MAKERERE UNIVERSITY

THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

Levels, trends and inequalities in indicators RMNCAH in Uganda

“Leaving no woman and child behind”

A JOINT EFFORT OF

African Population and
Health Research Center

Countdown to 2030

Women's, Children's & Adolescents' Health

THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

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Presentation objectives

- To present an equity based analysis of Uganda's progress in maternal, newborn and child health in order to guide policy and programming towards achieving SDGs
  - To consult stakeholders on priority areas for further analysis in maternal, newborn and child health in order to guide acceleration of progress towards ending preventable maternal and child deaths, regardless of where they live

Background

- **MDG era**: Significant improvement but still gaps

- Uganda: Narrowly missed MDG goal *4(reducing child mortality by two thirds 64 in 2016 against 56 target*)
  - *Reducing maternal mortality ratio 336 in 2016 against 131 target*)

- **SDG era**: Achieving UHC: Quality essential service coverage and financial protection for all, is target 3.8

- Targets within reach only if:

  - ✓Robust evidence drives the implementation of appropriate, effective and efficient interventions,
  - ✓Responds to complementary challenges related to ASRH,
  - ✓Equity in access to quality health services
  - ✓Gender equality

Sustainable Development Agenda

- UN 2030 Agenda for Sustainable Development aspires to *leave no one behind*.
- The reduction of inequalities is articulated explicitly in;

→ Reduce inequality within and among countries

→ To end poverty

→ To ensure inclusive and equitable quality education

Sustainable Development Agenda

→ To achieve gender equality.

→ A call to ensure healthy lives and promote well-being for all at all ages → tackling inequalities in health.

The challenge

- The SDGs include ambitious targets—including ending all preventable maternal, newborn and child deaths by 2030.

- Uganda's progress to reduce such deaths has been slow – maternal death:
  - 435 in 2016
  - 438 in 2011
  - 460 in 2013
  - 336 in 2016 (MGD 2015 target 131)

To achieve the SDGs targets…

- **Action to address existing health inequities between**
  - Rich & Poor,
  - Rural & Urban,
  - Slum & Non-slum,

➢ For all to have equitable coverage of basic health services.

To achieve the SDGs targets…

- Detailed analysis of health inequities related to MNCH in order to:

  - Guide responsive policy and planning.

  And ….

  - Accelerate progress towards ending preventable maternal and child deaths, regardless of where they live or their ability to pay.

Meaning …

- It is paramount that we have strong national health inequality monitoring systems so that no one is left behind.

- Equity/Inequality Assessment serves to;
  - Identify population subgroups that are disadvantaged, and to track progress on how health improvements (or changes) are realized.
  - Has a role in the achievement of UHC (SDG target 3.8), → provide people with the health care they need without suffering financial hardship.

- The progressive realization of UHC is tracked through health inequality assessment/monitoring:
  - When accelerated gains are realized in disadvantaged populations, → coverage gaps are narrowed → there is improvement in the health of the general population.

So … *Health Equity/inequality monitoring*

- Health Inequality
  - Observable health differences between subgroups within a population
- Health Inequality Analysis
  - Identifies where inequalities exist and where disadvantaged subgroups (demographically, economically, geographically or socially) stand in terms of health.
- Health Equity
  - When health inequalities are determined to be unjust, unfair and avoidable, they are referred to as **health inequities.** (WHO)

METHODS

Key Questions

- Whether or not inequalities in Uganda are large or small (absolute judgment, comparative terms)
  - An example of an **absolute measure of inequality** is the difference between the extreme wealth quintiles—for example,
  - measles immunization coverage is 10 percentage points higher in the top wealth quintile than in the bottom quintile.
  - A **relative measure of inequality** is based on a ratio—for example, vaccine coverage is 20%, or 1.2 times, higher in the richest quintile than in the poorest.
- Whether or not the inequalities are reducing over time (from the last 2 surveys and the DHIS2 data).

Approaches Used in Equity Analysis

- **Analysis of existing data**
  - UDHS 1991, 1996, 2001, 2006, 2011, 2016
  - Mortality estimations from the United Nations Inter-Agency Group for child Mortality Estimation (UN-IGME).
- **Focused on 2 indicators**
  - Under-5 mortality (U5MR)
  - Coverage (Composite Coverage Index-CCI)
- **And 3 stratifiers**
  - ✓ Residence (urban-rural)
  - ✓ SES (wealth)
  - ✓ Geographic location (15 Regions)
- **Presentation mode** → Equiplots to show changes over time.
- **Measures of inequality** → Simple (Difference &; Ratio)

Measures of Inequality

- Example:

Absolute measure of inequality → Difference between the extreme wealth quintiles—for example, *measles immunization coverage is **10 percentage points higher** in the top wealth quintile than in the bottom quintile*

Relative measure of inequality → Based on a ratio—for example, *vaccine coverage is 20%, or 1.2 times, higher in the richest quintile than in the poorest.*

Notice: Percentage points Vs Percentages

- If vaccine coverage = 70% in the richest and = 50% in the poorest groups

- The absolute difference in coverage = 20 percentage points
- The relative ratio will be 1.4 (i.e., 70%/50%), or 40% (i.e., [1.4−1]×100%)

COMPOSITE COVERAGE INDEX (CCI)

- The composite coverage index (CCI) - is the weighted average of the percentage coverage of 8 interventions along 4 stages of the continuum of care;

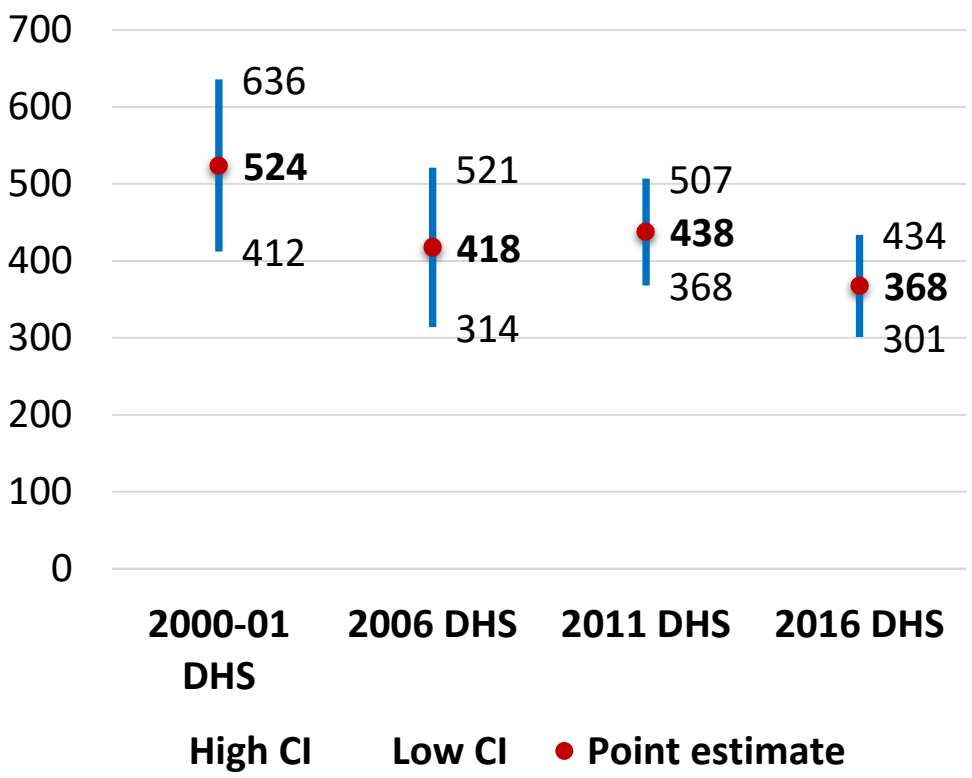
- The weighted average for a group (e.g., a region or a wealth quintile) is calculated as

$$\frac{1}{4}\left(\mathrm{FPS}+\frac{\mathrm{SBA}+\mathrm{ANCS}}{2}+\frac{2\mathrm{DPT3}+\mathrm{MSL}+\mathrm{BCG}}{4}+\frac{\mathrm{ORT}+\mathrm{CPNM}}{2}\right)$$

SUMMARY OF FINDINGS

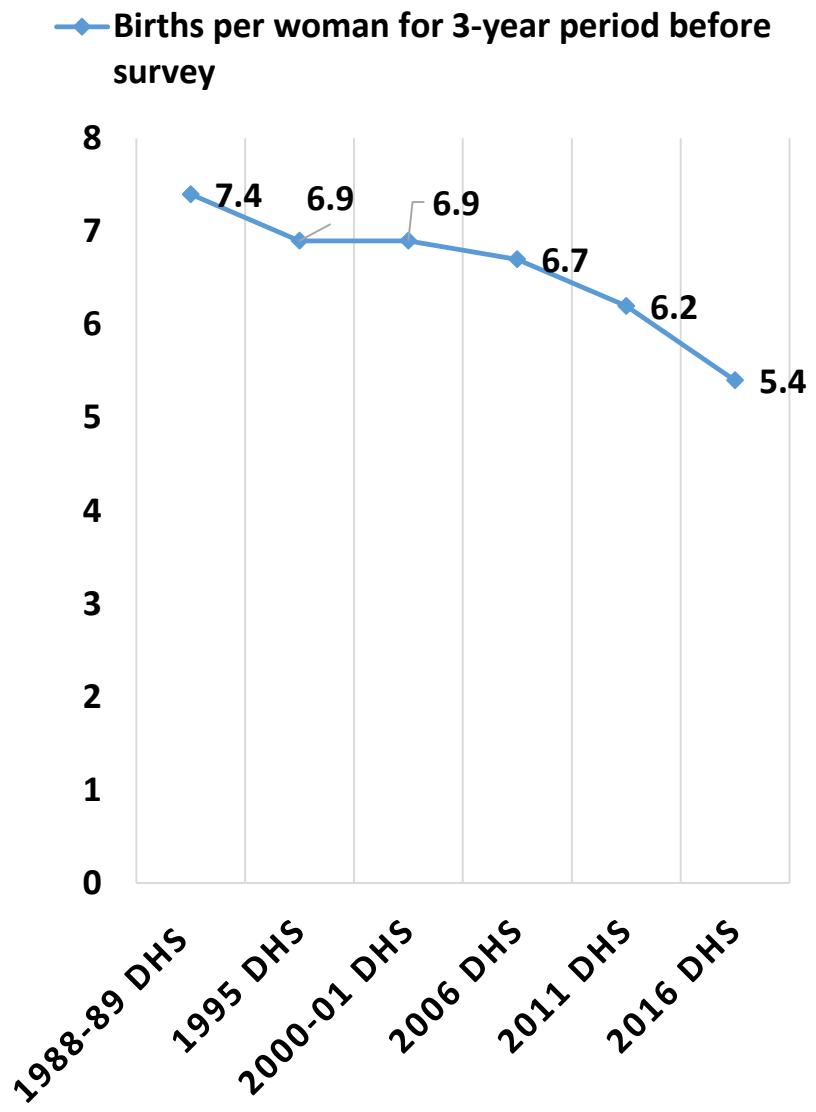
Maternal Health

Mortality: **Maternal mortality ratio (MMR)**



- ✓ MMR in Uganda is still high though it declined from the previous survey.
- ✓ Looking at the CI shows that this decline was not significant.
- ✓ Meaning that there has not been a decline in MMR for the last 12 years (2004 – 2016).
- ✓ Average annual rate of reduction in MMR for the period 2009-2016 was low (2.5%) which might explain the slow decline in MMR.
- ✓ AARR of 3.6% is required to achieve the 2019/20 target.

FERTILITY: TRENDS IN FERTILITY, 1988/89-2016

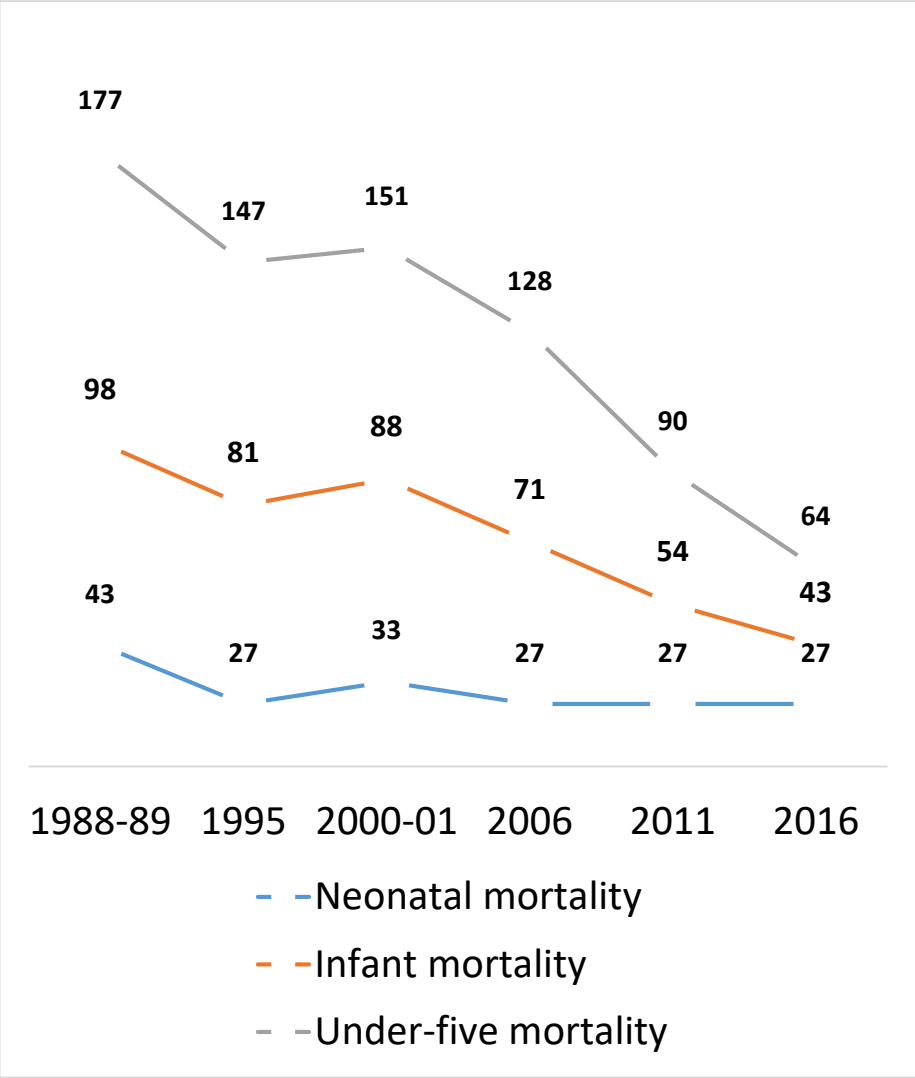


FERTILITY

- High teenage pregnancy –
  - twenty five percent adolescents are mothers
  - 28% of maternal deaths occur among teenage mothers
- Contraceptive Prevalence Rate – 35%
- Unmet need for FP is 28%

Child Health

Mortality: **Under-five, Infant and Neonatal mortality**



- ✓ Downward trend in mortality with sharp decline from the early 2000s.
  - Except NMR
- ✓ No progress in NMR for the last 10 years may be due to a very low annual reduction rate (0% for DHS; 4.5% from 2014 – 2015 for WHS).
- ✓ NM contributes to a large fraction of the overall child mortality burden.
- ✓ To achieve the 2019/20 HSDP target of 16 deaths per 1000 live births, an AARR of 14% is required which is a far cry from the current rate of zero!.

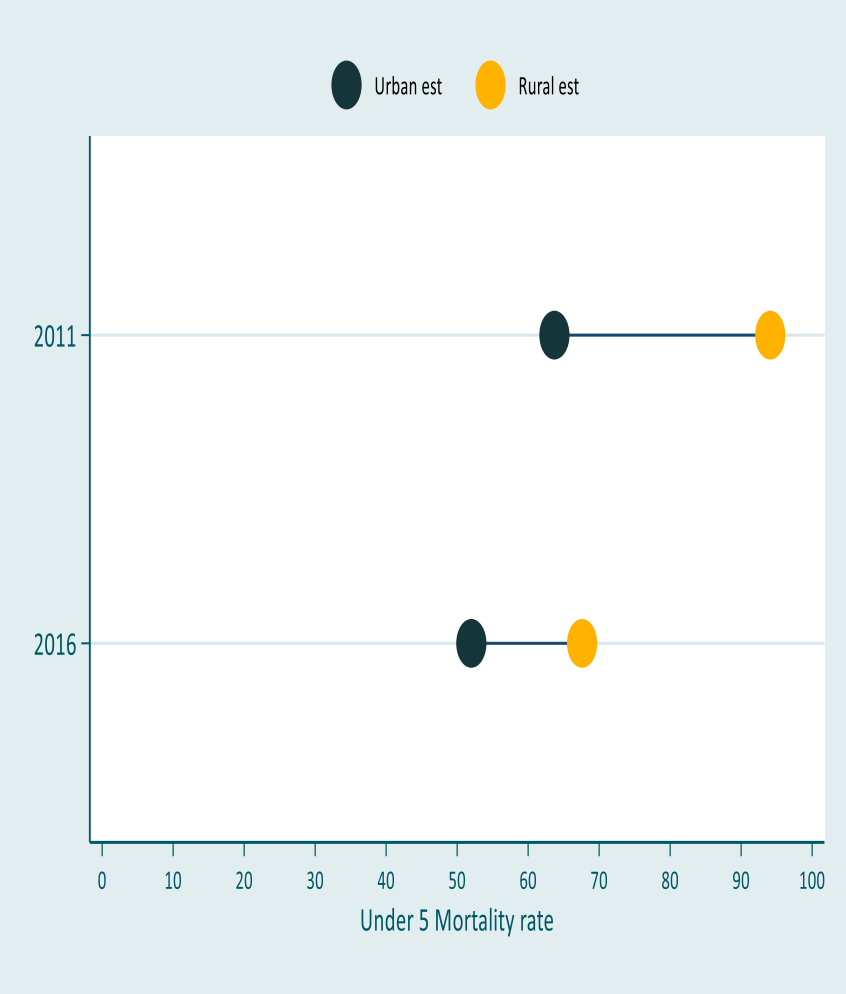
Under-5 Mortality trends 2011-2016 (UDHS)

2011: Diff = 49.1% ; Ratio = 1.9
2016: Diff = 28.9% ; Ratio = 1.6

By Wealth

- ✓ Decrease in U5MR across all groups by wealth
- ✓ Less significant among the richest.
- ✓ Bottom inequality pattern→ target the poor

Under-5 Mortality trends 2011-2016 (UDHS)



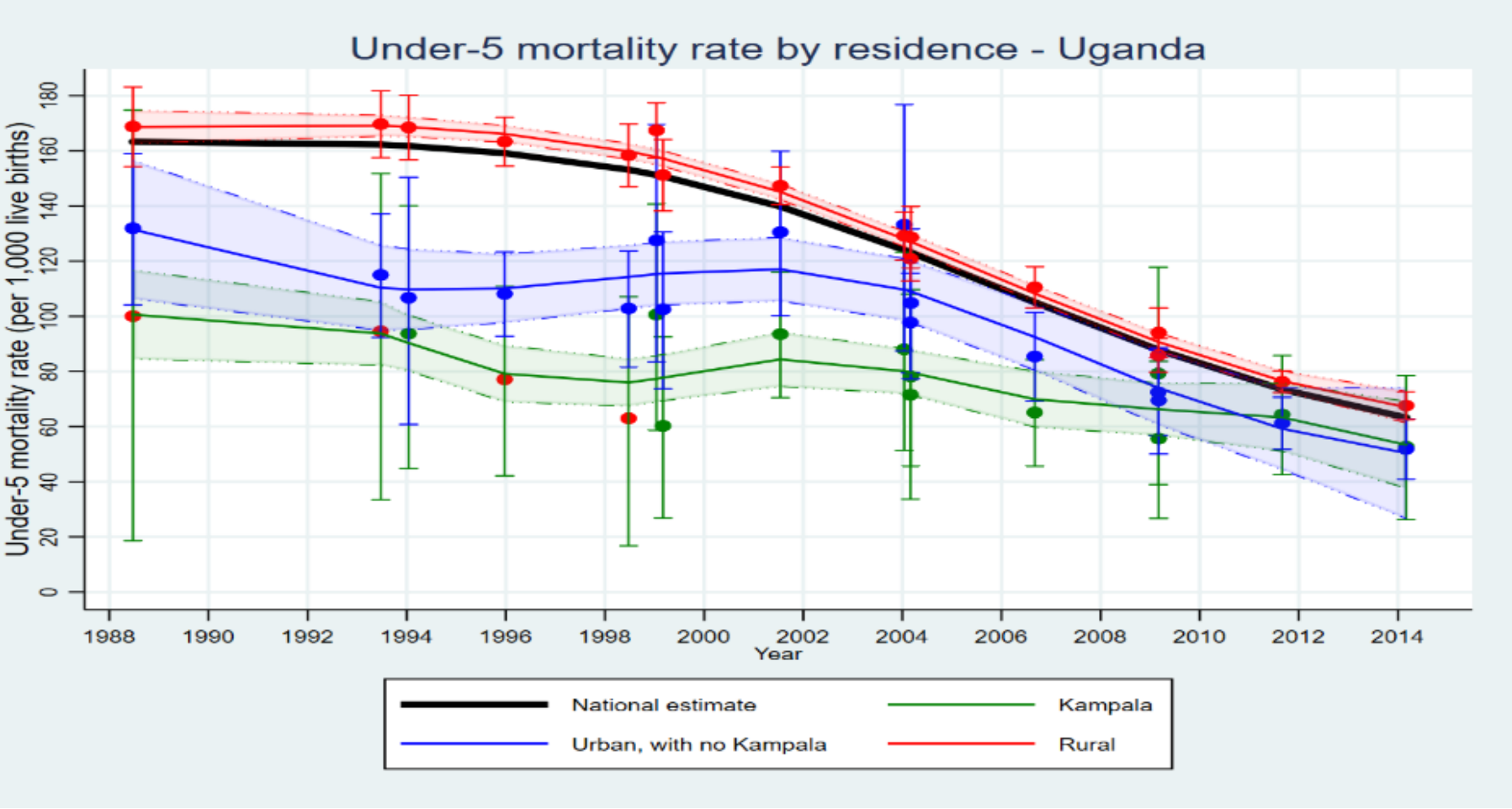
By residence

- ✓ Reduction in U5MR for the 5-year period preceding the survey among the urban and rural in the two surveys

- ✓ Higher reduction among rural population => a narrowing in the gap between the two groups in 2016.

2011: Diff = 30.4% ; Ratio = 1.5
2016: Diff = 15.7% ; Ratio = 1.3

Sub-national Inequalities **U5MR by sub-region**



In recent years, the mortality rate in Kampala city was higher than in other urban areas. → Uganda is losing the urban survival advantage.

Possible explanation: Gov't & partner efforts have usually focused on expansion of services closer to the rural communities with less attention to the urban areas.

Under-5 Mortality trends 2011-2016 (UDHS)

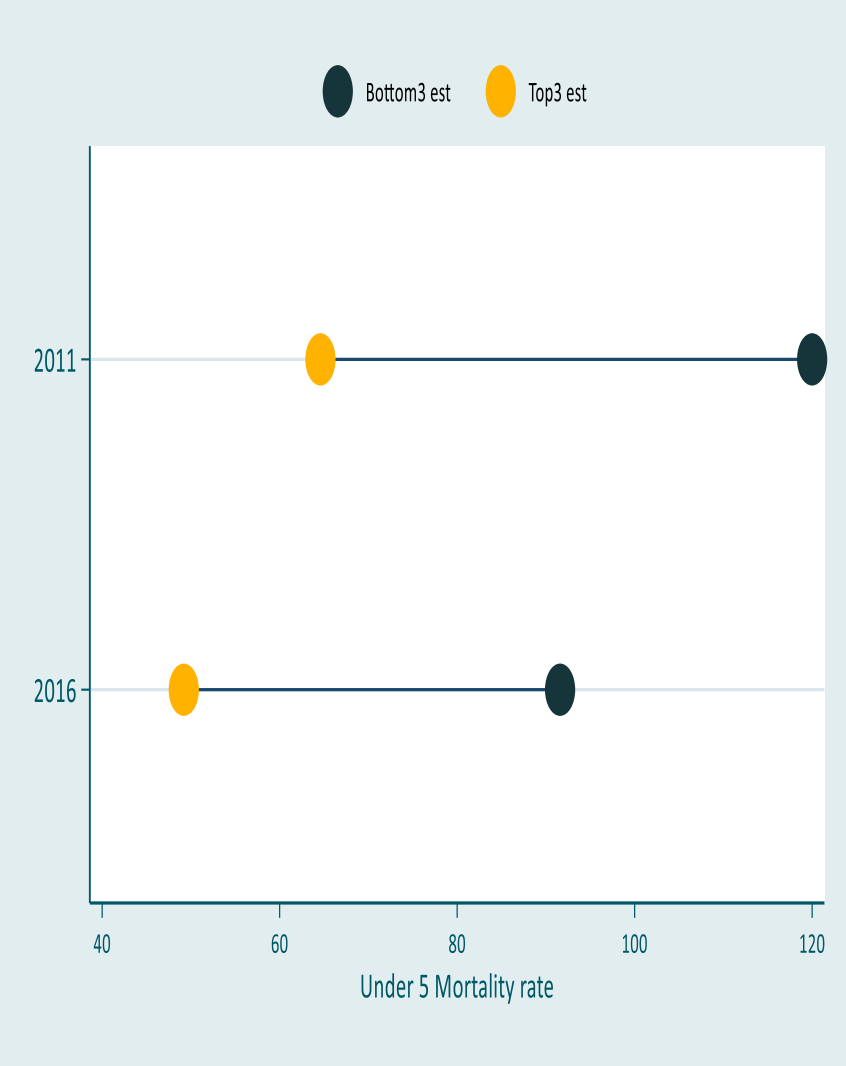
By Region

- In 2016, Karamoja still had the highest U5MR for 5-year periods preceding the survey with the lowest registered in Kampala.

- The 2011 regions (10 regions) were reclassified to match the ones of 2016 (15 regions) for a better comparative picture in the trend analysis.

- Furthermore, the average of the top three and the bottom 3 regions was computed to show the inequality gap

Under-5 Mortality trends 2011-2016 (UDHS)



By Region

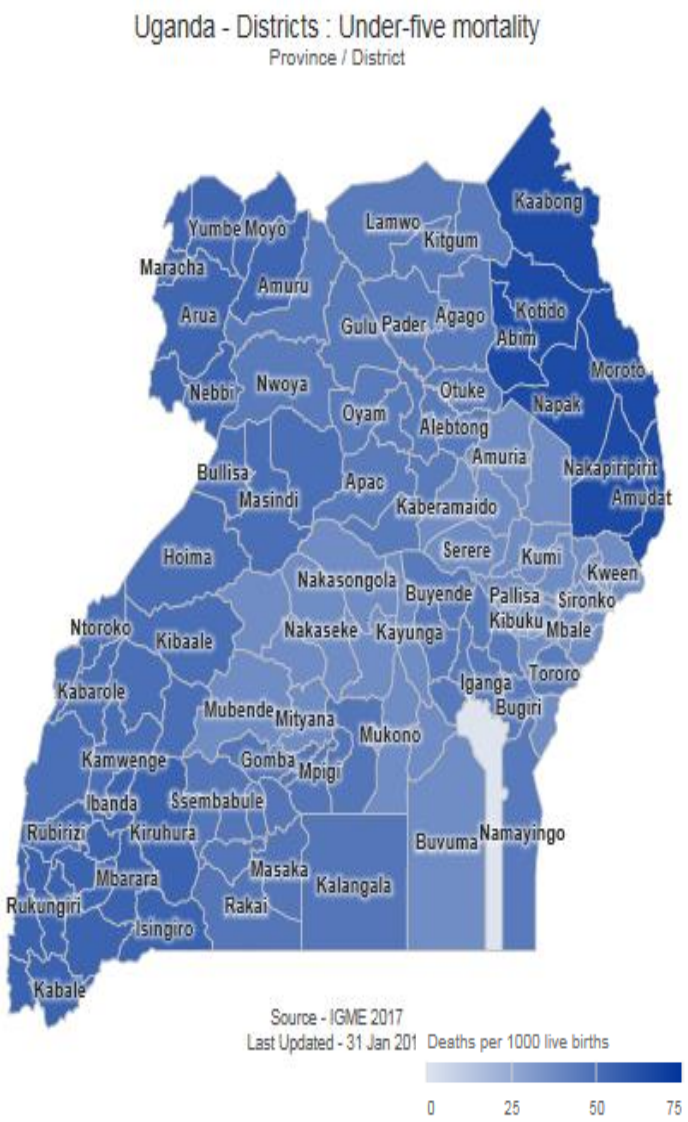
- ✓ Bottom 3_2011 (Karamoja, Busoga, Ankole)
- ✓ Top 3_2011 (Kampala, Acholi, Teso)
- ✓ *Bottom 3_2016* (Karamoja, Busoga, Bunyoro)
- ✓ *Top 3_2016* (Teso, South Central, Acholi)

2011: Diff = 55.4% ; Ratio = 1.9
2016: Diff = 42.4% ; Ratio = 1.9

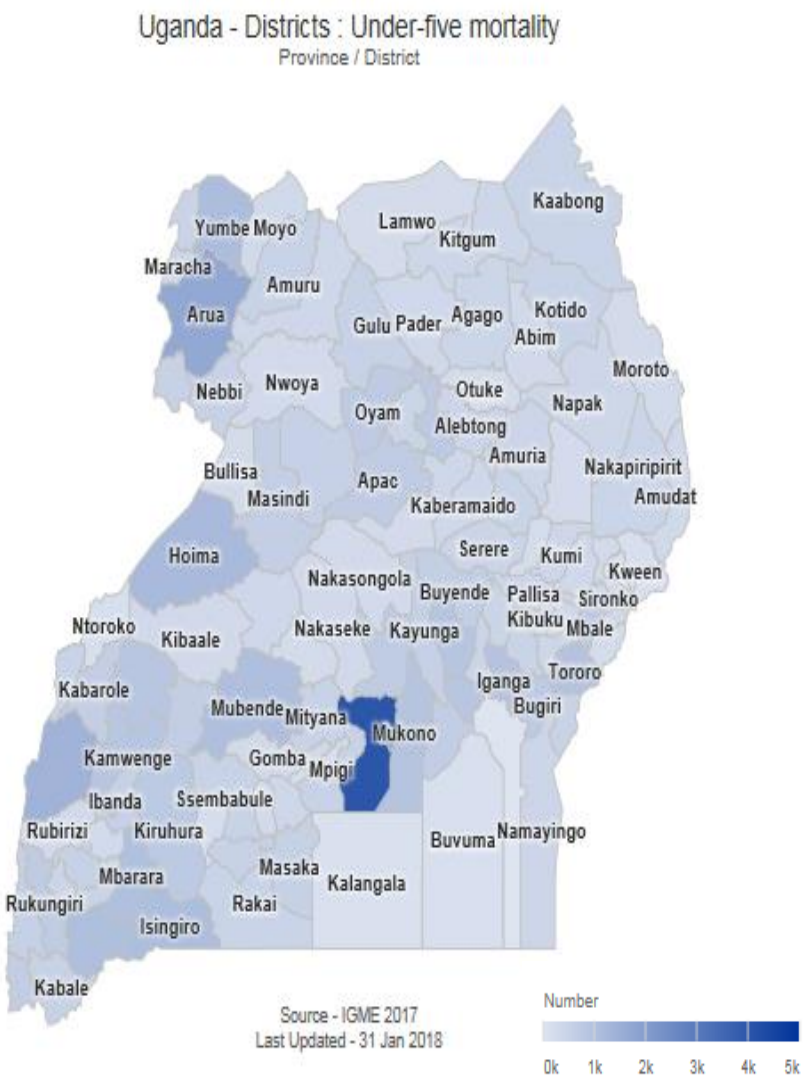
- ➢ The equity gap reduced over time in absolute terms but no difference in relative terms.

Under-five mortality by District

Rates



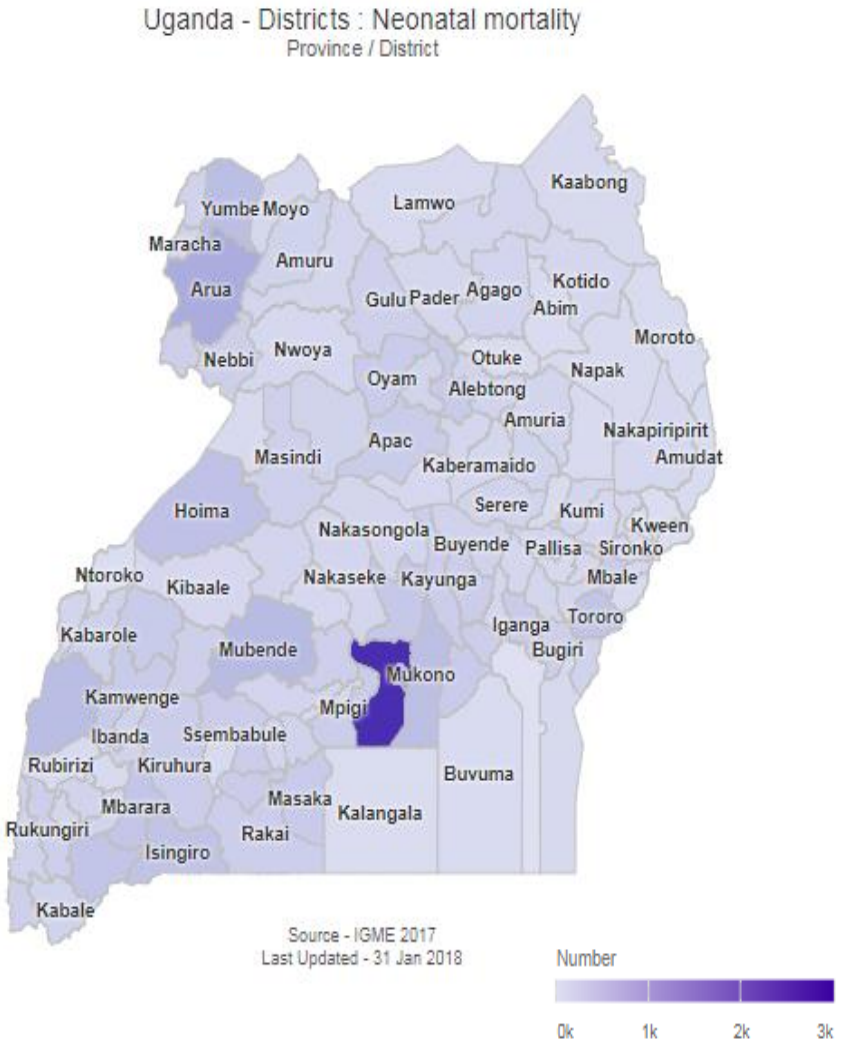
Numbers



Neonatal mortality by district

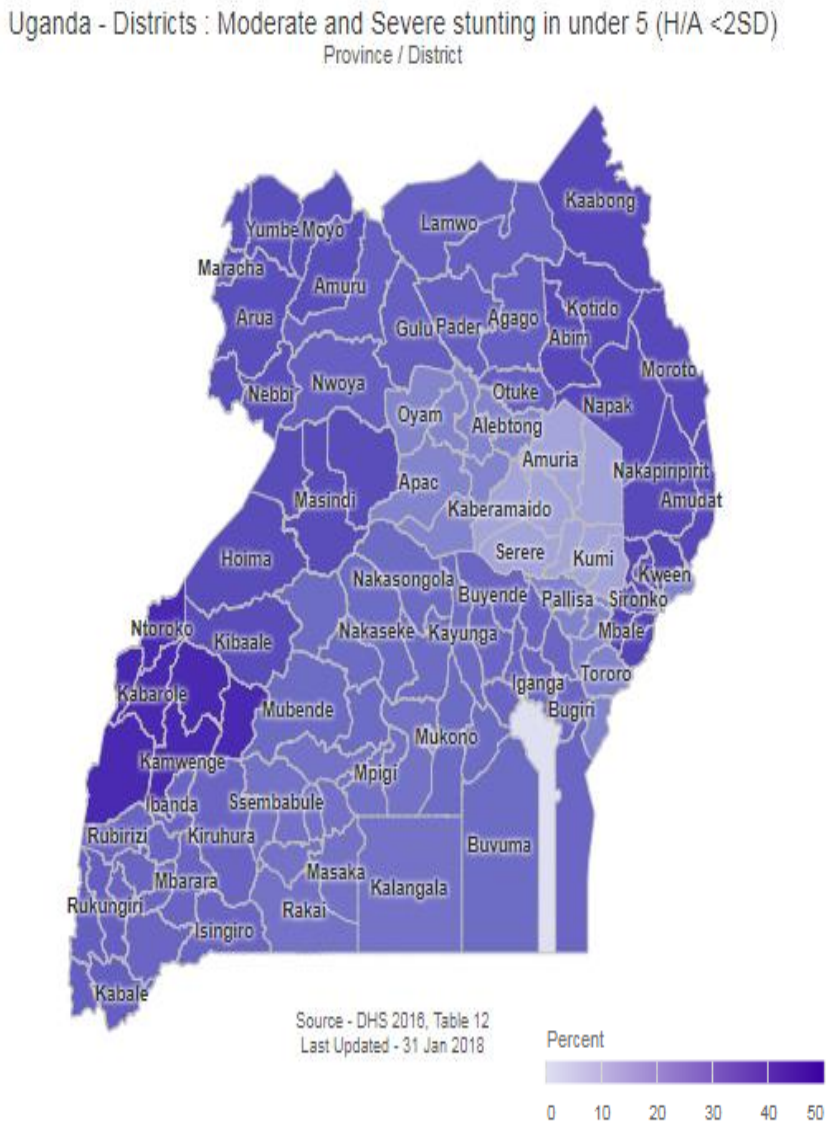
Rates

Numbers

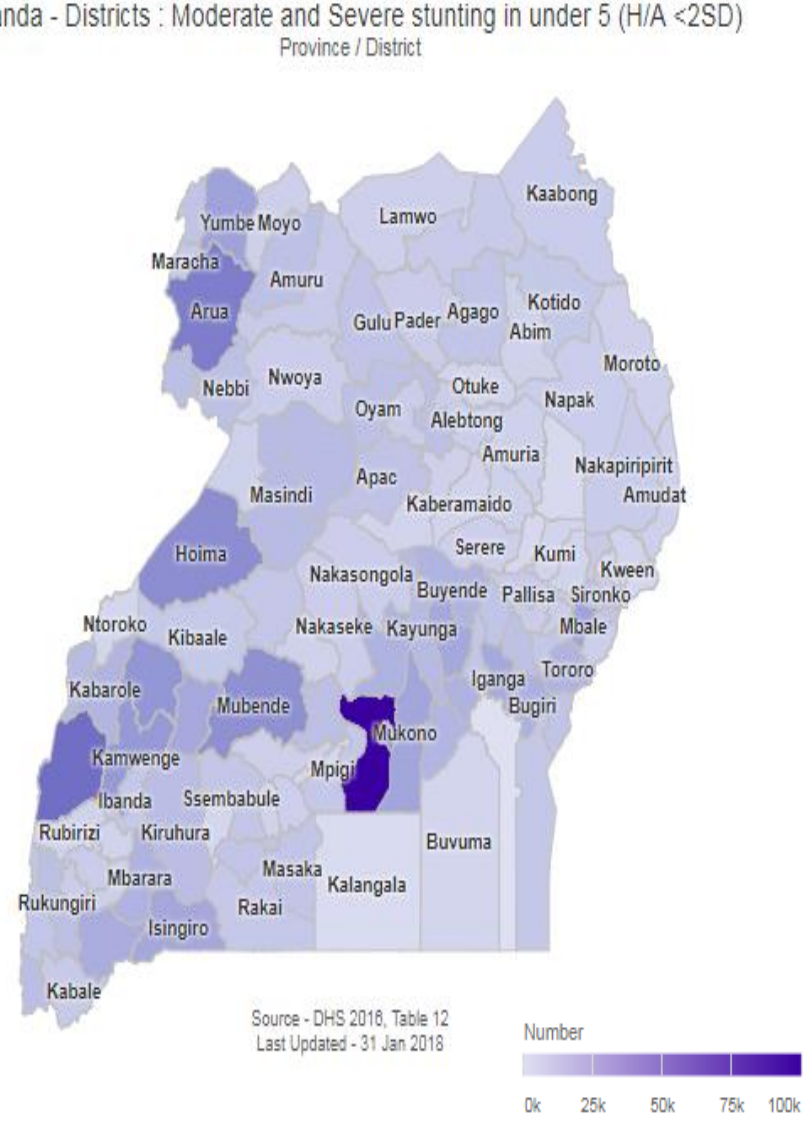


Stunting by district

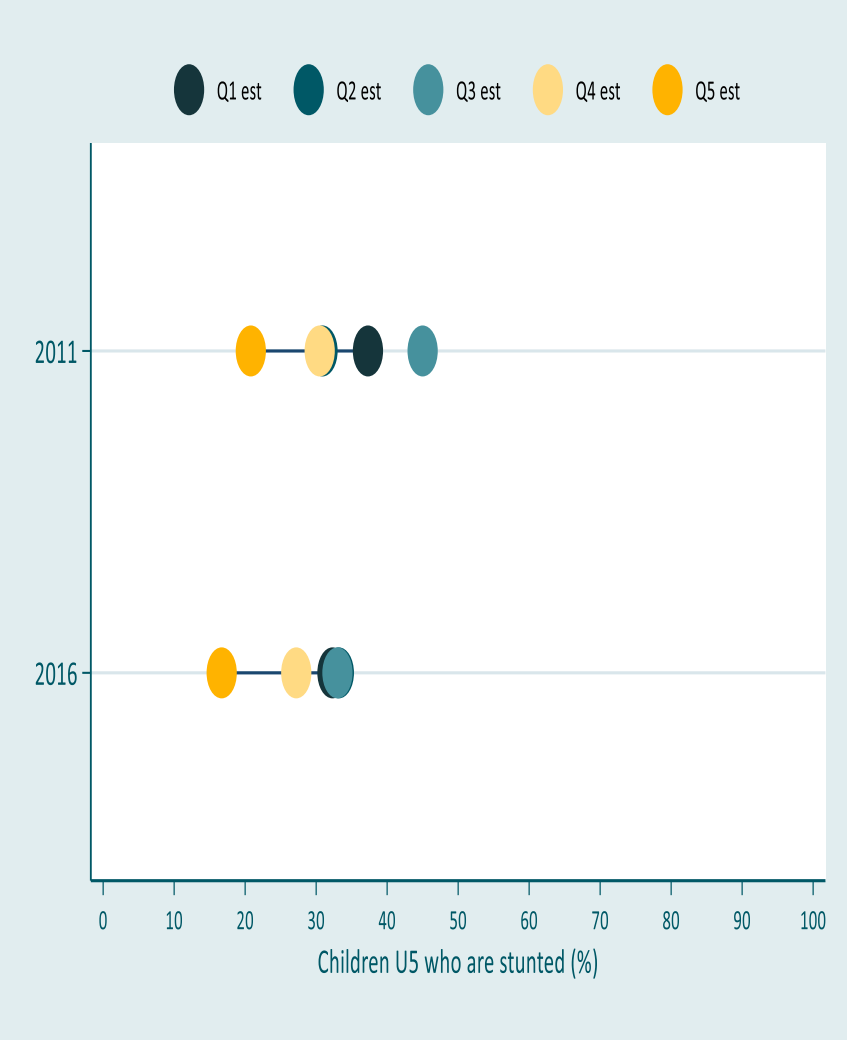
Rates



Numbers



Stunting trends 2011-2016 (UDHS)



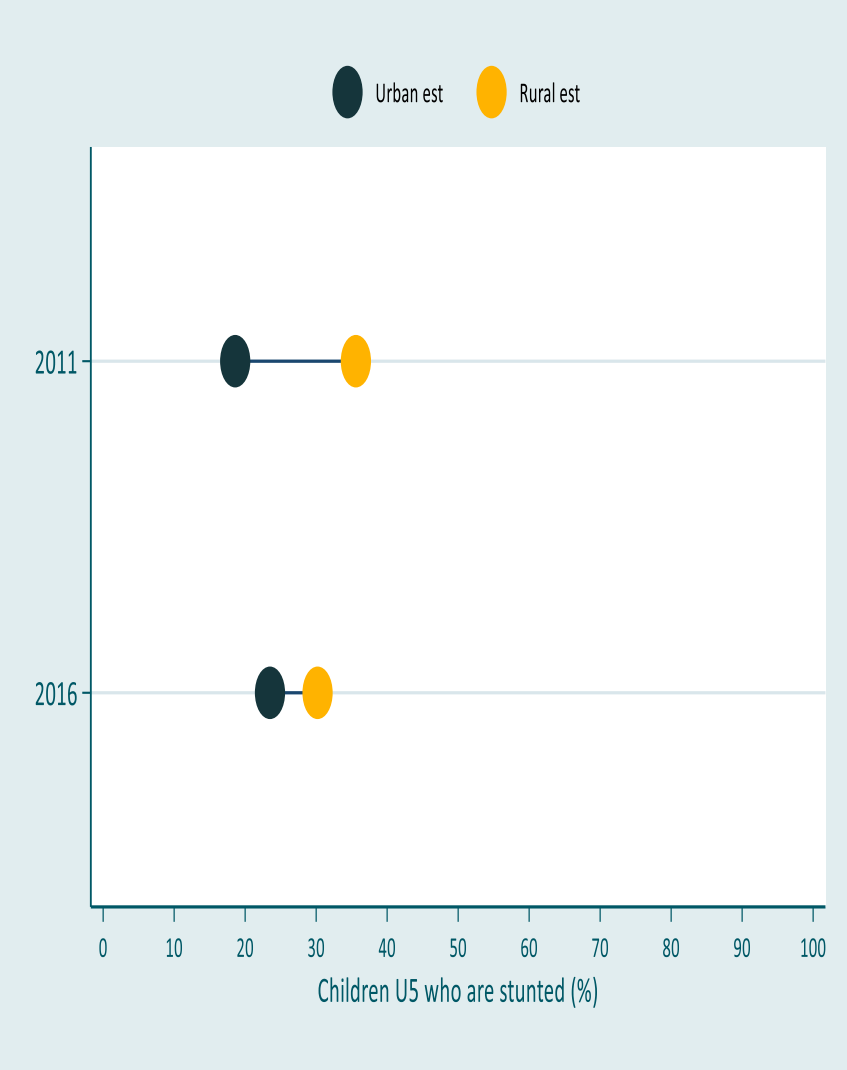
By Wealth

- The gap between the richest and the poorest did not change much over the years.

2011: Diff = 16.5% ; Ratio = 1.8

2016: Diff = 15.6% ; Ratio = 1.9

Stunting trends 2011-2016 (UDHS)



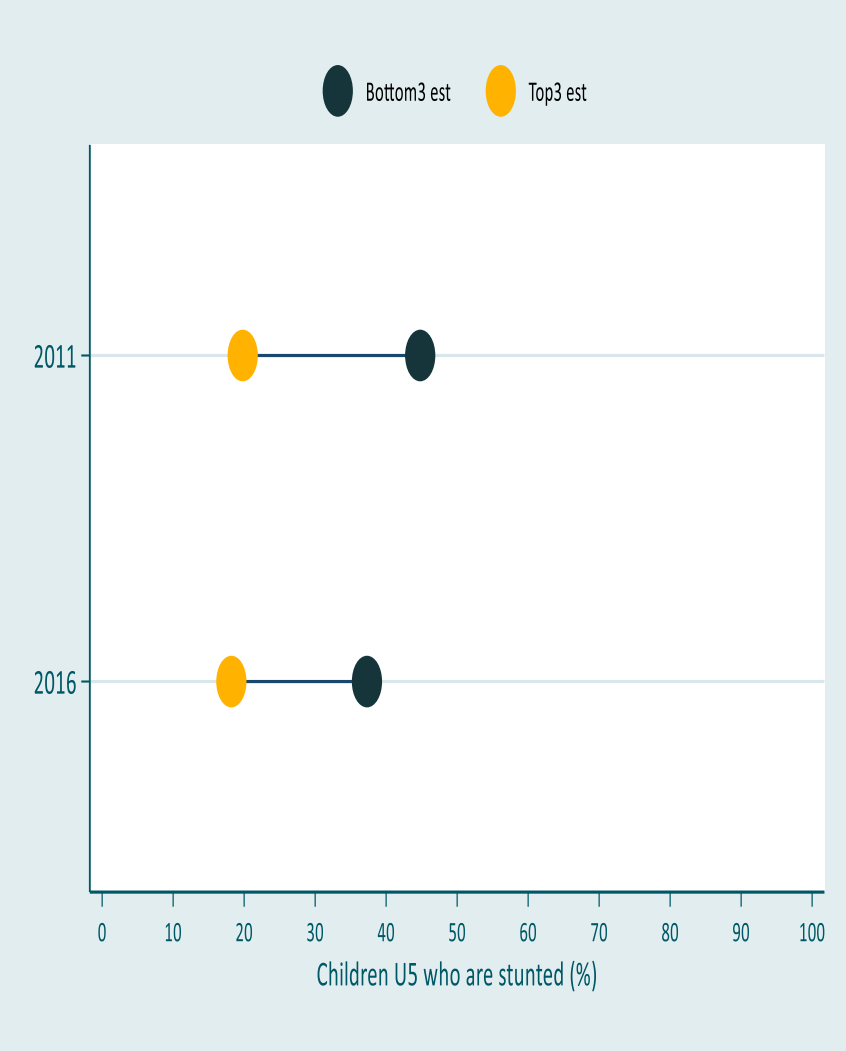
By Residence

- The equity gaps decreased more significantly between the rural and urban populations

2011: Diff = 17% ; Ratio = 1.9

2016: Diff = 6.7% ; Ratio = 1.3

Stunting trends 2011-2016 (UDHS)



By Region

- 2016: Best-Teso (14.3%) & worst-Tooro (40.6 %)

✓ Bottom 3_2011 (Karamoja, Tooro, Ankole)

✓ Top 3_2011 (Kampala, Teso, Lango)

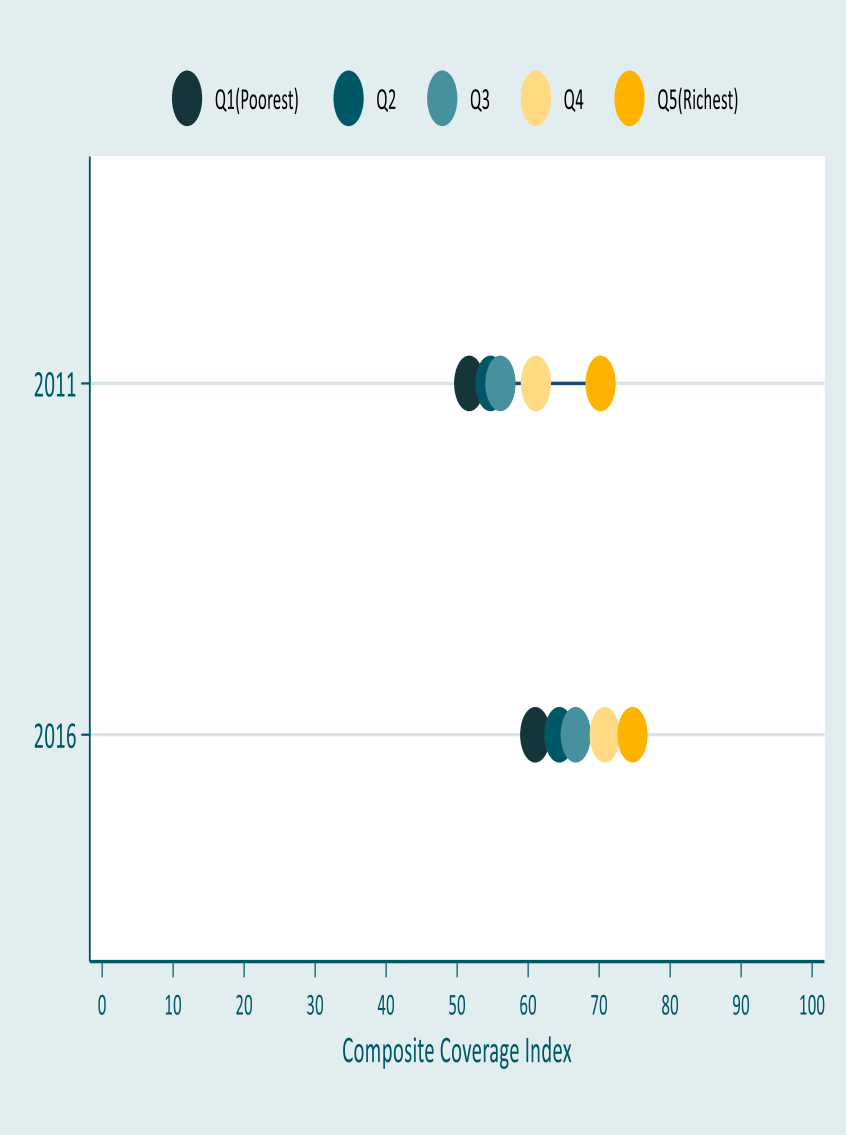
✓ Bottom 3_2016 (Karamoja, Bugisu, Tooro)

✓ Top 3_2016 (Teso, Kampala, Lango)

2011: Diff = 25% ; Ratio = 2.3

2016: Diff = 19.1% ; Ratio = 2.0

CCI trends 2011-2016 (UDHS)



By wealth

- Improvement in coverage
- The inequality gaps have been reduced over time.

2011: **Diff = 18.5%**

Ratio = 1.4

2016: **Diff = 13.7%**

Ratio = 1.2

CCI trends 2011-2016 (UDHS)

By Residence

- Slight improvement in coverage
- Reduced inequality gaps over time.

2011: **Diff = 13.4%**

Ratio = 1.2

2016: **Diff = 7.3%**

Ratio = 1.1

CCI trends 2011-2016 (UDHS)

By Region

- ✓ Bottom 3_2011 (Bugisu, Ankole, Kigezi)
- ✓ Top 3_2011 (Kampala, North Central, Bunyoro)
- ✓ Bottom 3_2016 (Busoga, Bugisu, Teso)
- ✓ Top 3_2016 (Kigezi, Kampala, South Central

2011: **Diff = 12.8% ; Ratio = 1.2**

2016: **Diff = 8.6% ; Ratio = 1.1**

Performance by sub-region

To note;

- Increased stunting & small improvement in coverage in Kampala
- Correlation between U5MR and Stunting
- Overall Improvement in Coverage in all regions
  - Greater leaps in Kigezi, Ankole, Tooro, Bugisu & Lango
- Large confidence intervals
  - Because of small sample sizes

Conclusions

- Generally, inequalities in Uganda have reduced over time.
- However, simple measures indicate sizeable inequality gaps by region, residence & SES.

- Karamoja region continues to perform poorly overall in most of the indicators.

- Largest gaps in coverage of interventions are observed by SES (40% gap between richest and poorest).

CONCLUSION

- Generally, simple measures indicate sizeable inequality gaps by region, residence and socioeconomic status/wealth.

However, inequalities in Uganda have generally reduced over time.

- Largest gaps in coverage of interventions are observed by SES (40% gap between richest and poorest).
- Despite progress, important inequalities persist and need to be addressed to achieve the Sustainable Development Goal of "*Leaving no one behind".*

RECOMMENDATIONS

- **Develop a national policy and strategy for urban health care delivery with special attention for the urban poor or slum dwellers.**
  - This will require designing an Urban Primary Health Care strategy that addresses the urban context.
- **We need to target the poor**

- **Uganda should strengthen implementation of comprehensive preventive and clinical services.**
  - The current low under five mortality yet high maternal and neonatal deaths calls for a good PHC system with an integrated high quality referral system

RECOMMENDATIONS

- **Embed a strong learning element in implementation of national health programs**
  - Need to understand the drivers for the progress or lack of it, and why regional performance varies
  - Pursue continued collaboration for tracking health inequities
  - Embedded implementation research and periodic health equity analyses carried out jointly by MOH and academic institutions.
    - Could lead to improved dialogue and action between academic, policy, and budgetary realms that capitalize on Uganda's own existing expertise.

ACKNOWLEDGEMENTS

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