

# The WHO GIS Centre for Health

Geographic Information System 
 www.who.int/data/gis

June June 2022 Martner Serve



"By connecting maps, apps, data and people the WHO GIS Centre for Health is dedicated to support countries to make better informed public health decisions faster"

# **Workstream priorities for WHO GIS Centre for Health**

By connecting maps, apps, data and people, the WHO GIS Centre is dedicated to supporting countries to make better informed public health decisions.

Five workstream priorities

**GIS Culture** 

**One Health** 

One GIS

Complete baseline

geospatial analysis

and implementation

to help meet WHO's

Triple Billion targets

and UN SDGs

Incorporate innovative techniques to accelerate progress and deliver a measurable impact

offer a suite of training resources that help build leadership and practical skills to routinely use GIS in countries Operational plans for countries to step up GIS capacity to improve health outcomes

Establish regional networks to support and scale GIS activities similar to AFRO The overarching aim will be met through the following goals:

**Goal 1:** Enable WHO, through its Regional and country offices, to operationalize and scale geospatial data and technologies

**Goal 2:** Foster meaningful partnerships that allow WHO and Member States to use fit-for-purpose GIS supported solutions

**Goal 3:** Establish and maintain a consolidated repository of geospatial data, tools and best practices for effective deployment to priority WHO missions



# Meet the team



Abigail



Adam



Anna



Annette



Asela



**Bodour** 



Catherine



Chris



Chris Ian



**Daniel** 



Guy



Inge



Jon



Julia



Kathleen



Kshitij



Lucy



Michael



Michael



Naomi



Nomsa



Noor



Prashant



Ravi Shankar



Resmun



Samuel



# GIS Centre for Health Strategy Geospatial Strategy for the United Nations 2021

### Three focus areas

Tools and technology

Technical exchange and partnership

Technical support & Capacity Development

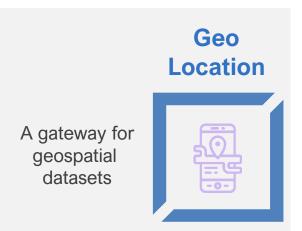
# First focus area

### Tools and technology

Provide geospatial infrastructure and baseline information.

Introduce cutting edge tools and technology.

Improve compliance & stewardship.

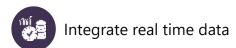




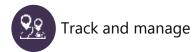




# Geolocation









Plan sampling locations for surveys using spatial data frame



Geolocation tools would provide the perfect gateway to collect geospatial datasets and monitor assets.



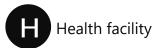
# GeoMart

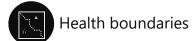


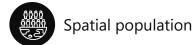
Enterprise server



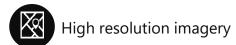
Image server, GeoEvent server, GeoAnalytics & Notebook server



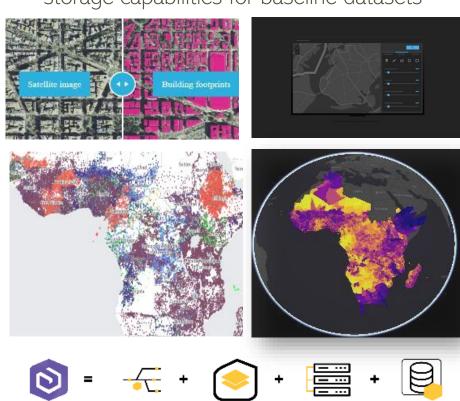








GeoMart would provide the infrastructure and storage capabilities for baseline datasets



# GeoWorkspace



Geo-enrichment



Processing large scale datasets



Geospatial modelling



Integrate with external data sources at organization level



QGIS, ArcGIS Pro, Desktop, ArcGIS Online, Mapbox.

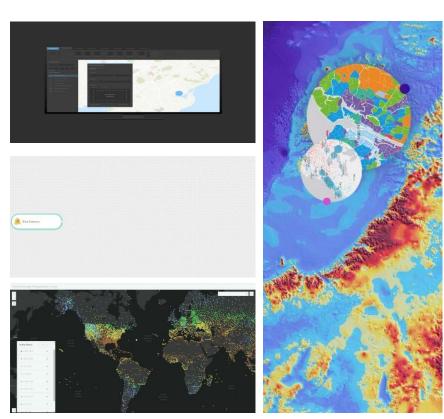


Data interoperability



Map production

# GeoWorkspace would provide the tools needed to support Geospatial data analytics



# GeoViz



WHO Legal complaint basemaps



Map repository



JavaScript, React, Angular, D3



Dashboards



Exploratory work

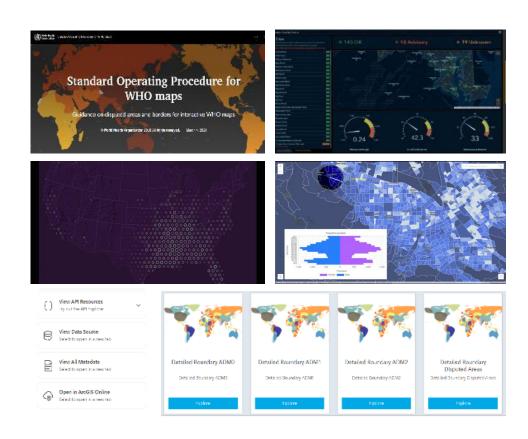


StoryMap



API and geodata downloads

# GeoViz would provide the tools for visualization and Geospatial data dissemination



# Second focus area

# Technical exchange and partnership

augmenting timely assistance and expertise through a network of UN agencies and trusted geospatial partners; "Gavi, as a beneficiary, needs the WHO GIS Centre in place to provide GIS support to countries, establish a global health facilities database, and progress immunization coverage so we can measure the progress of our own strategy."

Carine Gachen, Gavi

The WHO GIS Centre is co-leading the COVAX GIS working group together with UNICEF, with partners The Global Fund, Gavi, BMGF, CDC, and the World Bank to leverage geospatial technology for equitable vaccine distribution through digital microplanning, for COVID-19 response and beyond.











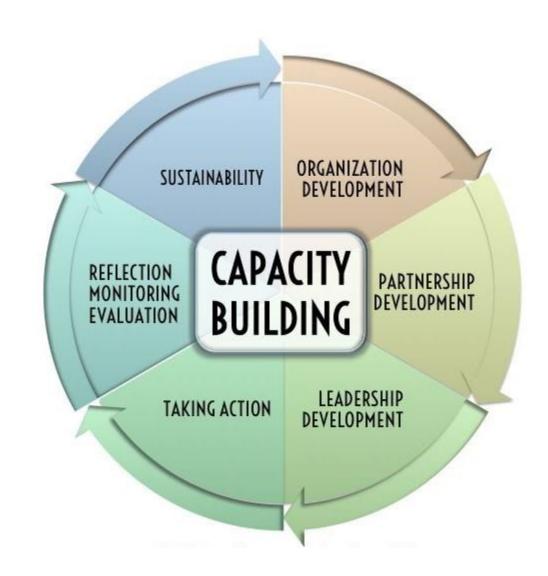
# Third focus area

# Technical Support & Capacity Development

Promote geospatial culture and community of practice;

Provide training and technical expertise in innovative technology;

Efficient use of GIS by member states & partners.



# TRAINING AND CAPACITY DEVELOPMENT

For increased capacity across WHO regions and Member States to leverage proven geospatial methods and resources for health outcomes.



#### **Activities 2021**

GIS Centre website maintenance

4 Story maps

Audiovisuals for events and documentation

- 9 Knowledge Series
- 4 Learning Series (EN, SP, FR) in AGOL
- 4 Open Office hours

Open House on World GIS DAY



#### **Activities 2022**

AIM STRATEGY 1) To facilitate the use of GIS at I) GIS Training and Capacity Development at country level global, regional, and country for pilot countries and creationg of workplan for 2022 level by providing needs-based around country needs assessment. training across the organization. Nepal II) Quarterly Learning Series in AGOL III) Timely granting of license requests 2) To enrich the health-I) Monthly Knowledge Series on GIS-related topics open to related GIS culture by providing all-staff regular opportunities for II) Open Office - weekly availability of GIS Centre staff for Member States and custom interaction individuals to receive support, III) GIS Centre Open House – quarterly webinar open to partners, NGOs, collaborators advice, and engagement across the organization -March, June, September, December IV) Monthly regional coordination call V) Networking and GIS Centre ambassadors through all activities of the Centre – ie GIS team as a whole. => identification of resource persons for training and content delivery. Open-door policy and a two-way feedback system. 3) To provide a service I) Daily support with map request system with customised maps and II) Open office with GIS Centre colleagues support the visualization of health data



375

**WHO GIS Centre for Health Learning Series** 

Various sessions to choose from on 7 & 8 October 2021

https://gis-who.hub.arcgis.com/pages/gis-training Questions? Write to gissupport@who.int

Brought to you by the Division of Data, Analytics and Delivery for Impact











550

#### 621

Allen Carol
How to tell a story with data? low spatial population model can play a role in COVID vaccination planning







350

Mary Agocs The 5-point plan (AMRC





COVAX GIS Group

Nicolas Ray
AccessMod – Geospatial Tool to Model 300

Mark Levy GRID3 - Population Data Partnership 450

How GIS can help in equitable & Efficient 400

Este Geraghty

400

### Department of Data And Analytics

Since August 2020, WHO GIS Centre for Health has been focusing on high-impact delivery and supporting relevant topics in the health sector.

#### GIS CENTRE FOR HEALTH





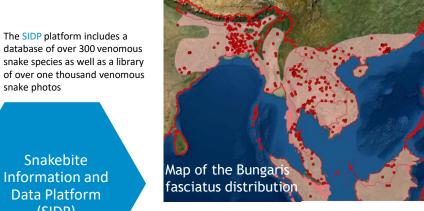
AccessMod. a WHO tool (developed with partners at University of Geneva) that has been developed to assist countries to examine the geographic aspects of their health system and used to determine accessibility to healthcare facilities

Snakebite Information and **Data Platform** (SIDP)

Services,

The SIDP platform includes a

snake photos



AccessMod nextgeneration

#### Adverse Events Following Immunization (AEFI) / VigiMobile

A mechanism for collecting, managing, processing and sharing reports of Adverse Events Following Immunization (AEFI) from the health facility (subnational) level to the national database (VigiFlow) and eventually to the global database (VigiBase)

UNICEF to provide technical guidance and support on GIS microplanning.

The COVAX GIS Working

group is co-led by WHO and

**COVAX GIS Working Group** 

> Access to COVID-19 **Tools Accelerator** (ACT-A)

> > ACT-A is global partnership to support health systems strengthening during the COVID-19 pandemic

**Adverse Events Following Immunization** (AEFI) / VigiMobile

> Training and Capacity Development (STCD) 70 38

STCD includes:

Needs-based customized regional, sub-national, and in-country training Monthly interactive webinars across all three levels of

 Support with GIS licensing map requests using your data, and adhering to WHO legal standards

the Organization

### **GHFD Strategic Framework**

The core goal of the GHFD

initiative is to have in each

country an authoritative,

accurate, maintained

Master List

national Health Facility



Ministries of Health (MOH) are in the position to maintain, regularly update, and use a health facilities master list (HFML) for their respective country. These lists are accessible as a global public good through a global health facilities database.



Global Health

**Facility Database** 

Project (GHFD)

Strengthen the technical capacity of the Ministries of Health across levels to ensure the availability, quality, accessibility and use of a master list of health facilities. Avoid duplication of efforts, harness technical capacity to collate, maintain and use data to address public health priorities.

# 1.43 Bn

WHO GIS Knowledge Series .

### **GHFD Strategic Framework**



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# STRATEGIC OBJECTIVES

#### **National Level**

MOHs empowered to establish, maintain, openly share and use the HFML

#### Regional Level

Technical assistance available for countries to establish, maintain, share and use HFMLs

#### **Global Level**

Supporting environment in place to establish, sustain and share countries' HFMLs through the GHFD

#### STRATEGIC PATHWAYS

Seven strategic pathways act as enablers to support the implementation and sustainability of the project at the country level. Governance & Policies

Partnerships & Collaboration

Communication & Advocacy

Data Management Capacity

**Financial Sustainability** 

Innovation

#### **GUIDING PRINCIPLES**

Quality

Openness

Empowerment

Cost Effectiveness & Sustainability



**Global Health Facilities Database** 



# International Conference on Health Statistics