



KENYA

REPUBLIC OF KENYA



MINISTRY OF HEALTH



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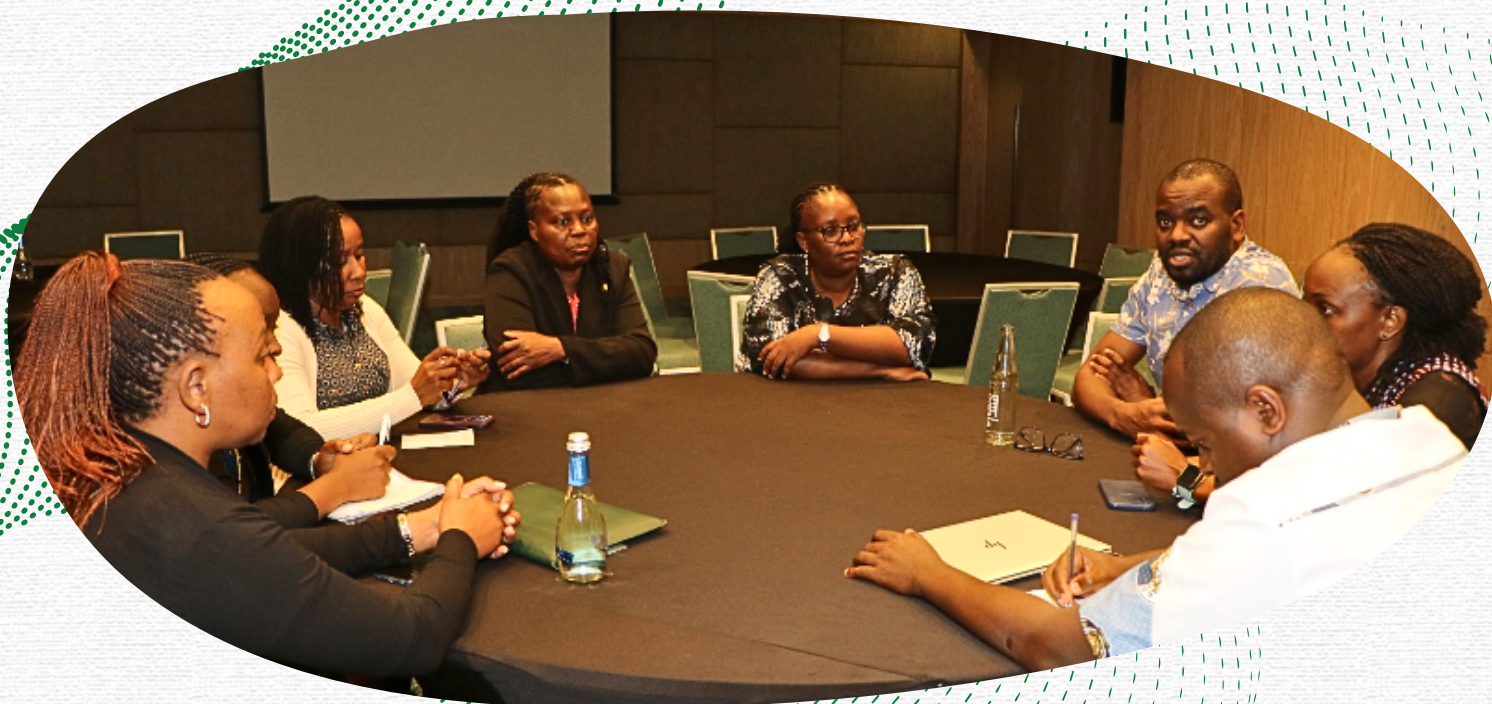
African Population and
Health Research Center



Countdown to 2030
Women's Children's & Adolescent's Health

Analysis of reproductive, maternal, newborn, child and adolescent health indicators

2019-2023



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General Introduction



This Chartbook summarizes the results for key indicators of reproductive, maternal, newborn, child and adolescent health (RMNCAH) that were produced by the country team at a Countdown analysis workshop in Kigali, April 22-26, 2024. The analysis is based on routine district health facility data for 2019-2023, recent national surveys, health system data and global estimates, much attention is paid to data quality.

This Chartbook describes and interprets the results, which should be a critical input for the monitoring of country RMNCAH and health sector plans .

For each of the sections there are selected graphs and tables on key indicators with interpretations made by the country team during the workshop.

1 Facility data quality assessment: numerators

BACKGROUND:

Routinely reported health facility data are an important data source for health indicators. The data are reported by health facilities on events such as immunizations given, or live births attended. As with any data, quality is an issue. Data are checked to consider completeness of reporting by health facilities, identify extreme outliers and internal consistency.

Table 1: Summary of data quality for reported health facility data						
Data quality metrics		2019	2020	2021	2022	2023
1	Completeness of monthly facility reporting (mean of ANC, delivery, immunization, OPD)					
1a	% of expected monthly facility reports (national)	81	81	82	82	82
1b	% of districts with completeness of facility reporting >= 90%	66	74	80	76	78
1c	% of districts with no missing values for the 4 forms	78.77	86.78	89.64	88.42	88.58
2	Extreme outliers (mean of ANC, delivery, immunization, OPD)					
2a	% of monthly values that are not extreme outliers (national)	98.89	98.51	98.23	98.85	95.91
2b	% of districts with no extreme outliers in the year	92.78	89.82	90.88	94.76	89.59
3	Consistency of annual reporting					
3a	ANC1 to penta1 ratio in the reported data (national)	1.03	1.11	1.08	1.06	1.06
3b	Penta1 to penta3 ratio in the reported data (national)	1.06	1.05	1.07	1.04	1.04
3c	% of districts with ANC1-penta1 ratio in expected range	70.2	95.7	91.5	87.2	85.1
3d	% of districts with penta1-penta3 ratio in expected range	93.6	89.4	97.9	87.2	93.6
4	Annual data quality score (mean 1a, 1b, 2a,2b, 3c,3d)					
		83.03	87.89	90.02	87.78	87.54
Scoring Range		0<=40%	41<=80%	81<=100%		

Completeness of monthly facility reporting

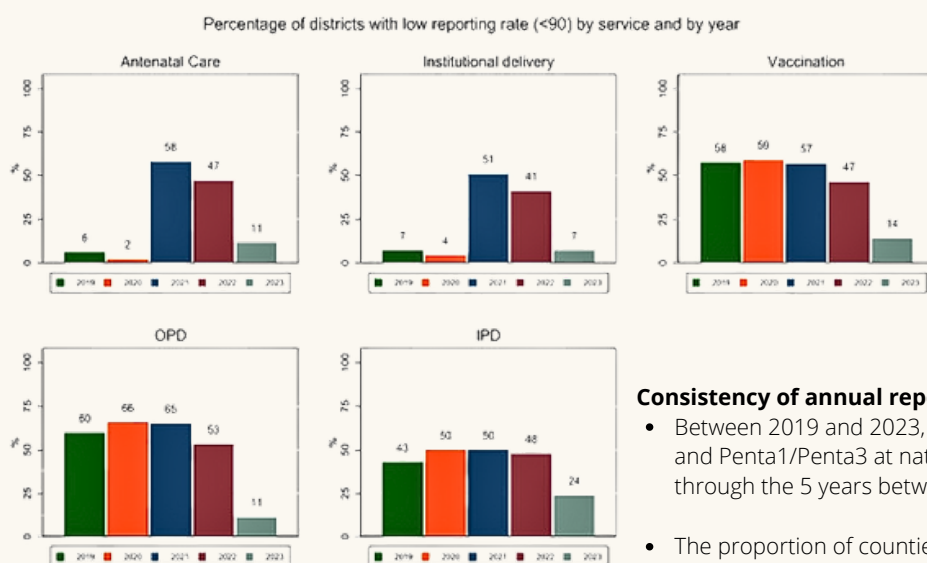
- Completeness of reporting Nationally, there was an upward trend in the overall quality score from 83.03 in 2019 to 90.02 in 2021 with a slight decline noted in 2022 and 2023 to 87.78 and 87.54% respectively
- Overall, between 2019 and 2023, there was a steady increase in the number of counties with completeness of facility reporting of $\geq 90\%$ from 66% in 2019 to more than three quarters of counties reporting completeness of more than 90% between 2020 and 2023. Completeness of reporting was however below 80% for most years.
- There was a progressive increase in the trend of counties with no missing values for the 4 forms from 78.8% in 2019 to 89.6 in 2021 and a slight decline in 2023 to 88.6.

Extreme outliers

- Overall, the national performance for monthly values that were not extreme outliers was good with a performance of between 98.9% and 95.9%. Between 2019 and 2023, there have been fluctuations in the percentage of counties without extreme outliers; in 2022, every nine in ten counties (94.8%) did not have outliers compared to 92.78%;89.92,90.88 and 85.6% of counties in 2019,2020,2021 and 2023 respectively.

Consistency of annual reporting

- Between 2019 and 2023, the consistency of the reported data for ANC1/Penta1 and Penta1/Penta3 at national level was good with all the reported values through the 5 years between the accepted range of 1.05 and 1.10
- The proportion of counties with ANC1/Penta1 ratio in the expected range was low in 2019 at 70.2% but this has increased to over 85% in subsequent years.
- The proportion of counties with Penta1/Penta3 ratio within the expected range was generally high through the five years; although there have been fluctuations, at least 8 in 10 counties have reported a ratio within the expected range in that period



Low reporting rate (<90)

Figure 1a: Percentage of districts with low reporting rate (<90%) by service and year

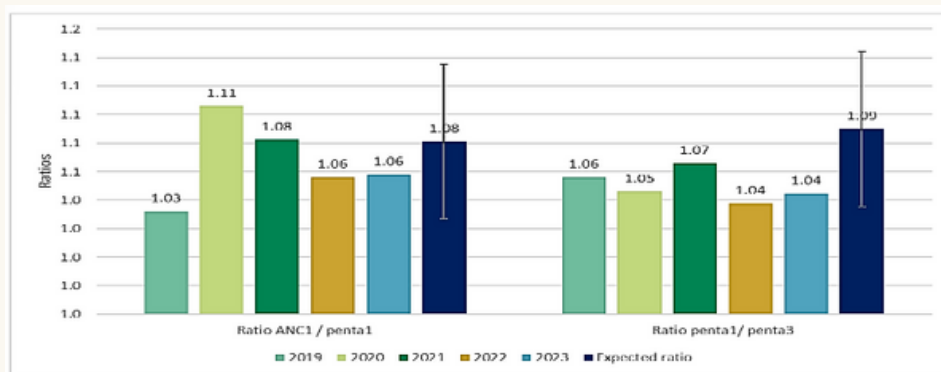


Figure 1b: Ratio of number of facility reported ANC1 to penta1, and penta1 to penta3, compared to expected ratios

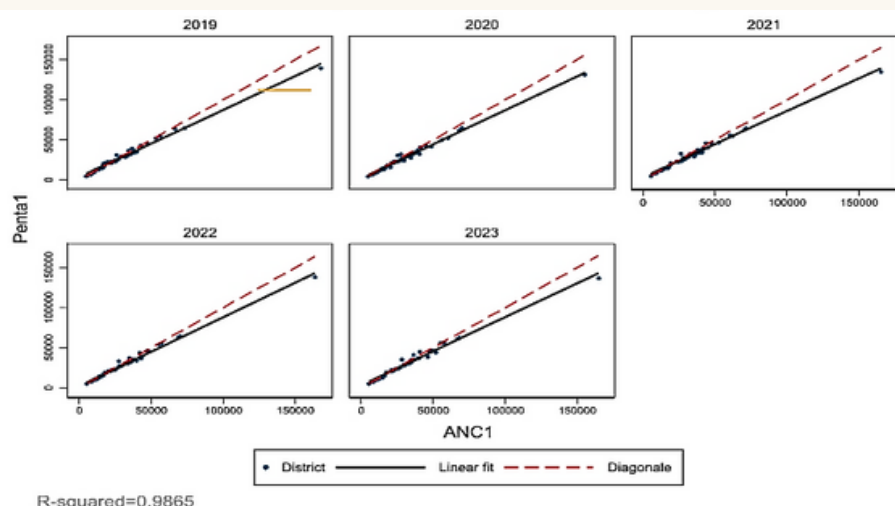


Figure 1c: Comparison of numbers of ANC1 And penta1 reported by health facility by year.

Health facility data adjustment: numerators

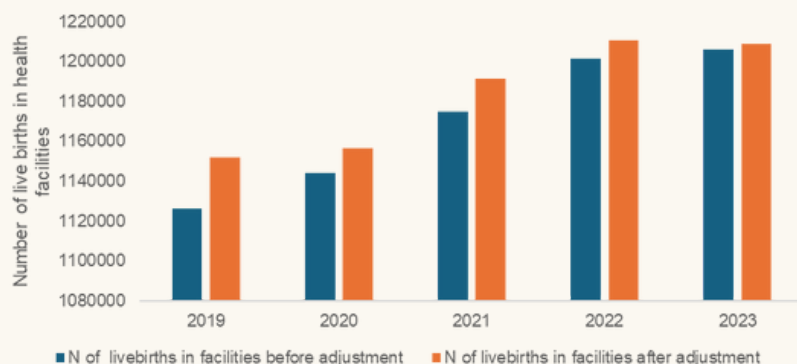


Figure 1c: Comparison of number of live births before and after adjustment for completeness and outliers

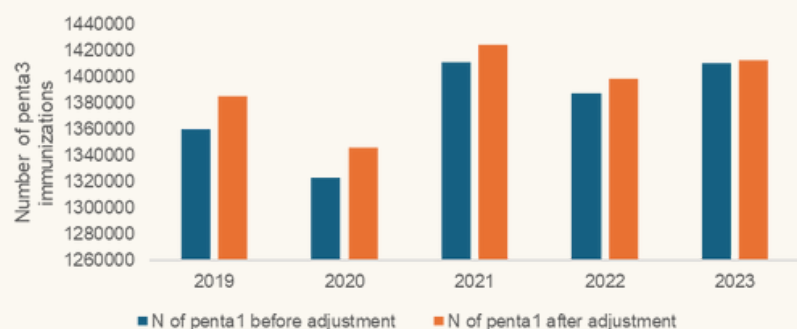


Figure 1d: Comparison of penta1 vaccinations before and after adjustment for completeness and outliers

Consistency of annual reporting ANC1/Penta1 & Penta1 /Penta3

- The reported data for ANC1/Penta1 was consistent through the five years with all reported values being within the ± 0.05 of the expected ratio of 1.08.
- No value was outside the error range for ANC1/Penta1
- The reported data for Penta1/Penta3 was consistent through the five years with all reported values being within the ± 0.05 of the expected ratio of 1.09
- No value was outside the error range for Penta1/Penta3

BACKGROUND:

Completeness of reporting affects analysis, especially if it is low or varies between years. Extreme outliers can have a large impact, especially on subnational numbers. Several steps are necessary to obtain a clean data set for annual analysis, including adjusting for incomplete reporting and correcting for extreme outliers. These graphs show the impact on the numbers.

Effect of adjustment on live births in health facilities

- A default value of $K=0.25$ was used in adjustment this means the reporting rates were $> 75\%$ and $< 100\%$.

After adjustment :

- 2023 sees a difference of 7,728 live births which is 0.6% increase.
- 2019 has the greatest impact with a difference of 25,797 which is 2.2%

Effect of adjustment on Penta 1

- A default value of $K=0.25$ was used in adjustment this means the reporting rates were $> 75\%$ and $< 100\%$.
- A similar trend is recorded in 2023 where penta 1 vaccinations is increased with a difference of 2,075 (0.1%)
- 2019 has the greatest impact with 25,508 at 1.9% increase.

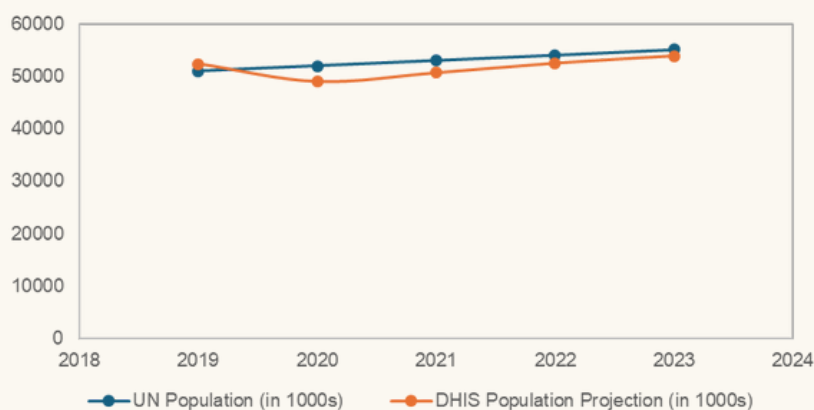


Figure 2a: Annual population, DHIS2 and UN

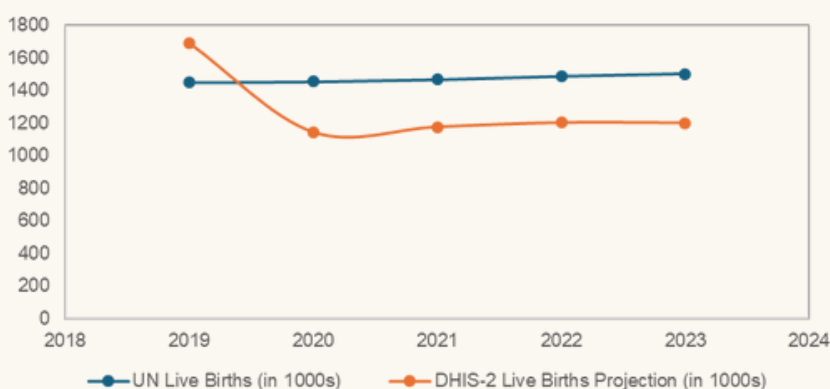


Figure 2b: Live births, DHIS2 and UN

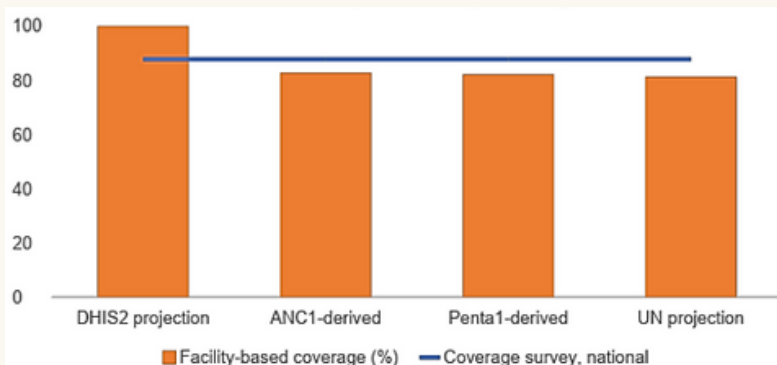


Fig 2c: Institutional birth coverage, DHIS2-based with different denominators, and survey coverage

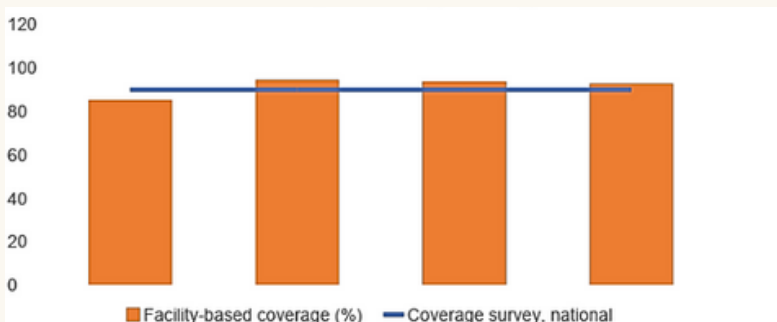


Fig 2d: Penta3 coverage, DHIS2-based with different denominators, and survey coverage

BACKGROUND:

Service coverage is defined as the population who received the service divided by the population who need the services: the denominator. The quality of the population projections in DHIS2 is assessed through consistency over time and comparison with the UN projections.

National DHIS2 denominator assessment

Total population estimates:

- DHIS2 total population estimates have been slightly lower than the UN estimates and consistent over time with an annual population growth rate of 2%.

Total live births:

- DHIS2 estimates for the total live births have been consistent from 2020 to 2023 though 2019 data was totally different probably attributed to the 2019 Kenya Population Census.
- However, the projections for 2020 to 2023 are lower than the UN estimates

BACKGROUND:

Service coverage is defined as the population who received the service divided by the population who need the services: the denominator. The quality of the population projections in DHIS2 is assessed through consistency over time and comparison with the UN projections.

The denominator methods that performed best at the national level for the two indicators are as below;

- Institutional live birth coverage: ANC1 and Penta1 derived denominator
- Penta 3 Coverage: ANC1 and Penta1 derived denominator

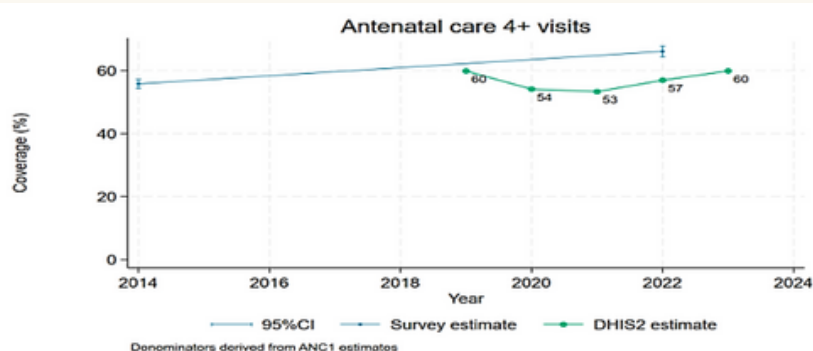
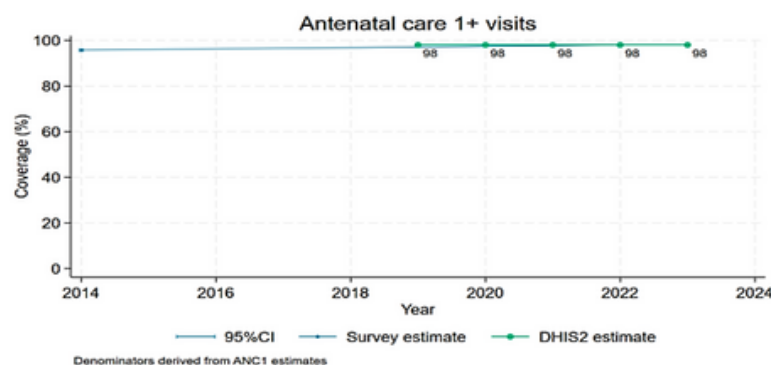
The denominator that performed best at the subnational level for the two indicators are as below;

- Institutional live birth coverage: the ANC1 derived denominator
- Penta 3 Coverage: Penta 1 derived denominator

The indicators selected in the coverage analyses are;

- For Institutional live birth coverage indicators, the ANC 1 derived denominator was used.
- For Immunization indicators, the Penta 1 derived indicator was used.

National coverage trends: Antenatal Care



Figures 3a and 3b: Coverage trends in selected antenatal Care indicators

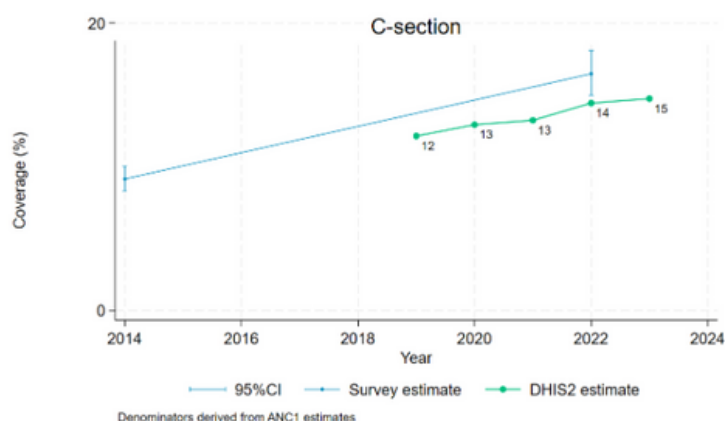
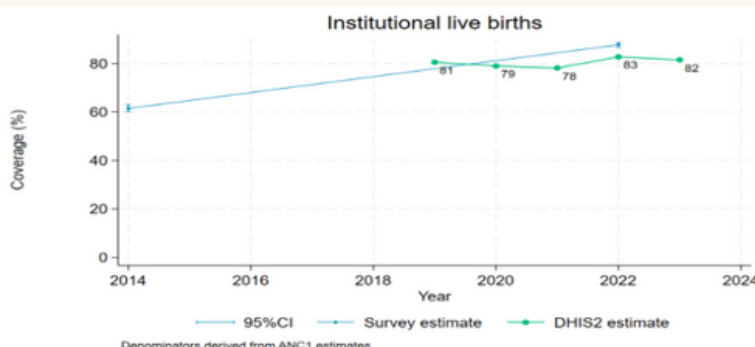
BACKGROUND:

Monitoring the coverage of interventions is a critical and direct output of health systems. It is most useful if the national plan has meaningful targets. Both health facility and survey data need to be used.

National Coverage Data quality -ANC 1

- Good concordance/consistency between facility and survey data for ANC 1
- ANC 4 showed significant discordance based on the two data sources, with DHIS having much lower performance
- The country had a yearly target of 100% for ANC1 for the planning cycle 2018-2023 ;
- ANC1 coverage based on survey data increased from 95% to 98% between 2014 and 2022 while the performance per the KHIS was stagnant over the 5 years at 98%; the two are quite comparable.
- ANC4 coverage trends from the two data sources were inconsistent
- ANC4 targets between 2018/19 to 2022/23 were 51%;53%;55%;57% and 59% respectively in the Kenya Health Sector Strategic Plan 2018-2023 with performance reported on KDHS similar to the upward positive trend increasing from 55 in 2014 to 66% in 2022. However, ANC4 based on KHIS is not consistent, dropped from 80% in 2019 to 54% in 2020 then rose gradually to 60% in 2023.

National coverage trends: delivery care

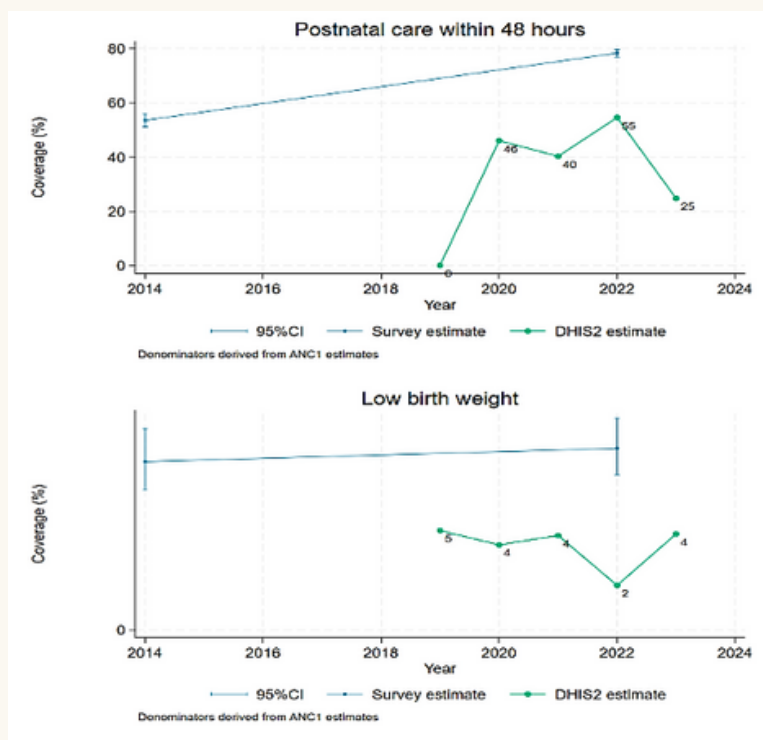


Figures 3c and 3d: Coverage trends in selected delivery care indicators

Data quality & Trends- Institutional live births & C-Section

- The levels and trends for institutional births from 2019 to 2022 were good, as the performance across the two data sources was close. There was good consistency between the facility data(83%) and survey data (87.8%) in 2022 considering the survey was population-based.
- The levels and trends for C-section rate among all live births from 2019 to 2022 were good, as the differences were small . There was good consistency between the facility data(18) and survey data (16.5) in 2022 considering the survey was population-based
- For institutional live births, the target for the planning cycle 2018-2023 was more than 90%; with the performance of both sources (Survey and DHIS2) are quite close to the target at 83% for KHIS and 87.8% for survey data. This is largely attributed to the free maternity services under the Linda Mama Program
- The C-Section targets between 2018/19 to 2022/23 was from 14.5% to 15%. The KDHS performance for 2022 was 18, coverage above the target of 15 and above the WHO recommended rate. The performance as per the KHIS data varied from 10 in 2019 to 18 in 2023, a performance above the national targets.
- The performance for CS section rate through the period was consistent through the 5 years against the two data sources; both reporting an upward trend although way above the targets.

3 National coverage trends: postnatal care and low birth weight

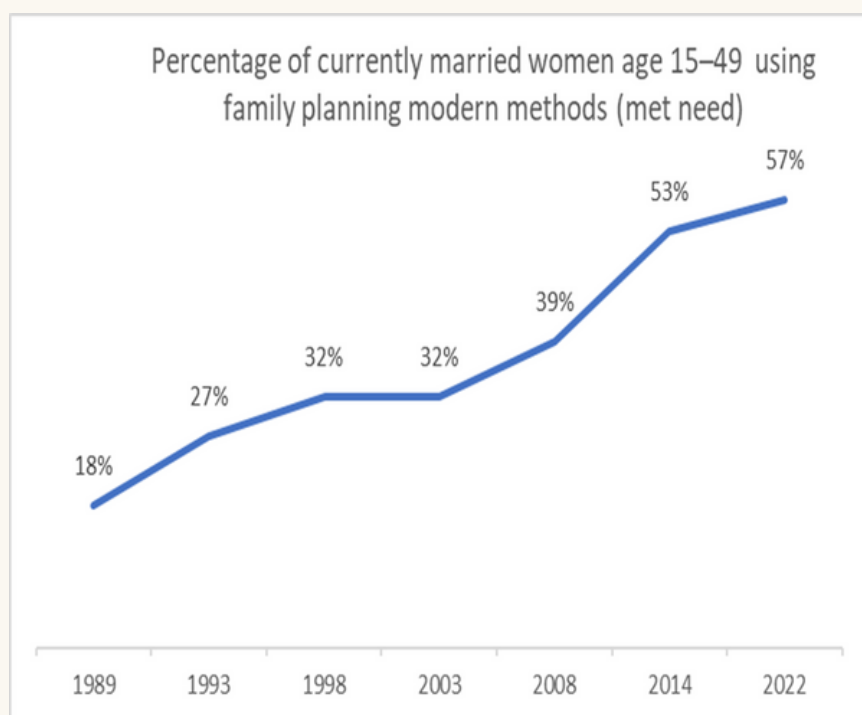


Figures 3e and 3f: Coverage trends in postnatal care, and percent of newborns with low birthweight

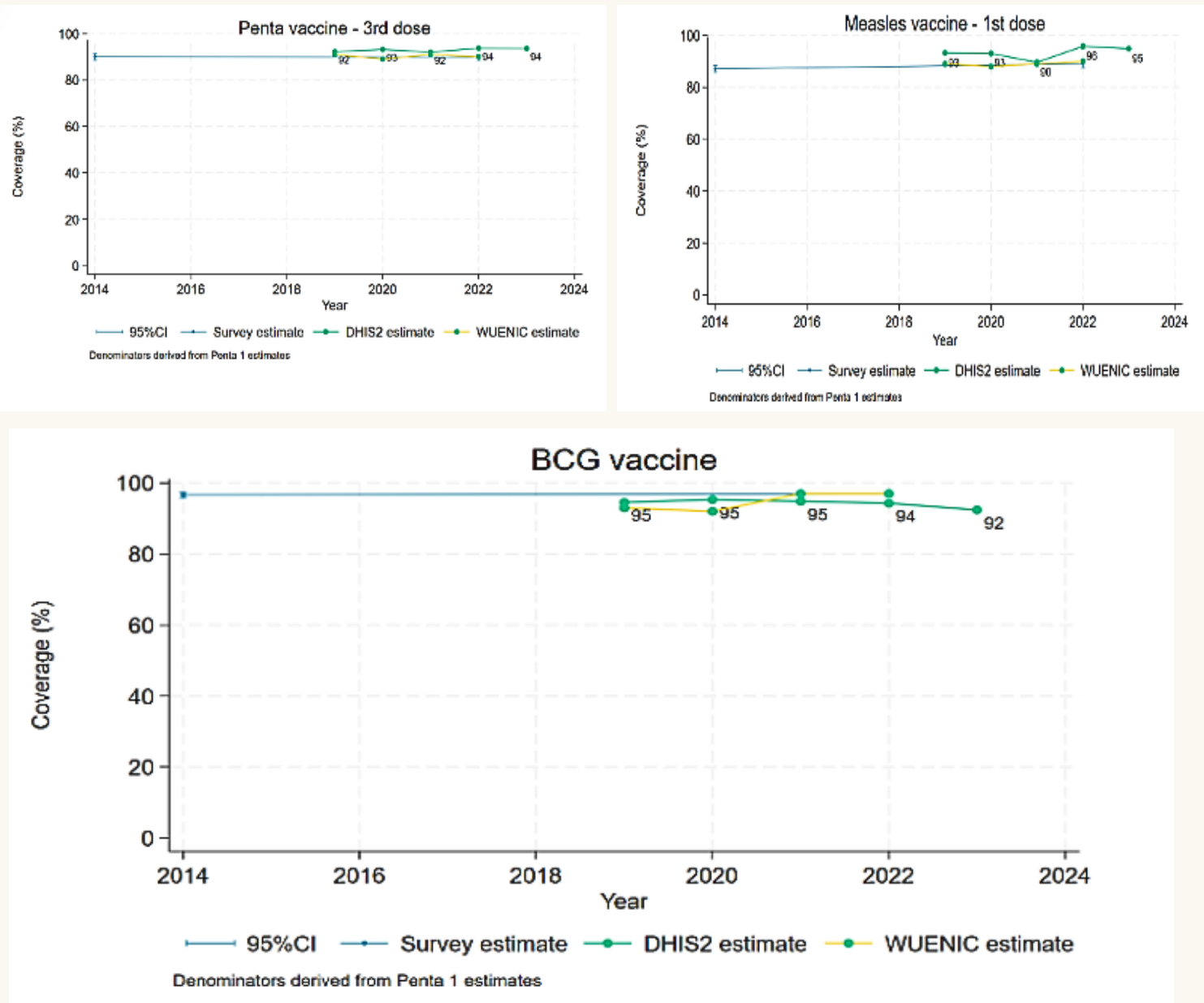
FACILITY VS SURVEY DATA: Quality & Trends of PNC & Low Birth-weight

- The trend on postnatal care based on facility data between 2019 (0.1) and 2020 (44.8) was not plausible and there is no consistency between facility and survey data.
- There is likely due to under-reporting of postnatal care attendance among women who deliver in facilities within the facility data. Hence survey data may be more reliable.
- The level of performance from survey data is good and aligns well with high level of institutional deliveries.
- The performance for low birth weight from survey data was inconsistent with the KHIS estimates.
- Targets for the same period envisioned a decline from 5 in 2018 to 3 in 2023. Performance-based on KDHS was higher than these targets.
- The erratic performance for the indicator on postnatal care within 48 hours can be explained as a data quality issue since the tools were introduced to the facilities in 2020; previously it was collected as a survey indicator hence the consistency for the KDHS data.
- The two indicators target different populations with KDHS targeting children born within 2 years of the survey while KHIS targets newborns hence performance across the two indicators are not comparable.

3 National Coverage Trends-Family Planning



- As per the KDHS, the use of modern family planning methods by married women 15-49 years (met need) has increased over time from 18% in 1989 to 57% in 2022.
- This coverage for family planning is consistent with routine data that also depicts an increase in demand for family planning commodities among women of reproductive age; a proxy for use of modern family planning commodities.



Figures 3g and 3h: Coverage trends in selected child immunization indicators

Consistency Between the Facility and Survey Data

- The trends of Penta 3 vaccine based on the three data sources was consistent and exhibited very minimal variations through the 5 year period;
- Similarly consistency noted for first dose of the measles vaccine and BCG vaccine across all the data sources
- The performance for Penta 3 is consistent with the expected performance based on set targets that ranged from 80% in 2019 to 95% in 2023;
- The performance for BCG was also consistent with current performance where the coverage increased for the first three years then a slight decrease in 2022 and 2023; very similar performance to that seen for skilled birth attendance.

	Hospitals	Lower-level facilities	Total	Public	Private
Volume of (live) births by type of health facility (DHIS2, 2022)					
Median number of (live) births (2022)	482.00	25.00	34.00	33.00	67.00
% of facilities with 1-100 (live) births per year	16.59	77.03	69.15	71.12	61.15
% of facilities with any C-sections	0.73	0.13	0.21	0.30	11.52
% of facilities with 1-49 C-section per year	20.00	83.33	54.55	54.55	21.43

Table 3e: Key characteristics of delivery care by place of delivery, and volume of births by facility in 2022

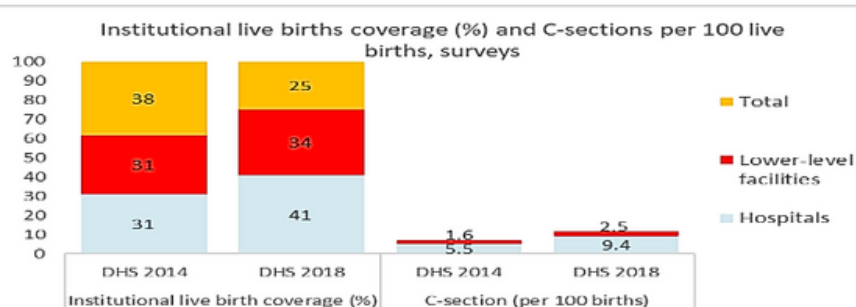


Figure x: Proportion of births by place of delivery... (DHS/MICS)

BACKGROUND:

Monitoring the coverage of interventions is a critical and direct output of health systems. It is most useful if the national plan has meaningful targets. Both health facility and survey data need to be used.

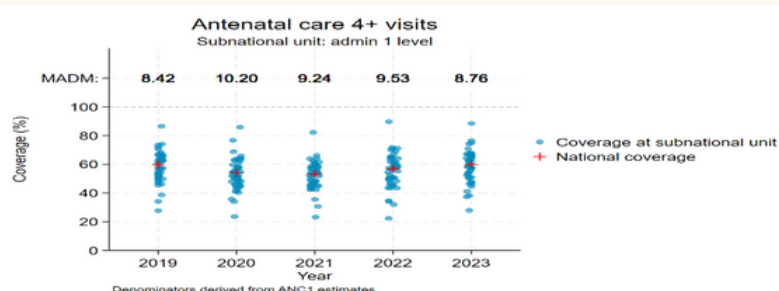


Figure 4a: Regional coverage distribution: Institutional deliveries by admin1

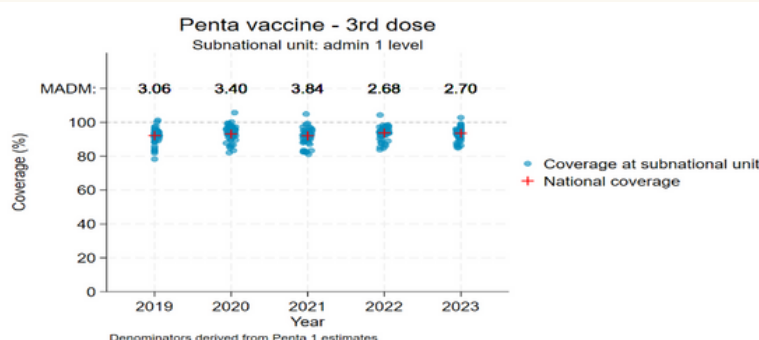


Figure 4b: Regional coverage distribution: Penta3 coverage by admin1

BACKGROUND:

Monitoring the coverage of interventions is a critical and direct output of health systems. It is most useful if the national plan has meaningful targets. Both health facility and survey data need to be used. Data on whether deliveries increased more at hospitals or lower-level facilities and in the public or private sector can be used to inform MNH service delivery strategies in the context of the SDG 2030 targets for maternal mortality, stillbirth and neonatal mortality.

National coverage trends

- The institutional live birth coverage and C-sections per KDHS increased between 2014 and 2022 with a significant increase seen in hospitals; and a slight increase in lower-level facilities
- The results from KHIS are inconsistent with expected trends for the proportion of facilities with 1-100 births per year
- A higher proportion of live births happens in hospitals. Similarly, very few lower-level facilities provide cesarean sections. These results are contrary to the expectation.

Subnational coverage trends: delivery care and penta3 coverage

- For ANC4 coverage, the national coverage has been between 40-60% with most regions concentrated around the same through the years; several counties, however, still appear as outliers over the same period
- For Penta 3, the national coverage was consistent over the 5 years at 85% with most regions concentrated around the same coverage through the period
- The country has registered consistently high results for Penta 3 coverage with the majority of the counties having over 90% coverage in 2023 compared to 2019 where a good number of counties had less than 80% coverage an indication of progressive achievement of the global target of over 90%
- For ANC4, through the 5 years, there has been slow progress in the achievement of the global target of more than 70%; in addition, the inequities across the counties are also significant with some counties having ANC4 coverage of less than 40% and others with coverage of more than 80% with little improvement over the years

Equity- subnational coverage: assessment of percent of regions that have reached international targets

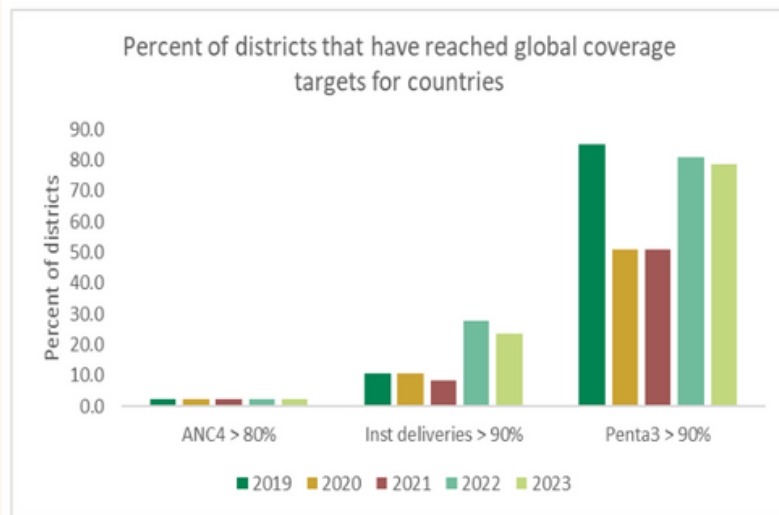


Figure 4a: Institutional deliveries, district target achieved

Subnational coverage: assessment of percent of regions

- Good data quality: Levels and trends are consistent with the country's data across the three indicators
- Majority of the counties have reached the global coverage targets for Penta 3 in 2019, 2022 and 2023. In 2020 and 2021, only about half of the counties reached the global target; this decline in performance can be attributed to COVID 19
- In regard to ANC4, progress towards achieving the global target has been slow with only about 5% of counties achieving the target through the five years
- Varied performance observed for skilled deliveries; earlier in the period, 9 out of 10 Counties did not achieve the target but an increase has been seen through the years with almost 20% of counties achieving targets in 2022 and 2023
- For ANC4, still a large proportion of counties are still registering poor performance, and this is consistent with country performance; almost half of counties report ANC coverage of between 22-50% greatly affecting overall performance
- Although skilled deliveries have progressively increased, the country continues to record a performance below target with only 8% of counties meeting the more than 90% target in 2023

Equity - wealth quintiles and female education from survey data

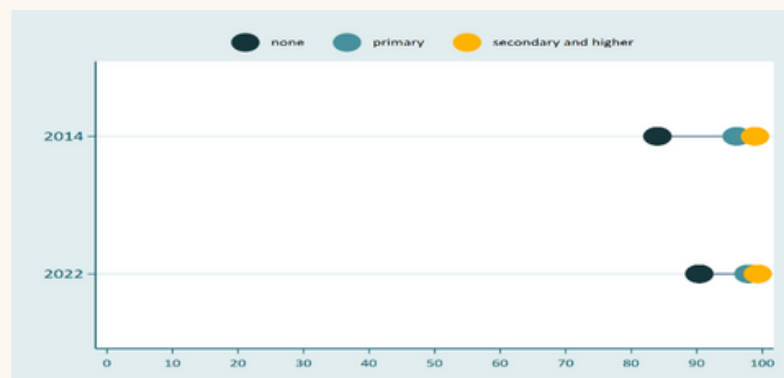


Figure 4g: Equiplot of the Composite Coverage Index (CCI) by wealth, recent surveys

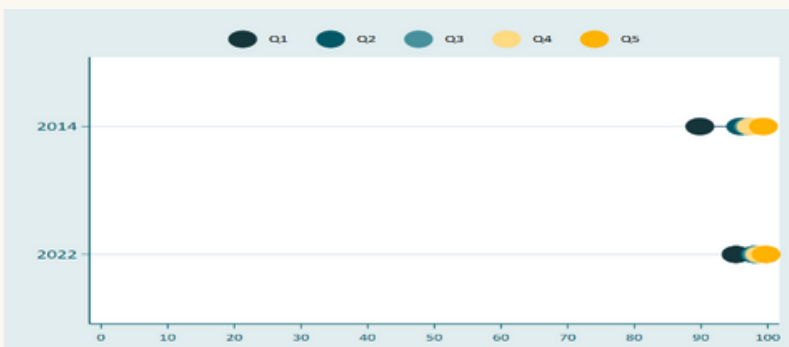


Figure 4h: Equiplot of the CCI by level of education of the mother, recent surveys

BACKGROUND

Household surveys provide critical information on inequalities. The focus is on two major dimensions of inequality: household wealth quintile and education of the mother. Equiplots are used to assess whether the country has made progress since 2010 in reducing the poor rich gap or the gap between women with no education or low education and women with higher education.

Interpretations

- The Countdown Composite Coverage Index (CCI) is used to provide a broad overview of inequalities. The CCI combines 9 indicators in the program areas of family planning, maternal and newborn care, immunization and treatment of sick children.
- Wealth: are the gaps between the rich and poor large, have they changed over time? What pattern of inequality (bottom, linear, top)?
- Education: are the gaps in coverage by mother's education large, have they changed over time? How should this be interpreted in relation to increasing levels of female education?
- Inequity in the CCI coverage between educated mothers and those with no education reduced by around 10% between 2014 and 2022. In addition, among the educated mothers, the inequity has declined slightly between the two periods with 2022 having almost no difference in CI coverage between mothers with primary and secondary/higher education.
- Inequity in CCI coverage between rich and poor reduced by around 3% between 2014 and 2022, with the 2022 showing almost no difference in CI coverage based on socioeconomic status.

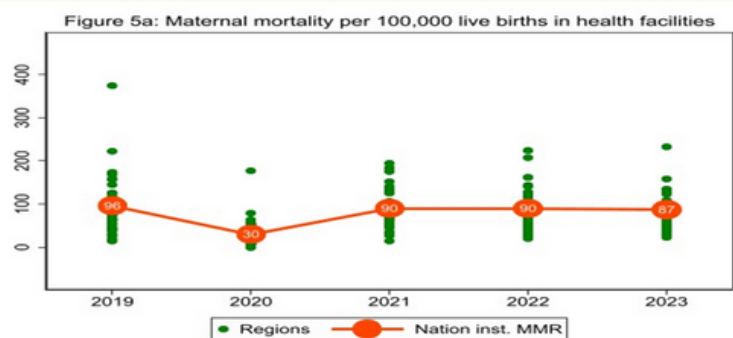


Figure 5a: Maternal mortality per 100,000 live births in health facilities, based on the reported data in DHIS2, 2019-2023, national (red line) and regions (blue dots)

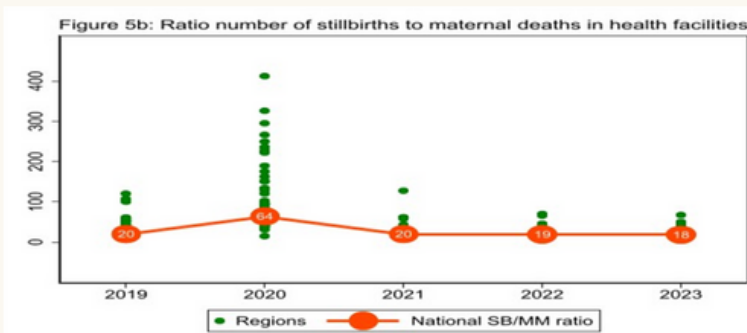


Figure 5b: Ratio of stillbirths to maternal deaths in health facilities, based on the reported data in DHIS2, 2019-2023, national (red line) and regions (blue dots)

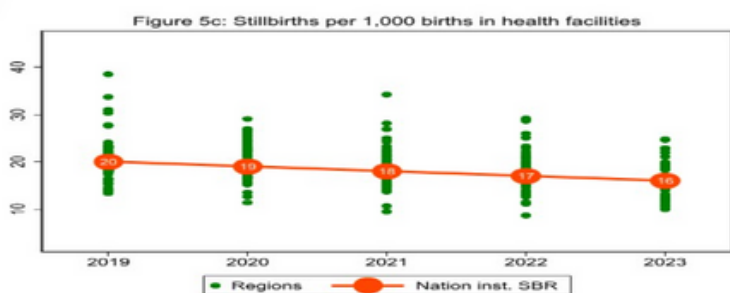


Figure 5c: Stillbirths per 1,000 births in health facilities, based on the reported data in DHIS2, 2019-2023, national (red line) and regions (blue dots)

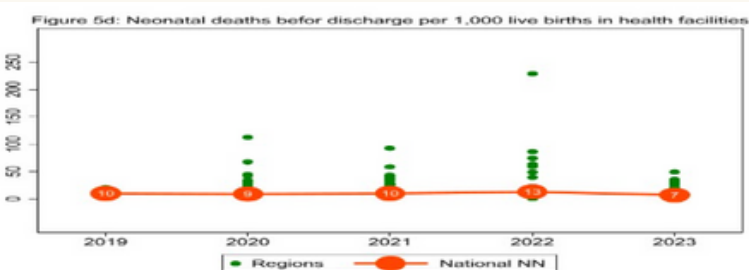


Figure 5d: Neonatal mortality before discharge per 1,000 live births in health facilities, based on the reported data in DHIS2, 2019-2023, national (red line) and regions (blue dots)

BACKGROUND

The main challenge with mortality data from health facilities is underreporting of deaths. Deaths may not be recorded in the maternity register, or not reported. Also, maternal deaths in other hospital wards are more likely to be missed, e.g., deaths associated with abortion or sepsis. The main aim is to estimate the level of underreporting in DHIS2 or MPDSR.

Maternal mortality

- Other than in 2020, the National level iMMR has been consistent from 2019 to 2021
- The low national iMMR in 2020 is most likely due to underreporting during the COVID period
- At subnational level, there has been variation of iMMR where a few counties have iMMR above the national estimates across the 5-year period; these are mostly counties in the ASAL regions who still experience high maternal deaths
- Other Counties have iMMRs way below the national average which can be attributed to underreporting or because of policies and interventions that have resulted in a decrease in maternal deaths in facilities
- 42% (20 counties) had low MMR (less than 25/100,000 live births), majority most likely due to underreporting e.g Garissa, Mandera, while others like Kiambu were plausible.
- The ratio of stillbirth to maternal deaths is in the range of 14-33 across the 5- year period suggesting that there was underreporting of maternal deaths than of stillbirths; the under reporting could largely be from private facilities due to the fear of repercussions that follow a maternal death
- In 2023, Laikipia County reported 260 still births against 1 maternal death hence the high ratio and in turn increasing the national ratio. In 2021, Nairobi reported 2033 stillbirths against 15 maternal deaths hence the high ratio of 156.
- The reporting for maternal deaths on KHIS has generally been lower with more counties reporting these deaths on the MPDSR system, This makes MPDSR a more reliable source for maternal deaths.

BACKGROUND

The main challenge with health facility data on stillbirths and neonatal deaths is underreporting. We can estimate the level of underreporting of stillbirths based on different assumptions. For neonatal deaths, DHIS2 reporting systems based on labour and delivery ward are limited to neonatal deaths before discharge in the reporting system. Therefore, they are only an indicator of mortality during the first 24-48 hours.

Stillbirth rates in health facilities

- There has been a declining trend of the iSBR across the years with most counties being concentrated around the national estimate and a few having outlier values. There were no counties with low iSBR (less than 6/1000 live births) across the 5-year period.
- The national neonatal mortality before discharge has been consistent from 2019 to 2022 with a slight drop in 2023. The KDHS 2022 neonatal mortality rate was 21 deaths per 1,000 live births meaning that the gap can be due to the community and missed deaths upon discharge from the health facility.

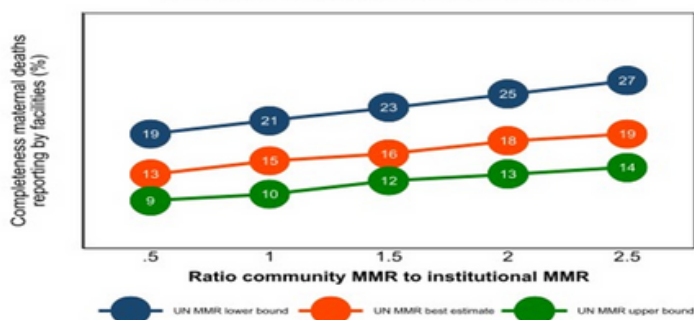


Figure 5e: Completeness of facility maternal death reporting (%), based on UN MMR estimates and community to institutional ratio

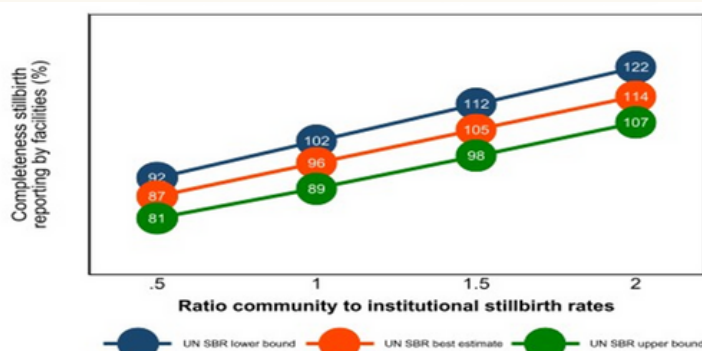


Figure 5f: Completeness of facility stillbirth reporting (%), based on UN stillbirth estimates and community to institutional ratio

BACKGROUND

The main challenge with health facility data on stillbirths and neonatal deaths is underreporting. We can estimate the level of underreporting of stillbirths based on different assumptions: 1) using population mortality estimates from the UN: lower bound, best estimate and upper bound 2) community to institutional mortality ratio: assumptions ranging from half as low to at least 2 times higher community mortality.

Maternal deaths and stillbirths reporting

- The completeness of facility maternal death reporting based on the UN MMR estimates and community to institutional ratio has been increasing over the years with a rate of 2%. This shows consistency since the community to institutional mortality ratio increases as institutional birth rates increases.
- The completeness of facility stillbirth reporting based on the UN stillbirth estimates and community to institutional ratio has been increasing over the years with a rate of 10%. This shows consistency since the community to institutional mortality ratio increases as institutional birth rates increases.

BACKGROUND

There is a major data gap on curative service utilization by children. Health facility data on outpatient (OPD) visits among under-fives are an indicator of access to curative services.

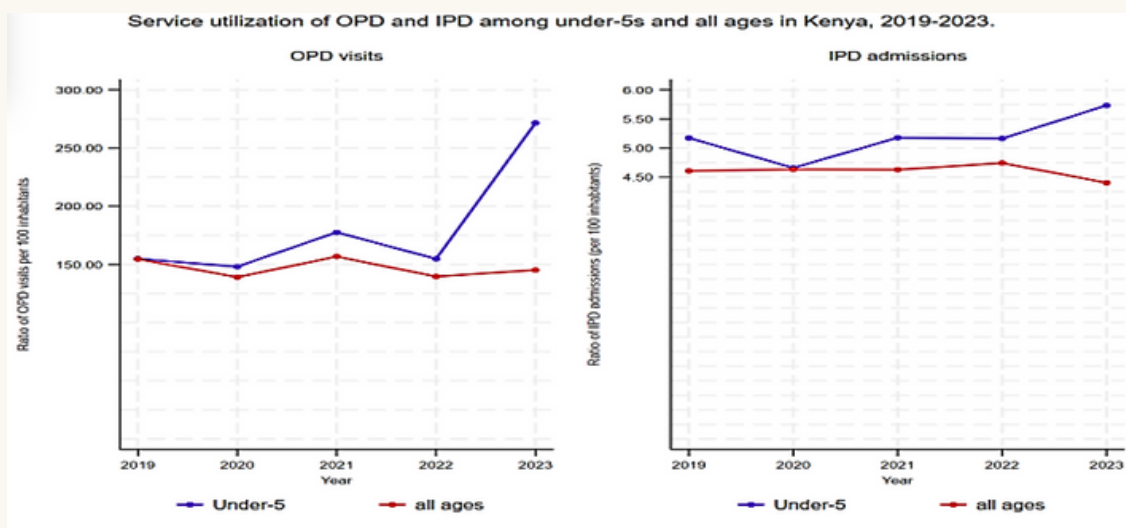


Figure 6a: OPD service use by children and all ages, national, 2019-2023

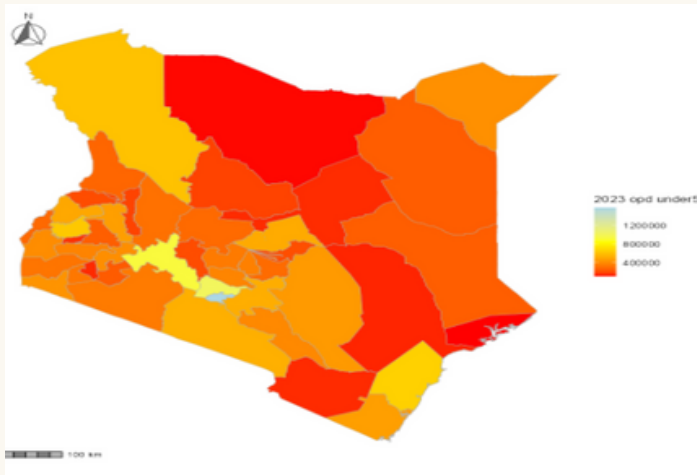


Figure 6b: Map with OPD service use by children, by region 2023

OPD

- The percentage of OPD visits for under-5 and all ages have been consistent (14-23%) over the period and is within the recommended range for data quality. However, the ratio of OPD visits per 100 for under 5 has been fluctuating with a rapid increase in 2023.

- The range of the mean OPD visits per 100 children per year, under-5 between 2019 and 2022 was 148-179 but this rose to 260 in 2023. The proportion of OPD visits for children under 5 fluctuated between 14% and 15% for 4 years then increased sharply to 23% in 2023.
- The OPD visits per child per year vary across the counties with all the counties having more than 1 visit per year per child. This means that access to services is good. Kirinyaga county had the highest attendance at 6 visits while Garissa reported 1 visit per child per year

IPD

- The percentage of IPD visits for all ages have been consistent over the period and is within the recommended range for data quality. However, the ratio of IPD visits per 100 for under 5 has been fluctuating.
- The range of the mean IPD visits per 100 children per year, under-5 between 2019 and 2023 was 13-17, which is within the expected margin.
- The mean number of admission per 100 children under 5 per year during 2019-2022 has been consistent at 5 admissions across the period which increased to 6 in 2023

6

Curative health services: admission and case fatality rates among children under-5

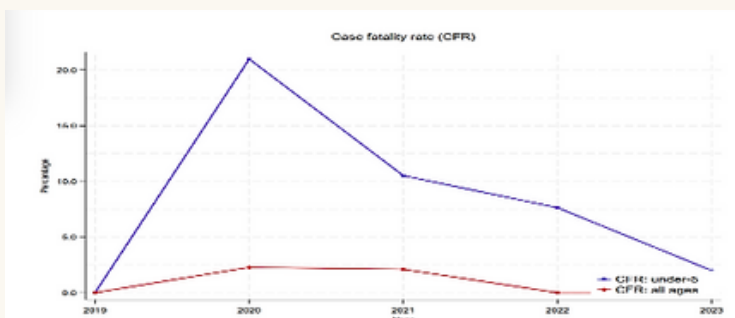


Figure 6c: Admissions per 100 children and case fatality rates per 100 admissions under-5, national, 2019-2023

BACKGROUND

Data on inpatient admissions among under-fives are indicators of access to curative services. In-patient mortality (case fatality rates) is an indicator of quality of care.

Curative health services

- The case fatality rate (CFR) indicator had no data for 2019 (probably a new indicator in KHIS).
- The CFR among under-5 IPD admissions has been declining from 2020, implying that the quality of care in the health facilities are improving.
- The IPD admissions per child per year vary across the counties, with all the counties having 2 or more admissions per child per year, suggesting that access to inpatient services is fairly good.
- Nairobi county had the highest inpatient attendance at 18 admissions, which can be attributed to the high population of under 5-year-olds and the referrals to level 6 public and level 5 private facilities for specialized services.
- Six counties (Mandera, Tana River, Wajir, Narok, Bomet, Marsabit) had an average of 2 admissions per child per year

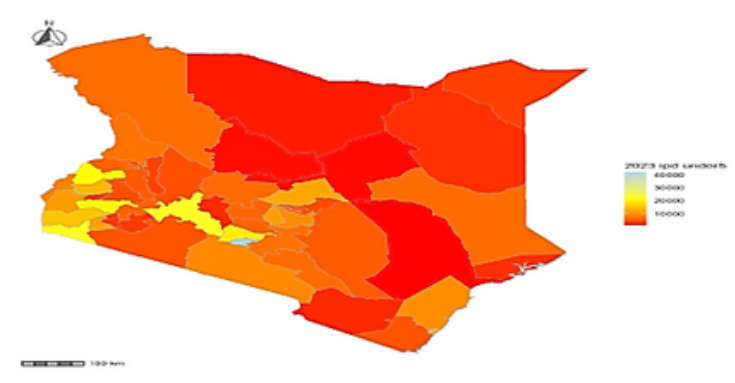


Figure 6d : Admission rates per 100 children under-5, by region, 2023 (map)

BACKGROUND

Subnational analyses of health system inputs and service outputs are critical: districts and regions are key units of the health systems and their service delivery. This includes assessment of system inputs (health workforce, infrastructure) and outputs (use, coverage).

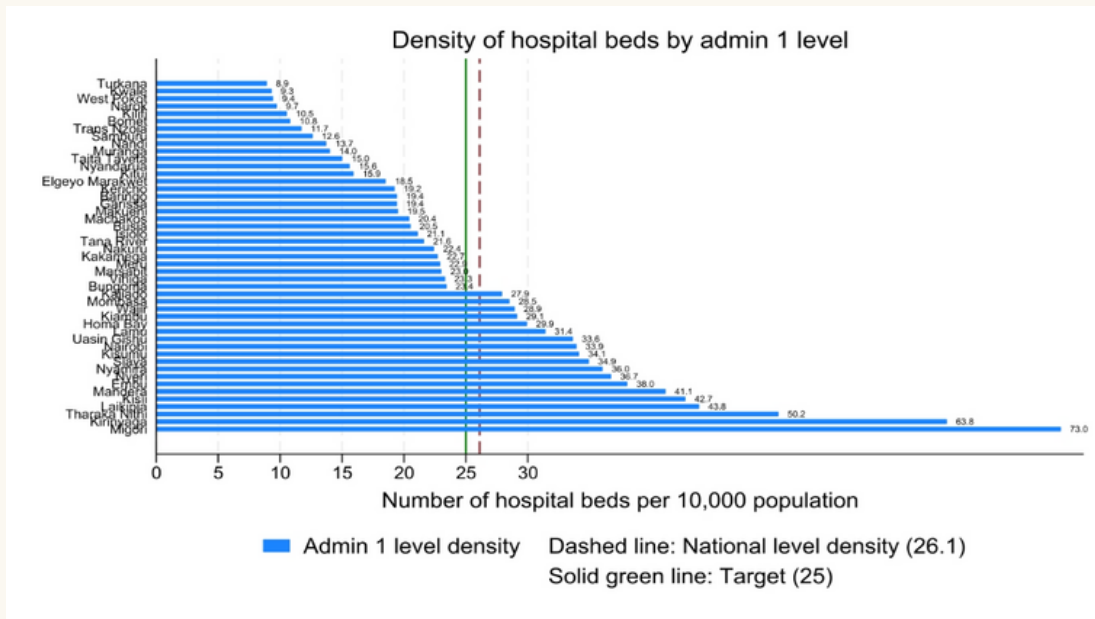


Figure 7a: Number of hospital beds per 10,000 population by region, year

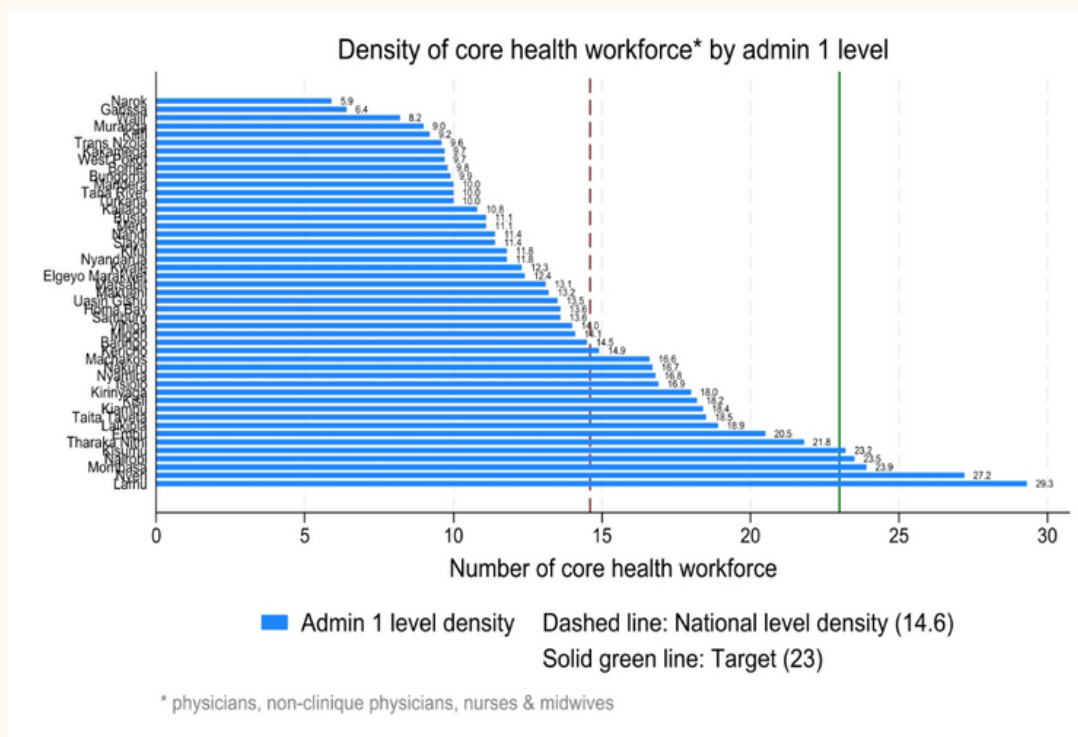


Figure 7b: Number of core health professionals per 10,000 population by year

MAIN FINDINGS

- From the 2023 Kenya health facility census, the national number of hospital beds per 10,000 population is 26. The high density could be due the huge investments made during COVID
- The density for core health workers (doctors, nurses and clinical officers) is 14.6 against a WHO target of 23. This is an increase in core health workers from 8.9 reported in 2021 (HLMA 2021 report)
- An accurate health worker density has presented a challenge in the country due to various factors such as frequent changes in numbers; high attrition, health workers practicing in multiple facilities among others

Figure 7d1 - OPD use among under 5 and health workforce density by admin level 1

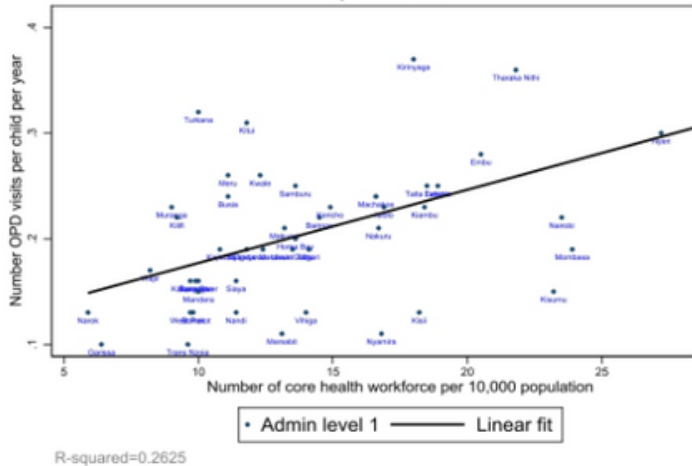


Figure 7d2 - IPD use among under 5 and health bed density by admin level 1

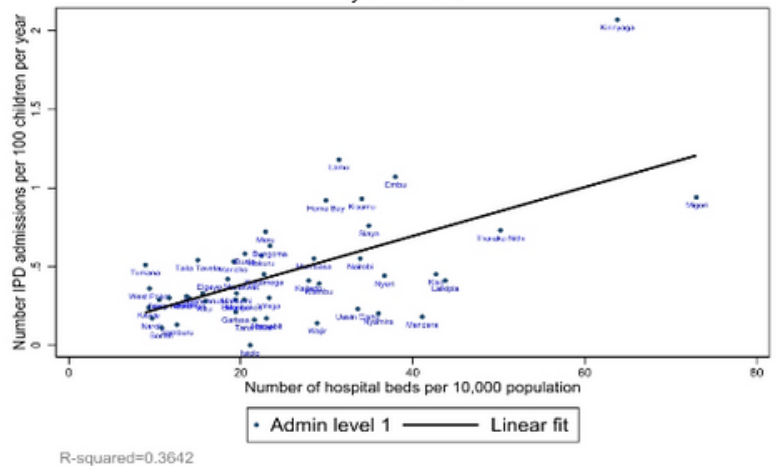


Figure 7c: Scatter plot of service utilization by health system inputs for regions, year (e.g. OPD use among under 5 and health workforce density, or admission rates among under-5 and beds density)

Figure 7e1 - Institutional delivery coverage rate (%) by health workforce density by admin level 1

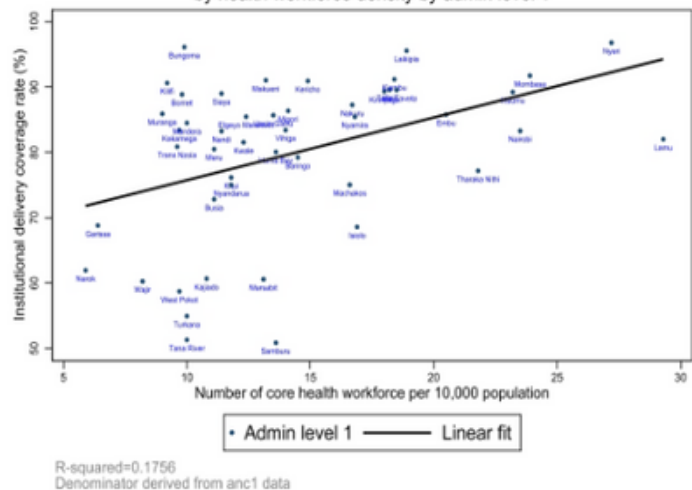


Figure 7e2 - Institutional delivery coverage rate (%) by hospital beds density by admin level 1

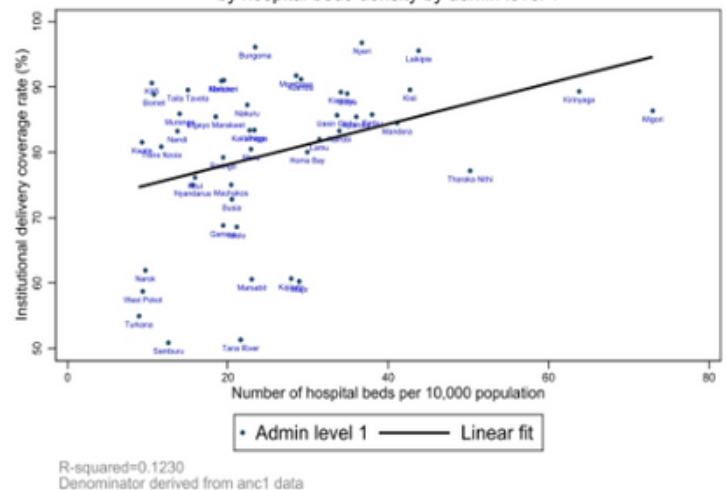


Figure 7d: Scatter plot of service utilization by health system inputs for regions, year (e.g., institutional live birth coverage rate and health workforce density)

MAIN FINDINGS

- There was no correlation between OPD visits and health worker density; with most Counties had no correlation between the two indicators
- There was a slight correlation between inpatient attendance and health worker density for some counties
- Institutional deliveries were not correlated with health worker density, with many Counties having a high rate of Institutional deliveries compared to the density of health workers
- Similarly, institutional deliveries were not correlated with hospital bed density. Most Counties had high institutional deliveries with low HRH density

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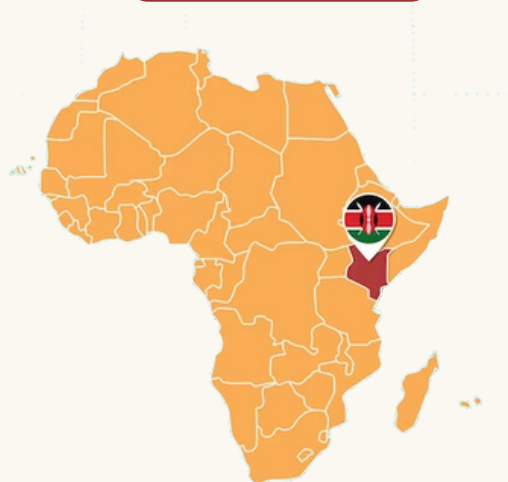
African Population and
Health Research Center



Countdown to 2030
Women's Children's & Adolescent's Health

Analysis of reproductive, maternal, newborn, child and adolescent health indicators

2019-2023



About Countdown 2030

The countdown partnerships in Kenya is led by African Population and Health Research Center (APHRC) and the Kenya Medical Research Institute - Wellcome Trust Research Programme (KWTRP) as the lead research institution for the Kenya initiative.

The partnership aims to enhance the availability of quality evidence through targeted analysis during national and subnational reviews of overall sector progress, as well as performance review of the country RMNCAH+N plan.

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