HeRAMS

Health Resources and Services Availability Monitoring System

Global Task Force on Cholera Control

27 Sept. 2023

HeRAMS

World Health Organization

Modelling geographic accessibility to health care

Travel time

Time required to travel from a populated place to the nearest HSDU

Zonal coverage

Number of people able to reach the nearest HSDU within a given travel time threshold per administrative unit

Geographic coverage

Catchment area of a HSDU indicating the reach of the health service for any travel time threshold

Referral time

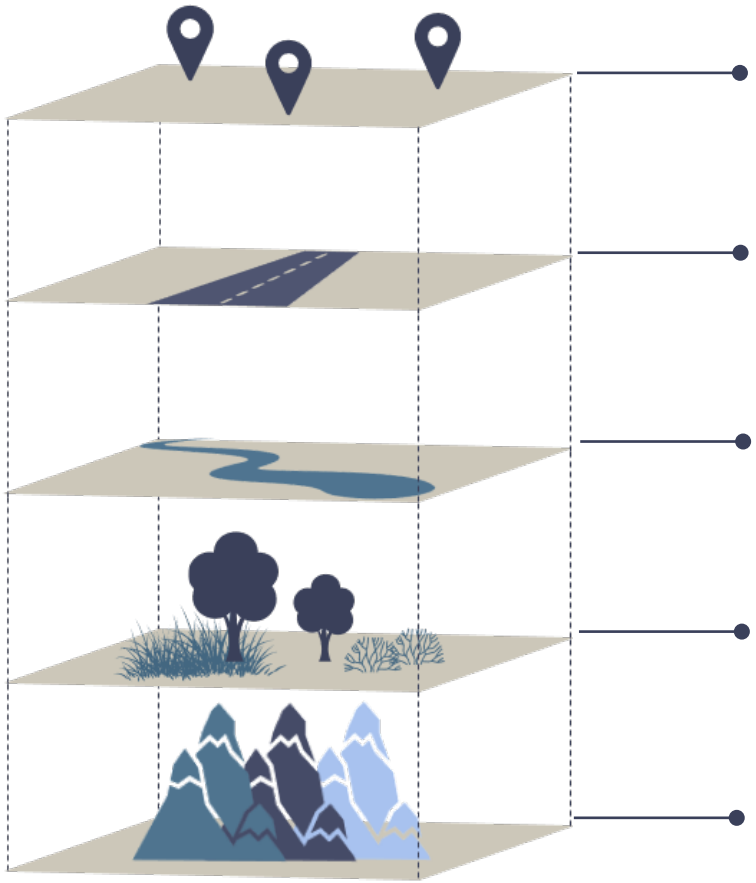
Travel time to the nearest specialized care provider from the initial HSDU

Resource allocation

Identify the optimum location for building new health facilities

+ Impact measurement

Prerequisites and why it is not yet done systematically



Health care characterization and distribution ?

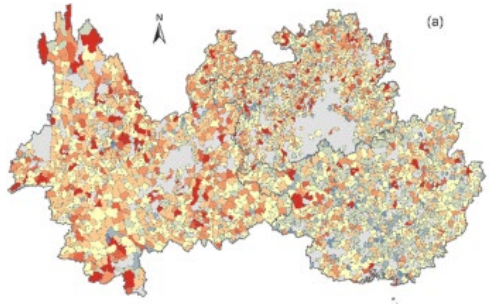
Road network

Barriers to movement (water bodies, etc.)

Land cover

Elevation

Population distribution



Health seeking behaviors

HeRAMS Initiative / Strategic Framework

VISION

Core information on essential health resources and services is readily available to decision-makers at country, regional and global levels.

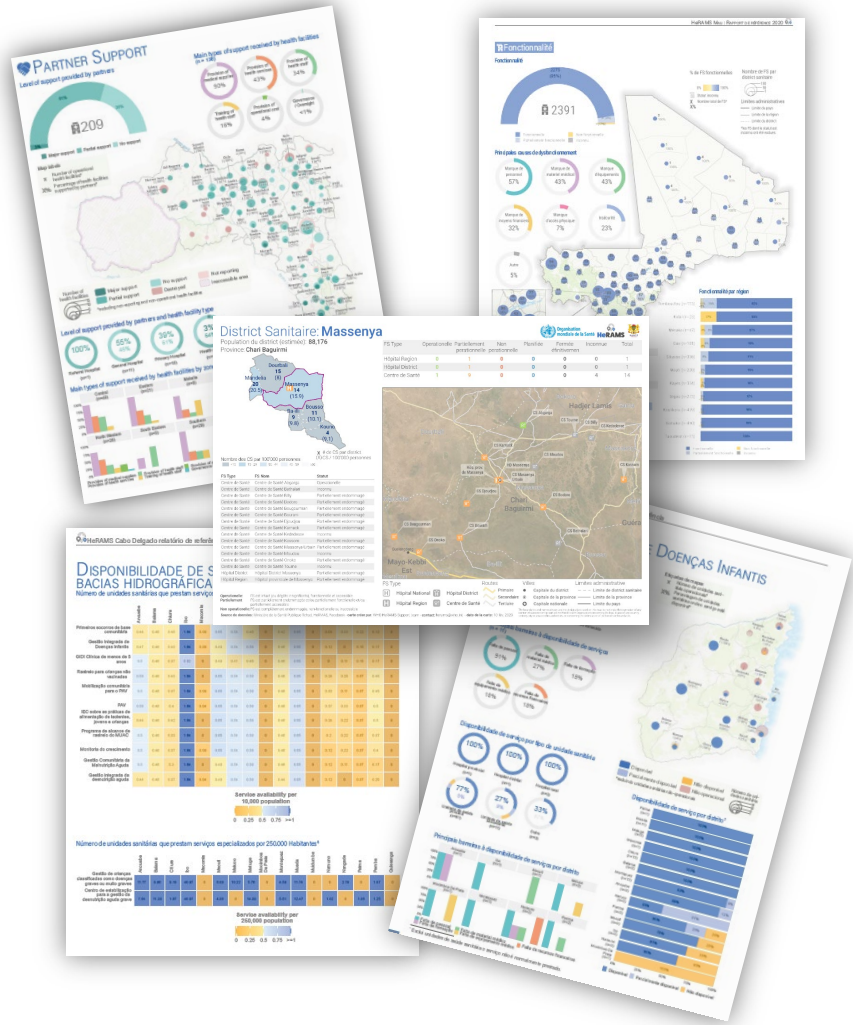
MISSION

Support countries with the standardization and continuous collection, analysis and dissemination of information on the availability of, and accessibility to essential health resources and services.

Rapidly deployable and scalable to support emergency response and fragile states, HeRAMS can also be expanded to – or directly implemented as – an essential component of routine health information systems. HeRAMS constitutes a transversal component of emergency and risk management, humanitarian-development-peace nexus, health system strengthening and UHC.

Strategic objectives

- Ensure the systematic availability, quality and accessibility of core information on essential health resources and services
- Strengthen health information systems, particularly through the compilation, maintenance, regular updated and continuous dissemination of an authoritative master list of health facilities.

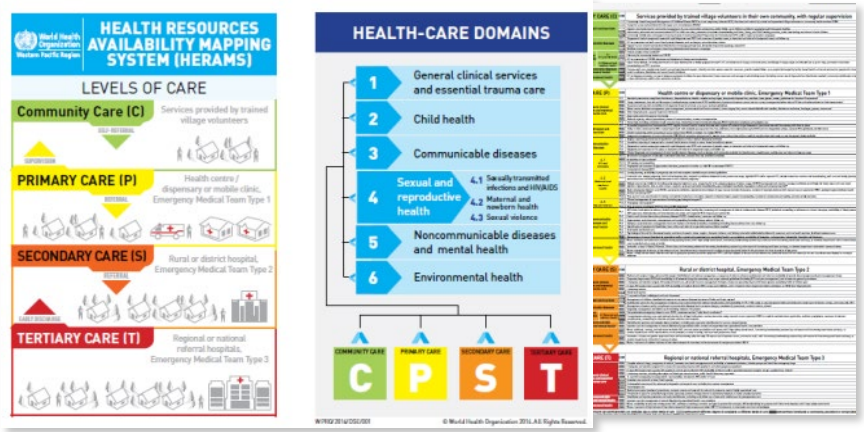


Strategic Framework: https://www.who.int/publications/m/item/herams-strategic-framework

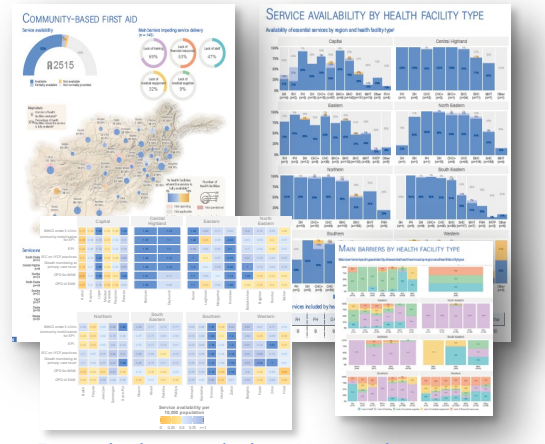
An integrated package of services

1. Norms &standards
2. Platform (www.herams.org)
3. Continuous country support
4. Descriptive analytics &reporting
5. Modelling &operational research
6. Coordination / Partnerships

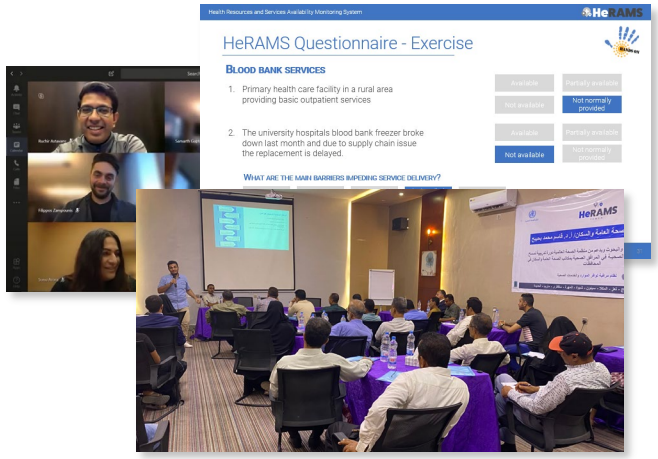
A distributed model of service delivery across the 3 levels of WHO and across partners



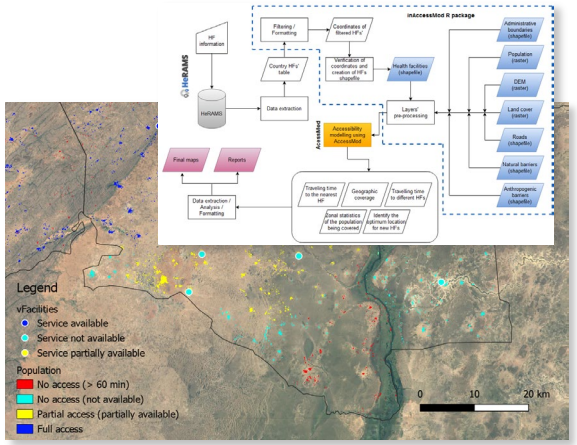
Norms &standards: Reference list of essential health services included in the HeRAMS questionnaire



Descriptive analytics &reporting: e.g., standard descriptive report



Continuous country support: Training, capacity building, mentoring



Modelling &operational research: Geospatial accessibility modelling

External evaluation 2019

External evaluation led by **The Operations Partnerships** on the performance of HeRAMS with regards to:

- Relevance
- Effectiveness
- Quality
- Usability
- Integration
- Sustainability

6 countries/contexts: Syria, Gaziantep hub, Yemen, Nigeria, Central African Republic, Sudan

https://apps.who.int/iris/handle/10665/339850

Key to decision-making : "numerous examples (..) of the importance of HeRAMS in supporting the identification of needs, gaps and priorities, the development and coordination of response activities and proposals, the integration of health considerations in humanitarian needs overviews and humanitarian response plan processes, and the reinforcement of health sector coordination".

A driver for collaboration and transparency: "a key source of information and transparency on health sector actors' activities contributing to improved collaboration and efficient resource allocation

Relevance: highly relevant to all phases of the Humanitarian Programme Cycle and relevant *beyond emergencies and humanitarian contexts*

Preparedness
Needs assessment and analysis
Strategic response planning
Resource mobilization
Implementation and monitoring
Operational review and evaluation
Recovery
Development

Effectiveness: "HeRAMS was found to be particularly effective (..) considering the relatively low funding and institutionalization it has benefited thus far, as well as the complexity of contexts it operates in"

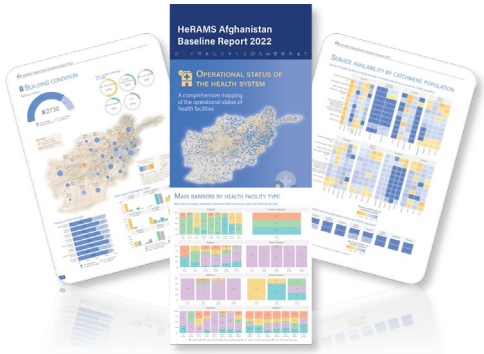
Efficiency and sustainability: the example of Afghanistan

4063 HSDUs

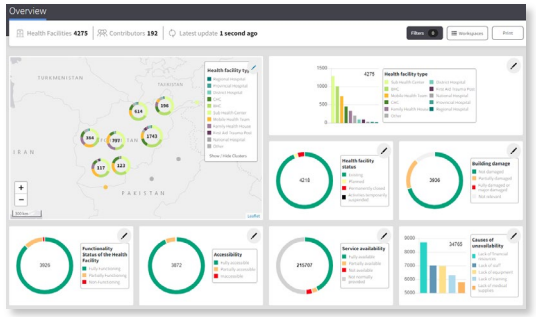
48 PARTNERS

168 CONTRIBUTORS

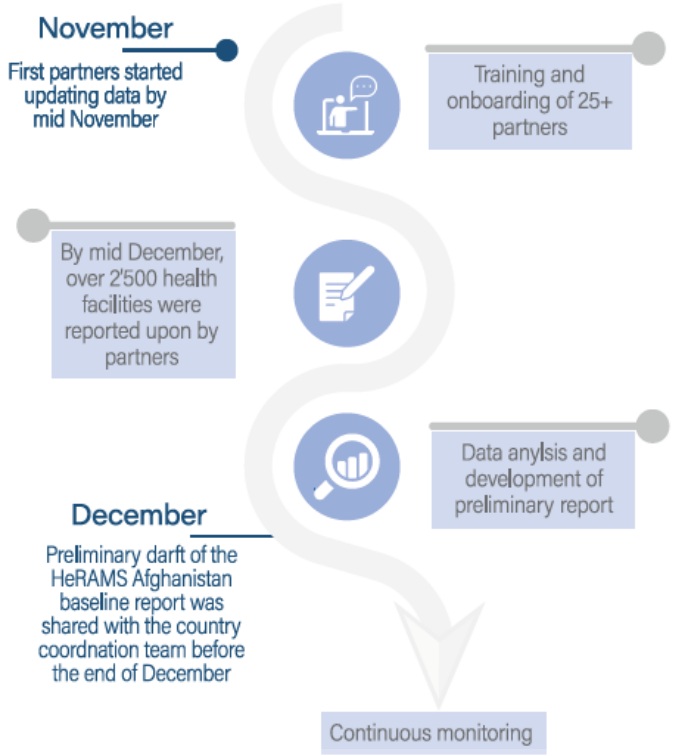
- Implemented since November 2021, multiple updates since
- Example of a rapid remote implementation in collaboration with Health Cluster and health sector partners



HeRAMS Afghanistan baseline report series 2020 https://bit.ly/3Mz2bYp



HeRAMS dashboard: https://herams.org/project/24



Implementation timeline


Where we are working
27
Countries
Countries
29
Projects
92,896
HSDUs
5386
Data contributors
2007
2010
2013
2016
2019
2022

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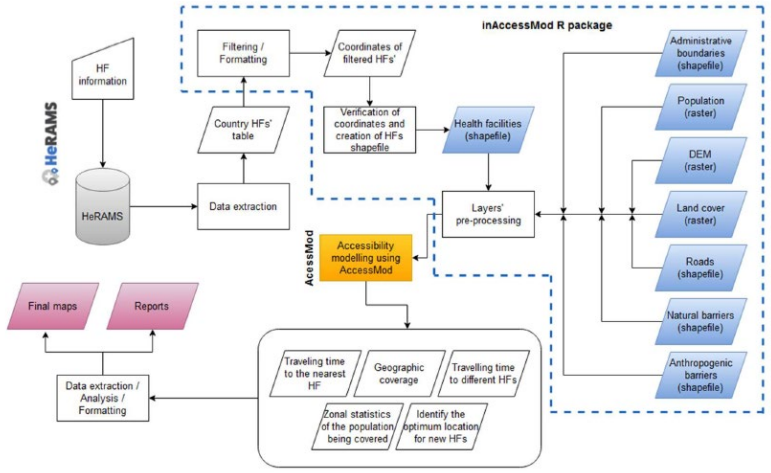
4. Descriptive analytics & reporting
5. **Modelling & operational research**
6. Coordination / Partnerships



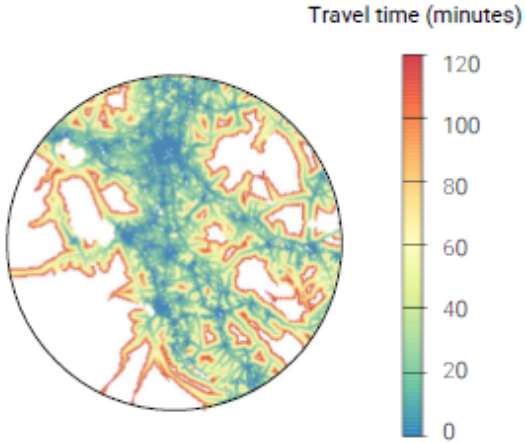
- **HeRAMS Accessibility Modelling Framework**
  - Determine how geospatial modelling of accessibility to essential health services be **conceptually** and **technically** articulated with HeRAMS
  - Standard / scalable approach
- **Conceptual**: description of HeRAMS Data Model and integration with Accessibility Modelling Framework
- **Technical**: automation of **data integration (ETL)**, **analysis** and **reporting**
- **Piloting** in: **Afghanistan** (White areas), **Mali**, **Iraq** and ongoing in **Ukraine** and **Yemen**

HeRAMS accessibility modelling outputs

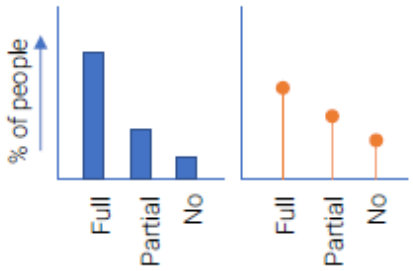
Main outputs

Accessibility map

The accessibility map provides an overview of travel time (in minutes) to the nearest health facility offering a specific service. The maximum threshold is set at two hours travel. Regions in white indicate areas where travel time exceeds two hours to the nearest available facility.



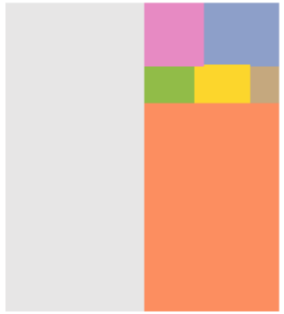
Bar charts



The bar charts show the percentage of people with access to facilities within two hours travel time. Full access represents the percentage of people covered by a fully functioning facility within two hours. Partial access represents the percentage of people covered by a partially available facility within two hours. No access represents the percentage of people who are either not covered by a facility within two hours or covered by a facility that does not provide the service. The bar charts are further broken down by region.

Proportional maps

The proportional maps illustrate the reasons why a certain percentage of people lack access to a health facility. People are typically categorized as lacking access if they are either located beyond a two-hour travel time from the nearest fully or partially functional facility or if they are within a two-hour travel time of a health facility where the service is unavailable. The full rectangle represents 100% of the people not having access. The color blocks are proportional in size and breakdown the reasons why people lack access. The colors used in the map are consistent throughout the report and indicate the proportion of people:



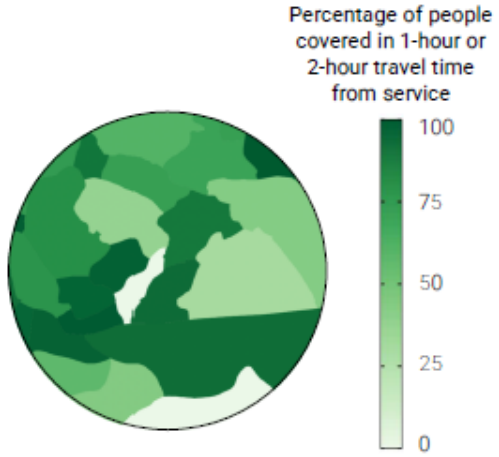
- Further than 2 hours from an available or partially available facility
- Within two hours of a facility where the service is usually not provided
- Within two hours of a facility where the service is not available because of lack of training
- Within two hours of a facility where the service is not available because of lack of staff
- Within two hours of a facility where the service is not available because of a lack of medical supplies
- Within two hours of a facility where the service is not available because of a lack of medical equipment
- Within two hours of a facility where the service is not available because of a lack of financial resources

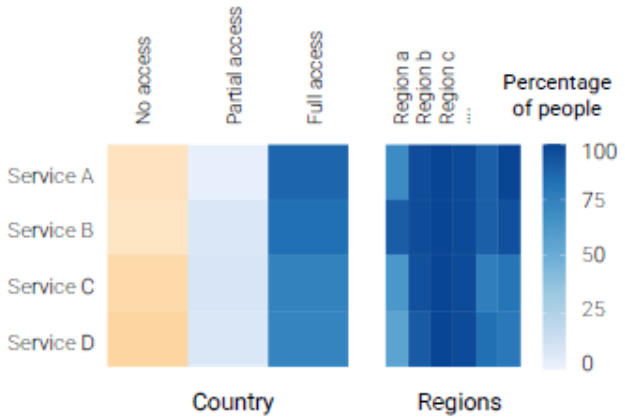
HeRAMS accessibility modelling outputs

Main outputs

Population coverage statistics

The population coverage map shows what percentage of people in a specific area can reach the nearest working health service within a specific travel time. It provides this information at different administrative levels (like region, province, district) and potentially at different travel time limits (such as 1-hour, 2-hour, etc.).



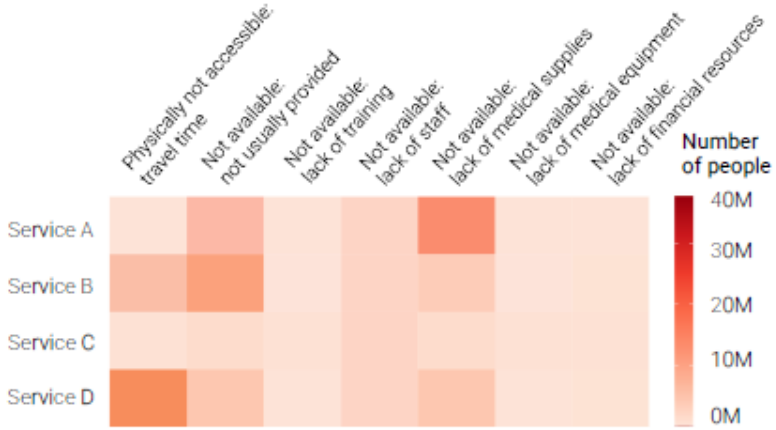


Accessibility summary chart

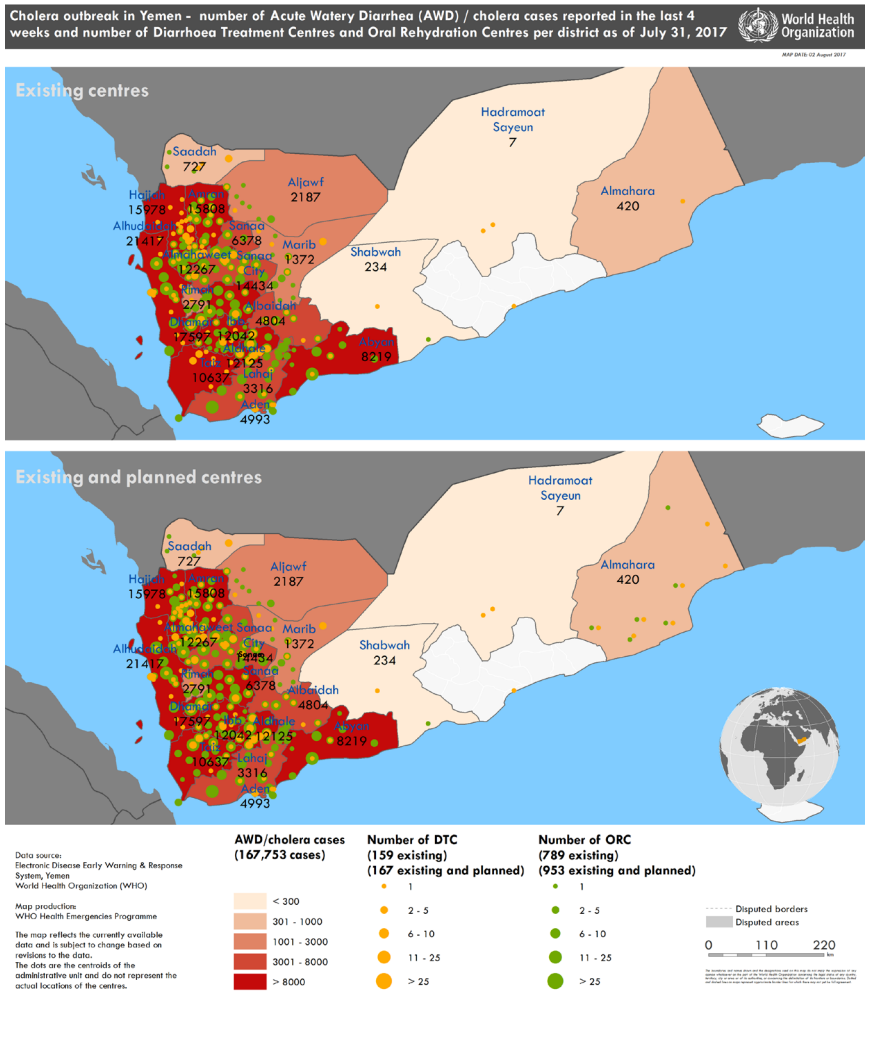
This chart offers an overview of the total and relative number of people with and without access to health services. The left side illustrates the total count of individuals at country level with no, partial, or full access to specific health services based on a given travel time threshold. On the right side, the chart presents the percentage of people with partial or full access per administrative unit and health service at the same travel time threshold.

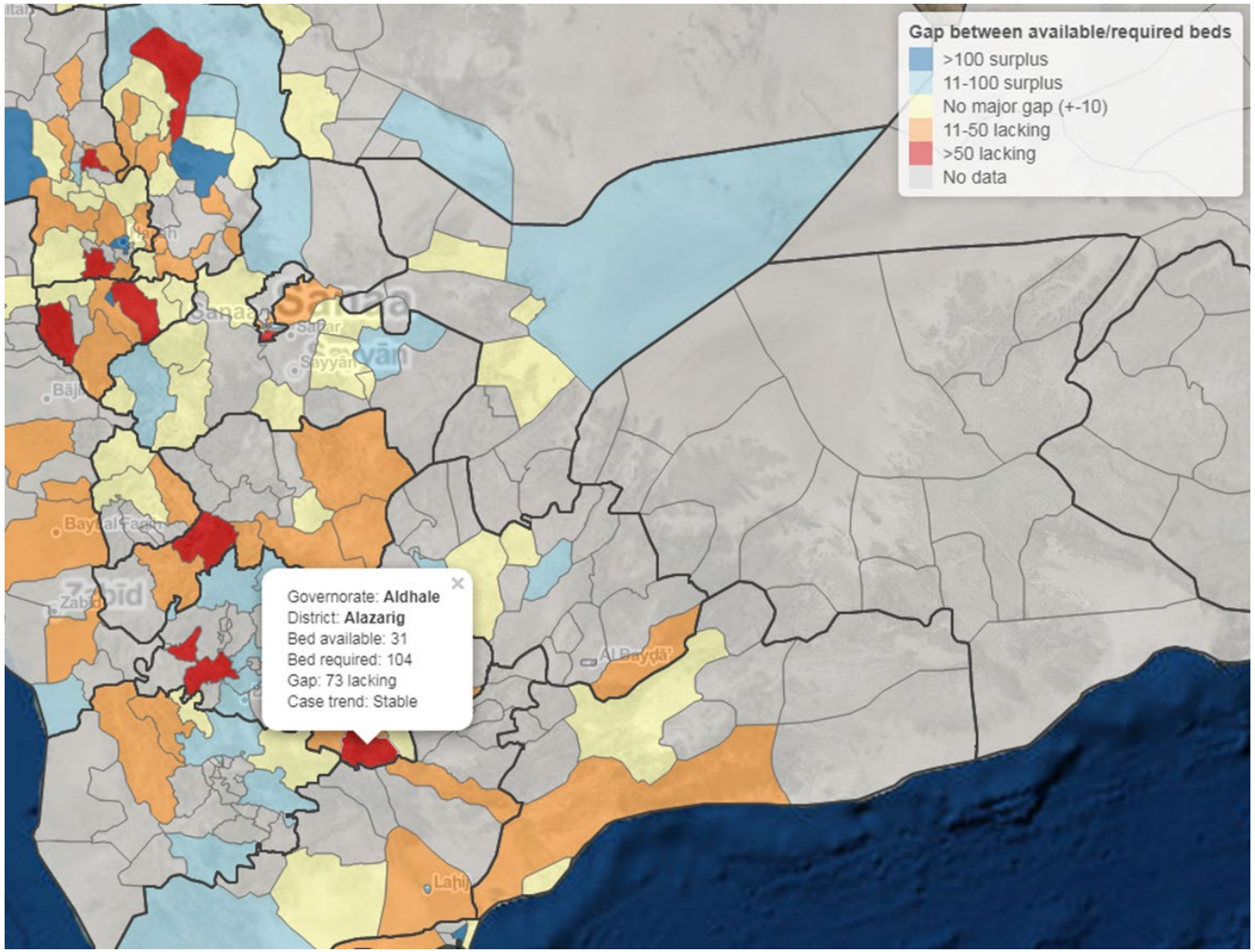
Barrier summary chart

This chart provides a summary of the number of people who lack access both in absolute and relative terms, categorized by health service and reason. The criteria for determining lack of access include being located more than two hours away from a fully or partially functional healthcare facility, or being within a two-hour travel time of a facility where the required service is unavailable. Colors indicate the absolute number of people while the percentages depicted in the rectangles present the relative number.



HeRAMS availability analysis / Yemen cholera outbreak (2017)





HeRAMS to support Cholera Response ?

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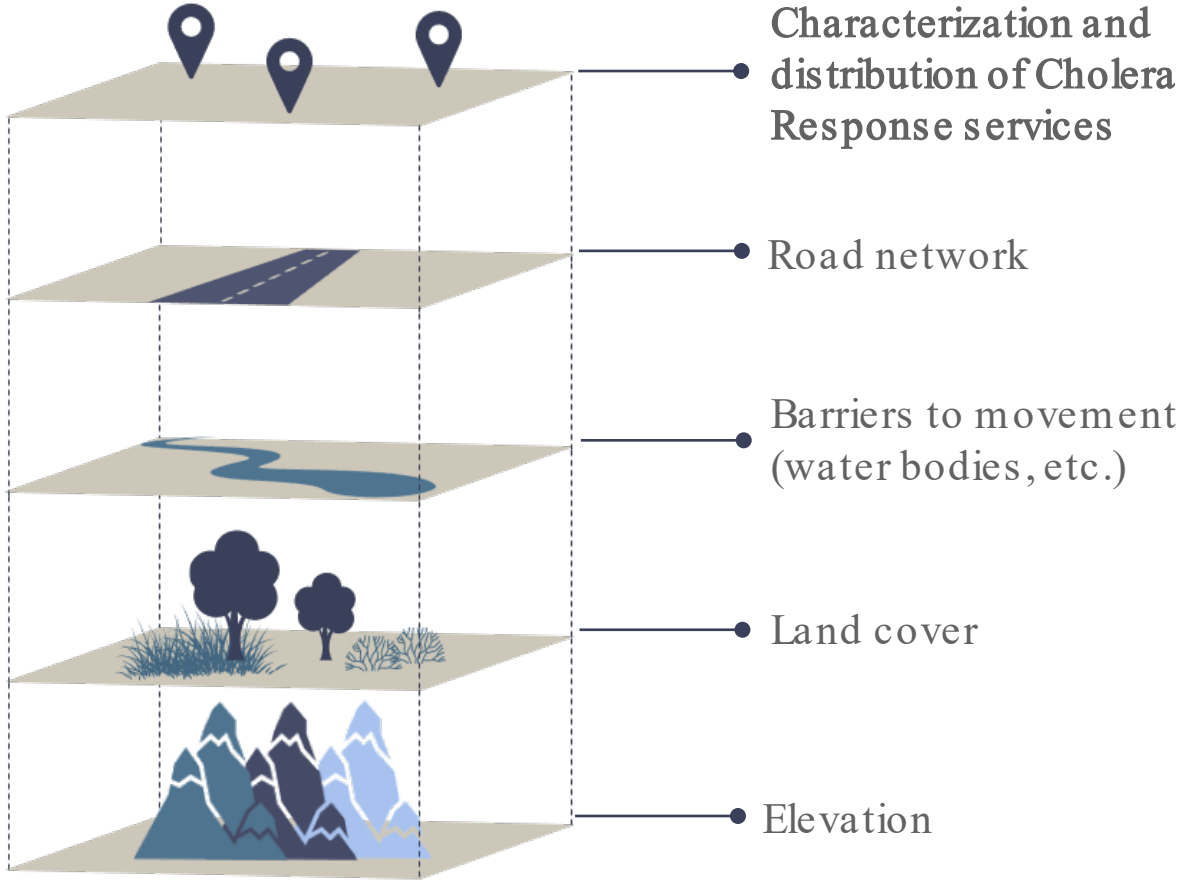
An adaptation of the HeRAMS Standard Data Model to Cholera Response would ensure leveraging of all the HeRAMS Services to support cholera response, including accessibility modelling



Thank you

https://www.who.int/initiatives/herams

Contact: herams@who.int

HeRAMS platform: https://herams.org

HeRAMS Initiative website: https://www.who.int/initiatives/herams

HeRAMS Baseline Report example: https://www.who.int/publications/m/item/herams-mali-baseline-report-2020

HeRAMS platform user guide: https://docs.herams.org/en/latest/

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World Health Organization