HEALTHCARE DATASET KENYA

This dataset, which contains information on health facilities in Kenya, was obtained from Open Africa (http://www.ehealth.or.ke/facilities/downloads.aspx) and last updated on November 30, 2023.

I aim to uncover insights into the healthcare sector in Kenya and provide recommendations for improvements as well as conclusions.

EXPLORATORY DATA ANALYSIS

1. Data cleaning and preparation

The dataset contains 10,505 values and is distributed into 49 different columns. Some columns however, had no information and I dropped them.

I filled blank values that weren’t very essential with “N/A”

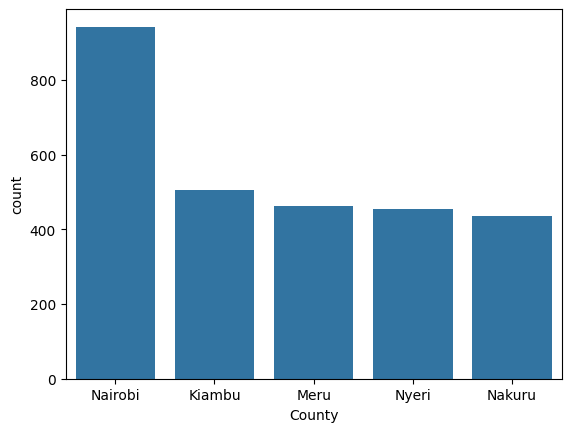
1. Descriptive statistics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Descriptive Statistics** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Beds | 10418 | 0 | 1455 | 5.43 | 29.863 |
| Cots | 10428 | 0 | 1000 | .74 | 11.332 |
| Valid N (listwise) | 10405 |  |  |  |  |

*SPSS generated descriptive statistics*

General overview

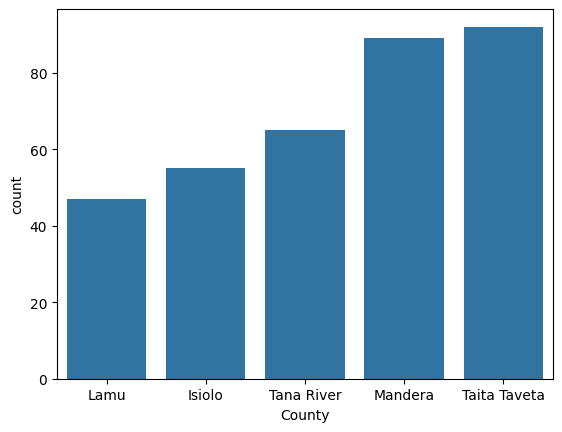
Counties with the highest number of facilities



*Barplot showing counties with the largest number of facilities*

Nairobi county has the highest number of facilities with over 900 facilities, it is followed by Kiambu though the gap is large, and Meru, Nyeri, and Kiambu.

Counties with the lowest distribution



*Barplot showing the counties with the least number of facilities*

The county with the least number of facilities is Lamu with less than 50 facilities. This is about 18 times less than the number of facilities in Nairobi.

This calls for action in Lamu. Lamu is closely followed by Isiolo, Tana River, Mandera and Taita Taveta.

Types of facilities

|  |  |
| --- | --- |
| Dispensary | 4820 |
| Medical Clinic | 3360 |
| Health Centre | 1126 |
| Other Hospital | 256 |
| Nursing Home | 208 |
|  |  |
|  |  |

There is a grand total of 10,505 facilities and the type of facility that is most common is Dispensary with close to half of the total facilities. A dispensary is a facility provided by public or charity funds. Dispensaries, Medical clinics and Health centers are the most popular types of facilities.

Facilities like Blood Bank , Funeral Home (Stand-alone), and Rural Health Training Centre have only one facility.

Distribution of ownership of Healthcare facilities

|  |
| --- |
| Ministry of Health 4687 |
| Private Enterprise (Institution) 1366 |
| Private Practice - Nurse / Midwife 1026 |
| Private Practice - Clinical Officer 615 |
| Private Practice - General Practitioner 434 |
| Kenya Episcopal Conference-Catholic Secretariat 412 |
| Christian Health Association of Kenya 390 |
| Non-Governmental Organizations 350 |
| Other Faith Based 283 |
| Private Practice - Unspecified 242 |
| Private Practice - Medical Specialist 169 |
| Community 109 |
| Local Authority 106 |
| Company Medical Service 86 |
| Other Public Institution 81 |
| Community Development Fund 39 |
| Academic (if registered) 37 |
| Armed Forces 24 |
| Parastatal 20 |
| Supreme Council for Kenya Muslims 13 |
| Humanitarian Agencies 6 |
| Local Authority T Fund 5 |
| State Coorporation 5 |
|  |

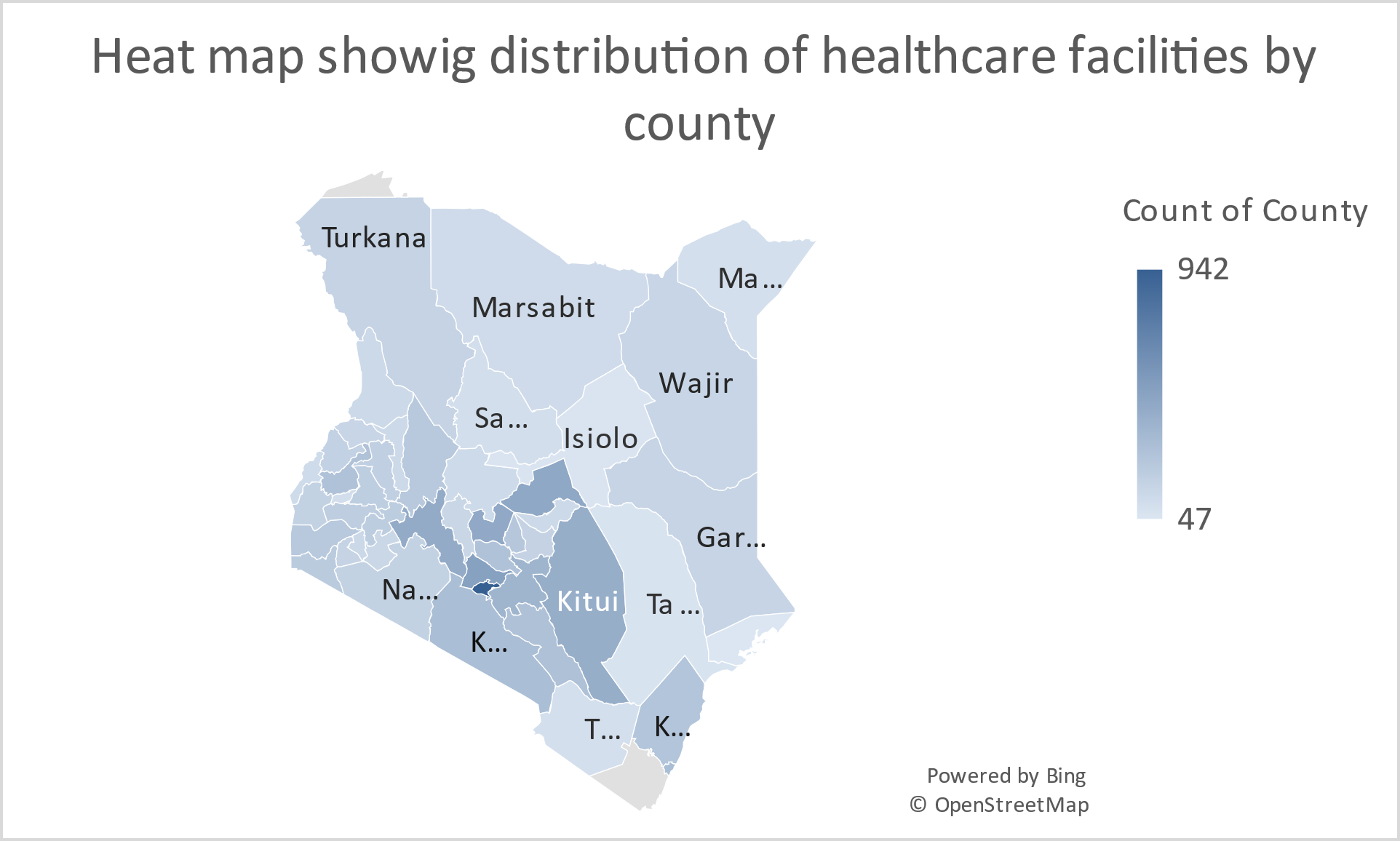
*Table showing the distribution of ownership of different health facilities*

The top owner of the institution is the Ministry of Health with over 4500 owned facilities. Out of these,

*Cluster plot showing the largest number of facilities owned by the Ministry of Health*

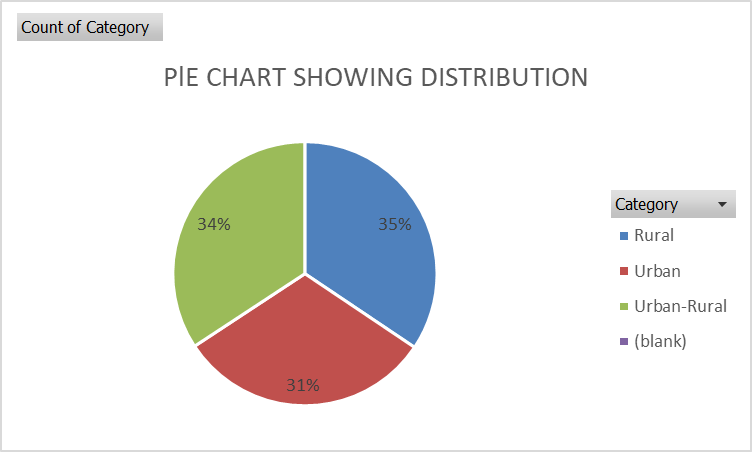
Dispensaries are the most common, which means that a large number of dispensaries are owned by the Ministry of Health.

Geographical analysis



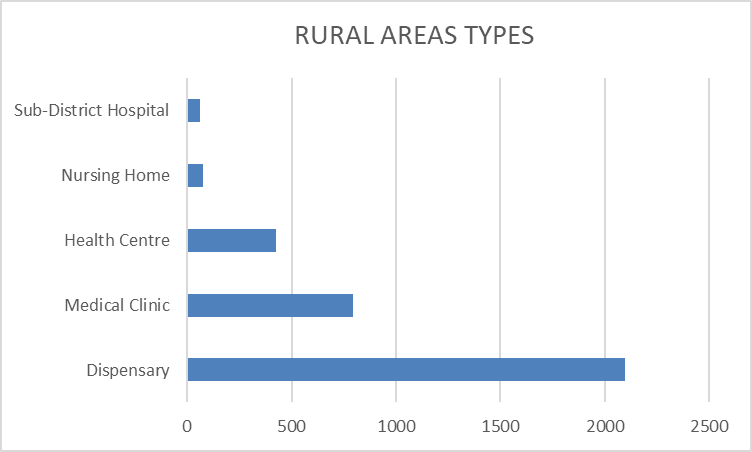
*Heat map showing distribution of facilities by county.*

*More color shows a higher amount of facilities in the county.*



*Distribution of healthcare facilities according to categories*

Rural areas have the largest number of facilities at 35%. Urban areas have the least amount of facilities despite Nairobi, an urban center having the largest amount of facilities.



*Top 5 types in Rural areas*

Service availability analysis