

# DIAL-Malawi Use Case

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Data Quality Report ver 04

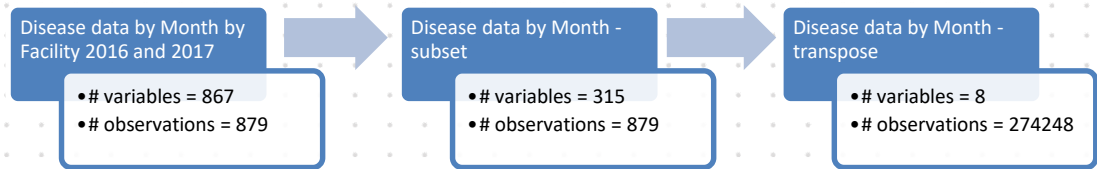


# Disease Data by Month by Facility 2016 and 2017:

1. Subset the columns – subset columns which gives information on the number of patients visiting a health facility due to a disease

List of selected variables
hmis # of opd attendance
hmis # of pregnant women tested hiv positive
hmis # of 15 - 49 age group tested hiv positive
hmis hiv confirmed positive (15-19 years) new case
hmis acute respiratory infections - new cases (u5)
hmis cholera - confirmed new cases
hmis diarrhoea non - bloody -new cases (under5)
hmis dysentery - new cases
hmis ear infections - new cases
hmis malaria % new case (under 5)
hmis malaria- new cases (5 & above)
hmis malnutrition % new case (under 5)
hmis measles - confirmed new cases

2. Re-shape the table



3. Detailed Quality Report:



disease\_subset.html

# Master List Free Service Health Facilities in Malawi

## Dataset Info:

Number of variables = 22

Number of Observations = 9496

Columns	Variable Type	Missing or N/A values	Missing Percentage
Village	Text	6	0.063
GVH	Text	12	0.12
Name	Text	44	0.46
Phone	Numeric	108	1.13
Email	Email	9239	97.29
Facility Code	Numeric	8643	91.01
2018 Catchment	Numeric	8959	94.34
2017 Catchment	Numeric	9218	97.07
2016 Catchment	Numeric	9389	98.87
2015 Catchment	Numeric	8928	94.01

Facility Type	Facilities count	No. of facilities that have code	No. of facilities that don't have code
Dispensary	86	78	8
Health Centre	542	539	3
Health Post	151	151	0
Hospital	85	85	0
Outreach	5090	0	5090
Village Clinic	3542	0	3542
Total	9496	853	8643

\* Remaining 12 columns have complete Information

\* Note:

- Only Dispensary, Health Centre, Health Post and Hospital will be considered for the analysis
- Facilities having Facility Code will be used to merge with Disease by Month data. Remaining will be dropped as they are Village Clinic or Outreach.

Summary Stats	2018 Catchment	2017 Catchment	2016 Catchment	2015 Catchment
count	537	278	107	568
mean	27039	28402	23762	27316
std	24001	26715	12929	31805
min	1129	1096	2179	2064
25% quantile	13035	14319	14193	12327
50% quantile	21189	22635	22844	20184
75% quantile	34514	34361	31413	32870
max	312657	301098	64375	518287

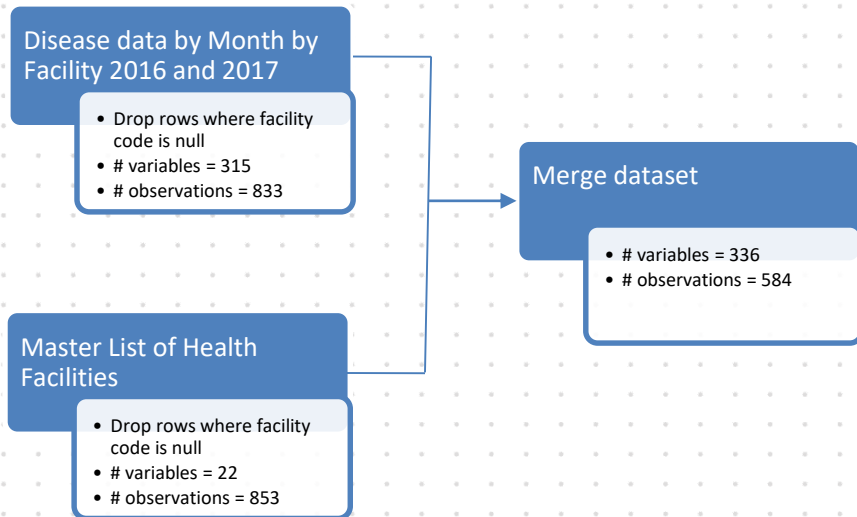
- The Catchment Population reduces for the year 2016 and then increases. Why??

# Disease data by Month by Facility 2016 and 2017 & Master List Free Service Health Facilities in Malawi Merge

## Dataset Info:

Total number of variables = 29

Number of Observations = 182208



## Number of cases Summary statistics for Merged data :

Summary Stats	Total_opd_attendance	Total_cases
count	584	584
mean	51631	21796
std	55334	21445
min	0	0
25% quantile	18023	8761
50% quantile	37739	16971
75% quantile	62942	27756
max	438451	218611

## Catchment Population Summary statistics for Merged data :

Summary Stats	2015	2016	2017	2018
count	516	98	248	477
mean	27815	24361	29353	27974
std	32653	12665	27071	24442
min	2064	2179	2236	2088
25% quantile	12969	15366	16275	13975
50% quantile	20671	23355	23673	22137
75% quantile	33030	31883	35073	35683
max	518287	64375	301098	312657

\* Facility Code is considered as an integer not a string. Eg Facility code '0102' will be considered as '102'.

# CH District Summary

Dataset Info:

Number of variables = 22

Number of Observations = 30

Detailed Quality Report:



[District\\_Summary.html](#)

\*District Summary data is only available for the year 2017

# Population by SNU 2008-2030

Dataset Info:

Number of variables = 10

Number of Observations = 644

Number of Missing Observations = 0

Number of years = 2008 to 2030

Administrative level = District

Number of Districts = 28

# Population Comparison between HRSL file and SNU 2015

HRSL districts	population	SNU districts	population	Difference
Balaka	386805.3554	Balaka	396411.1465	-9605.7911
Blantyre	492218.096	Blantyre	884497.4523	-392279.36
Chikwawa	637354.6017	Chikwawa	533714.4561	103640.15
Chiradzulu	351983.2422	Chiradzulu	318322.5268	33660.715
Chitipa	161107.5948	Chitipa	216911.8035	-55804.209
Dedza	747624.435	Dedza	735410.7743	12213.661
Dowa	1326150.37	Dowa	764414.2921	561736.08
Karonga	294372.4176	Karonga	337447.9156	-43075.498
Kasungu	614334.1807	Kasungu	826285.036	-211950.86
Likoma	3321.891527	Likoma	10451.30058	-7129.4091
Lilongwe	1611607.391	Lilongwe	1037293.593	574313.8
Machinga	887448.9479	Machinga	608181.5293	279267.42
Mangochi	1453049.613	Mangochi	1017070.243	435979.37
Mchinji	538054.3691	Mchinji	589572.2272	-51517.858
Mulanje	796905.1685	Mulanje	572305.2639	224599.9
Mwanza	110867.9482	Mwanza	104152.7271	6715.2211
Mzimba	869155.1681	Mzimba	223740.3222	645414.85
Neno	189639.1817	Neno	150841.3436	38797.838
Nkhata Bay	180613.9947	Nkhata Bay	269068.7782	-88454.783
Nkhotakota	400922.4908	Nkhotakota	379474.447	21448.044
Nsanje	355808.215	Nsanje	281552.4867	74255.728
Ntcheu	693833.8637	Ntcheu	572567.8665	121266
Ntchisi	1315368.575	Ntchisi	285892.1923	1029476.4
Phalombe	460772.0919	Phalombe	373587.0056	87185.086
Rumphi	183090.9836	Rumphi	208615.8117	-25524.828
Salima	408268.7417	Salima	419448.3656	-11179.624
Thyolo	744061.9688	Thyolo	643836.0007	100225.97
Zomba	986456.0519	Zomba	138582.6181	847873.43

- Total population estimated by SNU for 2015 is 12899650 while HRSL (facebook) file shows 17201197.
- Population obtained using HRSL is close to the public information on population of 17.6 Million .

# Number of administrative levels in .shp administrative files

Details obtained using “adm-3” shp file

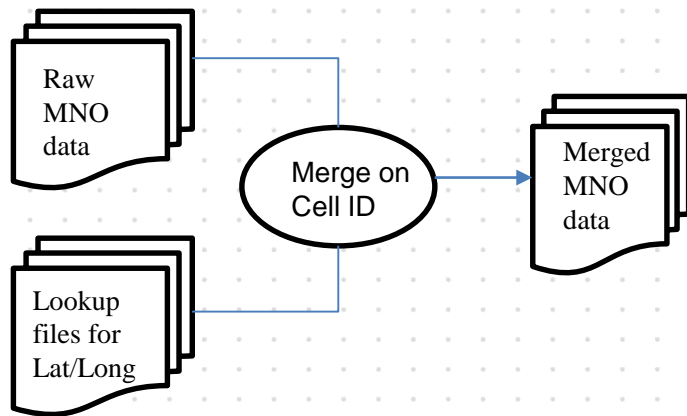
Administrative Level	#Counts
Administrative Level -1 (districts)	28
Administrative Level -2 (TA)	243
Administrative Level -3	3123



# MNO data (SMS)

Raw MNO Data	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Consolidated for 7 days
# records	13807706	14349293	14612017	14132159	14578325	14637298	15060732	101177530
# columns	7	7	7	7	7	7	7	7
% null_records	0	0	0	0	0	0	0	0
# unique-originating numbers	802229	823050	827078	811377	816335	834540	848513	2432914
# unique-receiving numbers	1589425	1597154	1668109	1502943	1842691	1704991	1691751	4180774
# unique-LAC_ID	41	42	42	42	42	43	43	43
# unique-Cell_ID	5647	5715	5715	5712	5734	5747	5738	5773

## MNO data (SMS) contd...



Merged Data	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Consolidated for 7 days
# missing Lat/Long	50042	47341	46965	38941	49723	51219	51334	335565
% missing Lat/Long	0.36	0.33	0.32	0.28	0.34	0.35	0.34	0.33



Thank You

