Comparing South Sudan Health facility location data from different sources

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DRAFT Code for this document

We currently have access to the following sources of health facility locations for South Sudan.

- 1. MoH: downloaded from Ministry of Health website https://www.southsudanhealth.info/
- 2. HSF: South Sudan Health Service Functionality Dashboard (locations not downloadable)
- 3. OSM : healthsites.io in OpenStreetMap
- 4. Kemri: collated data from published paper Maina(2019) Kemri, hosted by WHO GMP
- 5. HDX: latest version on Humanitarian Data eXchange, labelled MoH 2016

Numbers of locations per source.

source	num facilities	num hospitals	coords?	useful attributes
1. MoH	2889	130	coords (2553 with, 336 without)	only Facility codes e.g. FC05040202
3. HSF	1890	82	not downloadable, (1671 with coords, 219 without)	lots e.g. functionality, staff & bed numbers
2. OSM	432	72	coords	(few complete) beds,staff_doctors,staff nurses
4. Kemri	1734	40	coords	no attributes
5. HDX	1464	53	coords	codes & functional status

The downloadable MoH data do not seem to have changed in the last year.

Both the MoH and HSF websites have contact emails indicating that they will answer queries. We reached out to both twice in April May 2021 and received no reply.

The Functionality Dashboard says this about the data displayed there: "Facility data for this bulletin was kindly contributed by the Health Cluster partners, Health Pooled Fund (HPF), the International Committee of the Red Cross (ICRC), Management Sciences International (MSI), UNICEF, and UNHCR. Additional service availability data was extracted from the Ministry of Health DHIS2 platform for facilities without an implementing partner report. Most data was reported as of 31 March 2020, but the report date for each facility is indicated by hovering over a facility marker on the map. Implementing partners self-report on a quarterly basis service availability based predefined, standardized service availability data points and definitions. WHO merges the respective data sets and assigns a functionality level to each facility based on the criteria below."

Thus the HSF data seem to be the most comprehensive and up-to-date, but are not easily downloadable, do not have coordinates and do not have licencing information.

I did copy & paste the HSF data from the 19 separate pages so that I can summarise it in the figures below. I am not sure whether we are in a position to share these further without any permission from WHO or MoH.

I could try to join the data from HSF with that from the MoH website to add coordinates to the functionality data (and conversely to add attributes to the MoH data), but I'm not sure of the value of this given that it is re-doing something that someone in WHO/MoH has done already.

The MoH website also has associated attribute data (e.g. staff numbers), that can be accessed by clicking on a facility entry, but these data do not appear in the download, so this is not a feasible method for obtaining attributes for large numbers of facilities. In addition the licensing for these data is not stated.



