

COUNTY REFERRAL HOSPITAL DASHBOARD

Dashboard Insights Report

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1. Overview

This report presents key insights derived from the County Referral Hospital Power BI Dashboard. The dashboard captures hospital activity, medication usage, disease patterns, pharmacy costs, and departmental performance across six counties in Kenya: Kiambu, UasinGishu, Nairobi, Mombasa, Nakuru, and Kisumu.

2. Overall Hospital Activity

The hospital recorded a total of 300 hospital visits during the reporting period. A breakdown by department reveals a relatively even distribution: 104 inpatient visits, 95 outpatient visits, and 101 emergency visits.

The average length of stay was recorded at 1.13 days, indicating that most patients were treated and discharged relatively quickly, which is consistent with an outpatient-heavy caseload.

3. Drug Costs Analysis

Total drug costs amounted to 275,000 KES across all departments and disease categories. Among the drug categories tracked, Typhoid accounted for the highest expenditure at 62,000 KES, followed by both Hypertension and Pneumonia at 46,000 KES. Diabetes-related drugs were the least at 37,000 KES.

The high cost associated with Typhoid treatment reflects the prevalence of the disease by county and age. Pneumonia appearing as the second most costly condition highlights the growing burden of communicable diseases within the hospital system.

4. Medication Usage by Age Group

The 60+ age group recorded the highest medication usage with 131 units, which aligns with the expectation that elderly patients typically present with multiple or complex health conditions requiring more intensive pharmaceutical intervention. The 41-60 age group followed with 66 units, while the 26-40 and 0-17 groups consumed 63 and 62 units respectively.

The 18-25 age group recorded the lowest medication usage at 28 units. This pattern suggests that healthcare resource allocation and pharmacy stock planning should prioritise older patient demographics, particularly the 60+ group.

5. Common Diseases by County

Across all six counties, Flu recorded the highest total case count at 56, followed by Typhoid at 54, Diabetes at 53, Hypertension at 50 and Malaria at 12. Kiambu and Uasin Gishu counties appear to carry a higher overall disease burden compared to other counties, with cases spread across multiple disease categories.

Kiambu showed the highest Typhoid and Malaria count at 13, which may warrant further investigation into water and sanitation conditions in that county.

6. Pharmacy Costs by Department

The Inpatient Department accounted for the largest share of pharmacy costs at 34.41% (KES 95,000), reflecting its high patient volume and the resource-intensive nature of inpatient care.

This insight is important for budget planning, as inpatient pharmacy stock management should be prioritized to prevent shortages and ensure adequate supply in line with the high volume of demand.

7. Diagnosis Trend by Month

The Diagnosis Trend by Month chart tracks the percentage of visits attributed to each disease category over time. The trends indicate fluctuation across months, with no single disease dominating consistently throughout the year. This suggests seasonal variation in disease prevalence, which has implications for pharmaceutical stock management and staffing levels.

8. a) Strategic Summary

The data suggests that resource pressure is concentrated in:

- Inpatient care
- Elderly patients (60+)
- Typhoid treatment
- High-burden counties

Addressing these four areas strategically will significantly improve cost efficiency, drug availability, and patient outcomes.

b) Immediate Actions/ Recommendations:

- Having a resource reallocation framework to reflect inpatient consumption patterns, ensuring equitable and demand-based funding.
- County specific intervention plan - Counties with higher burden indicators (Kiambu, Uasin Gishu) should undergo targeted health audits to identify determinants.

- Develop structured chronic disease programs targeting the 60+ demographic, including: Routine screenings and medication adherence programs
- Preventive Public Health Strategy for Typhoid by collaborating with county governments to improve water sanitation systems and increasing community health education programs

c) Outcome Expected:

Reducing incidence, improved cost control, reduced drug shortages, enhanced patient outcomes, and data-driven governance.

9. Recommendations

Based on the insights derived from this dashboard, the following recommendations are proposed:

1. Prioritise malaria and hypertension drug stock given their high associated costs and prevalence across counties.
2. Increase pharmacy resources allocated to the outpatient department, which drives the majority of drug expenditure.
3. Develop age-targeted care plans for the 60+ group, who represent the highest medication users.
4. Investigate the high Typhoid burden in Kiambu and the elevated Malaria cases in Mombasa and Kisumu for targeted public health interventions.
5. Correct the month ordering on the Diagnosis Trend chart to improve accuracy of trend analysis.