

Data Release Statement

GRID3 DRC Haut-Lomami and Tanganyika Health Facilities, Version 01

October 2022

Abstract

This document outlines the methodology and data sources used for constructing the *GRID3 DRC Haut-Lomami and Tanganyika Health Facilities, Version 01* dataset. The dataset consists of health facility points with name, location, health zone and health area attributes in the aforementioned provinces in the Democratic Republic of the Congo (DRC). Limitations and use constraints are also provided.

Dataset citation

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Data Use Constraints

Users are free to use, copy, distribute, transmit, and adapt the work for commercial and non-commercial purposes, without restriction, as long as clear attribution of the source is provided.

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Contacts and Data Queries

GRID3 appreciates feedback regarding this dataset, including suggestions, discovery of errors, difficulties in using the data, and format preferences.

Please contact: Geo-Referenced Infrastructure and Demographic Data for Development (GRID3), data.queries@grid3.org



Contents

| | |
|----------------------------------|----------|
| Introduction | 3 |
| Methodological Approach | 3 |
| Dataset Description(s) | 5 |
| Version History | 8 |
| Known Dataset Limitations | 8 |
| Disclaimer | 8 |
| Acknowledgments | 8 |

I. Introduction

The *GRID3 DRC Haut-Lomami and Tanganyika Health Facilities, Version 01* dataset consists of health facility points with names and health catchment area attributes in the provinces of Haut-Lomami and Tanganyika in the Democratic Republic of the Congo (DRC). This dataset is one of three datasets (along with the Settlements and Health Catchment Area Boundaries datasets) released together.

To conduct this work, the Center for International Earth Science Information Network (CIESIN) at Columbia University engaged with the mandated authorities in the DRC's Ministry of Health who support data collection and development for vaccination planning. Local healthcare workers were also directly involved in the mapping of health catchment area boundaries at participatory events coordinated with in-country provincial coordinators and mappers, and in field data collection from July to September 2019. The dataset was then updated by GRID3 between 2019 and 2021 following its reception by the DRC National Malaria Elimination Program (PNLP).

This work is part of the GRID3 Mapping for Health in the DRC project and GRID3 Mapping Portfolio. The GRID3 Mapping for Health project was supported by Gavi through its INFUSE initiative and led by the Ministry of Public Health in the DRC, delivered in partnership with Flowminder and CIESIN, and in collaboration with WorldPop at the University of Southampton, Kinshasa School of Public Health, UNFPA, UNOPS, and Novel-T. GRID3 Mapping for Health is a continuation of previous work conducted and/or supported in the DRC by the Geo-Referenced Infrastructure and Demographic Data for Development (GRID3) programme.

II. Methodological Approach

Summary

The *GRID3 DRC Haut-Lomami and Tanganyika Health Facilities, Version 01* dataset was originally created through an extensive fieldwork exercise from July to September 2019. This version includes additional data from the PNLN and was verified with provincial health staff in each province.

Details

Phase 1: 2019 Field data collection and publication of beta version

With the support of provincial and national health authorities, local healthcare workers (“head nurses”, “health zone management staff”, and “head doctors of the health zones”) and GRID3 GIS specialists (“mappers” and “provincial coordinators”) engaged in a participatory mapping process in Haut-Lomami and Tanganyika from

July to September 2019. This mapping process occurred at the level of the health zone (an operational unit made up of approximately 15-20 health areas).

Mappers were deployed to the health zones, where they organised participatory mapping meetings with local healthcare workers. They also trained head nurses to collect data on settlements, health facilities, and other points of interest in their respective health areas using an ODK-based smartphone application. Mappers then used this information to delineate health area boundaries. This data was then sent back to CIESIN for additional quality checks.

The data collected in the field proved to be highly accurate and nearly complete when compared to the master list of health facilities managed by the Health Information Systems unit (DSNIS) within the Ministry of Health. To ensure 100% completion, CIESIN supplemented the collected data with data by Acasus, PROSANI, and the WHO. All data collected in the field were retained.

A [beta version](#) of this dataset was published in August 2020.

| Source | Description |
|------------------|---|
| Acasus/PEV | Acasus and the Programme Elargi de Vaccination (Enhanced Programme on Immunisation). This data was received prior to fieldwork. |
| PROSANI USAID | Programme de Santé Intégré de l'USAID en République Démocratique du Congo (PROSANI USAID), or USAID's Integrated Health Program (IHP) in the Democratic Republic of the Congo. This data was received prior to fieldwork. |
| WHO | World Health Organisation. This data was received prior to fieldwork. |
| MSP/CIESIN | DRC's Ministry of Public Health (Ministère de Santé Publique) and the Center for International Earth Science Information Systems) |

Phase 2: Integration of data from the PNL

As the PNL datasets did not contain any information about health facilities, the health facility layer was not updated as a result of this integration.

Phase 3: Cleaning and updating the health facility layers

Between November and December 2021, two mappers travelled to Haut-Lomami where they worked with provincial health staff to validate the existing data. Mappers reviewed spelling, verified locations of fixed and mobile/temporary vaccination sites, and ensured that all health facility points identified were still in existence.

Between May and June 2022, a mapper worked with provincial health staff in Tanganyika province to validate existing data. This process involved reviewing spelling, verifying locations of fixed and mobile/temporary vaccination sites, and ensuring that all health facility points identified were still in existence.

III. Dataset Description(s)

The *GRID3 DRC Haut-Lomami and Tanganyika Health Facilities, Version 01* dataset consists of four layers: health facility point data and a table with the field descriptions for the layer. The data are available for download in Esri geodatabase (gdb) file packaged within zip folders.

File name: GRID3_DRC_HLTN_health_facilities_V01.gdb

The following layers are included in the gdb:

codebook_health_facilities

GRID3_DRC_HLTN_bcz_V01

The “BCZ” refers to the Bureau central de la Zone de Santé (Central Office of the Health Zone), which constitutes the management structure for the organisation and operation of the health zone. It is located at the Hôpital Général de Référence (General Reference Hospital), or another location within the health zone. The BCZ implements the Ministry of Health's strategies at the health zone level.

GRID3_DRC_HLTN_health_facilities_V01

Government, NGO, or private health facilities that offer vaccination or other health services.

Extent: Democratic Republic of the Congo: Haut-Lomami and Tanganyika Provinces

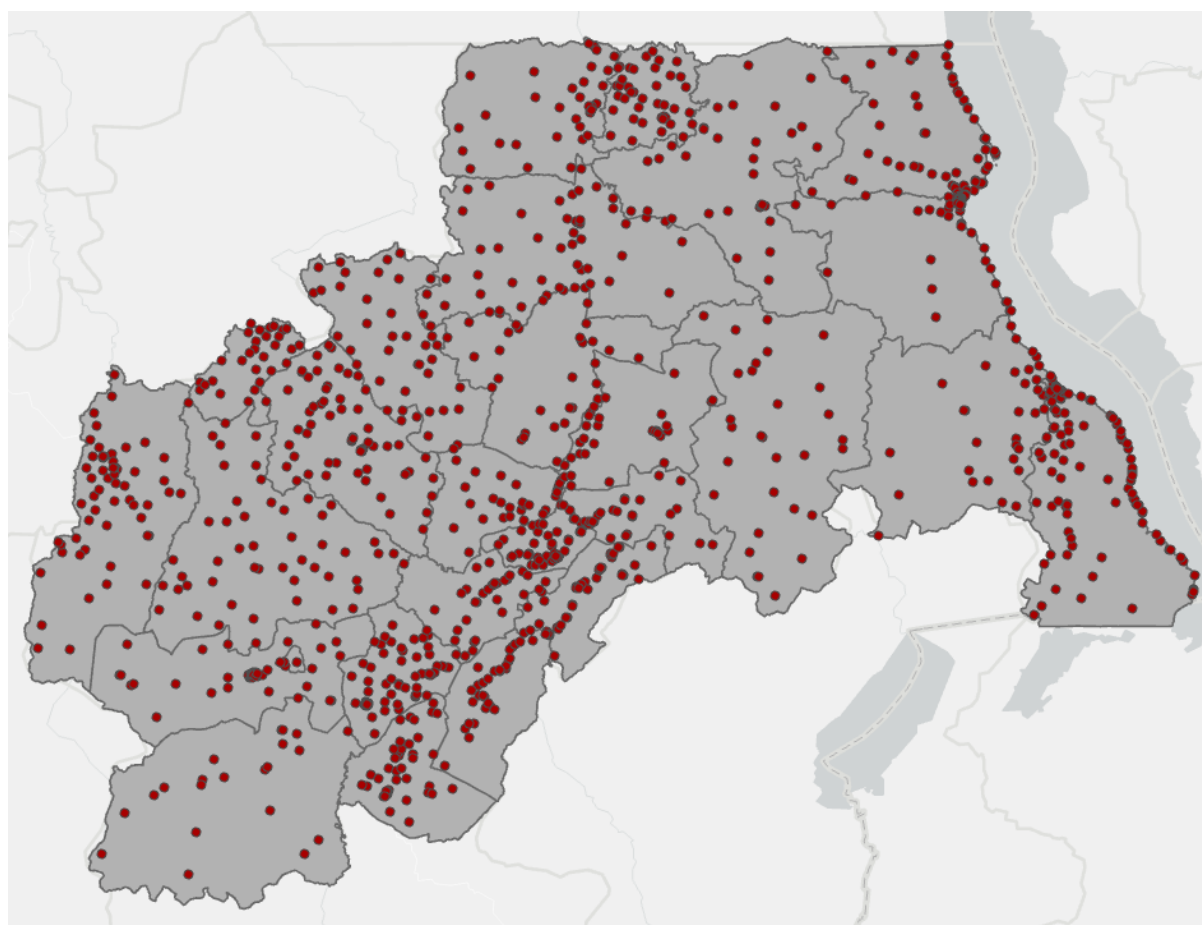
North: -4.97517681106092

West: 23.7154293063175

East: 30.5882263186897

South: -9.91798019413062

Coordinate system: GCS WGS 1984



The map above shows health facility points collected in Haut-Lomami and Tanganyika provinces.

Codebook

| Field Name | Field Description |
|------------|---|
| OBJECTID | Automatic field number |
| Shape | Shape geometry of the layer |
| pays | Name of the country |
| province | Name of the province |
| antenne | Name of the antenna |
| zonesante | Name of the health zone (admin 2) |
| airesante | Name of the health area (admin 3) |
| village | Name of the locality |
| fosa | Name of the health facility (health centre, referral health centre, health post, dispensary, HGR, community care site, central office of the health zone) |
| dhis2 | The unique identifier of the health facility in the DHIS2 pyramid (health facility master list) used by the DSNIS |
| fosatyp | Type of health facility |
| categorie | Management type of the health facility (public, NGO / Private non-profit, private, confessional) |
| frigo | Is there a refrigerator in the health facility? |
| frigofct | Is the refrigerator working properly? |
| vaccfixe | Has the health facility carried out fixed immunisation sessions (within the centre) during the last 30 days? A fixed immunisation site is defined as a health facility that vaccinates with its own staff and organises fixed vaccination sessions at least once a week or 4 times a month. |
| fosanom | Name of the health facility without type |
| source | Data provenance |
| date | Date of last edit |
| notes | Comments |
| lat | Latitude in decimal degrees |
| lon | Longitude in decimal degrees |
| precision | Accuracy (GPS) |

IV. Version History

Additional field collected data were integrated to further complete the health facility data and facilitate production release.

V. Known Data Limitations

The spatial accuracy of the health facility data is dependent on both the accuracy of the point data collected in the field as well as on the correctness of the edits made to the collected data throughout the validation process. In general, it was assumed that the data collected in the field were more accurate than the previously compiled health facility point data. Temporal mismatches exist among the point datasets and the satellite imagery used to perform quality checks. This may lead to health facilities not being identified or the inclusion of abandoned health facilities.

Known issues

- Spelling mistakes (spelling may vary colloquially and between organisations).

VI. Disclaimer

CIESIN, Columbia University, and the GRID3 programme follow procedures designed to ensure that data disseminated by the project are of reasonable quality. If, despite these procedures, users encounter apparent errors or misstatements in the data, they should contact GRID3 at data.queries@grid3.org.

CIESIN, Columbia University, and their sponsors do not guarantee the accuracy, reliability, or completeness of any data provided. We provide this data without warranty of any kind whatsoever, either expressed or implied, and shall not be liable for incidental, consequential, or special damages arising out of the use of any data provided.

VII. Acknowledgments

GRID3 thanks the following institutions that provided input data and/or assistance with data production:

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Bluesquare, Belgium
Bureau Central du Recensement (BCR), DRC
Centers for Disease Control and Prevention (CDC), USA
Direction d'Etudes et Planification (DEP), DRC
Direction des Soins de Santé Primaires (DSSP), DRC

Division du Système National d'Informations Sanitaires (DSNIS), DRC
 Division Provinciale de la Santé (DPS) du Haut-Lomami and Tanganyika
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 Global Good
 Initiative Régionale de Documentation et d'Accompagnement Communautaire au
 The International Medical Corps (IMC)
 Développement (IDRAC Sarl), DRC
 International Federation of Red Cross and Red Crescent Societies (IFRC), Switzerland
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 Novel-T, Switzerland
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 PATH, DRC
 Programme Elargi de Vaccination (PEV), DRC
 Programme National de Lutte contre le Paludisme (PNLP), DRC
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