

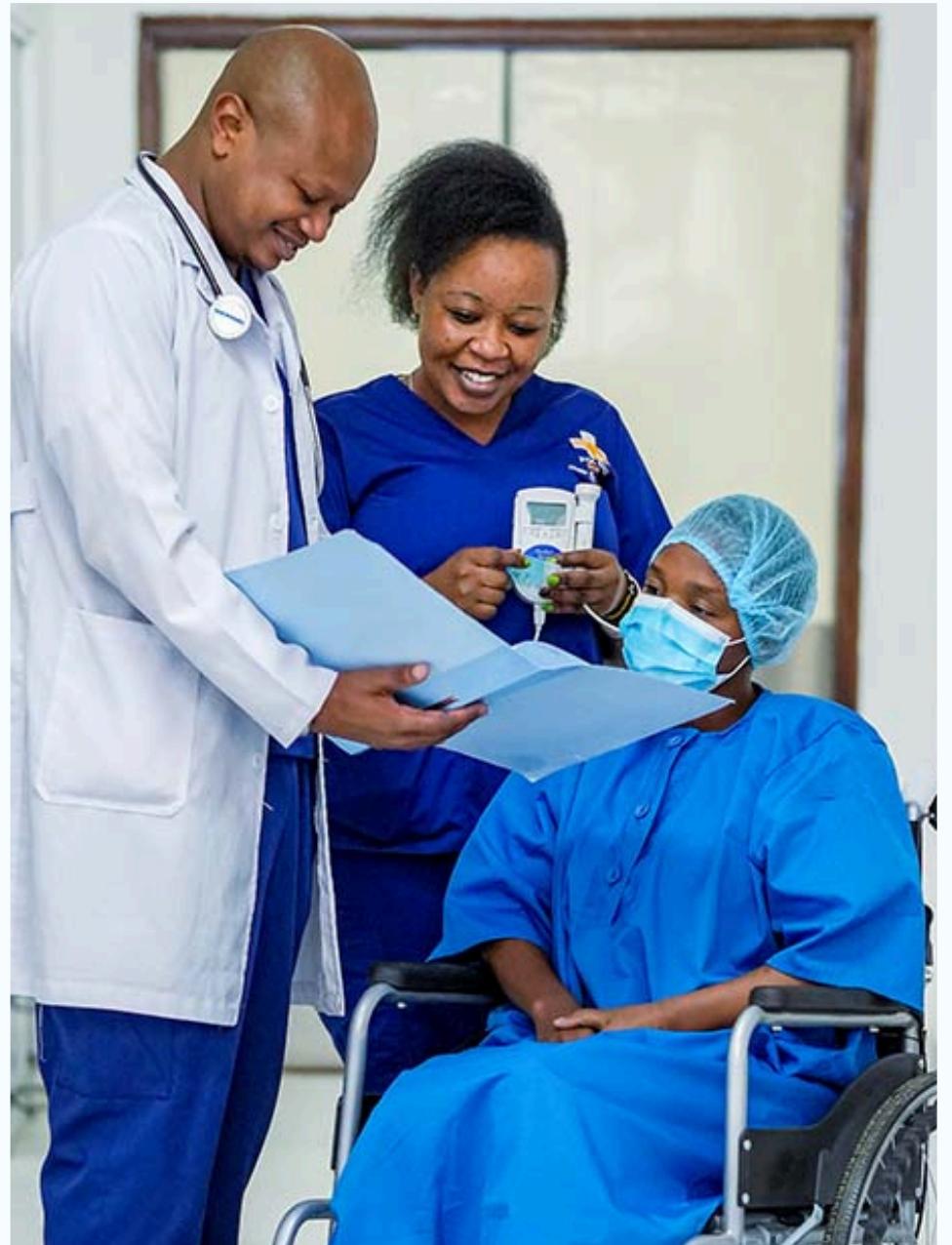
ENHANCING HEALTHCARE ACCESSIBILITY IN NAIROBI, KENYA

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INTRODUCTION



Picture Nairobi, a vibrant city pulsating with life and diversity. Yet, beneath its bustling surface lies a tale of healthcare disparities and challenges. In the heart of Kenya, Nairobi County grapples with the imperative task of ensuring healthcare accessibility for its diverse populace. Today, we embark on a journey to understand these challenges, unravel the complexities, and pave the way for transformative solutions.

BUSINESS UNDERSTANDING



In Nairobi County, achieving SDG 3 requires focusing on healthcare accessibility, demographic disparities, and system enhancements.

The stakeholders involved in this project include government health agencies, NGOs, healthcare providers, and residents.

Utilizing open.africa datasets, including health facility information and 2019 Census data, provides crucial insights into Nairobi's healthcare landscape.

PROBLEM STATEMENT



In Nairobi County, achieving Sustainable Development Goal 3 is hindered by disparities in healthcare accessibility and outcomes.

Unequal distribution of facilities, inadequate infrastructure, and socio-economic disparities persist, affecting vulnerable populations.

Understanding these challenges is crucial for crafting effective interventions and advancing towards universal health coverage.

OBJECTIVES

1

Analyze health facility data to assess the distribution and accessibility of healthcare services across Nairobi County.

2

Identify areas within Nairobi County that are underserved or experiencing healthcare resource deficiencies.

3

Utilize demographic insights from the 2019 Kenya Population and Housing Census to identify demographic disparities in healthcare access and utilization.

4

Align recommendations with SDG 3 to contribute to the broader goal of achieving universal health coverage and promoting well-being in Nairobi.



EXPLORATORY DATA ANALYSIS (EDA)

By conducting EDA, there will be a deeper understanding of the data and uncover insights that can inform decision-making and policy formulation regarding healthcare infrastructure and resource allocation in Nairobi.



Evaluation of total population vs Facility Count .



Evaluation of available number of facilities per sub-location.



Evaluation of hospital ownership in Nairobi County.



Evaluating access to healthcare facilities during childbirth.

Sub Location	Total Population	Facility Count
township	194330880	8640
central	106469766	1769
embakasi	30207946	68
kasarani	23519300	100
githurai	14730660	90
njiru	7755848	32
dandora	4139380	14
kayole	3631212	24
umoja	3045469	35
kawangware	2895473	21



Total population VS Facility Count

Exploratory Data Analysis (EDA) was instrumental in dissecting the relationship between facility count and the total population of hospitals in Nairobi. Initially, the dataset was scrutinized to identify relevant variables, including facility count and hospital population.

The facility count also varies widely among sub-locations. Township has the highest facility count, indicating a relatively higher availability of healthcare services, while areas like Embakasi and Kasarani have fewer facilities.



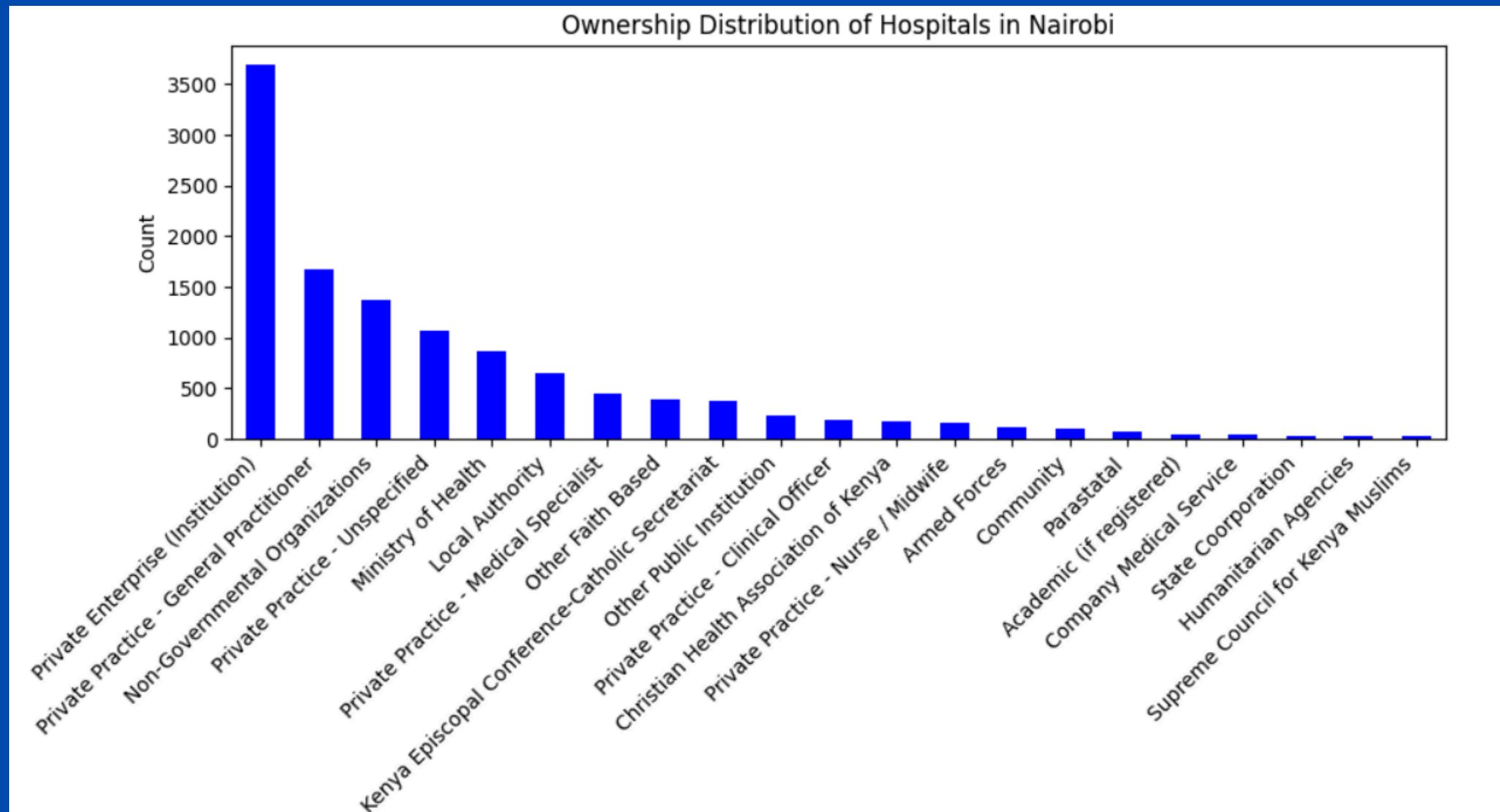
Average number of facilities per sub-location

On average, each sub-location in Nairobi has approximately 61 healthcare facilities. The range of healthcare services available is quite extensive, with the minimum number of beds being 0 and the maximum being 1455. Similarly, the range for cots varies from 0 to 427, and for total services from 743 to a staggering 988,808.

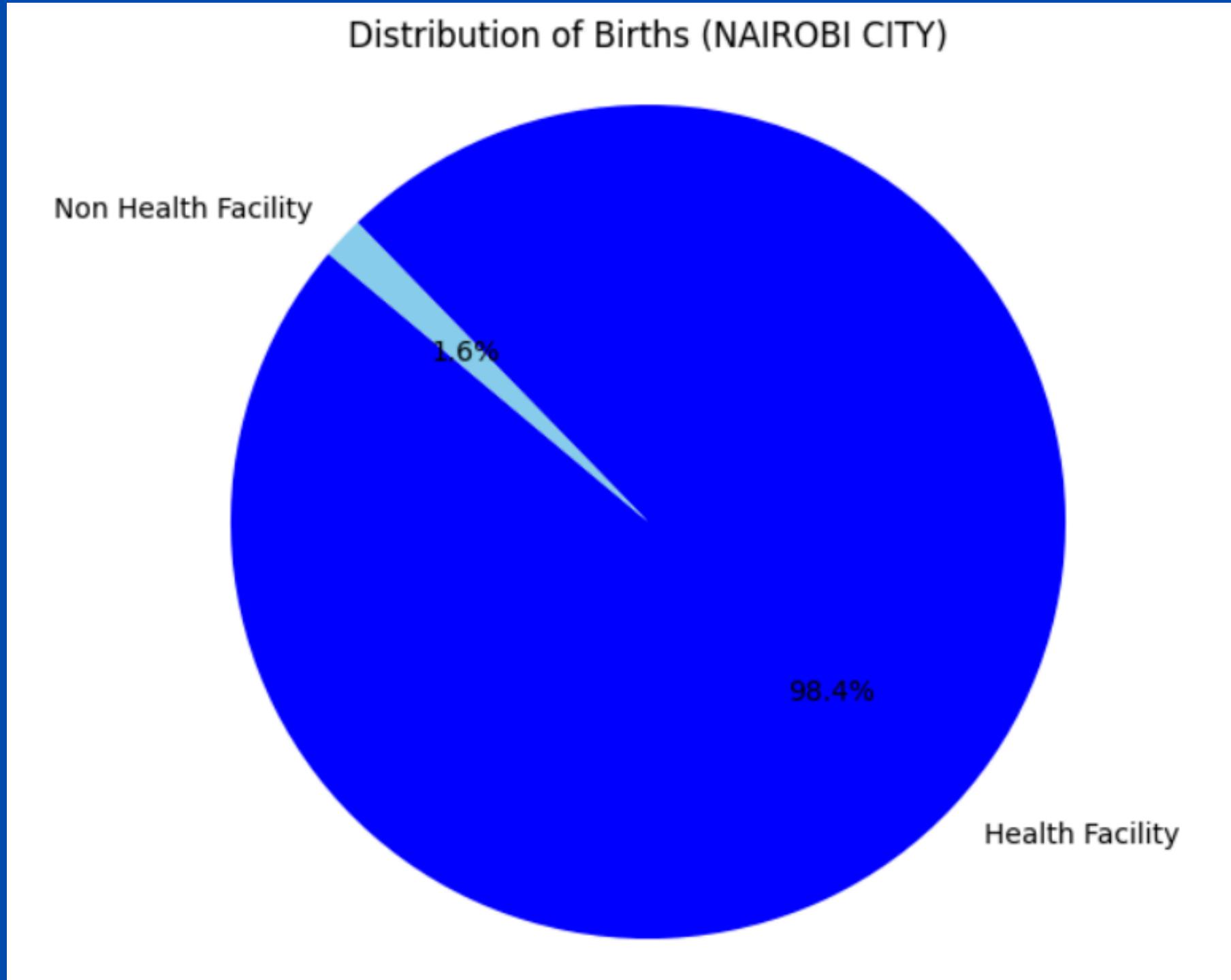
Sub-locations with lower facility counts relative to their population size may face challenges in accessing healthcare services. Conversely, areas with higher facility counts may have better access to healthcare resources.



Ownership Distribution of Hospitals



Private enterprises, including private practices and non-governmental organizations, own the majority of hospitals in Nairobi, comprising the largest share of ownership categories. Government-owned hospitals, such as those owned by the Ministry of Health and local authorities, represent a relatively small portion of the ownership distribution.



Distribution Of Births (Nairobi City)

Access to healthcare facilities during childbirth is crucial for ensuring safe deliveries and reducing maternal and neonatal mortality rates.

The high utilization of health facilities indicates a positive trend towards improved maternal and neonatal health outcomes in Nairobi City.

The high proportion of births occurring in health facilities suggests that expectant mothers in Nairobi City are inclined to seek professional medical assistance during childbirth. This reflects positively on the availability and accessibility of healthcare services in the city.

EVALUATION

- **Variation in Facility Distribution:** Township and Central have significantly more healthcare facilities compared to areas like Embakasi, Kasarani, and Githurai.
- **Population Density and Facility Count:** Higher population density correlates with more healthcare facilities, evident in Township and Central, while areas with lower populations like Lang'ata and Mathare have fewer facilities.
- **Private Enterprise Dominance:** Private enterprises, including NGOs, own the majority of hospitals in Nairobi, overshadowing government-owned facilities.

EVALUATION

- **Disparities in Healthcare Access:** Despite high population density, Central has a lower hospital proportion compared to Township, indicating potential access disparities. Similarly, Githurai, Kasarani, and Embakasi face challenges in healthcare access due to their lower population proportion.
- **Births in Health Facilities:** A high proportion of births occurring in health facilities reflects positively on the availability and accessibility of healthcare services in Nairobi.

CONCLUSION

The analysis of healthcare accessibility in Nairobi, Kenya, highlights significant variations in facility distribution across different sub-locations. While areas like Township and Central enjoy relatively better access to healthcare facilities, others like Embakasi, Kasarani, and Githurai face challenges due to lower facility counts.

Population density correlates with facility availability, but disparities exist, as seen in Central, where despite a large population, there are fewer hospitals. Private enterprises dominate healthcare ownership, emphasizing the need for public-private partnerships to address gaps.

Despite challenges, the high proportion of births in health facilities reflects trust in the healthcare system. To enhance accessibility, targeted interventions and infrastructure development are essential, ensuring equitable access for all residents and fostering a more inclusive healthcare system in Nairobi.

RECOMMENDATIONS

- Expand healthcare infrastructure in sub-locations with higher population proportions compared to hospital proportions to address demand imbalance.
- Conduct further assessments in areas with lower hospital proportions like Embakasi, Kasarani, and Githurai, and implement targeted interventions for improved healthcare accessibility.
- Increase the presence of government-owned hospitals to reduce inequalities in access to healthcare services, especially for underprivileged populations.

RECOMMENDATIONS

- Explore public-private partnerships to leverage resources and expertise for improving healthcare access.
- Enhance infrastructure and capacity of existing healthcare facilities in densely populated areas to prevent overcrowding and meet growing demand.
- Sustain and enhance healthcare infrastructure to ensure availability of well-equipped facilities and skilled professionals for maternal and neonatal healthcare services in Nairobi City.



THANK YOU!



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