REPUBLIC OF KENYA

COUNTY GOVERNMENT OF NAKURU

DEPARTMENT OF HEALTH SERVICES

COUNTY HEALTH INFRASTRUCTURE REPORT PRESENTED TO

HIS EXCELLENCY HON. LEE KINYANJUI

THE GOVERNOR - COUNTY GOVERNMENT OF NAKURU

BY

DR. JOHN M. MWANGI

CEC-HEALTH SERVICES
FOREWORD

I appointed the Health Infrastructure committee to assess the current status, advice the department on infrastructural needs and come up with a baseline report to form the basing for revamping health services in the county. This is in line with H.E the Governor’s Manifesto, The CIDP and the Big Four country agenda.

The committee visited various facilities earmarked for upgrading. These includes

- The Nakuru county referral hospital (PGH)
- Naivasha county referral Hospital
- Gilgil SCH
- Bahati SCH
- Molo SCH
- Olenguruone
- Subukia

The common findings show that these facilities have old dilapidated infrastructure some of which was built in the early 1900’s. Most facilities lack a master plan, are poorly planned with buildings scattered all over. A number of them also had key stalled projects e.g the Trauma Centre in Nakuru PGH. Some facilities also lack proper land ownership documents with encroachment into Hospital land noted in Naivasha, Gilgil, Bahati, Molo and Olenguruone.

The catchment population has continued to grow over the years without commensurate growth in infrastructure. This coupled with emerging and increasing burden of Non communicable chronic conditions and need for specialized services have put immense pressure on the existing facilities.

All the facilities visited were acutely understaffed (All cadres)

I do acknowledge the efforts of the following officers for their dedication, time, effort and expertise.

1. Mr. King’ori Samuel - County Public Health Officer (Chairman)
2. Dr. Wainaina Daniel - Dep. County Director Medical services
3. Dr Alice Gichobi - County pharmacist
4. Mr. Abraham Mwita - County Nursing Officer
5. Mr. Josephat Wanjohi - Health Administrative Officer
6. Mr. Luke Kiptoon - County Health Records and Information Officer
7. Mr. Kevin Gitau - Procurement Officer

I also wish to acknowledge the Hospital Management Teams who also provided valuable information to the committee. I can’t also forget to recognize the leadership of the Department of Health Services led by Dr Samuel Mwaura- Chief Officer, the County Directors of Health, County Health Management Team and Medical Superintendents of the above mentioned hospitals among others.

DR. JONAH M. MWANGI
CECM- HEALTH SERVICES
COUNTY GOVERNMENT OF NAKURU
# TABLE OF CONTENT

FOREWORD ......................................................................................................................... ii  

TABLE OF CONTENT .......................................................................................................... iv  

Introduction ........................................................................................................................... 1  

Vision ..................................................................................................................................... 1  

MISSION ............................................................................................................................... 1  

CORE VALUES ...................................................................................................................... 1  

Nakuru County Health Profile .............................................................................................. 3  
  
  Catchment Population Trends 2017/2018 to 2022/23............................................................ 3  
  
  Population Description .......................................................................................................... 4  
  
  Health Status ....................................................................................................................... 5  

Health Facilities per level by sub-counties ............................................................................. 6  

NAKURU COUNTY REFERAL HOSPITAL (PGH) ............................................................... 7  
  
  Workload Trend-2013 To 2017 .............................................................................................. 8  
  
  Services Currently Offered .................................................................................................... 8  
  
  RECOMMENDATIONS ......................................................................................................... 10  

NAIVASHA COUNTY REFERRAL HOSPITAL ..................................................................... 12  
  
  Hospital Workload Trend 2013 To 2017 ............................................................................... 12  
  
  RECOMMENDATION .......................................................................................................... 14  

SUBUKIA SUB COUNTY HOSPITAL ..................................................................................... 15  
  
  Workload Trend 2013 To 2017 ............................................................................................ 15  
  
  RECOMMENDATION .......................................................................................................... 17  
  
  Hospital Workload Trend - 2013 To 2017 .......................................................................... 19  
  
  Recommendation ................................................................................................................. 21  

GILGIL SUB COUNTY HOSPITAL ....................................................................................... 22  
  
  Introduction .......................................................................................................................... 22  
  
  Workload Trend 2013 to 2017 ............................................................................................ 22  
  
  JUSTIFICATION .................................................................................................................. 23
Introduction

Vision
A Healthy County

MISSION
To provide integrated quality health services for all

CORE VALUES
The Department is dedicated to espousing these core values as the guiding principles for the operations in the County:

1. Customer-focused
   To consistently endeavor to create enduring relationships with our customers; in so doing our approach goes beyond standard people participation methods and makes their input an integral formalized part of setting county projects/program goals, performance measures, and standards. At the heart of our activities is a County ready to provide solutions in the short and long term.

2. Professionalism
   Competency and uncompromising service delivery is exuded in every facet of our work. We reward merit amongst colleagues while applying the most appropriate skills and competencies to serve our clients. We apply the same ethics and ethos with our stakeholders.

3. Integrity
   Truthfulness and uprightness are an integral part of our operations. The Department shall advocate these firmly to all practices in every undertaking to the society.

4. Equity and Equality
   We approach our work as guided by principles of fairness and non-bias.

5. Transparency and Accountability
   The department endeavors to act in a transparent, unequivocal, predictable and understandable manner in all its businesses. We will remain accountable to our stakeholders and will acknowledge responsibility for our actions and decisions
6. **Team work**
Every person is important and has a part in development. We endeavour to build a workplace environment that cultivates person’s uniqueness, encourages staff participation, collaboration and incorporation of diverse skills and capabilities.

7. **Creativity and Innovativeness**
We promote an innovative culture and attitude; strive to apply innovative thinking and creativity. The department is open to new ideas and methods and encourages individuals to explore new opportunities to improve performance and results.
Nakuru County Health Profile

Nakuru County is one of the 47 Counties in the Republic of Kenya. It has 11 Sub-counties (Constituencies) namely; Nakuru East, Nakuru West, Nakuru North, Subukia, Naivasha, Gilgil, Molo, Njoro, Kuresoi North, Kuresoi South, and Rongai, with a total of 55 wards and 110 villages.

It has an estimated population of 2,176,579 people as at the year 2018. The population density is 290.4 per square km (+3.4% /yearly) and covers an area of 7495km. According to the 2009 census, 33.5% of the population lives below poverty line. It is served by a total of 656 Health facilities, of which 26 are hospitals, 630 primary care facilities and 249 community units.

Catchment Population Trends 2017/2018 to 2022/23

The tables below contains projections of Sub county populations and a description of the population.

<table>
<thead>
<tr>
<th>Sub county population</th>
<th>Population trends</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 1</td>
</tr>
<tr>
<td>1 Nakuru East</td>
<td>213361</td>
</tr>
<tr>
<td>2 Nakuru West</td>
<td>206695</td>
</tr>
<tr>
<td>3 Molo</td>
<td>168929</td>
</tr>
<tr>
<td>4 Kuresoi North</td>
<td>168403</td>
</tr>
<tr>
<td>5 Kuresoi south</td>
<td>156707</td>
</tr>
<tr>
<td>6 Rongai</td>
<td>176660</td>
</tr>
<tr>
<td>7 Njoro</td>
<td>250954</td>
</tr>
<tr>
<td>8 Nakuru North</td>
<td>195847</td>
</tr>
<tr>
<td>9 Subukia</td>
<td>128258</td>
</tr>
<tr>
<td>Description</td>
<td>Population estimates</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>1 Total population</td>
<td>2176579</td>
</tr>
<tr>
<td>2 Total Number of Households</td>
<td>435316</td>
</tr>
<tr>
<td>3 Children under 1 year (12 months)</td>
<td>80751</td>
</tr>
<tr>
<td>4 Children under 5 years (60 months)</td>
<td>367842</td>
</tr>
<tr>
<td>5 Under 15 year population</td>
<td>920693</td>
</tr>
<tr>
<td>6 Women of child bearing age (15 – 49 Years)</td>
<td>522379</td>
</tr>
<tr>
<td>7 Estimated Number of Pregnant Women</td>
<td>83581</td>
</tr>
<tr>
<td>8 Estimated Number of</td>
<td>83581</td>
</tr>
</tbody>
</table>

Source: KNBS 2018
Deliveries

<table>
<thead>
<tr>
<th></th>
<th>Deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Estimated Live Births</td>
</tr>
<tr>
<td>10</td>
<td>Total number of Adolescent (15-24)</td>
</tr>
<tr>
<td>11</td>
<td>Adults (25-59)</td>
</tr>
<tr>
<td>12</td>
<td>Elderly (60+)</td>
</tr>
</tbody>
</table>

Health Status

Reduction in the mortality rates of various cohorts is critical in improving the health status of the county population. Currently, the aim is to increase life expectancy from the current rate of 58 to 60 years by the year 2022. This requires implementation of various strategies and intervention to address Major risk factors of morbidity and mortality. These factors include; environmental factors, Unsafe water, poor sanitation and Hygiene, Risky sex behaviour, Trauma and Injuries (road carnage and domestic violence) and poor life style while the common causes are; Respiratory tract infections, Diarrhoea diseases, HIV/AIDS, pneumonia, malaria and vaccines preventable diseases among others.

Below is a table on impact level indicators of health status in Nakuru and the estimates and targets within the planning period.

<table>
<thead>
<tr>
<th>Impact level Indicators</th>
<th>County estimates</th>
<th>Target 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Expectancy at birth (years)</td>
<td>58</td>
<td>60</td>
</tr>
<tr>
<td>Annual deaths (per 1,000 persons) – Crude mortality</td>
<td>11/1000</td>
<td>9/1000</td>
</tr>
<tr>
<td>Client satisfaction Index</td>
<td>67%</td>
<td>80%</td>
</tr>
<tr>
<td>Neonatal Mortality Rate (per 1,000 births)</td>
<td>20/1000</td>
<td>16/1000</td>
</tr>
</tbody>
</table>
### Infant Mortality Rate (per 1,000 births)

<table>
<thead>
<tr>
<th>Level</th>
<th>FBO</th>
<th>39/1000</th>
<th>GOK</th>
<th>31/1000</th>
</tr>
</thead>
</table>

### Under 5 Mortality Rate (per 1,000 births)

<table>
<thead>
<tr>
<th>Level</th>
<th>FBO</th>
<th>52/1000</th>
<th>GOK</th>
<th>42/1000</th>
</tr>
</thead>
</table>

### Maternal Mortality Rate (per 100,000 births)

<table>
<thead>
<tr>
<th>Level</th>
<th>FBO</th>
<th>374/100000</th>
<th>GOK</th>
<th>170/100000</th>
</tr>
</thead>
</table>

### Adult Mortality Rate (per 100,000 births)

<table>
<thead>
<tr>
<th>Level</th>
<th>Male</th>
<th>4.8/1000000</th>
<th>Female</th>
<th>3.2/1000000</th>
</tr>
</thead>
</table>

**Source: KDHS 2014**

### Health Facilities per level by sub-counties

<table>
<thead>
<tr>
<th>OWNERSHIP</th>
<th>LEVEL2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FBO</td>
<td>21</td>
<td>14</td>
<td>1</td>
<td>0</td>
<td>36</td>
</tr>
<tr>
<td>GOK</td>
<td>141</td>
<td>23</td>
<td>12</td>
<td>1</td>
<td>177</td>
</tr>
<tr>
<td>NGO</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Private</td>
<td>410</td>
<td>35</td>
<td>11</td>
<td>1</td>
<td>457</td>
</tr>
<tr>
<td>Grand Total</td>
<td>574</td>
<td>73</td>
<td>24</td>
<td>2</td>
<td>674</td>
</tr>
</tbody>
</table>
NAKURU COUNTY REFERAL HOSPITAL (PGH)

Introduction

Nakuru County Referral hospital (Rift Valley Provincial General Hospital) was established in 1906 as a military hospital; it was gazetted as a public hospital in 1956 and has experienced tremendous growth in demand for services and infrastructure expansion. The hospital has continued to increase investments in human resources, infrastructure and other systems in response to the rising demand and is currently a level 5 county referral hospital. The hospital serves a primary catchment population of 2.1 million of Nakuru county and secondary catchment population of 7(Seven) surrounding counties Namely Kericho, Bomet, Narok, Nyandarua, Laikipia, Samburu and Baringo. The infrastructure growth of the hospital has not matched with the ever growing catchment population hence demand for infrastructural modernization and expansion.

The hospital sits on a 63 acres of land. Since inception, the hospital has seen continued investments in infrastructure and equipment. It has a bed capacity of 500 with bed occupancy of an average of 120%. The hospital has 16 general wards, 9 operating theatres, Labour Ward and New born Unit and ICU/ HDU, Renal Unit, Out Patient Departments, Laboratory, Dental Unit, Eyes Unit and Radiology department with MRI and CT Scan.

Various initiatives has been undertaken to reinvigorate facilities and equipment include: construction of Nyayo Wards and Outpatient Wing in 1980s, introduction of Intensive Care Unit (ICU) and eye units in 1990s, establishment of Trauma Centre in 2011 (stalled project), expansion of renal unit, strengthening of security through erection of perimeter wall and installation of CCTV cameras, renovation of various wards and offices, and beautification of hospital compound, procurement and installation of hospital generator, incinerator , drilling of borehole, procurement of diagnostic equipment like CT Scan machine, amongst others. These initiatives have been financed through government, funding, user fees, conditional grants, MES and development partners’ support.

To match the desired improvements in Service delivery, the County recognizes the need to invest in modern infrastructure and equipment. The table below shows the workload trend.
Workload Trend-2013 To 2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Total out Patients attendances</th>
<th>All Clinics attendances</th>
<th>Total New outpatient attendances</th>
<th>Total IPD Admission</th>
<th>Deliveries by skilled attendants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>349188</td>
<td>125352</td>
<td>188694</td>
<td>27766</td>
<td>8619</td>
</tr>
<tr>
<td>2014</td>
<td>386353</td>
<td>150023</td>
<td>208916</td>
<td>33214</td>
<td>11001</td>
</tr>
<tr>
<td>2015</td>
<td>398134</td>
<td>181675</td>
<td>209822</td>
<td>38167</td>
<td>11216</td>
</tr>
<tr>
<td>2016</td>
<td>461739</td>
<td>193716</td>
<td>740307</td>
<td>30886</td>
<td>10339</td>
</tr>
<tr>
<td>2017</td>
<td>479681</td>
<td>113073</td>
<td>241560</td>
<td>11632</td>
<td>2987</td>
</tr>
<tr>
<td>Totals</td>
<td>2075095</td>
<td>763839</td>
<td>1589299</td>
<td>141665</td>
<td>44162</td>
</tr>
</tbody>
</table>

Services Currently Offered

- General medicine
- Surgery
- Renal services
- Accidents and Emergency
- Obstetrics and Gynecology
- Paediatrics
- Dermatology
- Ear Nose and Throat (ENT) services
- Dental Services
- Pharmacy
- Laboratory Services
- Blood Transfusion
- Health education
- Rehabilitation services
- ICU/HDU
- Mortuary services
- Radiology services
- Mortuary services
- Ophthalmology

JUSTIFICATION

1. The hospital sits on 63 acres of land.

2. The hospital requires proper planning to match anticipated increased workload.
3. The hospital is a regional referral hospital for 8 counties.

4. Nakuru Town is expected to be upgrade to city status hence the need to modernize and plan the hospital.

5. Most of the buildings are very old and do not meet present standards where we have emerging and re-emerging infectious diseases.

6. It’s a teaching facility for Medical institutions and hence need to have the right infrastructure.

7. There need to re-organize the services and supportive services to cope with the demand.

8. With the increased security threat from terrorism, the need to provide security measures in place.

![Increased demand for car parking](Image)
RECOMMENDATIONS

The committee on infrastructure recommends that the facility to be upgraded to level six (6A) teaching and referral hospital.

For the above hospital to offer level six services, it requires the following infrastructure and equipments.
**SPECIALISED SERVICES AND EQUIPMENT**

1. Oncology inclusive of Radiotherapy
2. Neuro surgery
3. Cardiothoracic Surgery
4. Renal Transplant
5. Paediatric Surgery
6. ENT Surgery
7. Chronic disease Centre
8. Emergency and trauma services
9. Mental Health services including drugs and substance
10. Modern supportive services –
   - Modern Parking for vehicles
   - Modern administration block
   - Laundry services
   - Modern Kitchen and staff canteen
11. Modern laboratory
12. Telemedicine’s facilities

12. Others include Banking services, Modern teaching facilities, Lecture and conferencing hall, Police post
NAIVASHA COUNTY REFERRAL HOSPITAL

Hospital Background

Naivasha Sub county referral Hospital was started in the year 1920 when as a dispensary it was located at the district headquarters. In 1950 it was moved to the current location and elevated to a health centre status. Later in 1963 it was elevated to a sub district Hospital within Naivasha town. Naivasha district hospital was established in 2007 when the then sub-district hospital was converted to a district status. The Hospital is situated along the Great North Road and approximately 90km west of Nairobi.

The hospital is built on a land that measures 18 acres, approximately half of the land has been built on. It was elevated to a level IV hospital in 2007 the Hospital draws its catchment population mainly from Naivasha and Gilgil Sub Counties, parts of neighboring Counties of Kiambu, Nyandarua and Narok. The hospital has a bed capacity of 247 beds and 37 cots. It is a referral center for all health facilities in the Sub County.

The facility has been approved as an internship centre, for clinical officers and medical officers and requires both infrastructural expansion and additional man power, like Nurses and specialists (Ophthalmologist, Dermatologist and orthopedic surgeon) to meet the increasing demand and specialized care.

Naivasha sub county referral hospital is peculiar as it is located between two extremely busy roads Nairobi-Nakuru and Nairobi-Mai Mahiu roads. The fact that the hospital is located between the two highways adds more to the hospital workload due to the frequent accidents.

Hospital Workload Trend 2013 To 2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Total out Patients attendances</th>
<th>All Clinics attendances</th>
<th>Total New outpatient attendances</th>
<th>Total IPD Admission</th>
<th>Deliveries by skilled attendants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>166917</td>
<td>92220</td>
<td>117952</td>
<td>12975</td>
<td>5466</td>
</tr>
<tr>
<td>2014</td>
<td>147366</td>
<td>73442</td>
<td>109201</td>
<td>17617</td>
<td>7054</td>
</tr>
<tr>
<td>2015</td>
<td>177347</td>
<td>80624</td>
<td>136663</td>
<td>17992</td>
<td>7199</td>
</tr>
<tr>
<td>2016</td>
<td>257671</td>
<td>83837</td>
<td>207957</td>
<td>15618</td>
<td>6592</td>
</tr>
</tbody>
</table>
JUSTIFICATION

1. The hospital stands on 18 acres land although not confirmed as it has no title deed.

2. The Facility is located along a very busy highway and an area earmarked to be an inland container depot.

3. Naivasha town is experiencing a rapid development with SGR constructing a modern station there.

4. The area is a horticulture basket with an annual export earning of over Kshs. 70 billion.

5. The town is a tourist attraction centre second from coast.

6. There is need to modernize the existing infrastructure to handle the expected inflow of population in the area.

7. There is need to plan the infrastructure and to have uniformity of all structures.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>193320</td>
<td>55729</td>
<td>169425</td>
<td>9747</td>
<td>4183</td>
</tr>
<tr>
<td>Totals</td>
<td>942621</td>
<td>385852</td>
<td>741198</td>
<td>73949</td>
<td>30494</td>
</tr>
</tbody>
</table>
RECOMMENDATION

Naivasha Hospital has been elevated to level five (5) health facilities as per Kenya Essential packages of Health (KEPH) criteria.

Required services
1. Modern outpatient services block.
2. Modern accident and emergency units
3. Modern inpatient surgical wards
4. Intensive care unit and High dependence unit
5. Renal unit
6. Expansion of theatre (Specialized theatres eg Eye, ENT, Orthopedics etc)
7. Ophthalmology
8. Biomedical department
9. Modern mortuary
10. Rehabilitation unit
11. Modern laboratory blocks
12. Supportive services
   - Kitchen
   - Laundry
   - Parking area
   - Lecture and conferencing facilities
13. Modern Administration block

**SUBUKIA SUB COUNTY HOSPITAL**

The hospital’s immediate catchment population is 128258 of which 65,411 (51%) are female and 62847 (49%) are male. The population of children under the age of 5 years in this area is 19367 which constitute 15.1% percent of the population while children under the age of 1 year are 3,591 comprising 2.8% percent of the entire population. There are high unemployment rates in the area which is largely an agricultural area, therefore, majority of the area residents earn their living as subsistence farmers or through small businesses. This means that most of the area residents are not able to reasonably afford the private healthcare, thus, making public healthcare facilities critical to the area. Moreover, private hospitals are virtually non-existent in the area and, as such, healthcare is only available in private clinics which in any case lack the capacity to provide comprehensive healthcare management. This, therefore, piles pressure on the only existing public healthcare facility, that is, Subukia Sub County Hospital to meet the primary healthcare needs of most residents in the area.

**Workload Trend 2013 To 2017**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total out Patients attendances</th>
<th>All Clinics attendances</th>
<th>Total New outpatient attendances</th>
<th>Total IPD Admission</th>
<th>Deliveries by skilled attendants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>37759</td>
<td>8149</td>
<td>21357</td>
<td>277</td>
<td>452</td>
</tr>
<tr>
<td>2014</td>
<td>47688</td>
<td>12701</td>
<td>28721</td>
<td>477</td>
<td>463</td>
</tr>
<tr>
<td>2015</td>
<td>32140</td>
<td>15056</td>
<td>21179</td>
<td>388</td>
<td>572</td>
</tr>
<tr>
<td>2016</td>
<td>27127</td>
<td>13066</td>
<td>15877</td>
<td>501</td>
<td>591</td>
</tr>
<tr>
<td>2017</td>
<td>24268</td>
<td>10384</td>
<td>14968</td>
<td>300</td>
<td>347</td>
</tr>
<tr>
<td></td>
<td>168982</td>
<td>59356</td>
<td>102102</td>
<td>1943</td>
<td>2425</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>-------</td>
<td>--------</td>
<td>-------</td>
<td>------</td>
</tr>
</tbody>
</table>

**JUSTIFICATION**

1. The hospital stand on 8 acres land which is next to a river and water catchment.

2. It’s the only level 4 hospital within the area

3. It lacks the basic infrastructure hence unnecessary referrals to the neighbouring County (Laikipia-Nyahururu Hospital).

3. Poor health indicators for example maternal health.

A very small maternity ward
RECOMMENDATION

Subukia Sub County has been elevated to level four (4) health facilities as per Kenya Essential packages of Health (KEPH) criteria.

Required services
1. Modern outpatient services block.
2. Modern inpatient wings
3. A complete maternity wing
4. Modern accident and emergency units
5. Modern inpatient surgical wards
6. Establishment of a theatre
7. Eye clinics
8. ENT Clinics
9. X-Ray
10. Dental Units
11. Biomedical department
12. Establish Modern mortuary
13. Rehabilitation unit
14. Modern laboratory blocks
15. Supportive services
- Kitchen
- Laundry
- Access road and parking bay

BAHATI SUB COUNTY HOSPITAL
The facility was started in 1979 as a Rural Health Demonstration Centre (RHDC). In the year 1978, an organization called Mutukanio/Ngwanano identified and allocated 8 acres piece for its constructions.

The construction funds were donated by DANIDA. By the year 1981 health facility was completed and became operational and in November 2007 it was elevated to serve as a District Hospital when Nakuru North district was curved from the larger Nakuru District.

The facility serves a catchment population of approximately 195,847 people (based projected population of 2018), and act as a referral centre for;

i. Kabatini Health Centre
ii. Engashura Health Centre
iii. Dundori Health Centre

Among other health centres and dispensaries.

The facility has a bed capacity 60 beds and 6 cots, but currently has 38 beds and 4 cots in use due to infrastructural constraint.

- Maternity department - 8 beds
- Paediatric ward - 12 beds
- Female ward - 12 beds
- Male ward - 6 beds
# Hospital Workload Trend - 2013 To 2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Total out Patients attendances</th>
<th>All Clinics attendances</th>
<th>Total New outpatient attendances</th>
<th>Total IPD Admission</th>
<th>Deliveries by skilled attendants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>52853</td>
<td>31849</td>
<td>37581</td>
<td>2081</td>
<td>882</td>
</tr>
<tr>
<td>2014</td>
<td>59650</td>
<td>34526</td>
<td>40837</td>
<td>2693</td>
<td>1033</td>
</tr>
<tr>
<td>2015</td>
<td>53761</td>
<td>43250</td>
<td>35233</td>
<td>2298</td>
<td>1175</td>
</tr>
<tr>
<td>2016</td>
<td>73172</td>
<td>31155</td>
<td>49238</td>
<td>1081</td>
<td>1479</td>
</tr>
<tr>
<td>2017</td>
<td>70163</td>
<td>23435</td>
<td>40289</td>
<td>699</td>
<td>823</td>
</tr>
<tr>
<td>Totals</td>
<td>309599</td>
<td>164215</td>
<td>203178</td>
<td>8852</td>
<td>5392</td>
</tr>
</tbody>
</table>

**JUSTIFICATION**

1. The hospital is near to Nakuru PGH and hence it can be used to decongest it.

2. The hospital stand on 8 acres of land hence proper planning is required

3. The facility lack basic infrastructure hence underutilized as most people prefer Nakuru PGH

4. It requires re-orientation of the service points as it encroaches into road reserve which is earmarked for Northern Bypass (it’s about 11m on road reserve).
11 metres on road on reserve

OPD area
Recommendation

The facility require the following infrastructure to offer the level Four

1. Modern outpatient services block.
2. Modern inpatient surgical wards
3. Intensive care unit and High dependence unit
4. Renal unit
5. Expansion of theatre (Specialized theatres eg Eye, ENT, Orthopedics etc)
6. Ophthalmology
7. Biomedical department
8. Modern mortuary
10. Rehabilitation unit
11. X-Ray
12. Modern laboratory blocks
12. Supportive services
   - Kitchen
   - Laundry

Up-coming buildings that need to be guided by proper physical planning e.g. storey building to address the issue of space
- Parking area
- Fencing
- Sewage
- Utility Vehicle
- Lecture and conferencing facilities

**GILGIL SUB COUNTY HOSPITAL**

**Introduction**

The institution was formerly a British Military camp during the colonial era. The hospital was established in 1965 as an extension of Mathari Psychiatry Hospital Nairobi. It started with a few transferred patients and staff from Mathari Nairobi. By 1983 the hospital had about 430 psychiatric inpatients and hence further transfers from Nairobi were stopped. Some of the patients have overstayed in the hospital and there is an increase in the number of patients being abandoned. This has a negative impact in hospital’s constrained resources.

In 1992, two wards (male & female) were established. In 1995 the psychiatric unit was merged with Gilgil Rural Health Demonstration Centre to offer comprehensive services. The catchment population is approximately 206484 from Within Gilgil and the neighboring counties.

**Workload Trend 2013 to 2017**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total out Patients attendances</th>
<th>All Clinics attendances</th>
<th>Total New outpatient attendances</th>
<th>Total IPD Admission</th>
<th>Deliveries by skilled attendants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>81080</td>
<td>55078</td>
<td>40078</td>
<td>2703</td>
<td>1086</td>
</tr>
<tr>
<td>2014</td>
<td>83693</td>
<td>57439</td>
<td>42758</td>
<td>3103</td>
<td>1299</td>
</tr>
<tr>
<td>2015</td>
<td>86728</td>
<td>56158</td>
<td>43671</td>
<td>2894</td>
<td>1319</td>
</tr>
<tr>
<td>2016</td>
<td>72126</td>
<td>60913</td>
<td>42264</td>
<td>2624</td>
<td>1347</td>
</tr>
<tr>
<td>2017</td>
<td>65622</td>
<td>30508</td>
<td>26876</td>
<td>1526</td>
<td>681</td>
</tr>
<tr>
<td>Totals</td>
<td>389249</td>
<td>260096</td>
<td>195647</td>
<td>12850</td>
<td>5732</td>
</tr>
</tbody>
</table>
JUSTIFICATION

1. The hospital stand on 60 acres of land

2. Most of the buildings are dilapidated

3. The hospital is poorly planned and hence can’t offer quality services for example between OPD and Laboratory department is staff quarters and between Administration block and OPD is a big open field. This means during the rainy season or at night it’s had for staffs to move around.

4. The facility is located along a busy highway. The hospital receives most of road accident victims but they are referred to other better facilities due to lack of basic infrastructure.
5. There is need to do a proper planning and re-orientation of the service delivery points in order to offer quality services.

**Recommendation**

The facility require the following infrastructure to offer the level Four

1. Modern outpatient services block.
2. Modern inpatient wards
3. Comprehensive maternity wing
4. Expansion of Specialized services  e.g Eye, ENT, and Orthopedics etc
5. Biomedical department
6. Modern mortuary
7. Rehabilitation unit
8. X-Ray
9. Modern laboratory blocks
10. Supportive services
- Kitchen
- Laundry
- Parking area
- Fencing
- Sewage
- Utility Vehicle
- Lecture and conferencing facilities

11. Casualty and Trauma

MOLO DISTRICT HOSPITAL

1. INTRODUCTION

Molo District Hospital was established on 19th October 1946 by the British colony as an outstation to serve the local community that was living around Molo and its environs. In 1952 it was upgraded to a cottage hospital under Dr. A. H Mcleon who was the first District Surgeon.

In 1955 the Nakuru county council started to run it until independence when the hospital was upgraded to a Sub-district Hospital. The hospital remained a sub-district until 2008 when it was upgraded to a District Hospital. Following the constitutional changes in 2010 and the establishment of county government health became a devolved function and Molo Hospital was taken over by the Nakuru county government as one of the major sub county hospital in the region.

The hospital has a bed capacity of 57 and it stands on a 10.0 ha in which buildings occupy only a quarter of the land leaving enough space for expansion and future development.

**Workload Trend 2013 To 2017**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total out Patients attendances</th>
<th>All Clinics attendances</th>
<th>Total New outpatient attendances</th>
<th>Total IPD Admission</th>
<th>Deliveries by skilled attendants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>54458</td>
<td>34782</td>
<td>38277</td>
<td>5937</td>
<td>2123</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>2014</td>
<td>51682</td>
<td>56142</td>
<td>38550</td>
<td>6834</td>
<td>2842</td>
</tr>
<tr>
<td>2015</td>
<td>40176</td>
<td>29189</td>
<td>27767</td>
<td>6180</td>
<td>2733</td>
</tr>
<tr>
<td>2016</td>
<td>62767</td>
<td>22396</td>
<td>39089</td>
<td>4798</td>
<td>2493</td>
</tr>
<tr>
<td>2017</td>
<td>43194</td>
<td>36459</td>
<td>23275</td>
<td>1885</td>
<td>1313</td>
</tr>
<tr>
<td>Totals</td>
<td>252277</td>
<td>178968</td>
<td>166958</td>
<td>25634</td>
<td>11504</td>
</tr>
</tbody>
</table>

**JUSTIFICATION FOR UPGRADING**

1. The infrastructure that exists does not meet the minimum standards for the current status.

2. Most of the buildings do not meet minimum standard for a health facilities.

3. There is an upcoming medical training college and therefore it’s becoming a training centre.

4. The hospital is a referral centre for Molo and Kuresoi North sub counties and can also serve part of Njoro and Rongai sub counties.

5. Its located along a busy highway and a referral of most of road accident cases.

6. The hospital is stand on a 20 acres of land.

7. The Hospital also require total reorientation in order to offer quality and efficient services.
Supportive staff houses converted to a service delivery point (does not meet basic standards)
RECOMMENDATION

Molo Sub County is a level four (4) health facility as per Kenya Essential packages of Health (KEPH) criteria. The hospital requires the following infrastructure to offer quality services.

1. Modern outpatient department.
2. Modern inpatient wards
3. Modern maternity wing
4. Modern accident and emergency units
5. Modern inpatient surgical wards
6. Expansion of a theatre to specialized services
7. Eye unit
8. ENT Clinics
9. Expansion of X-Ray department
10. Modern Dental Unit
11. Biomedical department
12. Need to refurbish mortuary
13. Rehabilitation unit
14. Modern laboratory blocks
15. Supportive services
- Kitchen
- Laundry
- Access road and parking bay
- Perimeter wall
- Drug store
- Master plan for the facility

Olenguruone Sub County Hospitals

The hospital is the only level 4(four) facility in the sub county. The health facility serves a primary catchment a population of 156,707 and neighboring counties of Kericho and Narok. The area borders the Mau forest that has a huge impact on the climate of the area. The major economic activity is small scale farming. The population scheme is pyramidal with population numbers decreasing with increasing age. The male to female ratio is approximately 1:1
**Hospital Workload trend - 2013 To 2017**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total out Patients attendances</th>
<th>All Clinics attendances</th>
<th>Total New outpatient attendances</th>
<th>Total IPD Admission</th>
<th>Deliveries by skilled attendants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>83102</td>
<td>53615</td>
<td>29524</td>
<td>1865</td>
<td>620</td>
</tr>
<tr>
<td>2014</td>
<td>51102</td>
<td>28453</td>
<td>24105</td>
<td>2197</td>
<td>1141</td>
</tr>
<tr>
<td>2015</td>
<td>31855</td>
<td>16821</td>
<td>15410</td>
<td>2584</td>
<td>1354</td>
</tr>
<tr>
<td>2016</td>
<td>28055</td>
<td>17287</td>
<td>14222</td>
<td>2271</td>
<td>1304</td>
</tr>
<tr>
<td>2017</td>
<td>18532</td>
<td>11804</td>
<td>8935</td>
<td>1131</td>
<td>701</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>212646</strong></td>
<td><strong>127980</strong></td>
<td><strong>92196</strong></td>
<td><strong>10048</strong></td>
<td><strong>5120</strong></td>
</tr>
</tbody>
</table>

**JUSTIFICATION FOR UPGRADING**

1. The facility stand on a 38 acres land

2. It refers to its clients or patients to the neighboring Bomet County –Tenwek hospital which is almost 50 KM away.

3. The Hospital infrastructure does not meet standards for its current level status

4. It’s a referral centre for level 2 and 3 facilities

5. Poor health indicators in terms of maternal mortality and skilled birth attendance among others.

6. Lack various service points like OPD and specialized services hence unnecessary referrals from the area

7. Poor road networks which becomes impassable during the rainy season.
Sub Standard OPD department

Under construction Surgical ward - CDF
RECOMMENDATION

Olenguruone Sub County is a level four (4) health facility as per Kenya Essential packages of Health (KEPH) criteria. But require the following infrastructure to offer quality services.

1. Modern outpatient department.
2. Modern inpatient wards
3. Modern maternity wing
4. Modern accident and emergency units
5. Modern inpatient surgical wards
6. Expansion of a theatre to specialized services
7. Eye unit
8. ENT Clinics
9. Expansion of X-Ray department
10. Modern Dental Unit
11. Biomedical department
12. Need to refurbish mortuary

OPD entry- Very small and not suitable to handle emergency
13. Rehabilitation unit
14. Modern laboratory blocks
15. Supportive services
   - Kitchen
   - Laundry
   - Access road and parking bay
   - Perimeter wall
   - Drug store
Annex; Check list for hospitals level 6

Level 6 A (Specialized Tertiary Referral/ Faith Based Specialized Tertiary referral Hospital)

CHECKLIST FOR CATEGORIZATION OF HEALTH INSTITUTIONS BY THE MEDICAL PRACTITIONERS AND DENTISTS BOARD, NATIONAL HOSPITAL INSURANCE FUND AND THE COUNCIL OF GOVERNORS

SERVICES OFFERED:

1) Radiology services
2) Oncology services
3) Ophthalmology Services
4) Dental services
5) Renal services

FACILITY INFRASTRUCTURE:

1) Waiting bays;
2) Doctors rooms
3) Nursing station
4) Offices for the department head
5) Office for the nurse in charge
6) Intern (s) office
7) Cloak rooms for staff
8) Staff lounge
9) Medical material store
10) Sluice room
11) Drug cabinet
12) Changing rooms with lockers
13) Laminar flow air system for operating theaters

GENERAL EQUIPMENT
1) Defibrillator
2) Ventilator
3) Modern communication system and ICT infrastructure:
4) Automation in all areas
5) Fire-fighting equipment
6) Stand by generators and UPS back ups
7) Catering/laundry and maintenance services
8) Biomedical engineering services
9) General cleaning services
10) Infection control infrastructure
11) Laboratory equipment
12) Outpatient or inpatient beds
13) Radiological and imaging equipment including ultrasound, x-ray, endoscopy and laparoscopy equipment
14) General surgical procedures theatre and
15) Autopsy equipment

Annex 2: Level 5 (Hospital Level 5 checklist)

County Referral Hospitals/Secondary Care Hospitals/Faith Based)

CHECKLIST FOR CATEGORIZATION OF HEALTH INSTITUTIONS BY THE MEDICAL PRACTITIONERS AND DENTISTS BOARD, NATIONAL HOSPITAL INSURANCE FUND AND THE COUNCIL OF GOVERNORS

SERVICES OFFERED:

1. Elimination of communicable diseases
2. Screening for animal transmitted conditions
3. Ophthalmology Services
4. Highly Active Anti-Retroviral Therapy (HAART)

5. Retro Viral (ARV) prophylaxis for children born of HIV positive mothers

6. Male circumcision

7. Pelvic Inflammatory Disease (PID) management

8. Evacuation services for injuries

9. Disaster risk reduction interventions

10. Facility disaster response planning

11. Disaster management;

12. Vaccination for yellow fever, tetanus and rabies;

13. Management of surgical emergencies including trauma care;

14. Advanced life support;

15. Management of pregnancy complications;

16. Management of abnormal pregnancies;

17. Management of pre-term labour;

18. Caesarean section;

19. Radiology services;

20. Outpatient turnover of more than (250) two hundred and fifty

21. Emergency operations;

22. General operations;

23. Specialized operations;

24. Management of medical, surgical, pediatric and gynecological in-patients;
25. Laboratory services;

26. Specialized therapy services;

27. HIV/AIDS management;

28. Tuberculosis management;

29. Palliative care;

30. Rehabilitative services;

31. Physiotherapy

32. Speech and hearing therapy.

33. Evacuation services for injuries;

34. Disaster risk reduction interventions;

35. Facility disaster response planning;

36. Disaster management;

37. Provides essential services;

38. Vaccination for yellow fever, tetanus and rabies;

39. Management of surgical emergencies including trauma care;

40. Advanced life support;

41. Management of pregnancy complications;

42. Management of abnormal pregnancies;

43. Management of pre-term labour;

44. Caesarean section;

45. Radiology services;
46. Outpatient turnover of more 250

**FACILITY INFRASTRUCTURE**

1. Land at least ten (10) acres

2. At least three hundred (300) beds

3. Internship centres of at least one hundred fifty 150 beds;

4. An operating theatre;

5. An Intensive Care Unit;

6. Radiology unit with x-ray machine;

7. Specialist clinics;

8. MRI Machine;

9. CT scan machine;

10. Dialysis machine;

11. Endoscopy & colonoscopy unit;

12. Mammography machine;

13. Ultra sound machine;

14. One waiting room;

15. Six (6) consultation rooms;

16. One (1) registration room;

17. Two (2) injection rooms;

1) One (1) plasters room;
2) One (1) minor theatre;

3) One (1) dental unit room;

4) One (1) ENT services room;

5) One (1) laboratory room;

6) MCH/FP unit with—
   a. One waiting room;
   b. One immunization services room;
   c. One FP coordination room;
   d. One antenatal coordination room;
   e. One maternity ward for six deliveries; and
   f. One high dependency unit with six cots;

7) One (1) immunization services room;

8) Inpatient services;

9) Two hundred (200) beds for male inpatients;

10) Two hundred (200) beds for female and children inpatients;

11) Four (4) operating theatre beds being one each for—
   a. Gynaecological emergencies;
   b. Cold case;
   c. General emergencies;
   d. Ophthalmic cases;

12) One intensive care unit with four beds;
13) Medical engineering unit;

14) Administration unit with—
   a. One pharmacy or
   b. Drug dispensing room;
   c. One cash office;
   d. Two stores;
   e. Two administration offices;
   f. One room for health records;

15) A supply services unit with—

16) Kitchen;

17) Laundry;

18) One (1) community services room;

19) Radiology unit;

20) One (1) x-ray room;

21) One (1) USS room;

22) One (1) mortuary;

23) Staff quarters for at least eight persons on duty;

24) Ablution block;

25) Ten (10) stance pit latrine;

26) Source of running water;

27) Water reservoir;
28) One (1) placenta pit;
29) One (1) generator house;
30) One (1) incinerator;
31) One (1) motorcycle;
32) Two (2) vehicles;
33) One (1) ambulance;
34) One (1) support vehicle;
35) A composite pit;
36) Water storage for roof catchment;
37) Fence and gate
38) One (1) ambulance;
Annex 3 for Hospitals level 4
Level 4 (Hospital Level 4/ Internship Training Centre/ County Hospital/Faith Based Hospital)

CHECKLIST FOR CATEGORIZATION OF HEALTH INSTITUTIONS BY THE MEDICAL PRACTITIONERS AND DENTISTS BOARD, NATIONAL HOSPITAL INSURANCE FUND AND THE COUNCIL OF GOVERNORS

SERVICES OFFERED:

1) Elimination of communicable diseases

2) Screening for animal transmitted conditions

3) Provides- (a) highly effective Anti- Retroviral Therapy (HAART);

(b) Antiretroviral (ARV) prophylaxis for children born of HIV +ve mothers;

4) Male circumcision

5) Pelvic inflammatory disease (PID) treatment

6) Screening for-

(a) Cervical cancer;

(b) Breast cancer

7) Prostate examination

8) Evacuation services

9) Disaster & risk reduction interventions

10) Disaster management

11) Essential services  Yes
12) Vaccinations (yellow fever, tetanus, rabies)

13) Management of surgical emergencies

14) Advanced life support

15) Management of pregnancy complications

16) Management of abnormal pregnancies

17) Management of pre-term labour

18) Caesarian sections

19) Radiology services

20) Outpatient turnover of more than two hundred and fifty (250)

21) Operations-

(a) Emergency;

(b) General;

(c) Specialized

22) Management of medical, surgical, pediatric and gynecological in-patients

23) Laboratory services

24) Specialized therapy services

25) HIV/AIDS management

26) Tuberculosis management

27) Palliative care

28) Rehabilitative services

29) Physiotherapy
30) Speech therapy

**FACILITY INFRASTRUCTURE:**

1) At least 5 acres of land or office space of approximately 2,500 sq. meters

2) At most 150 beds with at least 30 beds each in the following wards:

- Male ward,
- Female ward,
- Pediatric ward,
- Antenatal ward and
- Postnatal ward

3) Operating theatre

4) Intensive care unit (with at least 4 beds)

5) High dependence unit (with at least 6 beds)

6) Radiology unit

7) Specialist clinics

8) Endoscopy & colonoscopy unit

9) Renal unit (with dialysis machines)

10) MRI machine

11) CT scan machine

12) Mammography machine

13) Ultrasound machine
14) X-Ray machine
15) Defibrillator;
16) Ventilator;
17) Waiting room (s)
18) Consultation room (s)
19) Registration room (s)
20) Injection room (s)
21) Plaster room (s)
22) Minor theater
23) Dental unit
24) ENT unit
25) Immunization rooms (s)
26) Sluice Room
27) FP coordination room (s)
28) Antenatal coordination room (s)
29) Maternity ward (s) for at least 6 deliveries
30) Outpatient services
31) 200 beds for male inpatients
32) MCH/FP Unit with –
   - One immunization services room;
   - One FP coordination room;
- One antenatal coordination room;

- One maternity ward for a three deliveries

- One nursery room with cots;

33) Operating theatre beds; (2)

34) 200 beds for female & children inpatients

35) 4 operating theaters one of each being for:

- Gynae emergencies;

- Cold cases;

- General emergencies; and

- Ophthalmic cases

36) Medical engineering unit

37) Administration unit with-

- pharmacy or drug dispensing room (s);

- cash office (s);

- store (s);

- health records room (s);

38) Supply unit with-

- kitchen;

- laundry

39) Community services room

40) One X-Ray room
41) USS room

42) Mortuary

43) Staff quarters for at least 4 persons on duty

44) ablution block
NORMS FOR SERVICE DELIVERY

Critical inputs

The norms relate to the following critical inputs for delivery of the essential package:

1. Physical infrastructure norms: What numbers of physical facilities are required, for equitable capacity to deliver the defined health services?

2. Human Resources for Health norms: What are the staffing needs and norms for different staff cadres, at each of the above physical facilities for equitable capacity to deliver the defined health services?

Physical infrastructure norms

There are three service unit classifications

Figure 2 below: Organization of Health Services
Community level,
- primary care facilities and
- Hospitals.

Within these, there are sub classifications within each, as shown in the figure above, Primary care service units are either health centres, or dispensaries (mobile clinics in areas where population density is very low, and/or mobile). The health sector aspired to upgrade all dispensaries into fully primary care units (model health centres) in the long run, ensuring every facility is able to at least carry out a normal delivery. However, this aspiration has not been achieved in the period of the current KHSSP, for which these norms and standards were developed. Therefore, this has necessitated inclusion of dispensary norms.
Hospitals on the other hand focus on management of referral care, and are of three types: primary, secondary, or tertiary referral units. The scope and complexity of services increase from primary to tertiary referral units.

Tertiary (level VI) referral service units

Secondary (level V) referral service units

Primary (level IV) referral service units

Primary care service units (Health Centres - level III)

Primary care service units (Dispensaries - level II)

Community units (level I)

The requirements for physical facilities are based either on population, by level of care. The target populations, and overall numbers of physical infrastructure by level of care are shown below.

### Table 2: Average populations expected to be served with different facility types

<table>
<thead>
<tr>
<th>Catchment populations</th>
<th>Hospitals</th>
<th>Primary Care Units</th>
<th>Community Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tertiary (level VI) referral hospital</td>
<td>Secondary (level V) referral hospital</td>
<td>Primary (level IV) hospital</td>
</tr>
<tr>
<td></td>
<td>5,000,000</td>
<td>1,000,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Numbers of Facilities</td>
<td>9</td>
<td>44</td>
<td>440</td>
</tr>
</tbody>
</table>

*Source: The Kenya Essential Package for Health, 2013*