



# HeRAMS Annual Report 2023

## Achievements

- HeRAMS now features a full-fledged geospatial modeling service, that allows the precise identification, location and quantification of populations lacking access to essential health services.
- HeRAMS now offers a comprehensive master facility list service and ensures strong integration capabilities thanks to the new API service.

## Challenges

- Absence of commonly agreed upon health information management strategies resulting in overlapping approaches at country level.
- High staff turnover at national and regional levels requiring constant training and mentoring. Backstopping through redistribution of roles and responsibilities across the 3-levels of WHO mitigates the most adverse effects.

## Outlook

- A major redesign of the HeRAMS platform will be released by Q3/2024. It will bring significant process and performance improvements.
- Continued efforts in expanding HeRAMS coverage and reporting frequency.
- Alignment of stand-alone "HeRAMS-like" approaches to the global standard and services to ensure higher comparability, efficiency and overall sustainability.

## At a glance...

	Countries	27
	New projects	6
	Health service delivery units	56 312
	Updates submitted	100 793
	Data contributors	5611
	New descriptive reports	24

## Highlight: Geospatial modelling

In 2023, a modelling service was developed and integrated into the HeRAMS service package. The **HeRAMS accessibility models to essential health services** enable decision makers to accurately identify, locate and quantify populations lacking access to essential health services.

HeRAMS accessibility models significantly enhance the understanding of the complexity of health service coverage and barriers to service delivery, providing crucial insights to decision-makers involved in the prioritization of needs and interventions as well as in measuring their impact.

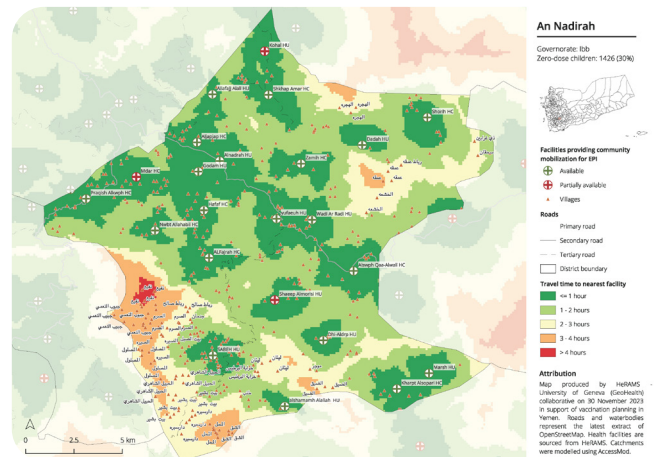
This service is conceptually backed up by the **HeRAMS Accessibility Modelling Framework<sup>1</sup>** that links accessibility models to the **HeRAMS Standard Data Model<sup>2</sup>**. Efforts are underway to automate the underlying processes to ensure the scalability and sustainability of this crucial service to all HeRAMS countries<sup>3</sup>.

As a result of those preliminary efforts, HeRAMS accessibility models are already available or in development for six countries: **Afghanistan, Iraq, Mali, Mozambique (Cabo Delgado and Nampula), Ukraine and Yemen.**

### Modelling the accessibility to vaccination services to identify and reach zero-dose Children in Yemen

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In June 2023, the HeRAMS accessibility modelling service was implemented in Yemen to support the identification, location and estimation of zero dose children across 48 priority districts. These models underpin the development of vaccination microplans to guide actions towards reaching zero-dose children with life-saving interventions.



**Figure 1.** Travel time to the nearest health facility providing community-based EPI services for An Nadirah district.



# Country implementation

 **27**  
Countries

 **56 312**  
Health Service Delivery Units (HSDUs)<sup>a</sup>

 **100 793**  
Updates submitted

 **5611**  
Data contributors

Throughout the year, six new HeRAMS projects were launched in Afar<sup>4</sup> (Ethiopia), Georgia<sup>5</sup>, Libya<sup>6</sup>, Niger<sup>7</sup>, Sudan<sup>8</sup>, and Zambezia<sup>9,10</sup> (Mozambique), bringing the total number of supported projects through the Initiative to 30 across 27 countries.

A thorough baseline has been established, for more than 56 000 Health Service Delivery Units (HSDUs<sup>a</sup>) across all projects, providing detailed information on the availability of essential health services.

The monitoring function has also been significantly reinforced, leading to the submission of over **100 000 new updates** on the operability of HSDUs and the availability of essential health resources and services over the last 12 months. In the most active countries, an average of over six updates per HSDU has been submitted, showcasing HeRAMS' ability to not only assess but also monitor evolving situations. This emphasizes its capacity to increasingly assist decision-makers with near-real-time data on the operability of health systems, even in challenging environments.

### In Ukraine, HeRAMS bridges ongoing emergency response and health system reform discussions

HeRAMS was deployed in Ukraine in early November 2022 to support the emergency response. Its initial rollout targeted nine priority oblasts (Chernihivska, Donetsk, Dnipropetrovska, Kharkivska, Kyivska, Mykolaivska, Odeska, Sumska, and Zaporizka) directly affected by the conflict, providing responders with essential information on gaps in health services delivery and response options. In March 2023, the Ministry of Health of Ukraine requested the expansion of HeRAMS to other oblasts to support longer term discussions on the reform and optimization of the health system. HeRAMS Ukraine hence provides a live and large-scale example of its ability to simultaneously address a large variety of contexts and provide an important analytical continuum across the humanitarian, development, and peace nexus.

<sup>a</sup> Includes all modalities through which services are provided (e.g., health facilities, mobile clinics, community health workers).

<sup>b</sup> Limited to HSDUs with a completed, comprehensive baseline.

**Figure 2.** Overview of countries with one or more HeRAMS projects





Country	Status	Master plan	Report published	HSDUs	Number of HSDU updates submitted <sup>2</sup>
Afghanistan <sup>11</sup>	✓	⚙️	✓	4722	8980
Bangladesh (Cox's Bazar) <sup>12</sup>	✓	✓	✓	163	424
Burkina Faso	✓	⚙️	⚙️	3183	199
Cameroon	⚙️	✓		0	0
Central African Republic <sup>13</sup>	✓	✓	✓	1168	8963
Chad	⏸️			1827	0
Comoros	⏸️			92	0
Democratic Republic of the Congo (Ituri) <sup>14</sup>	✓	✓	✓	1072	930
Ethiopia (Northern) <sup>15</sup>	✓	⚙️	✓	1393	1491
Georgia <sup>16</sup>	✓	⚙️	✓	58	58
Haiti	⚙️	⚙️		0	0
Iraq <sup>17</sup>	✓	⚙️	✓	5032	1222
Libya	✓	⚙️		482	479
Madagascar	⚙️	⚙️		0	0
Mali <sup>18</sup>	✓	⚙️	✓	6556	7057
Mozambique (Cabo Delgado <sup>19</sup> , Nampula <sup>20</sup> , Zambezia)	✓	✓	✓	601	1201
Niger <sup>21</sup>	✓	✓	✓	3567	3581
Nigeria (North East)	✓			3237	2781
occupied Palestine territory (Gaza)	⚙️			3	5
Pakistan (Balochistan) <sup>22</sup>	⏸️			1647	0
Philippines (NCR, Mindanao) <sup>23</sup>	⏸️	⚙️		1270	0
Somalia	✓			369	92
Sudan	✓	⚙️	⚙️	1990	1990
Syria (North East)	⚙️			0	0
Ukraine <sup>24</sup>	✓	✓		12204	24472
Yemen <sup>25</sup>	✓	⚙️	✓	5589	36868
Zimbabwe	⏸️			87	0

✓ active / available
⚙️ in process
⏸️ stand-by
AFRO
EMRO
EURO
PAHO
SEARO
WPRO

Figure 3. Status and maturity of HeRAMS processes by country



## Financial support

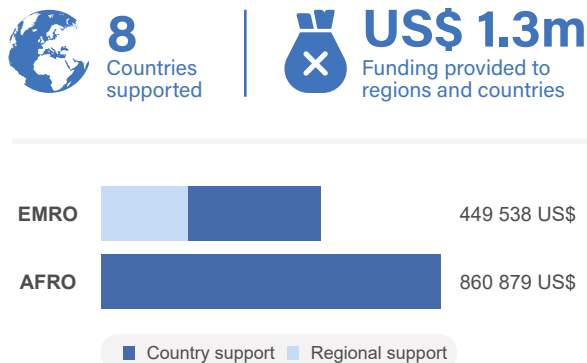


Figure 4. Financial support provided to AFRO and EMRO since 2022

The HeRAMS service package is explicitly designed to support country-level implementations. The distribution of roles and responsibilities across various levels has demonstrated its efficiency and resilience. The primary objective remains the full decentralization of the monitoring process at the country level. Substantial efforts have been directed towards capacitating national-level coordination cells. Additionally, financial support of close to **US\$ 1 million** was provided to eight countries since the beginning of 2022, ensuring better stability and sustainability. Similarly, dedicated support of over **US\$ 300 000** was provided to the Eastern Mediterranean Regional Office’s Health Emergencies Programme (EMRO/WHE), to reinforce this crucial component of the service package and increase the overall capacity of the organization to assist countries requiring support.

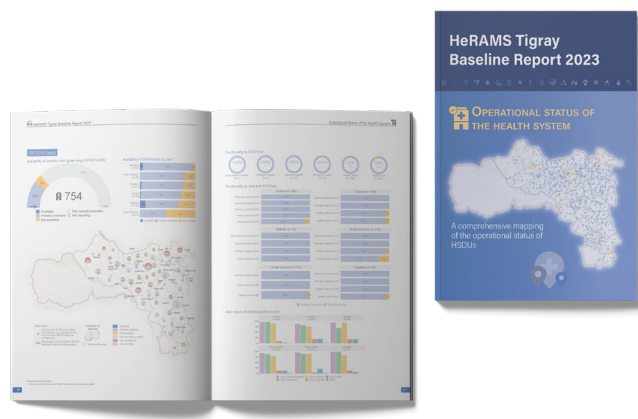


Figure 5. HeRAMS descriptive report, extracted from the HeRAMS Tigray baseline report 2023<sup>15</sup>

## Analytics and reporting

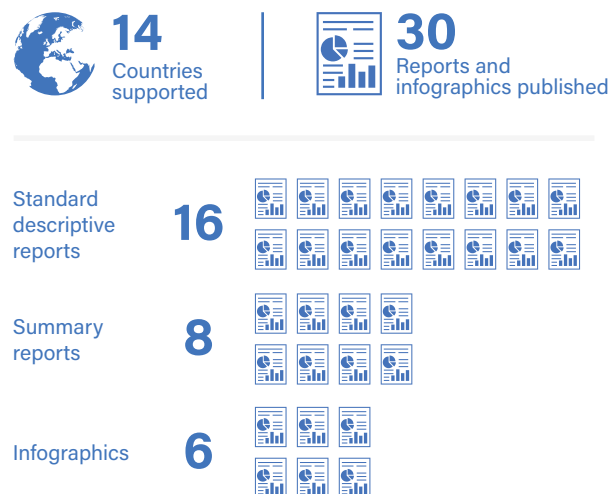


Figure 6. Breakdown of reports and infographics produced in 2023

Descriptive analytics and reporting can be time consuming and often results in bottlenecks, preventing data uptake and use by decision-makers. Continuous efforts have been led to streamline and automate existing workflows, leading to substantial improvement of the Initiative’s analytical capacities. This has enabled the development and publication of 30 extensive infographics and descriptive reports over the course of 2023 alone.

### HeRAMS descriptive reports

The HeRAMS descriptive reports have been developed to provide stakeholders with an exhaustive analysis of all indicators monitored by HeRAMS. Comprising a variety of data analyses and visualizations, they shed light on subnational dynamics and disparities in the availability of and barriers to essential health services within specific contexts.

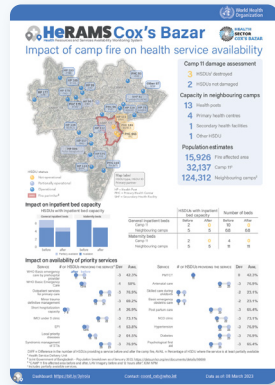
These reports are organized in up to six standalone documents. The first provides an overview of the overall operability of the health system as well as a detailed view of cross-cutting amenities such as water and sanitation. It is complemented by 5 reports, each delving into a specific health service domains. By offering a comprehensive and up-to-date overview of the current situation, these reports aim to foster discussion and contribute to informed decision-making.



## Using HeRAMS to assess sudden onset events in chronic emergency contexts

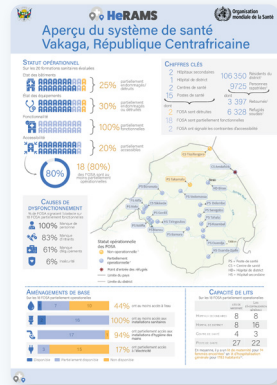
### Example 1: Measuring the impact of the Cox's Bazar refugee camp fire on health service availability

Following the devastating fire incident that occurred in Camp 11 on March 5th, 2023, a rapid update of HeRAMS was triggered to assess the extent of damages to HSDUs. An analysis on the impact of service availability in affected and neighboring camps was shared with stakeholders within days of the event.<sup>26</sup>



### Example 2: Assessing the capacities of Vakaga district in absorbing a rapid insurge of returnees and refugees

In the wake of the violence having erupted in Sudan, the border district of Vakaga in the Central African Republic has experienced a rapid insurge of returnees and Sudanese refugees. HeRAMS was activated to monitor the capacity of the local health system to absorb this sudden influx of returnees and refugees.<sup>27</sup>



## Platform development

The HeRAMS platform continues to play a pivotal role as an enabler of the HeRAMS process, facilitating efficient and rapid country implementations. To guarantee the continued efficiency and sustainability of this crucial service, workflows and processes have been streamlined and are now supported by a dedicated team.

Over the course of the year, the HeRAMS user base has seamlessly absorbed an increase of 54%, thanks to the numerous performance improvements. Its overall functionality and users experience were also significantly improved.

Moreover, a major milestone was achieved in 2023 with the introduction of a new API designed to streamline integration into national health information systems. This capability is anticipated to reinforce HeRAMS' role in supporting countries with the maintenance of an up-to-date master facility list through the **master facility list service**.

An extensive upgrade of the HeRAMS platform is presently underway, introducing significant enhancements such as a new survey builder and a dedicated master facility list module. These improvements are designed to facilitate data management processes, paving the way for the development of offline and mobile capabilities within the HeRAMS platform.

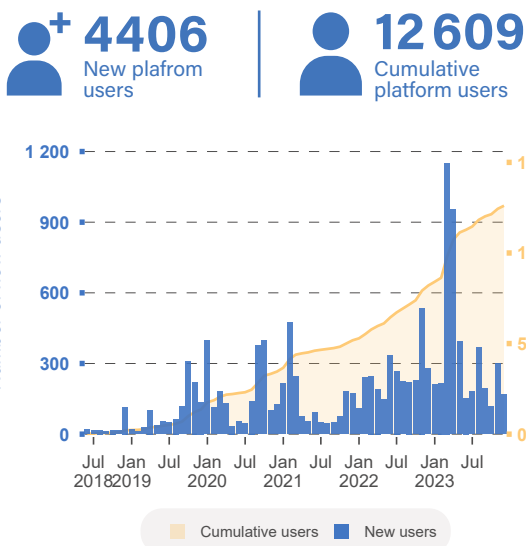


Figure 7. Evolution of the HeRAMS platform user community



## Normative developments

The normative work in 2023 was focused on the development of the conceptual and technical foundations of the HeRAMS accessibility models to essential health services through the development of the **HeRAMS Accessibility Modelling Framework**<sup>1</sup>. This framework lays out how HeRAMS and geospatial modelling of accessibility can – conceptually and technically - be articulated to ensure that analysis of accessibility to essential health resources and services becomes an integral and systematic part of the HeRAMS Initiative.



Figure 8. HeRAMS Accessibility Modelling Framework

Additionally, this year has seen the finalization of the **HeRAMS Standard Data Model**<sup>2</sup>. The document constitutes a comprehensive guide, detailing the structure and design of the HeRAMS questionnaire. It encompasses foundational principles of the HeRAMS approach, and in-depth information on standard indicators and their definitions. By adopting a systematic and standardized approach to data collection, HeRAMS enables the comprehensive collection and continuous monitoring of essential health resources and services.



Figure 9. HeRAMS Standard Data Model

## Capacity building & community of practice

**23**  
Training events

**1643**  
Participants trained

Throughout 2023, efforts were maintained to strengthen regional and country capacity in supporting HeRAMS processes in numerous settings. Employing a combination of online, on-site and hybrid formats, 23 training events were organized. These sessions successfully trained over 1600 participants, encompassing data contributors, key informants, and project administrators. Participants were adeptly trained in the HeRAMS methodology, empowering them to effectively generate, manage, and use HeRAMS data.

### EMRO regional workshop 2023

In June, a regional workshop was held in Amman, Jordan, aiming to foster a community of practice across the WHO Eastern Mediterranean Region (EMRO). Attended by eight countries, the event was centered on the exchange of best practices and the establishment of a cross-country network of HeRAMS focal points.

## Partnerships & collaborations



The important achievements of 2023 would not have been possible without the continuous engagement of member states and health sector actors engaged in implementing the initiative at country level.

The partnership with the **Geo Health Group of the University of Geneva** has been pivotal over the last year in developing the HeRAMS accessibility modelling service, supporting its implementation in pilot countries and its extension to six countries.

The technical and financial support received from **USAID Bureau of Humanitarian Affairs** since 2019 and the **GAVI Alliance** since 2021 have been instrumental. It has enabled the continuous scale up and optimization of HeRAMS at country level, along with the expansion and reinforcement of the supporting package of services, ensuring its longer-term scalability and sustainability. It has also ensured a consistent alignment of the Initiative's work to global health initiatives and goals.



Figure 10. HeRAMS regional workshop in Amman, Jordan

## References

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**Further information:**

The HeRAMS project is supported by WHO's Health Emergencies Programme. For more information, visit the website at [www.who.int/initiatives/herams](http://www.who.int/initiatives/herams) or access the HeRAMS platform at [www.herams.org](http://www.herams.org). If you have any questions or comments, please contact [herams@who.int](mailto:herams@who.int)

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