ZIMBABWE

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

2019-2023

chartbook with main results and interpretations

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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.

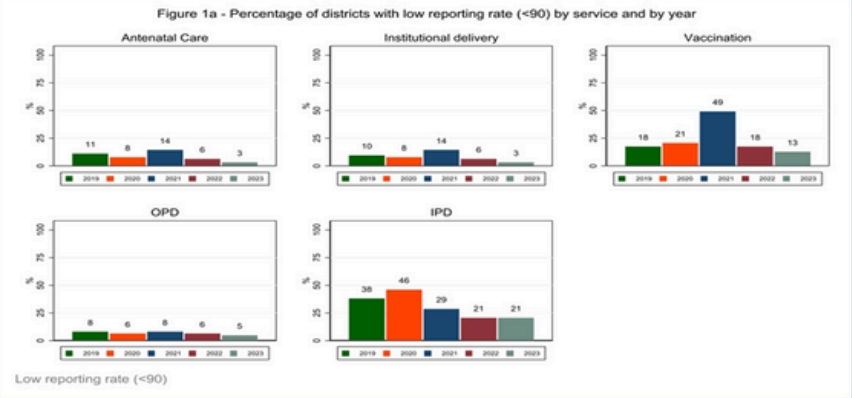
1 Facility data quality assessment: numerators 1

Table 1: Summary of reported health facility data quality, DHIS2, 2019-2023

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)	93	93	92	95	96
1b	% of districts with completeness of facility reporting >= 90%	83	82	77	89	91
1c	% of districts with no missing values for the 4 forms	92	88	91	92	91
2	**Extreme outliers (mean of ANC, delivery, Immunization, OPD)**					
2a	% of monthly values that are not extreme outliers (national)	98	98	99	98	98
2b	% of districts with no extreme outliers in the year	91	88	90	88	89
3	**Consistency of annual reporting**					
3a	ANC1 to penta1 ratio in the reported data (national)	1.11	1.14	1.09	1.06	1.04
3b	Penta1 to penta3 ratio in the reported data (national)	1.06	1.07	1.07	1.04	1.02
3c	% of districts with ANC1-penta1 ratio in expected range	92	91	86	65	75
3d	% of districts with penta1-penta3 ratio in expected range	94	97	91	81	73
4	**Annual data quality score (mean 1a, 1b, 2a,2b, 3c,3d)**	92	91	89	86	87

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



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.

Interpretation

- Overall data quality score is fairly good, above 85% for the 5-year period. However, the score was on a downward trend between 2021-2023. Staff attrition severely affected service provision and reporting of service utilization
- Completeness for monthly facility reporting is good (>90%) and has been improving steadily overtime, from 93% in 2019 to 96% in 2023. Except for 2021, the percentage of districts with completeness of facility reporting >=90% were above 80%, assuming an upward trend from 2022.
- Districts were not performing well except for 2021 where there were no extreme monthly values reported. The percentage of districts with no monthly extreme outliers is good for 2019 and 2021. However, there is no defined trend over the years.
- The consistency of reported data for ANC1-penta 1 improved over the 5 years, and was within the expected range of 1.05 and 1.10 in 2021, 2022, and 2023.. The ratio of penta1 to penta 3 was fairly consistent for the five years, and all within the expected range.
- The percentage of districts with ANC1 – penta1 ratio in the expected range and those with penta1 – penta3 ratio in the expected range were on a downward trend during the period under review, from 92% in 2019 to 75% in 2023 and from 94% in 2019 to 73% in 2023, respectively.
- The percentage of districts with low reporting rates was high for IPD and vaccination services for all the years in the period under review.

1 Facility data quality assessment: numerators 2

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

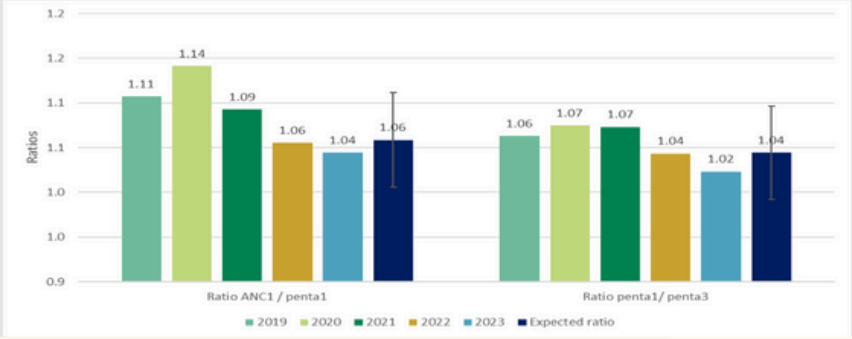
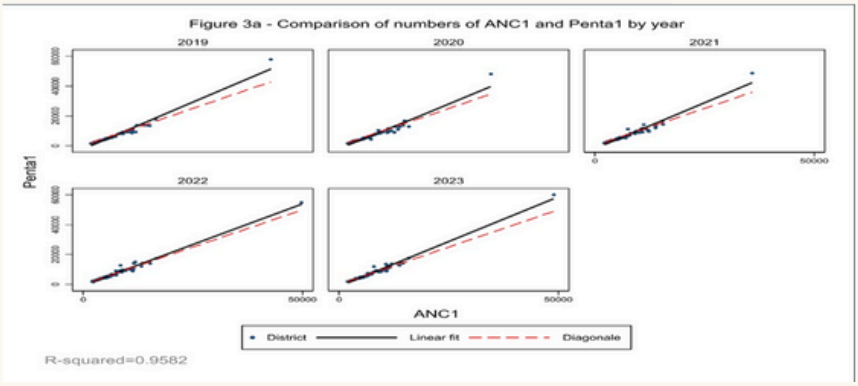


Figure 1c: Comparison of numbers of ANC1 and penta1 reported by health facility, by year



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.

- There was no consistency of reported data for ANC1-penta 1 in 2019, 2020 and 2023 but for 2021 and 202, the data was consistently within expected ranges of 1.05 to 1.10. There was consistency for Penta1 to penta3 for the 5 year period
- The percentage of districts with ANC1 – penta1 ratio in expected range and those with penta1 – penta3 ratio in expected range were on a downward trend during the period under review, from 92% in 2019 to 75% in 2023 and from 94% in 2019 to 73% in 2023 respectively.
- The relationship between ANC 1 and Penta 1 has a positive correlation. The outlier is for Harare district which also serves as a province resulting in the high numbers in comparison with other districts.

Health facility data adjustment: numerators

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

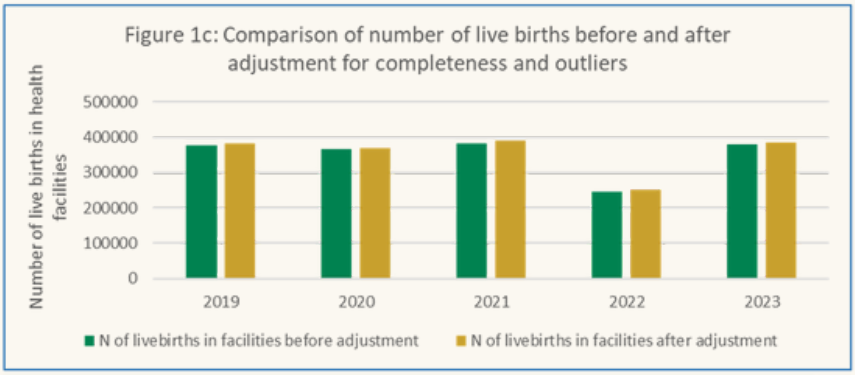
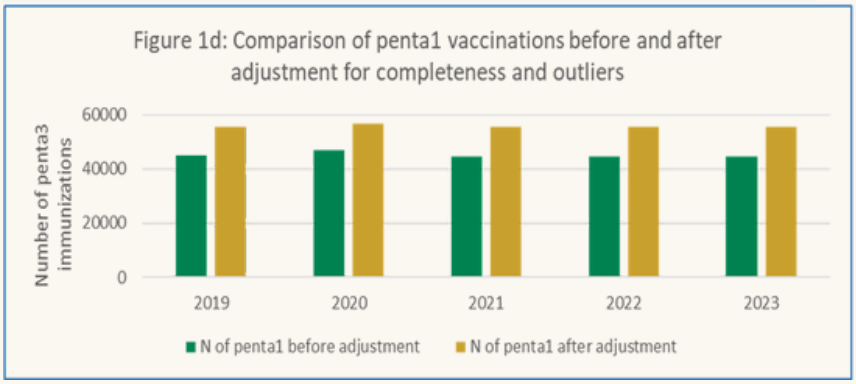


Figure 1d: Comparison of penta1 vaccination before/after adjustment for completeness and outliers



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.

- There were no major differences between the adjusted and unadjusted number of livebirths in the period under review. The absolute difference due to the adjustment was largest in 2022 at 5,985 livebirths (2.4%). The impact of the adjustment rate on numbers of live births is small.
- There were no major differences between the adjusted and unadjusted number of penta1 vaccinations in the period under review. The absolute difference due to the adjustment in 2023 was 6,432 vaccinations (1.4%). 2020 had the biggest difference between the adjusted and unadjusted numbers of 10,661 vaccinations or 2.4%. Impact of the adjustment rate on numbers of vaccinations is small.

2 Health facility data denominator assessment 1

Figure 2a: Annual population, DHIS2 and UN

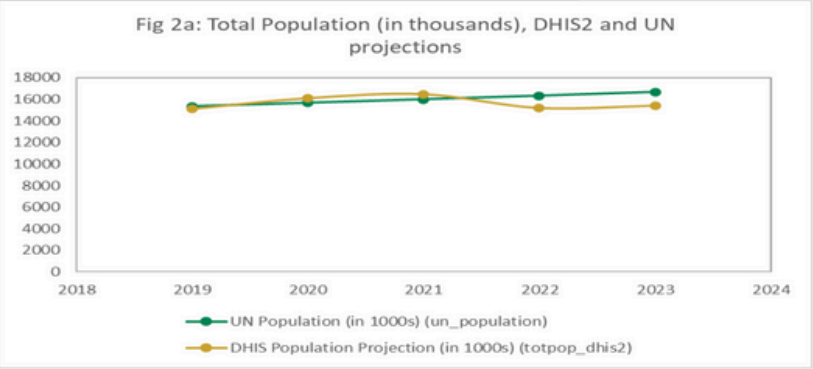
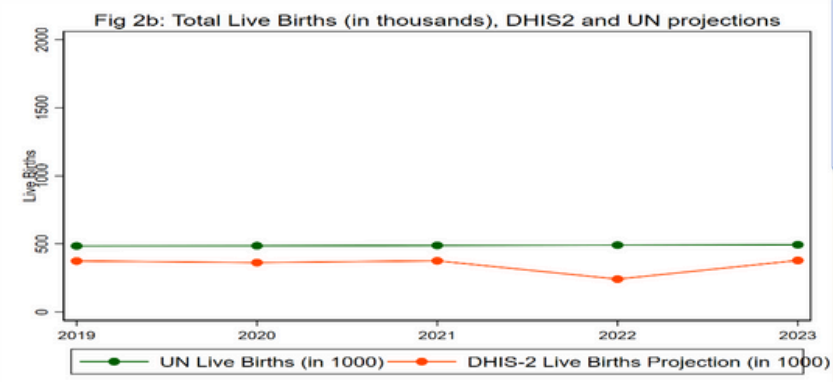


Figure 2b: Live births, DHIS2 and UN

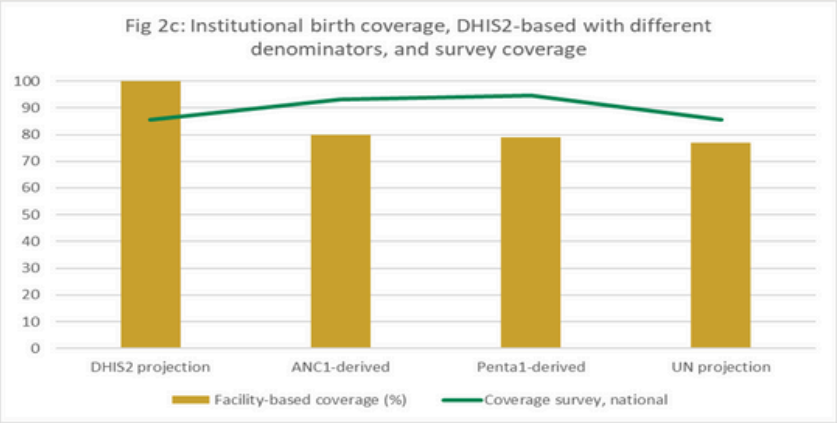


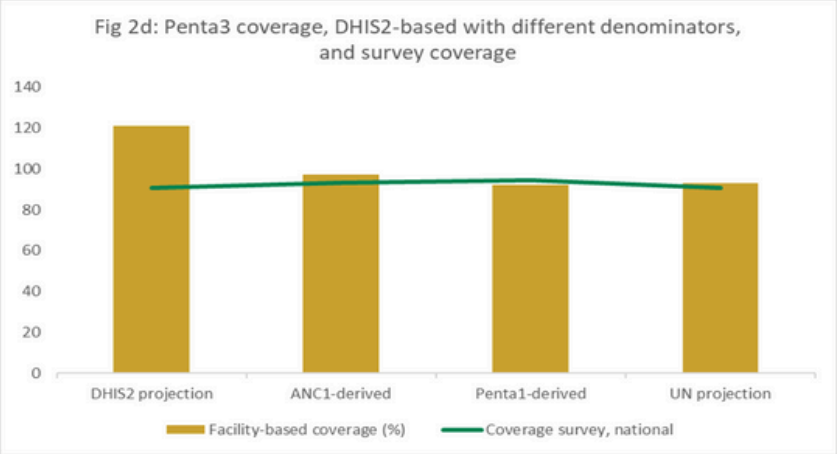
BACKGROUND: Service coverage is defined as the population who received the service divided by the population who need the services: the denominator. The quality of the population projections in DHIS2 is assessed through consistency over time and comparison with the UN projections.

Interpretation

- DHIS2 total population projection was consistent with regular population growth between 2019 and 2021 The DHIS2 total live birth projection was also consistent, showing a regular trend, in the same period.
- However, consistency dropped in 2022 for both data elements. The projected total population was close and comparable to the UN population projection between 2019 and 2021 and dropped in 2022 and 2023. There was a noticeable gap between the projected number of livebirths and the UN projection throughout, with the widest gap occurring in 2022.
- Given the noticeable gap (lack of comparability) between the projected number of livebirths and UN projections and the lack of consistency over time (between 2019 and 2023), the quality of DHIS2 projections are less desirable when compared to UN projections.

2 Health facility data denominator selection





BACKGROUND: The best performing denominator for coverage analysis with facility data is selected by comparing how close the different denominator methods are to survey coverage for a nearby year. This is done at the national and subnational levels (using the median difference with the survey).

- The ANC1 derived denominator gives more plausible results for both institutional live birth coverage and penta3 coverage indicators.
- Institutional birth coverage performed better at subnational level when compared to penta3 coverage.
- ANC1 derived denominator has been used for statistical computations and indicator analysis in this exercise.

3 National coverage trends: Immunization

Table 3g: Coverage trends in selected child immunization indicators

	2015	2016	2017	2018	2019	2020	2021	2022	2023
Immunization: three doses of DTP / pentavalent vaccine coverage									
Surveys					90.7				
Facility data					89.0	85.1	89.4	94.2	97.7
UN estimates					90	86	88	90	
Measles vaccination (MCV1) coverage									
Surveys					87.9				
Facility data					88.2	86.0	82.4	93.1	95.8
UN estimates					85	85	88	90	
Measles vaccination (MCV2) coverage									
Surveys									
Facility data					78.1	77.0	71.6	80.4	88.4
UN estimates					75	74	76	77	
BCG vaccination coverage									
Surveys					94.6				
Facility data					92.1	89.8	93.1	96.7	101.9
UN estimates					95	88	88	96	

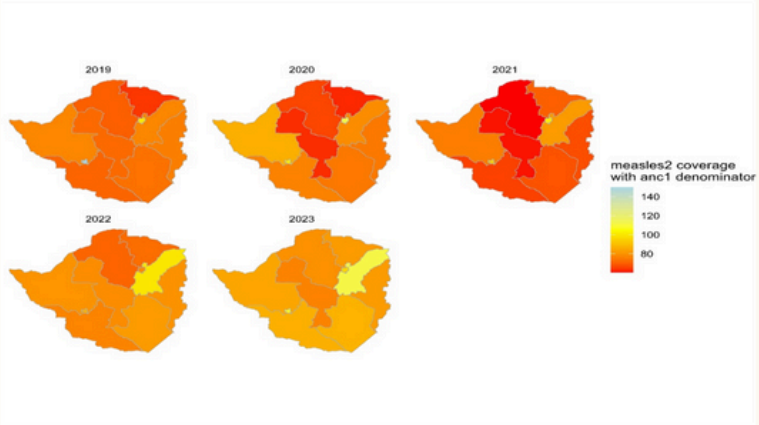
BACKGROUND: Monitoring the coverage of interventions is a critical and direct output of health systems. It is most useful if the national plan has meaningful targets. Both health facility and survey data need to be used.

Interpretations

- There is good consistency between facility, survey and UN data for the 4 indicators on child immunization in the period under review. Coverage levels and trends are also plausible.
- All the coverage indicators for child immunization improved in performance during the period under review. Penta 3 increased from 89% in 2020 to 97.7% in 2023, and the national target of 95% in 2023 was achieved. BCG coverage increased from 92% to 100% in the same period and the 2023 target of 95% was also achieved. Measles vaccination coverage also increased. Community vaccination campaigns conducted at all levels have contributed to the coverage improvements observed.

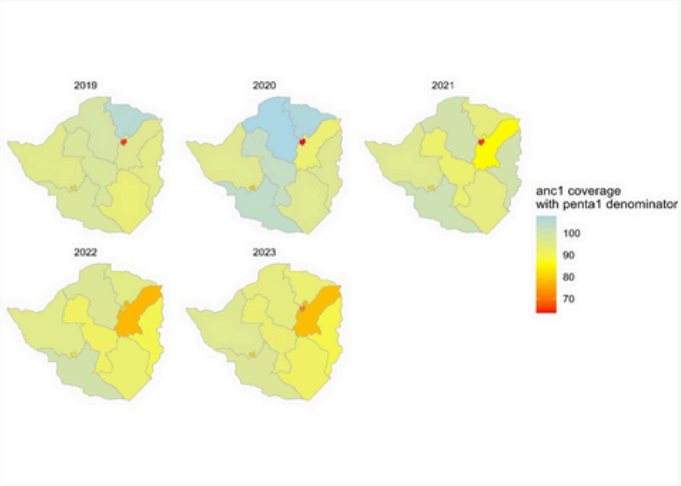
3 National coverage trends: Immunization

Figures 3h: Coverage trends in selected child immunization indicators



Interpretations

- Measles coverage for Zimbabwe was affected by the COVID-19 pandemic. As a result, the coverage levels worsened in 2020 and 2021 as there were more districts with coverages below 80%. However, the situation has improved with coverage levels recovering to higher than the pre-pandemic period in 2023.



Interpretations

- The coverage of ANC1 is generally high (> 85%) in Zimbabwe across all regions. The coverage improved between 2019 to 2020. However, since then the coverage has been on a downward trend. Attrition of experienced staff has affected service provision at all levels. The Mashonaland Central Province performed poorly over the 5-years.

3 National coverage trends: Antenatal Care

Table 3a: Coverage trends in selected antenatal Care indicators

	2015	2016	2017	2018	2019	2020	2021	2022	2023
Antenatal care 1s visit									
Survey	92.0				93.3				
Facility data					93.0	93.0	93.0	93.0	93.0
ANC early visit, first trimester of pregnancy									
Survey	37.4				40.3				
Facility data					33.9	34.6	32.0	47.7	28.8
ANC 4 or more visits									
Survey	74.1				71.5				
Facility data					101.0	74.1	77.1	85.4	91.5
Syphilis tested during pregnancy									
Survey									
Facility data					102.2	68.1	102.7	167.6	96.3
HIV tested during pregnancy									
Survey									
Facility data					100.5	107.7	104.3	163.9	104.8
Received IFA supplementation tablets during pregnancy									
Survey	39.7								
Facility data					.0	.0	.0	.0	.0
Intermittent preventive therapy second dose (IPT2)									
Survey					27.6				
Facility data					39.6	40.3	37.1	60.0	35.7
Intermittent preventive therapy second dose (IPT3)									
Survey					13.2				
Facility data					32.8	33.2	30.4	50.5	30.8

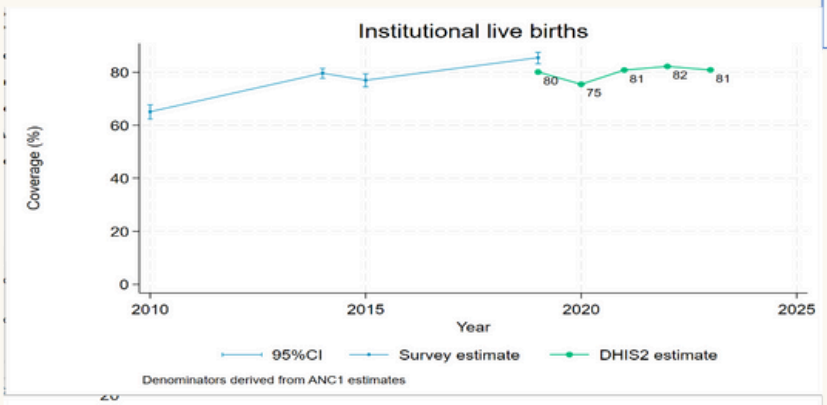
BACKGROUND: Monitoring the coverage of interventions is a critical and direct output of health systems. It is most useful if the national plan has meaningful targets. Both health facility and survey data need to be used.

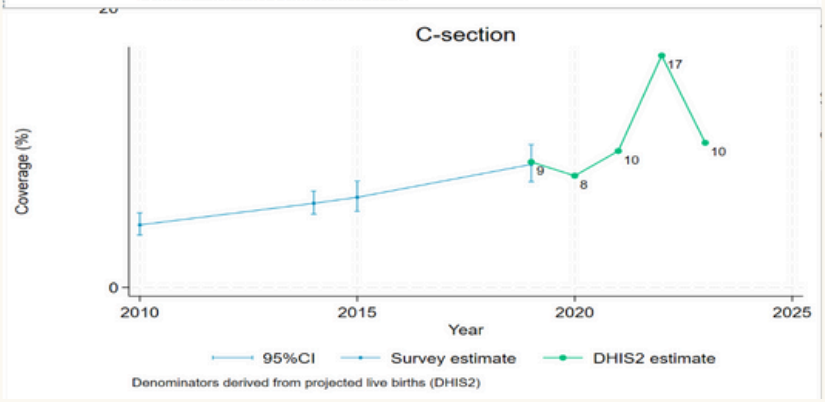
Interpretations

- There is good consistency between facility and survey data for ANC1 (for the 5-year period) and ANC 4 or more visits (with an increasing trend for ANC4 from 2020 to 2023). Coverage levels and trends are plausible for the three ANC indicators.
- There are no survey data for syphilis and HIV indicators, and the facility data do not look plausible. The values for IPT2 and IPT3 from facility data are considerably higher than survey data but are plausible.
- There is sufficient confidence in the observed coverage levels and trends for ANC1 and ANC 4 or more visits. The national target for ANC 1 in 2019 was 93% and this was achieved. However, the 94.4% target for 2023 was not achieved. The national target for ANC 4 or more visits was 72.6% in 2022 and 75.8% in 2023, and these were achieved. Vigilance in community mobilization by community health workers for pregnant women to access ANC services has contributed to high coverages of the 2 indicators. The proportion of pregnant women who booked early is generally low (<35%) for all the years except 2022, which is an outlier. However, targets for 2019 (29%), and 2020 (31.6%) were met.

3 National coverage trends: delivery care

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





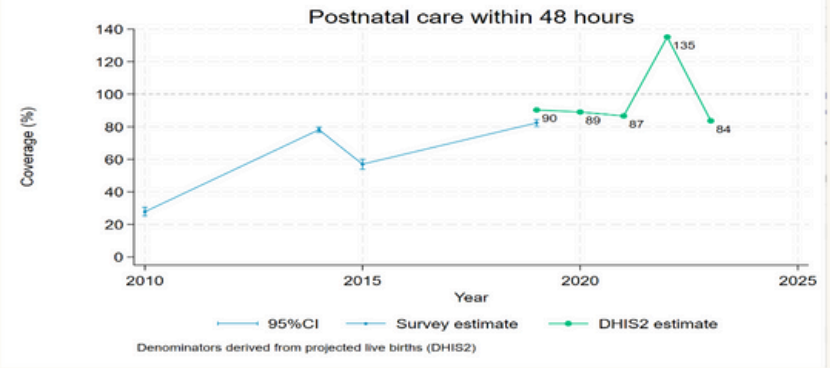
BACKGROUND: Monitoring the coverage of interventions is a critical and direct output of health systems. It is most useful if the national plan has meaningful targets. Both health facility and survey data need to be used.

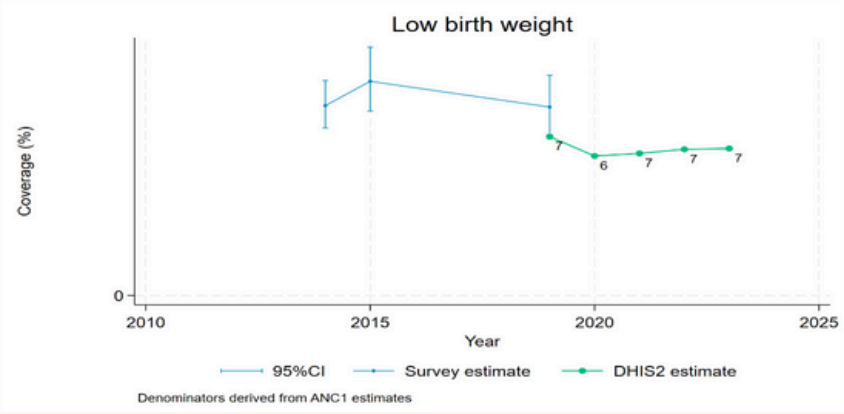
Interpretations

- The levels and trends for institutional live births are plausible and consistency between survey and facility data is fairly good. For c-section, there seems to be a problem with 2022 data, given the spike in the rate. Trends and levels for other years are plausible and with a steady consistent increase.
- Coverage of institutional live births has been around 80% for the past 10 years with the exception of a dip to 75% in 2020. Global targets of 80% were met for all the years except 2020, which likely reflects a COVID 19 pandemic effect. For c-section, coverage was below 10% in 2019 and 2020, reflecting an unmet need for emergency obstetric care. The recommended WHO range was achieved in 2021 and 2023.

3 National coverage trends: Postnatal Care and Low Birthweight

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





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.

Interpretations

- The levels and trends for low birth weight are plausible, though there seems to be no consistency between survey and health facility. For PNC coverage within 48 hours, there seems to be a problem with 2022 data rate as it is an outlier. Trends and levels for other years are plausible.
- PNC Coverage within 48 hours is generally high (>80%). However, utilization of PNC services is yet to recover to pre-pandemic levels in 2019. Except for 2023, programme targets for PNC 2 were met even though coverage has been declining since 2019. Service provision has been affected by attrition of experienced staff. Low birth weight prevalence is generally low in Zimbabwe and has been stagnant around 7% over the past 5 years, which is below the estimated prevalence of sub-Saharan Africa of around 13.9%.

3 National coverage trends: Family Planning

Figures 3i and 3j: Trends in modern contraceptive use and in the FP coverage (demand satisfied for modern methods of family planning)

	2015	2016	2017	2018	2019	2020	2021	2022	2023
Modern contraceptive prevalence(Married)									
FPET estimate	65.39%	65.83%	66.07%	66.47%	66.22%	66.47%	66.48%	66.32%	66.73%
Survey	66.80%								
Facility data									
Unmet need for family planning(Married)									
FPET estimate	11.53%	11.30%	11.17%	11.08%	11.04%	10.95%	10.98%	10.95%	10.81%
Survey	10.40%								
Facility data									
Demand for modern methods satisfied									
FPET estimate	85.01%	85.34%	85.51%	85.66%	85.63%	85.80%	85.82%	85.87%	86.10%
Survey	85.20%								
Facility data									

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.

Interpretations

- The levels and trends for the 4 indicators are plausible and there is consistency between the FPET estimate and survey data. There are no estimates from routine data for the 4 indicators because data is not available in DHIS2 system.
- There is sufficient confidence in the observed coverage levels and trends for the 3 indicators. However, there were no major changes in performance of the indicators during the period under review. Coverage of demand for modern methods satisfied increased slightly from 85.63% in 2019 to 86.10% in 2023.
- Modern contraceptive prevalence rate remained relatively constant (from 66.22% in 2019 to 66.73% in 2023) and the 2023 target of 73% was not met. Unmet need for family planning dropped slightly from 11.04% in 2019 to 10.81% in 2023 and the target for 2023 (5.4%) was not met.
- Shortages of FP commodities and HRH challenges affected the effective provision of FP services at all levels of care, hence impacting indicator performance.

3 National coverage trends: Delivery Care by Place and Volume

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

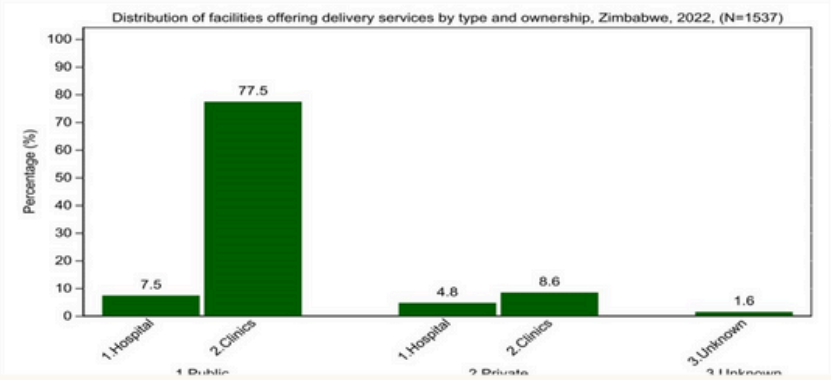
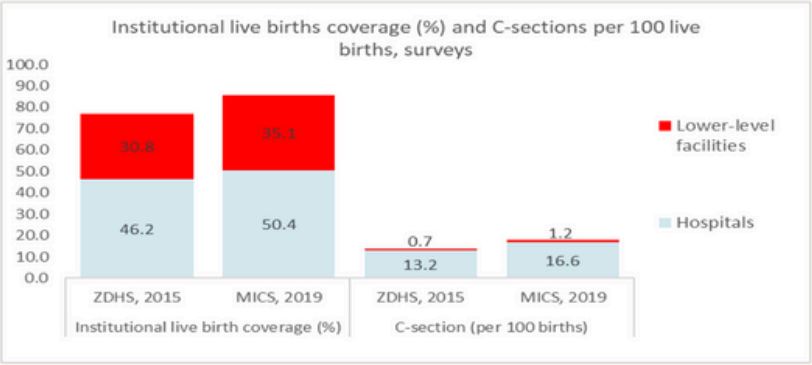


Figure x: Proportion of births by place of delivery... (DHS/MICS)



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. 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.

Interpretations

- Trends in coverage of institutional live births from surveys (MICS 2019 and ZDHS 2015) are plausible and consistent over time. However, data on c-sections is not plausible given that no lower-level facilities (clinics) have the capacity to provide c-section services.
- In 2022, most facilities offering delivery services (77.5%) were public clinics followed by private clinics. Most clients are expected to access care at public health facilities rather than private facilities due to cost.
- The percentage of births happening in facilities increased between the 2015 and 2019 surveys. The survey data also shows that a larger proportion of facility-based deliveries occurred in hospitals compared to lower-level facilities. A large percentage of deliveries still took place in lower-level facilities (30,7% and 35.2%, respectively). This trend is consistent with national expectations that uncomplicated deliveries should happen in lower-level facilities, leaving higher level facilities (hospitals) to manage more complicated cases.
- Most c-sections occurred in hospitals according to the survey data and exceeded the 10% WHO threshold at both time-points, reflecting potential overuse of the service. The two surveys, however, also show that a small fraction of c-sections, .7% and 1.2%, were provided in lower-level facilities. This observation is not consistent with the current policies in Zimbabwe stating that deliveries by c-sections should be performed only at higher level facilities. Clinics do not have the infrastructure and manpower to perform c-sections with sufficient quality and safety.

4 Equity: subnational coverage trends: subnational coverage trends: delivery care and penta3 coverage by admin1 (region), 2019-2023

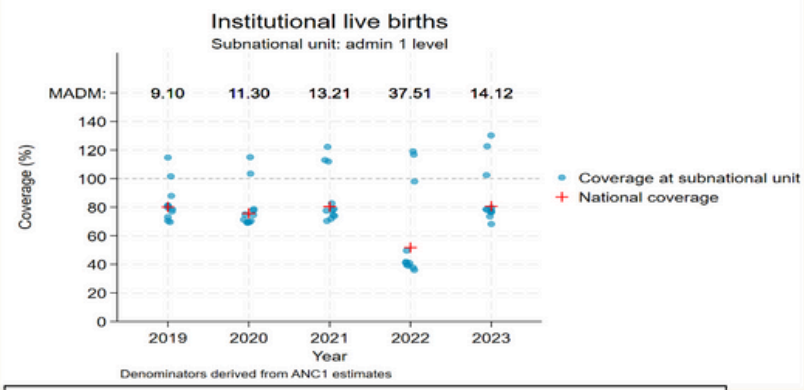


Fig 4a: Regional coverage distribution: Institutional deliveries by province

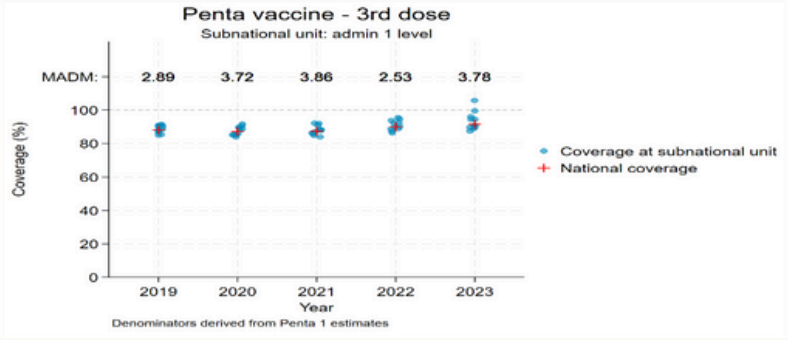


Fig4b: Regional coverage distribution: Penta 3 coverage by province

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.

Interpretations

- The levels and trends of institutional live births are plausible for all but two of the subnational units. Harare and Bulawayo cities reported coverage levels above 100%, indicating denominator challenges. For Penta 3, the data are consistent and plausible from 2019 to 2023, with only one subnational unit exceeding 100% coverage in 2023 (Chitungwize, which is part of Harare province).
- Except for 2022, the coverage of institutional live births hovered between 70% and 80% for most subnational units except for Harare and Bulawayo cities where coverage levels were above 100%.
- Inequalities in institutional deliveries increased over the time frame (MADM increased over the 5-year time period, however, the true gap would likely be lower if data quality adjustments were made for the two subnational units with coverage over 100%). Inequalities appear to be consistent between the two cities where coverage levels are higher and the rest of the subnational units, which are predominantly rural.
- The coverage of Penta 3 vaccination was high (>80% -with little variation) for all the provincial level subnational units between 2019 and 2023. Global targets were surpassed for all the years (at least 80% coverage in every administrative unit). Patterns of inequities remained small and fairly consistent across all years.

4 Equity- Subnational coverage trends: delivery care and penta3 coverage by district, 2019-2023

Fig 4c: Institutional deliveries by district

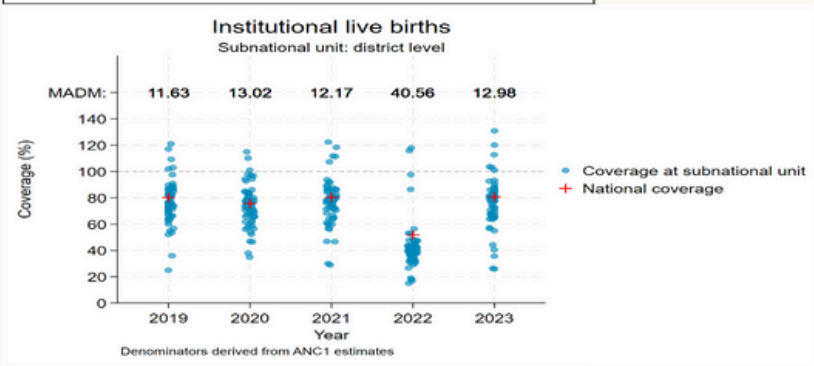
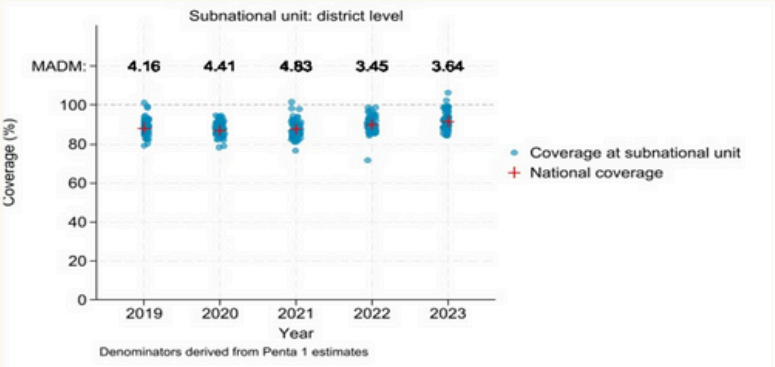


Fig 4d: Penta3 coverage by district



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.

Interpretations

- The levels and trends of institutional live births are plausible for most of the districts for all the years. Coverage levels on average dropped considerably in 2022, which warrants further investigation. However, districts in Harare, Chitungwiza and Bulawayo cities and in Matebeleland North (Lupane and Nkayi) and Matebeleland South Province (Mangwe) reported coverage levels above 100% indicating data quality challenges. For Penta 3, the data are consistent and plausible for almost all the districts from 2019 to 2023.
- Except for in 2022, coverage of institutional live births hovered between 50% and 90% for most districts. 2022 is an outlier with most districts reporting a coverage level of <50%. Inequalities in institutional delivery rates increased slightly over time with some districts having very low rates and others exceeding 90%.
- Coverage of Penta 3 vaccination is high (>80% -with little variation across districts) for almost all the districts between 2019 and 2023. Global targets of at least 80% coverage in every district were surpassed for all five years (except for 6 districts). Equity in coverage levels across districts was sustained for all the years under review (MADM around 3.5 to 4.5 percentage points over the period).

4 Equity- Subnational coverage trends: assessment of percent of regions that have reached international targets

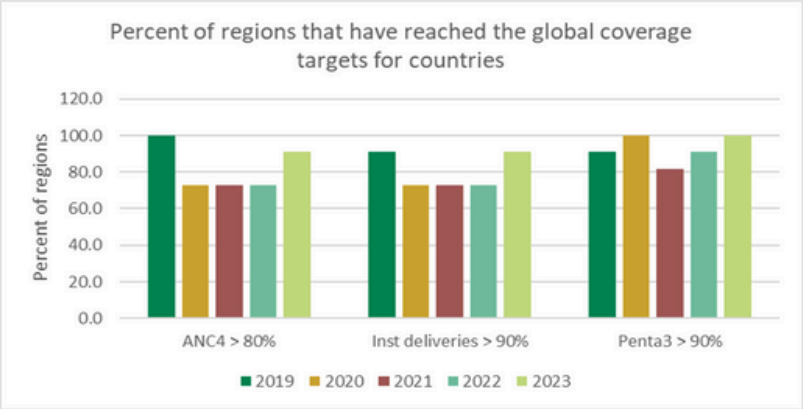


Fig 4e

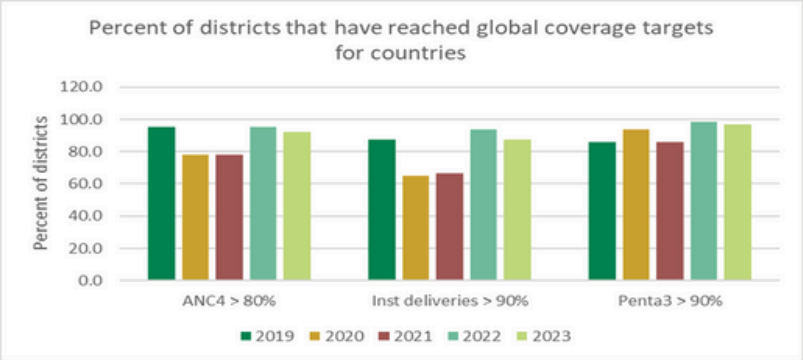


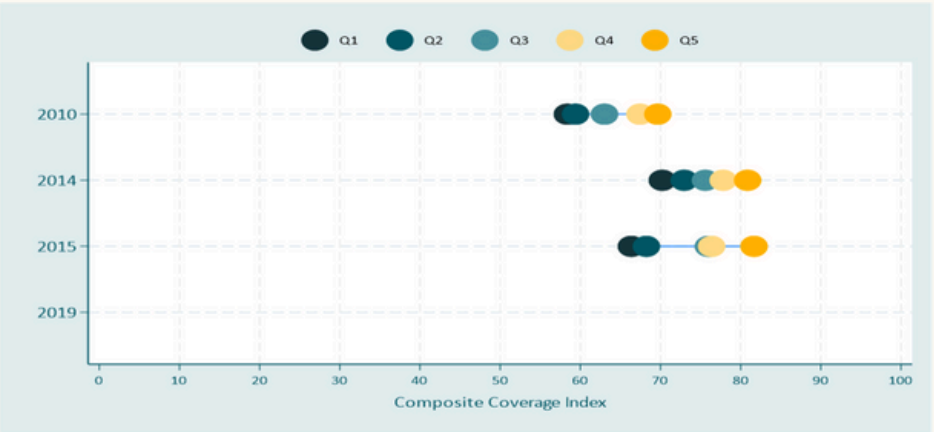
Fig 4f

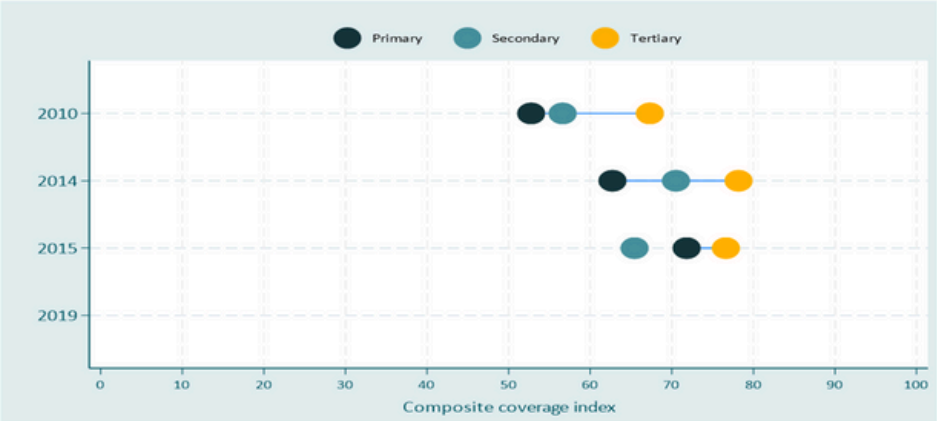
BACKGROUND: Monitoring the coverage of interventions is a critical and direct output of health systems. It is most useful if the national plan has meaningful targets. Both health facility and survey data need to be used.

Interpretations

- The levels and trends for the 3 indicators at regional and district level are plausible and there is consistency over the five years. For the Zimbabwe analysis, higher thresholds than the global targets were used for the three indicators.
- For ANC4, the global coverage target of 80% subnational units have at least 70% coverage was met in 2019 and in 2023. In Zimbabwe, most regions exceeded 80% coverage for ANC 4 over the five years. The percentage of regions achieving over 90% coverage for institutional delivery was over 90% in 2019 and 2023, dropping to around 73% for 2020, 2021, and 2023. The proportion of regions achieving at least 90% coverage for penta 3 was at or above 80% in all five years. Hence, Zimbabwe achieved the international target of at least 80% coverage in all subnational units for DTP3 for all five years.
- At the district level, over 90% of districts had coverage levels exceeding 80% in 2019, 2022 and 2023. The percentage dropped to around 78% in 2020 and 2021. The international target for institutional deliveries (80% of districts have at least 80% coverage) was met in 2019, 2022 and 2023. All the districts achieved the global target for penta 3 vaccination in all the years under review.

4 Equity- Subnational coverage trends: wealth quintiles and female education from survey data





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.
- Examination of the Composite Coverage Index shows that between 2010 and 2014, the gaps between the rich and the poor were reduced and improvement on the CCI occurred for all the wealth quintiles. However, in 2015 the gap between the rich and poor widened, with worsening performance on the CCI index for the two lowest wealth quintiles.
- The gaps in coverage of interventions in the CCI by mother's education generally reduced between 2010 and 2015. However, the inequalities between those with secondary and tertiary education widened between 2014 and 2015, while closing for those with primary and tertiary education. This is a major shift from the traditionally accepted observation where women with better education have better access to health services and may need further investigation. Coverage levels of the CCI also dropped slightly in 2015 for women with tertiary education, which is a concerning trend.

5 Maternal mortality in health facilities

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)

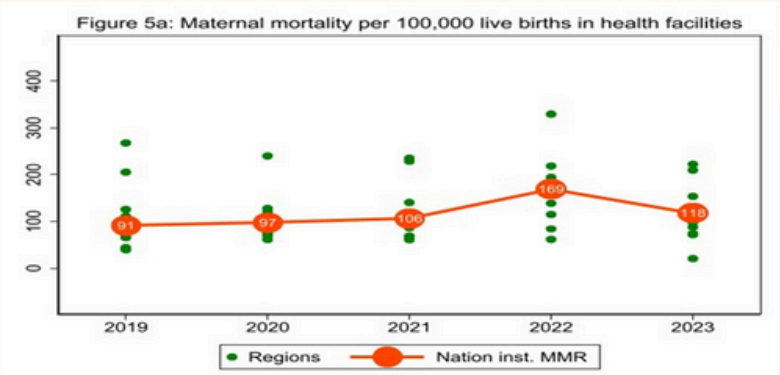
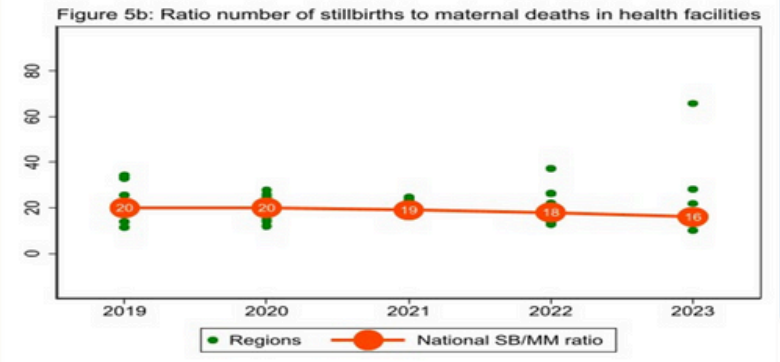


Figure 5b: Ratio of stillbirths to maternal deaths in health facilities, based on the reported data in DHIS2, 2019-2023, national (red line) and regions (blue dots)



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.

INTERPRETATION

- The level of Institutional MMR from the analysis is as expected, especially the increase after 2020 due to the impact of COVID-19. The country has not yet recovered to pre-pandemic levels.
- Notwithstanding existing regional variations, IMMR for most regions were comparable to the national IMMR from 2019 to 2021. Ten percent of the regions had a very low IMMR below 25 per 100,000 live births and this could be due to under reporting of maternal deaths. None of the regions reported an SBR <6 per 1,000 births in the period under review.
- The ratio of stillbirths to maternal deaths is very high for Zimbabwe, more than 15 for all the years included in the analysis. However, this should not be interpreted as underreporting of maternal deaths. For the past three decades according to survey data perinatal mortality has been stagnant. The current interventions in place are focused on saving the mother with less attention to the newborn.

5 Stillbirth rates in health facilities

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

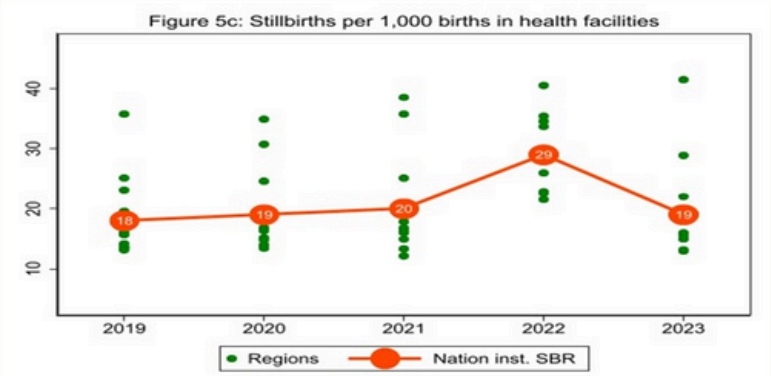
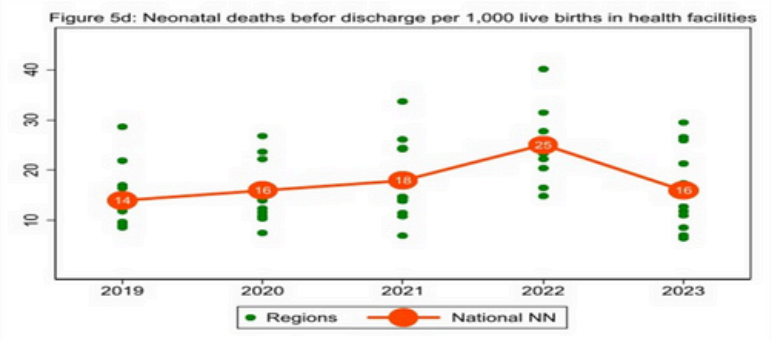


Figure 5d: Neonatal mortality before discharge per 1,000 live births in health facilities, based on the reported data in DHIS2, 2019-2023, national (red line) and regions (blue dots)



BACKGROUND: The main challenge with 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.

- The level of stillbirths from the analysis is as expected especially the increase after 2020 due to the impact of COVID-19 and the country has not yet recovered to pre-pandemic levels. None of the regions reported an SBR of <6 per 1,000 births in the period under review and this is plausible.
- Except for 2019 and 2022, Stillbirth rates for other years in the period under review are fairly consistent with the UN rates (median estimates) suggesting few challenges with completeness of reporting stillbirths.
- The national neonatal mortality (before discharge) was 16/1000 live births in 2023 and the national estimate using routine data was 13/1000 live births in the same year. There could be under reporting on neonatal deaths at health facility level

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)

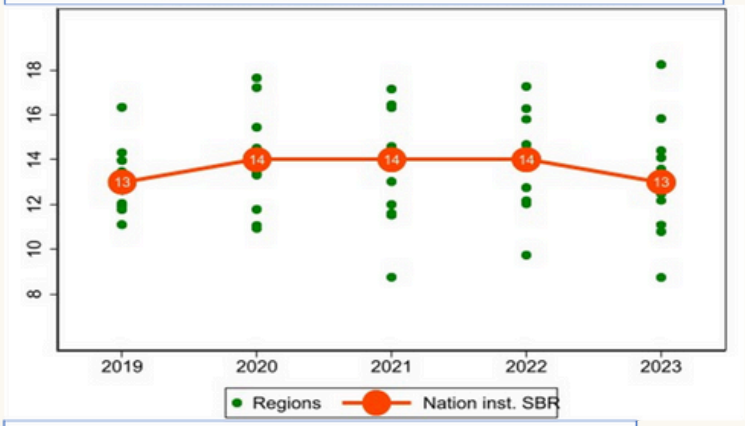
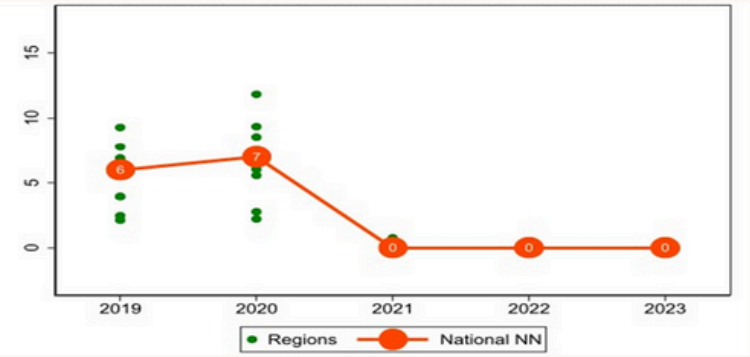


Figure 5d: Neonatal mortality before discharge per 1,000 live births in health facilities, based on the reported data in DHIS2, 2019-2023, national (red line) and regions (blue dots)



BACKGROUND: The main challenge with 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.

- The national level of stillbirths from the facility data are as expected, although regional variations are wider in 2023 and seem too low
- Some regions with lower stillbirth rates could be related to efforts being made in specified regions with partner support, or due to underreporting at facilities
- NMR at facilities was 6-7% in 2019-2020 but reduced to zero in 2021-2023, suggesting the data was not available
- The institutional NMR was much lower than the national estimate of 27 per 1000 live births, suggesting that either most neonates are born at home, possibly due to early discharge post-delivery
- This could also be linked to underreporting or misclassification as stillbirths to reduce responsibility

5 Underreporting of maternal deaths and stillbirths

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

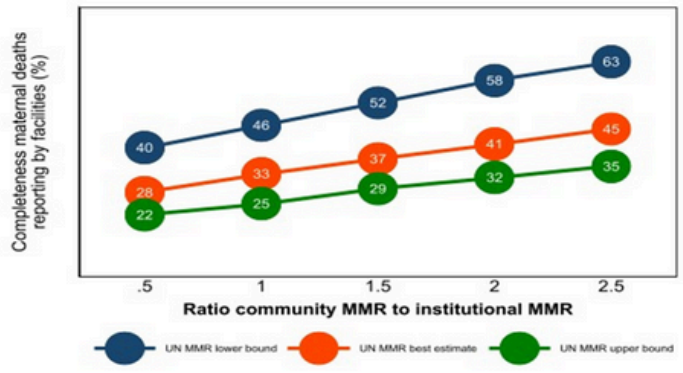
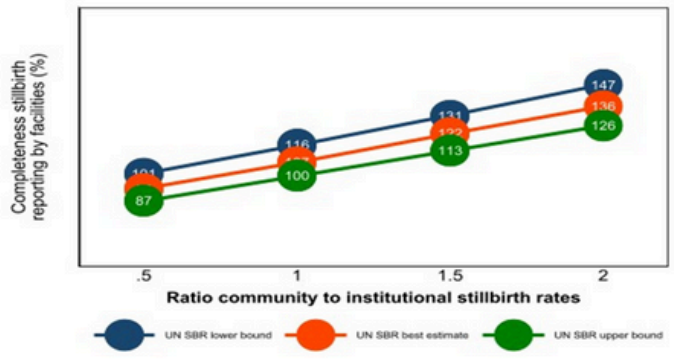


Fig 5f: Completeness of facility stillbirth reporting (%), based on UN stillbirth estimates and community to institutional ratio



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.

- According to the UN estimates, Zimbabwe's MMR in 2020 was 357 maternal deaths per 100,000 live births with a lower bound of 255 and an upper bound of 456. Based on the MICS survey which was conducted in 2019 the MMR for Zimbabwe was 462 per 100,000 live births. Therefore, using figure 5e and a default ratio community MMR to Institutional MMR of 1 to 2, the completeness of maternal deaths reporting by facilities in Zimbabwe is between 25% to 32%. The country should therefore put mechanisms in place (e.g., MPDSR) to ensure complete reporting in health institutions to improve completeness.
- According to UN estimates, the SBR estimates for Zimbabwe in 2020 was 19 per 1000 births (confidence interval of 18/1000-21/1000). From the MICS survey in 2019, the SBR for Zimbabwe was 32, which is above the upper bound limit from the UN estimate. Therefore, using figure 5F, the completeness of stillbirth reporting in Zimbabwe is between 116% and 147%, indicating a potential data quality problem.

6 Curative Health Services: OPD Utilization Among Children Under-5

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

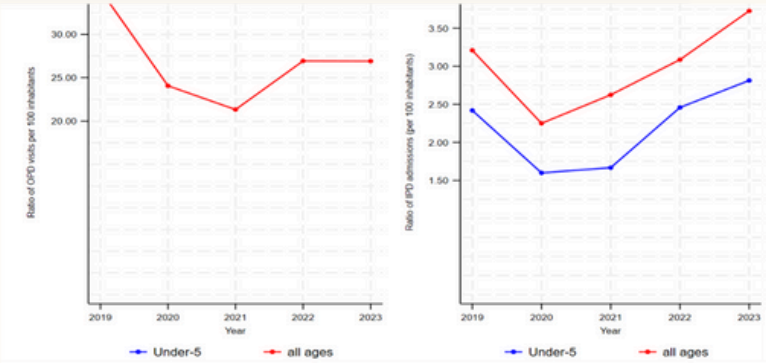


Figure 6b : map with IPD service use by children, by region, 2023

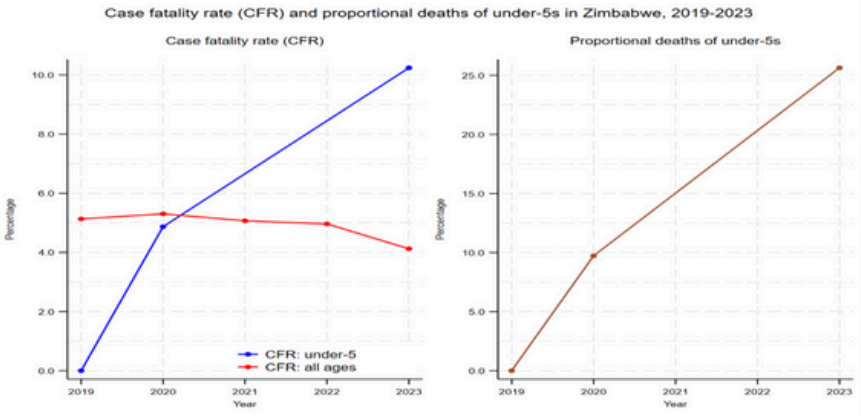
BACKGROUND

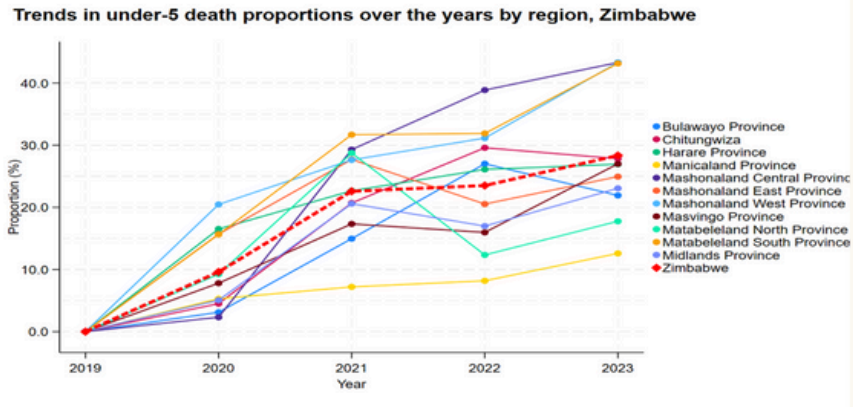
There is a major data gap on curative service utilization by children. Health facility data on outpatient (OPD) visits among under-fives are an indicator of access to curative services.

INTERPRETATIONS

- In Zimbabwe's DHIS2 system there is no disaggregation of OPD visits by age group but only total OPD visits. Therefore, the team was unable to assess the data quality for OPD use among children under five years of age. However, there is a new data collection tool that will be implemented beginning Q2 2024 to address this gap. Therefore, the team managed to analyse the IPD data outputs. Percentage of IPD admissions that were among children under-five ranged from 10% to 12% during the period 2019-2023.
- The number of IPD admissions per 100 children under five was affected by COVID-19 as this rate went below the expected levels of 2 per 100 children to 1.6 in 2020 and 1.7 in 2021. Notably this indicator has recovered to acceptable levels at 2.5 and 2.8 in 2022 and 2023, respectively.
- The IPD admissions per 100 inhabitants for Zimbabwe was affected by the COVID-19 Pandemic during the years 2020 and 2021 as shown in Figure 6a. However, this indicator has since recovered to pre-pandemic levels.
- Service utilization for under 5s was low throughout all regions (i.e below the Global expected rates of 15-40%) except for Harare. Child health interventions need to be strengthened including delivery of services through community health programs and community mobilization for use of health facilities for child health services that cannot be managed at the community level.

6 Curative Health Services: Admission and Case Fatality Rates Among Children Under-5





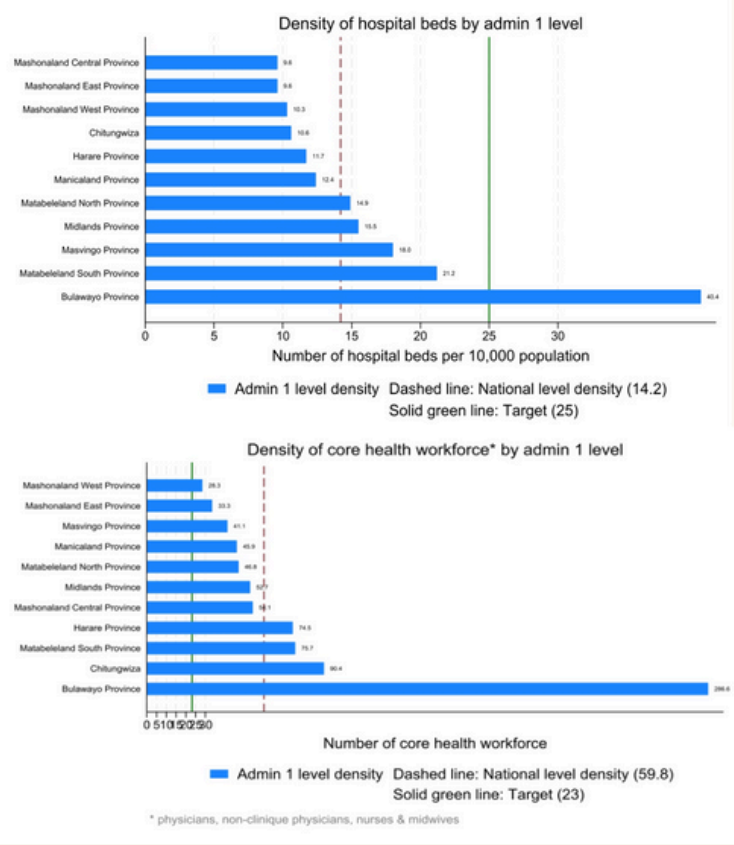
BACKGROUND

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.

MAIN FINDINGS

- The case fatality rate among admissions of children under-five increased over the period 2019-2023. The rate increased from 5% in 2020 to 10% in 2021. Notably the rate remained 11% for the years 2022 and 2023. The percentage increase in proportional deaths for under-5s between 2019 and 2023 is consistent with the percentage increase in case fatality rate for under- 5s in the same period under review.
- The reasons for this increase in case-fatality rate require further investigation (i.e., improved reporting, poor quality of care at facilities, or higher use of facilities for severe disease or injury episodes)

7 Health system performance assessment: indicators



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).

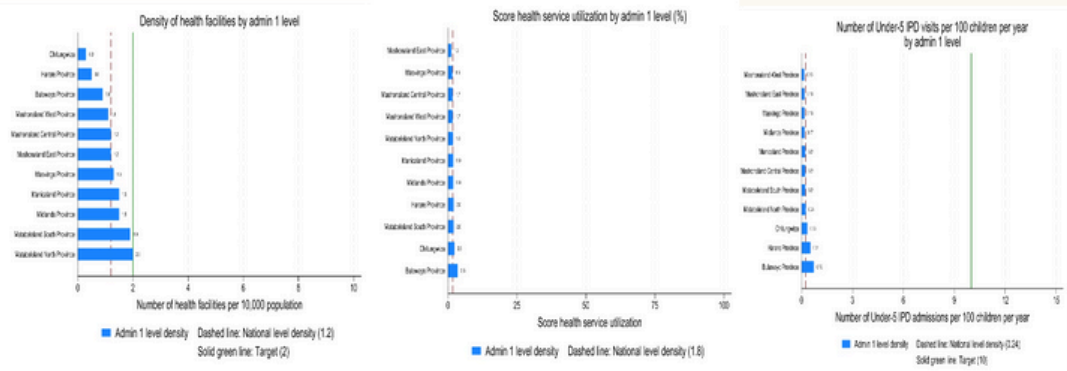
MAIN FINDINGS

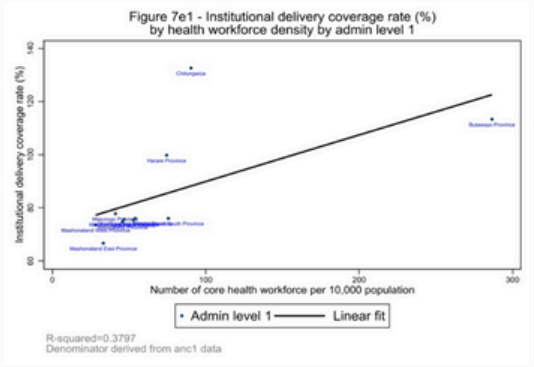
- The data quality on the health system indicators on beds per 10,000 population is consistent with what is reported in the Global databases. According to the WHO database, the beds per 10,000 for Zimbabwe in 2020 was 20 and from the analysis, the national level density is 14.2. Except for Bulawayo, all other provinces in Zimbabwe are below the recommended international threshold of 25 beds per 10,000 population. The pattern by region is as expected with Bulawayo Province having the highest density because it has 3 central hospitals (even though it is the least populated region).

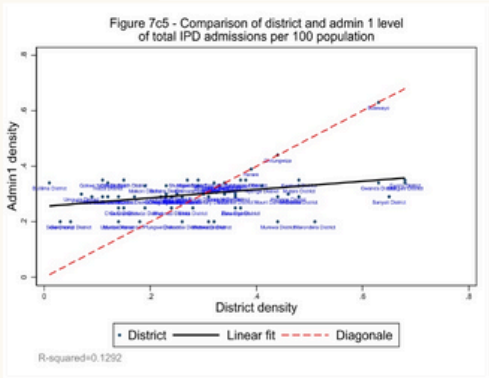
- On density of core health workers, all the provinces are above the national target and the trend is as expected with Bulawayo being the least populated but with 3 Central Hospitals. Only 2 provinces do not meet the global threshold of between 35-45 core health workers per 10,000 population. However, the country has been experiencing out-migration due to the opening of the health global markets. The government has put in place non-monetary incentives to retain experienced health workforce.

7 7 Health system performance assessment: indicators

Figure 7c: Scatter plot of service utilization by health system inputs for regions, year







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).

MAIN FINDINGS

- With regards to density of health facilities per 10,000 population,the national level average of 1.2 is way below the international benchmark of 2/10,000. The national policy is that there should be 1 facility per every 10,000 population. Given the finding from the analysis, policy makers should be made aware of the new international norms.This means that more health facilities will need to be constructed. The major gap is observed in the urban areas in Harare, Bulawayo and Chitungwiza. These metropolitan provinces have densities below the national average.

- The current scenario requires attention because, limited access to health facilities in these areas has resulted in pressure and overcrowding at the central hospitals affecting the quality of services and outcomes at these referral centers.

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

2019-2023

About Countdown 2030 in Zimbabwe

Zimbabwe is part of the Eastern and Southern African country collaboration teams in Sub Saharan Africa under the Countdown to 2030. The nation's team comprises the University of Zimbabwe, Ministry of Health and Child Care and Global Financing Facility . This aligns with the National Health Strategy 2021- 2025, and the National Development Strategy 1 (NDS1) which aim to achieve universal health coverage by addressing RMNCAH and nutrition access and quality gaps in order to reduce maternal, neonatal and child mortality; and improve public health and wellbeing amongst others.

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