National Department of Health

2023
SECTOR PERFORMANCE
ANNUAL REVIEW

Assessment of Sector Performance 2019 – 2023

National Report October 2024

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Foreword

The Sector Performance Annual Report (SPAR) is a monitoring surveillance tool that enables us to measure our progress as a sector on a yearly basis and compare trends for the last five years. It enables us to know how we are progressing against the objectives of National Health Plan 2021-2030 and the 2025 and 2030 national targets set in its Monitoring and Evaluation (M&E) Strategic Plan. It is the flagship report of the National Department of Health presenting health sector performance.

As per the M&E Strategic Plan, the number of national indicators to be reported on a yearly basis has increased to 37 from the 29 indicators reported under the National Health Plan 2011-2020. I am happy to present the new template for the SPAR report that will be used moving forward, where indicators are presented by Key Result Area of the National Health Plan 2021-2030. Aside from the increase in the number of indicators reported, it also shows status of indicators against the national 2025 and 2030 targets, and presents where possible, data disaggregated by sex or other factors for selected indicators. This is an important step towards measuring and visualizing equity and provides stakeholders in health with additional insights on populations or issues that need more focus.

The 2023 SPAR shows that there are successes to celebrate. For example, 2025 targets for four indicators have already been achieved whilst an additional six indicators are making progress towards their targets. I wish to thank and commend all stakeholders, and namely our health workers, for their tireless efforts in realizing this progress. At the same time, twenty-one indicators are far from achieving their 2025 targets. Our challenge is now in ensuring progress is sustained in areas where we have seen success and in determining how to address the areas where progress is lagging or backsliding.

I appeal to our national, provincial and district health sector service providers and implementers including non-government organization and church agencies to take ownership of this report. I request you to review the data presented here, discuss reasons for poor performance and identify interventions that can help to bring the lagging indicators back on track. Ultimately, it is the use of data in programme planning and implementation that will help bring about change. Let us continue to be accountable for our actions and be innovative in our endeavors to strengthen health service delivery for improved health outcomes.

I would like to also congratulate all who have spent time to compile this report. May we continue to further refine and adjust our SPAR report so that all development partners, stakeholders and implementers in the health sector are made aware of their many efforts to achieve a better and healthier Papua New Guinea.

Finally, I endorse this SPAR report for reference and program evaluation purposes and as a document for public consumption.

Dr. Osborne Liko
Secretary for Health

Summary of performance

In relation to 2025 national targets, indicators that have:		
Achieved the target	**Making progress**	**Needs attention to be on track towards progress**
TB case notification rate	Children sleeping under an ITN	Outreach clinics
	Incidence of malaria	Village health assistance per 1000 population
Injury presentations	TB treatment success rate	UHC service coverage
Incidence of diarrhoeal disease	Outbreaks assessed	HIV prevalence in pregnancy
Underweight prevalence	Government and development partner contributions that are expended	HIV-infected women receiving ART
Total budget allocation	Supervisory visits	Children treated with antimalarials
	Partner coordination annual meeting held at provincial level	Family planning use (CYP)
	Hospitals with all 14 specialties	ANC-4 coverage
	Health worker density	Supervised births
	Product batches tested for quality control	Penta-3 coverage
		MCV-1 coverage
		Pneumonia deaths
		Incidence of low birthweight
		Labs that are quality assured
		Health facilities with running water
		Health facilities with radio/telephone
		Outpatient service utilization
		Inpatient admission per 1000 population
		Provincial expenditure of minimum required
		Availability of medical supplies
		Health posts open

Indicator performance

Several indicators have shown improvements at the national level over the five-year between 2019 and 2023:

- New cases of malaria per 1000 population decreased by 14% from 112 to 96 per 1000 population;
- Tuberculosis case notification rates have increased by 14% from 345 to 402 cases per 100,000 population;
- Outpatient presentations with injuries have decreased by 34% from 35 to 23 per 1000 population;
- Incidence of diarrhoeal disease in children <5 years decreased by 31% from 182 cases to 126 cases per 1000 children <5 years;
- Underweight prevalence in children <5 years decreased from 21% to 13%;
- Health worker density has significantly increased from 11 to 15 per 10 000 population; and
- Increase in health facilities receiving at least one supervisory visit from 62% to 68%.

Whilst this progress is noteworthy, it must be acknowledged that national figures also mask important differences at the provincial level, and year to year variations (increases or decreases).

At the same time, many indicators have stagnated or are backsliding in terms of progress over the same time period. This is particularly the case for those related to maternal and child health as well as the broader health system indicators:

- HIV prevalence in pregnant women has increased from 0.9% to 1.4%;
- The number of couple-years of protection for family planning has decreased 24% from 135 to 102;
- The number of outreach clinics has seen no progress at 30 per 1000 population <5 years;
- Coverage of at least four antenatal care visits is only 29%, whilst that of health facility births (42%) and pentavalent-3 immunization (41%) remain below 50%;
- Case fatality rates for pneumonia among children <5 years (2.3%) and low birthweight rates (8%) have seen no progress;
- The percentage of health facilities with running water in the delivery has decreased from 49% to 38% and with functional radios or telephones (excluding mobile phones) from 44% to 39%;
- The percentage of months that health facilities have stock of all eight essential medical supplies has decreased from 53% to 39%.

The lack of progress in the above areas increases the risk of ill health for mothers and their children, and hinders progress to improve quality of care, infection and prevention control, and timely communication within the health system.

Given that most indicators are off track, the overall performance of the sector in the last five years between 2019 and 2023 has overall declined by -1.3%. Analyses of indicators by type show that the input and process indicators declined by 15% and output indicators by 1.5%. Despite this, outcome indicators improved by 14% suggesting that positive changes in behaviours, health seeking practices, or other determinants of health may have influenced outcomes.

Other factors to consider and be mindful of is the impact indicators reported through the Health Log Frame for SDGs and MTDP were mostly collected during the Demography and Health Survey in 2018. The survey shows that there has been a major improvement in our **Maternal Mortality Ratio (MMR**) in the country. There has been a tremendous decline in the MMR from 733 per 100,000 live births in 2006 to 171 per 100,000 live births in 2018. It clearly shows an improvement in the MMR, however when compared to the countries within the Asia Pacific Region, the rate in PNG is still high. There is a need to do more work in maternal health programs to reduce this rate further.

There are also positive improvements in childhood and infant mortality ratios. The infant mortality declined from 57 per 1000 live births in 2006 to 33 per 1000 live birth in 2018 and childhood mortality has also reduced from 75 per 1000 live births to 49 per 1000 live births in the same period. With these improvements in our health indicators, there is no place for complacency, and we need to increase our efforts to maintain this trend and aim for further reduction in the future. The **Growth rate** used in the eNHIS platform was 3.024 with the birth rate of 2.9.

Provincial performance

The top performing provinces in 2023 were: Chimbu, Western Highlands, Eastern Highlands, Southern Highlands and Hela. Chimbu scored high compared to other provinces for the indicators on pneumonia case fatality rate, low birth weight rate, outreach clinics per1000 children <5 years, and supervisory visits.

The provincial scores were obtained after applying a constraint index to the relative performance of each province for each of the 16 indicators assessed for comparison across the provinces. The constraint index is designed to compensate for provincial disadvantage that a province is subject to. The purpose of using this index is to level the playing field when making comparisons of performance between provinces. This index considers mortality figures, social development and size. Full details are available through NDOH.

New insights provided by disaggregated data

For the first time, this report presents indicator data disaggregated by sex, age, or other parameters where possible and appropriate. For example, disaggregated data by sex show that the number of outpatient presentations with injuries is one thirds higher in males, and male children <5 years have a 10% higher incidence of diarrhoeal disease. Conversely, female children <5 years have a 20% higher case fatality rate for pneumonia. At the same time, outpatient visits per capita are higher in females than in males. These analyses show important findings, which will need to be monitored in subsequent years to validate trends and research needed to explore reasons for the differences to inform programming and service delivery.

Technical notes about the data in this report

Changes to the SPAR report

This 2023 SPAR report now incorporates 8 new indicators as per the M&E Strategic Plan Plan of the National Health Plan 2021-2030, as listed below:

KRA 1 - Healthier communities through effective engagement

1. Indicator 2: Village health assistants per 1000 population

KRA 2 - Working together in partnership

2. Indicator 3: Partner coordination annual meetings held at the provincial and national levels

KRA 3 - Increase access to quality and affordable health services

3. Indicator 4: Universal health coverage (UHC) service coverage index (SCI)

KRA 4 - Address disease burden and targeted health priorities

4. Indicator 14: Pregnant women having at least four antenatal care (ANC) visits
5. Indicator 24: Provincial hospital, district hospital and health centre labs that are quality assured as per national standards

KRA 5 - Strengthen health systems

6. Indicator 28: Inpatient admissions per 1000 population
7. Indicator 29: General hospitals and provincial hospitals that have all 14 specialties
8. Indicator 37: Product batches tested that met quality control standards

Reporting rates in the National Health Information System

A total of 824 health facilities are currently reporting in the electronic National Health Information System (eNHIS). Reporting rates have consistently been high and ≥95% since 2020. Of the 37 indicators reported here, 23 indicators are based on data reported in the eNHIS. Special mention must be made to Milne Bay, Manus and the Autonomous Region of Bougainville who have maintained a 100% reporting rate in 2022 and 2023.

Data quality

Since 2021, the Performance, Monitoring and Research Branch has been conducting data quality audits as part of annual NHIS supervisory visits. During these visits, accuracy of data for selected indicators reported in the eNHIS is verified by comparing what is recorded in source documents (such as registers or tally sheets) at the health facility versus what is eventually reported in the e-NHIS. Findings show that accuracy of data remains highly variable and is an area requiring further attention (see table below). Accuracy undermines the validity of conclusions made from the data and thereby influences data driven decision-making.

Table 1: Percentage of health facilities with accurate* data for selected indicators assessed in 2021-23

Indicator	2021 (N=41)	2022 (N=43)	2023 (N=15)	2025 target
Number of ANC-1 visits	40%	45%	27%	75%
Number of deliveries in health facilities	33%	50%	40%	75%
Number of children receiving three doses of the pentavalent vaccine Penta-3 immunization	31%	52%	20%	75%
Number of pneumonia cases (all ages)	31%	43%	20%	75%
Confirmed malaria cases (all ages)	24%	19%	7%	75%

*As determined by the data verification factor being within the range of 0.9 to 1.1

Data corrections and changes to definitions/calculation methodologies

As earlier years' data were being reanalysed a few obvious data errors were noted and these have been corrected. Therefore figures may change compared to previous SPAR reports.

The simple under-reporting correction used in previous SPARs has been continued. This is a facility level correction where the correction factor of x (12 / number of forms actually received) is applied to each facility yearly total value when the expected number of reports has not been received.

Definitions or methodologies used to calculate the indicators have changed for the following:

- Family-planning use (couple-years of protection): this indicator previously did not count condoms but now includes condoms based on the revised definition for the indicator in the M&E Strategic Plan. The multipliers used for each contraception type to calculate couple years of protection has also been updated based on global data.
- Aid posts open: The data source has changed from the aid post listing in eNHIS to the aid post register also available in eNHIS. Therefore, the data for aid posts open has been recalculated from 2019 to ensure consistency in the source used. In addition, the indicator now counts only data reported in quarter four for a more accurate representation of status. Previously, the indicator counted the last status reported during the year.

Population data for indicator denominators

In late 2018 the NDoH adopted a revised set of population estimates, derived from the 2011 census. The methodology used in developing the estimates was approved for use by the Department of National Planning & Monitoring. These revised populations were projected over the time-period 2011 to 2023. In early 2023, the Senior Executive Management of NDoH approved corrections to population estimates to be applied from 2022 onwards based on the total fertility rate in the Demographic and Health Survey 2016-18 and considering uptake of family planning methods in the country. This resulted in a downward revision to births, which in turn affected indicators such as coverage of antenatal care and health facility deliveries. This is the reason why some indicators such a considerable increase between 2021 and 2022. The population denominator per indicator is shown in the table for List of Indicators, on the column of population on page 5.

Measles SIAs

In 2023, SIAs were conducted. As per the global standards, SIA data are collected and reported separately to routine immunization data is ambiguous as it provides incorrect coverage rates for routine immunization planning. Some provinces reported combined data in 2023, hence the very high coverage. In addition, the measles indicator performance has affected the provincial performance when constraint index applied to this indicator.

Reporting year

The data analysed in this report relate to the full 2023 calendar year data (January to December).

Further actions

Performance monitoring requires information on program inputs, implementation and results. Despite limited analysis, this report should be used by PHAs, programme managers and health workers to review their data and how performance can be improved to better meet community need. PHAs and NDoH programmes are encouraged to present and discuss the data at quarterly and annual performance reviews. Health facilities should review data that is reported to the national level and make use of tools available in the eNHIS (such as dashboards or the bulletin) to support service planning and delivery.

Your comments, criticisms and suggestions will improve the value of the SPAR and create demand for information. Any queries or comments on the report should be directed to the Performance Monitoring and Research Branch of National Department of Health to: Ms. Manah Dindi (Manager), on email; manah.dindi2@gmail.com or Mrs Charlotte Polly (Technical Advisor - NHIS) on email cpolly9@gmail.com.

List of Indicators

Type	#	Indicator	Source	Population Used
Outcome	1	Outreach clinics per 1000 population <5 years	National Health Information System (NHIS)	Under 5 population
Input	2	Village health assistants per 1000 population	Health Workforce	
Output	3	Partner coordination annual meetings held at the provincial and national levelsK	PHA reports and Partnerships	
Outcome	4	Universal health coverage (UHC) service coverage index (SCI)	Global estimates	
Outcome	5	Children who slept under an insecticide-treated bed net	Malaria Indicator Survey	
Output	6	Children <5 years diagnosed with fever who are treated with appropriate antimalarial drugs	Malaria Indicator Survey	
Impact	7	Incidence of malaria per 1000 population	NHIS	Total Population
Outcome	8	HIV confirmed prevalence in pregnancy (age 15-24)	HIV program	
Output	9	HIV-infected pregnant women who received antiretroviral drugs to reduce the risk of mother-to-child transmission	HIV Program	
Output	10	TB case notification rate for all forms of TB per 100 000 population	TB program	
Outcome	11	TB treatment success rate for all forms of TB, bacteriologically confirmed and clinically diagnosed, new and relapse cases	TB program	
Outcome	12	Injury presentations by type (road traffic accidents and others) per 1000 population	NHIS	Total Population
Output	13	Family planning use (couple-years of protection)	NHIS	Women of reproductive age only (WRA)
Outcome	14	Pregnant women having at least four antenatal care (ANC) visits	NHIS	Expected births
Outcome	15	Supervised births at health facilities	NHIS	Expected births
Outcome	16	Pentavalent 3 immunization coverage rate	NHIS	Population under 1
Outcome	17	Measles-containing vaccine, first dose (MCV1) immunization coverage rate	NHIS	Population under 1
Output	18	Total provincial hospital births that are referred from rural centres per 1000 births	NHIS	
Impact	19	Incidence of diarrhoeal disease in children <5 years	NHIS	Population under 5
Impact	20	Deaths among children <5 years with pneumonia admitted to a health facility	NHIS	No population used in the denominator
Impact	21	Incidence of low birthweight among newborns	NHIS	No population used in the denominator

Type	#	Indicator	Source	Population Used
Impact	22	Underweight prevalence in children <5 years	NHIS	No population used in the denominator
Process	23	Outbreaks/urgent events identified and reported are assessed by NDoH/PHA within 48 hours of receiving the report	Surveillance	
Output	24	Provincial hospital, district hospital and health centre labs that are quality assured as per national standards	Central Public Health Laboratory	
Input	25	Health facilities that have running water and sanitation	National Inventory of Health Facilities (NIHF)	
Input	26	Health facilities with a functioning radio, telephone or mobile phone	NIHF	
Output	27	Outpatient service utilization per capita	NHIS	
Output	28	Inpatient admissions per 1000 population	NHIS	
Input	29	General hospitals and provincial hospitals that have all 14 specialties	Medical Standards	
Input	30	Total budget allocation (Health Service Improvement Programme and GoPNG) per capita	NEFC	
Process	31	Government (functional grants) and development partner contributions that are expended	NEFC	
Process	32	Provincial health expenditure (Government and development partner contributions) as a percentage of estimated minimum health expenditure required	NEFC	
Input	33	Density of health workers per 10 000 population (stratified by cadre)	Health Workforce	
Input	34	Months that health facilities do not have stock of all selected medical supplies for more than a week in the month	NHIS	
Process	35	Health facilities that received at least one supervisory visit during the year	NHIS	
Input	36	Health posts open	NIHF	
Input	37	Product batches tested that met quality control standards	Medicines Quality Control Laboratory	

Reporting Rates Summary

Province	2019	2020	2021	2022	2023
Western	88%	93%	97%	100%	96%
Gulf	85%	98%	94%	98%	97%
Central	92%	99%	92%	98%	93%
NCD	92%	95%	92%	96%	99%
Milne Bay	100%	100%	100%	100%	100%
Oro	83%	99%	99%	100%	94%
SHP	88%	98%	95%	100%	95%
Hela	95%	96%	95%	100%	94%
Enga	97%	97%	97%	98%	100%
WHP	100%	100%	100%	100%	97%
Jiwaka	91%	97%	90%	97%	91%
Chimbu	96%	94%	91%	91%	96%
EHP	100%	100%	100%	100%	95%
Morobe	92%	96%	92%	93%	94%
Madang	93%	97%	97%	99%	97%
ESP	90%	88%	97%	100%	99%
WSP	96%	96%	98%	97%	98%
Manus	100%	100%	92%	100%	100%
NIP	96%	85%	93%	95%	100%
ENB	94%	76%	97%	97%	99%
WNB	89%	95%	95%	96%	97%
ARB	91%	97%	98%	100%	100%
Southern	91%	97%	93%	99%	98%
Highlands	95%	98%	95%	98%	95%
Momase	92%	94%	94%	97%	99%
NGI	93%	90%	94%	97%	96%
National	93%	95%	96%	98%	97%

Overview of results

1

Outreach clinics per 1000 population <5 years

26

2

Village health assistants per 1000 population

0.15

3

Partner coordination annual meetings held

80%

4

Universal health coverage service coverage index

30

5

Children who slept under an insecticide-treated bednet

53%

6

Children <5 years with fever treated with antimalarials

31%

7

Incidence of malaria per 1000 population

96

8

HIV confirmed prevalence in pregnancy (age 15-24)

1.4%

9

HIV+ pregnant women who received antiretroviral drugs

58%

10

TB case notification rate per 100 000 population

402

11

TB treatment success rate for all forms of TB

77%

12

Injury presentations per 1000 population

23

13

Family planning use (couple-years of protection)

102

14

Pregnant women having at least 4 antenatal care visits

29%

15

Supervised births at health facilities

42%

16

Pentavalent 3 immunization coverage rate

41%

17

Measles-containing vaccine, first dose immunization coverage rate

54%

18

Total provincial hospital births referred from rural centres per 1000 births

No data

19

Incidence of diarrhoeal disease in children <5 years

126

20

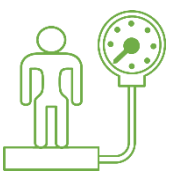
Deaths among children <5 years admitted to a heath facility with pneumonia

2.3%

21

Incidence of low birthweight among newborns

8.0%



22

Underweight prevalence in children <5 years

13%

23

Outbreaks/urgent events assessed within 48 hours of receiving the report

67%

24

Provincial and district hospital, and health centre labs that are quality assured

63%

25

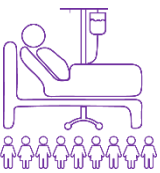
Health facilities with running water & sanitation

38%

26

Health facilities with a functioning radio or phone

39%



27

Outpatient service utilization per capita

0.9

28

Inpatient admissions per 1000 population

25

29

General hospitals & provincial hospitals with all 14 specialties

0%

30

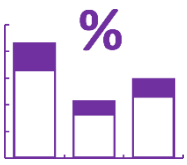
Total budget allocation per capita

237 PGK

31

Government and development partner contributions expended

78%



32

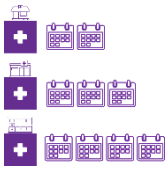
Provincial health expenditure as a % of minimum health expenditure required

54%

33

Density of health workers per 10 000 population

15



34

Months that health facilities have stock of all selected medical supplies

39%

35

Health facilities receiving at least one supervisory visit during the year

68%

36

Health posts open

54%

37

Product batches tested that met quality control standards

13%

KRA 1: More Engaged Communities

INDICATOR **1** Outreach clinics per 1000 population <5 years

NOTES ON INDICATOR

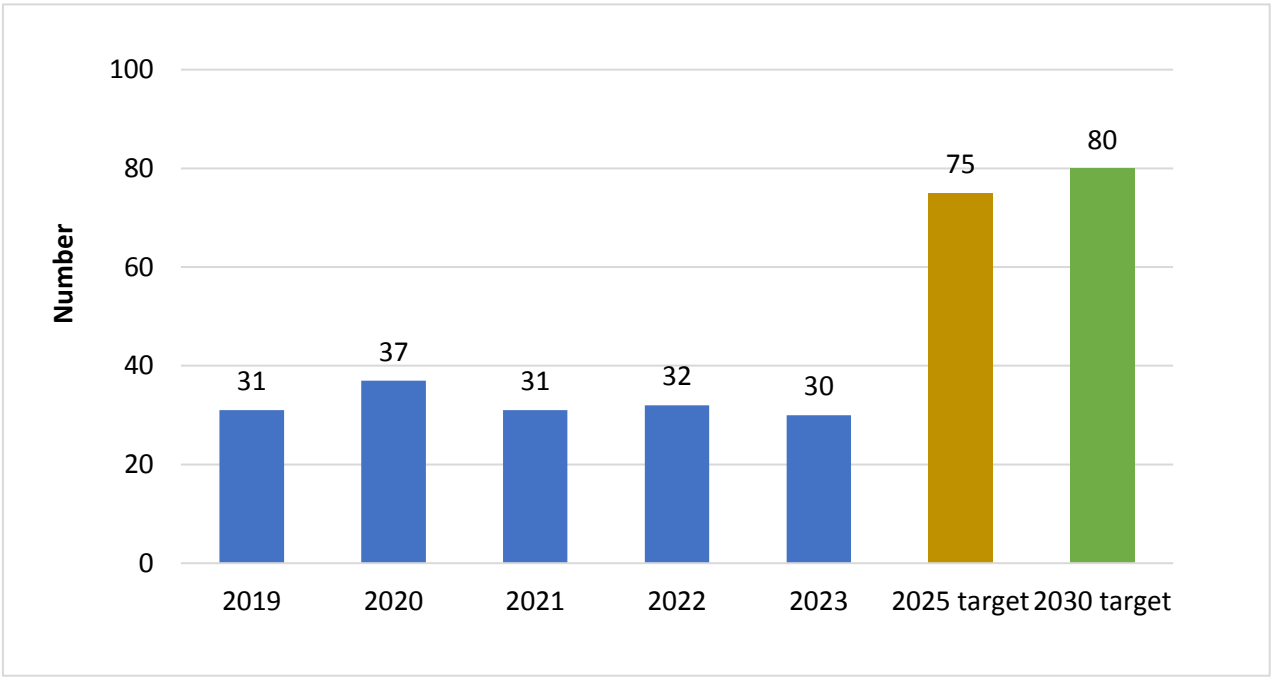
Indicator type: Output

Definition: The ratio of outreach clinics (of all types) held per 1000 children under 5 years of age

Rationale: Outreach clinics are critical for reaching people living far from health facilities and provide a key platform for preventive child health programs as well as an opportunity for individual community health education. Previous assessments have demonstrated the correlation between rural outreach and immunization coverage. The conduct of outreach clinics also provides an indication of the capacity of the health system to provide service provision obligations and helps to identify planning, finance, supply and human resource gaps and barriers.

1. National data

Number of outreach clinics per 1000 population <5 years, 2019-23



National performance

The number of outreach clinics conducted per 1000 population <5 years has remained stagnant, in the low 30's, between 2019 and 2023 except for in 2020 when it increased to 37. The 2023 figure, at 30, is less than half of the 2025 target of 75 outreach clinics per 1000 population <5 years. Key factors resulting in a low number of clinics conducted are financial constraints as well as competing priorities of health workers. Concerted efforts are needed from Provincial Health Authorities, as well as partners, to increase the number of clinics conducted to reach national targets.

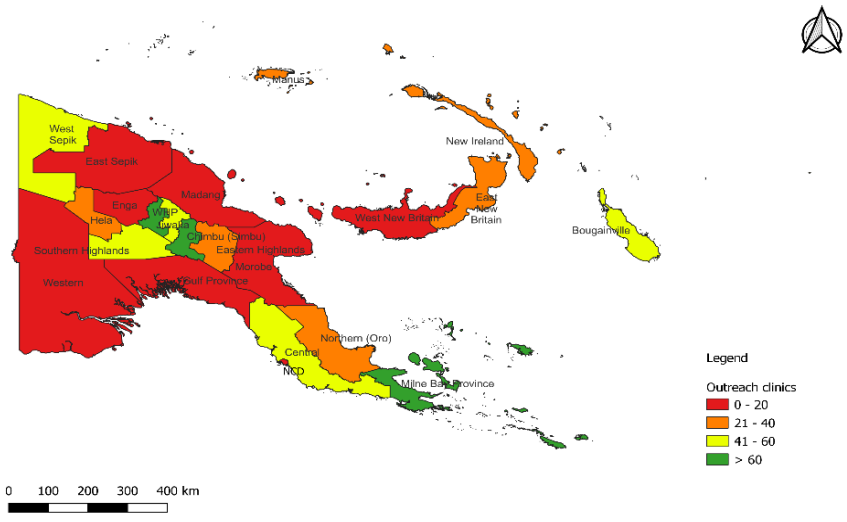
2. Provincial data

Number of outreach clinics per 1000 population <5 years by province, 2019-23

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	7	12	10	11	11	0%	57%
GULF	3	14	5	5	3	-40%	0%
CENTRAL	39	41	57	46	43	-7%	10%
NCD*	1	0	1	0	0	0%	0%
MILNE BAY	70	81	57	58	62	7%	-11%
ORO	29	20	17	21	31	48%	7%
SHP	43	39	44	56	54	-4%	26%
HELA	73	50	33	36	40	11%	-45%
ENGA	24	33	19	19	9	-53%	-63%
WHP	78	79	89	80	78	-3%	0%
JIWAKA	30	45	46	54	50	-7%	67%
CHIMBU	149	166	111	99	98	-1%	-34%
EHP	27	44	35	25	24	-4%	-11%
MOROBE	7	12	16	15	18	20%	157%
MADANG	18	12	10	10	7	-30%	-61%
EAST SEPIK	10	25	21	17	8	-53%	-20%
WEST SEPIK	34	45	32	50	44	-12%	29%
MANUS	73	78	36	38	36	-5%	-51%
NEW IRELAND	35	42	21	24	34	42%	-3%
ENBP	20	26	33	28	28	0%	40%
WNBP	20	20	18	22	15	-32%	-25%
ARoB	31	43	38	54	48	-11%	55%
NATIONAL	31	37	31	32	30	-6%	-3%

*National Capital District doesn't do outreach clinics and therefore the very low numbers

Outreach clinics per 1000 children < 5 years, 2023



Provincial performance

In 2023, Chimbu reported the highest number of clinics conducted at 98, followed by WHP with 78 per 1000 children <5 years. Both provinces achieved rates above the 2025 national target. Gulf (3) and Madang (7) reported the lowest numbers.

The biggest increases in outreach clinics conducted between 2022 and 2023 were noted in Oro and New Ireland Provinces, whilst the biggest decreases were in Enga and East Sepik.

Over the five-year period, the reported number of outreach clinics more than doubled for Morobe. In Enga, Madang, and Manus, clinics conducted decreased by more than a half.

Explanatory notes

Outreach clinics are not conducted in the National Capital District. Negative percentages in the provincial table indicated a decrease in outreach clinics per 1000 population <5 years in 2023 compared to 2022 or 2019.

KRA 1: More Engaged Communities

INDICATOR **2** Village health assistants per 1000 population

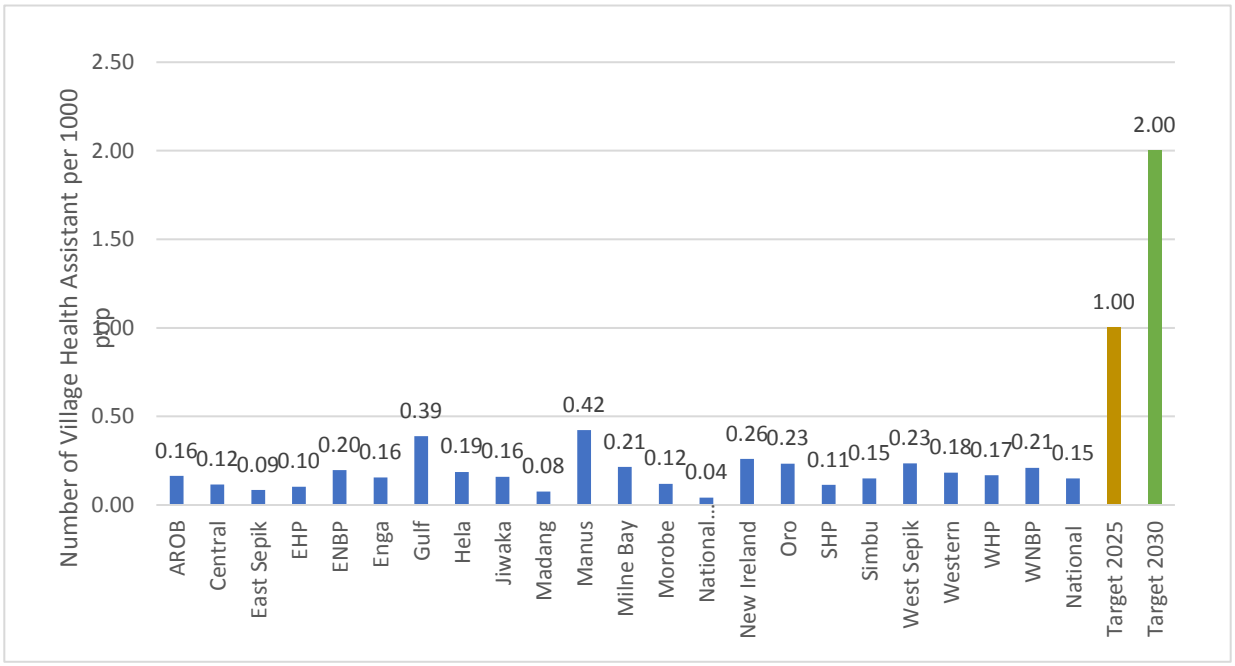
NOTES ON INDICATOR

Indicator type: Input

Definition: The number of village health assistants per 1000 population

Rationale: Village health assistants are health workers who provide health education, referral and follow up, case management and basic preventive health care to specific communities. They visit homes bringing services closer to people and serve as an important link between communities and health facilities. It is expected that deployment of village health assistants will contribute to improved health behaviors, care seeking practices and referrals to health facilities, as well as strengthened primary health care. The national target is two village health assistants per 1000 population by 2030.

Number of village health assistants per 1000 population by province and nationally in 2023



National and provincial performance

The density of village health assistants (VHAs) in 2023 nationally was 0.15 per 1000 population. Among provinces, Manus (0.42) and Gulf (0.39) had the highest densities per 1000 population. These figures are still well below the 2025 target of 1.0 per 1000 population, partly due to the VHA programme being relatively new with national endorsement of the VHA Policy pending approval. In addition, VHAs are currently only prioritized in provinces' remote, hard-to-reach and underserved areas as part of a pilot prior to inform approval of the policy. Lastly, there is no formal mechanism for reporting on number of VHAs currently in service under the pilot, and quality of data on the VHA workforce may also be an issue. This is likely to improve if the programme is established.

Explanatory notes

VHAs are not classified as health workers based on a memo from the National Executive Council in October 2023.

INDICATOR **3**

Partner coordination annual meetings held at the provincial and national levels

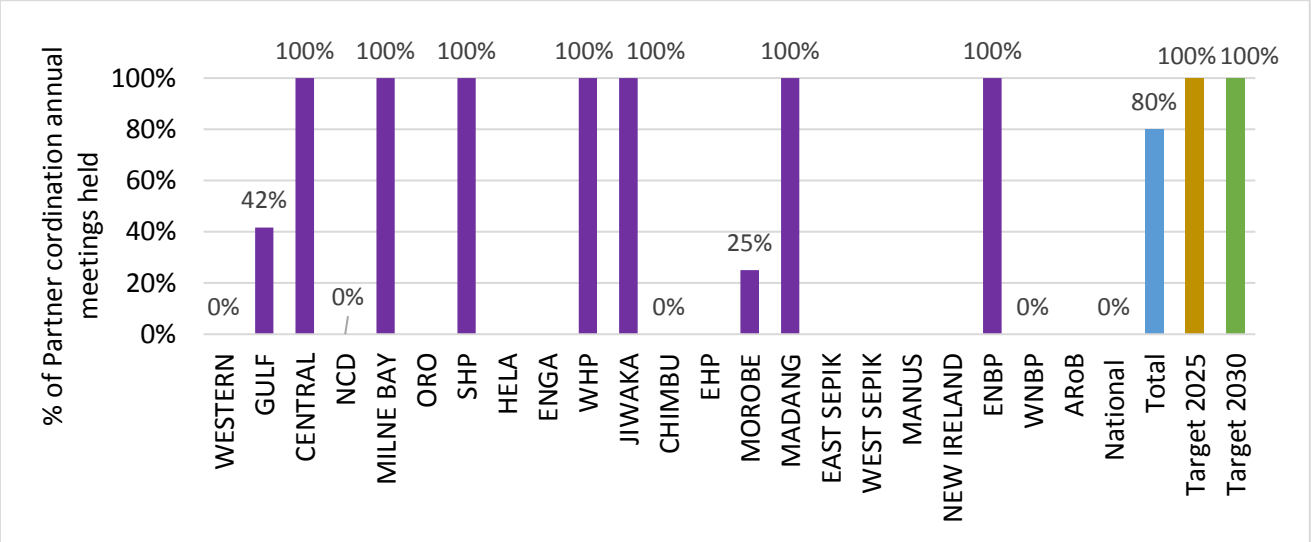
NOTES ON INDICATOR

Indicator type: Output

Definition: Percentage (%) of planned Partner coordination meetings held annually at the provincial level (through the Health Sector Aid Coordination Committee) and the national level.

Rationale: Partner coordination is critical towards ensuring alignment of priorities among partners, and between partners and local health authorities, as well as coordinating workplans and program implementation. Coordination helps to reduce inefficiencies and wastage of resources through effective sharing of resources, approaches and methodologies, and allows leveraging of various partners' strengths and resources to achieve maximum impact. The 2025 and 2030 national targets are for all planned meetings to be held, demonstrating functionality of partner coordination meetings.

Percentage of partner coordination annual meetings held by province and at the national level in 2023



*The blanks in the graph above are for provinces that did not report data. Five provinces (Enga, Eastern Highlands, West Sepik, New Ireland, Oro) reported conducting partner coordination meetings but could not provide complete data on meetings planned and subsequently held

National and provincial performance

As this indicator is being reported for the first time, there were issues with measurement and data quality. Of the 22 provinces, three provinces did not provide data whilst five provinces confirmed meetings had been held but could not provide data on how many planned and held.

Overall, 80% of partner coordination meetings planned in 2023 in provinces and at the national level were held. At the national level, no meetings of the Health Sector Aid Coordination Committee were held. Of the 14 provinces with data, nine provinces held partner coordination meetings. Central, Milne Bay, Southern Highlands, Western Highlands, Jiwaka, Madang, and East New Britain held all planned meetings. Some provinces do not have partner coordination committees and therefore there is no formal mechanism for coordinating and holding meetings. Data suggest that partner coordination needs to be improved at both the national and sub-national levels.

KRA 3: Increased access to quality and affordable health services

INDICATOR **4** Universal health coverage (UHC) service coverage index (SCI)

NOTES ON INDICATOR

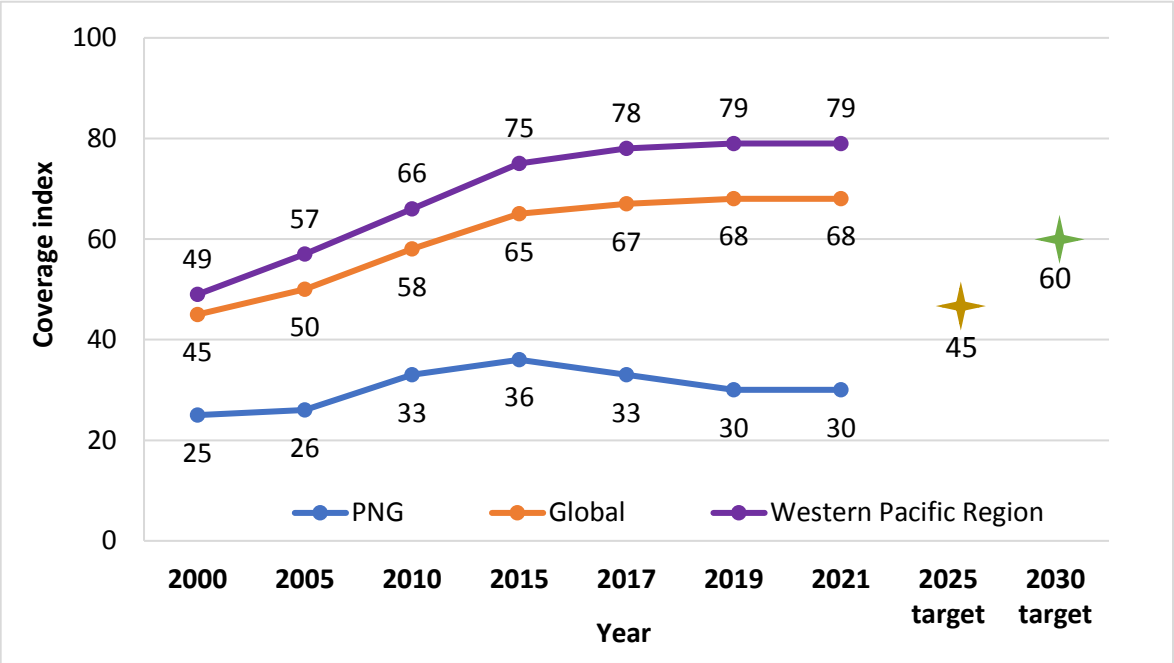
Indicator type: Outcome

Definition: The average coverage of essential services based on 14 tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population. The indicator is an index reported on a unit-less scale of 0 to 100, with 0 being no coverage and 100 being full coverage.

Rationale: This index is one of two indicators for measuring Sustainable Development Goal target 3.8 on achieving universal health coverage (UHC), capturing the service coverage dimension of UHC. The other indicator looks at financial hardship.

About the estimates: Data for this indicator is obtained from global estimates released by the World Health Organization and World Bank every two years. The latest data are available for 2021, which were released in 2023.

Universal Health Coverage Service Coverage Index for Papua New Guinea, 2000-2021



National performance

The Universal Health Coverage Service Coverage Index for Papua New Guinea steadily increased from 25 to 36 between 2000 and 2015 but has since decreased and stagnated at 30 in 2021. This figure is significantly below the global (68) and regional (79) indices, as well as the 2025 target of 43. The index is an average derived from 14 tracer indicators, of which the indicators for TB treatment, antiretroviral therapy and care-seeking for acute respiratory illnesses perform better than others. High disease burden and challenges across the health system have hindered improvements in the coverage index.

Explanatory notes

The indicator is calculated based on administrative data, survey data, and modeled estimates and updated every two years.

INDICATOR 5

Children who slept under an insecticide-treated bed net

NOTES ON INDICATOR

Indicator type: Outcome

Definition: Percentage (%) of children <5 years of age in malaria-endemic areas who slept under an insecticide-treated bed net the previous night

Rationale: In areas of intense malaria transmission, malaria related morbidity and mortality are concentrated in young children, and the use of insecticide treated nets by children under 5 years has been demonstrated to considerably reduce malaria disease incidence, malaria related anaemia, and all cause under-five years mortality.

Percentage of children <5 years who slept under a long-lasting insecticide-treated bed net the previous night, nationally (Figure A) and by socio-demographic characteristics (Figures B-D), 2019-20

Figure A: National data

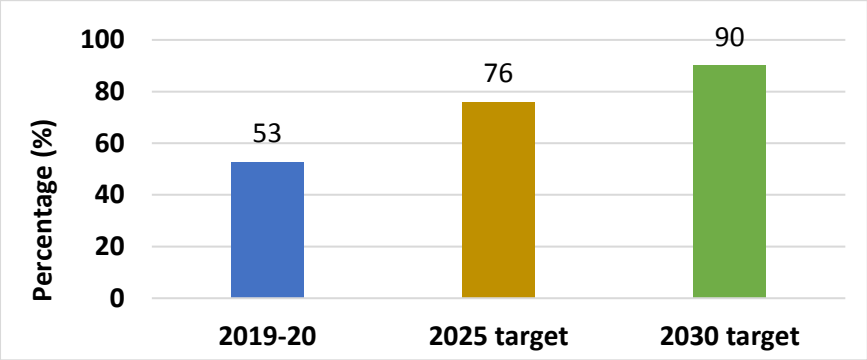


Figure B: By sex

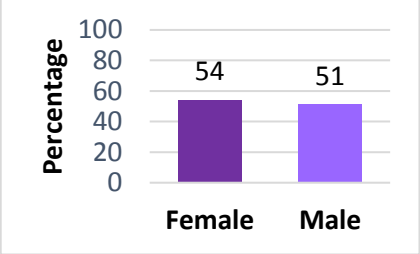


Figure C: By residence

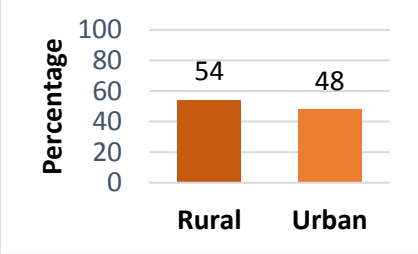
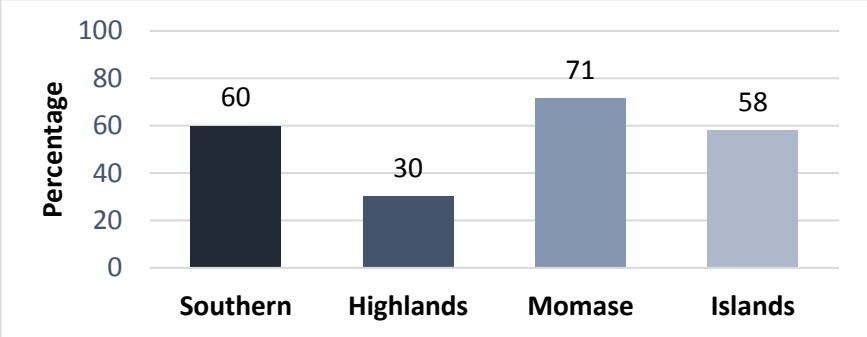


Figure D: By region



National performance

The percentage of children <5 years who slept under a long-lasting insecticide-treated bed net (LLIN) the previous night was 53% nationally. This indicator requires further progress towards the national target of 76% by 2025.

Children who are female and living in rural areas were more likely to sleep under a LLIN, though the differences were not statistically significant. Differences between regions were significant, with use highest in Momase compared to the Island and Southern regions. Malaria is not endemic in the Highlands due to low temperatures in higher altitudes.

Among provinces (data not shown here), use was higher than the national average in Oro (94%), Madang (85%), Central (82%), Gulf (82%) and East Sepik (75%).

Explanatory notes

The indicator is measured from the Papua New Guinea Malaria Indicator Survey 2019-2020, based on a sample of 2,210 children <5 years.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR 6

Children <5 years diagnosed with fever who are treated with appropriate antimalarial drugs

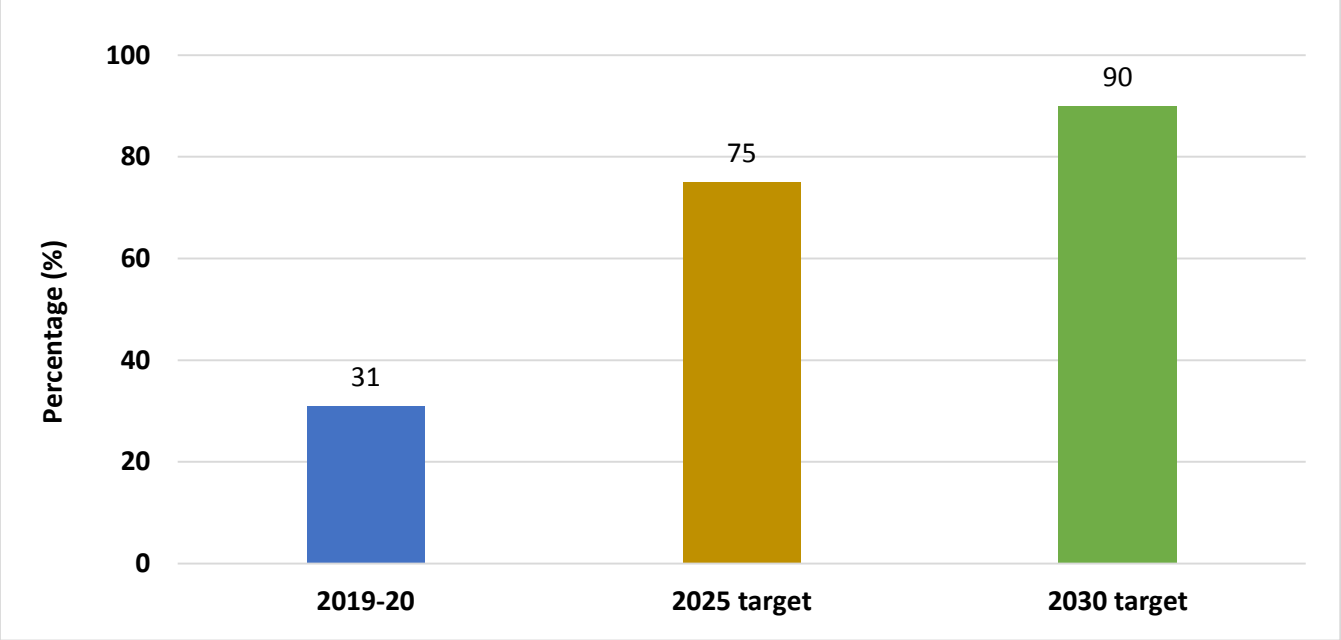
NOTES ON INDICATOR

Indicator type: Outcome

Definition: Percentage (%) of children <5 years who present as an outpatient with fever (confirmed or suspected malaria) who are treated with recommended first-line antimalarial therapy

Rationale: Prompt treatment with effective antimalarial drugs for children with fever in malaria-risk areas is a key intervention to reducing malaria morbidity and mortality. In areas with stable levels of malaria transmission, it is essential that prompt access to treatment is ensured to prevent severity of malaria and complications. This requires availability of drugs, and for complicated cases, availability of transport to the nearest equipped facility.

Percentage of children <5 years with fever who are treated with appropriate antimalarial drugs nationally, 2019-20



National performance

The percentage of children <5 years with a fever and who were treated with antimalarial drugs nationally was 31%, based on survey data from 2019-20. The most frequently used antimalarials were first-line drug artemether-lumefantrine, primaquine and chloroquine. This indicator is significantly below the 2025 target of 75% and requires concerted efforts to make further progress. A factor contributing to the low coverage are stock-outs of the antimalarials at health facilities.

Explanatory notes

The indicator is measured from the Papua New Guinea Malaria Indicator Survey 2019-2020, conducted nationwide. The 2022 SPAR presented data on children <5 years with a fever for whom advice or treatment was sought.

INDICATOR 7

Incidence of malaria per 1000 population

NOTES ON INDICATOR

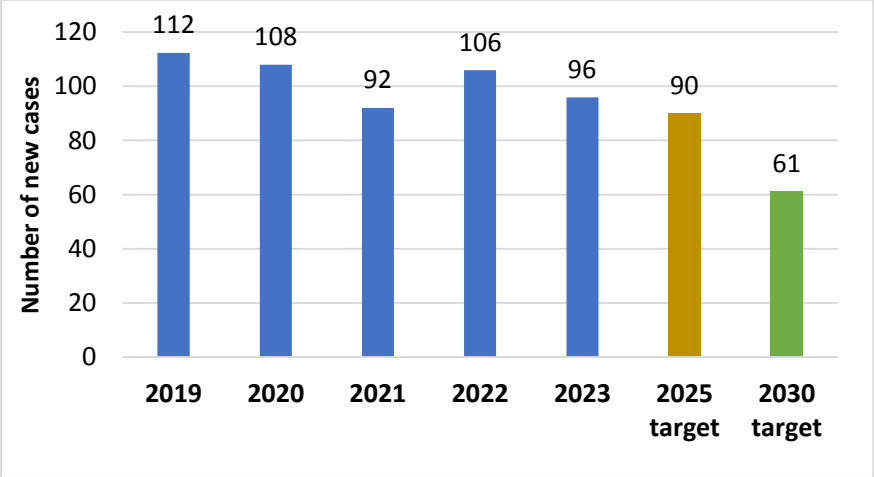
Indicator type: Impact

Definition: Number of new confirmed cases of malaria (confirmed by slide or rapid diagnostic test) and probable (Unconfirmed) cases of malaria (cases that were not tested but treated as malaria) per 1000 population

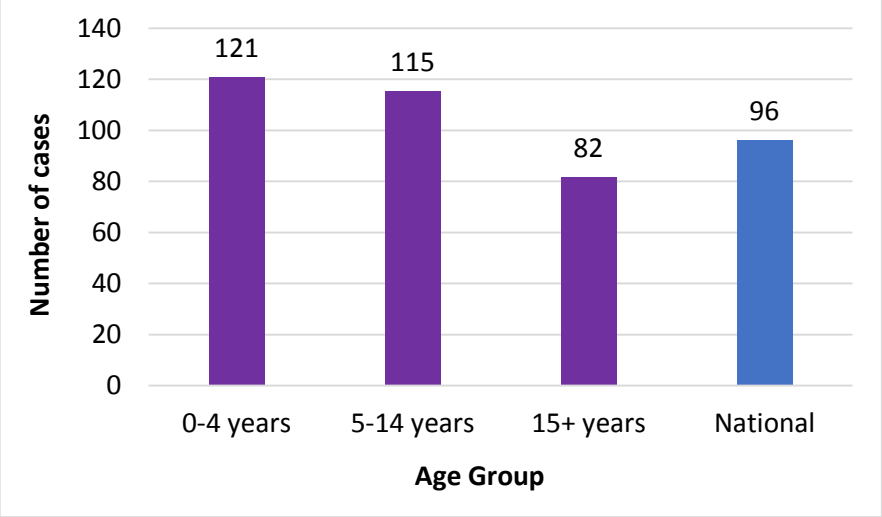
Rationale: This indicator provides a measurement of the burden of malaria in a specified area. It is critical for malaria programme planning including allocation of resources, and used to determine impact of interventions implemented to reduce the burden of malaria.

1. National data

Incidence of malaria per 1000 population, 2019-23



Incidence of malaria per 1000 population by age group, 2023



National performance

Malaria incidence has declined since 2019 from 112 to 96 per 1000 population in 2023. The notable decline seen in 2021 is likely due to disruptions from the COVID-19 pandemic which affected detection and reporting of malaria cases.

Among the regions (data not shown), the Niugini Islands have the highest incidence followed by Momase at 173 and 166 per 1000 population respectively.

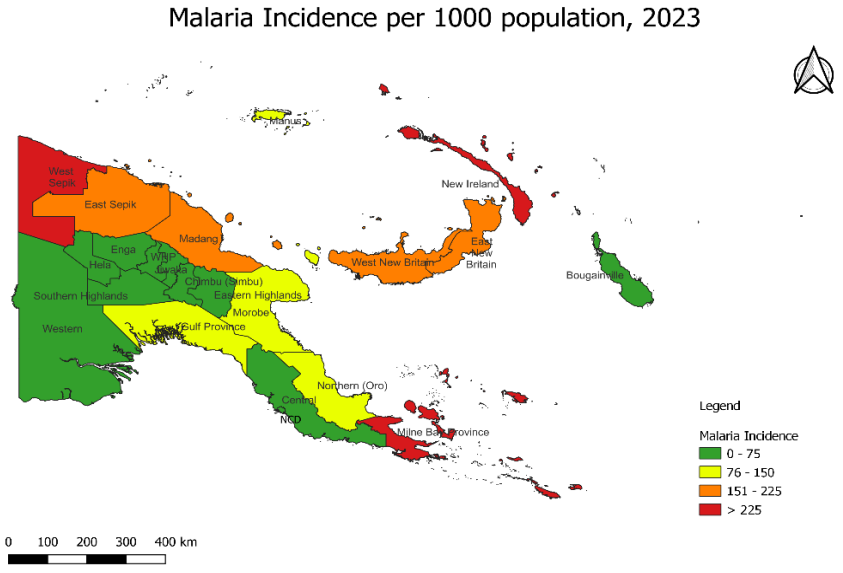
If current control strategies are strengthened and sustained, it is likely the 2025 target could be achieved. Availability of testing and treatment at health facilities and ensuring bio-efficacy of insecticide treated bed nets are critical for success.

2023 data disaggregated by age show that children <5 years have the highest incidence of malaria. This is of concern as their overall low immunity increases risk of disease severity.

2. Provincial data

Malaria incidence per 1000 population by province, 2019-23

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	90	74	136	108	48	-56%	-47%
GULF	191	144	195	152	77	-49%	-60%
CENTRAL	92	94	121	81	54	-33%	-41%
NCD	40	22	19	14	7	-50%	-83%
MILNE BAY	203	157	113	291	214	-26%	5%
ORO	231	118	190	226	121	-46%	-48%
SHP	10	5	6	3	1	-67%	-90%
HELA	11	10	18	19	4	-79%	-64%
ENGA	15	18	16	15	3	-80%	-80%
WHP	17	10	7	8	7	-13%	-59%
JIWAKA	15	17	14	12	12	0%	-20%
CHIMBU	14	11	9	12	4	-67%	-71%
EHP	18	14	9	7	3	-57%	-83%
MOROBE	88	92	85	66	112	70%	27%
MADANG	187	176	131	147	158	7%	-16%
EAST SEPIK	131	234	141	161	154	-4%	18%
WEST SEPIK	419	541	263	374	357	-5%	-15%
MANUS	231	232	243	293	94	-68%	-59%
NEW IRELAND	410	357	374	407	335	-18%	-18%
ENBP	250	207	218	265	176	-34%	-30%
WNBP	274	166	179	237	133	-44%	-51%
ARoB	50	26	22	9	18	100%	-64%
NATIONAL	112	108	92	106	96	-10%	-14%



Provincial performance

Decreases in malaria incidence were seen in 20 provinces between 2019 and 2023, and 19 provinces between 2022 and 2023. After 2019 malaria incidence has decreased in many provinces up until 2023. Excluding the Highlands region where incidence is overall low due to the climate, significant decreases in incidence were noted in Western, Gulf, NCD, Oro, Manus and West New Britain. This success can be attributed to factors such as: the expansion of the home-based malaria management program, efficacious nets being procured and distributed, frequent health facility supervisory visits, and availability of test kits and treatment. In contrast, Morobe Province saw a significant increase in incidence between 2022 and 2023 and the five-year period.

Explanatory notes

Data for this indicator are taken from page 1 of the monthly NHIS reporting form which captures new confirmed and unconfirmed malaria cases. It does not include malaria cases seen at private health facilities. Whilst reporting of malaria cases has significantly improved, challenges remain with data quality – namely consistency and accuracy.

Negative percentages in the provincial table indicate a decrease in new malaria cases per 1000 population in 2023 compared to 2022 or 2019.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **8** HIV confirmed prevalence in pregnancy (age 15-24)

NOTES ON INDICATOR

Indicator type: Outcome

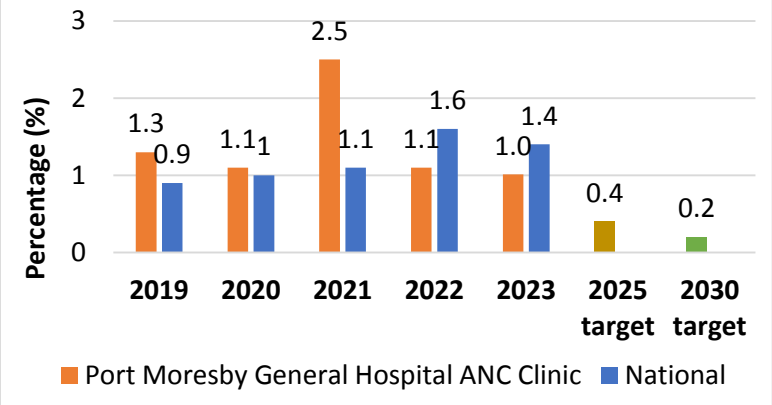
Definition: Percentage (%) of pregnant women aged 15–24 years whose blood samples test positive for HIV

Rationale: The indicator gives a fairly good idea of relatively recent national trends in HIV infection, particularly in settings where HIV infection is heterosexually driven. It is also important for guiding efforts for prevention of parent to child transmission of HIV.

HIV prevalence among pregnant women attending antenatal clinics across the country by age group, 2019-23

Year	15-19 years		20-24 years		Total - 15-24 years	
	Screened	% Positive	Screened	% Positive	Screened	% Positive
2019	8,463	0.9%	20,085	0.9%	28,548	0.9%
2020	5,394	1.0%	14,533	1.0%	19,927	1.0%
2021	4,434	0.9%	11,072	1.2%	15,506	1.1%
2022	5,339	1.6%	15,992	1.6%	21,331	1.6%
2023	6,252	1.2%	17,340	1.5%	23,592	1.4%

HIV Prevalence among ANC mothers by clinic (HIV clinics and Port Moresby General Hospital), 2019-23



HIV prevalence (%) among pregnant women attending the antenatal clinic and labor ward at Port Moresby General Hospital, 2019-23

Year	Antenatal Clinic	Labor ward
2019	1.3%	4.3%
2020	1.1%	3.4%
2021	2.5%	2.5%
2022	1.1%	2.1%
2023	1.0%	1.2%

National performance

HIV prevalence among pregnant women has increased between 2019 and 2023, crossing 1% across all age groups in 2022 and 2023, with a decrease between 2022 and 2023 to 1.4%. Still, current prevalence is significantly above the 2025 target of 0.4%. Trends are partly linked to low antenatal care attendance and supervised delivery rates, as when women don't access health services during pregnancy or for delivery, they miss out on HIV prevention and treatment services. Another key challenge is HIV testing coverage during antenatal care and delivery; with only one third of women attending at least one antenatal care visit at health facilities estimated to be tested. Access to testing is affected by stock management practices, staff workload and staff skills and knowledge. There may also be a rise in teenage pregnancies, as seen with an increasing proportion of health facility deliveries that were teenage pregnancies in 2021-23, which could be indicative of high-risk sexual behaviors.

Explanatory notes - Data for this indicator have historically been taken from the Port Moresby General Hospital antenatal care clinic due to consistency in maintaining records. More recently, with scale up of HIV services, data have become available from HIV clinics across the country. Therefore, data from both sources are presented separately.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **9**

HIV-infected pregnant women who received antiretroviral drugs to reduce the risk of mother-to-child transmission

NOTES ON INDICATOR

Indicator type: Output

Definition: Percentage (%) of HIV-infected pregnant women who received antiretroviral medicines to reduce the risk of mother-to-child transmission, among the estimated number of HIV-infected pregnant women

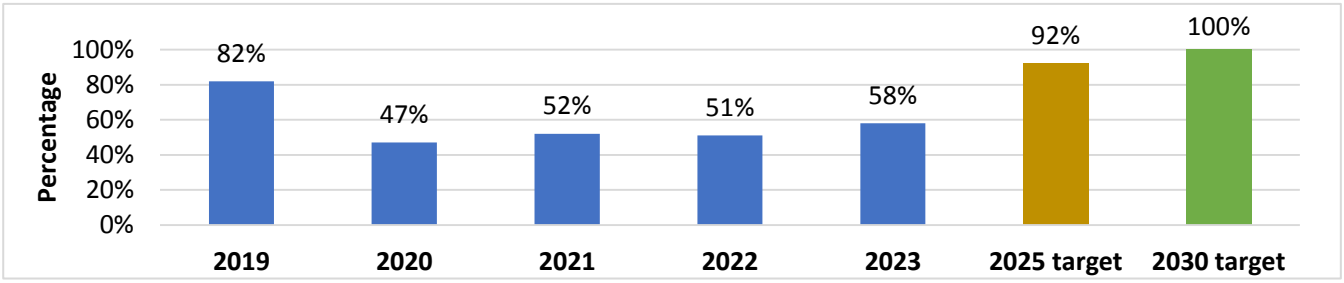
Rationale: The purpose of this indicator is to assess progress in preventing parent-to-child transmission of HIV. The risk of transmission can be significantly reduce through antiretroviral regimens for the mother with or without prophylaxis for the infant, along with implementation of safe delivery and infant feeding practices.

HIV-infected pregnant women who received antiretroviral drugs, by type of regimen, 2019-23

	2019	2020	2021	2022	2023
Number of women who received single dose Nevarapine	0	NA	NA	NA	NA
Number of women who received dual ART (NVP + AZT)	0	NA	NA	NA	NA
Number of women who received triple therapy (AZT + 3TC)					
Number of women who were newly initiated on lifelong ART during their current pregnancy	375	434	250	385	516
Number of women who had already commenced lifelong ART before their current pregnancy	877	581	255	854	999
Total number of women receiving ART (numerator)	1252	1015	1183	1239	1515
Estimated number of HIV pregnant women (denominator)	1528	2157	2292	2443	2594
Percentage	82%	47%	52%	51%	58%

NA: Indicates data not available at the time of reporting

Percentage of HIV-infected pregnant women who received antiretroviral drugs, 2019-23



National performance

Despite a high percentage of women receiving antiretroviral treatment in 2019, which may be due to an underestimation of the number of HIV infected pregnant women (denominator), treatment coverage has since remained around 50% increasing to 58% in 2023. This is still significantly below the 2025 target of 92%.

Low treatment coverage means that babies are at higher risk of contracting the HIV virus from their mothers either during pregnancy, at delivery or during breastfeeding. Based on estimates, the HIV vertical transmission rate has remained high in the last five years reaching 34% in 2022 (HIV Estimation data, 2022). This is due to several factors including: insufficient HIV testing coverage including point of care testing for early infant diagnosis not being widely available, low antenatal care attendance rates, loss to follow up of patients being referred from district level health facilities to provincial HIV treatment sites, health worker numbers and capacity, and lack of provincial coordinators for prevention of parent to child transmission.

Explanatory notes - Data on the estimated number of HIV pregnant women, which is the denominator for the indicator, are derived from modeling. The value of these estimates will impact on the percentage of women receiving antiretroviral drugs. For example, between 2019 and 2020 there was a significant decrease in treatment coverage due to a larger estimate of HIV-infected pregnant women in 2020.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **10** TB case notification rate for all forms of TB per 100 000 population

NOTES ON INDICATOR

Indicator type: Output

Definition: Number of new and relapse TB cases notified in a given year per 100 000 population. The term "notification" means that TB is diagnosed in a patient and is reported within the national surveillance system and then on to WHO.

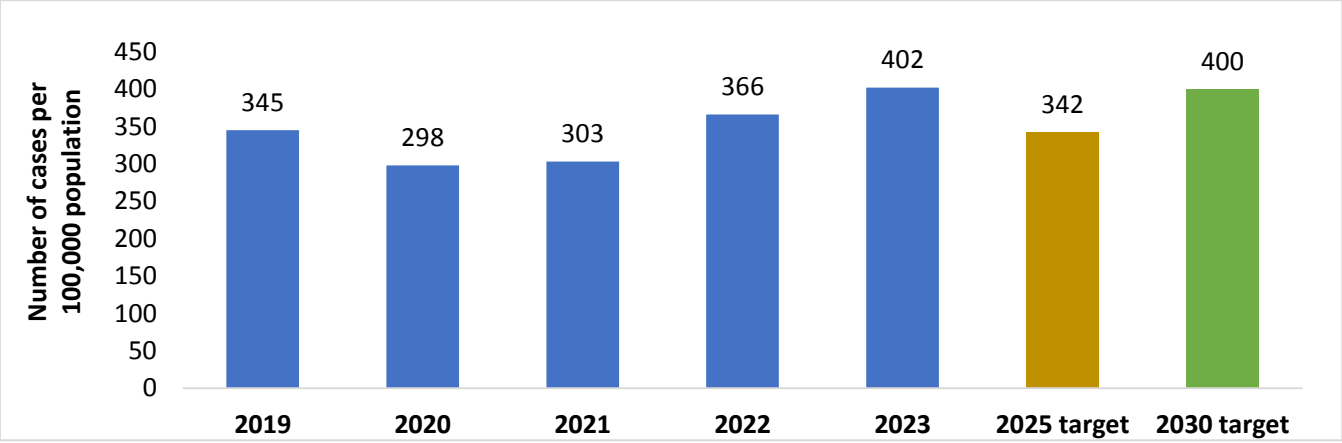
Rationale: Provides an indication of the effectiveness of national TB programmes in finding, diagnosing and treating people with TB.

1. National data

New and relapse tuberculosis cases notified per 100,000 population by case type, 2019-23

Year	New SS+	Relapses	Defaulted	SN	NDNA	EP	Others	All Cases	Population	CNR All forms/ 100,000 popn
2019	5,671	346	272	3,587	7,949	14,133	164	32,122	9,301,793	345
2020	5,725	347	260	2,507	5,825	13,232	643	28,539	9,575,916	298
2021	5,181	285	204	2,974	7,151	13,794	110	29,699	9,801,451	303
2022	7,111	435	261	4,358	8,282	16,592	235	37,274	10,178,825	366
2023	8,647	579	367	3,965	9,378	19,163	95	42,194	10,494,369	402

Tuberculosis case notification rates (all case types per 100,000 population), 2019-23



Annual TB Incidence of all forms per 100,000 population, 2019-2023

Year	TB Cases Notified	Population	CNR (all forms TB: cases/100,000)	WHO Estimated Incidence	WHO Estimated # of TB Cases	CDR
2019	32,122	9,301,792	345	432	40,184	80%
2020	28,539	9,575,916	298	441	39,000	100%
2021	30,234	9,872,769	306	424	42,650	71%
2022	37,274	10,178,825	366	432	43,973	85%
2023	42,194	10,494,369	402	432	45,336	93%

2. Provincial data

New and relapse tuberculosis cases notified per 100,000 population by case type and province, 2023

Province	New SS+	Relapses	LTFU	SN	NDNA	EP	Others	All Cases	Population	CNR All forms/ 100,000 popn
HELA	63	8	-	165	753	331	2	1,322	343,421	385
NCD	2,258	247	40	671	614	3,571	13	7,414	537,594	1,379
WNB	523	42	47	254	839	733	5	2,443	390,159	626
NEW IRELAND	114	7	11	44	78	146	2	402	329,115	122
MADANG	518	30	42	204	727	1,118	12	2,651	484,529	547
MOROBE	1,035	59	33	382	2,616	2,502	3	6,630	855,822	775
ORO	278	8	5	62	219	569	1	1,142	268,743	425
WHP	335	8	-	150	444	1,088	-	2,025	529,521	382
MANUS	38	1	5	9	12	46	1	112	86,237	130
JIWAKA	183	1	3	38	86	637	1	949	661,468	143
ENB	396	26	32	119	134	220	2	929	501,972	185
CENTRAL	358	16	17	58	84	463	9	1,005	407,620	247
ENGA	119	-	1	643	159	920	1	1,843	652,850	282
AROB	131	9	15	17	61	142	4	379	363,898	104
SANDAUN	91	12	11	12	126	155	-	407	338,017	120
SHP	63	1	1	64	94	190	-	413	744,621	55
WESTERN	439	32	13	95	250	1,982	2	2,813	270,795	1,039
GULF	20	1	5	20	5	43	1	95	241,833	39
MILNE BAY	146	5	11	45	165	290	5	667	371,878	179
EHP	587	9	9	280	278	1,785	2	2,950	788,979	374
CHIMBU	303	15	12	178	860	1,140	4	2,512	562,316	447
EAST SEPIK	649	42	54	455	774	1,092	25	3,091	314,942	981
NATIONAL	8,647	579	367	3,965	9,378	19,163	95	42,194	10,494,369	402

National & provincial performance

The TB case notification rate for all forms was 402 cases per 100,000 population in 2023. This is an increase of 17% from 2019 and 10% from 2022. At current levels, the 2025 and 2030 national targets have already achieved; nonetheless progress should be sustained and continued. While case notifications decreased in 2020 and 2021, largely due to disruptions from the COVID-19 pandemic, they have since increased again. This is due to various efforts under the National TB programme including development of TB guidelines and expanded Gene Xpert access. Estimated national TB incidence rates has remained unchanged for a few years at 432.

Across provinces, NCD (1,379), Western (1,039), East Sepik (981), and Morobe (775) had the highest case notification rates in 2023. This is could partly be due to expanded Gene Xpert access resulting in an increased number of TB cases being detected and notified. There is a need for more public awareness on TB, including screening and testing if exhibiting respiratory symptoms for extended periods of time.

Explanatory notes

The capacity of the National TB Program to support health services in diagnosis of TB has expanded in recent years. These data include all provinces/districts, although it is acknowledged that some districts have yet to be mobilised in the program. The estimated annual TB incidence is based on WHO modelling. It is an estimate and may not fully represent the extent of TB in the country.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **11**

TB treatment success rate for all forms of TB, bacteriologically confirmed and clinically diagnosed, new and relapse cases

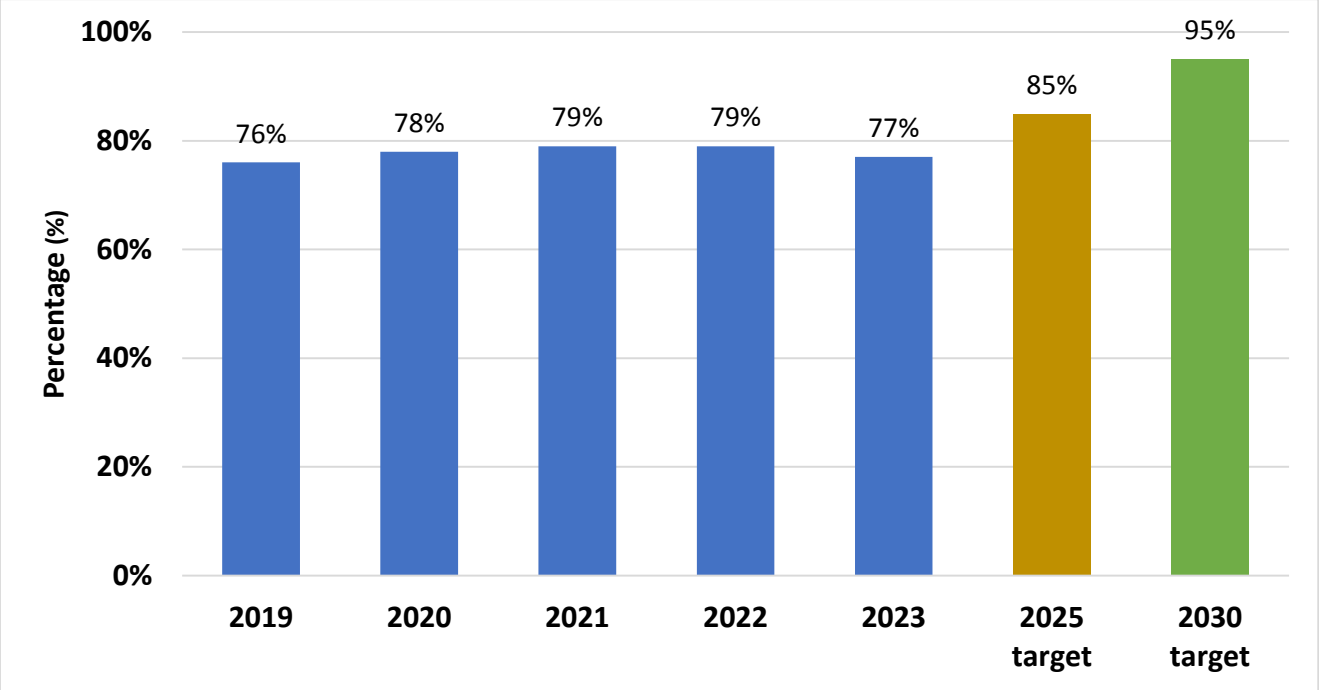
NOTES ON INDICATOR

Indicator type: Outcome

Definition: Percentage (%) of all forms of TB cases registered in a given year who successfully complete anti-TB treatment (6 months of short course, with or without bacteriological evidence of success)

Rationale: Treatment success is an indicator of the performance of national TB control programmes. In addition to the obvious benefit to individual patients, successful treatment of infectious cases of TB is essential to prevent the spread of the infection. Detecting and successfully treating a large proportion of TB cases should have an immediate impact on TB prevalence and mortality. By reducing transmission, successfully treating the majority of cases will also affect, with some delay, the incidence of disease.

National tuberculosis treatment success rates, 2019 - 2023



National performance

The treatment success rate has remained below the National target of 85% between 2019 to 2023, decreasingly slightly between 2022 and 2023 after a small increase between 2019 and 2022. The expansion of community TB treatment in NCD and few other high burden provinces partly contributed to this increase. The decrease between 2022 and 2023 could be due to loss to follow up and patients not reporting for assessments of treatment outcome. The overall national cure rate (see table on next page) has increased minimally between 2019 and 2023 from 50% to 53%. While the cure rate increased to 59% in 2020 and 2021, this subsequently decreased. Sustained commitment and support for treatment including community expansion, follow up of patients lost to treatment, and awareness raising among the public of risks to contracting multiple drug resistant TB is required to ensure successful treatment outcomes.

Tuberculosis cure rates and treatment success rates by province, 2019-2023

Province	2019		2020		2021		2022		2023	
	NS+ Cure Rate	NS+ Success Rate	NS+ Cure Rate	NS+ Success Rate	NS+ Cure Rate	NS+ Success Rate	NS+ Cure Rate	NS+ Success Rate	NS+ Cure Rate	NS+ Success Rate
WESTERN	33%	79%	41%	81%	44%	71%	50%	85%	38%	79%
GULF	53%	69%	89%	95%	79%	90%	66%	70%	53%	59%
CENTRAL	58%	73%	60%	70%	54%	74%	38%	70%	39%	73%
NCD	69%	84%	74%	88%	19%	51%	81%	92%	76%	91%
MILNE BAY	60%	73%	57%	75%	47%	65%	49%	65%	49%	80%
ORO	57%	79%	60%	82%	55%	80%	41%	74%	47%	74%
SHP	5%	76%	56%	76%	48%	72%	45%	67%	48%	67%
ENGA	60%	72%	52%	58%	71%	81%	59%	83%	67%	72%
WHP	44%	62%	45%	62%	8%	68%	66%	91%	67%	72%
HELA	37%	51%	25%	54%	28%	87%	26%	44%	23%	63%
JIWAKA	43%	74%	31%	81%	45%	64%	34%	75%	28%	76%
CHIMBU	30%	82%	46%	74%	51%	72%	42%	80%	38%	72%
EHP	68%	74%	80%	83%	59%	75%	83%	88%	49%	78%
MOROBE	69%	83%	60%	79%	48%	69%	54%	88%	49%	78%
MADANG	57%	70%	56%	70%	38%	52%	39%	63%	38%	67%
EAST SEPIK	28%	73%	19%	64%	66%	85%	23%	64%	18%	52%
SANDAUN	31%	64%	37%	62%	46%	83%	45%	75%	37%	59%
MANUS	27%	85%	4%	88%	64%	70%	20%	87%	18%	71%
NEW IRELAND	47%	65%	50%	63%	54%	68%	38%	58%	30%	61%
ENB	40%	57%	39%	61%	81%	84%	41%	63%	45%	66%
WNB	46%	63%	55%	73%	43%	82%	38%	68%	35%	62%
ARoB	60%	85%	47%	63%	26%	72%	41%	51%	43%	61%
NATIONAL	50%	76%	59%	78%	59%	79%	56%	79%	53%	77%

Provincial performance

In 2023, TB treatment success rates were higher than the 2025 national target of 85% in National Capital District (91%) and very close to the target in Milne Bay (80%). Rates in other provinces ranged from 52% to 79%. Gulf, East Sepik and Manus provinces reported decreases of over 15% in TB treatment success rates between 2022 and 2023 and 2019 and 2023. Hela reported an increase of 43% in the TB treatment success rate between 2022 and 2023 and 24% between 2019 and 2023, whilst Milne Bay reported increases of 23% and 10% respectively.

Fifteen provinces reported decreases in TB cure rates between 2022 and 2023, in the range of -3% to -41%, with the biggest decrease reported by Eastern Highlands Province. TB cure rates were higher than the national average in 2023 in National Capital District (76%), Enga (67%) and Western Highlands (67%) provinces.

Explanatory notes

The indicator assesses only those who are sputum positive at diagnosis. "Cure" refers to those who have converted to sputum negative status at the completion of treatment (for at least 2 sputum smears) and "success" includes those who are cured as well as those who have completed six months of anti-tuberculosis chemotherapy. The indicator reports on TB cases that were treated in the previous year for instance 2021 success rate is for patients treated in 2020.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **12**

Injury presentations by type (road traffic accidents and others) per 1000 population

NOTES ON INDICATOR

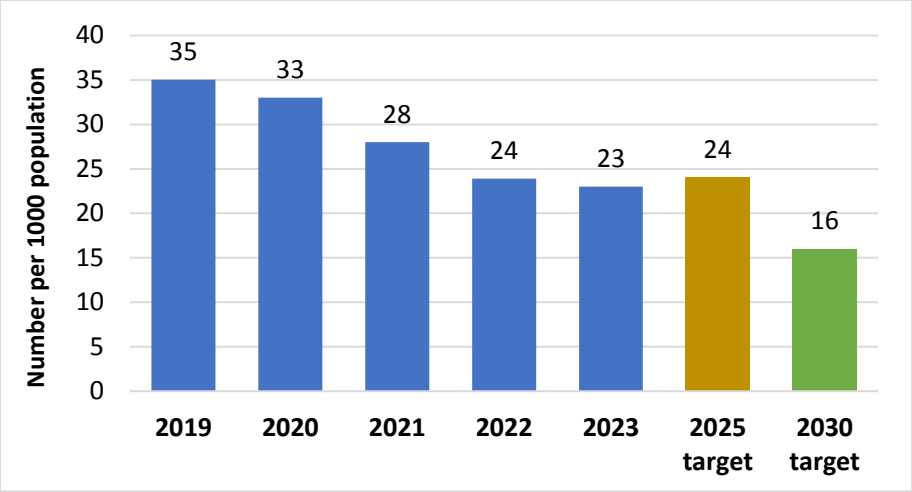
Indicator type: Outcome

Definition: Total number of outpatient presentations with injuries at health facilities per 1000 population

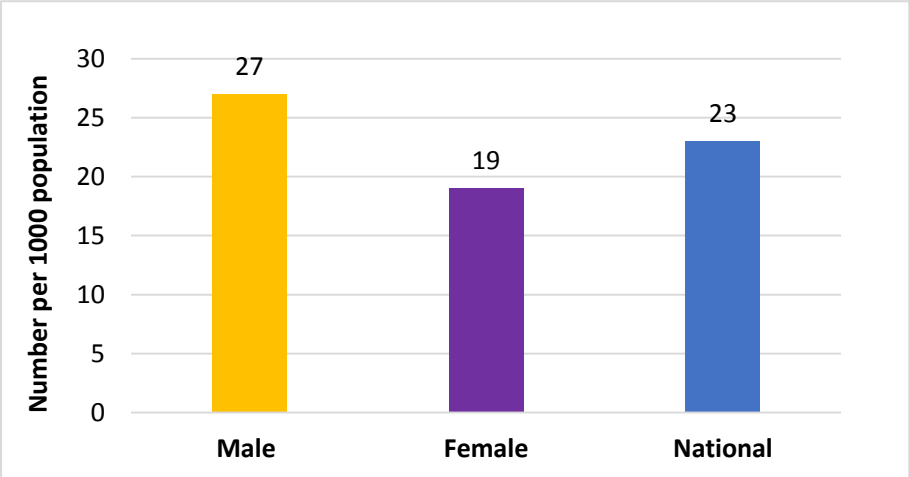
Rationale: This indicator provides a measure of the burden of injuries in the population, helping to guide programming and resource allocation towards preventing injuries. The type of injury presentation (road traffic accidents and others) further guides the types of interventions required to prevent the more prevalent injuries, and thereby morbidity and mortality in the population.

1. National data

Number of outpatient presentations with injuries (road traffic accidents and others) per 1000 population, 2019-23



Number of outpatient presentations with injuries per 1000 population (road traffic accidents and others) by sex, 2023



National performance

The number of outpatient injuries reported per 1000 population nationally has steadily declined to 23 in 2023. The figure decreased by 4% between 2022 and 2023 and 34% between 2019 and 2023. The 2025 target national target has already been achieved, though this progress needs to be sustained moving forward.

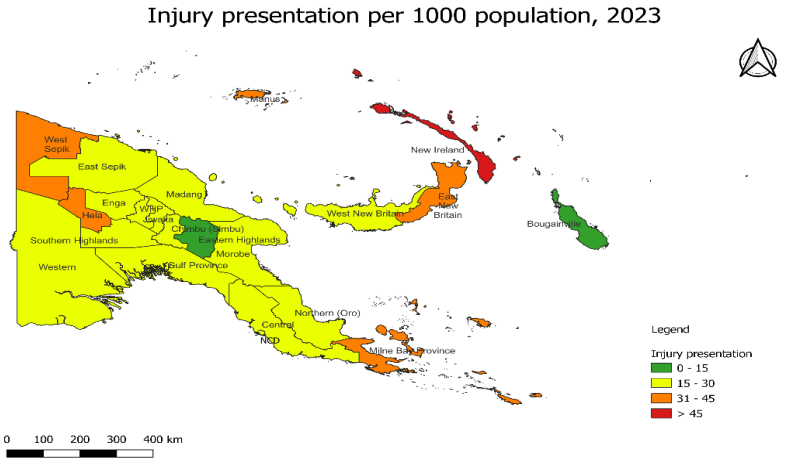
Data disaggregated by sex show that the number of presentations with injuries among males is almost one third higher than among females. This may be due to the increased likelihood of engaging in risk taking behaviors, but needs to be further explored.

More work is required to understand the causes and patterns of injury in PNG to develop evidence-based prevention measures to consistently reduce the injury rates, including research on causes of motor vehicle accidents.

2. Provincial data

Injury presentations (road traffic accidents and others) per 1000 population by province, 2019-2023

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	46	32	29	26	28	8%	-39%
GULF	44	35	30	20	20	0%	-55%
CENTRAL	22	22	21	16	18	13%	-18%
NCD	41	24	19	22	21	-5%	-49%
MILNE BAY	63	54	48	42	40	-5%	-37%
ORO	28	25	28	22	23	5%	-18%
SHP	27	20	14	16	16	0%	-41%
HELA	60	39	46	38	40	5%	-33%
ENGA	38	33	27	23	22	-4%	-42%
WHP	41	33	25	20	23	15%	-44%
JIWAKA	27	20	22	22	22	0%	-19%
CHIMBU	32	28	23	26	23	-12%	-28%
EHP	22	16	14	14	13	-7%	-41%
MOROBE	29	26	22	20	16	-20%	-45%
MADANG	25	17	25	23	21	-9%	-16%
EAST SEPIK	23	26	26	25	22	-12%	-4%
WEST SEPIK	46	41	35	34	33	-3%	-28%
MANUS	56	81	58	46	41	-11%	-27%
NEW IRELAND	72	67	67	55	58	5%	-19%
ENBP	47	45	38	35	34	-3%	-28%
WNBP	50	24	21	24	21	-13%	-58%
ARoB	19	22	17	16	14	-18%	-26%
NATIONAL	**35**	**33**	**28**	**24**	**23**	**-4%**	**-34%**



Provincial performance

New Ireland reported the highest rate of injury presentations in 2023 with 58 per 1000, followed by Manus with 41. Provinces that reported the lowest rates were Eastern Highlands with 13 and AROB with 14 per 1000 population. Overall, more than half of the provinces (12 of 22) reported injury rates below the national average of 23 injury presentations per 1000 population.

All provinces reported a decrease in injury rates over the the five-year period from 2019 to 2023. Provinces with the biggest decreases were West New Britain (58% decrease) and Guld (55% decrease), whilst East Sepik (4% decrease) and Madang (16% decrease) reported the smallest declines.

Explanatory notes

Data are obtained from the eNHIS, which captures data on injuries from “motor vehicle accidents” and “others”. Data from both variables are summed to calculate this indicator. It must be noted that these data differ from those captured through verbal autopsy methods, where high prevalence is seen in several provinces.

Negative percentages in the provincial table indicate a decrease in the number of injuries per 1000 population in 2023 compared to 2022 or 2019.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **13** Family planning use (couple-years of protection)

NOTES ON INDICATOR

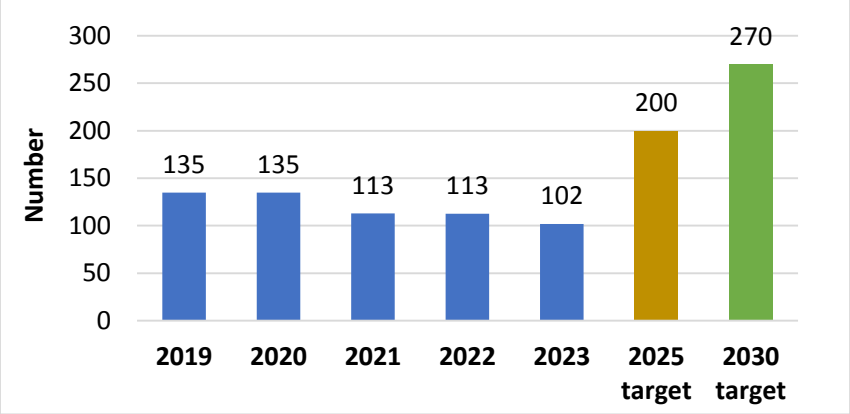
Indicator type: Output

Definition: Couple-years of protection (CYP) is the estimated protection provided by family planning methods, based upon the volume of all contraceptives sold or distributed free of charge to clients during a one-year period. CYP is calculated by multiplying the quantity of each method distributed by a conversion factor to yield an estimate of the duration of contraceptive protection provided per unit of that method. The contraceptives included are modern methods (sterilisation, injectable Depo-Provera, oral contractive pills, condoms intra-uterine devices and implants).

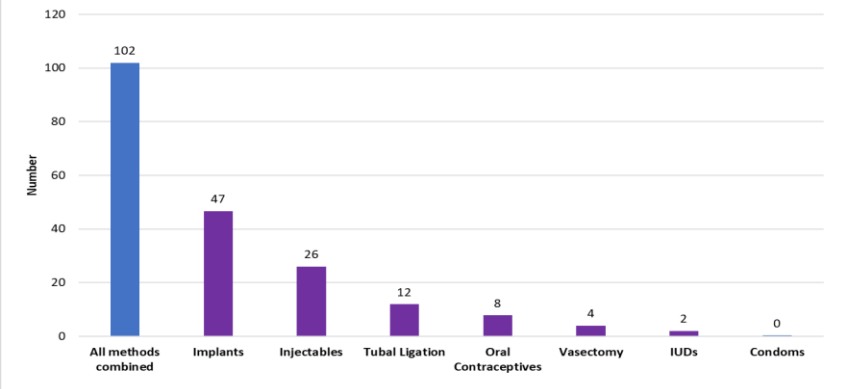
Rationale: CYP can be calculated from data that programs routinely collect, and allows estimation of coverage (but not actual use or impact) and comparison of contraceptive coverage by type of family planning method. The CYP calculation provides an immediate indication of the volume of program activity.

1. National data

Number of couple-years of protection (CYP) per 1000 women of reproductive age, 2019-2023



Number of couple-years of protection (CYP) per 1000 women by type of modern method of contraception, 2023



National performance

The number of couple-years protection (CYP) per 1000 women of reproductive age decreased by 24% nationally between 2019 and 2023, and 10% between 2022 and 2023. The target set for 2025 will likely not be achieved.

Of all methods, the number of couple-years protection was highest for implants and injectable due to uptake and effectiveness of the methods (namely implants). Greater provision and uptake of the most effective methods of family planning will increase couple-years of protection.

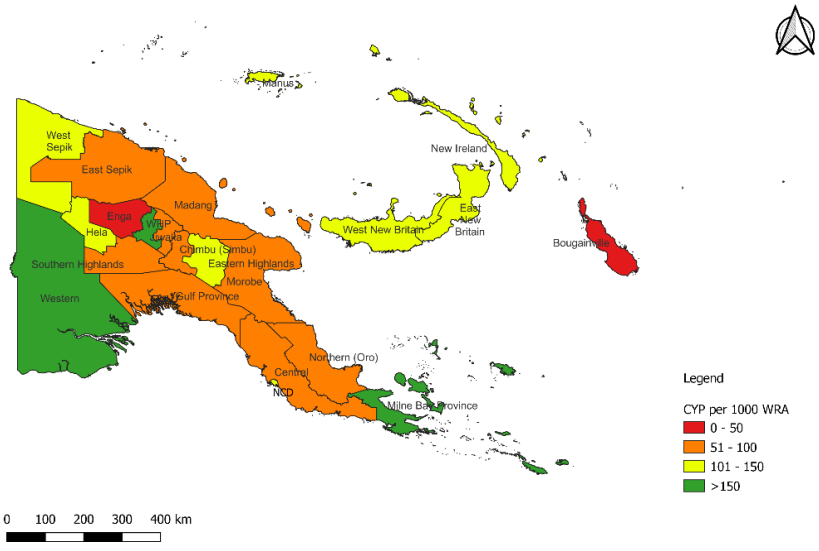
The decreasing trend seen nationally could be attributed both to reduced access to and provision of family planning services, particularly at lower-level health facilities, due to geographical and financial barriers, cultural factors, lack of trained staff and insufficient supplies of reproductive health commodities. Uptake may be increased through awareness efforts of the economic benefits of smaller families.

2. Provincial data

Number of couple-years of protection (CYP) per 1000 women of reproductive age by province, 2019-23

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	173	147	171	164	204	24%	18%
GULF	130	129	141	107	71	-34%	-45%
CENTRAL	74	206	65	49	52	6%	-30%
NCD	135	160	124	121	146	21%	8%
MILNE BAY	209	239	209	220	215	-2%	3%
ORO	123	142	62	80	69	-14%	-44%
SHP	69	61	64	63	70	11%	1%
HELA	80	100	146	113	114	1%	43%
ENGA	55	56	47	46	37	-20%	-33%
WHP	196	203	140	131	184	40%	-6%
JIWAKA	145	70	71	72	63	-13%	-57%
CHIMBU	123	140	156	91	95	4%	-23%
EHP	189	172	132	171	123	-28%	-35%
MOROBE	156	128	109	139	79	-43%	-49%
MADANG	189	100	79	85	74	-13%	-61%
EAST SEPIK	94	120	96	87	78	-10%	-17%
WEST SEPIK	193	175	193	158	132	-16%	-32%
MANUS	114	178	181	165	150	-9%	32%
NEW IRELAND	100	148	141	126	117	-7%	17%
ENBP	195	194	154	159	134	-16%	-31%
WNBP	109	163	132	158	123	-22%	13%
ARoB	63	79	53	34	50	47%	-21%
NATIONAL	135	135	113	113	102	-10%	-24%

Family Planning use, 2023



Provincial performance

Provinces such as Western, NCD and Milne Bay for the Southern Region, the Highlands provinces of SHP, Hela and WHP, and the NGI provinces of Manus, New Ireland and WNB reported increases in CYP over the five-year period. These were reflected in their positive annual and overall five-year percentage changes. The increase in acceptability and uptake of the long-acting reversible contraceptives (LARCs) may have been a contributing factor. Western and Milne Bay were the best performing provinces in 2023, with their CYP figures exceeding the 2025 national target.

In the Momase region, all provinces reported decreasing trends in number of CYP over the five-year period. CYP figures for Central, Enga, Jiwaka and ARoB are well below the 2025 and 2030 targets. Reasons contributing to these poor trends could be related to availability of, and access to, these vital healthcare services as mentioned above.

Explanatory notes

From the 2024 SPAR report onwards, the CYP indicator includes condoms (this contraceptive method was previously excluded) in line with the indicator definition in the M&E Strategic Plan. The indicator was therefore re-calculated for the years 2019 to 2022.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **14** Pregnant women having at least four antenatal care (ANC) visits

NOTES ON INDICATOR

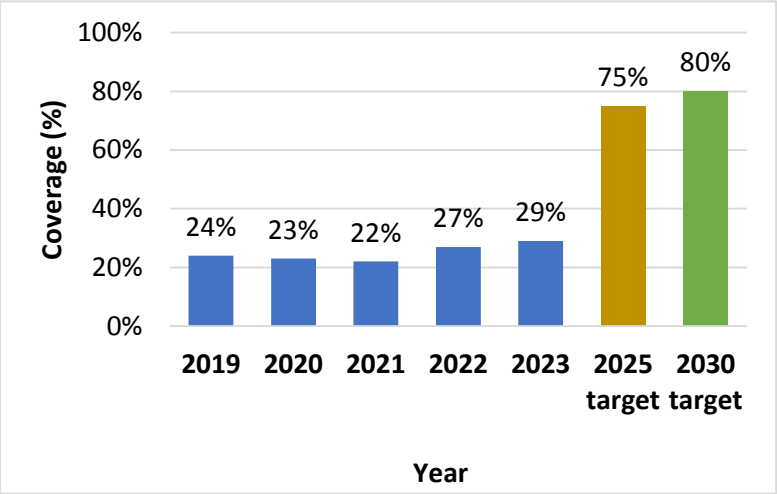
Indicator type: Outcome

Definition: Percentage (%) of women who received antenatal care, four times or more at a hospital, health centre or outreach clinic during pregnancy

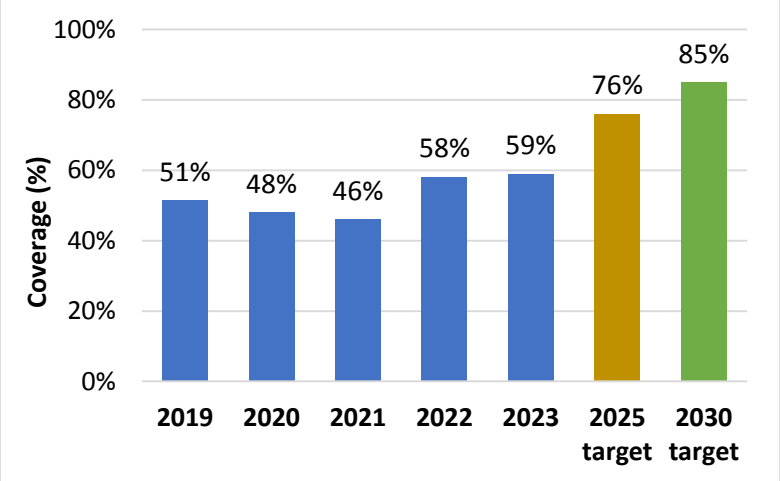
Rationale: Antenatal care (ANC) coverage is an indicator of access and use of health care during pregnancy. The antenatal period presents opportunities for reaching pregnant women with interventions that may be vital to their health and wellbeing and that of their infants. Receiving antenatal care at least four times increases the likelihood of receiving effective maternal health interventions during the antenatal period.

1. National data

Coverage of at least four antenatal care visits, 2019-23



Coverage of at least one antenatal care visit, 2019-23



National performance

Nationally, the coverage rates for four or more ANC visits (ANC-4) steadily decreased by one percentage point between 2019-2021 and then increased to 29% in 2023. This figure however is far from the NHP coverage targets set for 2025 and 2030.

In general, one of the main reasons for the low coverage rate could be pregnant women presenting at ANC Clinics during the latter stages of their pregnancies, on most occasions in their third trimester. This, in turn, is influenced by both demand- and supply-side factors such as access to health facilities, availability of services and perceptions of quality of care.

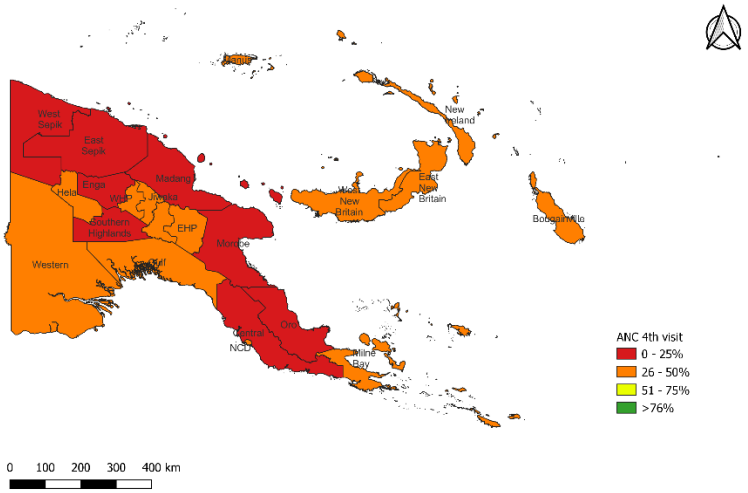
When ANC-4 is compared with coverage of at least one visit (ANC-1), a similar trend is seen with a decrease followed by a significant increase in coverage in 2022-23. This is partly due to changes to population estimates from 2022 onwards. Greater efforts by provinces to support outreach programmes and health education messages to communities and families could help ANC coverage rates.

3. Provincial data

Coverage of at least four antenatal care visits by province, 2019-2023

Province	2021	2022	2023	2023-2022 % annual change	2023-2021 % 3-year change
WESTERN	17	27	31	16%	87%
GULF	20	24	26	10%	33%
CENTRAL	19	20	21	4%	12%
NCD	37	48	48	0%	31%
MILNE BAY	38	43	46	5%	19%
ORO	16	21	22	5%	40%
SHP	14	16	20	24%	42%
HELA	36	32	37	13%	2%
ENGA	16	17	18	5%	11%
WHP	27	27	33	23%	22%
JIWAKA	20	22	27	24%	32%
CHIMBU	25	26	32	22%	25%
EHP	21	27	27	-2%	27%
MOROBE	17	24	25	5%	48%
MADANG	12	20	21	7%	70%
EAST SEPIK	13	20	19	-8%	46%
WEST SEPIK	18	24	24	1%	35%
MANUS	37	31	34	9%	-7%
NEW IRELAND	28	33	40	23%	43%
ENBP	36	44	41	-7%	13%
WNBP	32	42	42	0%	31%
ARoB	29	33	30	-8%	3%
NATIONAL	**22**	**27**	**29**	**6%**	**32%**

ANC coverage for 4th visit, 2023



Provincial performance

Most provinces reported an increase in coverage over the three-year period (2021-2023). 2023 coverage rates were highest in NCD, Milne Bay, New Ireland, West New Britain and East New Britain, and lowest in Central, Madang, SHP, East Sepik, and Enga. Western and Madang provinces reported the highest increases in coverage between 2021 and 2023.

Compared to national targets, ANC-4 coverage rates for all provinces in 2023 were well below the 2025 and 2030 targets. Apart from conducting routine MCH outreach patrols, providing incentives for mothers and families to attend ANC services could improve coverage rates. Furthermore, improving referrals of pregnant women from communities through VHAs could be beneficial.

Explanatory notes

ANC-1 was reported under the NHP 2011-2020. Recognizing the global recommendation has changed to at least eight ANC visits during pregnancy, the indicator to report annually among the 37 national indicators is now ANC-4. Data for ANC-4 are therefore reported here starting from 2021.

Negative percentages in the provincial table indicate a decrease in coverage in 2023 compared to 2022 or 2019.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **15** Supervised births at health facilities

NOTES ON INDICATOR

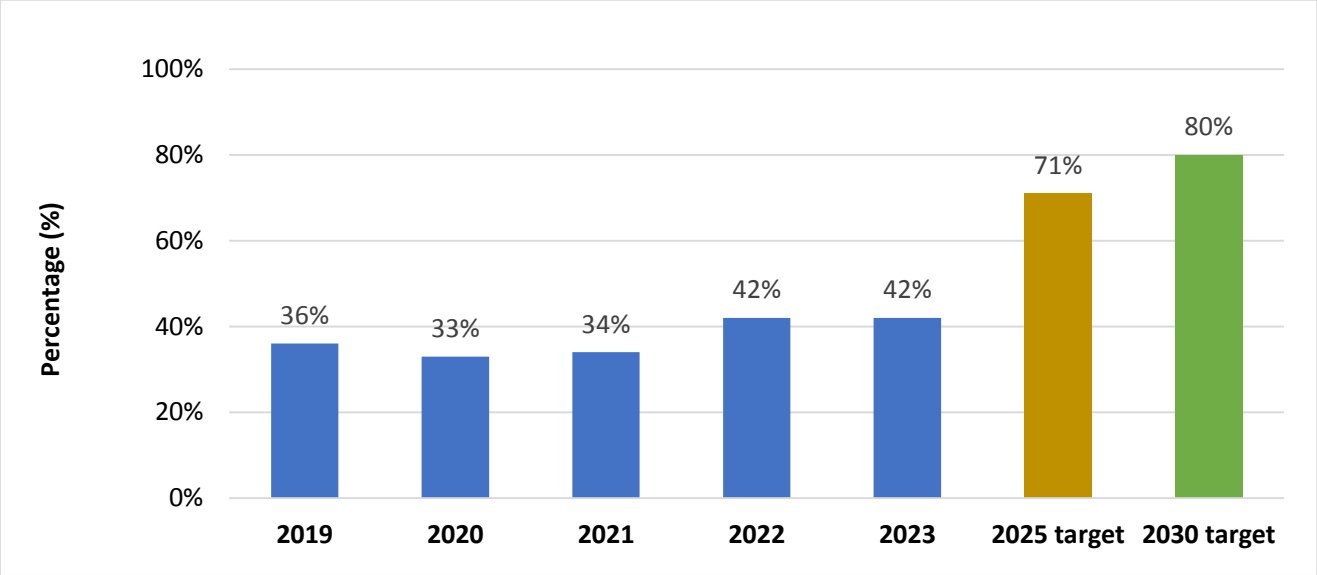
Indicator type: Outcome

Definition: Percentage (%) of births that occur in health facilities

Rationale: All women should have access to skilled care during pregnancy and childbirth to ensure prevention, detection and management of complications. Assistance by properly trained health personnel working within an enabling environment is needed to eliminate preventable maternal and newborn deaths. A key strategy to ensure skilled care during childbirth is to that all births take place in health facilities in which obstetric complications can be treated when they arise.

1. National data

Percentage of births in health facilities, 2019-2023



National performance

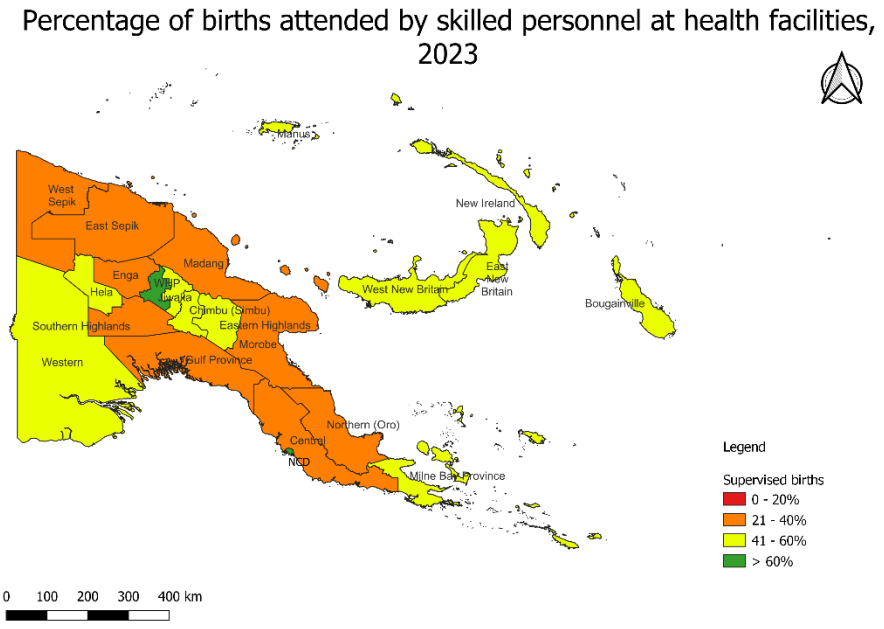
The percentage of births in health facilities changed minimally in 2018-2021, and then increased from 34% to 42% in 2022 with no further change in 2023. The increase between 2021 and 2022 is largely explained by a downward revision to birth estimates (denominator for the indicator) from 2022 onwards, and may also be due to care-seeking and service availability rebounding after disruptions caused by the COVID-19 pandemic in 2020 and 2021. Health facility delivery rates remain well below the 2025 national target of 71%, and at the current rates of progress will not be achieved unless concerted efforts are made to address the various demand and supply-side factors resulting in low rates.

Data show that service delivery is hindered by several health system challenges including availability of skilled health workers and essential medicines and commodities, as well as geographical barriers affecting access to health facilities and cultural practices influencing care seeking. Quality of care may be improved through development of short- and long-term health facility and local service improvement plans based on local data, along with supervisory visits to follow up on implementation of these plans. A greater emphasis is needed on improving services at rural health facilities.

2. Provincial data

Percentage of births in health facilities by province, 2019-2023

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	32%	24%	29%	43%	42%	-2%	31%
GULF	22%	19%	20%	29%	27%	-7%	23%
CENTRAL	28%	24%	26%	28%	28%	0%	0%
NCD	112%	106%	103%	110%	102%	-7%	-9%
MILNE BAY	43%	44%	43%	44%	47%	7%	9%
ORO	24%	20%	24%	35%	33%	-6%	38%
SHP	18%	19%	18%	23%	27%	17%	50%
HELA	30%	36%	37%	42%	46%	10%	53%
ENGA	26%	30%	26%	25%	25%	0%	-4%
WHP	42%	47%	45%	53%	65%	23%	55%
JIWAKA	32%	31%	36%	41%	41%	0%	28%
CHIMBU	40%	40%	30%	43%	56%	30%	40%
EHP	36%	39%	33%	42%	45%	7%	25%
MOROBE	28%	40%	30%	43%	35%	-19%	25%
MADANG	25%	24%	20%	33%	35%	6%	40%
EAST SEPIK	20%	21%	19%	28%	25%	-11%	25%
WEST SEPIK	20%	19%	18%	24%	24%	0%	20%
MANUS	49%	62%	57%	46%	57%	24%	16%
NEW IRELAND	45%	34%	35%	50%	47%	-6%	4%
ENBP	63%	63%	60%	56%	52%	-7%	-17%
WNBP	35%	34%	47%	60%	41%	-32%	17%
ARoB	43%	45%	49%	56%	58%	4%	35%
NATIONAL	36%	33%	34%	42%	42%	0%	17%



Provincial performance

Provinces with the lowest percentage of births in health facilities in 2023 West Sepik (24%), East Sepik (25%), Enga (25%), Southern Highlands (27%) and Gulf (29%). Overall, 11 provinces reported figures below the national average of 42%. Provinces with the highest figures were NCD (102%), Western Highalnds (65%), ARoB (58%), Manus (57%) and Chimbu (56%).

Between 2022 and 2023, the biggest decrease in health facility births were noted in West New Britain (-32%) and Morobe (-19%). Despite these declines, all provinces reported an increase over the five year period with the exception of NCD and East New Britain.

There are several factors contributing to these trends, as described under national performance.

Explanatory notes

Negative percentages in the provincial table indicate a decrease in the percentage of births in health facilities in 2023 compared to 2022 or 2019.

Supervised delivery rates for the National Capital District are above 100% due to mothers from outside the Port Moresby General Hospital catchment coming to deliver at the hospital.

Data on total births (denominator) has changed over time, affecting the results obtained for the indicator.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **16** Pentavalent 3 immunization coverage rate

NOTES ON INDICATOR

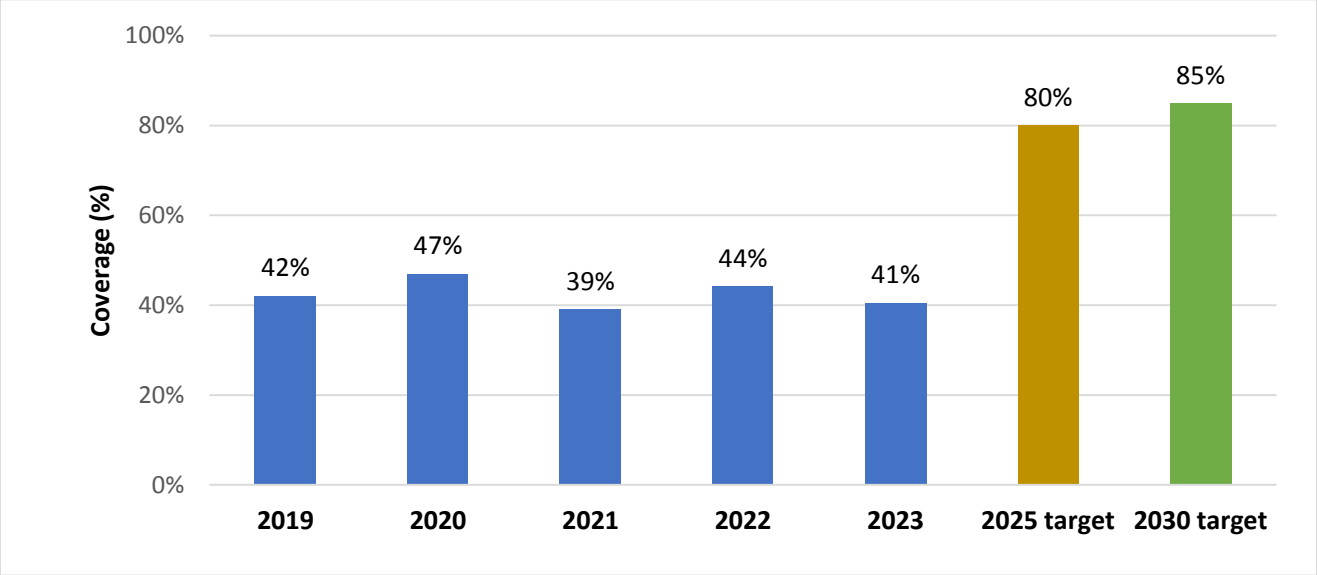
Indicator type: Outcome

Definition: Percentage (%) of children under 1 year who have received the three doses of the pentavalent vaccine

Rationale: Child immunization is one of the most cost-effective public health interventions for reducing child morbidity and mortality. Immunization programs aim to reduce the incidence of vaccine-preventable diseases in children by vaccinating as many children as possible (achieving high levels of vaccination coverage) with the required vaccines at the appropriate ages. Estimates of vaccination coverage among children are used to monitor immunization programs, inform public health interventions aimed at reducing disease morbidity and mortality and as an indicator of health system performance.

1. National data

Pentavalent 3 immunization coverage rates, 2019-23



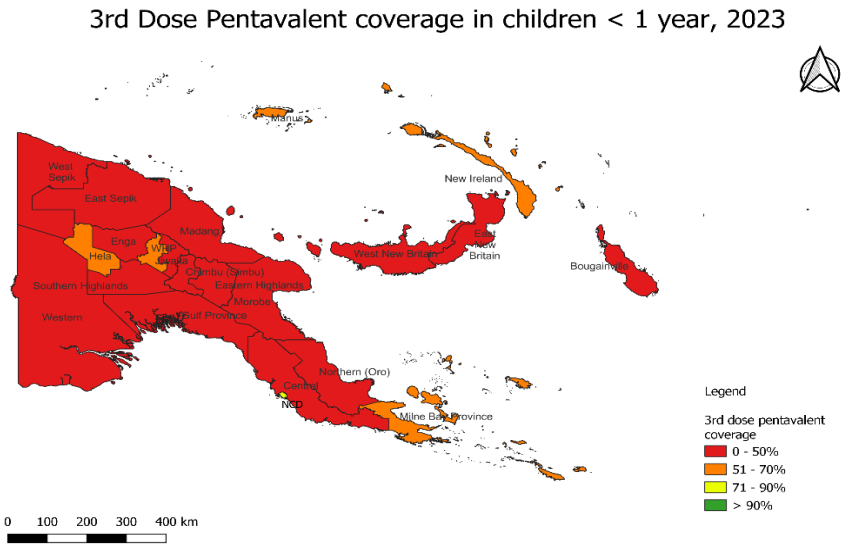
National performance

National coverage of the third dose of the pentavalent vaccine has remained below 50% between 2019 and 2023, with a small decrease between 2022 and 2023 and 2019 and 2023. A coverage below 85% for herd immunity, places many children at risk of contracting severe illness. In addition, the coverage rate of 41% in 2023 is far below the national target of 80% in 2025. The lack of improvement seen in coverage is attributed to several factors including disruptions by the COVID-19 pandemic as well as health system challenges such as inadequate human resourcing, funding and accountability. Initiatives such as cost-effective budgeting of annual operation plans for immunization activities and the MOVAX project for managing vaccine stocks may help to improve coverage moving forward.

2. Provincial data

Pentavalent 3 immunization coverage by province, 2019-2023

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	17%	25%	24%	35%	39%	11%	129%
GULF	23%	36%	27%	35%	24%	-31%	4%
CENTRAL	36%	42%	45%	51%	50%	-2%	39%
NCD	98%	84%	73%	76%	78%	3%	-20%
MILNE BAY	68%	76%	58%	58%	58%	0%	-15%
ORO	34%	32%	32%	39%	38%	-3%	12%
SHP	41%	39%	35%	35%	33%	-6%	-20%
HELA	64%	63%	54%	56%	51%	-9%	-20%
ENGA	63%	57%	35%	35%	30%	-14%	-52%
WHP	60%	51%	50%	43%	62%	44%	3%
JIWAKA	26%	45%	45%	48%	46%	-4%	77%
CHIMBU	49%	52%	38%	55%	42%	-24%	-14%
EHP	41%	53%	37%	44%	41%	-7%	0%
MOROBE	36%	37%	32%	35%	37%	6%	3%
MADANG	24%	30%	18%	18%	21%	17%	-13%
EAST SEPIK	15%	39%	38%	35%	29%	-17%	93%
WEST SEPIK	32%	55%	35%	64%	47%	-27%	47%
MANUS	66%	73%	60%	64%	59%	-8%	-11%
NEW IRELAND	53%	47%	47%	53%	57%	8%	8%
ENBP	53%	65%	60%	54%	45%	-17%	-15%
WNBP	42%	38%	31%	43%	34%	-21%	-19%
ARoB	40%	57%	35%	77%	41%	-47%	2%
NATIONAL	42%	47%	39%	44%	41%	-7%	-2%



Provincial performance

In 2023, ten provinces reported pentavalent immunization coverage rates above the national average of 41%: NCD (78%), Western Highlands (62%), Manus (59%), Milne Bay (58%), New Ireland (57%), Hela (51%) Central (50%), West Sepik (47%), Jiwaka (46%), and East New Britain (45%). Only NCD is close to the 2025 national target of 80%.

When looking at change in coverage over time, Western Highlands and Manus reported the largest increases between 2022 and 2023 at 44% and 17% respectively. Conversely, ARoB (-47%) and Gulf (-31%) reported the largest decreases.

Over the five-year period between 2019 and 2023, Western saw more than a doubling in coverage from 17% to 39% whilst East Sepik almost doubled from 15% to 29%. Enga's pentavalent-3 coverage however, halved over the same period, whilst coverage in NCD, Southern Highlands and Hela decreased by 20%.

Explanatory notes

Negative percentages in the provincial table indicate a decrease in the percentage of pentavalent-3 immunization coverage in 2023 compared to 2022 or 2019.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **17**

Measles-containing vaccine, first dose (MCV1) immunization coverage rate

NOTES ON INDICATOR

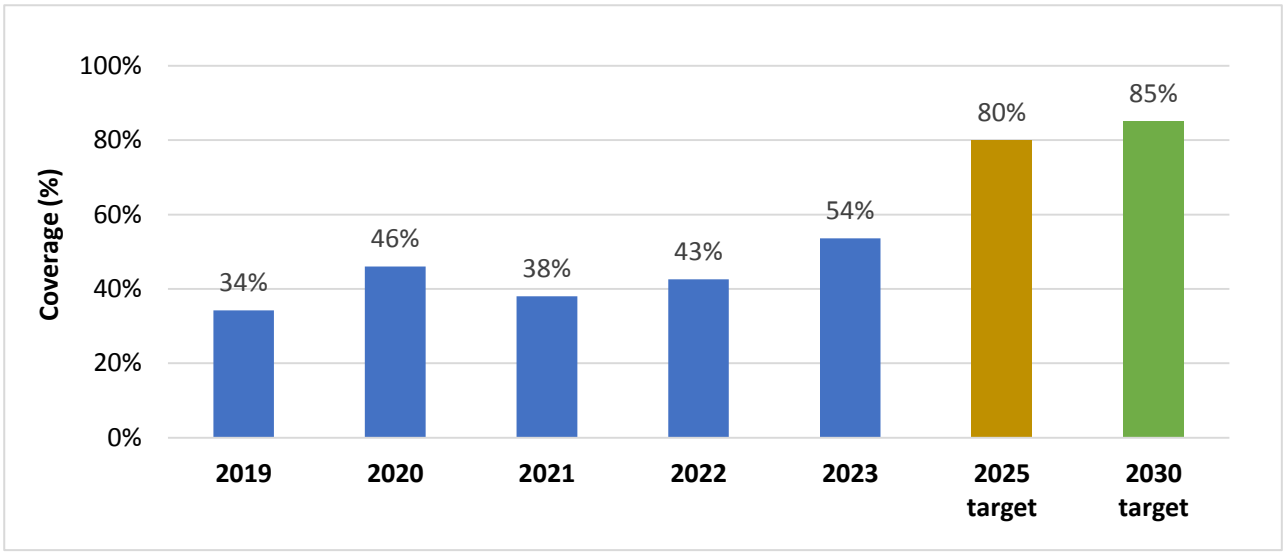
Indicator type: Outcome

Definition: Percentage (%) of children under 1 year who have received the 9- to 11-month dose of measles vaccine

Rationale: Child immunization is one of the most cost-effective public health interventions for reducing child morbidity and mortality. Immunization programs aim to reduce the incidence of vaccine-preventable diseases in children by vaccinating as many children as possible (achieving high levels of vaccination coverage) with the required vaccines at the appropriate ages. Estimates of vaccination coverage among children are used to monitor immunization programs, inform public health interventions aimed at reducing disease morbidity and mortality and as an indicator of health system performance.

1. National data

First dose measles-containing vaccine (MCV1) immunization coverage rates, 2019-23



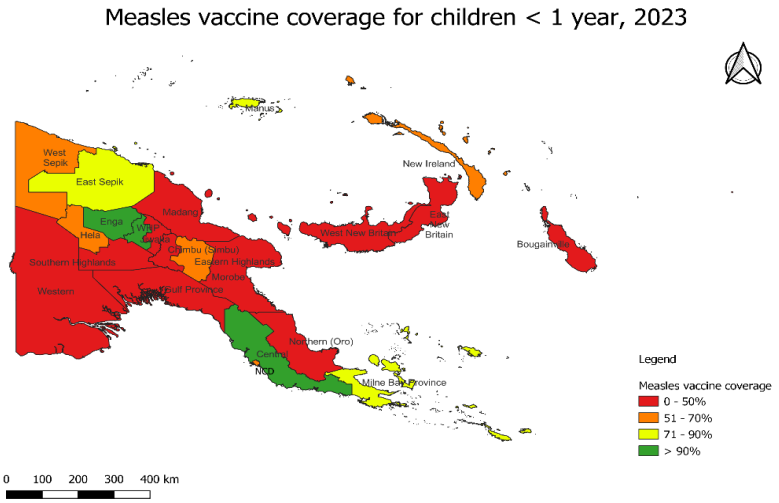
National performance

Coverage of the first dose of the measles-containing vaccine (MCV1) varied between 2019 and 2022, but hovered in the 30%'s and 40%'s. Coverage in 2023 crossed 50% going to 54%, which is likely due to the inclusion of data from the supplementary immunization campaign in routine immunization data for some provinces (see explanatory notes). Without this inclusion, it is likely that coverage remains below 50%, far below the 2025 national target of 80%. The same challenges hindering progress in Pentavalent-3 coverage apply for MCV1.

2. Provincial data

First dose measles-containing vaccine (MCV1) immunization coverage rates by province, 2019-23

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	16%	27%	23%	35%	37%	6%	131%
GULF	19%	33%	30%	40%	34%	-15%	79%
CENTRAL	28%	46%	46%	55%	97%	76%	246%
NCD	63%	60%	52%	53%	55%	4%	-13%
MILNE BAY	65%	77%	58%	70%	76%	9%	17%
ORO	26%	28%	25%	37%	38%	3%	46%
SHP	38%	39%	37%	40%	30%	-25%	-21%
HELA	64%	53%	48%	54%	57%	6%	-11%
ENGA	49%	41%	24%	22%	103 %	368%	110%
WHP	43%	41%	43%	37%	131 %	254%	205%
JIWAKA	18%	38%	41%	38%	35%	-8%	94%
CHIMBU	38%	48%	33%	49%	37%	-24%	-3%
EHP	29%	48%	33%	41%	61%	49%	110%
MOROBE	27%	44%	36%	35%	34%	-3%	26%
MADANG	25%	39%	19%	24%	29%	21%	16%
EAST SEPIK	14%	43%	39%	37%	71%	92%	407%
WEST SEPIK	41%	67%	47%	81%	54%	-33%	32%
MANUS	65%	76%	54%	80%	74%	-8%	14%
NEW IRELAND	44%	46%	37%	51%	58%	14%	32%
ENBP	36%	64%	58%	50%	45%	-10%	25%
WNBP	31%	35%	27%	39%	24%	-38%	-23%
ARoB	32%	54%	33%	63%	42%	-33%	31%
NATIONAL	**34%**	**46%**	**38%**	**43%**	**54%**	**26%**	**59%**



Provincial performance

Current coverage rates leave most provinces susceptible to outbreaks of measles with 15 provinces reporting rates around or below 50% in 2023, far below the 2025 national target of 80%.

Western Highlands reported the highest coverage at 131%, followed by Enga at 103% and Central at 97% for 2023. These rates are due to inclusion of supplementary immunization data (see explanatory notes). The lowest coverage rates were reported in West New Britain (24%) and Madang (29%). Eleven provinces reported rates below the national average of 54%.

Due to reporting of supplementary immunization data with routine immunization data by some provinces, it is not possible to review changes in coverage between 2019 and 2023 and 2022 and 2023.

Explanatory notes

In 2023, supplementary immunization activities (SIA) were conducted in several provinces. As per global standards, SIA data are to be collected and reported separately to routine immunization data (shown here). SIAs are conducted to close the immunity gap. Reporting combined data is ambiguous as it provides incorrect coverage rates for routine immunization planning. Some provinces reported combined data in 2023, hence the very high coverage rates. Data should be interpreted within this context.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **18** Total provincial hospital births that are referred from rural centres per 1000 births

NOTES ON INDICATOR

Indicator type: Output

Definition: Percentage (%) of referrals of women in labour from rural centres to provincial hospitals for every 1000 births in health facilities in a particular province

Rationale: Measures functionality of the referral system from levels 1-3 to level 5 health facilities, giving an indication of "over referrals" or "under referrals". Factors affecting referrals include the referral system not functioning well, patients bypassing lower level health facilities to go directly to hospitals, quality of care and health worker skills in identifying the need for referrals.

NO DATA

This data is currently not measurable from variables in the National Health Information System reporting forms. Revisions have been agreed to the forms and it is expected that data for this indicator will be available in the next years.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **19** Incidence of diarrhoeal disease in children <5 years

NOTES ON INDICATOR

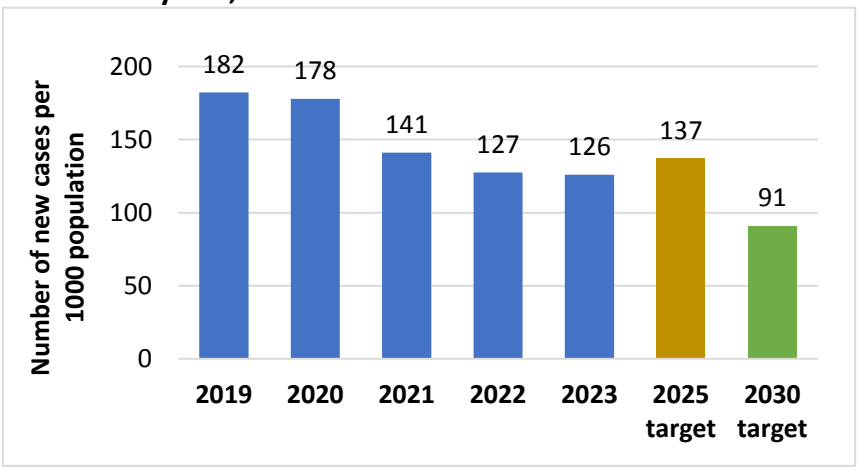
Indicator type: Impact

Definition: Incidence of diarrhoeal disease in children under 5 years per 1000 children under 5 years

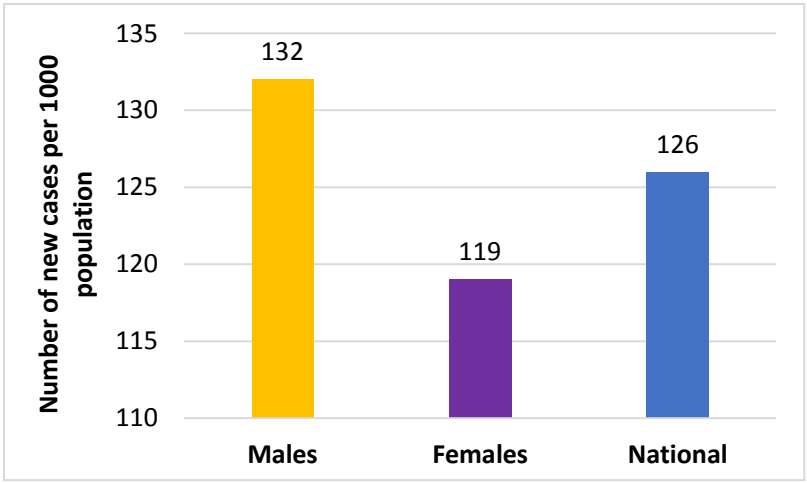
Rationale: Diarrhoea is a leading cause of death in children under 5 years. It is usually a symptom of an infection in the intestinal tract, caused by a range of organisms – bacterial, viral or parasitic. Infection is spread through contaminated water and food, or from person-to -person due to poor poor hygiene and infection control practices. Incidence of diarrhoeal disease in children <5 years helps to guide interventions to reduce childhood morbidity and mortality as well as broader public health interventions, such as around water, sanitation and hygiene.

1. National data

Incidence of diarrhoeal disease in children <5 years per 1000 children <5 years, 2019-23



Incidence of diarrhoeal disease in children <5 years per 1000 children <5 years, by sex, 2023



National performance

The incidence of diarrhoeal disease among children <5 years has decreased by over one third between 2019 and 2023, from 182 to 126 cases per 1000 children <5 years. As of 2021, the 2025 national target has been reached and if current declines are accelerated and sustained, the 2030 target may be achieved too.

When data on diarrhoeal incidence is disaggregated by sex, findings show that males have an incidence that is 10% higher than that of females. Whilst a similar finding has been noted in other low- and middle-income countries, the reasons for this difference remain unclear.

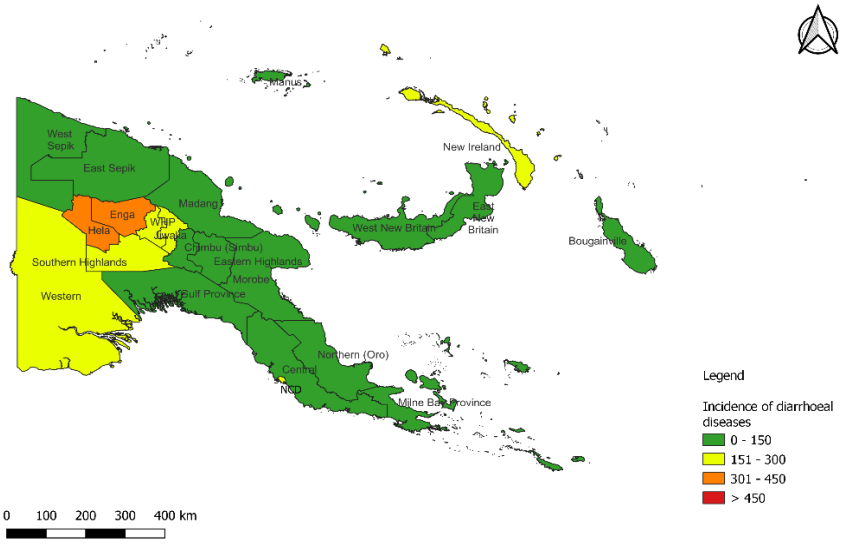
Factors influencing incidence are availability of safe drinking water, and sanitation and hygiene practices. The Demographic and Health Survey 2016-18 found that 52% of children under the age of two years had their last stools disposed of unsafely.

2. Provincial data

Provincial trends in incidence of diarrhoeal disease in children <5 years, 2019-23

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	246	194	147	148	164	11%	-33%
GULF	261	204	201	150	117	-22%	-55%
CENTRAL	169	171	130	118	104	-12%	-38%
NCD	350	238	181	221	214	-3%	-39%
MILNE BAY	83	56	54	46	44	-4%	-47%
ORO	63	124	69	74	83	12%	32%
SHP	230	229	151	142	157	11%	-32%
HELA	458	495	428	330	447	35%	-2%
ENGA	434	434	320	249	323	30%	-26%
WHP	246	228	199	180	192	7%	-22%
JIWAKA	219	177	177	175	167	-5%	-24%
CHIMBU	181	163	136	144	134	-7%	-26%
EHP	207	178	157	135	119	-12%	-43%
MOROBE	179	161	108	111	112	1%	-37%
MADANG	113	82	79	63	71	13%	-37%
EAST SEPIK	82	112	112	96	65	-32%	-21%
WEST SEPIK	169	163	143	113	93	-18%	-45%
MANUS	114	170	84	111	71	-36%	-38%
NEW IRELAND	123	144	182	169	156	-8%	27%
ENBP	128	131	122	110	64	-42%	-50%
WNBP	144	91	80	99	76	-23%	-47%
ARoB	80	91	98	52	63	21%	-21%
NATIONAL	182	178	141	127	126	-1%	-31%

Incidence of diarrhoeal diseases in children < 5 years, 2023



Provincial performance

In 2023, Hela reported the highest incidence of diarrhoeal disease at 447 cases followed by Enga and NCD with 323 and 214 cases per 1000 children <5 years respectively. All other provinces had incidence rates below 200, with the lowest rates reported in Milne Bay (44) and Autonomous Region of Bougainville (63). Nine provinces reported rates higher than the national average of 126 cases per 1000 children <5 years.

In terms of annual changes between 2022 and 2023, East New Britain, Manus, and East Sepik saw decreases in incidence by one third or more. Over the five-year period between 2019-2023, East New Britain. Gulf, and Milne Bay and West New Britain halved incidence of diarrhoeal disease in children <5 years. These significant achievements were likely enabled through implementation of environmental (such as with water and sanitation facilities), health promotion and public health interventions.

Explanatory notes

Negative percentages in the provincial table indicate a decrease in the number of new cases of diarrhoea in children <5. years in 2023 compared to 2022 or 2019.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **20** Deaths among children <5 years with pneumonia admitted to a health facility

NOTES ON INDICATOR

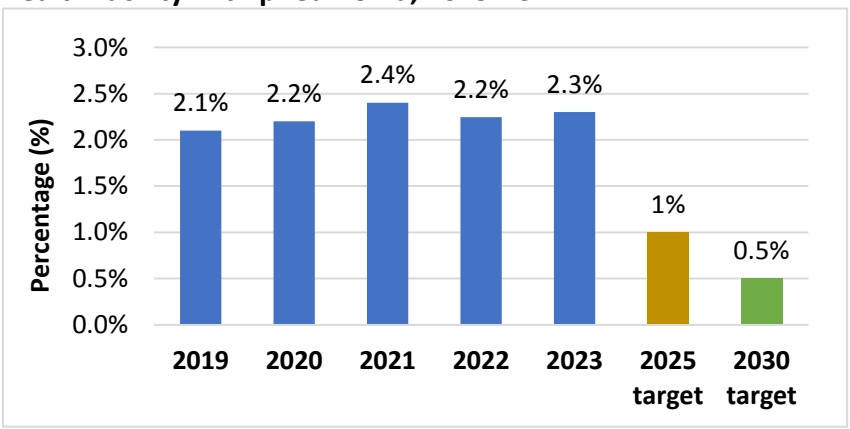
Indicator type: Impact

Definition: Percentage (%) of children <5 years of age that are admitted to a health facility with pneumonia and die during admission

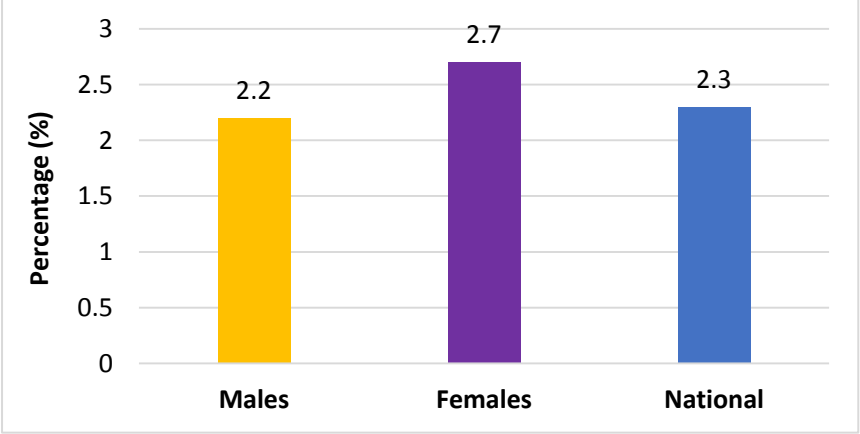
Rationale: Pneumonia is a leading cause of death in children <5 years. The indicator measures progress towards reducing mortality from pneumonia in children, as well as quality of care at health facilities. It helps to determine whether a pneumonia case is promptly identified once at the health facility and quality of case management once the disease is diagnosed. Deaths from pneumonia at the health facility will also be affected by the severity of illness in the child upon arrival and distance to the health facility. The indicator helps to guide interventions to reduce childhood morbidity and mortality.

1. National data

Percentage of deaths among children <5 years admitted to a health facility with pneumonia, 2019-23



Percentage of deaths among children <5 years admitted to a health facility with pneumonia by sex, 2023



National performance

The percentage of deaths among children <5 years admitted to a health facility with pneumonia has remained above 2% between 2019 and 2023, with variation and no consistent trend. The case fatality rate was 2.3% in 2023, more than double the 2025 national target (1%).

When data were disaggregated by sex, the percentage of deaths among female children was higher compared to male children by close to 20%. The reasons for this difference are unknown but may partly be related to care seeking practices and presentation of more severe disease in female children upon admission.

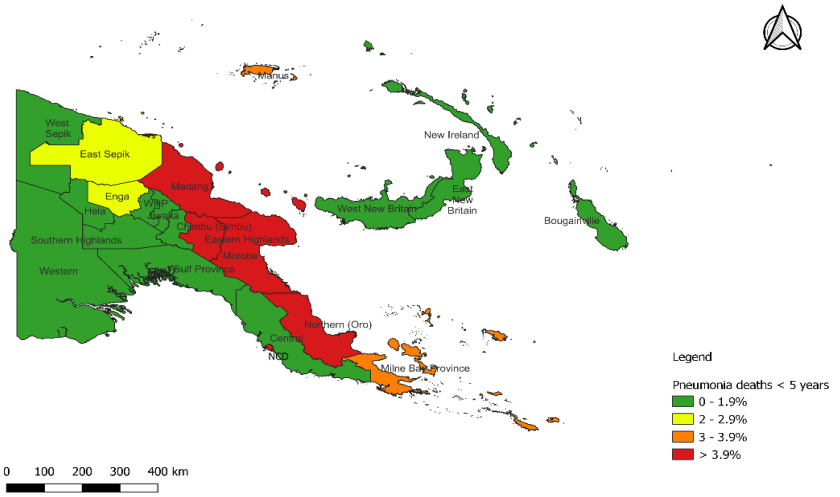
Achieving the national targets will require concerted efforts to improve care-seeking practices as well as quality of care for pneumonia – such as following the correct clinical protocols and ensuring availability of the necessary medical supplies.

2. Provincial data

Percentage of deaths among children <5 years admitted to a health facility with pneumonia by province, 2019-23

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	3.0%	1.9%	3.8%	0.6%	1.6%	167%	-47%
GULF	1.8%	1.5%	5.0%	1.4%	1.7%	21%	-6%
CENTRAL	2.8%	1.7%	2.9%	9.3%	1.5%	-84%	-46%
NCD	1.7%	1.8%	3.4%	4.2%	5.9%	40%	247%
MILNE BAY	2.1%	1.9%	1.9%	1.1%	3.8%	245%	81%
ORO	4.9%	8.2%	4.4%	3.1%	5.1%	65%	4%
SHP	5.7%	2.4%	2.6%	2.4%	1.7%	-29%	-70%
HELA	1.6%	1.5%	1.2%	0.9%	1.1%	22%	-31%
ENGA	2.7%	3.2%	4.2%	1.6%	2.6%	63%	-4%
WHP	1.1%	1.3%	2.2%	1.9%	1.3%	-32%	18%
JIWAKA	3.1%	1.7%	1.5%	3.0%	1.9%	-37%	-39%
CHIMBU	1.1%	1.6%	0.6%	1.2%	0.7%	-42%	-36%
EHP	1.5%	1.9%	2.1%	5.6%	6.1%	9%	307%
MOROBE	3.2%	3.3%	3.4%	1.8%	4.6%	156%	44%
MADANG	1.3%	2.8%	2.9%	3.9%	4.5%	15%	246%
EAST SEPIK	3.0%	2.3%	3.8%	0.8%	2.2%	175%	-27%
WEST SEPIK	5.4%	4.3%	5.0%	2.0%	1.8%	-10%	-67%
MANUS	4.3%	1.4%	0.0%	0.0%	3.8%	380%	-12%
NEW IRELAND	0.3%	1.5%	1.5%	2.9%	1.8%	-38%	500%
ENBP	1.1%	2.1%	2.0%	1.2%	0.9%	-25%	-18%
WNBP	0.5%	2.5%	2.3%	2.5%	1.2%	-52%	140%
ARoB	1.9%	3.5%	2.4%	1.8%	1.4%	-22%	-26%
NATIONAL	2.1%	2.2%	2.4%	2.2%	2.3%	5%	10%

Case fatality rate for pneumonia in children < 5 years, 2023



Provincial performance

In 2023, Eastern Highlands Province recorded the highest pneumonia case fatality rate among children <5 years admitted to health facilities, at 6.1% followed by NCD with 5.9%. The lowest rates were reported in Chimbu (0.7%) and East New Britain (0.9%). Fourteen provinces reported case fatality rates that were lower than the national average of 2.3%.

In terms of annual change, excluding Central where case fatality spiked in 2022 and needs to be investigated further, West New Britain (-52), Chimbu (-42%) and New Ireland (-38%) reported significant decreases in case fatality between 2022 and 2023. Over the five-year period between 2019 and 2023, Southern Highlands (-70%) and West Sepik (-67%) reported the highest decreases. Significant increases were seen in New Ireland (500%), Eastern Highlands (307%) and NCD (247%). For the latter, this could be related to high risk cases being referred to Port Moresby General Hospital. Reasons for the substantial increase in New Ireland and Eastern Highlands require further review.

Explanatory notes

Negative percentages in the provincial table indicate a decrease in the percentage of deaths among children <5 years with pneumonia in 2023 compared to 2022 or 2019.

INDICATOR
21 Incidence of low birthweight among newborns

NOTES ON INDICATOR

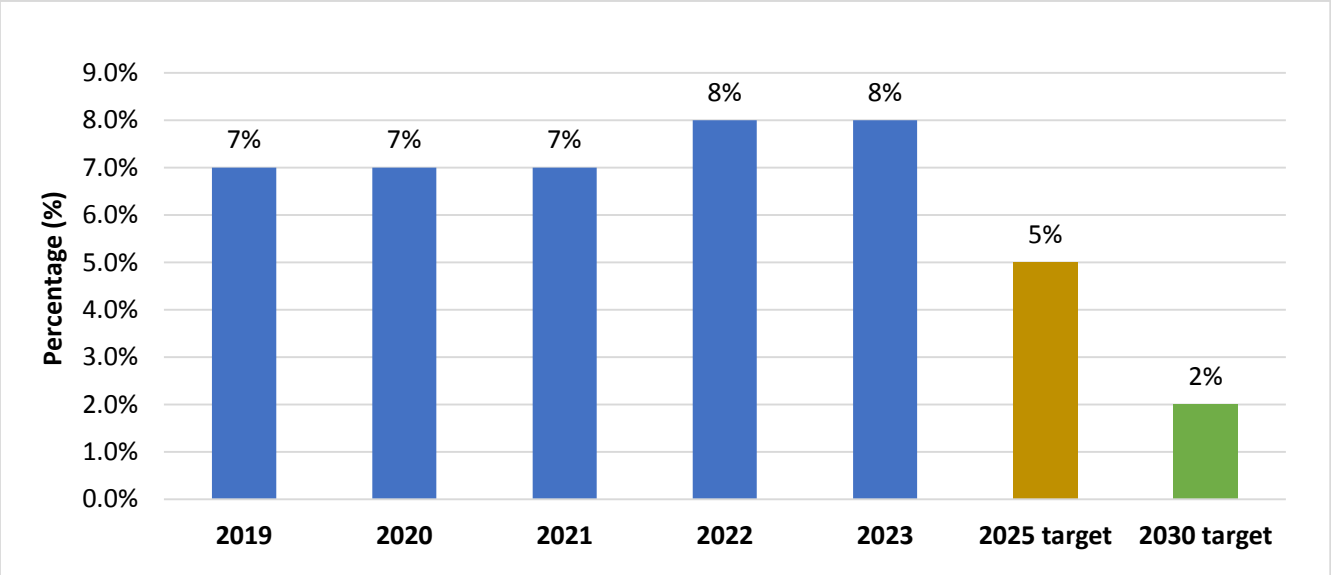
Indicator type: Outcome

Definition: Proportion of live births that weigh <2500 grams in a given time

Rationale: At the population level, the proportion of babies with a low birth weight is an indicator of the status of maternal health. Low birth weight is influenced by maternal malnutrition or illness during pregnancy, as well as quality of antenatal care. On an individual level, low birth weight is an important predictor of newborn health and survival. The indicator helps to guide interventions to improve maternal and newborn health.

1. National data

Percentage of births that are low birthweight (<2500 g), 2019-23



National performance

The percentage of low birth-weight facility births nationally has increased from 7% in 2019-21 to 8% in 2022 and 2023. This upward trend needs to be reversed and concerted efforts made to bring the low birth weight down to 5% and achieve the 2025 target. When data are viewed by region (not shown here), Momase (11.4%) and the Southern (8.8%) regions have higher rates compared to the Niugini Islands (6.7%) and Highlands (5.2%).

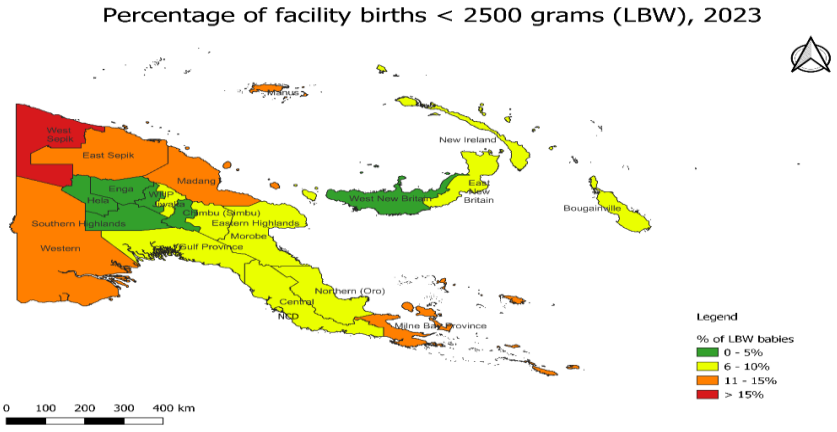
A critical factor affecting coordination and implementation of effective interventions to reduce the incidence of low-birth weight births is the lack of funding for the national Newborn Care Program, which has historically been heavily reliant on donor funding. Since 2020, little funding has been available resulting in less support for programmes and services to improve newborn care including for health worker training and mentoring, advocacy efforts and supervisory visits to health facilities.

Another key factor affecting low-birth weight rates is the low antenatal care coverage. When women do not attend antenatal care services during pregnancy, there are no opportunities to identify risk factors for low birth weight of the baby including maternal malnutrition or illness.

2. Provincial data

Percentage of health facility births that are low birthweight (<2500g), 2019-23

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	10%	13%	13%	12%	13%	8%	30%
GULF	8%	5%	9%	10%	10%	0%	25%
CENTRAL	4%	5%	6%	6%	7%	17%	75%
NCD	9%	9%	8%	3%	8%	167%	-11%
MILNE BAY	12%	12%	12%	14%	14%	0%	17%
ORO	8%	7%	6%	7%	7%	0%	-13%
SHP	5%	4%	5%	6%	4%	-33%	-20%
HELA	5%	4%	4%	5%	5%	0%	0%
ENGA	3%	5%	7%	5%	5%	0%	67%
WHP	3%	5%	6%	6%	5%	-17%	67%
JIWAKA	6%	5%	5%	14%	9%	-36%	50%
CHIMBU	3%	4%	4%	3%	2%	-33%	-33%
EHP	4%	5%	6%	8%	6%	-25%	50%
MOROBE	8%	8%	8%	8%	8%	0%	0%
MADANG	10%	13%	14%	14%	13%	-7%	30%
EAST SEPIK	12%	9%	12%	14%	13%	-7%	8%
WEST SEPIK	18%	14%	14%	14%	16%	14%	-11%
MANUS	10%	11%	5%	5%	12%	140%	20%
NEW IRELAND	7%	6%	6%	8%	8%	0%	14%
ENBP	8%	6%	5%	5%	6%	20%	-25%
WNBP	7%	5%	4%	5%	5%	0%	-29%
ARoB	5%	5%	5%	6%	6%	0%	20%
NATIONAL	**7%**	**7%**	**7%**	**8%**	**8%**	**0%**	**14%**



Provincial performance

In 2023, there was considerable variation in the percentage of health facility births that are low birthweight (<2500g) among the provinces, ranging from 16% in West Sepik and 14% in Milne Bay to 4% in Southern Highlands Province and 2% in Chimbu. Eleven provinces reported rates below the national average of 8%.

Sixteen provinces saw no change or decreases in low-birth weight rates between 2022 and 2023. In contrast, Manus saw more than a doubling in its rate from 5% in 2022 to 12% in 2023 which needs to be investigated to determine if this is related to reporting or other factors. NCD also saw a significant increase from 3% to 8%, however this is linked to the significant decrease reported in 2022 which was an outlier compared to the figures reported in 2019-2021. Over the five-year period between 2019 and 2023, only seven provinces reported decreases.

Health system and care seeking factors are hindering further progress in reducing low-birth weight rates across provinces.

Explanatory notes

Negative percentages in the provincial table indicate a decrease in the percentage of deaths among children <5 years with pneumonia in 2023 compared to 2022 or 2019.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **22** Underweight prevalence in children <5 years

NOTES ON INDICATOR

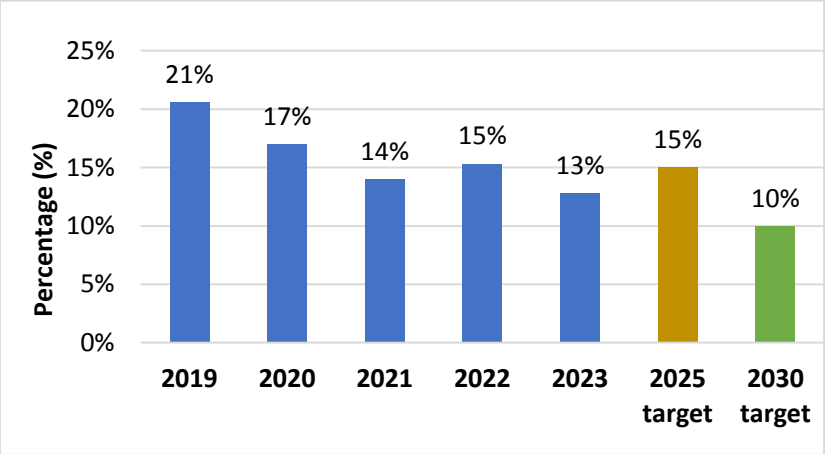
Indicator type: Impact

Definition: Prevalence of weight-for-height in children aged 0–59 months defined as below -2 standard deviations of the WHO Child Growth Standards median

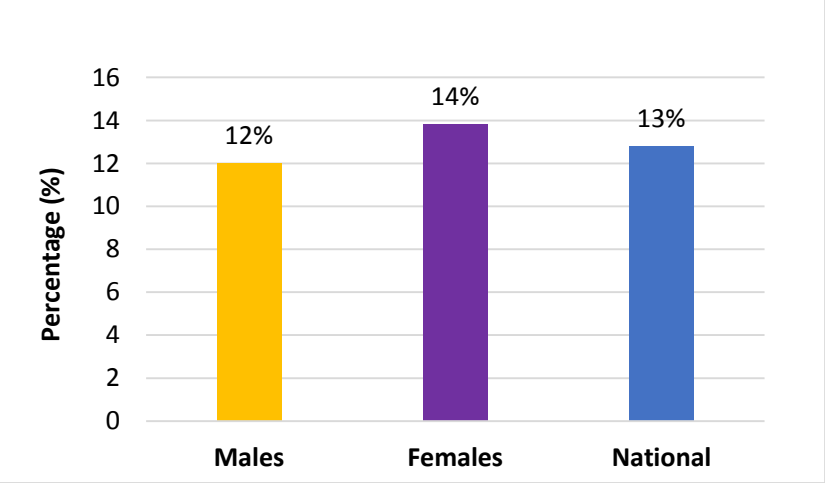
Rationale: Child growth is an internationally accepted outcome reflecting child nutritional status. Child underweight belongs to a set of indicators whose purpose is to measure nutritional imbalance and malnutrition resulting in undernutrition (assessed by underweight, stunting and wasting). This indicator helps to guide interventions in improving the nutritional status, and overall growth and health of children.

1. National data

Underweight prevalence in children <5 years, 2019-2023



Underweight prevalence in children <5 years by sex, 2023



National performance

Nationally, the national underweight rate has steadily declined among children under five years old, from 21% in 2019 to 13% in 2023. As of 2021, the national target had been achieved and this was sustained in 2022 and 2023. If current progress is sustained, it is likely that the 2030 target will also be achieved.

Data on underweight prevalence disaggregated by sex show that prevalence is higher in females, at 14%, compared to males at 12%. Data from other countries show no consistent pattern, with males more likely to be underweight in some settings. Factors influencing the differences could biological and social – for example feeding practices being influenced by gender biases. This needs to be better understood.

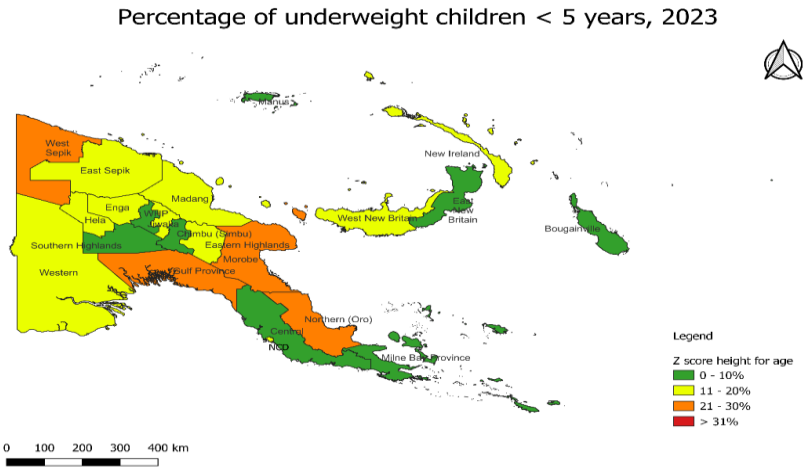
Overall, the national decrease in underweight prevalence could be influenced by the training and advocacy and awareness conducted across provinces in the last 3 years, provided by the Nutrition Program.

2. Provincial data

Underweight prevalence in children <5 years by province, 2019-23

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2021* % 3-year change
WESTERN	22%	25%	23%	21%	19%	-10%	-17%
GULF	34%	37%	26%	28%	23%	-18%	-12%
CENTRAL	21%	11%	10%	7%	9%	29%	-10%
NCD	9%	10%	11%	21%	15%	-29%	36%
MILNE BAY	22%	13%	11%	13%	10%	-23%	-9%
ORO	29%	24%	24%	28%	21%	-25%	-13%
SHP	30%	12%	7%	9%	6%	-33%	-14%
HELA	15%	14%	13%	10%	12%	20%	-8%
ENGA	20%	18%	16%	19%	15%	-21%	-6%
WHP	NA	7%	2%	1%	4%	300%	100%
JIWAKA	27%	14%	18%	20%	13%	-35%	-28%
CHIMBU	9%	15%	8%	15%	9%	-40%	13%
EHP	20%	8%	14%	20%	20%	0%	43%
MOROBE	30%	26%	25%	30%	22%	-27%	-12%
MADANG	26%	16%	17%	15%	15%	0%	-12%
EAST SEPIK	36%	31%	26%	27%	20%	-26%	-23%
WEST SEPIK	34%	21%	18%	19%	22%	16%	22%
MANUS	24%	10%	10%	7%	6%	-14%	-40%
NEW IRELAND	22%	26%	23%	17%	20%	18%	-13%
ENBP	16%	14%	11%	11%	9%	-18%	-18%
WNBP	19%	20%	16%	18%	17%	-6%	6%
ARoB	13%	9%	16%	7%	5%	-29%	-69%
NATIONAL	21%	17%	14%	15%	13%	-13%	-7%

*Change is shown compared to 2021 and not 2019 as the method of measurement changed from 2021 onwards allowing for a consistent comparison



Provincial performance

In 2023, the provinces that reported the highest prevalence for underweight among children <5 years were Gulf (23%) followed by West Sepik and Morobe (both at 22%). The lowest prevalence was reported in ARoB (5%) and Western Highlands (4%). Overall, nine provinces reported prevalence below the national average of 13%. The national target of 15% was achieved in 12 provinces.

The majority, 15 provinces, reported decreases in underweight prevalence between 2022 and 2023 with the biggest declines observed in Chimbu, Jiwaka and Southern Highlands. Western Highlands Province, in contrast, saw a significant increase from 1% in 2022 to 4% in 2023.

Over the three-year period of 2021 to 2023 when the same methods of measurement were used, notable decreases were in AroB with a decline of 69%, Manus with a 40% decrease, and Jiwaka with a 28% decrease. Experiences from these provinces could help to inform how progress could be achieved in other provinces.

Explanatory notes

Determining whether a child is underweight is based on measurement of weight for age, classified in categories. This was previously based on percentiles and subsequently changed to z-scores in 2021. The change has affected data quality as health workers learn to use the new method.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **23**

Outbreaks/urgent events identified and reported are assessed by NDoH/PHA within 48 hours of receiving the report

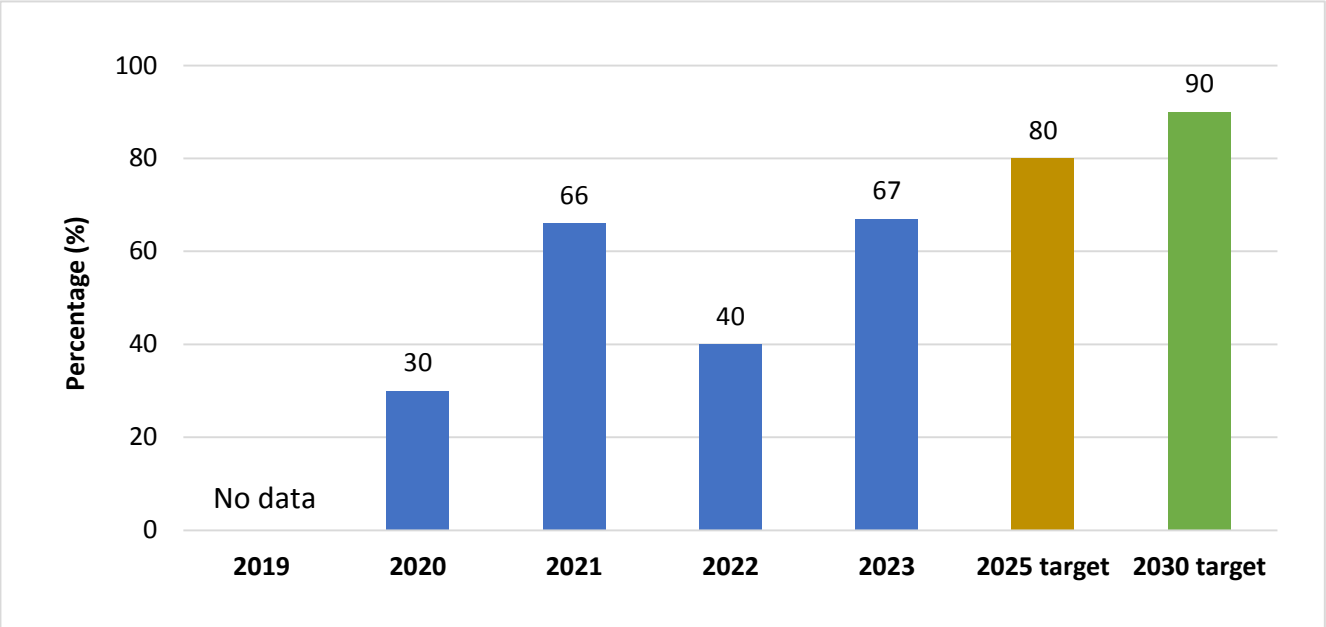
NOTES ON INDICATOR

Indicator type: Process

Definition: Percentage (%) of outbreaks/urgent events identified and assessed by NDoH within 48 hours of receiving report of the event

Rationale: This indicator looks at timeliness of assessments of events, which could be potential outbreaks, by the National Department of Health and Provincial Health Authorities. It helps to identify interventions required to strengthen capacities to detect and respond to health emergencies.

Percentage of outbreaks/events assessed within 48 hours of receiving report of the event, 2019-23



National performance

The proportion of outbreaks/urgent events identified and assessed within 48 hours of reporting has varied across the years from 2020 to 2023, with no clear trend observed. Two thirds of events identified were assessed in a timely manner in 2023, an increase from 40% in 2022. This increase was due to the following factors: improved reporting by provinces through Syndromic Surveillance, improved awareness among Provincial Disease Control Officers and Surveillance Officers on the importance of reporting public health events, and the presence of trained field epidemiologists in all 22 provinces. When there is a lot of testing done, the number of events identified is likely to increase. Provincial Health Authorities are also taking ownership of any outbreaks /urgent events and notify within 48 hours of receiving the report.

Explanatory notes

The cases and deaths reported are based on public health weekly syndromic reporting and case investigation forms and do not represent the institutional deaths or cases in PNG.

KRA 4: Addressing disease burden and targeted health priorities

INDICATOR **24** Provincial hospital, district hospital and health centre labs that are quality assured as per national standards

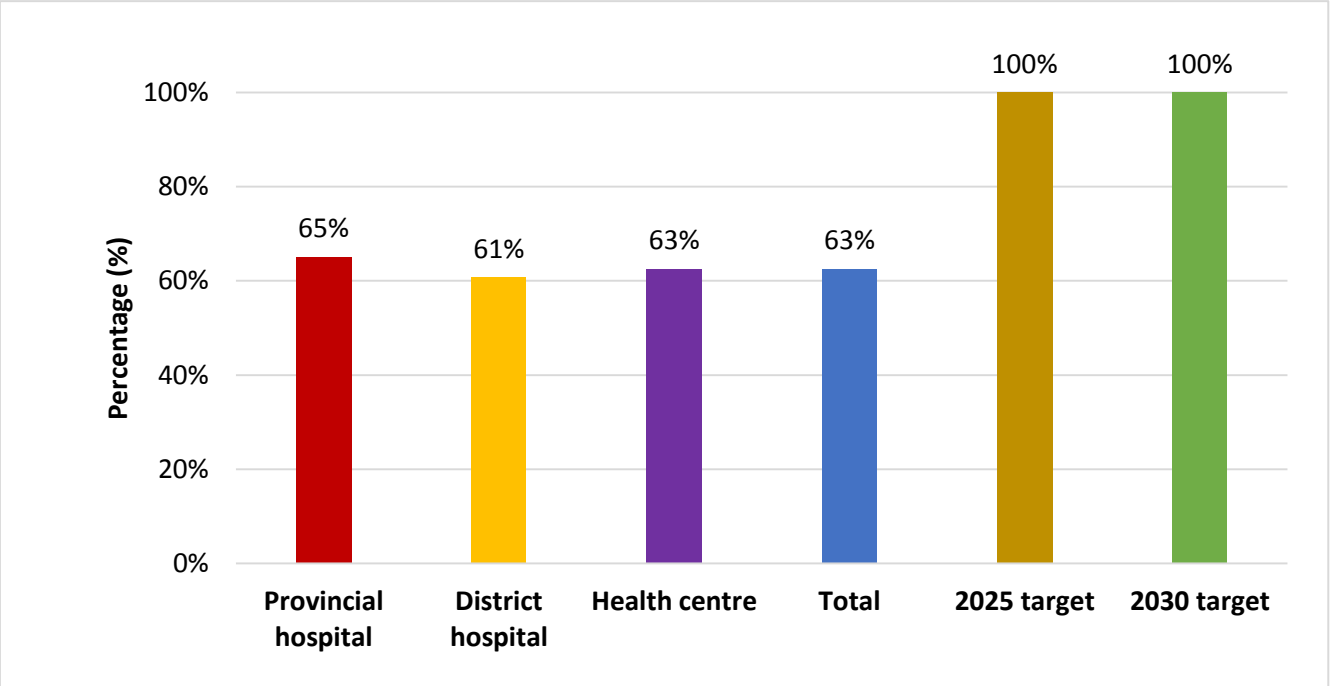
NOTES ON INDICATOR

Indicator type: Output

Definition: Percentage (%) of provincial hospitals, district hospitals and health centres laboratories that are quality assured as per the national standards

Rationale: This indicator looks at quality assurance of laboratories at health facilities. It is essential that laboratories are quality assured and adhere to national standards to achieve and maintain high levels of accuracy and proficiency for clinical tests.

Percentage of provincial hospitals, district hospitals and health centre laboratories that are quality assured, 2023



National performance

This indicator is being reported for the first time and therefore data are presented only for 2023. Of a total of 136 labs in hospitals and health centres, 63% (85) were quality assured as per national standards - falling below the 2025 national target of 100%. When data were disaggregated by level, provincial hospitals showed a slightly higher percentage with 65% (13/20) of labs quality assured. The percentage of district and health center labs quality assured was 61% (17/28) and 62% (55/88) respectively.

The figures indicate that there is a consistently acceptable number of quality assured labs at each health facility level, though further progress needs to be made towards the national 2025 and 2030 targets of 100%. This will ensure that patients can benefit from clinical tests of high accuracy and proficiency nationwide.

INDICATOR
25

Health facilities that have running water and sanitation

NOTES ON INDICATOR

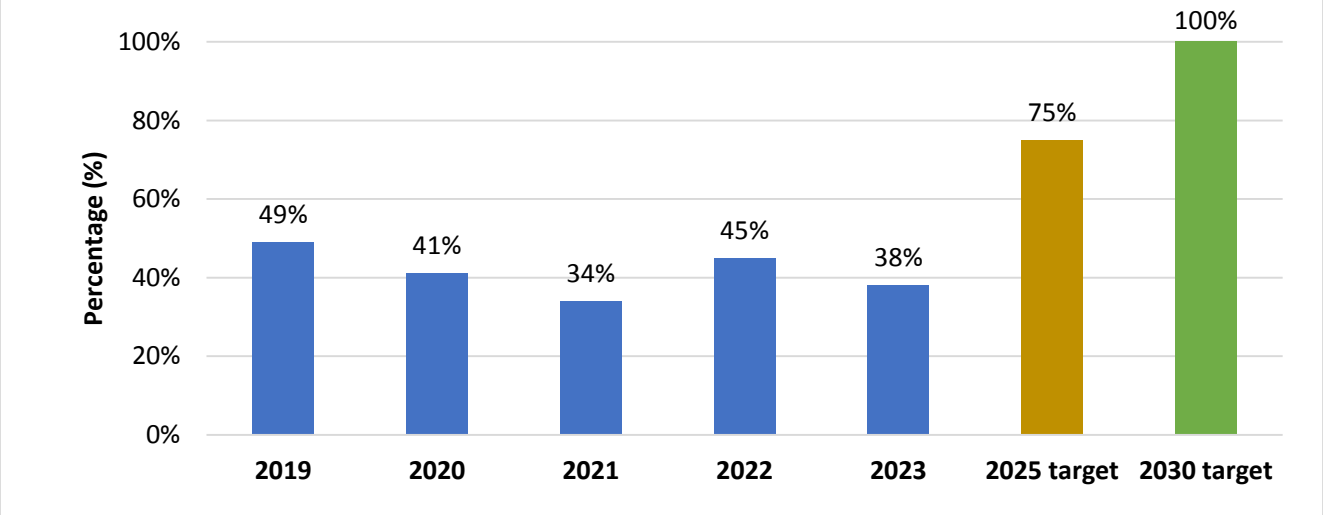
Indicator type: Input

Definition: Proportion of health facilities of levels 2–6 with running water and sanitation facilities at the time of data collection

Rationale: This indicator looks at quality of care at health facilities. Having running water and sanitation is essential for maintaining infection and control practices and hygiene, as well as for health worker and patient comfort.

1. National data

Percentage of health facilities with running water in the delivery room, 2019-23



National performance

There has been an important decrease of the percentage of health facilities with running water in the delivery room, from 49% in 2019 to 38% in 2023, despite an increase between 2021 and 2022. At current 2023 levels, the indicator value needs to be nearly doubled to achieve the 2025 target.

The reasons for this decline and low percentage of health facilities with critical water supply are largely linked to funding constraints as well as infrequent monitoring of health facility infrastructure.

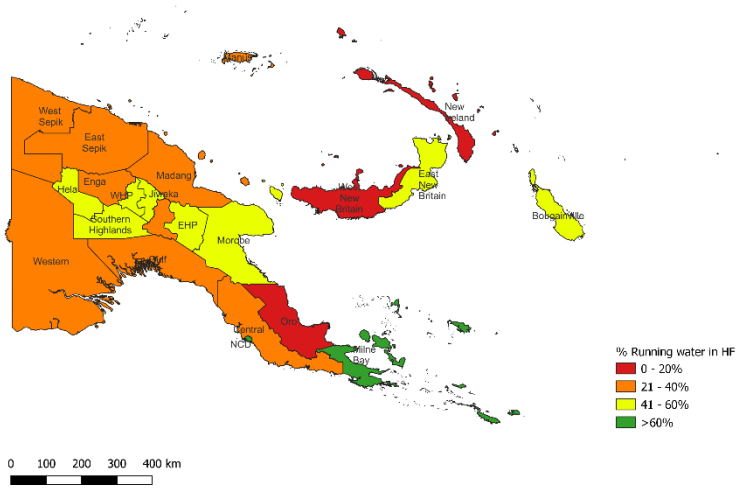
The health consequences of the lack of water availability in health facilities and specifically delivery rooms are significant, affecting quality of care and health outcomes. For example, women who are in labor may need to walk out of the facility to relieve themselves potentially posing a threat to their health. Water, sanitation and hygiene services are a critical for infection prevention and control and require greater collaboration among health stakeholders in provinces to improve availability.

3. Provincial data

Percentage of health facilities that have running water in the delivery room by province, 2019-23

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	47%	47%	24%	43%	30%	-30%	-36%
GULF	49%	20%	38%	29%	29%	0%	-41%
CENTRAL	46%	30%	31%	36%	36%	0%	-22%
NCD	100%	5%	100%	19%	100%	426%	0%
MILNE BAY	65%	55%	77%	64%	75%	17%	15%
ORO	35%	38%	20%	25%	6%	-76%	-83%
SHP	38%	39%	38%	50%	52%	4%	37%
HELA	76%	38%	38%	62%	47%	-24%	-38%
ENGA	58%	52%	33%	60%	24%	-60%	-59%
WHP	34%	38%	41%	35%	54%	54%	59%
JIWAKA	53%	NA	4%	52%	45%	-13%	-15%
CHIMBU	63%	0%	62%	57%	32%	-44%	-49%
EHP	79%	53%	49%	58%	53%	-9%	-33%
MOROBE	35%	48%	24%	45%	42%	-7%	20%
MADANG	49%	30%	28%	37%	24%	-35%	-51%
EAST SEPIK	67%	67%	41%	44%	39%	-11%	-42%
WEST SEPIK	59%	45%	34%	42%	37%	-12%	-37%
MANUS	31%	58%	46%	31%	23%	-26%	-26%
NEW IRELAND	46%	31%	15%	19%	3%	-84%	-93%
ENBP	69%	57%	47%	63%	47%	-25%	-32%
WNBP	36%	34%	18%	32%	18%	-44%	-50%
ARoB	43%	42%	20%	55%	54%	-2%	26%
NATIONAL	49%	41%	34%	45%	38%	-16%	-22%

Proportion of facilities that have running water to delivery room



Provincial performance

The National Capital District at 100% and Milne Bay at 75% had the highest percentage of health facilities with water in the delivery room, while Oro (6%) and New Ireland (3%) reported the lowest percentages. Still, the figures for National Capital District must be interpreted with caution given the wide variation seen between 2019 and 2023. Eleven provinces had percentages higher than the national average of 38%.

Most provinces reported decreases in the percentage of health facilities with water between 2022 and 2023 and 2019 and 2023. An exception was Western Highlands which increased its figure by 50%.

Explanatory notes

Whilst this indicator is supposed to measure health facilities that have running water and sanitation, it currently only measures availability of running water in the delivery room. Following revision of the National Health Inventory Form, data will be available on a health facility's water source and sanitation facilities.

Quality of data for this indicator is a challenge as it is dependent on the number of health facilities reporting data. In 2023, data were received from around 70% of health facilities, whereas in 2022 it was 80%. It is not known whether facilities not reporting data are more likely to have running water.

KRA 5: Strengthen Health Systems

INDICATOR **26** Health facilities with a functioning radio, telephone or mobile phone

NOTES ON INDICATOR

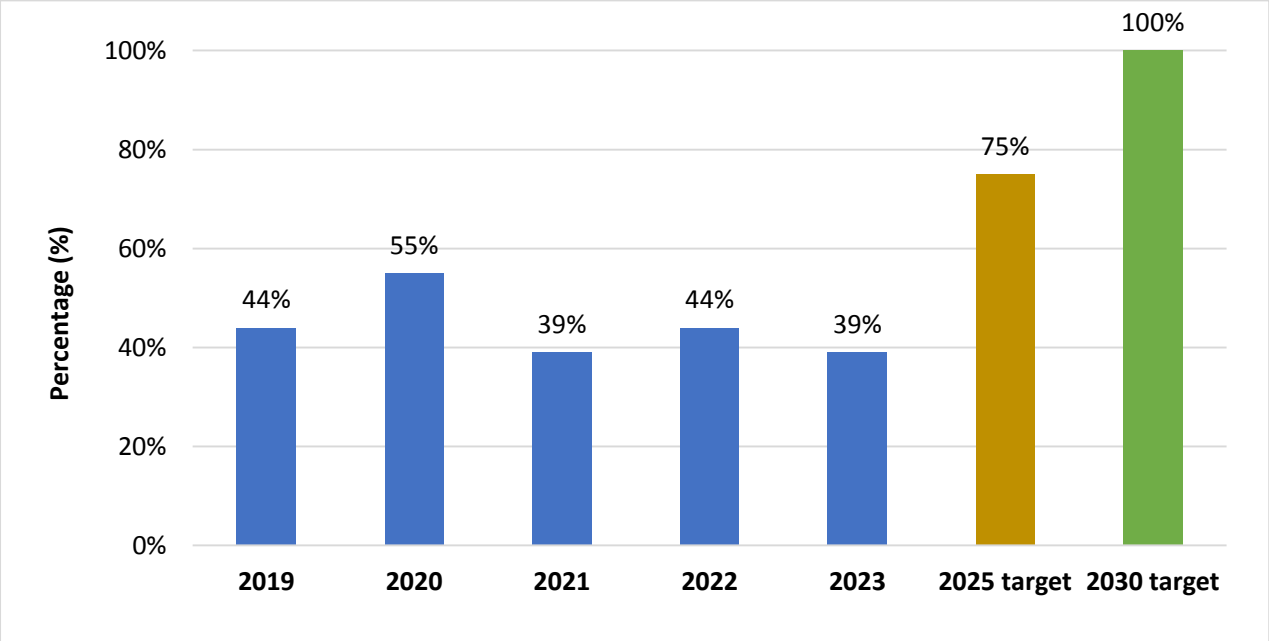
Indicator type: Input

Definition: Proportion of health facilities of levels 2–6 with a functioning radio, telephone or mobile phone at the time of data collection

Rationale: This indicator looks at quality of care at health facilities. Having a means of communication – either a functioning radio or telephone – is critical for health facilities to communicate with patients, other health facilities and health workers, as well as sub-national and national health authorities to support provision of the necessary health services.

1. National data

Percentage of health facilities with a functioning radio or telephone, 2019-23



National performance

The percentage of health facilities with functioning radios and/or telephones has varied between 2019 and 2023 with no consistent trend. The figure was 39% in 2023, the same as in 2021. Whilst the percentage reached a peak of 55% in 2020, it subsequently decreased to 39% in 2021 before increasing and then decreasing again. At its current level, the indicator is far from the 2025 national target of 75%.

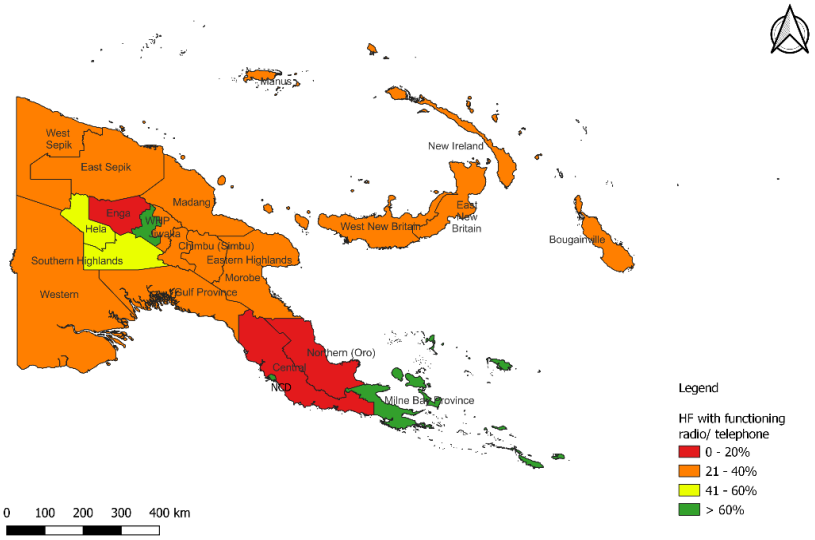
Mobile phones which are simple, durable and cost-effective are now becoming an alternative means of communication. However, lack of network coverage and funding remain important challenges. Ensuring access to communication equipment requires investments, as well as resources for repair and maintenance.

2. Provincial data

Percentage of health facilities with a functioning radio or telephone by province, 2019-23

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	58%	40%	50%	52%	38%	-27%	-34%
GULF	NA	40%	24%	33%	33%	0%	NA
CENTRAL	35%	75%	36%	17%	5%	-71%	-86%
NCD	67%	33%	100%	52%	100%	92%	49%
MILNE BAY	44%	36%	64%	48%	61%	27%	39%
ORO	41%	75%	20%	10%	0%	-100%	-100%
SHP	8%	77%	10%	50%	60%	20%	650%
HELA	17%	21%	46%	57%	50%	-12%	194%
ENGA	37%	48%	19%	43%	15%	-65%	-59%
WHP	63%	14%	93%	88%	91%	3%	44%
JIWAKA	12%	NA	7%	37%	31%	-16%	158%
CHIMBU	50%	0%	59%	57%	38%	-33%	-24%
EHP	50%	57%	43%	45%	40%	-11%	-20%
MOROBE	63%	48%	33%	36%	38%	6%	-40%
MADANG	24%	83%	30%	43%	40%	-7%	67%
EAST SEPIK	44%	100%	39%	48%	29%	-40%	-34%
WEST SEPIK	41%	64%	61%	29%	34%	17%	-17%
MANUS	46%	92%	31%	38%	31%	-18%	-33%
NEW IRELAND	46%	86%	27%	44%	24%	-45%	-48%
ENBP	38%	50%	44%	47%	38%	-19%	0%
WNBP	55%	53%	29%	89%	32%	-64%	-42%
ARoB	25%	88%	13%	28%	26%	-7%	4%
NATIONAL	44%	55%	39%	44%	39%	-11%	-11%

Facilities with functioning radio and telephone, 2023



Provincial performance

In 2023, the National Capital District and Western Highlands Province had the highest percentage of health facilities with functioning radio or telephone, at 100% and 91% respectively, and met the national 2025 target of 75%. Oro (0%) and Central (5%) had the lowest percentages. Overall, seven provinces had figures higher than the national average of 39%.

The National Capital District, Milne Bay, and Southern Highlands reported significant increases in health facilities with radio and telephone between 2022 and 2023, as well as 2019 and 2023.

Explanatory notes

This indicator currently only measures health facilities with a functioning radio or telephone due to limitations with collecting data on availability of a mobile phone provided by the government. Health facility staff may use their personal mobile phones, however this is not counted under the indicator as facilities should be equipped with their own communication devices. It is recognized that mobile phones are a main form of communication.

Quality of data for this indicator is a challenge as it is dependent on the number of health facilities reporting data. In 2023, data were received from around 70% of health facilities, whereas in 2022 it was 80%. It is not known whether facilities not reporting data are more likely to functioning equipment.

INDICATOR
27 Outpatient service utilization per capita

NOTES ON INDICATOR

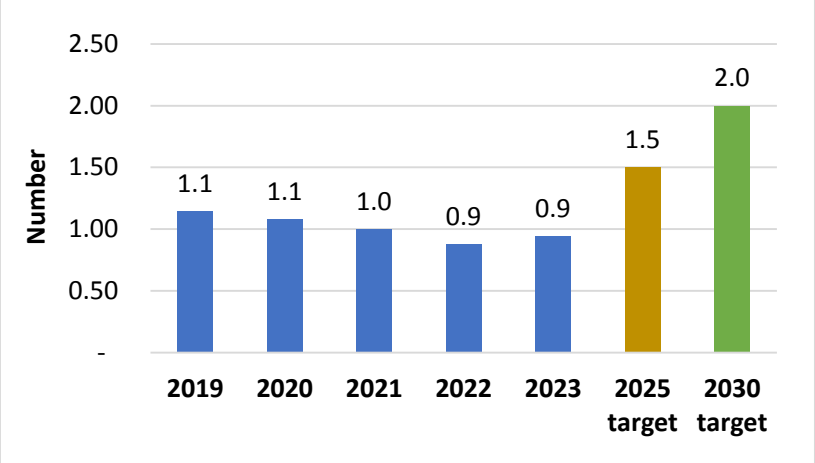
Indicator type: Output

Definition: Average number of outpatient visits (primary health care and ambulatory episodes for examination and treatment) to health facilities of levels 2–6 per person per year

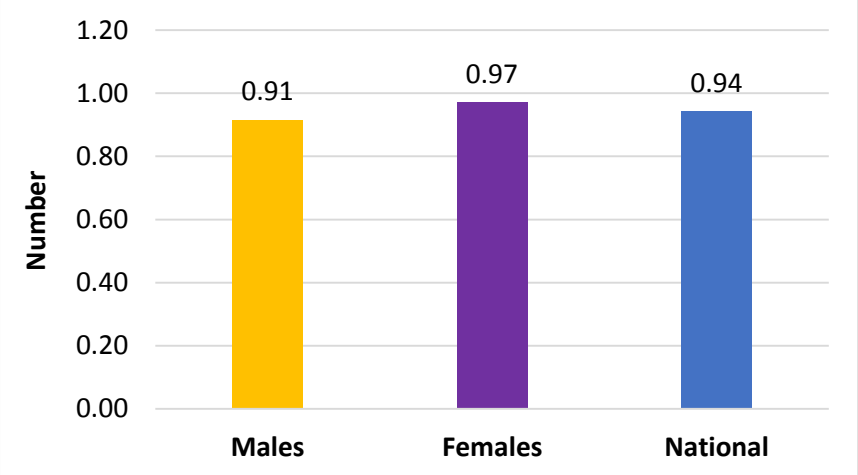
Rationale: This indicator measures utilization of health care services, which is essential for improving health outcomes and the overall status of population health. Utilization of outpatient services is influenced by a range of factors including care seeking practices, perceived quality of care, and availability of services.

1. National data

Average number of outpatient visits per capita, 2019-23



Average number of outpatient visits per capita by sex, 2023



National performance

The average number of outpatient visits has decreased over the five-year period, from 1.1 in 2019 to 0.9 in 2022 and 2023. There is insufficient progress toward achieving the national 2025 target of at least 1.5 visits per capita per year.

When data are disaggregated by sex, females have a slightly higher average number of outpatient visits per capita compared to the males in 2023. Trends over time need to be observed and if this continues to hold true, reasons for the difference should be explored.

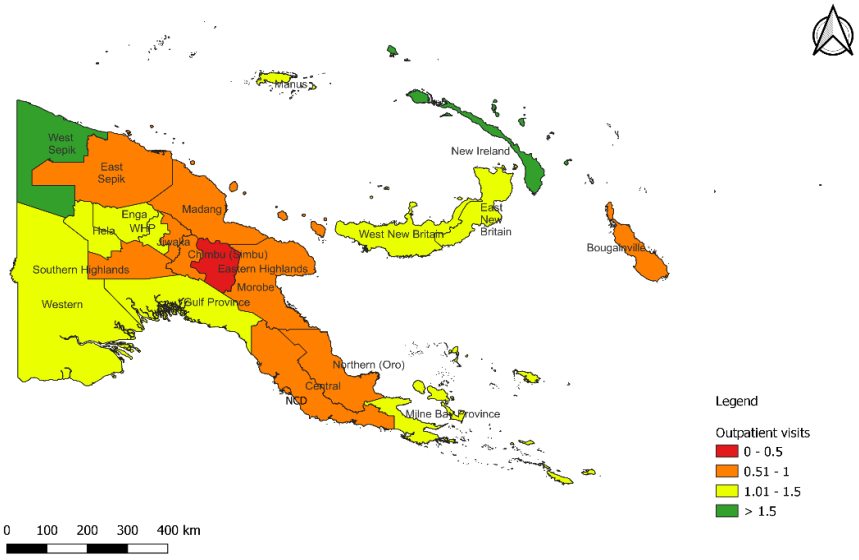
The low number of outpatient visits per capita is indicative of limited access to and availability of health services due to factors such as closed health facilities, inadequate trained staff or lack of essential medicines and commodities. Access and care seeking is also affected by geographical challenges and the subsequent high service costs, as well as perceptions of quality of care.

2. Provincial data

Average number of outpatient visits per capita by province, 2019-2023

rovince	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	1.9	1.3	1.4	1.3	1.3	0%	-60%
GULF	1.9	1.8	1.7	1.5	1.1	-36%	-73%
CENTRAL	1.0	1.0	1.2	1.0	0.8	-25%	-25%
NCD	1.1	0.8	0.8	0.8	0.8	0%	-38%
MILNE BAY	1.7	1.4	1.2	1.4	1.3	-8%	-31%
ORO	1.0	0.9	0.9	0.9	1.0	10%	0%
SHP	1.0	0.8	0.8	0.7	0.6	-17%	-67%
HELA	1.5	1.5	1.7	1.4	1.4	0%	-7%
ENGA	1.3	1.2	1.1	0.9	1.2	25%	-8%
WHP	1.0	1.0	0.8	0.7	1.1	36%	9%
JIWAKA	0.8	0.7	0.7	0.7	0.7	0%	-14%
CHIMBU	0.9	1.0	0.8	0.7	0.7	0%	-29%
EHP	0.7	0.7	0.6	0.5	0.4	-25%	-75%
MOROBE	0.8	0.9	0.7	0.7	0.8	13%	0%
MADANG	0.9	0.8	0.8	0.7	0.7	0%	-29%
EAST SEPIK	1.0	1.2	1.2	1.0	1.0	0%	0%
WEST SEPIK	2.3	2.4	1.8	1.9	2.0	5%	-15%
MANUS	1.8	2.1	1.8	1.7	1.3	-31%	-38%
NEW IRELAND	2.1	2.0	1.9	1.6	1.9	16%	-11%
ENBP	1.3	1.4	1.3	1.1	1.0	-10%	-30%
WNBP	1.5	1.1	1.1	1.2	1.1	-9%	-36%
ARoB	0.7	0.6	0.6	0.5	0.5	0%	-40%
NATIONAL	1.1	1.1	1.0	0.9	0.9	0%	-22%

Outpatient visits per person per year, 2023



Provincial performance

In 2023, West Sepik recorded the highest number of outpatient visits per capita at 2.0, followed by New Ireland at 1.9 – meting or very close to meeting the 2025 and 2030 national targets. The provinces that reported the lowest figures were Eastern Highlands Province at 0.4 followed by ARoB at 0.5. Thirteen provinces reported an average number of outpatient visits per capita which was higher than the national average of 0.9.

In terms of change between 2022 and 2023, only five provinces (Oro, Enga, Western Highlands, Morobe, West Sepik, and New Ireland) reported increases in the average number of outpatient visits per capita. When comparing 2019 and 2023, only Western Highlands recorded an increase, of 9% - all other provinces saw a decrease or no change.

The reasons why the average number of visits are higher in West Sepik and New Ireland could help to inform planning on improving service access.

Explanatory notes

Negative percentages in the provincial table indicate a decrease in the number of outpatient visits per capita in 2023 compared to 2022 or 2019.

KRA 5: Strengthen Health Systems

INDICATOR
28 Inpatient admissions per 1000 population

NOTES ON INDICATOR

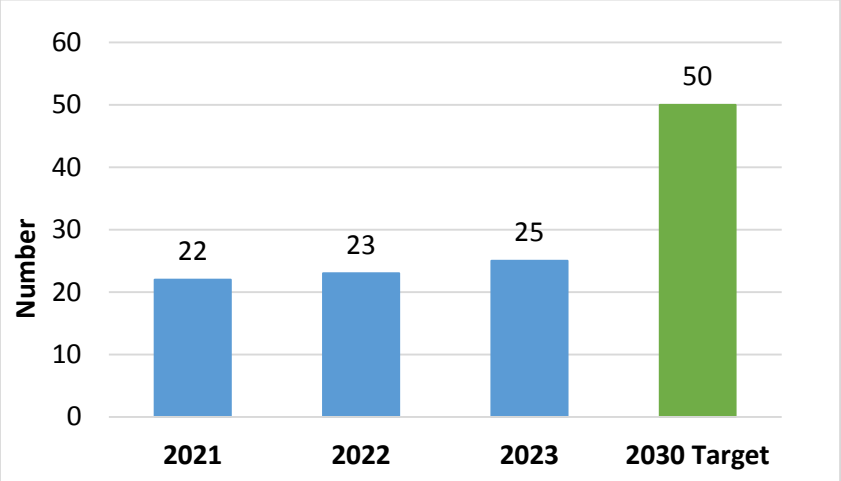
Indicator type: Output

Definition: Inpatient admissions to health facilities of levels 2–6 per 1000 population

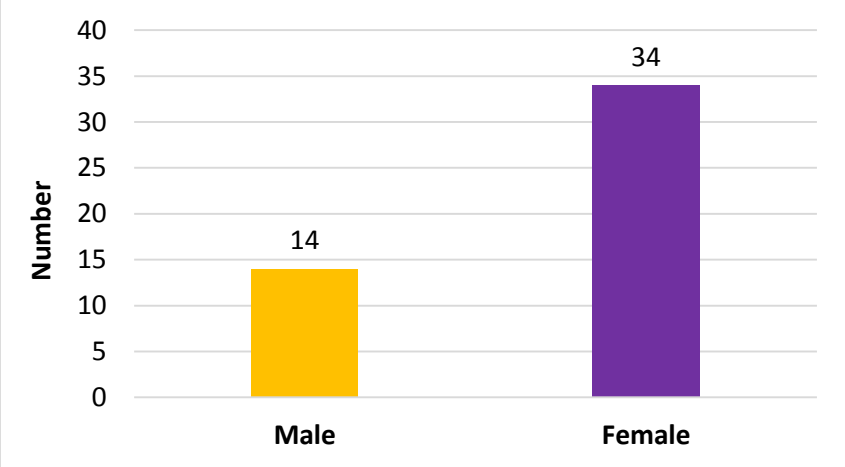
Rationale: This indicator helps to inform decisions on inpatient care and utilization. It can be used to look at and compare inpatient admissions by health facility level or geographical area, and thereby inform service planning and delivery.

1. National data

Number of inpatient admissions (level 2-6 health facilities) per 1000 population, 2021-23



Number of inpatient admissions (level 2-6 health facilities) per 1000 population by sex, 2023



National performance

This is a new indicator, being reported for the first time in the SPAR report and therefore trends are shown starting from 2021 only.

Data for 2021 to 2023 show that the number of inpatient admissions per 1000 population has increased by 9%, from 22 to 25. The figure however is still half of the national 2030 target. Progress needs to be accelerated if the target is to be achieved.

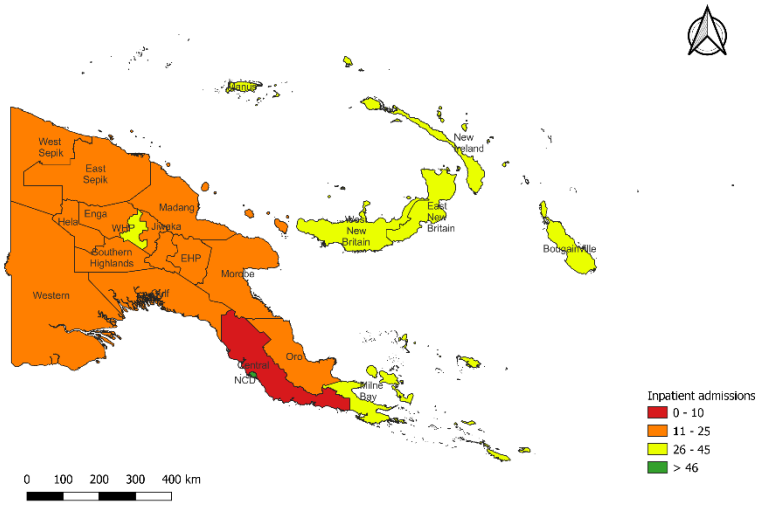
When data on inpatient admissions were disaggregated by sex, females had more than double the number of admissions per 1000 population at 34, compared to males at 14. A review of diagnoses at discharge (not shown here) found a higher number of admissions for pneumonia, malaria, anemia, HIV, cancer and "others" among females. The "others" is likely to comprise of admissions for childbirth. Trends in admissions by sex should be reviewed for a longer period of time to determine if the differences continue to hold true and the reasons of these identified.

2. Provincial data

Number of inpatient admissions (level 2-6 health facilities) per 1000 population, 2019 - 2023

Province	2021	2022	2023	2023-2022 % annual change	2023-2021 % 5-year change
WESTERN	17	18	20	10%	15%
GULF	23	22	21	-5%	-10%
CENTRAL	9	9	9	0%	0%
NCD	36	67	66	-2%	45%
MILNE BAY	36	38	38	0%	5%
ORO	19	23	21	-10%	10%
SHP	13	13	15	13%	13%
HELA	25	22	23	4%	-9%
ENGA	18	17	15	-13%	-20%
WHP	23	27	30	10%	23%
JIWAKA	16	22	15	-47%	-7%
CHIMBU	24	17	20	15%	-20%
EHP	20	17	16	-6%	-25%
MOROBE	15	19	23	17%	35%
MADANG	21	18	22	18%	5%
EAST SEPIK	17	14	14	0%	-21%
WEST SEPIK	18	20	22	9%	18%
MANUS	39	36	35	-3%	-11%
NEW IRELAND	26	26	32	19%	19%
ENBP	31	31	28	-11%	-11%
WNBP	31	34	29	-17%	-7%
ARoB	31	30	29	-3%	-7%
NATIONAL	**22**	**23**	**24**	4%	8%

Inpatient admission per 1000 population, 2023



Provincial performance

The National Capital District reported the highest rate of inpatient admissions per 1000 population in 2023, at 66, followed by Milne Bay at 38. NCD's high rate meets the 2030 national target and is due to presence of the national referral hospital – Port Moresby General Hospital. Provinces with the lowest rates were Central (9), most likely due to there being no provincial hospital, followed by East Sepik (14). Eight provinces reported inpatient admission rates above the national average of 24.

New Ireland reported the highest annual increase in inpatient admission rates between 2022 and 2023, from 26 to 32, whilst Jiwaka reported the biggest decrease from 22 to 15. Morobe recorded the highest increase of between 2021 and 2023, with the rate increasing by 35% from 15 to 23 admissions per 1000 population.

Explanatory notes

This is a new indicator and therefore data are presented from 2021 onwards. The national 2030 target is 50 as the indicator is measured per 1000 population. The M&E Strategic Plan states the target is 0.05, but this is an error as it was 0.05 visits per capita.

KRA 5: Strengthen Health Systems

INDICATOR **29** General hospitals and provincial hospitals that have all 14 specialties

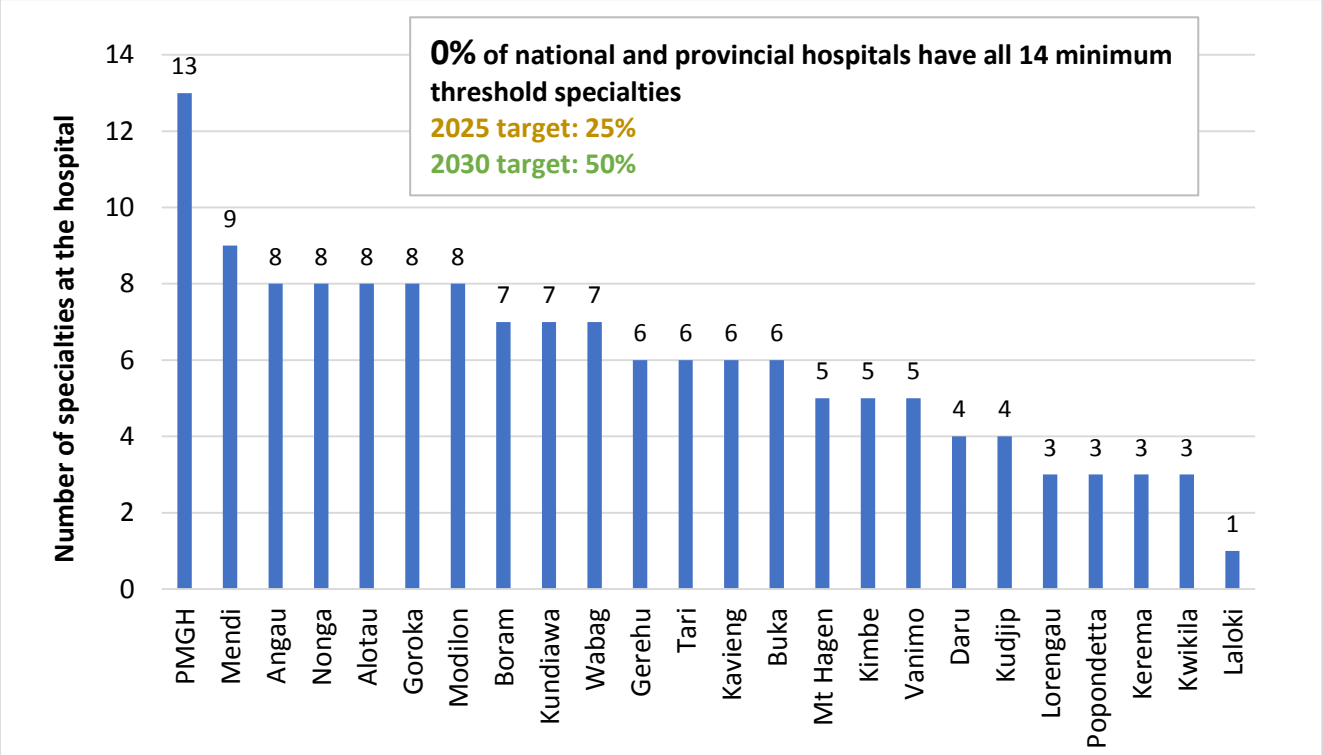
NOTES ON INDICATOR

Indicator type: Input

Definition: Percentage (%) of national and provincial hospitals with the minimum threshold specialties. These are: internal medicine, surgery, obstetrics & gynaecology, pediatrics, anaesthesia, pathology, dental, skin, ear, nose & throat, eye, emergency, cancer, radiology and psychiatry services.

Rationale: This indicator looks at the capacity of the national and provincial hospitals to provide a range of clinical services, defined here as 14 minimum threshold specialties. It is important for informing planning and resource allocation for clinical services.

Number of specialties (out of 14) available at national and provincial hospitals, 2023



National performance

This indicator measures the percentage of national and provincial hospitals (total of 23) that have all 14 minimum threshold specialties. As of 2023, no hospital had all 14 specialties. The graph above shows the number of specialties per hospital. The national referral hospital, Port Moresby General Hospital, had 13 specialties and was only missing psychiatry services. Mendi Hospital in Southern Highlands Province had 9/14 specialties, followed by five provincial hospitals with 8/14 specialties. Whilst Laloki, as the national psychiatric hospital, is not mandated to have all specialties, it is still shown here for reference.

Of the specialties (data not shown here), hospitals were mostly likely to have surgery services followed by internal medicine, paediatrics and obstetrics & gynaecology, and least likely to have dermatology services. The 14 specialties are: internal medicine, surgery, obstetrics & gynaecology, paediatrics, anethestics, dental, pathology, dermatology (skin), ear, nose & throat, ophthalmology (eye), emergency, cancer, radiology, and psychiatry.

KRA 5: Strengthen Health Systems

INDICATOR **30**

Total budget allocation (Health Service Improvement Programme and GoPNG) per capita

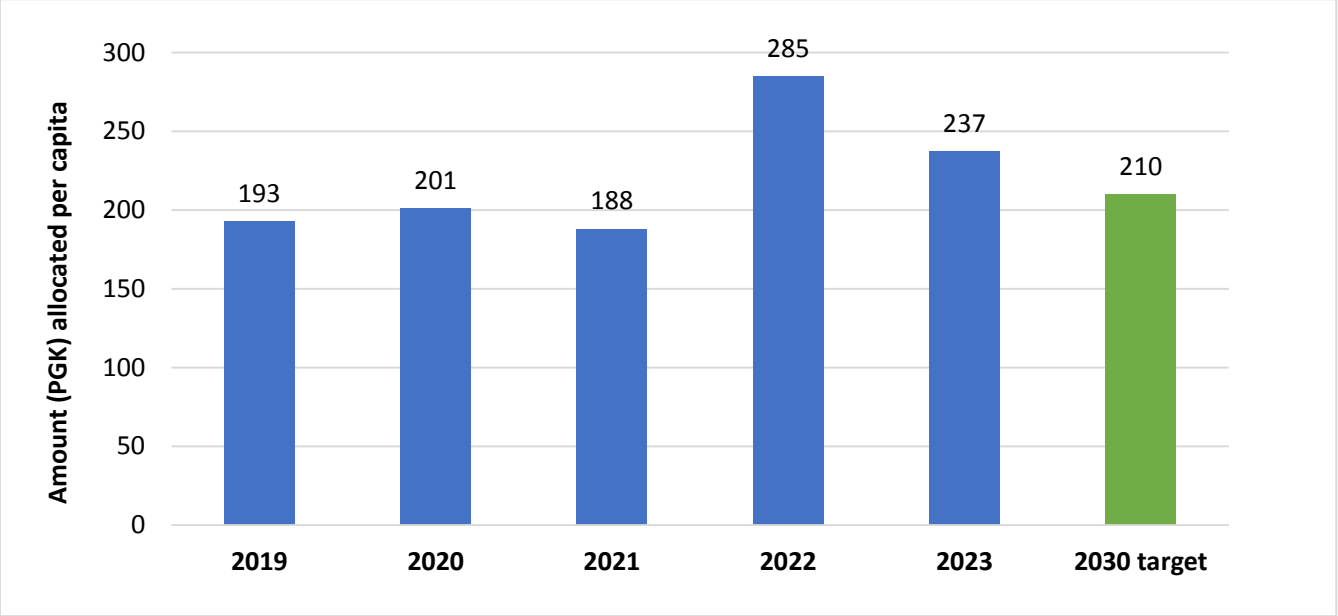
NOTES ON INDICATOR

Indicator type: Input

Definition: Total amount of funds (Government and development partner contributions) that the country allocates to the health sector per capita per annum, in Papua New Guinea Kina (PGK)

Rationale: Funds allocated to the health sector per capita per annum is an indication of the priority afforded to health. It is necessary to understanding whether funds allocation is adequate for meeting the needs of the population and supporting progress towards universal health coverage.

Total budget allocation to the health sector (HSIP & GoPNG) per capita in Papua New Guinea Kina, 2019-23



National performance

The funds allocated to the health sector per capita per annum is an indication of the priority afforded to health, and whether the allocation is sufficient for meeting the health needs of the population and supporting progress towards universal health coverage. Data for 2019-2023 show minimal changes in nominal budget allocation per capita between 2019 to 2021, followed by a 53% increase in 2022 and then a 15% decrease to PGK 227 per capita in 2023. However, in real terms, the budget allocation per capita has actually decreased by 2.8% per annum. This, combined with a high population growth rate, high inflation rate, and a fluctuating Kina, has consequences on purchasing power of essential health commodities and thereby health service and programme improvement.

Explanatory notes

The per capita allocation data are based on GoPNG own funds and development partner funds processed through the GoPNG budget. Funds processed through the Health Sector Improvement Programme are not included here as data were not provided. This is an important limitation of the data presented.

KRA 5: Strengthen Health Systems

INDICATOR **31** Government (functional grants) and development partner contributions that are expended

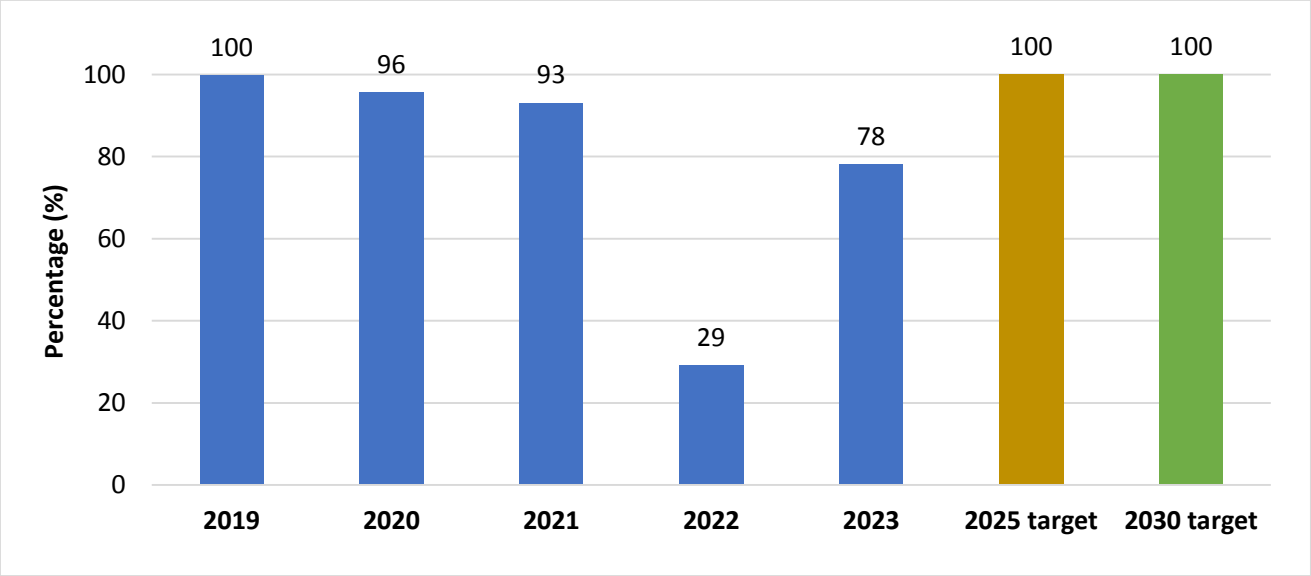
NOTES ON INDICATOR

Indicator type: Process

Definition: Percentage (%) of total provincial expenditure on health that is expended within the district level or in direct support of facilities, and expenditure on management and programme supervision by the provincial health office

Rationale: This indicator gives an idea of the effectiveness of financial management and the ability of Provincial Health Authorities to spend funds received. It informs decisions on resource allocation and plans for strengthening financial management at the provincial level.

Percentage of total provincial expenditure on health that is expended within the district level or in direct support to health facilities, 2019-23



National performance

Data for this indicator show the percentage of functional grants and contributions that are expended by Provincial Health Authorities (PHAs) of the initial appropriation. Over the five-year period shown, average spending as a percentage of allocation was 87%. A significant decline was seen between 2021 and 2022 due to PHAs budget cut, of K56.108 Million compared to 2021 allocation. The Department of Treasury allocated half of its budget allocation due to fiscal impact caused by Covid-19 and the global economic sparks. Thus, the average reduction was seen across all provinces reporting below 55.0%. In the other years, expenditure ranged from 93% - 100% of the allocation. The main factor affecting expenditure is not capacity to spend, but rather the slow and incremental release of funds from the national level to PHAs. Often, a higher percentage of funds is released in the last quarter of the year when there is less time to implement activities. Discussions need to be held with resource allocators like the Department of Treasury and Department of Finance to ensure funds are disbursed in a timely manner and in the right amounts.

Explanatory notes

Expenditure data do not include funds expended from the Health Sector Improvement Programme as no data were provided. This is an important limitation of the data presented.

RA 5: Strengthen Health Systems

INDICATOR **32**

Provincial health expenditure (Government and development partner contributions) as a percentage of estimated minimum health expenditure required

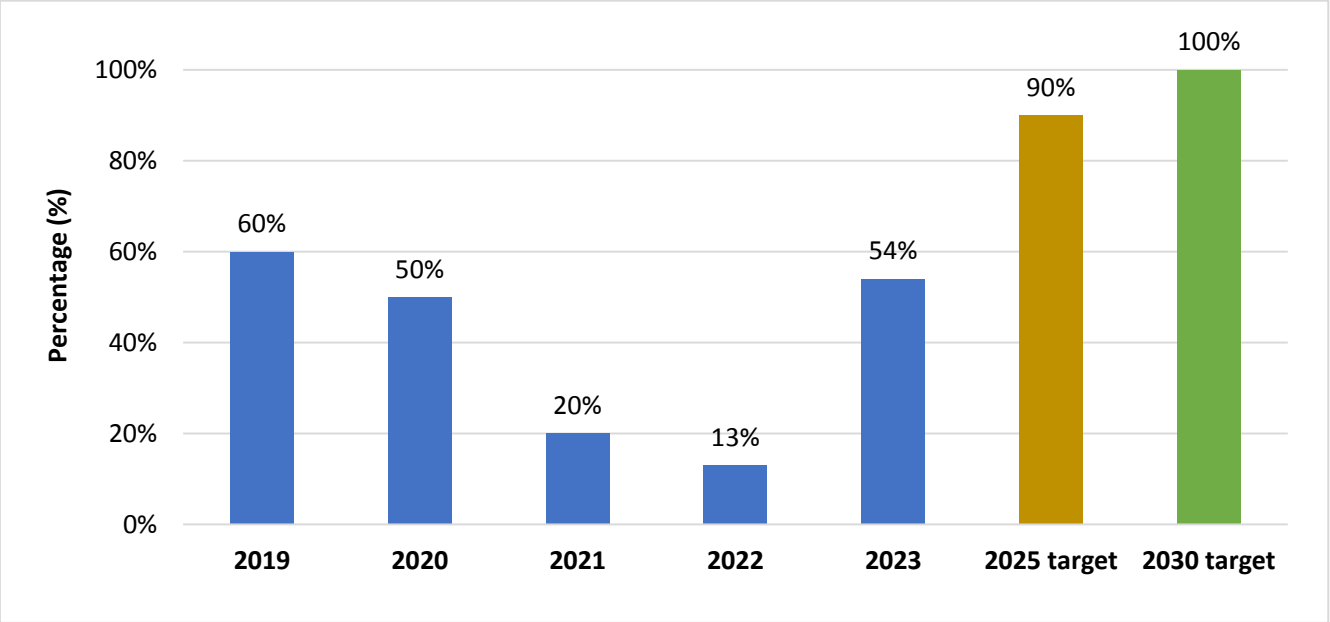
NOTES ON INDICATOR

Indicator type: Process

Definition: Percentage (%) of provincial health expenditure (Government and development partner contributions) estimated as minimum health expenditure required

Rationale: Provincial health expenditure as a percentage of estimated minimum health expenditure gives an indication of prioritization for health relative to what is required. It is also an indication of the financial capacity to expend funds.

Provincial health expenditure as a percentage of estimated minimum health expenditure required, 2019-23



National performance

Data show that expenditure on rural health services as a percentage of the minimum required, as determined by the National Economic and Fiscal Commission (NEFC), decreased significantly between 2019 to 2022 and then increased again to 53% in 2023. The average expenditure as a percentage of the minimum required was 46% between 2019 and 2023. However, it must be noted that expenditures from other sources like provincial governments own internal revenue and the provincial Health Sector Improvement Programme are not reflected here. According to the NEFC, as per its minimum costs of services model, provinces, i.e. PHAs plus provincial governments, should be spending up to 100% or more, of their own funding resources to meet the minimum costs requirements for rural health services on an annual basis.

KRA 5: Strengthen Health Systems

INDICATOR **33** Density of health workers per 10 000 population (stratified by cadre)

NOTES ON INDICATOR

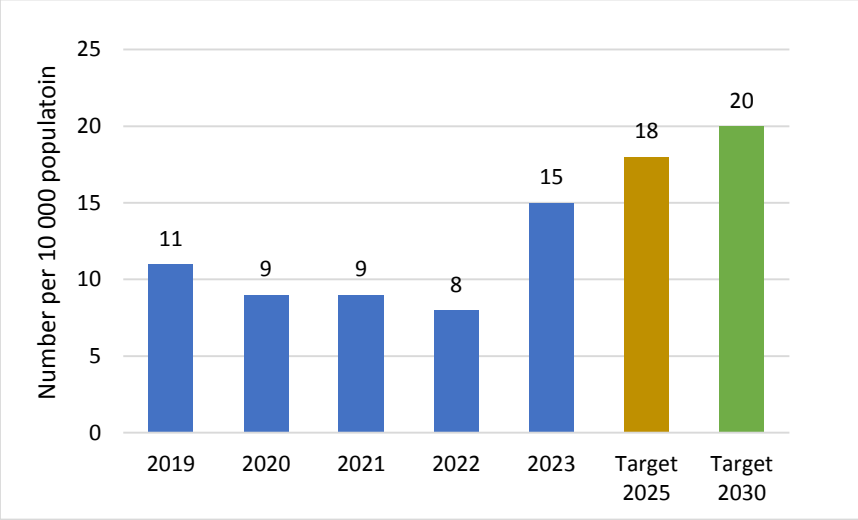
Indicator type: Input

Definition: Number of health workers per 10 000 population. Health workers cadres measured are: medical officers, health extension officers, nurses, midwives, and community health workers

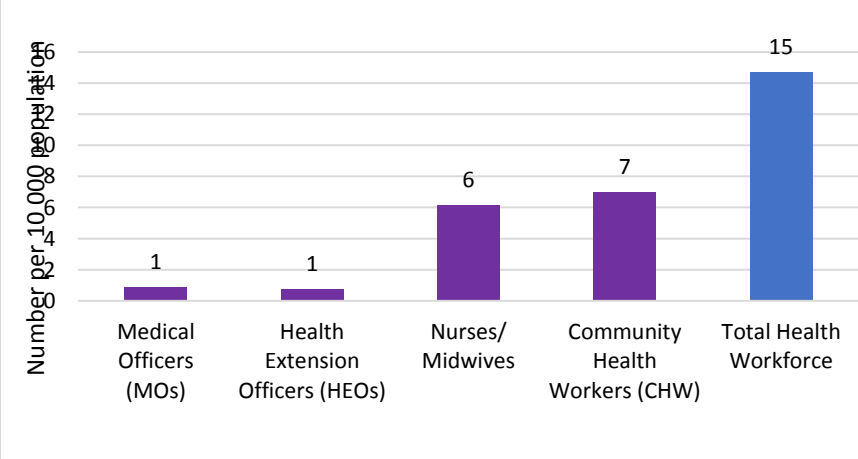
Rationale: A health workforce of adequate size and skill mix, as well as required teachers and trainers, are critical to the attainment of any population health goal. Health worker density is a key health systems indicator. Calculating health workforce density provides critical insights into healthcare access, quality, and planning, ultimately contributing to improved health outcomes and better allocation of resources. The current number of health workers falls short of the global minimum threshold of 44.5 health workers (including doctors, nurses, and midwives) per 10,000 population needed to achieve essential health coverage suggested by WHO. The optimal density can vary based on factors such as the health needs of the population, geographic distribution, urban-rural disparities, and the level of healthcare infrastructure.

1. National Data

Number of health workers per 10 000 population, 2019-23



Number of health workers per 10 000 population by cadre, 2023



National performance

The number of health workers per 10,000 population steadily decreased from 11 to 8 between 2019 and 2022, far below the global threshold of 44.5 (doctors, nurses and midwives) health workers per 1000 population. The density in 2022 was also nearly half of the 2025 national target. These trends were due to constrained capacity to recruit new graduates into service despite increased production of nurses and community health workers, coupled with population growth.

In 2023 however, health worker density nearly doubled to 15 per 10,000 population, coming closer to the 2025 national target. This reflects the Health Minister's priority to strengthen the health and care workforce, and financing for personnel emoluments at 34%. As a result, the number of active health workers nearly doubled from 9,744 in 2018 to 18,929 in 2023.

Density by health worker cadre show that CHWs and nurses/midwives comprise most of the workforce.

2. Provincial data

Number of health workers by cadre and density of total health workers per 10 000 population by province, 2023

Province	2023 population	# of Medical Officers	# of Health Extension Officers	# of Nurses/ Midwives	# of Community health workers	Total Health Workforce	Density of per 10,000 population
AROB	365999	14	10	248	212	484	13
Central	342987	9	16	91	225	341	10
East Sepik	703569	35	36	273	341	685	10
EHP	769998	35	36	236	332	639	8
ENBP	404881	29	30	323	318	700	17
Enga	514174	30	43	343	413	829	16
Gulf	206096	8	14	112	254	388	19
Hela	320773	14	20	163	249	446	14
Jiwaka	375440	1	17	113	199	330	9
Madang	792362	24	37	250	477	788	10
Manus	70993	6	19	78	106	209	29
Milne Bay	372519	29	30	227	355	641	17
Morobe	998835	48	28	342	632	1050	11
National Capital	486726	147	27	1615	414	2203	45
New Ireland	231151	14	25	144	156	339	15
Oro	256544	10	22	68	170	270	11
SHP	707230	24	26	310	365	725	10
Simbu	398007	38	29	263	351	681	17
West Sepik	340870	14	23	149	331	517	15
Western	329018	14	12	132	322	480	15
WHP	478208	30	25	240	302	597	12
WNBP	381253	12	54	233	318	617	16
Laloki	NA	3	2	49	39	93	NA
NDOH	NA	264	127	108	7	506	NA
PMGH	NA	108	2	1200	183	1493	NA
TOTAL	9847633	849	706	6061	6849	14465	15

Provincial performance

In 2023, Manus reported the highest density of health workers per 10 000 population at 29, followed by Gulf at 19 mostly likely due to their small populations. Both provinces have achieved the 2025 national target at current levels. Provinces with the lowest density were Central (7) and Jiwaka (9), largely due to the lack of provincial hospital which would require a higher number of health workers. To attract and retain more health workers, there is a need for larger healthcare budgets, incentives to attract health workers to rural areas, improved working conditions and career development opportunities, policy reforms for streamlined processes, and reliable data to inform evidence-based strategies.

Explanatory notes

The national targets shown here are 18 for 2025 and 20 for 2030. The M&E Strategic Plan indicates the targets as 1.8 and 2.0 respectively, as it was presented by 1 000 population in error. The indicator measures density per 10 000 population. Medical Officers counts all doctors, including specialists. Some of the totals in the table may include health workers who are not active and providing clinical services.

KRA 5: Strengthen Health Systems

INDICATOR **34** Months that health facilities have stock of all selected medical supplies for more than a week in the month

NOTES ON INDICATOR

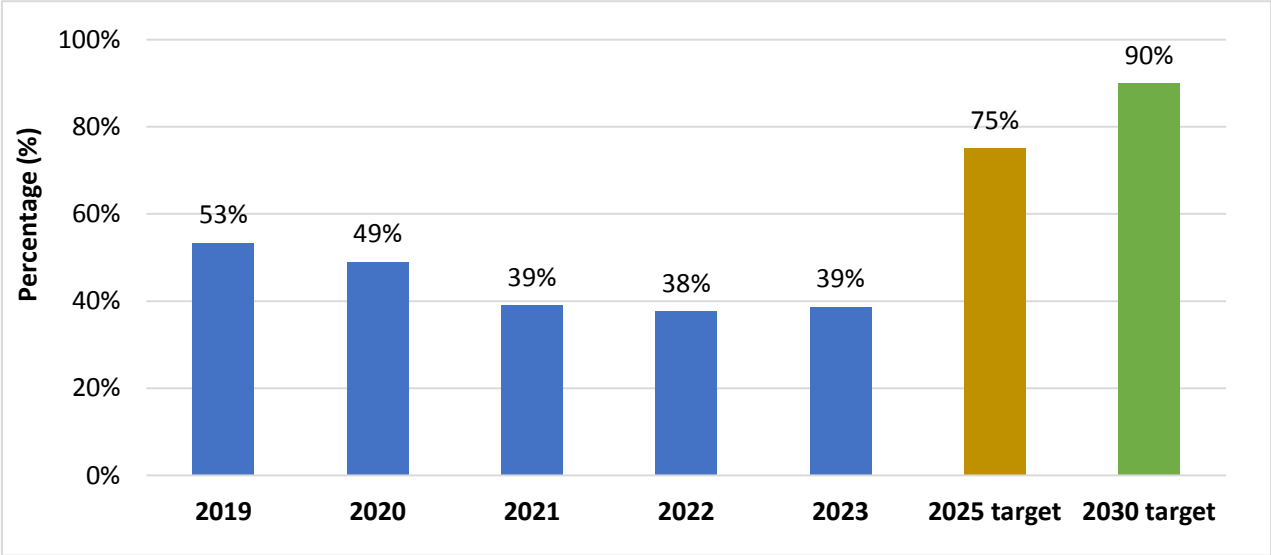
Indicator type: Input

Definition: Percentage of months that health facilities have stock (i.e. have availability) of all eight selected essential medical supplies. Stock-outs are defined as having no supply for more than one week in a month.

Rationale: Access to appropriate treatment and care is heavily dependent upon the availability of essential medicines and medical supplies. A sustainable supply of essential medicines and supplies is required to avoid supply shortages and ensure appropriate treatment. This indicator gives an idea of the capacity of procurement and distribution systems.

1. National data

Percentage of months that health facilities have stock of essential medical supplies, 2019-23



National performance

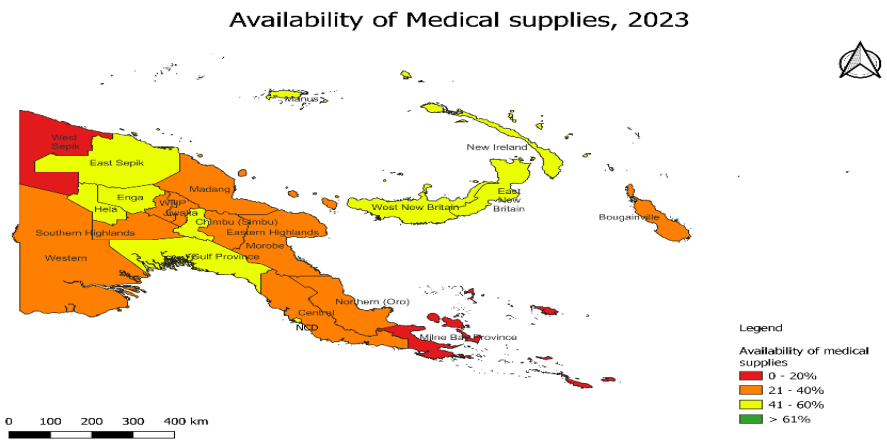
Access to timely and appropriate treatment and care is heavily dependent upon a regular, sustainable supply of essential medicines and supplies. Data for 2019-2023 show that the number of months with availability of the eight essential medicines and supplies measured in this indicator has decreased, from around 6 months in 2019 and 2020 to 4.8 months in 2023. This is significantly below the 2025 national target of at least 9 months a year.

Distribution of medicines and medical supplies is through a tiered system involving area medical stores and provincial transit stores, largely operating on a “pull” or demand-driven system. Factors influencing availability relate to the procurement and supply system as well as forecasting by health facilities. Whilst the mSupply system is in place to support pharmaceutical management, including purchase orders and issuing stock, challenges remain in optimal use of the system.

2. Provincial data

Percentage of months that health facilities have stock of essential medical supplies by province, 2019-23

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	71%	53%	39%	31%	30%	-3%	-58%
GULF	77%	75%	48%	51%	53%	4%	-31%
CENTRAL	53%	53%	40%	37%	39%	5%	-26%
NCD	84%	69%	59%	57%	57%	0%	-32%
MILNE BAY	45%	34%	26%	19%	17%	-11%	-62%
ORO	40%	34%	30%	26%	31%	19%	-23%
SHP	36%	27%	17%	23%	30%	30%	-17%
HELA	43%	44%	57%	43%	44%	2%	2%
ENGA	58%	64%	41%	61%	57%	-7%	-2%
WHP	50%	48%	32%	32%	35%	9%	-30%
JIWAKA	52%	52%	44%	30%	38%	27%	-27%
CHIMBU	71%	42%	47%	50%	55%	10%	-23%
EHP	47%	51%	35%	37%	36%	-3%	-23%
MOROBE	63%	55%	42%	40%	40%	0%	-37%
MADANG	58%	65%	50%	42%	40%	-5%	-31%
EAST SEPIK	63%	52%	50%	41%	42%	2%	-33%
WEST SEPIK	33%	32%	19%	18%	13%	-28%	-61%
MANUS	44%	42%	29%	33%	46%	39%	5%
NEW IRELAND	55%	60%	51%	62%	54%	-13%	-2%
ENBP	65%	58%	43%	45%	51%	13%	-22%
WNBP	39%	41%	37%	35%	47%	34%	21%
ARoB	34%	45%	32%	27%	23%	-15%	-32%
NATIONAL	53%	49%	39%	38%	39%	3%	-26%



Provincial performance

In 2023, Enga and NCD reported the highest percentage of months that health facilities had stock of all eight essential medical supplies at 57%, or over six months. In contrast, availability was lowest in West Sepik and Milne Bay where health facilities had stock only for 1.5 (13%) to 2 months (17%) respectively. No provinces met the 2025 national target. Twelve provinces had a figure that was above the 2023 national average of 39%.

In annual changes between 2022 and 2023, Manus recorded the highest increase in availability, going from 3 months (33%) to 5.5 months (46%), whilst West Sepik saw the biggest drop from just over 2 months (18%) to around 1.5 months (13%).

When looking at the five year between 2019 and 2023, all provinces except for Hela, Manus, and West New Britain reported a decrease in availability. The biggest decreases were reported in Milne Bay (-62%, 5.4 months to 2 months), West Sepik (-61%, 3 months to 1.6 months), and Western (-58%, 8.5 months to 3.6 months).

Explanatory notes

The list of eight essential medical supplies has been developed in conjunction with program managers and comprises: Depo-Provera injection (Family planning), Ergometrine (Maternal Health), Measles vaccines (Vaccination), Oral Rehydration Solution (Diarrhoeal Disease), oxygen, Amoxicillin (tablets or capsules), Artemisia combination, baby books.

KRA 5: Strengthen Health Systems

INDICATOR **35**

Health facilities that received at least one supervisory visit during the year

NOTES ON INDICATOR

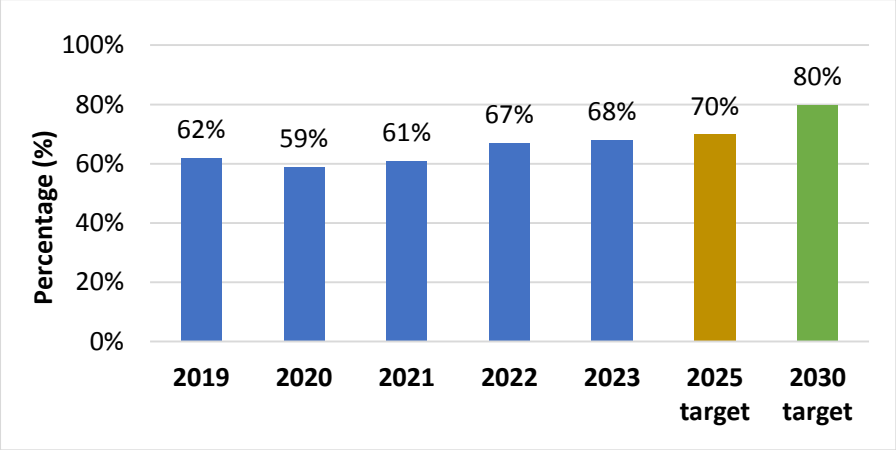
Indicator type: Process

Definition: Percentage (%) of health facilities that have received at least one supervisory visit by provincial or district programme/ management staff during the past year

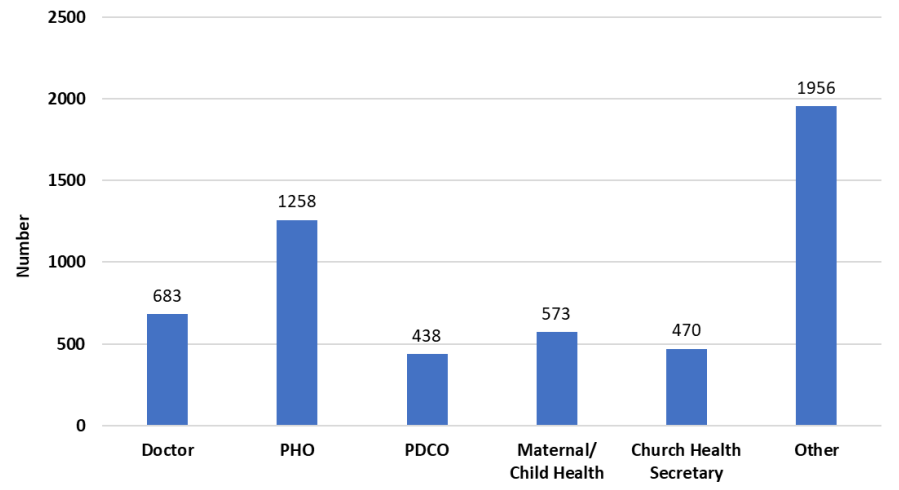
Rationale: This indicator looks at supervision of health staff at the facility level by provincial and district health officers. Regular supervision by provincial health office and/or district management staff provides the opportunity to identify and support health centre staff in meeting the needs of their respective communities.

1. National data

Percentage of health facilities receiving at least one supervisory visit during the year, 2019-23



Number of supervisory visits conducted by position, 2023



National performance

The percentage of health facilities receiving supervisory visits during the period of 2019-2023 has varied, with a decrease between 2019 and 2020 (62% to 59%), followed by increases in 2021 (61%) and 2022 (67%). In 2023, it further increased to 68%. The figure is very close to the 2025 national target of 70%, and if current progress is sustained it is likely that the target will be achieved.

When looking at the persons conducting the supervisory visits, data show that most visits were conducted by the Provincial Health Officers (PHO) follows by doctors. The highest number of visits were done by "Other" which includes NDoH, development partners and NGOs staff.

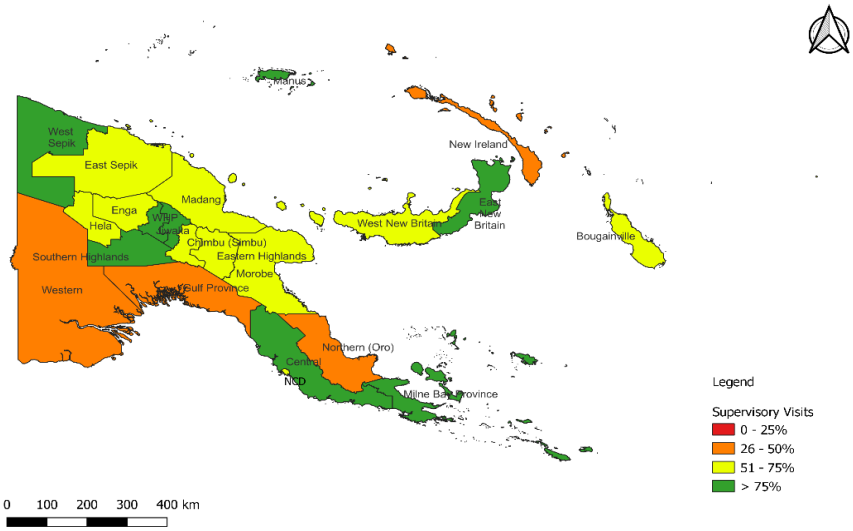
The trends seen suggest that the increased focus on improving service delivery is resulting in consistent supervision for health facilities. The lower percentage of health facilities receiving supervisory visits in 2020 was likely due to the COVID-19 pandemic and lockdowns and isolations required.

2. Provincial data

Percentage of health facilities receiving at least one supervisory visit during the year by province, 2019 - 2023

Province	2019	2020	2021	2022	2023	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	50%	50%	48%	43%	43%	0%	-14%
GULF	14%	29%	52%	62%	48%	-23%	243%
CENTRAL	50%	60%	80%	71%	81%	14%	62%
NCD	64%	74%	69%	73%	73%	-5%	8%
MILNE BAY	93%	89%	82%	86%	80%	-7%	-14%
ORO	53%	61%	41%	53%	50%	-6%	-6%
SHP	NA	62%	81%	82%	82%	0%	NA
HELA	69%	61%	39%	61%	65%	7%	-6%
ENGA	78%	69%	51%	44%	54%	23%	-31%
WHP	91%	76%	83%	85%	76%	-11%	-16%
JIWAKA	75%	61%	75%	89%	89%	0%	19%
CHIMBU	75%	50%	67%	65%	73%	12%	-3%
EHP	57%	65%	43%	82%	63%	-23%	11%
MOROBE	55%	62%	65%	60%	63%	5%	15%
MADANG	48%	32%	39%	63%	62%	-2%	29%
EAST SEPIK	35%	48%	37%	63%	71%	13%	103%
WEST SEPIK	53%	54%	68%	66%	84%	27%	58%
MANUS	77%	62%	54%	77%	85%	10%	10%
NEW IRELAND	63%	32%	50%	38%	42%	11%	-33%
ENBP	56%	58%	75%	84%	88%	5%	57%
WNBP	69%	62%	62%	55%	53%	-4%	-23%
ARoB	74%	69%	70%	75%	75%	0%	1%
NATIONAL	62%	59%	61%	67%	68%	1%	10%

Supervisory visit, 2023



Provincial performance

In 2023, 12 provinces had already achieved the national 2025 target of 70% and seven provinces even the 2030 target of 80% of health facilities visited. These provinces were: Jiwaka (89%), East New Britain (88%), Manus (85%), West Sepik (84%), Southern Highlands (82%), Central (81%), Milne Bay (80%), Western Highlands (76%), AroB (75%), NCD and Chimbu (73%), and East Sepik (71%). However, in New Ireland, Enga and Western provinces, less than 40% of health facilities received a supervisory visit.

In annual changes between 2022 and 2023, West Sepik and Enga increased the percentage of health facilities receiving at least one supervisory visit by over 20%. Between 2019 and 2023, Gulf increased the percentage by over four fold whilst in it East Sepik doubled.

Resource constraints (financial, human) and geographical barriers contribute are among the barriers to conducting visits.

Explanatory notes

In each reporting month, a health facility is counted as having received a supervisory visit irrespective of how many visits are made, ie. a visit by one or more persons does not change the count.

KRA 5: Strengthen Health Systems

INDICATOR
36 Health posts open

NOTES ON INDICATOR

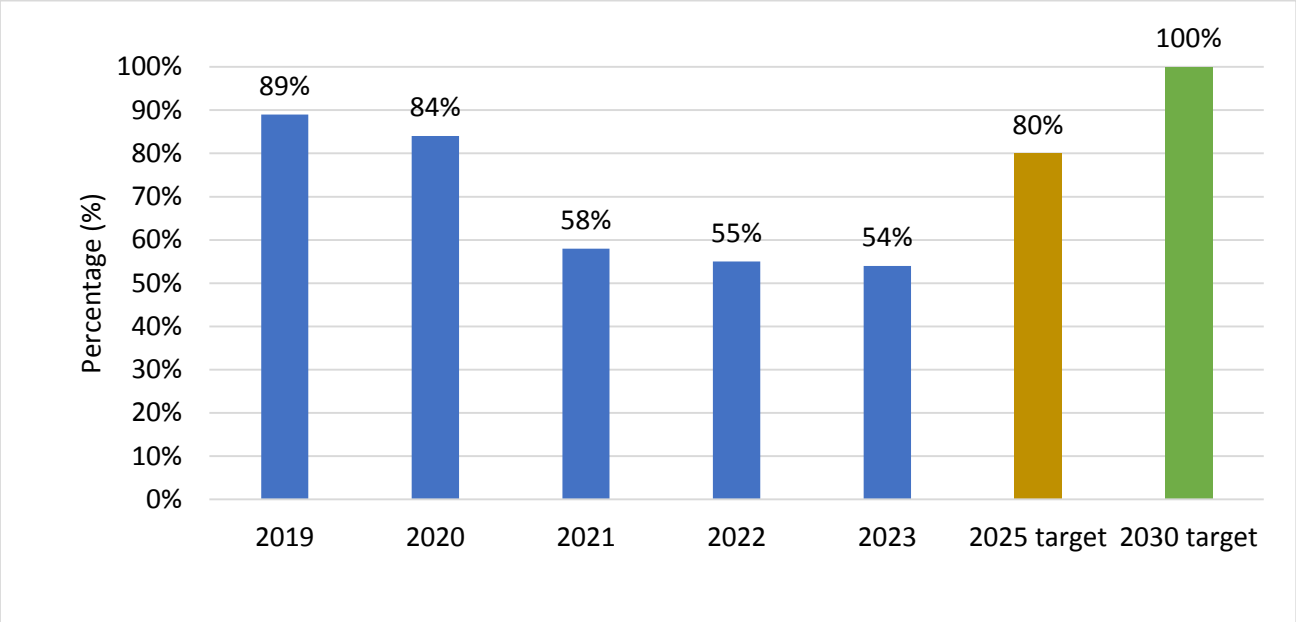
Indicator type: Input

Definition: Percentage of health posts open at the time of reporting

Rationale: Health posts provide the primary level of health care for most of the population. A functioning health post brings accessibility of the health-care services to local villages and hence provides an opportunity to improve health and well-being.

1. National data

Percentage of health posts open, 2019-23

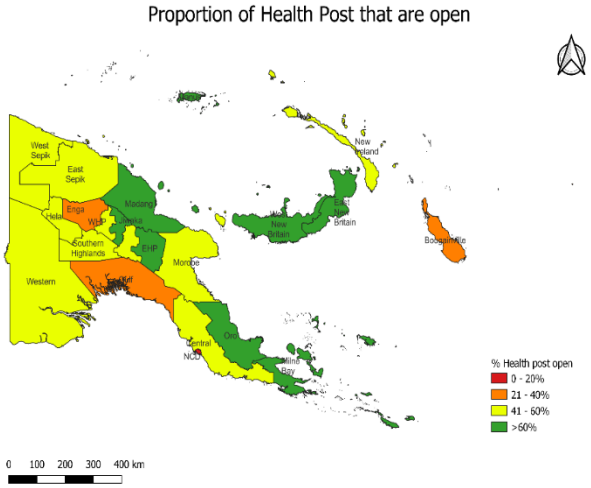


National performance

The percentage of health posts open has declined dramatically since 2020, decreasing from 84% to 54% by 2023. The current level is far below the 2025 national target, and downward trends need to be reversed. Health posts are the first point of primary care services and it is critical that these are functioning. Factors contributing to their closure are largely related to financial and human resourcing as well as infrastructure issues.

It must be noted that reporting of data on health posts open has been challenging and has also decreased over the years. This may result in a bias towards lower percentages and downward trends because the aid posts with no data available may be open.

Provincial performance



2. Provincial data

Percentage of health posts open by province, 2019-23*

Province	2019 % (n/N)	2020 % (n/N)	2021 % (n/N)	2022 % (n/N)	2023 % (n/N)	2023-2022 % annual change	2023-2019 % 5-year change
WESTERN	98% (135/137)	90% (127/142)	57% (26/46)	46% (38/82)	44% (38/87)	-4%	-55%
GULF	100%* (67/67)	100%* (67/67)	62% (13/21)	40% (17/43)	29% (10/34)	-28%	-71%
CENTRAL	59% (47/79)	61% (57/94)	49% (47/95)	46% (43/96)	49% (46/93)	7%	-17%
MILNE BAY	74% (110/148)	77% (113/146)	68% (101/148)	66% (97/148)	65% (91/141)	-2%	-12%
ORO	61% (47/77)	63% (47/75)	59% (44/74)	59% (44/75)	62% (32/52)	5%	2%
SHP	100%* (132/132)	100%* (132/132)	No data	58% (21/36)	42% (46/109)	-28%	-58%
HELA	100%* (108/108)	86% (86/108)	60% (26/43)	38% (27/71)	48% (18/48)	26%	-52%
ENGA	98% (139/142)	93% (124/132)	36% (4/11)	26% (7/27)	32% (6/19)	23%	-67%
WHP	91% (49/54)	85% (46/54)	48% (16/33)	29% (7/24)	47% (16/34)	62%	-48%
JIWAKA	100%* (54/54)	100%* (48/48)	No data	50% (6/12)	90% (17/20)	80%	-10%
CHIMBU	100%* (70/70)	100%* (67/67)	78% (18/23)	62% (16/26)	56% (19/34)	-10%	-44%
EHP	100%* (102/102)	100%* (102/102)	No data	78% (35/45)	68% (47/69)	-13%	-32%
MOROBE	91% (292/321)	90% (278/310)	58% (50/86)	54% (76/142)	47% (71/151)	-13%	-48%
MADANG	100%* (229/229)	100%* (196/196)	No data	61% (53/87)	65% (55/85)	7%	-35%
EAST SEPIK	100%* (170/170)	100%* (156/156)	69% (22/32)	63% (38/60)	57% (29/51)	-10%	-43%
WEST SEPIK	75% (129/171)	59% (98/167)	61% (99/163)	62% (38/61)	42% (19/45)	-32%	-44%
MANUS	95% (71/75)	83% (65/78)	65% (35/54)	59% (22/37)	64% (32/50)	8%	-33%
NEW IRELAND	100%* (69/69)	81% (51/63)	55% (28/51)	69% (42/61)	56% (27/48)	-19%	-44%
ENBP	100%* (85/85)	99% (66/67)	63% (20/32)	73% (20/28)	74% (20/27)	1%	-26%
WNBP	95% (120/126)	91% (117/129)	68% (39/57)	64% (41/64)	85% (39/46)	33%	-11%
ARoB	49% (98/200)	42% (83/196)	43% (82/189)	47% (92/197)	37% (18/20)	-21%	-24%
NATIONAL	89% (2320/ 2616)	84% (2151/ 2539)	58% (670/ 1158)	55% (780/ 1419)	54% (715/ 1327)	-1.82%	-39%

*Data shown above are percentages of aid posts open, followed by the number open (n)/number reporting (N) in brackets. This is because the number of aid posts reporting data has varied.100% values are based on data that was reported i.e. aid posts that did not report were not included in the denominator

Provincial performance

Of data reported in 2023, Jiwaka had the highest percentage of health posts open (90%) followed by West New Britain (85%) – both of which met the national 2025 target. Gulf (29%) and Enga (32%) had the lowest percentage.

Between 2019 and 2023, all provinces saw decreases in the percentage of aid posts open. This trend however, may be biased by the decreased number of aid posts reporting data over the same period. At the same time, between 2022-23, ten provinces reported increases in aid posts open with Jiwaka and Western Highlands reporting increases of over 60%. This may be due to improved reporting.

Explanatory notes

Health posts with no data were excluded from the denominator. The indicator counts health posts that are “open” and “partially open”, as reported in the last quarter of 2023. For more accurate reporting of status, aid posts reporting data prior to quarter four were excluded.

INDICATOR
37 Product batches tested that met quality control standards

NOTES ON INDICATOR

Indicator type: Process

Definition: Percentage of medical product batches that were tested for quality control standards

Rationale: This indicator measures mechanisms in place to ensure that medical products adhere to quality control standards and capacity to ensure these mechanisms are implemented. Access to quality, safe, and effective medicines is critical to preventing and managing disease, promoting well-being and ensuring improved health outcomes.

Percentage of product batches that were tested for quality control standards

Item	Number (%)
Total number of samples collected as part of post-marketing surveillance	24
Number of samples that passed level 1 and 2 testing	24 (100%)
Number of samples undergoing level 3 testing (quality control standards) with Certificate of Analysis	3 (12.5%)
2025 National Target	100%
2030 National Target	100%

National performance

Latest data are available from 2021. Of 24 samples collected from the National Capital District, only three samples underwent level 3 testing (compendial testing) with a Certificate of Analysis. The remaining 21 samples passed level 1 (visual screening) and level 2 (simple disintegration & thin layer chromatography), but expired before level 3 testing could be done. Therefore, only 3 of 24 (12.5%) of samples were tested for quality control standards. This is significantly below the 2025 national target of 100%.

Explanatory notes

In 2017, Medicine Quality Surveillance Guidelines for Post-Marketing Surveillance was developed. A testing and sampling framework was established based on the Guidelines to ensure quality of medicines through practical and risk-based sampling and testing. A Medicines Quality Survey was initiated in 2018 and completed in December 2020, during which 15 samples were tested and issued with Certificates of Analysis. Issuance of the CoA is deemed as meeting quality control standards. Though samples were collected in 2022 and 2023, level 3 analyses could not be conducted due to a flood in 2023 resulting in laboratory damage.

Appendices

Appendix 1: Overall Performance

Overall Sector Performance - annual and 5 year change

	Ind #	Indicator	2019	2020		2021		2022		2023		2019- 2023
			Performance	Performance	% annual Change	Performance	% annual Change	Performance	% annual Change	Performance	% annual Change	Overall 5 year change
Outcome	1	Pneumonia - Case fatality Rate in Children under 5years at health facility	2.1%	2.2%	-4.8%	2.4%	-9.1%	2.2%	8.3%	2.3%	-4.5%	-9.5%
Outcome	2	Childhood malnutrition in children under 5 years	21%	17%	19%	14%	19%	15%	-9%	13%	13%	38%
Outcome	3	Low Birth Weight	7%	7%	0%	7%	3%	8%	-15%	8%	-2%	-14%
Outcome	4	Malaria Incidence per 1000 population	112	108	0.0	92.0	0.1	106.0	-0.2	96.0	0.1	0.1
Outcome	5	HIV confirmed prevalence in pregnancy	1.8%	1.3%	27.0%	3.1%	-138.5%	2.2%	29.0%	1.4%	36.4%	21.3%
Outcome	6	Diarrhoeal Disease in Children <5 years	182	178	2.2%	141	20.8%	127	9.6%	126	1.1%	30.8%
Outcome	7	Injury presentations per 1000 population	35	33	5.7%	27	18.2%	24	11.1%	23	4.2%	34.3%
Output	8	Outreach Clinics Undertaken per 1000 children <5 years	31	37	19.4%	32	-13.5%	32	0.0%	30	-6.3%	-3.2%
Output	9a	Measles Vaccine Coverage for children under 1 year	34%	46.0%	35.3%	38.0%	-17.4%	43.0%	13.2%	54.0%	25.6%	58.8%
Output	9b	3rd Dose Pentavalent Coverage for children under 1 year	42.0%	47.0%	11.9%	39.0%	-17.0%	44.0%	12.8%	41.0%	-6.8%	-2.4%
Output	10	Proportion of Supervised births at Health Facilities	36.0%	33.0%	-8.3%	32.0%	-3.0%	42.0%	31.3%	42.0%	0.0%	16.7%
Output	11	Antenatal Coverage	51.0%	48.0%	-5.9%	46.0%	-4.2%	58.1%	26.3%	29.0%	-50.1%	-43.1%
Output	12	Family Planning Use	135	135	0.0%	113	-16.3%	113	-0.2%	102	-9.6%	-24.4%
Output	16	Case notification rate Tuberculosis	80.0%	100.0%	25.0%	71.0%	-29.0%	85.0%	19.7%	93.0%	-9.4%	-16.3%
Output	17	Treatment success rate for Tuberculosis	76.0%	78.0%	2.6%	79.0%	1.3%	79.0%	0.0%	77.0%	-2.5%	-1.3%
Process	18	Proportion of allocated provincial-level health funds that are spent	80.0%	96.0%	20.0%	93.0%	-3.1%	29.0%	-68.8%	78.1%	169.3%	-2.4%
Process	19	Provincial health expenditure as a proportion of estimated need	97.7%	96%	2.0%	93%	-2.7%	29	3014.9%	54%	-98.1%	-44.7%
Process	20	Supervisory support visits by district and provincial staff	62.0%	59.0%	-4.8%	61.0%	3.4%	67.0%	9.8%	68.0%	1.5%	9.7%
Process	21	Outpatient visits per person per year	1.1	1.1	-5.3%	0.9	-17.6%	0.9	-1.3%	0.9	2.5%	-21.1%
Input	24	Total budget allocation (HSIP and GoPNG) per capita	193	201	4.3%	188	-6.8%	285	51.9%	237	-16.8%	22.8%
Input	26	Proportion of health facilities with Telephone and /or Radio.	44.0%	55%	25.0%	38.5%	-30.0%	44.0%	14.3%	39.0%	-11.4%	-11.4%
Input	27	Adequacy of Medical Supplies	53.0%	49.0%	-7.5%	39.0%	-20.4%	38.0%	-2.6%	39.0%	2.6%	-26.4%
Input	28	Proportion of Specialist Medical Officers Available in hospital	78.0%	87.0%	11.5%	83.0%	-4.6%	78.0%	-6.4%	0.0%	-100.0%	-100.0%
		Overall averages: annual and 5 year performance			7.7%		-11.0%		136.3%		-2.3%	-3.2%
		Average change in outcomes: annual and 5 year performance									8.2%	16.42%
		Average change in outputs: annual and 5 year performance									-7.4%	-1.91%
		Average change in process: annual and 5 year performance									18.8%	-14.62%
		Average change in input: annual and 5 year performance									-31.4%	-28.73%

Appendix 2: Provincial Ranking

Indicator	Ind 1		Ind 2		Ind 3		Ind 4		Ind 6		Ind 7		Ind 8		Ind 9a		Ind 9b		Ind 10		Ind 11		Ind 12		Ind 20		Ind 21		Ind 26		Ind 27		overall score	constraint index (new)	Rank New CI
	CFR		under-weight		LBW		malaria		diarrhoea		injury		outreach		measles vacc		penta vacc		sup birth		ANC		Fam Plan		supervision		OP access		radio/telephone		med supply				
Province	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel score	Perf	rel			
Chimbu	1%	10	9%	4	2%	10	4	3	134	3	23	6	98	10	37%	3	42%	5	56%	5	65%	7	101	5	73%	8	0.7	4	38%	4	55%	10	96	0.38	253
WHP	1%	5	4%	10	5%	4	7	1	192	2	23	6	78	8	131%	10	62%	8	65%	6	68%	7	188	9	76%	9	1.1	6	91%	9	35%	6	106	0.43	247
EHP	6%	1	20%	2	6%	3	3	3	119	4	13	10	24	2	61%	5	41%	5	45%	4	61%	7	128	6	63%	7	0.4	2	40%	4	36%	6	72	0.33	218
SHP	2%	4	6%	6	4%	5	1	10	157	3	16	8	54	6	30%	2	33%	4	27%	3	41%	4	73	3	82%	9	0.6	3	60%	6	30%	5	82	0.38	217
Hela	1%	6	12%	3	5%	4	4	3	447	1	40	3	40	4	57%	4	51%	7	46%	5	64%	7	126	6	65%	7	1.4	7	50%	5	44%	8	79	0.39	203
Morobe	5%	2	22%	2	8%	3	112	0	112	4	16	8	18	2	34%	3	37%	5	35%	3	60%	7	81	4	63%	7	0.8	4	38%	4	40%	7	62	0.31	201
Enga	3%	3	15%	2	5%	4	3	3	323	1	22	6	9	1	103%	8	30%	4	25%	2	36%	4	43	2	54%	6	1.2	6	15%	2	57%	10	64	0.33	194
West Sepik	2%	4	22%	2	16%	1	357	0	93	5	33	4	44	4	54%	4	47%	6	24%	2	56%	6	134	6	84%	9	2.0	10	34%	3	13%	2	70	0.36	194
ENBP	1%	7	9%	4	6%	3	176	0	64	7	34	4	28	3	45%	3	45%	6	52%	5	65%	7	139	6	88%	10	1.0	5	38%	4	51%	9	83	0.47	177
Milne Bay	4%	2	10%	3	14%	1	214	0	44	10	40	3	62	6	76%	6	58%	7	47%	5	73%	8	220	10	80%	9	1.3	7	61%	6	17%	3	87	0.49	177
East Sepik	2%	3	20%	2	13%	2	154	0	65	7	22	6	8	1	71%	5	29%	4	25%	2	42%	5	81	4	71%	8	1.0	5	29%	3	42%	7	63	0.36	175
Madang	5%	2	15%	2	13%	2	158	0	71	6	21	6	7	1	29%	2	21%	3	35%	3	51%	6	78	4	62%	7	0.7	4	40%	4	40%	7	57	0.35	164
ARoB	1%	5	5%	7	6%	3	18	1	63	7	14	9	48	5	42%	3	41%	5	58%	6	67%	7	55	3	75%	8	0.5	3	26%	3	23%	4	79	0.49	161
Jiwaka	2%	4	13%	3	9%	2	12	1	167	3	22	6	50	5	35%	3	46%	6	41%	4	52%	6	65	3	89%	10	0.7	4	31%	3	38%	7	68	0.44	154
Gulf	2%	4	23%	2	10%	2	77	0	117	4	20	7	8	1	34%	3	24%	3	27%	3	67%	7	72	3	48%	5	1.1	6	33%	3	53%	9	61	0.41	149
Manus	4%	2	6%	6	12%	2	94	0	71	6	41	3	36	4	74%	6	59%	7	57%	6	56%	6	153	7	85%	10	1.3	7	31%	3	46%	8	82	0.55	149
WNBP	1%	6	17%	2	5%	4	133	0	76	6	21	6	15	2	24%	2	34%	4	41%	4	71%	8	124	6	53%	6	1.1	6	32%	3	47%	8	72	0.49	147
New Ireland	2%	4	20%	2	8%	3	335	0	156	3	58	2	34	3	58%	4	57%	7	47%	5	69%	8	125	6	42%	5	1.9	10	24%	2	54%	9	72	0.51	142
Central	2%	5	9%	4	7%	3	54	0	104	4	18	7	43	4	97%	7	50%	6	28%	3	49%	5	54	2	81%	9	0.8	4	5%	1	39%	7	72	0.52	139
NCD	6%	1	15%	2	8%	3	7	1	214	2	21	6	0	0	55%	4	78%	10	102%	10	92%	10	149	7	69%	8	0.8	4	100%	10	57%	10	88	0.69	128
Western	2%	4	19%	2	13%	2	48	0	164	3	28	5	11	1	37%	3	39%	5	42%	4	58%	6	206	9	43%	5	1.4	7	38%	4	30%	5	65	0.53	122
Oro	5%	1	21%	2	7%	3	121	0	83	5	23	6	31	3	38%	3	38%	5	33%	3	49%	5	72	3	50%	6	1.0	5	0%	0	31%	5	56	0.53	105

Method:
Indicators that can be compared across provinceshave been selected. Each province performance for each of the indicators is provided for the year 2022; these are scored from 1 to 10, with the best performance scoring 10, and the relative performance scaled against this. Overall performance is provided by adding up all scores.

Results:
SHP,AROB, NCD, Chimbu and Milne Bay are the top performing provinces in 2022, whileOro, Madang, Enga and ESP are the poor performing provinces.SHP, AROB, Milne Bayand Chimbu rank the highest when the constraint index is applied (this suggests that hese provinces would be the top performers when all factors were equal).

Constraint Index:
The constraint index is designed tocompensate for disadvantages that a province is subjected to. This index has been revised from that previously used, to reflect more current data. The index considers mortality figures, social development and size. Full detail is available through NDoH.

Appendix 3: Provincial Improvement Sorted

Most improved provinces in 2023

Province	Ind 1	Ind 2	Ind 3	Ind 4	Ind 6	Ind 7	Ind 8	Ind 9a	Ind 9b	Ind 10	Ind 11	Ind 12	Ind 20	Ind 21	Ind 26	Ind 27	
Province	**% Change**	**% Change**	**2023**	**% Change**	**% Change**	**% Change**	**% Change**	**% Change**	**% Change**	**% Change**	**% Change**	**% Change**	**% Change**	**% Change**	**% Change**	**% Change**	**Overall Improvement**
Chimbu	18%	43%	2%	33%	67%	7%	12%	-1%	-24%	-24%	29%	12%	11%	12%	3%	-33%	10%	**9**
WHP	30%	0%	5%	17%	13%	-7%	-15%	-3%	254%	44%	23%	2%	44%	-10%	57%	3%	9%	**7**
Milne Bay	-241%	20%	14%	0%	26%	4%	5%	7%	9%	0%	7%	1%	0%	-8%	-4%	27%	-11%	**4**
NCD	-41%	30%	8%	-167%	50%	3%	5%	0%	4%	3%	-7%	-9%	23%	-6%	7%	92%	0%	**4**
New Ireland	39%	-15%	8%	0%	18%	8%	-5%	42%	14%	8%	-6%	17%	0%	13%	19%	-45%	-13%	**4**
SHP	28%	39%	4%	27%	67%	-11%	0%	-4%	-25%	-6%	17%	8%	16%	0%	-13%	20%	30%	**4**
Morobe	-162%	28%	8%	-1%	-70%	-1%	20%	20%	-3%	6%	-19%	1%	-41%	6%	21%	6%	0%	**2**
Hela	-20%	-23%	5%	-9%	79%	-35%	-5%	11%	6%	-9%	10%	13%	11%	6%	3%	-12%	3%	**2**
West Sepik	12%	-15%	16%	-14%	5%	18%	3%	-12%	-33%	-27%	0%	3%	-15%	28%	8%	17%	-26%	**1**
Central	84%	-26%	7%	-23%	33%	12%	-13%	-7%	76%	-2%	0%	-2%	10%	13%	-16%	-71%	4%	**1**
East Sepik	-186%	27%	13%	7%	4%	32%	12%	-53%	92%	-17%	-11%	-11%	-7%	13%	0%	-40%	3%	**1**
Manus	0%	19%	12%	-140%	68%	36%	11%	-5%	-8%	-8%	24%	4%	-7%	10%	-24%	-18%	38%	**1**
Jiwaka	36%	37%	9%	40%	0%	5%	0%	-7%	-8%	-4%	0%	9%	-10%	0%	1%	-16%	28%	**1**
Oro	-65%	25%	7%	3%	46%	-12%	-5%	48%	3%	-3%	-6%	4%	-10%	-5%	7%	-100%	18%	**0**
Gulf	-18%	18%	10%	0%	49%	22%	0%	60%	-15%	-31%	-7%	17%	-32%	-23%	-26%	0%	4%	**-1**
Enga	-66%	19%	5%	-4%	80%	-30%	4%	-53%	368%	-14%	0%	5%	-6%	22%	28%	-65%	-6%	**-1**
East New Britai	19%	21%	6%	-20%	34%	42%	3%	0%	-10%	-17%	-7%	-7%	-12%	4%	-9%	-19%	13%	**-1**
Madang	-14%	-1%	13%	7%	-7%	-13%	9%	-30%	21%	17%	6%	1%	-8%	-1%	0%	-7%	-4%	**-2**
EHP	-9%	2%	6%	14%	57%	12%	7%	-4%	49%	-7%	7%	-4%	-26%	-23%	-15%	-11%	-1%	**-2**
West New Brita	51%	7%	5%	6%	44%	23%	13%	-32%	-38%	-21%	-32%	-8%	-22%	-4%	-8%	-64%	34%	**-2**
Western	-178%	9%	13%	-13%	56%	-11%	-8%	0%	6%	11%	-2%	-5%	25%	0%	-3%	-27%	-3%	**-4**
ARoB	21%	30%	6%	0%	-100%	-21%	13%	-11%	-33%	-45%	4%	-4%	62%	0%	-6%	-7%	-14%	**-4**

Method

The performance of each province in 2022 against the selected indicators is assessed against the performance in 2023. if there is improvement (of more than 2% from year to year), the province is assigned a score of one for that indicator. If there is no change, a score of zero is applied, and if performance has decreased (by more than 2%) a score of -1 is applied. These scores are accumulated to provide the basis for ranking the provinces according to improvement across the provinces. The performance has been sub-analzed according to the type of indicator - outcome, output, process or input. If a province has improved inputs or processes, but has not improved its outputs or outcomes, then there is a need to consider the management approaches taken.

Results:

The most improved provinces in 2023 are Chimbu,New Ireland, Milne Bay,Western Highlands and SHP.

Western, AROB, Enga and Central showed *most improved* ***outcomes****;*
SHP, Madang, Milne Bay and Oro *showed moststt improved* ***outputs;***
Milne Bay, ORO, WSP, NCD and WNBP *showed most improved processes;*
SHP, Gulf, EHP, NIP, Enga, ENBP, Manus and Chimbu *showed most improved* ***inputs****.*

Appendix 4: District Performance Score Card 2023

Indicator Type	Outcome						Output						Process	Input
Core Indicators	#1	#2	#3	#4	#6	#7	#8	#9a	#9b	#10	#11	#12	#21	#27
District	Pneumonia CFR	total maln	%LBW	Malaria/ 1000 popn	Incidence Diarrhoea	Injury/ 1000 popn	clinics/1000 ch<5yrs	measles vacc coverage	pentavalent vacc coverage	facility birth rate	%antenatal coverage 1 visit	adjusted CYP/1000WRA	op visits/person	% facility months with nil shortages
MIDDLE FLY	2.9%	21%	11%	111	150	23	7	39%	38%	33%	47%	219	1.7	22%
NORTH FLY	0.6%	18%	16%	170	246	31	23	33%	40%	53%	76%	185	1.4	20%
SOUTH FLY	2.2%	19%	8%	37	70	28	2	42%	35%	40%	46%	206	0.7	58%
Western	1.6%	19%	13%	108	161	28	11	37%	39%	42%	58%	204	1.3	30%
KEREMA	5.3%	15%	7%	191	121	22	2	42%	26%	20%	77%	44	1.2	59%
KIKORI	0.0%	33%	12%	91	112	17	5	20%	24%	39%	51%	112	0.9	40%
Gulf	1.7%	23%	10%	152	117	20	3	34%	24%	27%	67%	71	1.1	53%
ABAU	0.0%	9%	16%	56	30	14	42	94%	43%	21%	41%	33	0.4	14%
GOILALA	13.0%	13%	0%	26	58	29	15	54%	11%	1%	18%	1	0.8	60%
KAIRUKU-HIRI	0.6%	7%	5%	124	159	19	48	102%	55%	29%	56%	73	1.2	39%
RIGO	0.0%	12%	6%	58	94	14	47	107%	65%	46%	60%	61	0.6	48%
Central	1.5%	9%	7%	81	104	18	43	97%	50%	28%	49%	52	0.8	39%
MORESBY NORTH EAST	6.9%	28%	2%	14	192	22	0	48%	75%	257%	88%	244	0.7	56%
MORESBY NORTH WEST	1.2%	4%	0%	17	262	19	0	65%	83%	0%	105%	110	0.9	62%
MORESBY SOUTH	0.0%	13%	0%	11	180	21	1	50%	77%	0%	81%	51	0.7	52%
NCD	5.5%	15%	2%	14	214	21	0	55%	78%	102%	92%	146	0.8	57%
ALOTAU	1.4%	14%	14%	335	48	51	60	65%	59%	63%	75%	374	1.4	17%
SAMARAI-MURUA	10.6%	9%	14%	264	31	38	55	60%	37%	46%	59%	150	1.0	23%
KIRIWINA-GOODENOUGH	370.0%	7%	12%	199	60	24	78	94%	80%	31%	79%	127	1.2	19%
ESAÁLA	9.5%	13%	13%	349	31	40	53	91%	53%	41%	75%	106	1.2	8%
Milne Bay	3.8%	10%	14%	291	44	40	62	76%	58%	47%	73%	215	1.2	17%
IJIVITARI	8.0%	20%	8%	257	66	22	23	43%	32%	44%	56%	64	0.9	17%
SOHE	0.0%	24%	3%	193	105	25	41	33%	47%	15%	41%	74	1.0	39%
ORO	5.0%	21%	7%	226	83	23	31	38%	38%	33%	49%	69	1.0	31%
National	2.3%	13%	8%	96	126	23	30	55%	41%	42%	59%	102	0.9	39%
Colour Key	Below National Avg				Above National Avg					Above 100%		National Avg Score		
	NA	No data available at the time of data extraction/analysis												

Indicator Type	Outcome						Output						Process	Input
Core Indicators	#1	#2	#3	#4	#6	#7	#8	#9a	#9b	#10	#11	#12	#21	#27
District	Pneumonia CFR	total maln	%LBW	Malaria/ 1000 popn	Incidence Diarrhoea	Injury/ 1000 popn	clinics/1000 ch<5yrs	measles vacc coverage	pentavalent vacc coverage	facility birth rate	%antenatal coverage 1 visit	adjusted CYP/1000WRA	op visits/person	% facility months with nil shortages
IALIBU-PANGIA	5.1%	6%	4%	4	89	13	68	33%	41%	32%	48%	70	1.3	25%
IMBONGGU	2.5%	2%	2%	3	126	13	63	29%	33%	13%	52%	39	0.4	23%
KAGUA-ERAVE	0.0%	3%	2%	1	116	9	56	32%	34%	13%	46%	48	0.4	20%
MENDI	0.7%	8%	7%	1	182	17	39	26%	32%	41%	20%	114	0.5	31%
NIPA-KUTUBU	2.0%	7%	2%	4	212	23	54	31%	29%	27%	48%	58	0.7	31%
SHP	1.7%	6%	4%	3	142	16	54	30%	33%	27%	41%	70	0.6	30%
KOMO-MAGARIMA	0.0%	22%	2%	18	616	59	42	56%	65%	42%	74%	151	1.8	36%
KOROBA-LAKE KOPIAGO	1.4%	8%	6%	25	133	31	40	58%	45%	24%	48%	43	0.9	34%
TARI-PORI	1.5%	6%	7%	10	657	26	34	58%	60%	84%	82%	161	1.4	68%
Hela	1.1%	12%	5%	19	447	40	39	57%	56%	46%	66%	113	1.4	44%
KANDEP	6.7%	16%	1%	1	128	12	8	130%	18%	8%	24%	5	0.4	57%
KOMPIAN-AMBUN	0.7%	15%	8%	46	264	25	22	123%	44%	27%	39%	72	1.7	61%
LAIGAP-PORGERA	0.0%	17%	4%	20	409	24	4	94%	36%	20%	38%	17	1.0	53%
WABAG	3.4%	20%	7%	8	421	21	4	78%	26%	51%	47%	74	1.6	72%
WAPENAMANDA	1.7%	9%	2%	2	294	24	14	103%	26%	20%	33%	28	1.1	48%
Enga	2.6%	15%	5%	15	323	22	9	103%	30%	25%	36%	37	1.2	57%
DEI	6.3%	3%	1%	14	107	14	28	82%	38%	17%	31%	28	0.5	33%
HAGEN	1.3%	4%	6%	6	306	30	85	173%	83%	143%	107%	414	1.6	37%
MUL-BAIYER	0.0%	4%	2%	10	131	25	92	112%	51%	21%	41%	96	1.0	37%
TAMBUL-NEBILYER	0.0%	1%	3%	3	147	20	94	124%	59%	27%	63%	63	0.8	30%
WHP	1.3%	4%	5%	8	192	23	78	131%	62%	65%	68%	183	1.1	35%
National	2.3%	13%	8%	96	127	23	30	55%	41%	42%	59%	102	0.9	39%
Colour Key	Below National Avg				Above National Avg					Above 100%		National Avg Score		
	NA	No data available at the time of data extraction/analysis												

Indicator Type	Outcome						Output						Process	Input
Core Indicators	#1	#2	#3	#4	#6	#7	#8	#9a	#9b	#10	#11	#12	#21	#27
District	Pneumonia CFR	total maln	%LBW	Malaria/ 1000 popn	Incidence Diarrhoea	Injury/ 1000 popn	clinics/1000 ch<5yrs	measles vacc coverage	pentavalent vacc coverage	facility birth rate	%antenatal coverage 1 visit	adjusted CYP/1000WRA	op visits/person	% facility months with nil shortages
ANGALIMP-SOUTH WAHGI	1.9%	12%	10%	4	161	25	49	33%	46%	68%	52%	72	0.7	35%
JIMI	2.2%	15%	3%	29	123	16	55	43%	49%	16%	46%	66	0.8	28%
NORTH WAHGI	0.0%	13%	3%	14	198	20	47	33%	42%	13%	62%	42	0.7	53%
Jiwaka	1.9%	13%	9%	12	167	22	50	35%	46%	41%	54%	63	0.7	38%
CHUAVE	5.9%	32%	1.5%	6	86	13	108	15%	29%	27%	55%	32	0.7	38%
GUMINE	0.0%	5%	1%	3	101	15	37	10%	16%	19%	30%	24	0.6	36%
KARIMUI-NOMANE	3.0%	36%	1%	43	122	37	50	9%	33%	10%	29%	49	0.8	75%
KEROWAGI	0.0%	9%	2%	10	145	29	127	67%	46%	59%	71%	106	0.8	66%
KUNDIAWA-GEMBOGL	0.9%	3%	3%	9	222	23	132	56%	71%	141%	84%	227	0.8	48%
SINASINA-YONGGOMUGL	1.7%	9%	1%	5	64	17	89	31%	36%	18%	33%	66	0.6	60%
Chimbu	0.7%	9%	2%	12	134	23	98	37%	42%	56%	65%	95	0.7	55%
DAULO	0.0%	37%	6%	8	97	20	104	75%	53%	41%	71%	93	0.8	10%
GOROKA	4.0%	0%	7%	4	296	18	1	90%	86%	143%	131%	406	0.9	64%
HENGANOFI	0.0%	23%	5%	5	52	5	23	60%	20%	14%	33%	34	0.2	31%
KAINANTU	11.7%	19%	4%	7	137	19	21	62%	47%	62%	67%	130	0.3	42%
LUFA	5.1%	0%	6%	0	44	12	30	62%	27%	15%	42%	37	0.3	17%
OBURA-WONENARA	2.7%	25%	6%	25	171	15	19	44%	31%	27%	70%	107	0.7	38%
OKAPA	0.0%	7%	6%	3	43	7	25	48%	36%	12%	32%	40	0.2	37%
UNGGAI-BENA	0.0%	7%	2%	2	30	5	7	44%	16%	7%	20%	20	0.2	58%
EHP	6.1%	20%	6%	7	119	13	24	61%	41%	45%	61%	123	0.4	36%
BULOLO	0.0%	23%	11%	18	114	17	10	20%	21%	22%	66%	95	0.5	41%
FINSCHAFEN	6.3%	28%	3%	80	24	10	22	25%	24%	26%	47%	84	0.6	41%
HUON	0.0%	17%	5%	56	81	9	13	33%	34%	1%	57%	77	0.6	21%
KABWUM	11.1%	64%	1%	12	31	9	7	64%	10%	7%	28%	44	0.7	39%
LAE	4.3%	11%	9%	138	247	33	20	42%	67%	97%	90%	78	1.5	55%
MARKHAM	5.0%	13%	10%	79	65	7	21	33%	47%	25%	53%	142	0.6	28%
MENYAMYA	7.7%	59%	2%	8	108	12	17	19%	16%	10%	58%	64	0.8	31%
NAWAE	0.0%	23%	1%	120	48	11	27	41%	45%	23%	57%	71	0.7	53%
National	2.3%	13%	8%	96	126	23	30	54%	41%	42%	59%	102	0.9	39%
Colour Key	Below National Avg				Above National Avg					Above 100%		National Avg Score		
	NA	No data available at the time of data extraction/analysis												

Indicator Type	Outcome						Output						Process	Input
Core Indicators	#1	#2	#3	#4	#6	#7	#8	#9a	#9b	#10	#11	#12	#21	#27
District	Pneumonia CFR	total maln	%LBW	Malaria/ 1000 popn	Incidence Diarrhoea	Injury/ 1000 popn	clinics/1000 ch<5yrs	measles vacc coverage	pentavalent vacc coverage	facility birth rate	%antenatal coverage 1 visit	adjusted CYP/1000WRA	op visits/person	% facility months with nil shortages
TEWAE-SIASSI	2.4%	34%	13%	42	39	11	16	38%	28%	16%	25%	47	0.4	16%
Morobe	4.7%	22%	8%	66	112	16	18	34%	37%	35%	60%	79	0.8	40%
BOGIA	4.2%	18%	12%	202	35	9	9	13%	8%	18%	44%	42	0.6	28%
MADANG	3.5%	18%	17%	204	114	17	7	24%	25%	73%	71%	117	0.9	44%
MIDDLE-RAMU	5.3%	18%	4%	86	41	8	2	26%	14%	15%	36%	35	0.5	32%
RAI COAST	5.6%	13%	1%	156	39	8	4	26%	17%	11%	36%	40	0.7	42%
SUMKAR	4.2%	17%	14%	52	27	7	7	42%	31%	30%	44%	54	0.4	34%
USINO-BUNDI	9.8%	7%	7%	180	185	107	19	49%	28%	42%	68%	169	1.4	61%
Madang	4.5%	15%	13%	147	71	21	7	29%	21%	35%	51%	74	0.7	40%
AMBUNTI-DREKIKIR	5.1%	17%	6%	206	70	17	8	58%	28%	9%	40%	87	1.1	45%
ANGORAM	2.7%	33%	8%	115	66	13	3	69%	33%	11%	36%	41	0.8	49%
MAPRIK	1.1%	32%	9%	197	79	34	6	74%	27%	26%	44%	125	1.3	35%
WEWAK	4.1%	16%	17%	155	82	38	8	64%	35%	70%	59%	127	0.8	46%
WOSERA-GAWI	1.1%	13%	7%	275	66	18	22	122%	35%	13%	39%	40	1.5	22%
YANGORU-SAUSSIA	0.0%	23%	6%	24	19	10	3	44%	10%	17%	32%	37	0.4	52%
ESP	2.0%	20%	13%	161	65	22	8	71%	29%	25%	42%	78	1.0	42%
AITAPE-LUMI	0.0%	12%	20%	461	50	31	49	52%	46%	23%	49%	77	1.9	14%
NUKU	0.0%	31%	16%	280	78	36	32	86%	83%	18%	67%	198	2.5	12%
TELEFOMIN	2.6%	24%	7%	85	123	26	24	32%	23%	12%	32%	81	1.8	11%
VANIMO-GREEN RIVER	4.8%	24%	17%	571	132	39	64	42%	31%	40%	68%	166	1.9	16%
WSP	1.8%	22%	16%	374	93	33	44	54%	47%	24%	56%	132	2.0	13%
LORENGAU	3.8%	6%	12%	293	71	41	36	74%	59%	57%	56%	150	1.3	46%
Manus	3.8%	6%	12%	293	71	41	36	74%	59%	57%	56%	150	1.3	46%
KAVIENG	0.0%	22%	10%	301	65	48	39	54%	56%	41%	64%	125	1.6	61%
National	2.3%	13%	8%	96	126	23	30	54%	41%	42%	59%	102	0.9	39%
Colour Key	Below National Avg				Above National Avg					Above 100%		National Avg Score		
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Indicator Type	Outcome						Output						Process	Input
Core Indicators	#1	#2	#3	#4	#6	#7	#8	#9a	#9b	#10	#11	#12	#21	#27
District	Pneumonia CFR	total maln	%LBW	Malaria/ 1000 popn	Incidence Diarrhoea	Injury/ 1000 popn	clinics/1000 ch<5yrs	measles vacc coverage	pentavalent vacc coverage	facility birth rate	%antenatal coverage 1 visit	adjusted CYP/1000WRA	op visits/person	% facility months with nil shortages
NAMATANAI	2.4%	18%	7%	495	231	66	29	62%	57%	52%	73%	110	2.1	48%
NIP	1.8%	20%	8%	407	156	58	34	58%	57%	47%	69%	117	1.9	54%
GAZELLE	0.4%	10%	6%	253	57	33	29	39%	44%	43%	59%	38	0.9	45%
KOKOPO	0.0%	4%	3%	152	75	42	30	51%	47%	61%	79%	87	1.1	35%
POMIO	1.8%	13%	8%	426	75	31	28	58%	50%	47%	76%	125	1.2	63%
RABAUL	7.7%	8%	12%	280	50	28	14	32%	32%	87%	33%	565	1.0	54%
ENBP	0.9%	9%	6%	265	64	34	28	45%	45%	52%	65%	134	1.0	51%
KANDRIAN-GLOUCESTER	1.8%	35%	4%	295	51	17	6	11%	7%	19%	59%	60	1.1	45%
TALASEA	0.9%	15%	5%	212	87	22	18	30%	41%	51%	77%	150	1.1	48%
WNBP	1.2%	17%	5%	237	76	21	15	24%	34%	41%	71%	123	1.1	47%
CENTRAL BOUGAINVILLE	0.0%	4%	6%	8	75	14	53	55%	42%	55%	73%	73	0.5	9%
NORTH BOUGANIVILLE	1.9%	5%	6%	15	55	15	46	33%	43%	68%	66%	45	0.5	27%
SOUTH BOUGAINVILLE	1.4%	5%	7%	3	66	14	42	43%	40%	50%	65%	41	0.6	29%
ARoB	1.4%	5%	6%	9	63	14	47	42%	41%	58%	67%	50	0.5	23%
National	2.3%	13%	8%	96	126	23	30	54%	41%	42%	59%	102	0.9	39%
Colour Key	Below National Avg				Above National Avg					Above 100%		National Avg Score		
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CONTACT

Performance, Monitoring & Research Branch,
National Department of Health, P. O. Box 807
Waigani, Papua New Guinea

Telephone: 301 3660/3650

PAPUA NEW GUINEA

National Department of Health