



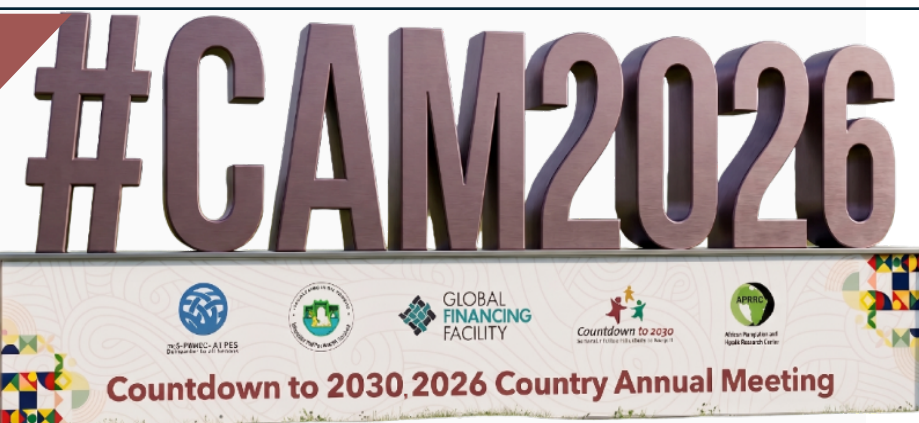
2026

RWANDA SYNTHESIS REPORT

Analysis of Reproductive, Maternal, Newborn, Child and Adolescent Health Indicators for 2020-2025



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



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

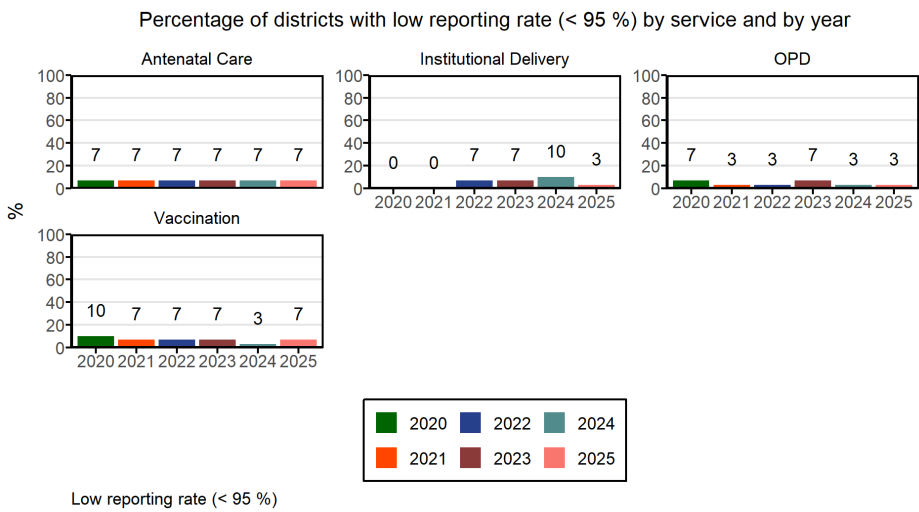
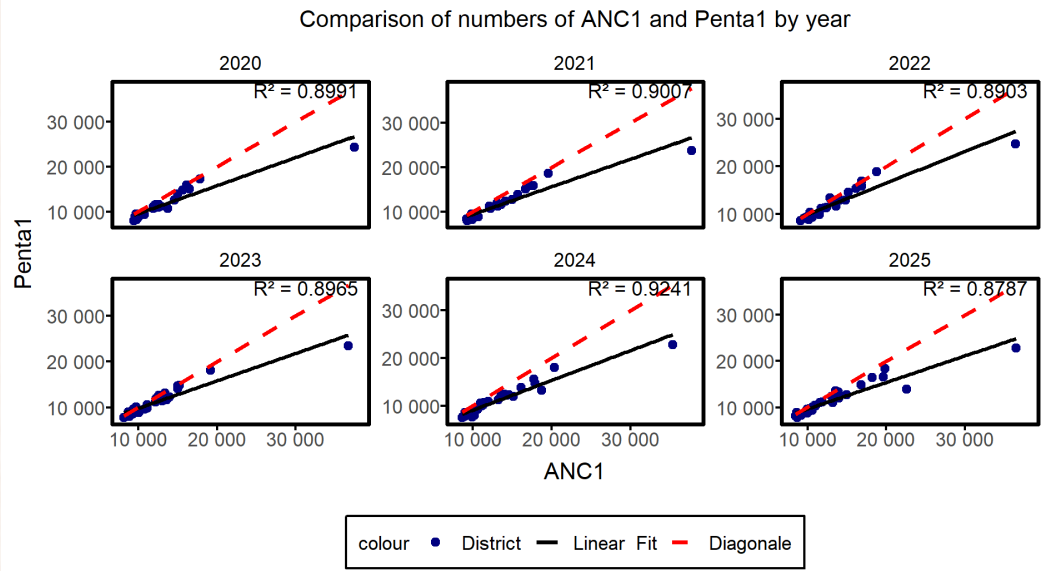
Data Quality Metrics		2020	2021	2022	2023	2024	2025
1. Completeness of monthly facility reporting (mean of ANC, delivery, immunization)							
1a	% of expected monthly facility reports (national)	99	99	99	99	99	99
1b	% of districts with completeness of facility reporting >= 95	99	99	99	99	100	99
1c	% of districts with no missing values for the 4 forms	92	93	93	93	93	93
2. Extreme outliers (mean of ANC, delivery, immunization)							
2a	% of monthly values that are not extreme outliers (national)	100	100	100	100	100	100
2b	% of districts with no extreme outliers in the year	93	97	96	96	96	94
3. Consistency of annual reporting							
3a	Ratio anc1/penta1	1.12	1.15	1.09	1.08	1.17	1.13
3b	Ratio penta1/penta3	1.00	1.02	1.03	0.99	1.01	1.03
3c	% district with anc1/penta1 in expected ranged	97	97	87	83	97	87
3d	% district with penta1/penta3 in expected ranged	53	93	93	37	70	97
4	Annual data quality score	90	97	95	87	93	95

Interpretations

- Overall quality is good, with annual scores ranging from 87 to 97 (out of 100) across 2020–2025.
- 2023 was the weakest year (score: 87) due to poor consistency between reported ANC1/Penta1 and Penta1/Penta3 ratios at district level. Quality recovered in 2024–2025.
- This table shows only national results; district-specific weaknesses require a district-level table or map.
- Problematic indicators: Completeness and outlier absence were consistently 92%–100%. The main weakness was the Penta1/Penta3 ratio, dropping sharply in 2020 (53%) and 2023 (37%), indicating either reporting issues or actual dropout between doses.
- ANC1 vs. Penta1 consistency: The ratio remained steady (1.08–1.17) over the years, showing a small, expected gap due to attrition between pregnancy and the 6-week immunization visit.

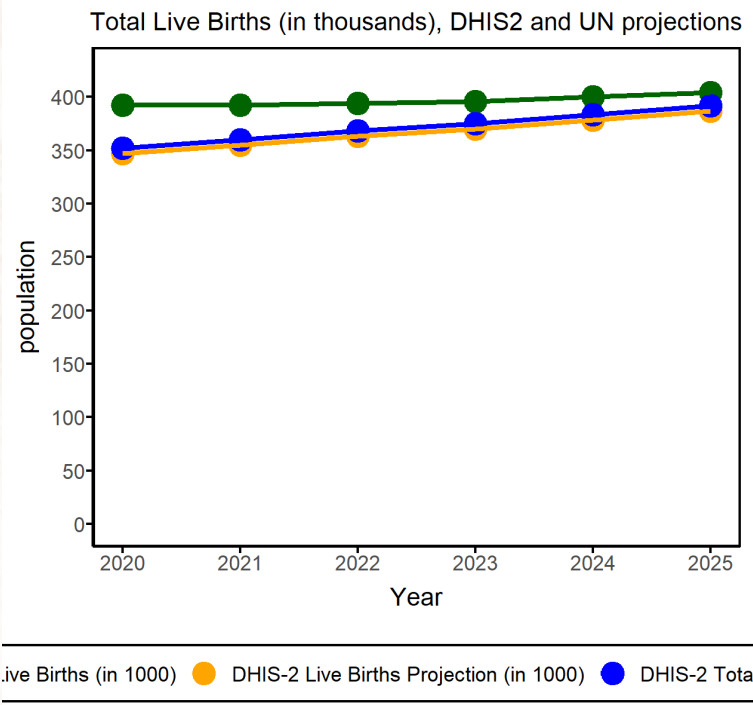
Numerator: Consistently, Nyarugenge district (City of Kigali) has been reporting more Penta 1 than ANC 1, as it is in the capital and receives more referrals. Over the years, there has been relatively good consistency in the numbers for ANC1 and Penta 1 (R2 of 0.8 or higher).

Numerator: Very small proportion of districts (2-3) have had a reporting rate less than 95% or higher, except for OPD (between 2020 and 2023). Those were Bugesera from East, Muhanga from South and Gasabo from the City of Kigali.

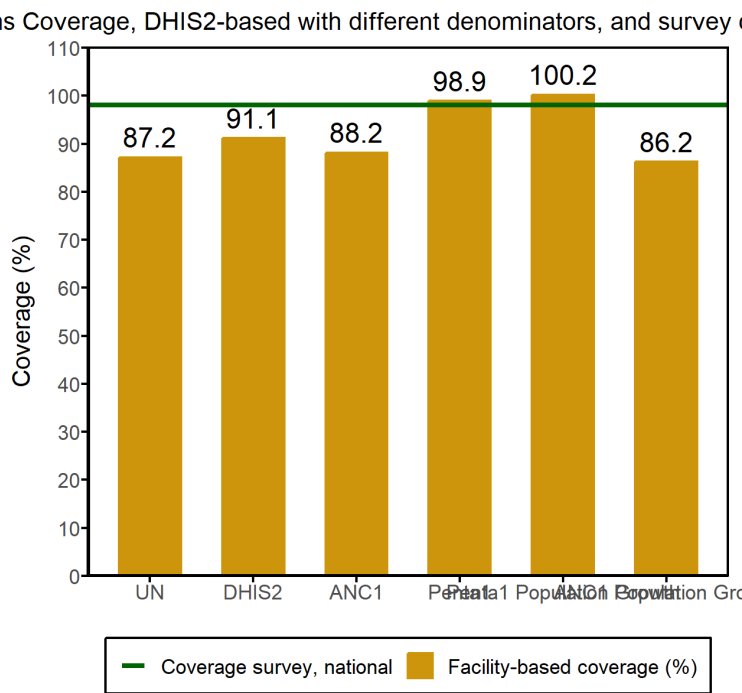


DENOMINATORS: Service coverage is defined as the population who received the service (numerator) divided by the population who need the services: (the denominator). We test four options for denominator measures using institutional live births and Pent-3 immunization coverage (Figures 2c and 2d). The 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.

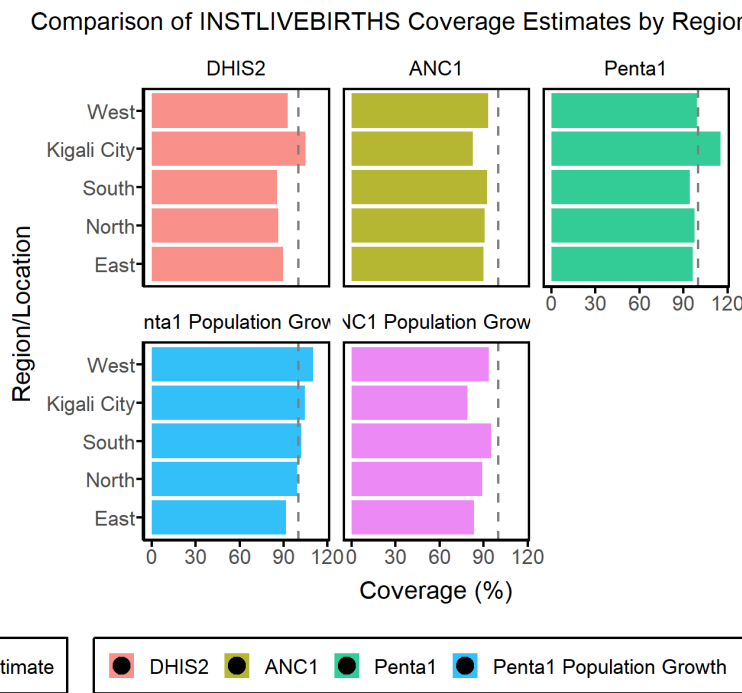
Total Livebirths



National Institutional Live Births



Subnational Institutional Live births



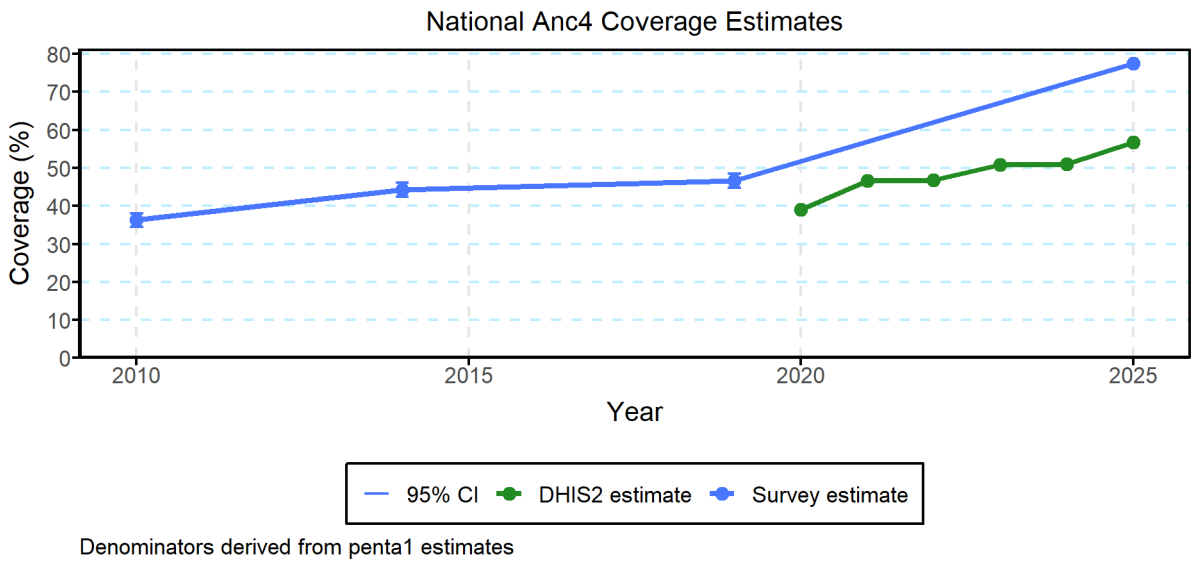
Interpretations

- Alignment with UN projection: DHIS2-based live births projections track closely with the UN projection from 2020–2025, running slightly below it but following a similar upward trend.
- For institutional live births coverage, Penta1 (98.9%) is closest to the survey benchmark (~98%, green line). UN, DHIS2, ANC1, and National Population Growth denominators all underestimate coverage (86–91%).
- At subnational level, Penta1 is the denominator that shows the most consistent alignment with the reference line across all five regions, making it the preferred choice for subnational institutional live births coverage, consistent with the national-level finding.
- Therefore, Penta 1 is selected for both maternal (instlivebirths) and vaccination (penta3) indicators in the coverage analyses, for Rwanda.

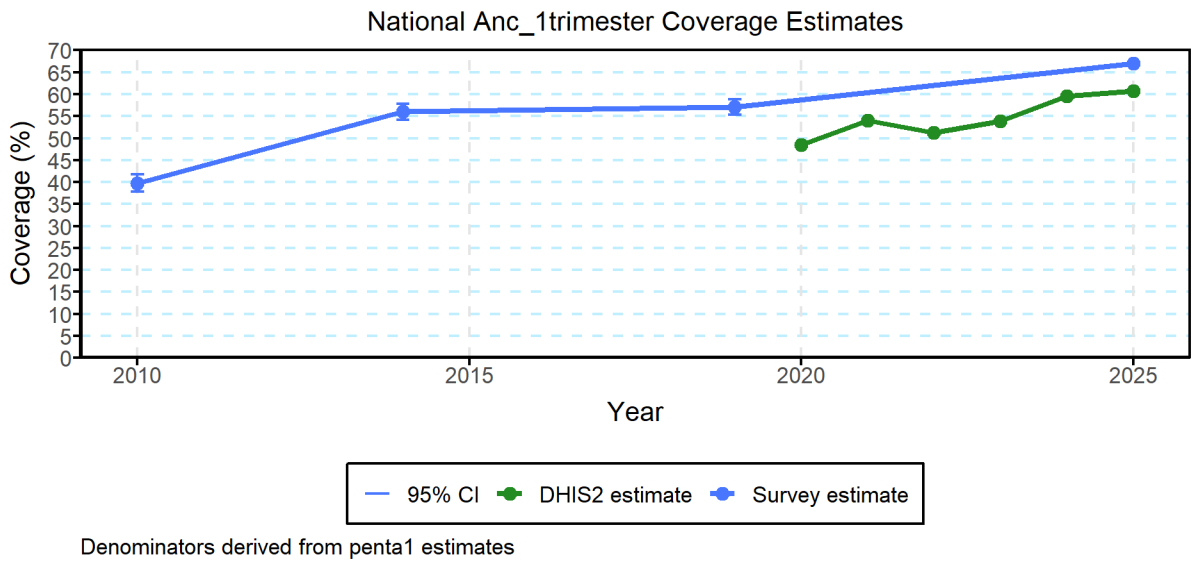
2. National coverage trends: facility data and surveys

Antenatal care: ANC4, ANC early visit, first trimester of pregnancy

ANC 4



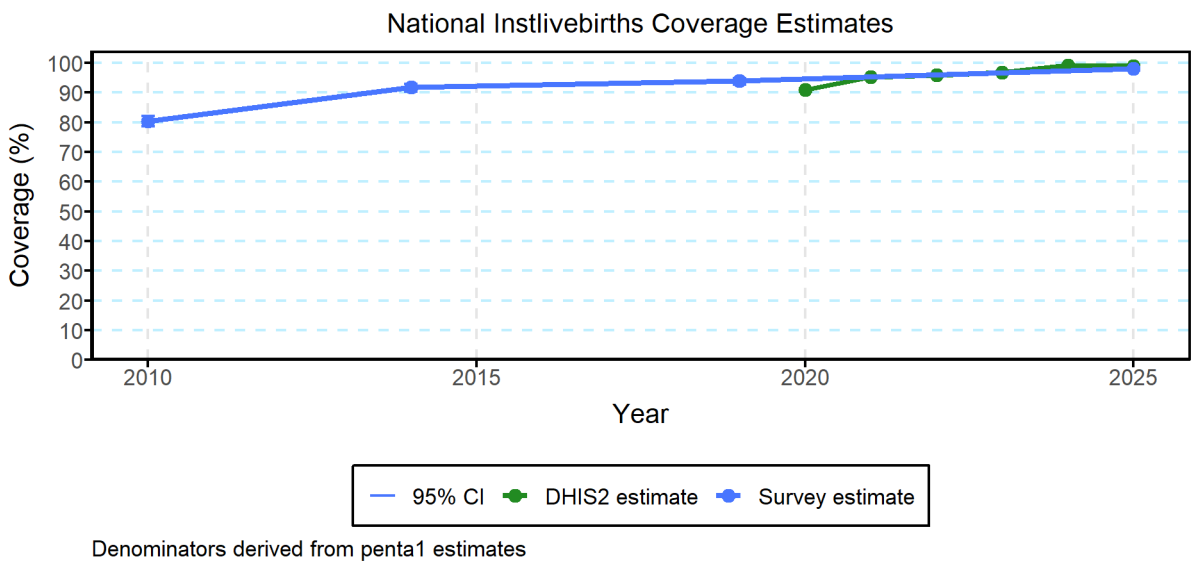
ANC early visit



Interpretations

- Levels and trends of DHS (survey) data and facility routine are plausible. ANC4 and ANC early visit coverage show steady increases from 2010–2025 in both survey and DHIS2 data, consistent with expected improvements in antenatal care access over time.

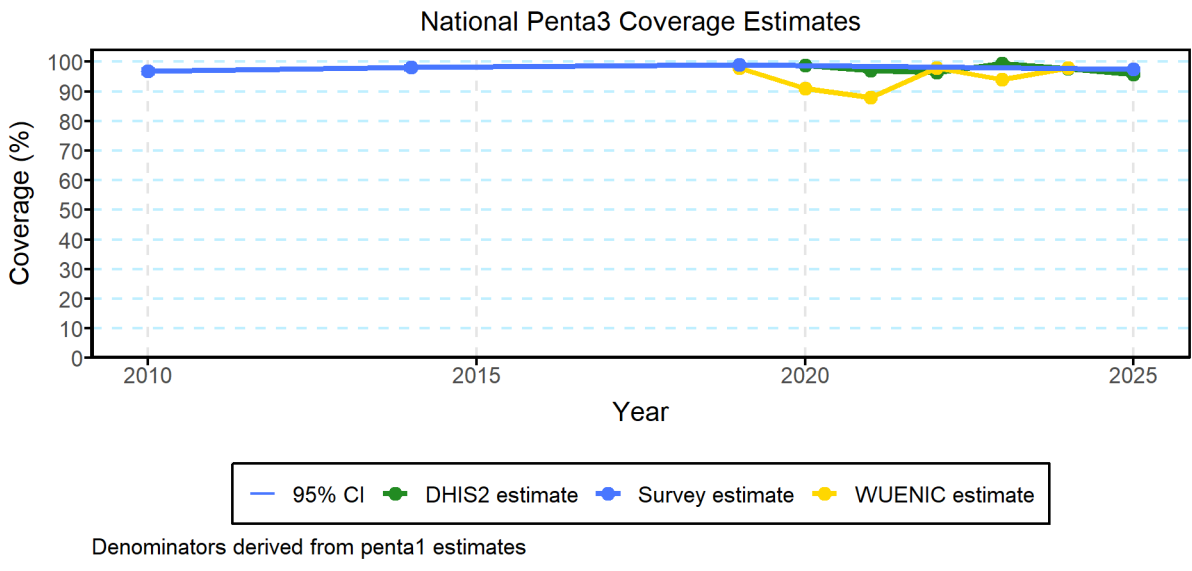
Institutional delivery



Interpretations

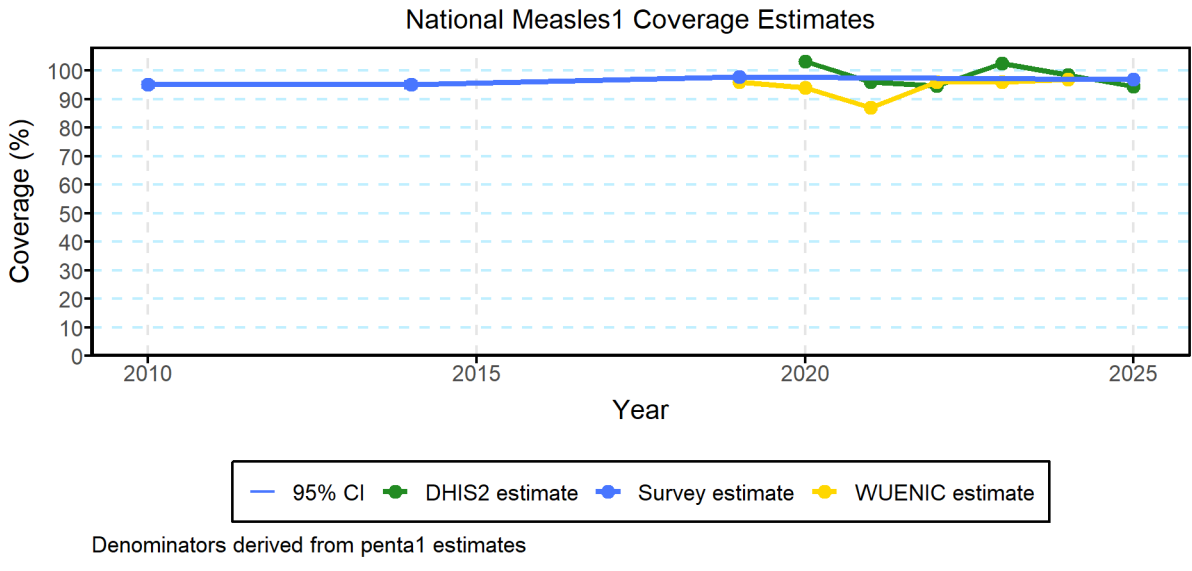
- Levels and trends are plausible. Coverage rises steadily from ~80% (2010) to ~98% (2025). There is good consistency; DHIS2 and survey estimates align closely from 2020–2025.
- Coverage is near-universal (~98%), reflecting strong, positive progress in facility-based deliveries.

Immunization: Penta 3, Measles 1



Interpretations

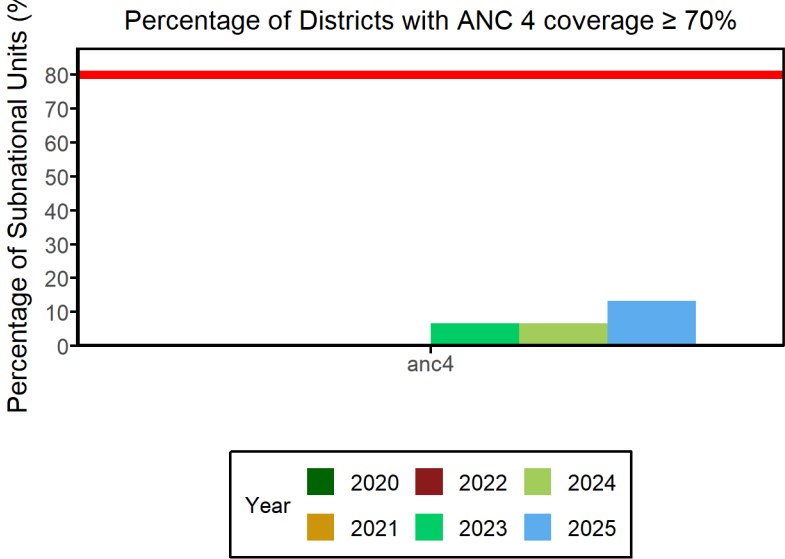
- Levels and trends are plausible. Coverage remains consistently high (~90–100%) from 2010–2025, with minor fluctuations.
- There is good consistency between DHIS2 and survey estimates, which track closely together throughout. WUENIC estimates dip lower in 2020–2021 (~88–91%) before converging with DHIS2/survey by 2022–2025.
- Compared to the targets, coverage is consistently near-universal (~95–100%), indicating strong, sustained performance, a positive trend, with no major decline over the period.



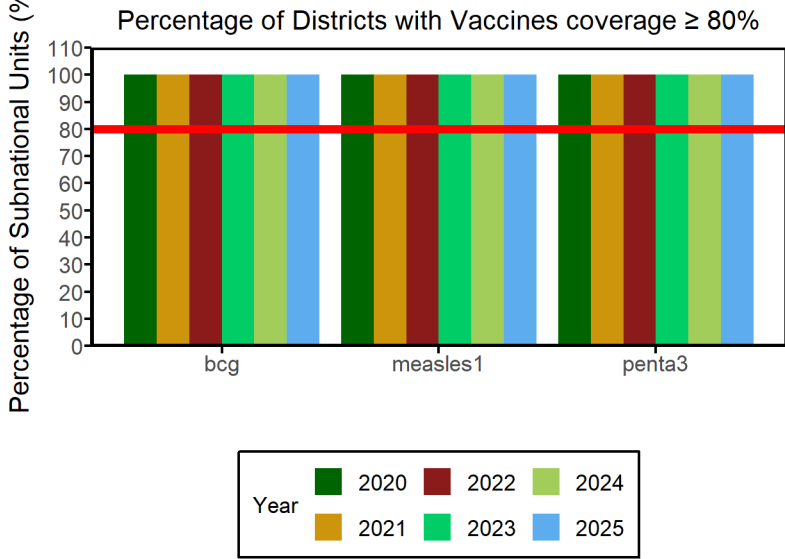
- Levels and trends are plausible. Coverage remains high (~85–100%) from 2010–2025, with some year-to-year fluctuation.
- Good overall consistency between DHIS2 and survey estimates, though DHIS2 exceeds 100% in 2020 and 2023 (a plausibility concern). WUENIC dips lowest in 2021 (~87%) before recovering and converging with the other estimates by 2022–2025.
- Compared to the targets, coverage is consistently near or above 95%, indicating strong performance — a positive trend overall, despite minor dips around 2021.

Percent of districts achieving high coverage targets

ANC 4



Child Health Indicators

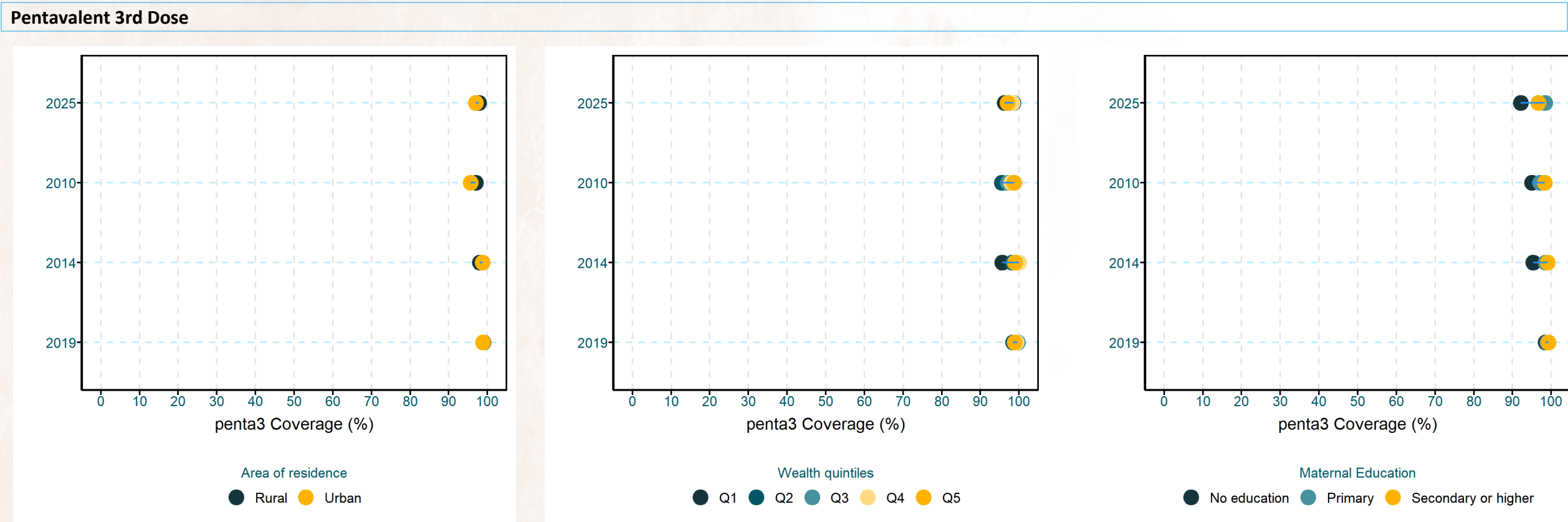
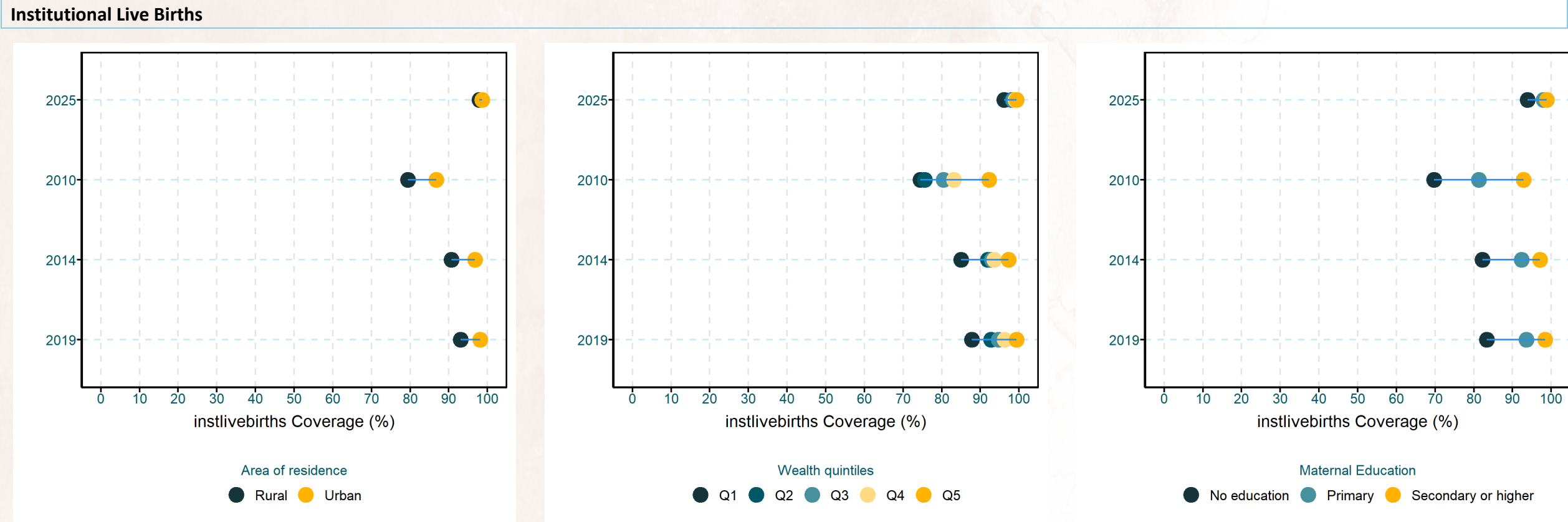


Interpretations

- The performance is very poor and far below target (proportion of districts reporting ANC4 coverage ≥70%), whereby less than 15% have reached it. This indicates a worsening or persistently large gap relative to the target throughout the period
- Vaccines (BCG, Measles1, Penta3; ≥80% target), performance is excellent, 100% of districts met the target every year (2020–2025) for all three vaccines, with no variation over time.

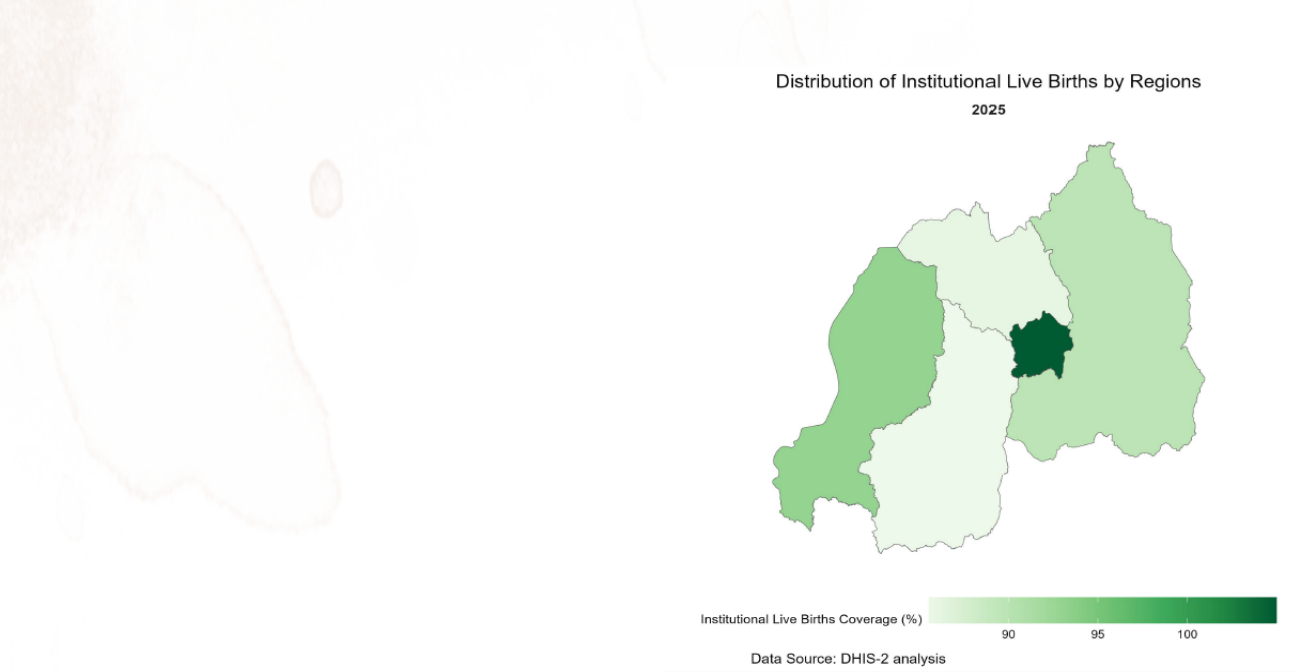
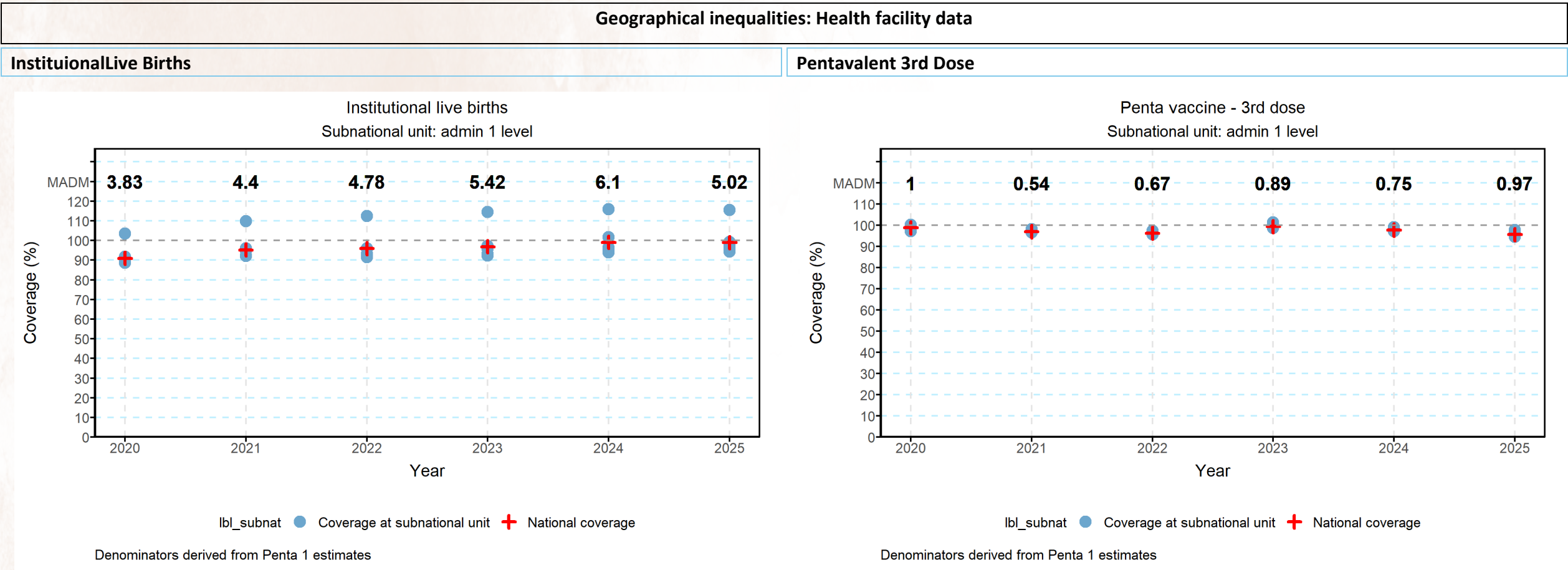
3. Equity

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



Interpretations

- Systematic differences:** For institutional live births, rural residents, lower wealth quintiles (Q1–Q2), and mothers with no education consistently show lower coverage than their urban, wealthier, and more educated counterparts across all survey years. By 2025, these gaps have narrowed substantially but remain visible. For Penta3, gaps are minimal to negligible across all equity dimensions throughout the period.
- Patterns of inequality:** Institutional live births show a mild gradient — coverage rises progressively from Q1 to Q5 and from no education to secondary+, with the largest gaps in 2010. By 2025, the dots cluster much more tightly, indicating near convergence. Penta3 shows no meaningful inequality pattern across any dimension; coverage is near-universal across all subgroups from 2019 through 2025.
- Pace of change:** Disadvantaged groups (rural, Q1, no education) for institutional live births have been catching up steadily, with the gap largely closed by 2025. Penta3 subgroups have remained consistently high throughout 2010–2025, with little room for further convergence.
- Inequalities over time:** For institutional live births, inequalities have narrowed progressively from 2010 to 2025, with near-elimination of gaps by 2025. For Penta3, inequalities were already minimal in 2010 and have remained stable and negligible through 2025.

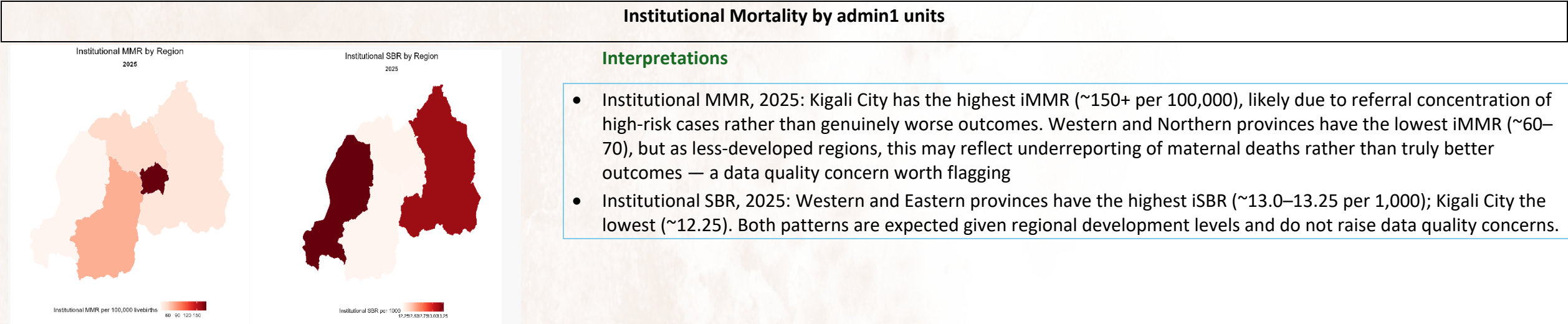
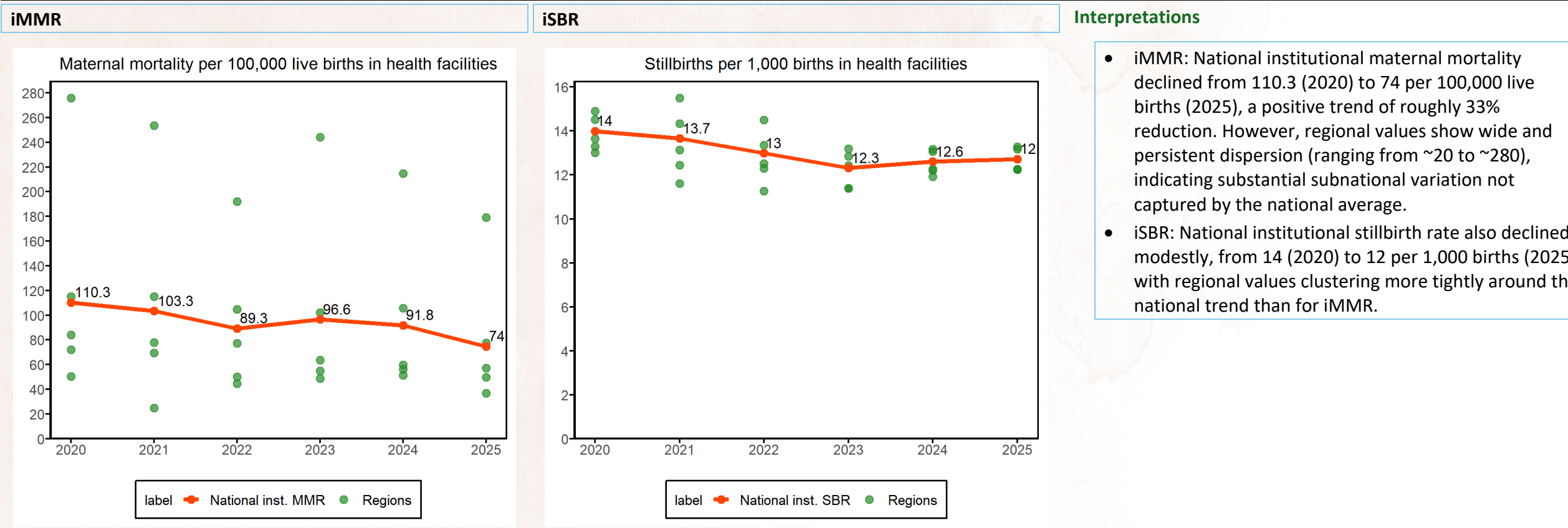


Interpretations

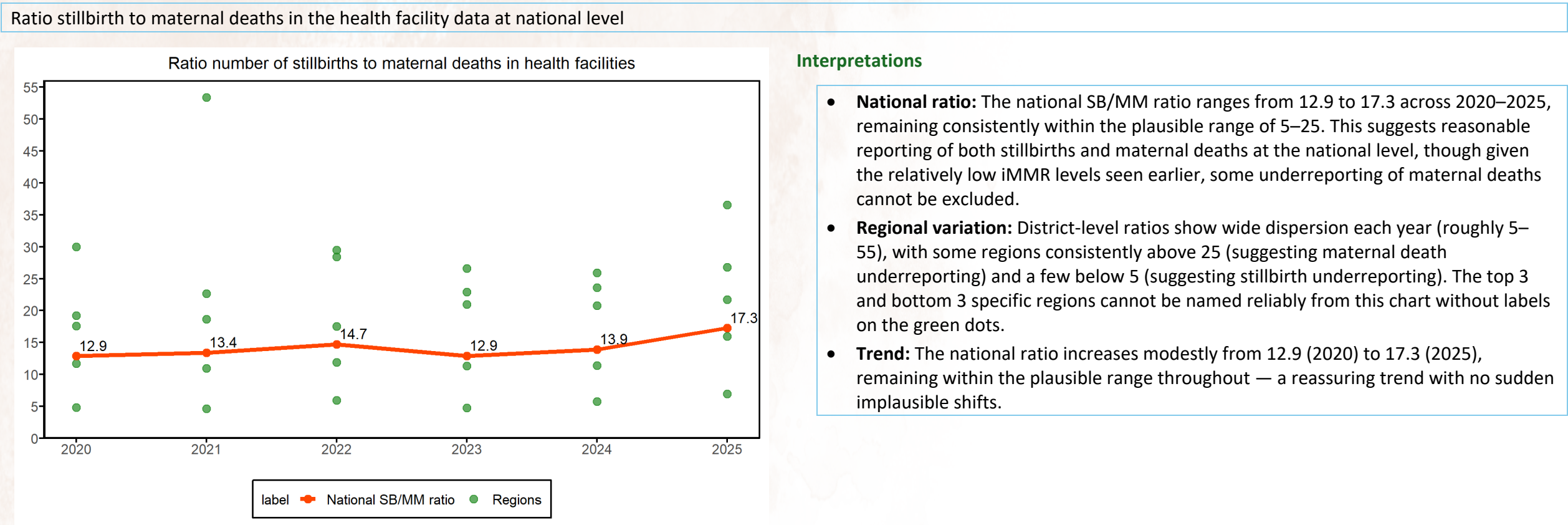
- Coverage evolution:** Both institutional live births and Penta3 coverage remain consistently high (~90–110%) across all subnational units from 2020–2025, with no major upward or downward trend at the regional level.
- Change in inequality (MADM):** Institutional live births show increasing dispersion, MADM rises from 3.83 (2020) to a peak of 6.1 (2024), before declining slightly to 5.02 (2025), indicating growing then slightly narrowing inequality across regions. Penta3 shows low and relatively stable dispersion throughout (MADM 0.54–1.0), with no clear trend — inequality remains minimal.
- Looking at the maps,** there are no apparent geographical disparities in institutional live birth and Penta3 vaccination coverage.

4. Institutional mortality

Institutional Mortality trends (iMMR, iSBR)

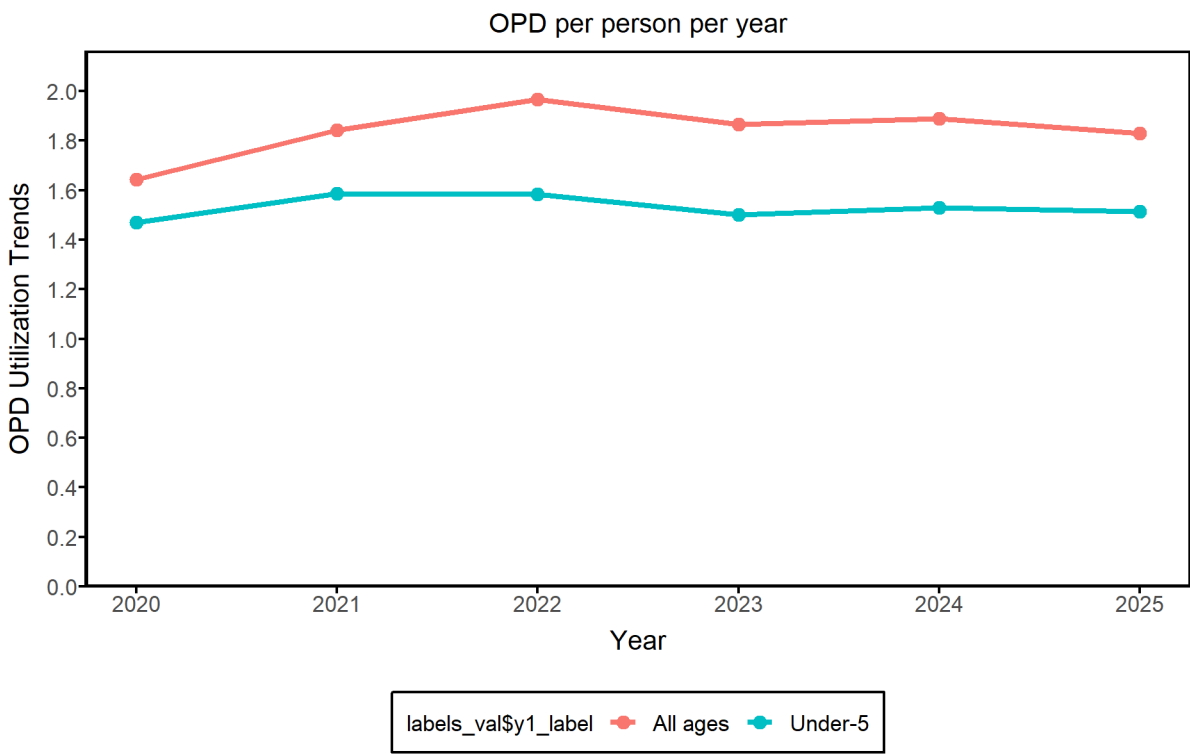


Data quality metrics



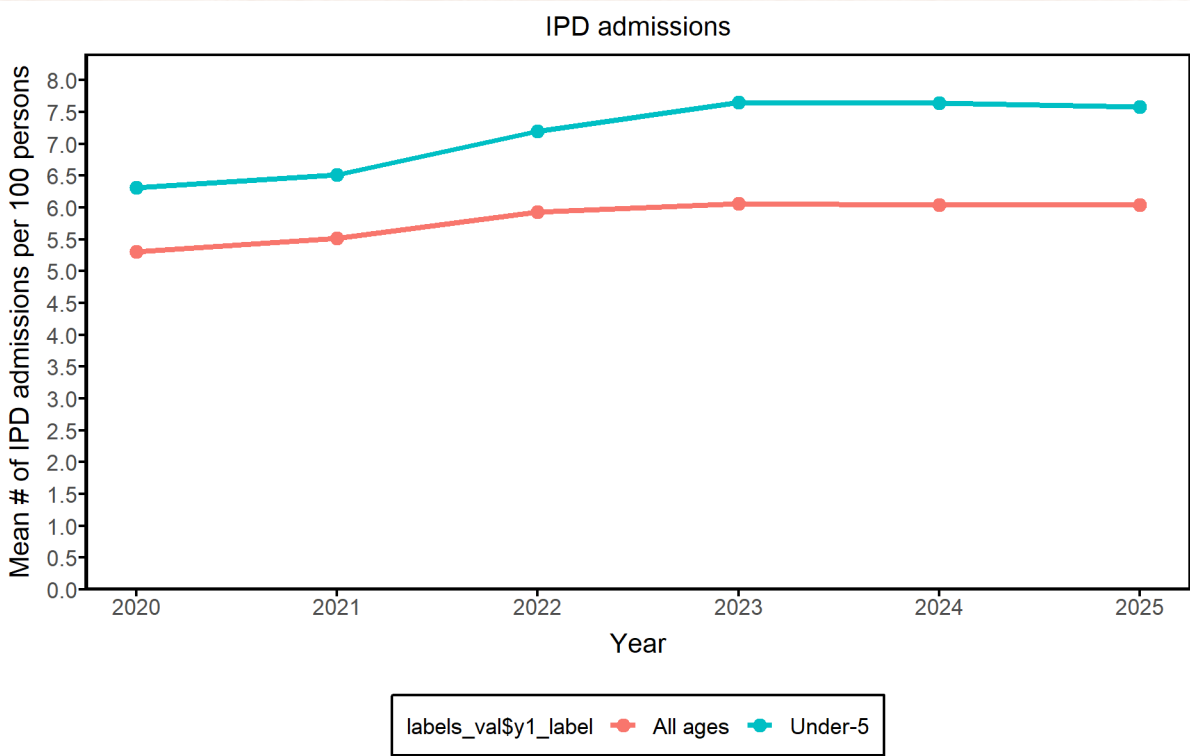
5. Curative health service utilization for sick children

Outpatient and inpatient service utilization



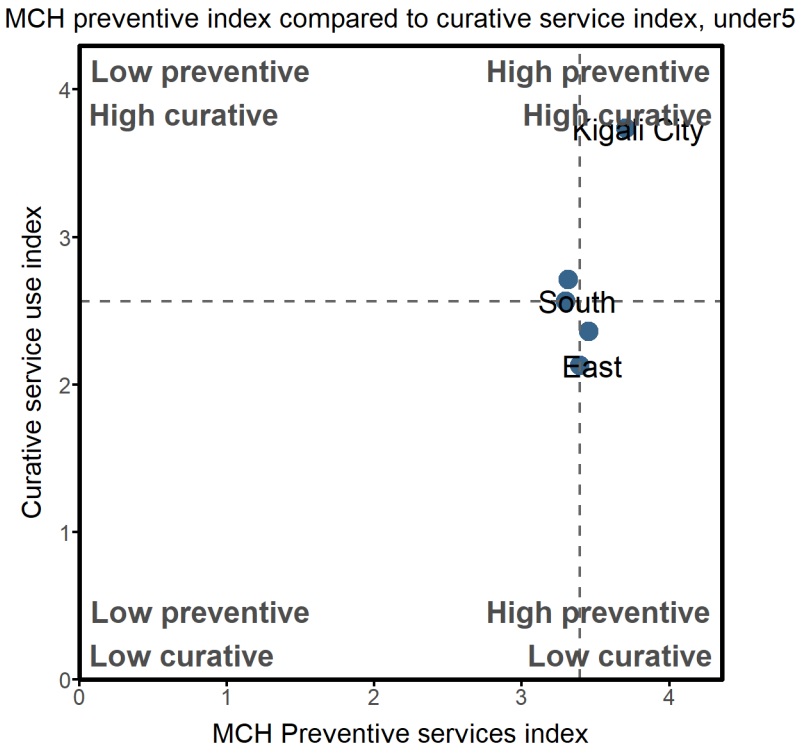
Interpretations

OPD visits per person per year: In 2025, OPD utilization is ~1.8 visits per person per year (all ages) and ~1.5 for under-5s. Both are above the threshold of 1 visit per year, suggesting adequate access. The trend is stable across 2020–2025 with a slight peak in 2022, and data quality appears consistent with no implausible year-to-year fluctuations.



IPD admissions per 100 persons per year: In 2025, IPD admissions are ~6.0 per 100 persons (all ages) and ~7.7 per 100 for under-5s. Both are well above the low-access threshold of 2 per 100, and have increased steadily from 2020 to 2025, a positive trend indicating improving inpatient service utilization.

MCH Preventive vs Curative Index



Interpretations

- All visible regions (Kigali City, South, East) fall in the **High preventive** half of the x-axis (preventive index >3), indicating strong MCH preventive service coverage across Rwanda. On the curative dimension, Kigali City stands out with the highest curative index (~3.8), while South (~2.7) and East (~2.4) are more moderate.
- Key observations:**
- Kigali City** is the best performer on both dimensions — high preventive and high curative, consistent with its more developed health system.
- South and East** provinces show high preventive but relatively lower curative utilization, suggesting preventive services are well established but curative service access may lag.
- No region falls in the low preventive quadrants**, which is a positive finding overall.
- West and North provinces** are not visible in this chart, their absence should be verified, as they may be overlapping with other dots or missing from the data.

6. Health system progress and performance

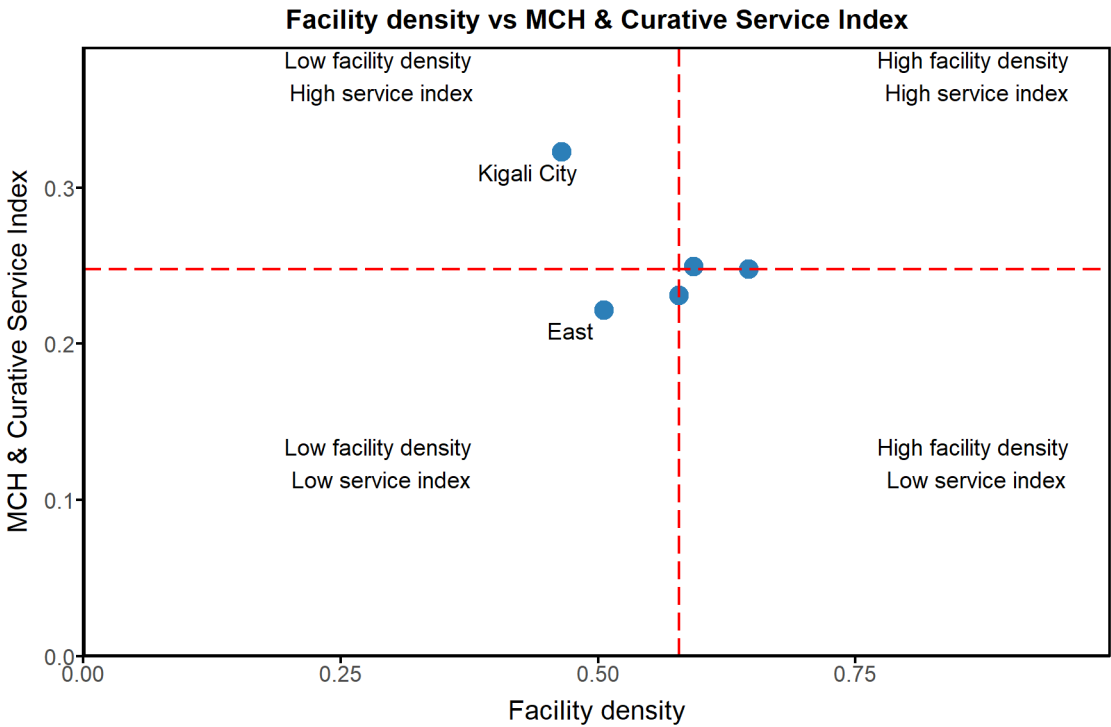
Health system inputs

2025		
Indicator	Value	Unit
Health infrastructure		
Health facility density	0.6	per 10,000
Share of facilities that are hospitals	6.4	%
Hospital density	0.4	per 100,000
Inpatient bed density	15.2	per 10,000
Health workforce		
Health workforce density	12.4	per 10,000
Skills mix ratio nurse-midwives per physician	7.3	
Role of private sector		
Share of Private facilities	13.5	%
Share of NGO facilities	0.0	%

Interpretations

- Infrastructure:** Health facility density (0.6/10,000) and bed density (15.2/10,000) are both below benchmarks (2 and 25 per 10,000 respectively), indicating limited capacity.
- Workforce:** At 12.4 per 10,000, workforce density falls below both the maternal/child mortality reduction benchmark (23) and the universal health coverage benchmark (44.5). The nurse-midwife to physician ratio of 7.3 is appropriate for the context.
- Private sector:** Predominantly public system — private facilities account for 13.5%, with no NGO facilities reported. Private sector activity may be underestimated.

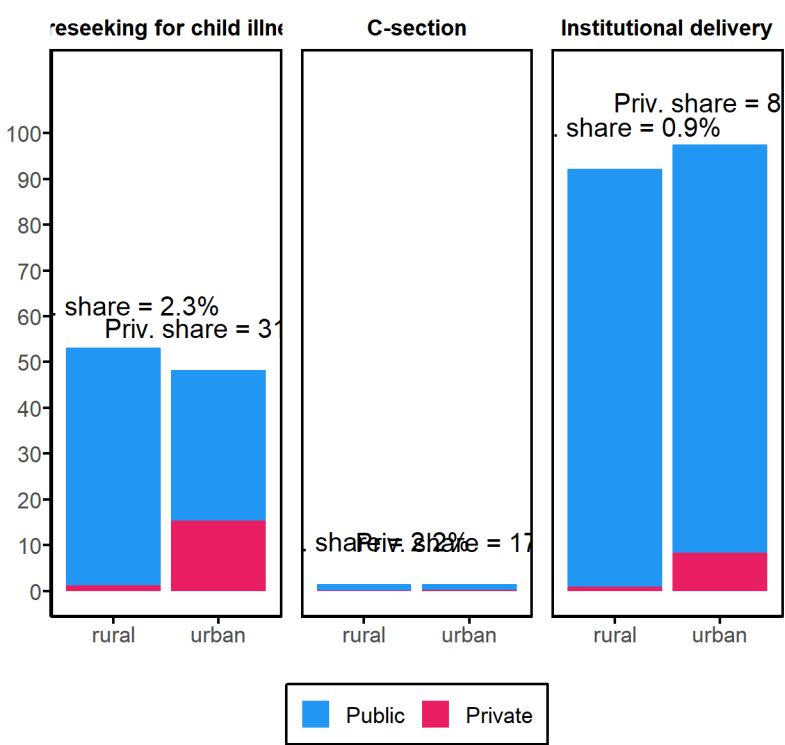
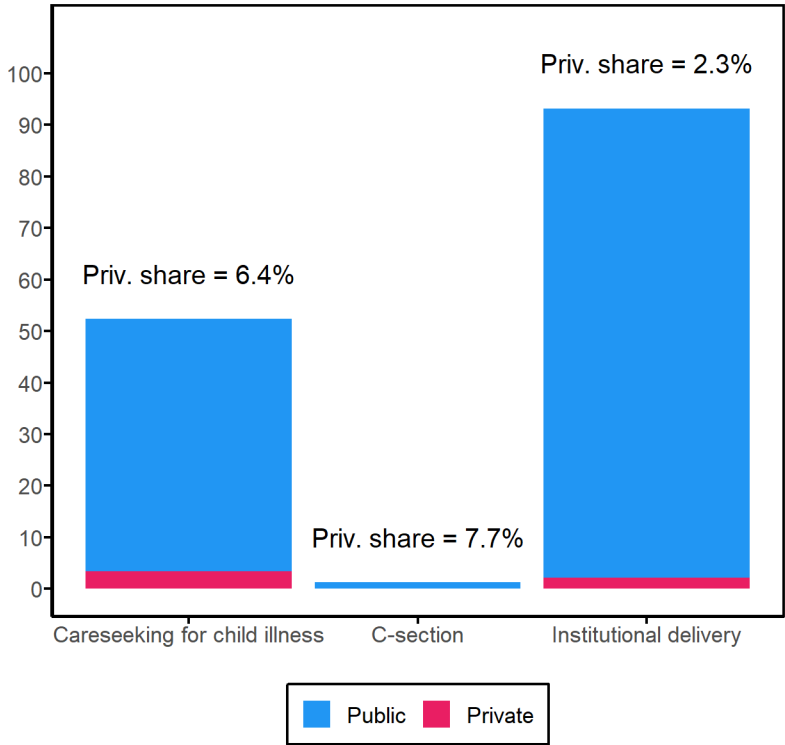
Health system outputs by inputs at the subnational level



Interpretations

- The picture has face validity — Kigali City performs best on service index (~0.32) despite moderate facility density, consistent with its more developed urban health system. East province underperforms on service output relative to its facility density.
- No region (province) achieves high facility density with high service index, reflecting the overall moderate and unequal system performance across provinces.

Private sector and RMNCAH services



Interpretations

- **Higher private share indicators:** C-section has the highest private share (7.7%), followed by careseeking for child illness (6.4%), while institutional delivery has the lowest (2.3%) — reflecting that the public sector dominates routine delivery care, while more specialized or discretionary services attract greater private sector use.
- **Rural/urban differences:** Private sector use is consistently higher in urban than rural areas across all three indicators — most notably for careseeking for child illness (urban 3.1% vs rural 2.3%) and institutional delivery (urban 8% vs rural 0.9%). This is expected given greater private facility availability and affordability in urban areas.