country to develop a **Digital Health Strategy**

3 Develop a costed **investment roadmap**

4 Define **health enterprise architecture** for DRC

5 Identify and coordinate relevant **digital tools**

6 Support **systematic data use** for decision-making

Notable achievements

1 Creation of a Digital Health Agency (2018)

- In 2018, the *Agence Nationale d'Ingenierie Clinique de l'Information et d'Informatique de la Sante (**ANICiiS**) was formed to coordinate and promote digital health in the DRC.*

2 DRC Digital Health Strategy

- PATH worked with the Ministry of Health/ANICiiS to **develop DRC's digital health strategy 2020-24 PNDIS II**

3 Costed investment roadmap

- **As part of the USAID-funded Digital Square project**, PATH supported DRC to **develop a costed digital health investment roadmap** to prioritize and cost potential investments in digital health.

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OBJECTIVE 1	Coordination, standardization and interoperability of ICT solutions to build a single and reliable health information system in the DRC			
1 Operationalization of ANICiiS	$1,126,610	Appropriate workspace	Staff hiring	Capacity building	Annual reviews
2 Norms and Standards	$638,362	E-payments	Infrastructure classification	Products classification	Nomenclature
3 Legal framework	$187,500	Legal framework for the certification of biomedical software and equipment	Legal framework for the digital health enterprise architecture		
4 Enterprise architecture of Digital Health	$206,099	Analysis of business, data and technology architectural needs	Development of an Enterprise Architecture for Digital Health		
5 National Health Observatory	$122,960	Institutionalization of the National Health Observatory			
6 Data Center	$257,640	Implementation of a data centre (local layout, hardware, network, connectivity)			
7 MSP services networking	$1,704,740	Restore internet connections in DPS and ZS	Set up a VPN (Virtual Private Network) for health		
8 Permanent electricity supply to health facilities	$2,408,045	Install an autonomous photovoltaic system for health digitalization equipment in the DPSs and ZSs			
9 Standardize the acquisition and management of equipment	$617,485	Develop and implement an accreditation procedure for target software and equipment			

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OBJECTIVE 2 — Strengthening the operational level of the health system

INVESTMENT 10
Ensure interoperability

- Mapping of existing systems is carried out
- Implementation of the e-health enterprise architecture
- Implementation of a platform to manage various registers (MAYELE)

Budget: $187,808

INVESTMENT 11
Ensure the optimization and rationalization of some existing applications

- SIGL
- GMAO
- SIH/SICS
- LIMS
- Epidemiological surveillance system is developed or optimized
- Health information management systems at community level and campaign management are developed and implemented

Budget: $21.932 M

INVESTMENT 12
Ensure the development and deployment of central and cross-functional applications

- DHIS-2 data warehouse
- Human Resources for Health Management System iHRIS
- Pharmaceutical regulation management system
- Integration of SIGL licensing

Budget: $425,858

INVESTMENT 13
Development of DRC's *carte sanitaire*

- Availability of a health geographic reference system for the DRC

Budget: $4.382 M

OBJECTIVE 3

Human resources capacity building

INVESTMENT 14

Operationalization of the Centre of Excellence for Research and Training in Health Informatics

- Organization of a Master's programme in Digital Public Health
- Organisation of the first CISAs
- Continuing education modules based on priority subjects in a health programme

Budget: $501,600

INVESTMENT 15

Development of Digital Health Research

- A research unit on digital health sociology is established
- A research unit for Artificial Intelligence and Big Data is established.
- Clinical decision support unit applied in the context of low resource countries.

Budget: $369,360

INVESTMENT 16

Development of skills and knowledge related to digital health

- At least 2 groups of students are trained in the Master of Digital Public Health
- Organize a 60 Certificate programme in Applied Health Informatics.
- Have health workers use their digital tools correctly

Budget: $835,916

INVESTMENT 17

Set up of the Congo Virtual Polyclinic

- Development of the POLYVIC action plan
- Setting up POLYVIC's central IT infrastructure at UNIKIN
- POLYVIC operations

Budget: $510,720

DRC has opted to use DHIS2 COVID-19 Tracker application, which requires ongoing investment in tools, skills, and change management. There is a need to improve data recording at the site level with gap filling solutions to ensure these data are eventually entered into DHIS2. It is also important to build capacity and strengthen processes to institutionalize longer-term solutions for data recording, management, and reporting, with a focus on building capacity for data validation and use.

Overview of site-level reporting for Covid-19 vaccination

Step 1
- The client receives their Covid-19 vaccine shot

Step 2
- The nurse completes one vaccination form per client

Step 3
- The nurse or the "data manager" transcribes the cards into the register and the tally sheet

Step 4
- The "data manager" or the nurse completes the daily summary

Step 5
- Aggregated data is sent by three options: supervisor or nurse who takes the forms to the health zone; or by photo/WhatsApp

Legend
- Individual data
- Aggregated data

Ideal: the "data" enters each file in the DHIS2 Tracker

Accumulated records are possibly entered by the data or at ZS level by the pools

- Site staff do not have the time or resources to enter forms. In an M-RITE survey conducted in November 21 in Kongo Central (fixed sites) it was found that only 40% of the files were entered in DHIS2 Tracker at the site level.
- Sites are far from ZS, no electricity or internet to email/SMS forms; HZ does not have the time or human resources to compile the forms
- An accumulation of **~1,400,000** sheets or ~20% of records are in DHIS2 Tracker

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There are many challenges and opportunities related to the use of DHIS2 tracker for Covax reporting. Due to the low number of tablets in health facilities to capture data and lack of motivation, completeness and timeliness of vaccination data remains weak. There are no feedback loops from the central level down to the health facility via DPS and health zones, limiting the quality of reported data. DRC should aim to develop solutions for ongoing mentoring and supportive supervision at site-level to strengthen data recording and overall data use.

Existing challenges and opportunities for the use of DHIS2 tracker for Covax reporting

Use of DHIS2 tracker for reporting of Covid-19 vaccination data

Challenges	• Completeness of immunization data in all provinces remains weak • **Insufficient number of tablets** for encoding data in the DHIS2 • Poor competence of health workers in the management of immunization data • Low motivation of personnel • **No feedback loops** on the quality of immunization data at all levels • Poor quality or absence of internet connection in certain health zones • Lack of a culture for regular data analysis.
Opportunities	• Develop scalable and cost-effective solutions/innovations for ongoing mentoring and supportive supervision related to data recording and data management on paper and in the DHIS2. • Support the operationalization of DHIS2 in provinces/ health zones: Capacity building of providers in data management and reporting • Develop and/or update strategies and guidelines related to the management, analysis and validation immunization data • Support the development of dashboards or other tools and introduce or strengthen processes to enable real-time reflection on data to drive programmatic decision-making at the national and provincial levels. • Improve the routine and more efficient and effective use of data at the national level.

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