2. Under-five mortality (U5M), 1965-2015

2.1 U5M (per 1000 live births)

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population*</td>
<td>1,098,584</td>
<td>1,421,932</td>
</tr>
<tr>
<td>Female of childbearing age (15-49)**</td>
<td>248,255</td>
<td>281,466</td>
</tr>
<tr>
<td>Population under five years**</td>
<td>165,042</td>
<td>163,531</td>
</tr>
<tr>
<td>Urban population*</td>
<td>-</td>
<td>360,287</td>
</tr>
<tr>
<td>Population with primary school education*</td>
<td>-</td>
<td>605,286</td>
</tr>
<tr>
<td>Average rainfall (mm)***</td>
<td>654</td>
<td>1005</td>
</tr>
</tbody>
</table>

Data Sources: * KNBS 2009 & 2019 KNPHC, ** WorldPop, *** Kenya Meteorological Department

Mean U5M per 1000 live births in Machakos and SEKEB every 10 years between 1965 and 2013.

2.2 Trends in U5M and progress towards achieving global targets

USM trends in Machakos, relative to the national mean, SEKEB mean and progress in meeting global U5M reduction targets set during World Summit for Children (WSC), the Millennium Development Goal (MDG) 4 and the Sustainable Development Goal (SDG) 3.2.


3.1 Child Factors


Coverage of breast feeding indicators, and the percentage change between 1993 and 2014. Green indicates an improvement. The darker the green the greater the improvement.


Coverage of malnutrition indicators, and the percentage change between 1993 and 2014. Red indicates deterioration in the indicator and green an improvement.
3.2 Maternal factors


- Maternal literacy 84.47% vs 72.75%
- Birth interval 75.81% vs 70.25%
- Low parity 63.75% vs 52.05%
- Maternal education 52.05% vs 40.03%

Female-headed household 37.79% vs 36.24%
Contraceptive 21.14% vs 14.74%

Note: Birth interval - the proportion of children with a preceding or succeeding birth interval > 24 months.
Low parity - the proportion of women aged <30 years with less than 3 or aged >29 years with less than 5 children.
Maternal education - the proportion of mothers (15-49 years) who had greater than primary education at the time of the survey.

3.3 Health Care Utilization


- Antenatal care (ANC) 95.53% vs 91.50%
- Antenatal care (ANC) 64.97% vs 56.23%
- Fever/Cough treatment 53.85% vs 45.24%
- Skilled birth attendance (SBA) 60.70% vs 54.52%
- IPTp treatment 57.78% vs 52.25%

Factors that were either not monitored or had not been rolled out by 1993 (IPTp1, IPTp2, Iron Supplements, Vitamin A-mothers, Vitamin A-children, Antimalarial and Child-ITN)

3.4 Household factors

Note: Improved sanitation - proportion of households who have access to flush toilet facilities.
Improved and intermediate sanitation have access to any form of a toilet facility.
Improved water is the proportion of households who have access to piped water for drinking.
Improved and intermediate water have access to either piped or boreholes/wells water for drinking.
Least poor households - proportion of households considered not poor comprising of the 1st, 2nd and 3rd quintiles of the wealth index.

3.5 Health Interventions


3.6 Infections

3.6.1 Malaria Prevalence

Malaria prevalence in Machakos and other SEKEB counties.

3.6.2 HIV Prevalence


- 1993: 4.76%
- 2003: 5.33%
- 2014: 3.24%

Key Messages

- Machakos has had the lowest U5M in SEKEB since 1970 before being overtaken by Makueni county in 2009. This came after an upsurge in U5M observed after 2004. By 2014, the U5M rate had increased by 1.2% and was at 46.48 per 1000 live births.
- It was not until after 2003 that considerable progress was observed in reducing HIV and Malaria prevalence.
- HIV transmission rates dropped by 39% between 2003 and 2014. Similarly, the Malaria transmission rate dropped and has remained below 1% since 2007. The significant reduction in Malaria transmission rates could reflect improvements made in most of the malaria control interventions.
- Since 1993, Machakos has had the highest maternal literacy and education levels in SEKEB alongside contraceptive usage, corresponding with the highest prevalence in longer birth intervals and low parity in the region.
- Machakos had the greatest drop in the proportion of children breastfed within one hour of birth. However, other breastfeeding practices and nutritional indicators improved.
- There was a slight decline in antenatal care (ANC4) coverage, but utilization of other health care services improved substantially.
- Vaccination coverage improved from that of 1993 and 2003 and has remained the highest coverage in SEKEB across the years.
- At 59% in 2014, Machakos led in providing access to clean water to households, of which 33% had access to piped water. However, the coverage is still low compared to other counties nationally. Access to sanitation improved significantly, but the proportion of households classified as least poor decreased.