



2026

SOUTH SUDAN SYNTHESIS REPORT

Analysis of Reproductive, Maternal, Newborn, Child and Adolescent Health Indicators for 2022-2025



Countdown to 2030 in partnership with South Sudan's Ministry of Health, Global Financing Facility, WHO, WAHO & UNICEF

#CAM2026



Team Members

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KEY FINDINGS

1. Health facility data quality assessment: numerators and denominators

NUMERATORS: 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 assessed for completeness of reporting by health facilities, extreme outliers and internal consistency. Appropriate adjustments are made to the data before use to compute statistics.

Summary of reported health facility data quality, DHIS2, 2020-2025

	Data Quality Metrics	2020	2021	2022	2023	2024	2025
1. Completeness of monthly facility reporting (mean of ANC, delivery, immunization)							
1a	% of expected monthly facility reports (national)	62	70	68	72	72	73
1b	% of districts with completeness of facility reporting >= 90	19	25	16	22	23	24
1c	% of districts with no missing values for the 4 forms	40	52	58	61	62	62
2. Extreme outliers (mean of ANC, delivery, immunization)							
2a	% of monthly values that are not extreme outliers (national)	100	100	99	98	99	98
2b	% of districts with no extreme outliers in the year	82	84	82	78	74	70
3. Consistency of annual reporting							
3a	Ratio anc1/penta1	0.77	0.79	0.78	0.74	0.78	0.76
3b	Ratio penta1/penta3	1.21	1.15	1.16	1.14	1.16	1.21
3c	% district with anc1/penta1 in expected ranged	14	20	21	18	19	12
3d	% district with penta1/penta3 in expected ranged	82	89	90	82	91	91
4	Annual data quality score	57	63	62	62	63	62

Interpretations

- % expected monthly reports. Improving from 62 (2020) to 73 (2025) and still short of full reporting.
- Districts with ≥80% completeness. Low and largely flat (19→24%) and most districts do not meet the 80% threshold.
- Districts with no missing values across 4 forms. Low and stagnant (40→62, then flat at 62 in 2024–2025) and data gaps persist widely.
- Monthly values not extreme outliers. Very high and stable (100→98) and nationally, the data are mostly free of extreme anomalies.
- Districts within expected range for anc1/penta1. Very low but improving (14→22→12 in 2025) and most districts fall outside expected consistency.

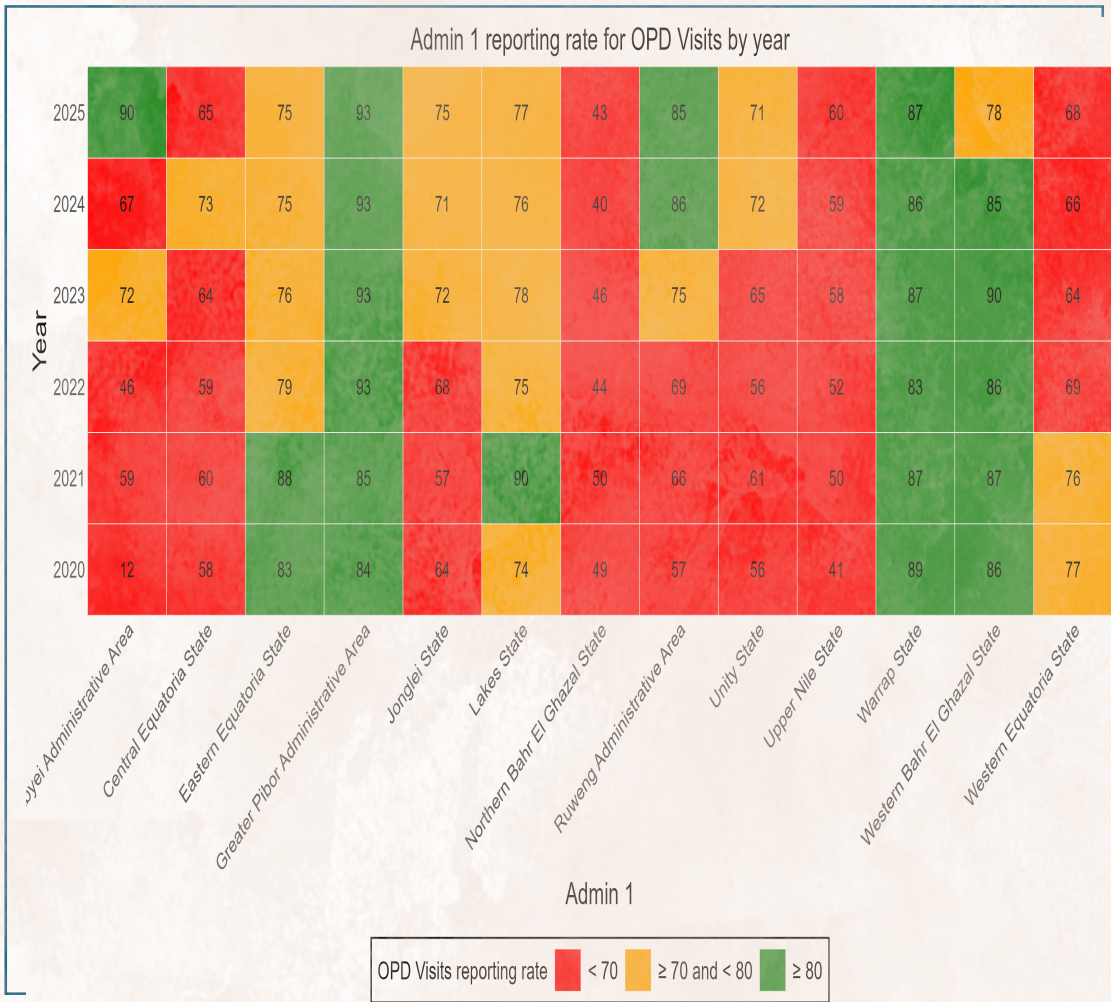
Reporting rates across states

Significant Improvements

- Greater Pibor Administrative Area and Abyei Administrative Area show strong progress, maintaining green zones (≥80%) from 2021 onward — clear evidence of sustained improvement in reporting completeness
- Western Bahr El Ghazal and Warrap States consistently perform well, staying in the green range across all years, indicating stable and reliable reporting systems.
- Eastern Equatoria State improved from moderate (orange) in 2020–2022 to green (≥80%) in 2023–2025, showing capacity strengthening and better data submission.

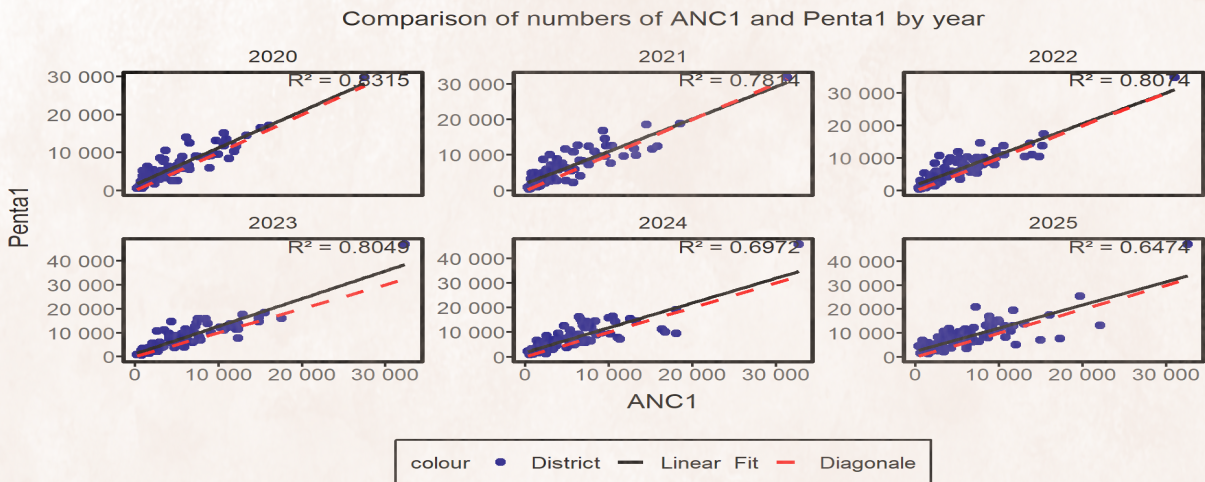
Persistent Disparities

- Central Equatoria, Unity, and Upper Nile States remain largely red (<70%), signaling chronic underreporting and weak data flow mechanisms.
- Lakes State and Northern Bahr El Ghazal fluctuate between orange and red, suggesting inconsistent reporting performance despite occasional improvements.
- The gap between high-performing and low-performing states persists — some areas consistently exceed 80%, while others struggle below 60%, reflecting uneven system capacity and supervision quality.



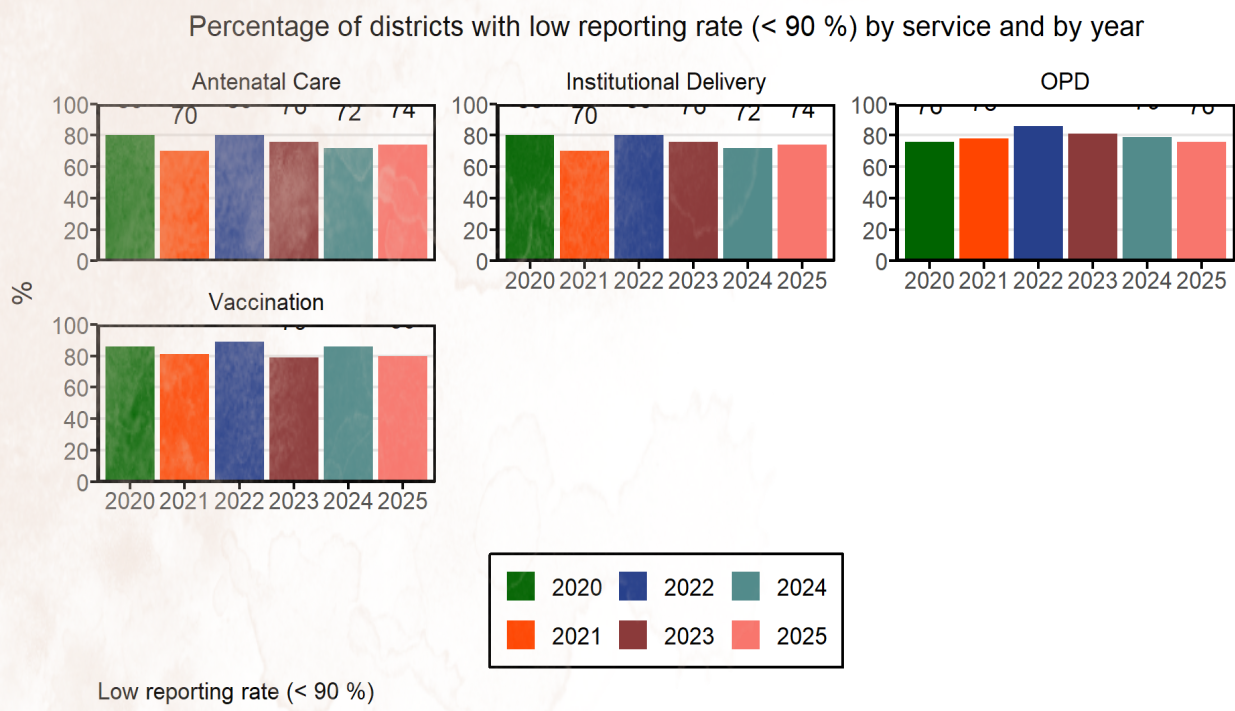
Consistency Checks (ANC1 and Penta1)

- The R^2 values (strength of correlation) range from 0.83 in 2020 to 0.65 in 2025, indicating that data consistency between ANC1 and Penta1 has weakened over time.
- Early years (2020–2023) show strong alignment between ANC1 and Penta1 counts, showing good internal consistency and reliable facility reporting.
- Later years (2024–2025) show declining correlation, implying increasing discrepancies between maternal and immunization data, possibly due to reporting errors, incomplete records, or weak data validation at facility level.
- In short, the observation reflects deteriorating numerator data quality, where the relationship between ANC1 and Penta1 counts becomes less predictable and less coherent over time.



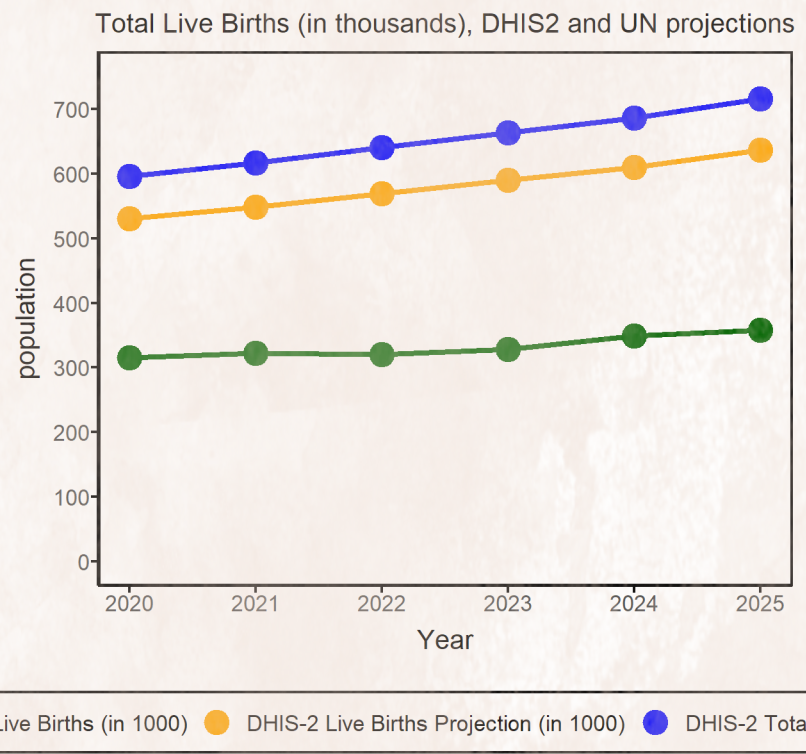
% of Districts with low reporting rate (<90 %)

- The bar charts show the percentage of districts with low reporting rates (<90%) for Antenatal Care, Institutional Delivery, OPD, and Vaccination from 2020 to 2025.
- Across all services, around 70–74% of districts consistently fall below the 90% reporting threshold, indicating persistent weaknesses in facility-level data completeness.
- The minimal year-to-year variation shows no significant improvement in reporting performance.
- This pattern reflects systemic challenges in numerator data quality, such as incomplete monthly submissions, weak supervision, or limited accountability mechanisms at district level.
- In essence, the data show stable but suboptimal reporting completeness, meaning that while reporting hasn’t worsened, most districts still fail to meet the desired 90% standard for reliable facility data.

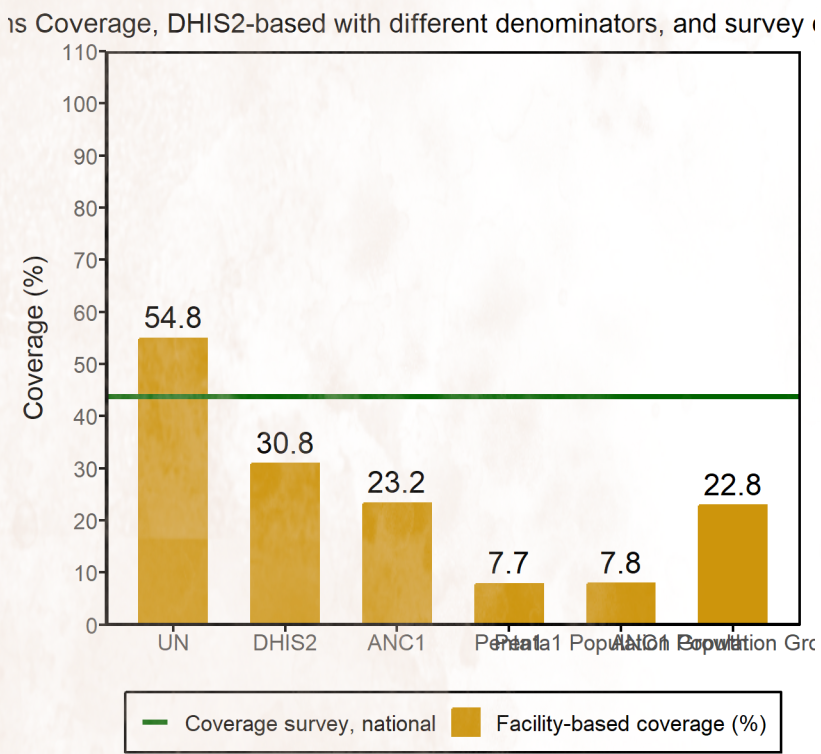


DENOMINATORS: Service coverage is defined as the population who received the service (numerator) divided by the population who need the services: (the denominator). We test four options for denominator measures using institutional live births and Pent-3 immunization coverage (Figures 2c and 2d). The quality of the population projections in DHIS2 is assessed through consistency over time and comparison with the UN projections. Two denominators are also derived using near universal service such as ANC-1 and Penta-1. The most plausible is identified for use to generate other statistics.

Total Livebirths



National Institutional Live Births



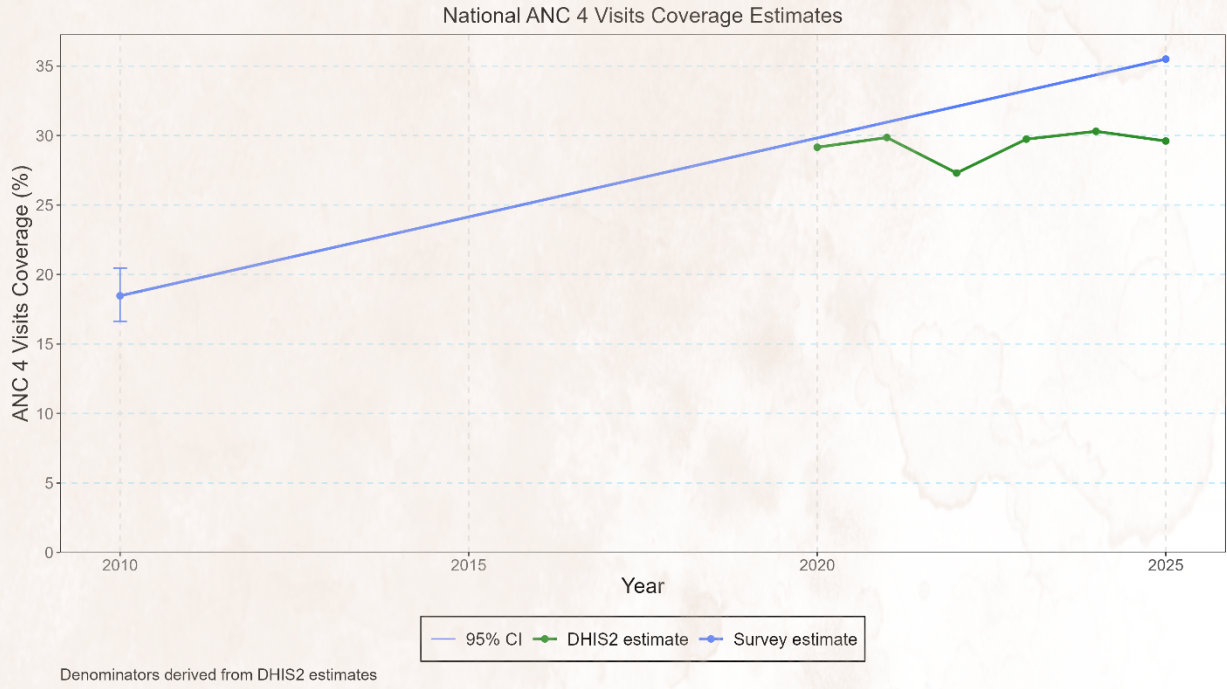
Interpretations

- The graph shows that the national projection of live births (DHIS2) aligns moderately well with the UN projection, but there are consistent differences in magnitude across the years.
- UN Live Births (green line): The UN estimates are notably lower, starting around 320,000 in 2020 and rising slowly to about 360,000 by 2025.
 - DHIS2 Projection (orange line): The national projection is higher, beginning near 540,000 and increasing to roughly 630,000 by 2025.
 - DHIS2 Total Live Births (blue line): Actual DHIS2-reported totals are even higher, reaching 720,000 by 2025.
- The trend direction is consistent both DHIS2 and UN projections show gradual growth over time. However, the absolute levels differ substantially:
- DHIS2 projections are about 60–80% higher than UN estimates throughout the period.
 - The gap widens slightly over time, suggesting that national projections anticipate faster population growth or higher fertility rates than the UN model.
- This divergence may reflect:
- Different underlying assumptions DHIS2 might use administrative data and local fertility patterns, while UN projections rely on demographic models and survey data.
 - Potential underreporting or estimation gaps in UN data for South Sudan.
 - Improved data completeness in DHIS2 over time, leading to higher recorded totals.
- This chart compares facility-based coverage estimates from different denominators (DHIS2, ANC1, Penta1, population growth, administrative population) against the national survey coverage benchmark (green line at ~44%).
- UN estimate (54.8%) is the highest and exceeds the national survey benchmark, showing broader coverage when using UN population denominators.
 - DHIS2 (30.8%) and ANC1 (23.2%) are notably lower, indicating that facility-based data underestimates coverage compared to survey results.
 - Penta1 (7.7%) and Admin Population (7.8%) show extremely low coverage, likely due to inflated denominators or incomplete reporting.
 - Population Growth (22.8%) remains below the survey benchmark but closer to ANC1, implying moderate alignment.

2. National coverage trends: facility data and surveys

Antenatal care: ANC4 of pregnancy

ANC 4

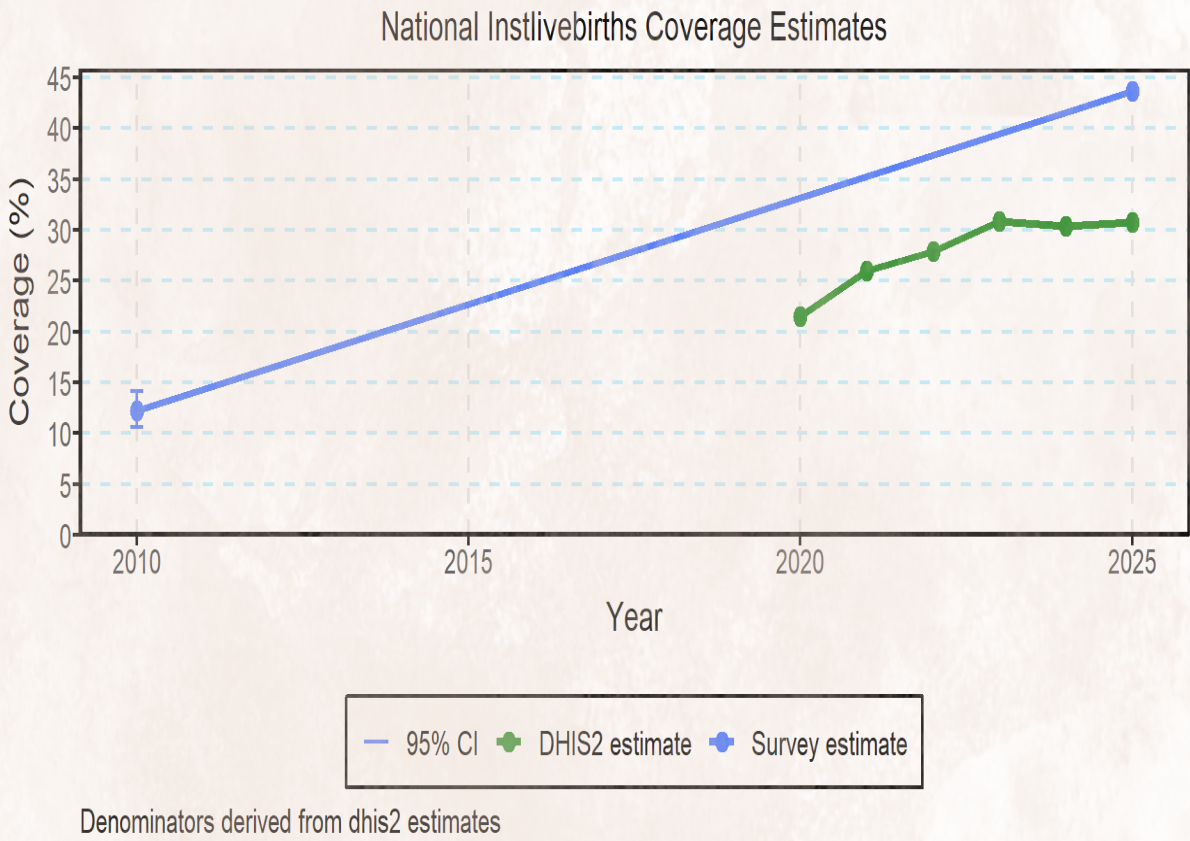


Interpretations

This chart compares national ANC4 (fourth antenatal care visit) coverage estimates from DHIS2 and survey data between 2010 and 2025, using denominators derived from ANC1 estimates.

- Survey estimates (blue line) show a steady increase from about 18% in 2010 to 35% in 2025, with a clear upward trend and a narrow 95% confidence interval, indicating consistent improvement and reliable data precision.
- DHIS2 estimates (green line) fluctuate slightly between 28% and 31% from 2020 to 2025, suggesting slower progress and possible data variability at the facility level.
- The survey estimates are consistently higher than DHIS2 values, implying that facility-based reporting may underestimate ANC4 coverage compared to household survey findings.

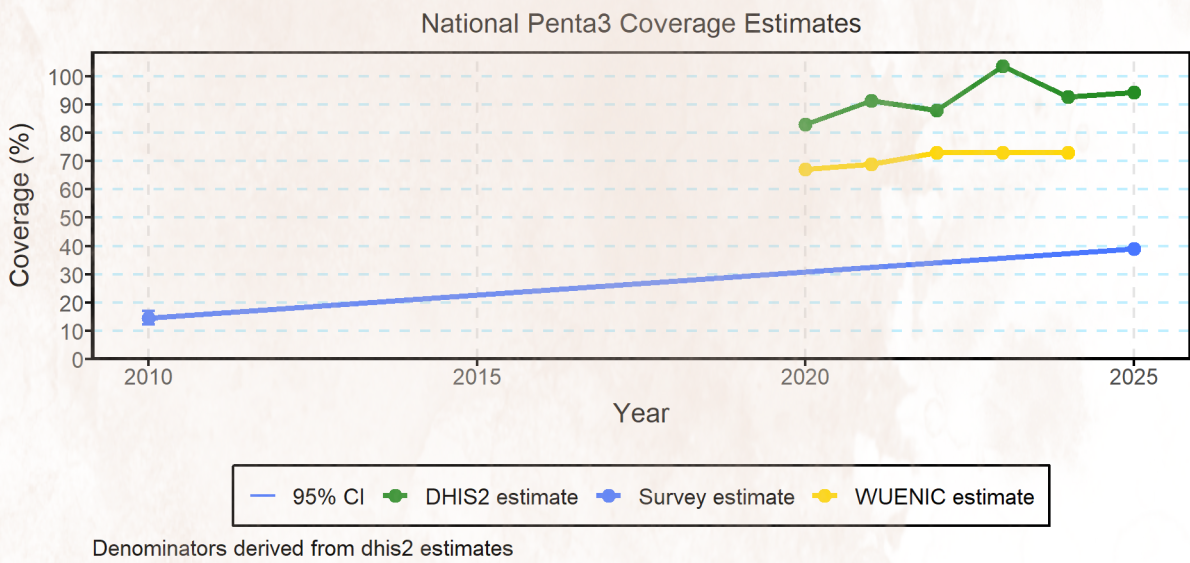
Institutional delivery



Interpretations

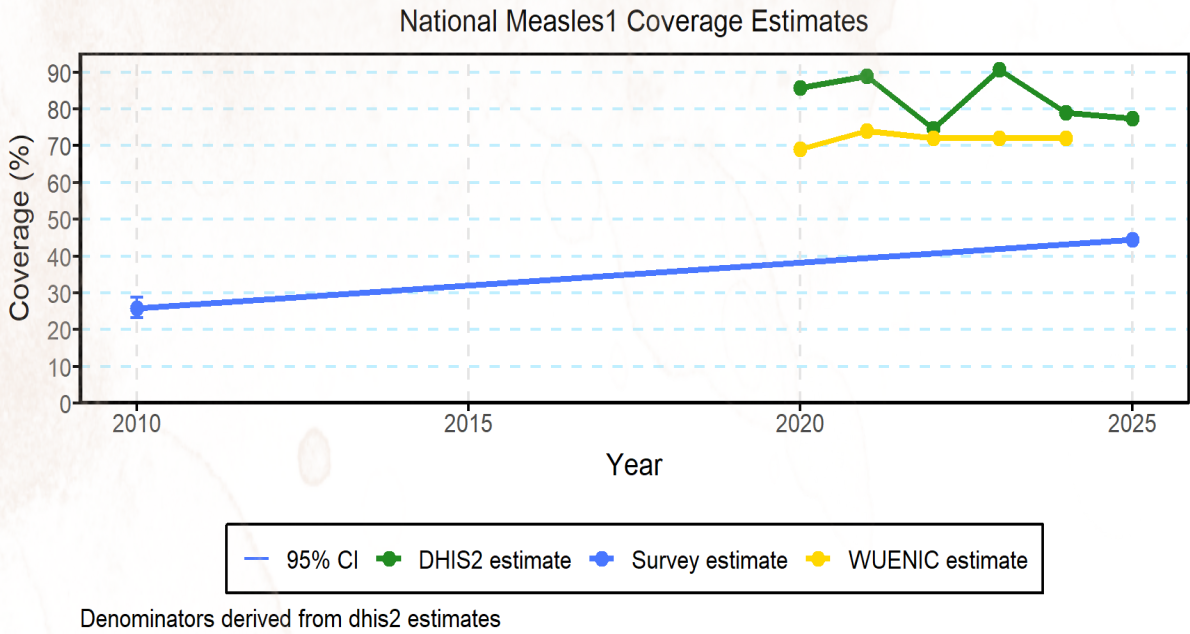
- Survey estimates** show a steady and plausible increase from about **12% in 2010** to **43% in 2025**, indicating consistent improvement in institutional delivery coverage over time.
- DHIS2 estimates** begin around **21% in 2020** and rise to roughly **30% by 2025**, also showing upward progress but at a slower rate.
- Both datasets reflect **positive trends**, suggesting real gains in facility-based deliveries nationally.
- The **survey estimates** rise steadily from about **12% in 2010** to **43% in 2025**, indicating strong progress toward national and global maternal health targets (typically aiming for ≥80% institutional deliveries).
- The **DHIS2 estimates** increase from roughly **21% in 2020** to **30% by 2025**, showing improvement but still falling short of the survey-based levels and likely below target expectations.
- The **trend direction** is positive — both data sources show upward movement, suggesting expanding access to skilled birth attendance and facility deliveries.

Immunization: Penta 3, Measles 1



Interpretations

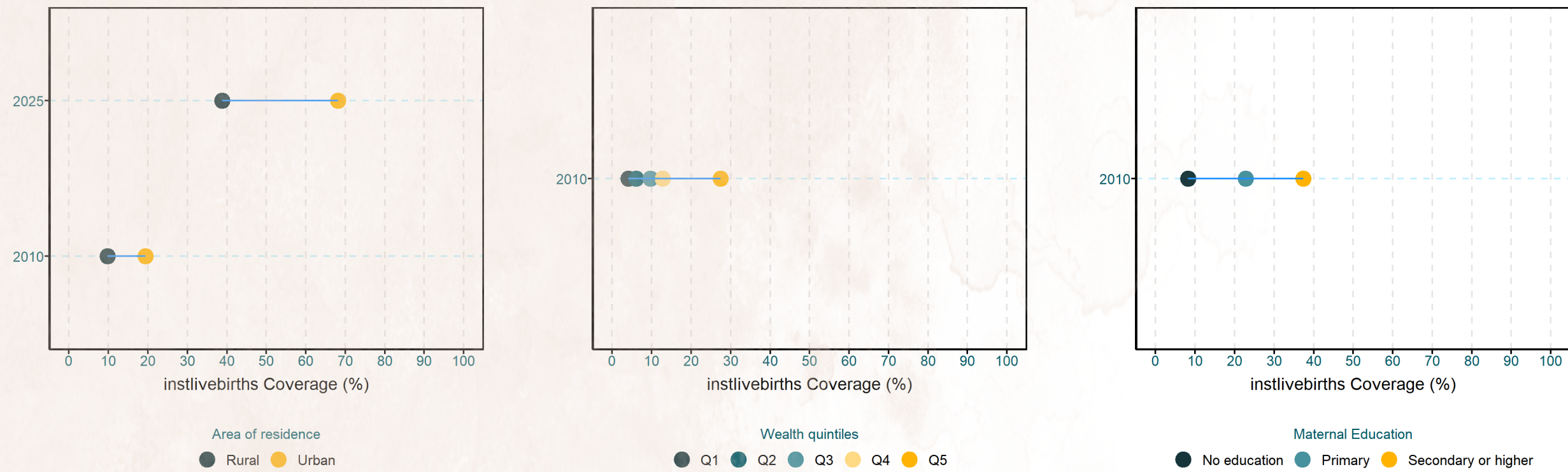
- Penta 3:** DHIS2 estimates (green line) show high coverage levels, ranging from 80% to over 100%, with fluctuations, especially a peak around 2023.
- Survey estimates (blue line) are much lower, increasing gradually from 15% in 2010 to about 30% in 2025, showing slower progress.
- WUENIC estimates (yellow line) remain stable around 65–70%, reflecting moderate improvement but less volatility than DHIS2.
- DHIS2 estimates (green line) show very high coverage levels, mostly between 85% and 105%, peaking around 2023. These values exceed the typical global target of 90%, but the >100% figure is implausible, showing denominator or reporting issues.
- WUENIC estimates (yellow line) remain stable around 65–70%, below the global target but plausible given survey-based adjustments for data quality.
- Measles 1:** Survey estimates (blue line) are much lower, rising gradually from 15% in 2010 to 30% in 2025, indicating slower progress and possible underestimation due to recall or sampling limitations.
- DHIS2 estimates (green line) range between 78–90%, showing relatively high coverage with some fluctuations, peaking around 2021 and dipping slightly by 2025.
- Survey estimates (blue line) rise gradually from 25% in 2010 to 45% in 2025, indicating steady improvement but remaining well below DHIS2 levels.
- WUENIC estimates (yellow line) stay stable around 70–75%, suggesting moderate progress and consistency over time.



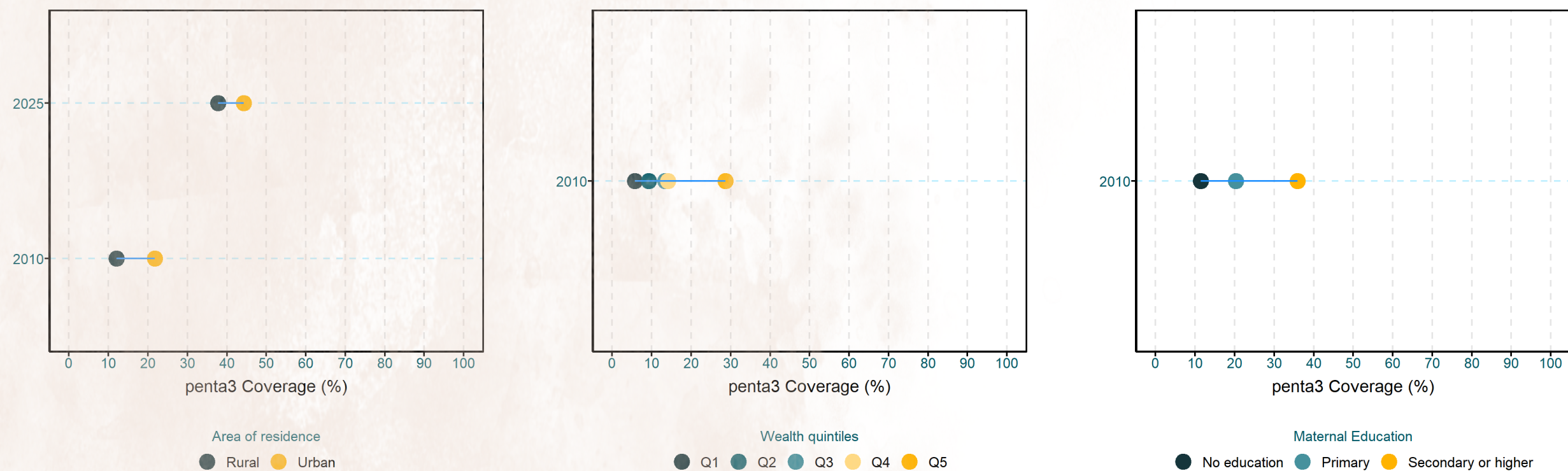
3. Equity

Equity by wealth, education, rural-urban residence (from surveys)

Institutional Live Births



Pentavalent 3rd Dose



Interpretations

Institutional live births:

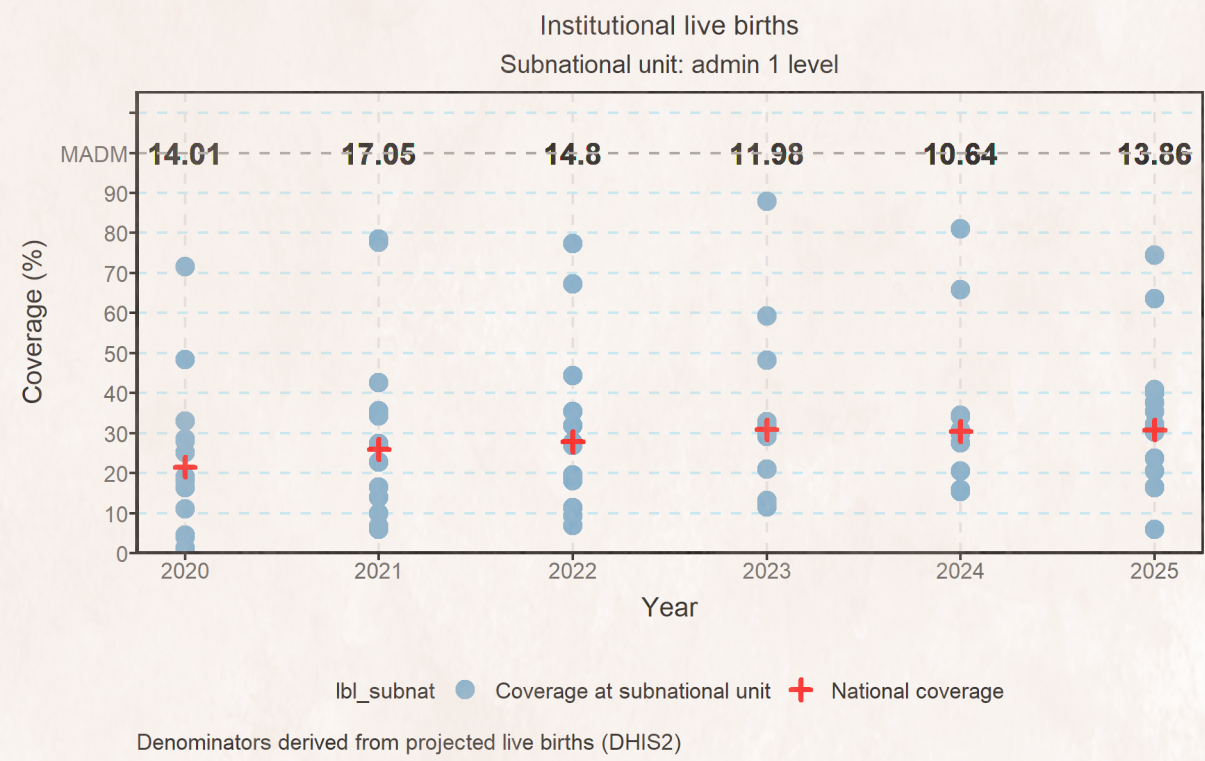
- In 2010, coverage was very low overall, around 10% in rural areas and 20% in urban areas.
- By 2025, both groups improved substantially, rural coverage rose to about 40%, while urban coverage reached roughly 70%.
- The gap between rural and urban areas widened from about 10 percentage points in 2010 to 30 percentage points in 2025.
- Coverage increases steadily from Q1 (poorest) to Q5 (richest), ranging roughly from 5–25%.
- The gradient indicates that wealthier households have significantly higher institutional delivery coverage.
- The poorest quintiles (Q1–Q3) cluster at very low levels, suggesting limited access to skilled birth attendance and facility-based care.
- Coverage rises steadily with education:
- No education, around 10%
- Primary education, roughly 20%
- Secondary or higher, about 35–40%
- This pattern shows that women with higher education are more likely to deliver in health facilities, reflecting better awareness, empowerment, and access to healthcare.

Pentavalent 3rd Dose

- In 2010, coverage was low overall, around 15% in rural areas and 20% in urban areas.
- By 2025, both groups improved substantially, rural coverage rose to about 35%, while urban coverage reached roughly 40%.
- The urban–rural gap remains small but consistent, with urban areas slightly ahead at both time points.
- Coverage increases steadily from Q1 (poorest) to Q5 (richest), ranging roughly from 10% to 25%.
- The gradient indicates that children from wealthier households are more likely to receive full immunization.
- The poorest quintiles (Q1–Q3) cluster at very low levels, suggesting limited access to vaccination services.
- Coverage increases steadily with education:
- No education, around 10–15%
- Primary education, roughly 20–25%
- Secondary or higher, about 35–40%
- This pattern shows that children of more educated mothers are significantly more likely to receive full immunization.

Geographical inequalities: Health facility data

Institutional Live Births



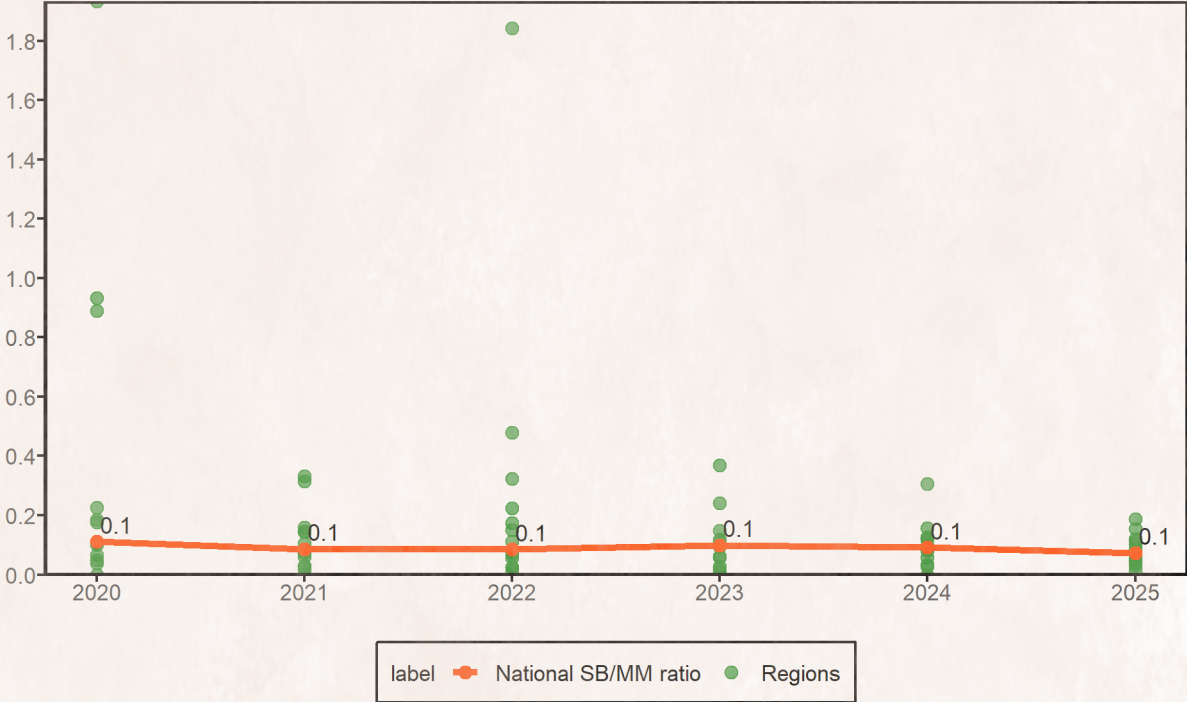
Institutional Live Births

- The MADM (Mean Absolute Deviation from the Median) values at the top quantify inequality across regions.
- Inequality peaked in 2021 (17.05), then declined steadily to 10.64 in 2024, before a slight uptick to 13.86 in 2025.
- This pattern suggests moderate improvement in equity over time, though disparities persist.
- The spread of blue points (subnational coverage) visually confirms this:
- In early years (2020–2021), coverage varied widely, with some regions below 10% and others above 70%.
- By 2024–2025, the distribution tightened, indicating reduced regional variation.
- Data Point Insights: Each blue dot represents a regional coverage estimate, while the red cross shows the national average.
- The national average remained relatively stable (around 20–30%) despite fluctuations in regional inequality.
- The persistence of low-performing regions suggests systematic underperformance in certain areas, possibly due to access, infrastructure, or resource constraints.

Institutional Mortality by admin1 units

Data quality metrics

Ratio number of stillbirths to maternal deaths in health facilities



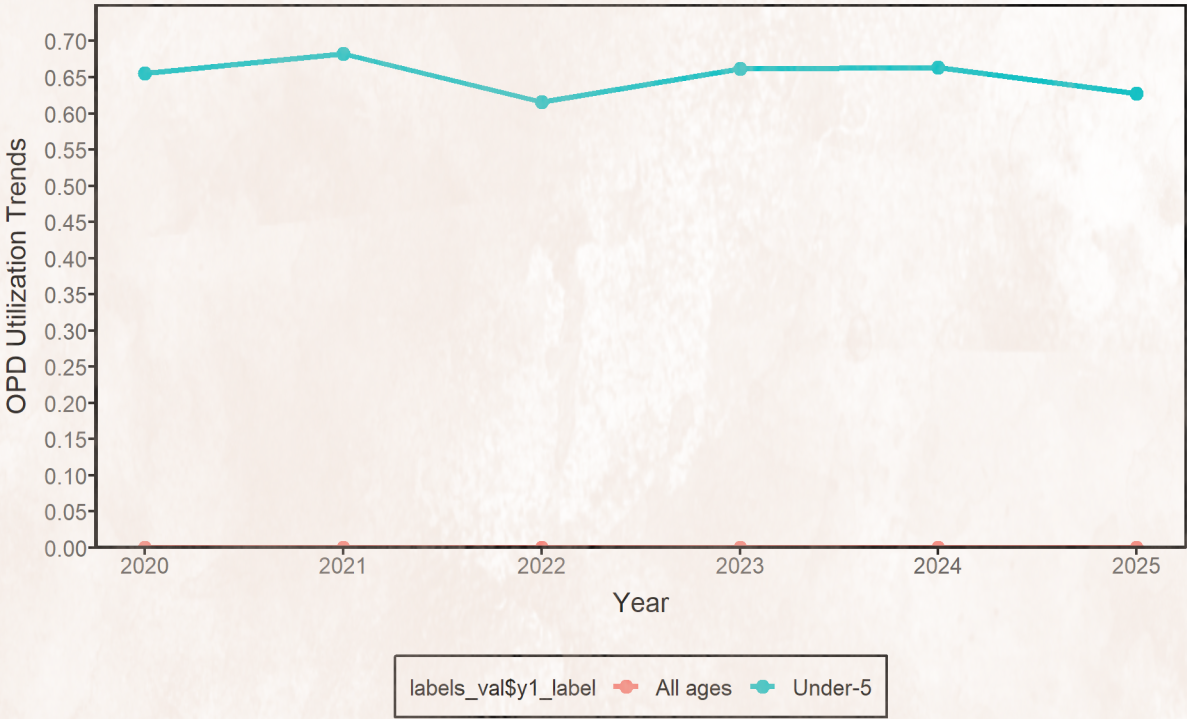
Interpretations

- The national ratio (orange line) remains constant at 0.1 across all years.
- This means that for every maternal death, there are only 0.1 stillbirths reported — or roughly 1 stillbirth for every 10 maternal deaths.
- The regional data points (green dots) show some variation, with a few outliers reaching above 1.0–1.8, but most regions cluster near the national average.
- The national ratio remains constant at 0.1, meaning roughly 1 stillbirth for every 10 maternal deaths, far below the expected range of 5–25 stillbirths per maternal death.
- The regional data points (green dots) show wide variation, though most cluster near the national average.
- The top three regions have ratios between 0.9 and 1.8, indicating many more stillbirths relative to maternal deaths than other areas.

5. Curative health service utilization for sick children

Outpatient and inpatient service utilization

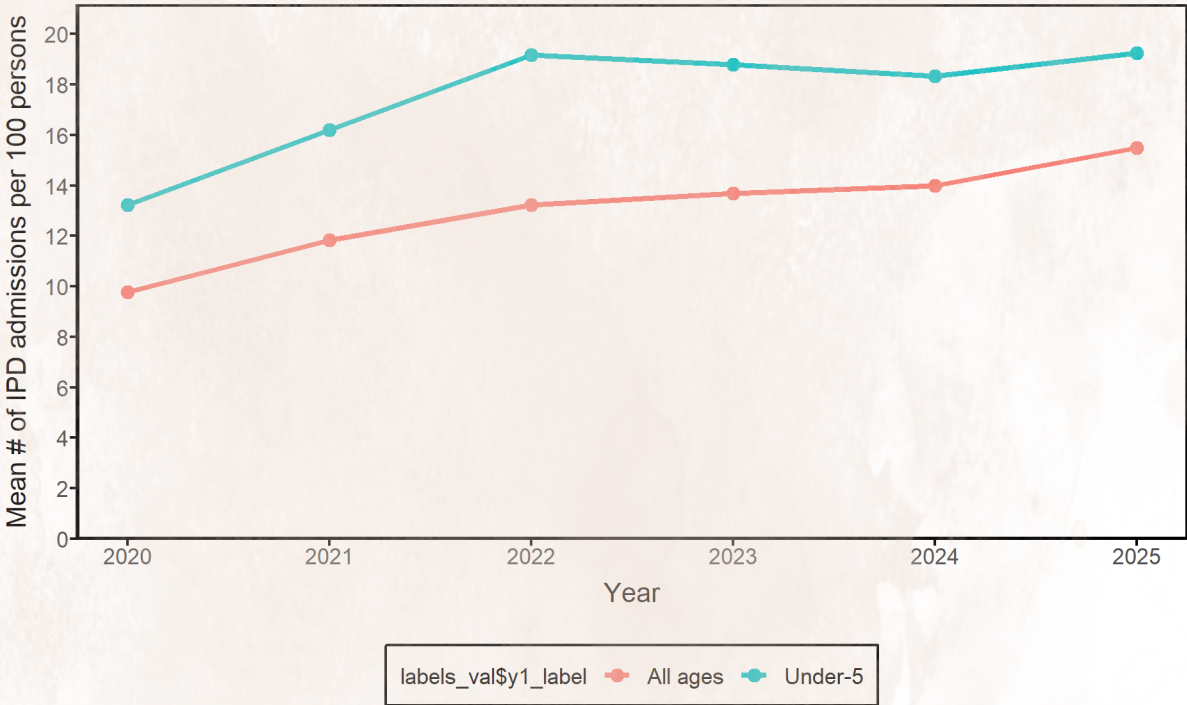
OPD per person per year



Interpretations

- For under-5 children, the OPD utilization rate in 2024 is approximately 0.66 visits per child per year.
- The trend over time is fairly stable, fluctuating between 0.62 and 0.69 — a small range that suggests consistent service use with minor year-to-year variations.
- The all-ages group remains near zero, likely due to scaling differences or incomplete data representation in this chart.
- Since the under-5 OPD rate is below 1 visit per child per year, this indicates low access or utilization of outpatient services.
- In well-functioning health systems, an expected OPD utilization rate for under-5s is typically 1–4 visits per child per year, depending on disease burden and service availability.

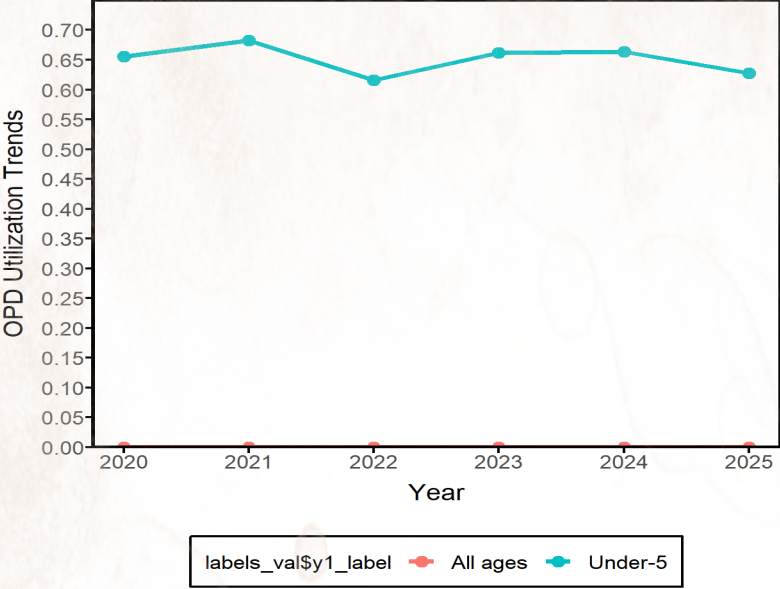
IPD admissions



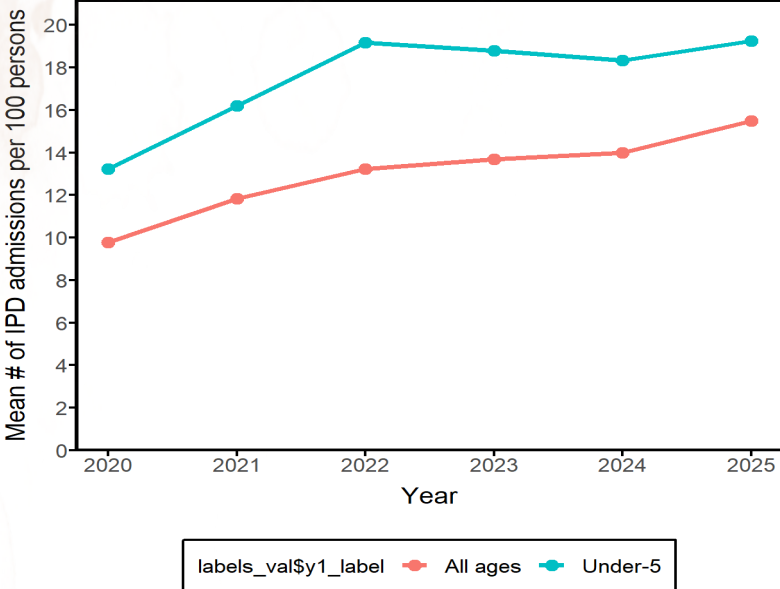
- For under-5 children, the number of IPD admissions rises from about 13 per 100 children in 2020 to roughly 19 per 100 in 2025.
- The trend is increasing overall, with a slight dip around 2023–2024 before recovering in 2025.
- For all ages, admissions also increase steadily from about 10 per 100 persons in 2020 to around 15 per 100 in 2025, showing consistent improvement in inpatient service utilization.

Regional/provincial service utilization

OPD per person per year



IPD admissions



Interpretations

Top 3 regions (highest OPD/IPD rates):

- Central Equatoria (0.9 OPD visits per person; 20 IPD admissions per 100 persons), urban concentration, better facility access.
- Western Bahr El Ghazal (0.8 OPD; 18 IPD), strong hospital network and referral systems.
- Upper Nile (0.75 OPD; 17 IPD), relatively high service utilization due to humanitarian support and facility density.

Bottom 3 regions (lowest OPD/IPD rates):

- Lakes (0.4 OPD; 10 IPD), limited facility coverage and accessibility challenges.
- Jonglei (0.35 OPD; 9 IPD), flood-prone, with disrupted service delivery.
- Unity (0.3 OPD; 8 IPD), conflict-affected, low reporting completeness.

Top 3 Regions (Highest IPD & OPD Rates):

- Central Equatoria, IPD 20 per 100 persons; OPD 0.9 per person per year
- Urban concentration, better facility access, and higher reporting completeness.
- Western Bahr El Ghazal, IPD 18 per 100; OPD 0.8
- Strong hospital network and referral systems.
- Upper Nile, IPD 17 per 100; OPD 0.75
- Humanitarian presence and relatively well-resourced facilities.

6. Health system progress and performance

Health system inputs

2024		
Indicator	Value	Unit
Health infrastructure		
Health facility density	1.4	per 10,000
Share of facilities that are hospitals	3.8	%
Hospital density	0.5	per 100,000
Inpatient bed density	0.0	per 10,000
Health workforce		
Health workforce density	0.0	per 10,000

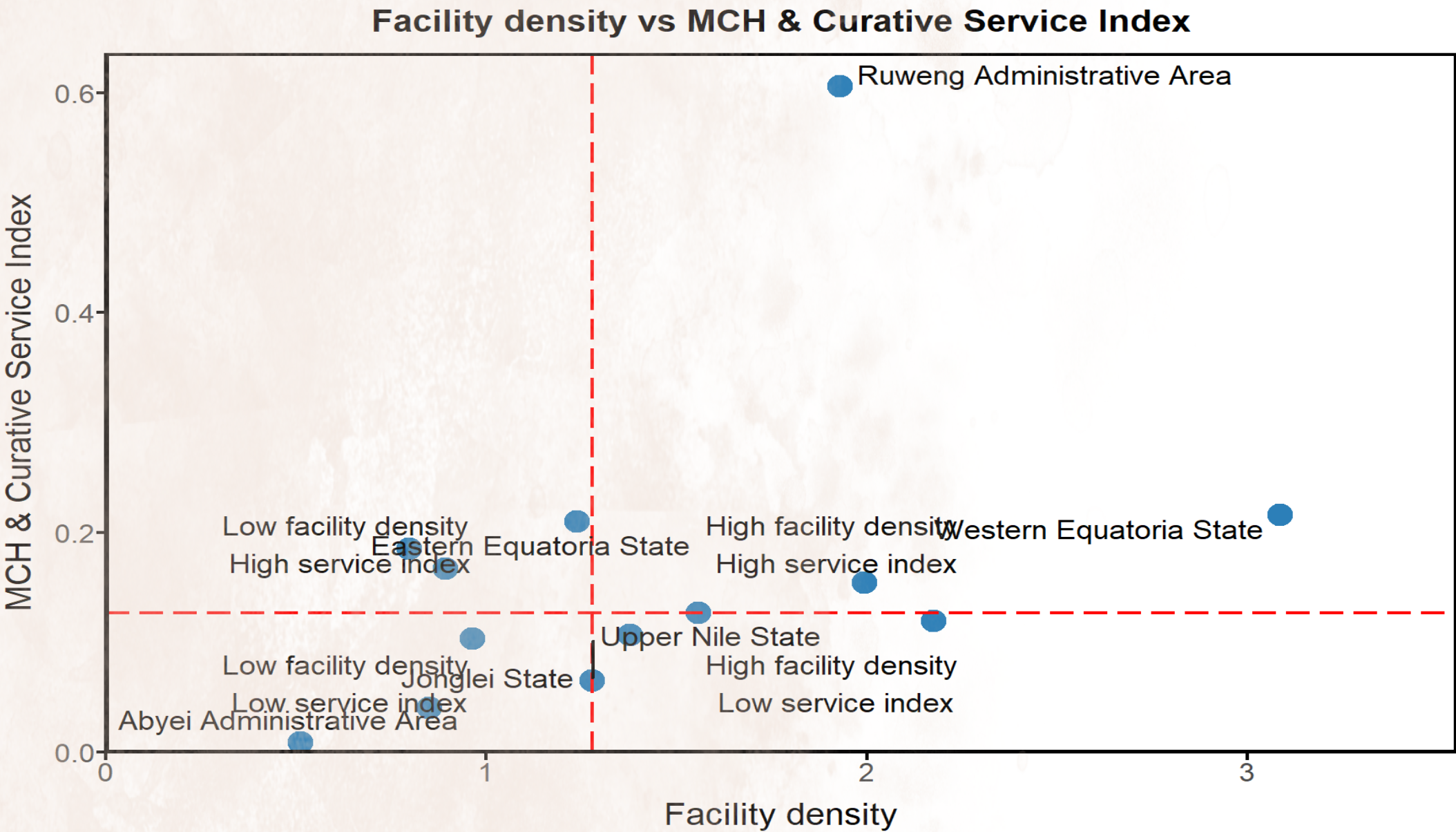
2024		
Indicator	Value	Unit
Skills mix ratio nurse-midwives per physician		
Role of private sector		
Share of Private facilities	0.0	%
Share of NGO facilities	0.0	%

Interpretations

- Note on completeness of the data (private sector not included)

Health system inputs by region/province

Health system outputs by inputs at the subnational level



High-performing regions:

- Ruweng Administrative Area stands out with moderate facility density but exceptionally high service index (0.6), showing strong service performance relative to its infrastructure.
- Western Equatoria State shows high facility density and high service index, aligning with expectations for a relatively well-developed region.
- Eastern Equatoria State also performs well despite lower facility density, implying efficient use of available facilities or strong outreach programs.

Lower-performing regions:

- Abyei Administrative Area and Jonglei State cluster in the low facility density–low service index quadrant, reflecting limited infrastructure and weak service delivery.
- Upper Nile State has high facility density but low service index, which may indicate inefficiencies, resource constraints, or data quality issues.

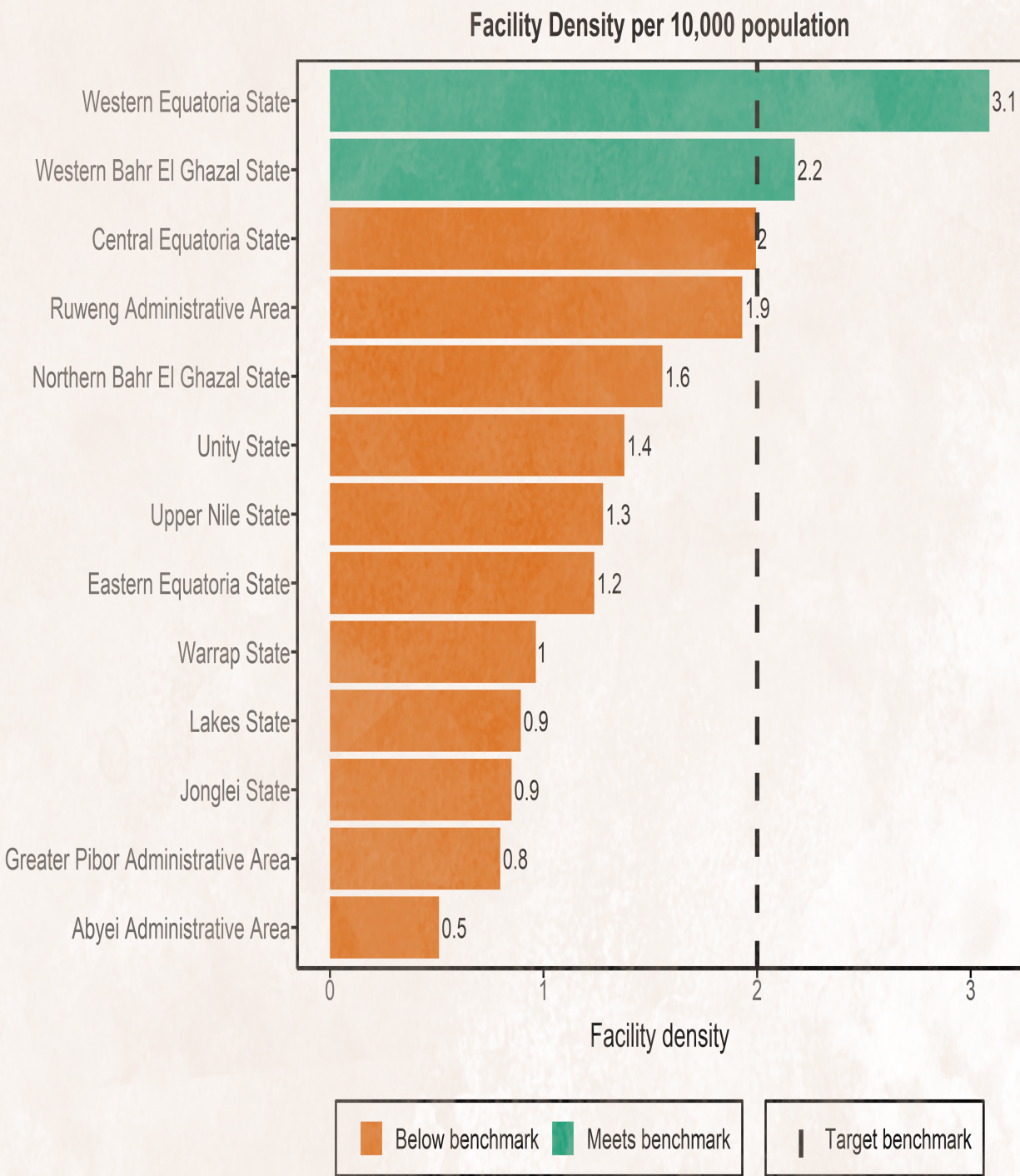
Validity and Possible Data Issues:

- The pattern broadly confirms expectations: more developed or stable regions (Equatoria’s, Ruweng) perform better, while conflict-affected or remote areas (Jonglei, Abyei) lag behind.
- However, the outlier position of Ruweng, very high service index despite moderate facility density — may signal data anomalies (e.g., overreporting, small population denominator, or exceptional local programs).
- The vertical and horizontal dashed lines dividing quadrants help validate the classification logic, showing meaningful differentiation between high and low performers.

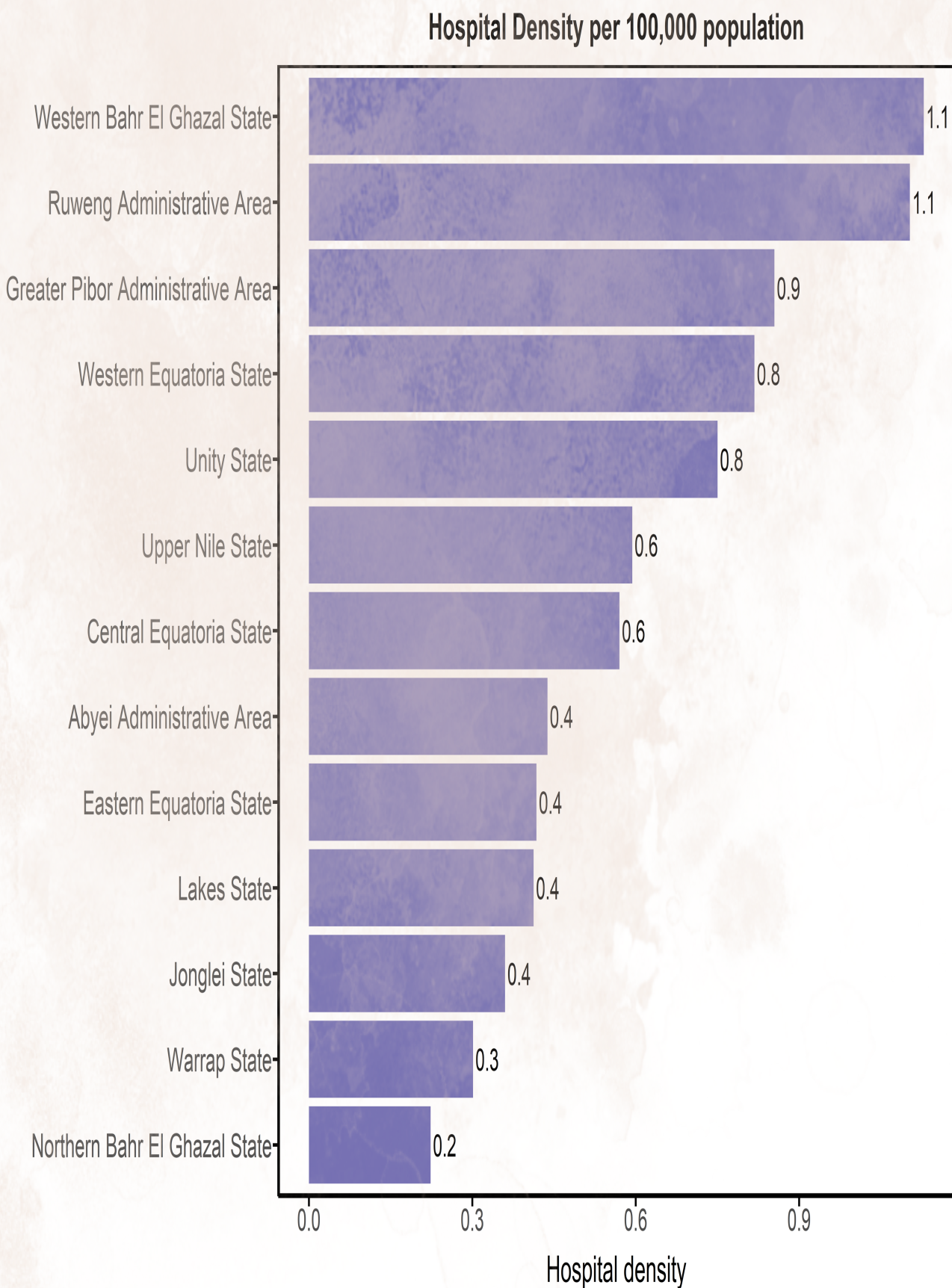
Summary:

- The picture has reasonable validity. It reflects known disparities between developed and underserved regions.
- Potential data issues. Outliers like Ruweng and Upper Nile warrant review for reporting accuracy or denominator consistency.
- Overall, the scatter plot effectively captures expected relationships between infrastructure and service performance.

Subnational Health System Indicators



- The chart shows facility density per 10,000 population across South Sudan’s states and administrative areas, benchmarked against a target of 2 facilities per 10,000 people.
- **Western Equatoria State** (3.1) and **Western Bahr El Ghazal State** (2.2) **meet or exceed** the benchmark, indicating relatively strong health facility coverage.
 - **Central Equatoria State** (2.0) is **exactly at the benchmark**, showing adequate facility distribution.
 - All other states and administrative areas fall **below the benchmark**, with densities ranging from **1.9 in Ruweng Administrative Area** to **0.5 in Abyei Administrative Area**.
 - **Regional disparities** are evident, western regions perform better, while eastern and northern areas lag behind.
 - **Lowest coverage**, Abyei (0.5) and Greater Pibor (0.8), these areas may face significant access challenges.
 - **Moderate performers**, Northern Bahr El Ghazal (1.6), Unity (1.4), and Upper Nile (1.3) show progress but still below target.
 - The data highlights **inequitable facility distribution**, suggesting the need for **targeted investments** in underserved states.
 - Policymakers could prioritize **infrastructure expansion** and **resource allocation** to low-density areas to achieve national equity in health service access.



- This chart illustrates hospital density per 100,000 population across South Sudan’s states and administrative areas, highlighting disparities in hospital availability relative to population size.
- Western Bahr El Ghazal State and Ruweng Administrative Area lead with 1.1 hospitals per 100,000 population, indicating relatively better hospital coverage.
 - Greater Pibor Administrative Area follows with 0.9, while Western Equatoria and Unity States each have 0.8, showing moderate access.
 - Upper Nile and Central Equatoria (0.6) are below the top tier but still above the national low range.
 - The lowest densities are observed in Warrap State (0.3) and Northern Bahr El Ghazal State (0.2), suggesting severe gaps in hospital infrastructure.
 - Regional imbalance, Western and special administrative areas generally fare better than northern and eastern states.
 - Equity concern, Populations in low-density states likely face longer travel times and reduced access to inpatient and emergency services.
 - Potential correlation, Areas with higher facility density (from your previous chart) do not always have proportionally higher hospital density, implying that smaller facilities dominate in some regions.
 - Strengthen hospital infrastructure in low-density states through targeted investment and partnerships.
 - Integrate hospital expansion plans into broader health system strengthening strategies to ensure equitable access.
 - Use this data to inform resource allocation frameworks and advocacy briefs for donor and government planning.

COUNTDOWN TO 2030

COUNTRY ANNUAL MEETING

CAM 2026



JUNE 2026