Comparing Kenyan Health facility location data from different sources

Andy South @afrimapr

2021-05-04

DRAFT Code here:https://github.com/afrimapr/afrimapr_dev/blob/master/compare_moh_kenya.Rmd

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

1. downloaded from Ministry of Health website (no coordinates) http://kmhfl.health.go.ke/#/facility_filter/results
2. a file created by WiGISKe 2021-04 from multiple sources
3. healthsites.io in OpenStreetMap
4. collated data from published paper Maina(2019)

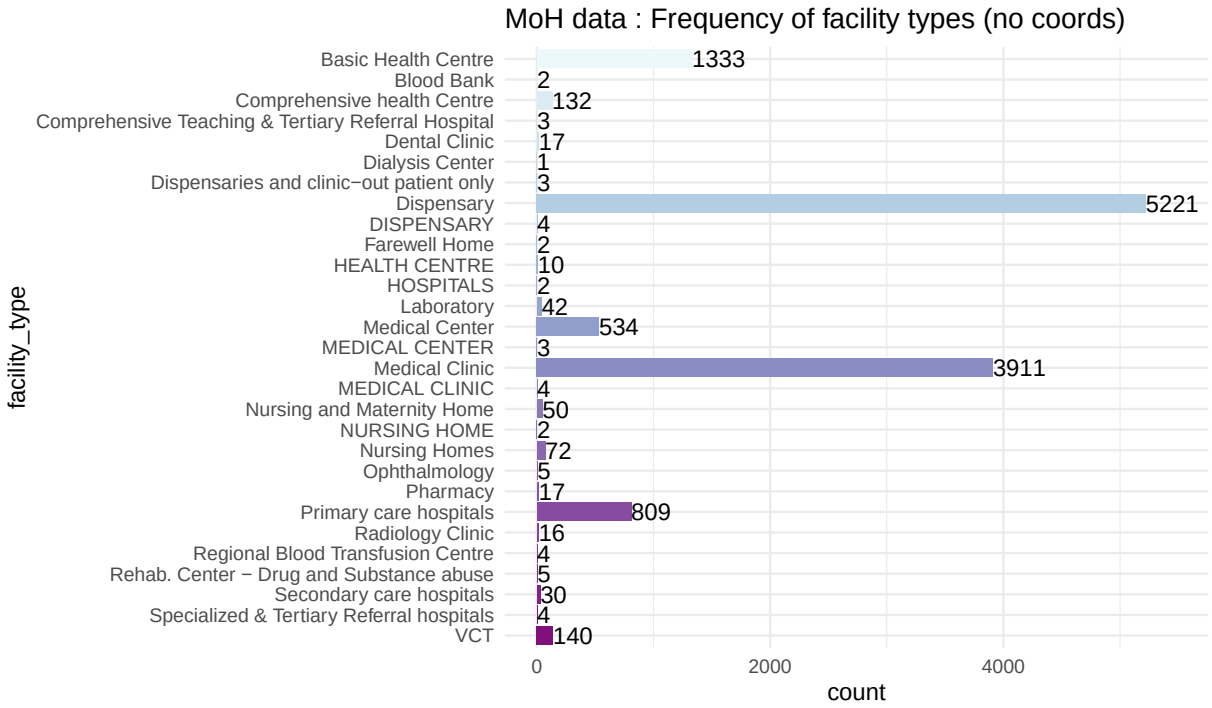
Following discussion 2021-04-29 suggestion that modelling work at the ward level uses the MoH data that has advantage of having a clear provenance (and also has the most facilities and attributes).

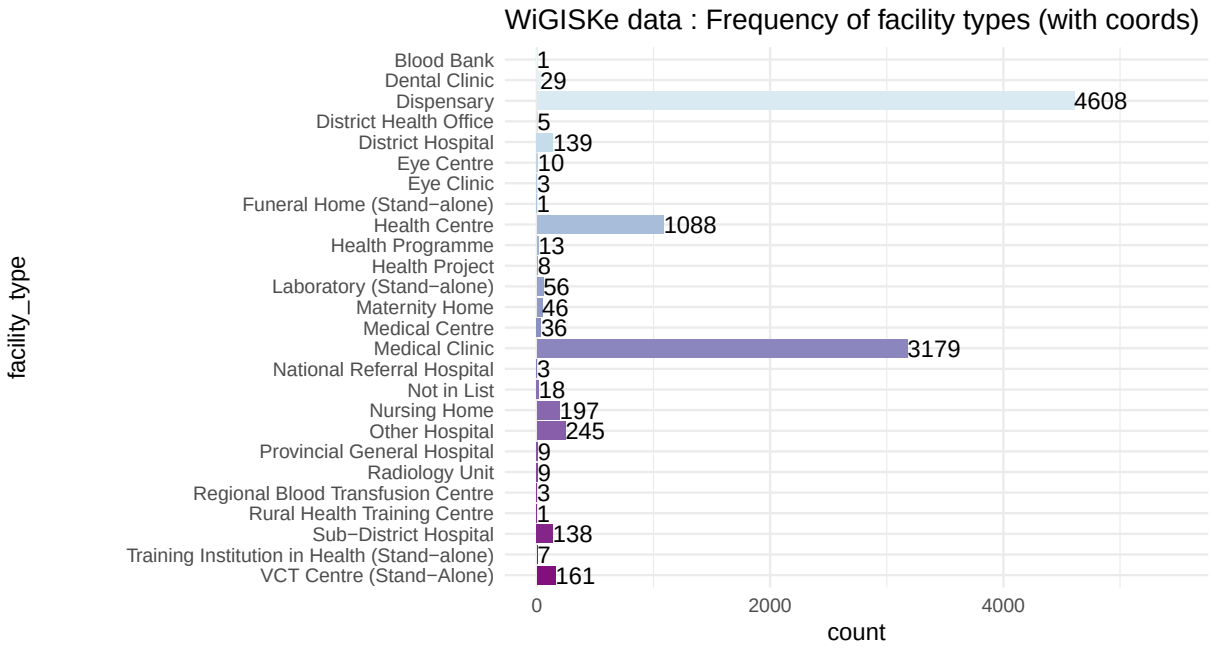
Also note that the MoH data has a column named 'Code' which matches with the 'MFL CODE' column in the pdf of MoH approved Vaccination posts so will allow us to link the two.

Numbers of locations per source.

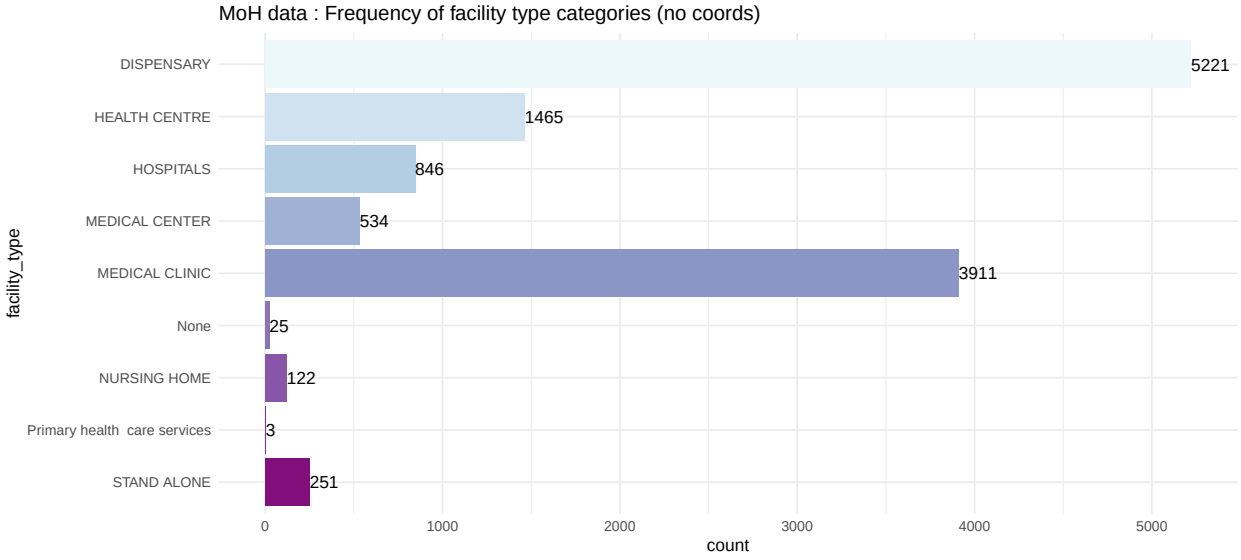
source	number facilities	spatial data	useful attributes
1. MoH	12378	Ward	Registration_number,Keph level,Owner type,Beds,Cots,Operation status,Open_weekends
2. WiGISKe	10013	coords	Owner
3. OSM	2032	coords	(few complete) beds,staff_doctors,staff nurses

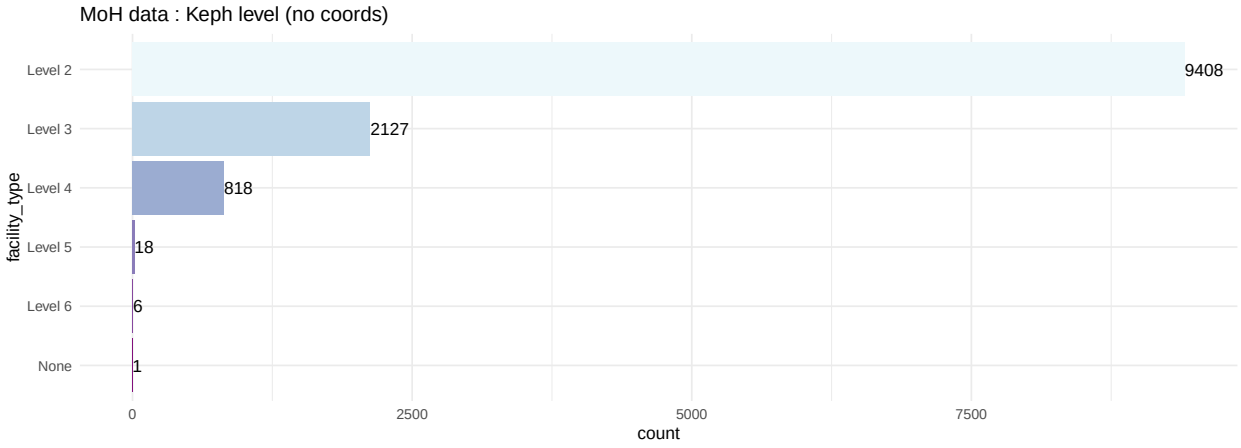
Comparing frequency of facility types in MoH & WiGISKe data

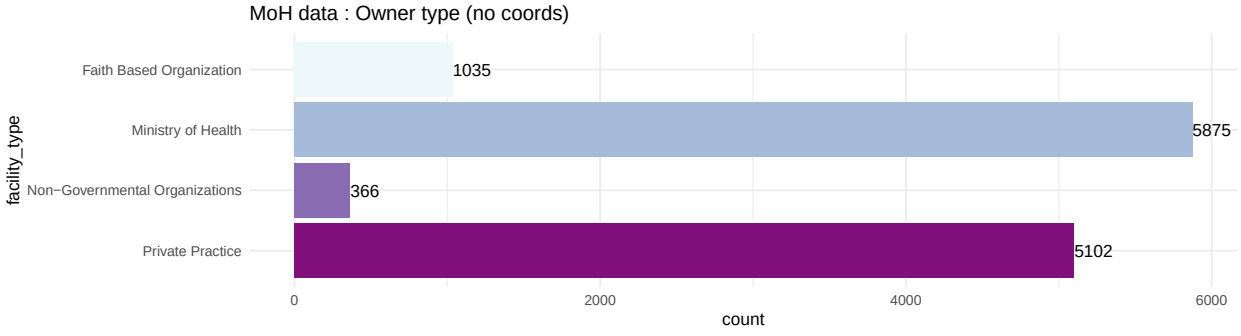


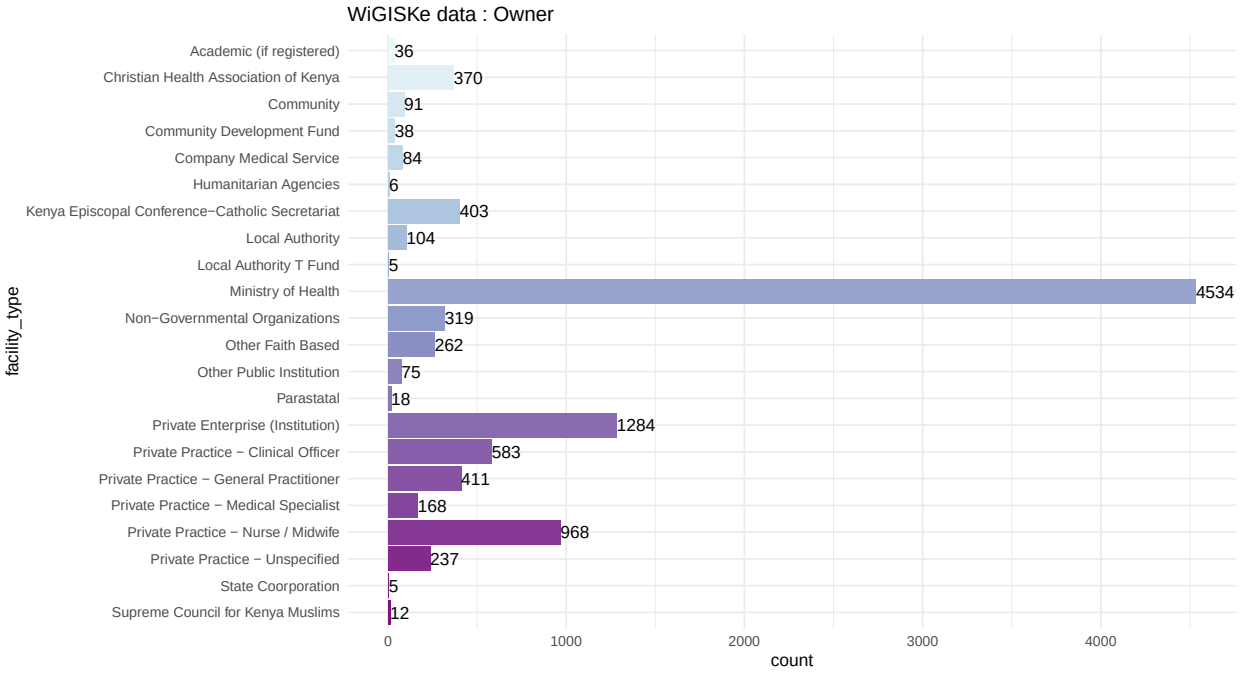


MoH facility attributes



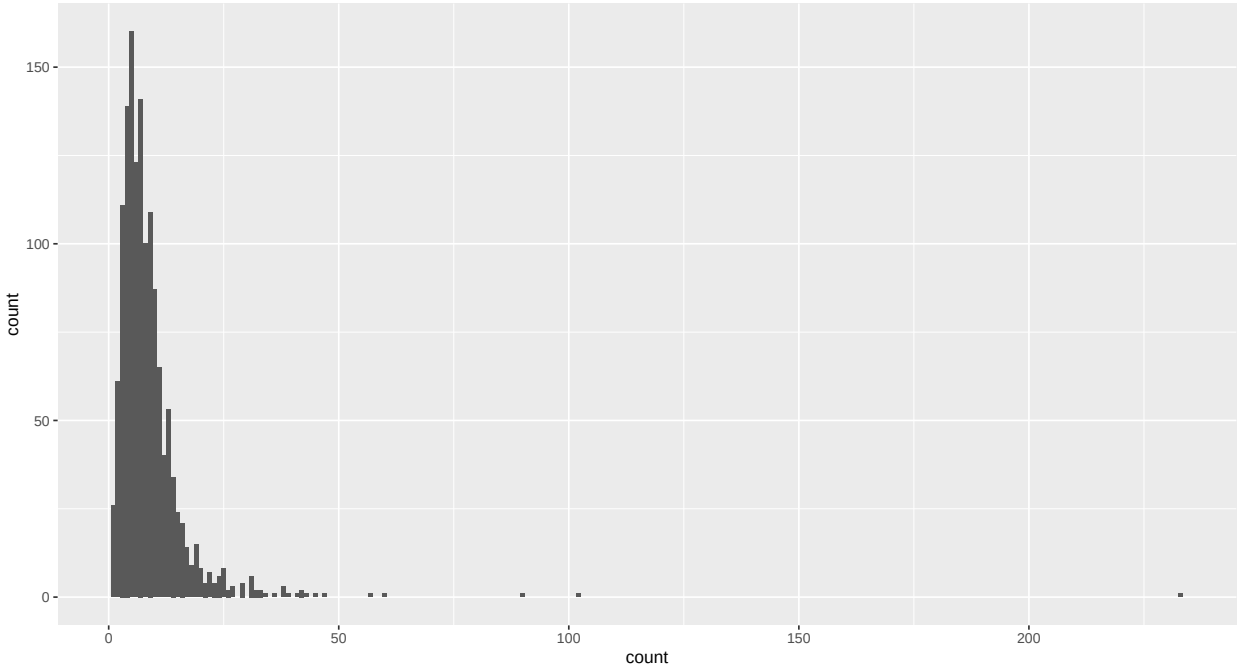
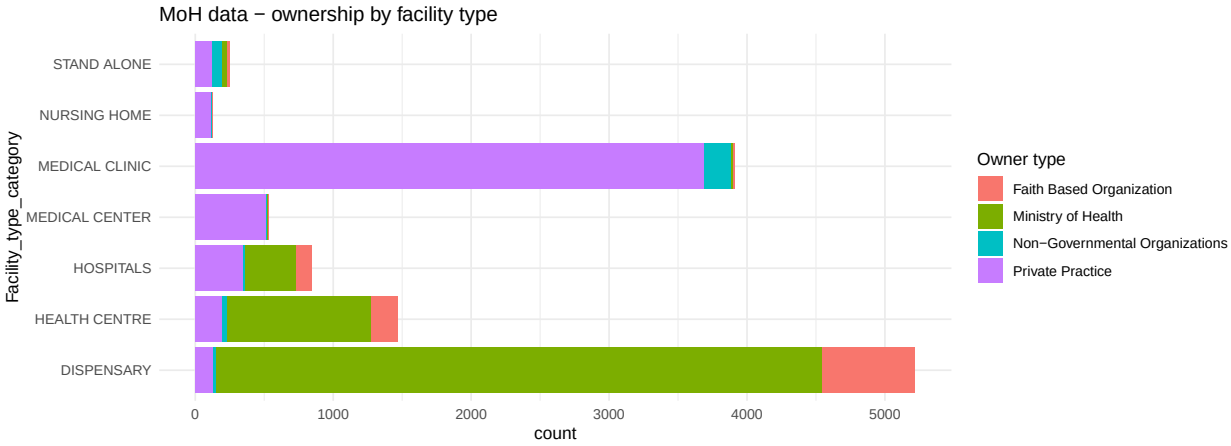
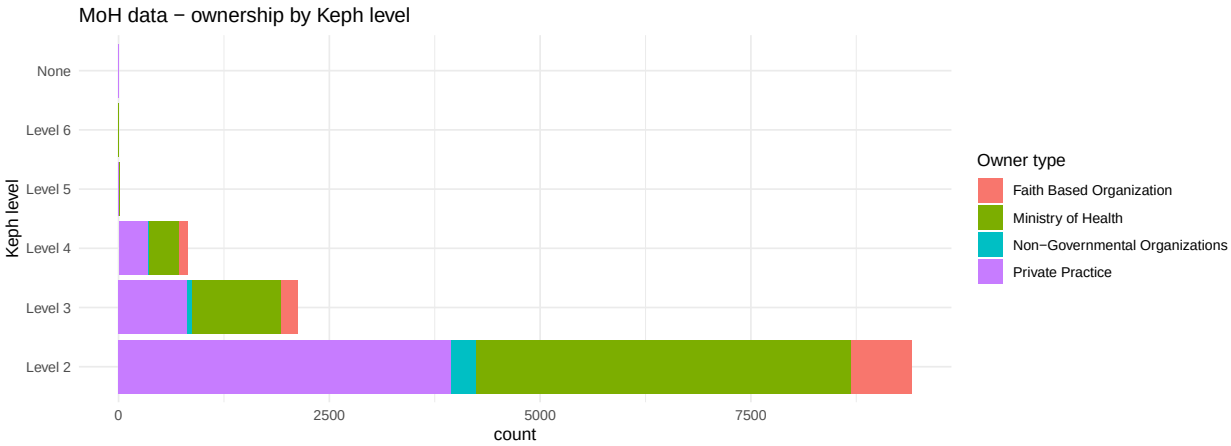






All attribute columns in WiGISKe & MoH data

```
##  [1] "OBJECTID"   "Facility_N" "Type"       "Owner"      "County"
##  [6] "Sub_County" "Division"   "Location"   "Sub_Locati" "Constituen"
## [11] "Nearest_To" "Latitude"   "Longitude"  "geometry"
```

```
##  [1] "Code"                   "Name"                   "Officialname"
##  [4] "Registration_number"    "Keph level"             "Facility type"
##  [7] "Facility_type_category" "Owner"                  "Owner type"
## [10] "Regulatory body"        "Beds"                   "Cots"
## [13] "County"                 "Constituency"           "Sub county"
## [16] "Ward"                   "Operation status"       "Open_whole_day"
## [19] "Open_public_holidays"   "Open_weekends"          "Open_late_night"
## [22] "Service_names"          "Approved"               "Public visible"
## [25] "Closed"
```

Number of facilities per ward in MoH data