

## 03 Non-communicable diseases

Non-communicable diseases (NCDs) are a leading cause of illness and death worldwide, accounting for approximately 74% of global deaths annually.<sup>1</sup> NCDs include a large number of conditions which are non-infectious, progress slowly and require long-term or lifelong treatment and care. The burden of NCDs is highest in low- and middle-income countries, and includes conditions such as cardiovascular diseases, hypertension, chronic respiratory diseases, diabetes, cancers, and mental illness.

This chapter covers one indicator, namely cervical cancer screening coverage, which is used as a proxy measure for cancer detection and treatment.

### Cervical cancer screening coverage

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#### Key findings

- All provinces and districts had an increase in the cervical screening coverage in 2023/24. The national coverage was 40.5% reflecting a 19.1 percentage point increase compared to 2022/23.
- KwaZulu-Natal (KZ) province performed the best with a coverage of 72.3% and was the only province to reach the World Health Organization (WHO) cervical cancer screening coverage target of 70%.
- North West (NW) had the lowest coverage at 24.7% with one of its three districts obtaining a coverage above the national average.
- Thirty districts performed above the national average of 40.5%.
- Eight districts reached and exceeded the WHO coverage target of 70%; one from the Eastern Cape (EC) and seven from KwaZulu-Natal.
- The 2023/24 national coverage places the country closer to the pre-COVID-19 national cervical screening coverage reported in 2019/20 of 46.8%.
- The improvement in cervical cancer screening coverage nationally highlights opportunities for inter-provincial and district sharing of best practices to inform focused evidence-based interventions towards attainment of the WHO elimination targets for cervical cancer by 2030.

#### Introduction

Cervical cancer is a preventable form of cancer and can be treated or cured when detected in early stages, yet remains one of the leading causes of female mortality worldwide. Globally, cervical cancer accounts for 6.8% of all cancers reported in women and is ranked as the fourth most common cause of death in women, with an estimated 661 021 new cases and 348 189 deaths in 2022.<sup>2</sup> The highest burden of these cases (90%) occurred in low- and middle-income countries where limited access to human papilloma virus (HPV) vaccination and high quality screening and treatment options for women prevail.<sup>2</sup> Cervical cancer is caused by persistence of an infection from the HPV with the highest risk HPV genotypes, 16 and 18, accounting for approximately 70% of global cervical cancer cases.<sup>3</sup>

<sup>1</sup> World Health Organization. Non Communicable Diseases. Key Facts. WHO; 2023. URL: <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>

<sup>2</sup> Bray F, Laversanne M, Sung H, et al. Global cancer statistics 2022: GLOBCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin.* 2024;74(3):229263. URL: <https://doi.org/10.3322/caac.21834>

<sup>3</sup> UNITAID. Screening and treatment of precancerous lesions for secondary prevention of cervical cancer. Technology landscape report. 2024. URL: <https://unitaid.org/assets/Screening-and-treatment-of-precancerous-lesions-for-secondary-prevention-of-cervical-cancer-technology-landscape-report.pdf>

In South Africa, cervical cancer is ranked as the second most commonly diagnosed cancer and the leading cause of cancer deaths in women.<sup>4</sup> In 2022, 7 499 new cases of cervical cancer were reported, accounting for 16.4% of female cancer cases.<sup>4</sup> The age standardised incidence rate (ASIR) for cervical cancer was 23 per 100 000 women in 2022 compared to 19.63 per 100 000 women in 2021.<sup>4</sup> Cervical cancer remains the most common cancer diagnosed in black women with an ASIR of 26 per 100 000 women, contributing to 6 174 cases of all cervical cancer cases nationally.<sup>4</sup>

The WHO launched the Global Strategy to Accelerate Elimination of Cervical Cancer by 2030 in their response to address cervical cancer as a public health problem.<sup>5</sup> This comprehensive population-based strategy aims to put countries on a path to elimination to achieve the ambitious goal of an incidence rate of less than 4 per 100 000 women per year. This strategy emphasises the need for improved surveillance and monitoring of cervical cancer, with focused action across the continuum of care for impact. The WHO 90–70–90 targets for the three pillars of vaccination, screening, and treatment, to be attained by 2030 include:

- **Vaccination:** 90% of girls fully vaccinated with the HPV vaccine by age 15;
- **Screening:** 70% of women screened with a high-performance test at 35 years and again at 45 years;
- **Treatment:** 90% of women identified with cervical cancer disease to receive treatment, specifically:
  - 90% of women with pre-cancer symptoms are treated, and
  - 90% of women with invasive cancer are managed.

South Africa reported a persistently high ASIR for cervical cancer in 2022 (23 per 100 000 women), which was notably driven by the interplay between human immunodeficiency virus (HIV) and HPV infections.<sup>6</sup> Women living with HIV (WLHIV) face a six-fold higher relative risk of cervical cancer as compared to HIV negative women.<sup>7</sup> The 2017 National Department of Health Cervical Cancer Prevention and Control Policy advises that WLHIV are to be screened more often starting from diagnosis and then at three-year intervals. In October 2023, the National Department of Health released a mandate to transition to HPV Deoxyribonucleic acid (DNA) testing as the primary method for cervical screening at the primary health care level. This mandate changes the routine age for screening for WLHIV to start from 25 years if they have not been screened before. This method of screening, aligned to the 2017 policy, enables more accurate detection of high-risk HPV strains and early identification of women at risk of developing cervical cancer.

The data source for the cervical cancer coverage indicator is the District Health Information System (DHIS). The National Indicator Data Set (NIDS) defines cervical screening coverage as cervical smears in women 30 years and older as a proportion of the female population between 30–50 years. Eighty percent (80%) of these women should be screened for cervical cancer every 10 years and 20% must be screened every 3 years. This should be included in the denominator because it is estimated that 20% of women 20 years and older are HIV positive. The numerator is: [(Cervical cancer screening in non-HIV woman 30–50 years) + (Cervical cancer screening in HIV positive women 20 years and older) + (Cervical cancer screening 30 years and older) + (Cervical cancer screening in non-HIV woman 30 years and older)]. The denominator is: [(80% of women aged 30–59yrs/10) + (20% of women aged 20–59yrs/3) + (Cervical cancer screening of women 30 years and older)].<sup>8</sup>

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4 National Cancer Registry. Cancer in South Africa. 2022 Full Report. National Institute of Communicable Diseases; 2022. URL: <https://www.nicd.ac.za/centres/national-cancer-registry/>

5 World Health Organization. Global strategy to accelerate the elimination of cervical cancer as a public health problem. World Health Organization; 2020. URL: <https://www.who.int/publications/i/item/9789240014107>

6 Kawonga M. Leveraging implementation science for secondary prevention of cervical cancer in South Africa. S Afr Health Rev. 2024;26. URL: <https://doi.org/10.61473/001c.120636>

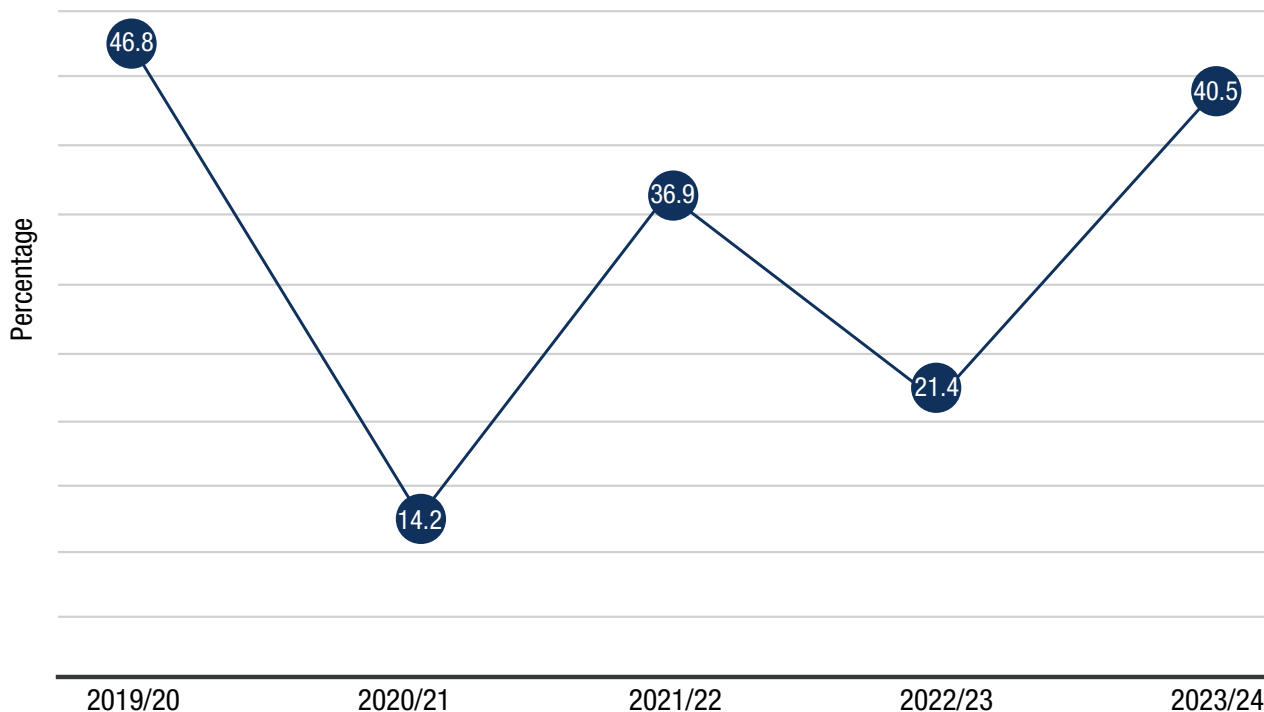
7 Sorbye SW, Falang BM, Botha MH, et al. Enhancing cervical cancer prevention in South African women: Primary HPV mRNA screening in different genotype combinations. Cancers. 2023;15:5453. URL: <https://www.mdpi.com/2072-6694/15/22/5453>

8 National Department of Health. National Indicator Data Set. 2023.



## National overview

The national average for cervical cancer screening coverage in 2023/24 was 40.5%, which was a 19.1 percentage point increase compared to the 2022/23 coverage. This is still lower than the WHO target of 70% and places the country closer but still below the pre-COVID-19 national coverage reported in 2019/20 of 46.8%. The increase in 2023/24 is indicative of improvements made to recover from the negative impact of the COVID-19 pandemic on routine primary health care services in South Africa.<sup>9</sup>



**Figure 1** National Cervical cancer screening coverage, 2019/20 – 2023/24

Source: DHIS

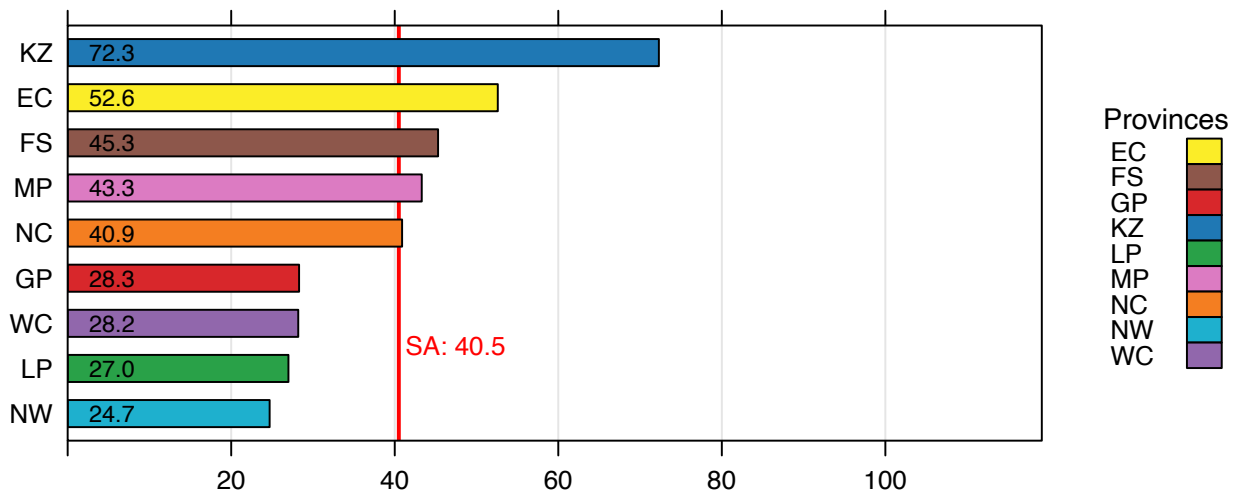
## Provincial overview

The cervical cancer screening coverage in five provinces exceeded the national average of 40.5% and four provinces fell significantly below the average (Figure 2).

KwaZulu-Natal (KZ) was the best performing province with a coverage of 72.3%, and the only province to reach the WHO target of 70% in 2023/24; a milestone achievement for the country. Eastern Cape (EC) was the second best performing province at 52.6% followed by the Free State (FS) at 45.3%. The cervical screening coverage in the North West (NW) was lowest at 24.7% followed by Limpopo (LP) at 27.0%.

All provinces had an increase in the cervical screening coverage compared to 2022/23; the highest increase was in KZ with 33.4 percentage points followed by the Northern Cape (NC) with 31.3 percentage points. Northern Cape, the lowest ranking province over the four-year period since 2020/21 had a marked improvement in the cervical screening coverage from 5.1% to 40.9% in 2023/24 (Table 1).

<sup>9</sup> Pillay Y, Pienaar S, Barron P, et al. Impact of COVID-19 on routine primary health care services in South Africa. *S Afr Med J*. 2021; 111(8):714-719. URL: <https://doi.org/10.7196/SAMJ.2021.v111i8.15786>

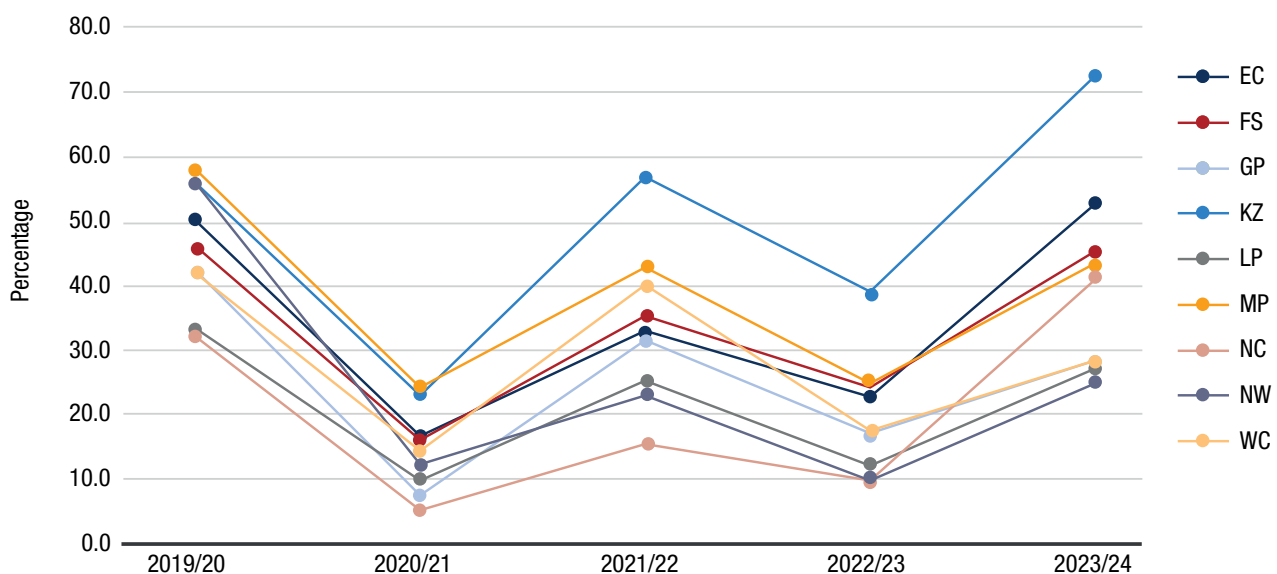


**Figure 2** Cervical screening coverage by province, 2023/24

Source: DHIS

**Table 1** Cervical cancer screening coverage by province, 2019/20 – 2023/24 (%)

PROVINCE	2019/20	2020/21	2021/22	2022/23	2023/24	PERCENTAGE POINT DIFFERENCE BETWEEN 2022/23 AND 2023/24
Eastern Cape	50.0	16.5	32.9	22.7	52.6	29.9
Free State	46.0	16.0	35.2	24.0	45.3	21.3
Gauteng	42.2	7.3	31.4	16.9	28.3	11.4
KwaZulu-Natal	55.9	22.9	56.8	38.9	72.3	33.4
Limpopo	33.3	9.7	25.1	12.0	27.0	15.0
Mpumalanga	57.9	24.2	42.7	24.7	43.3	18.6
Northern Cape	32.0	5.1	15.3	9.6	40.9	31.3
North West	55.9	12.2	22.8	9.7	24.7	15.0
Western Cape	41.8	14.2	40.0	17.4	28.2	10.8



**Figure 3** Cervical cancer screening coverage by province, 2019/20 – 2023/24

Source: DHIS



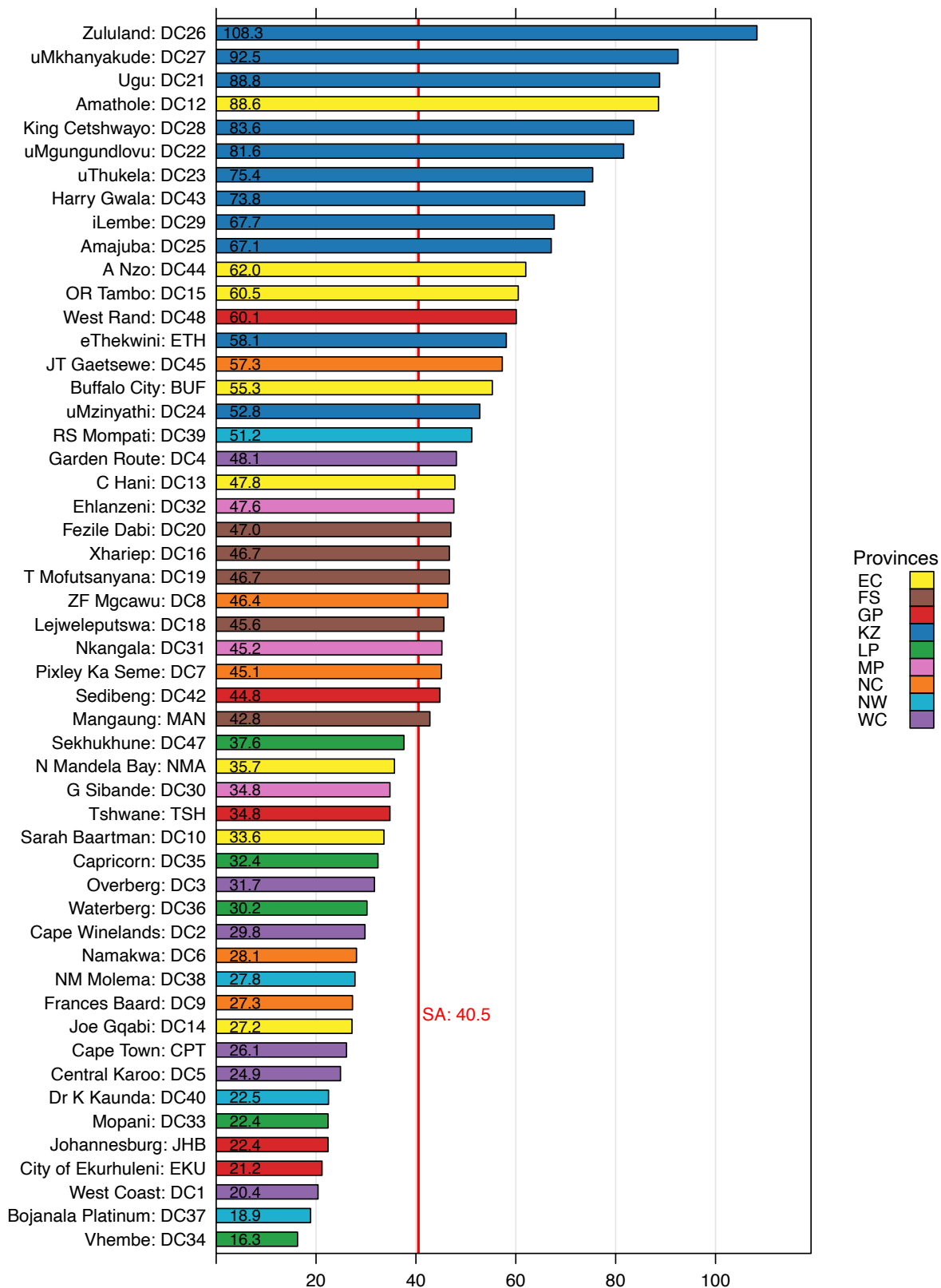
The cervical cancer screening coverage improved significantly in 2023/24 compared to 2022/23. Leading provinces were consulted to share insights into priority activities and interventions undertaken to strengthen their programmes. Feedback from the provinces highlights the following:

- Raising awareness about early cervical cancer screening at both facility and community levels results in a greater number of women being empowered and taking proactive measures in seeking screening services.
- Integrating cervical screening services into existing sexual and reproductive health and antenatal care services ensures all eligible women are screened at entry points at primary care level.
- Regular and proactive screening of WLHIV as part of their comprehensive and holistic treatment plan improves coverage.
- Using liquid-based cytology (LBC) for Papanicolaou (Pap) smears as the primary screening method improves the adequacy rate of Pap smears.
- Setting daily targets for clinicians performing Pap smears and regular monitoring of targets to prioritise cervical cancer screening at facility level.
- Capacity strengthening of health care cadres across priority health programmes on cervical cancer screening.

## District overview

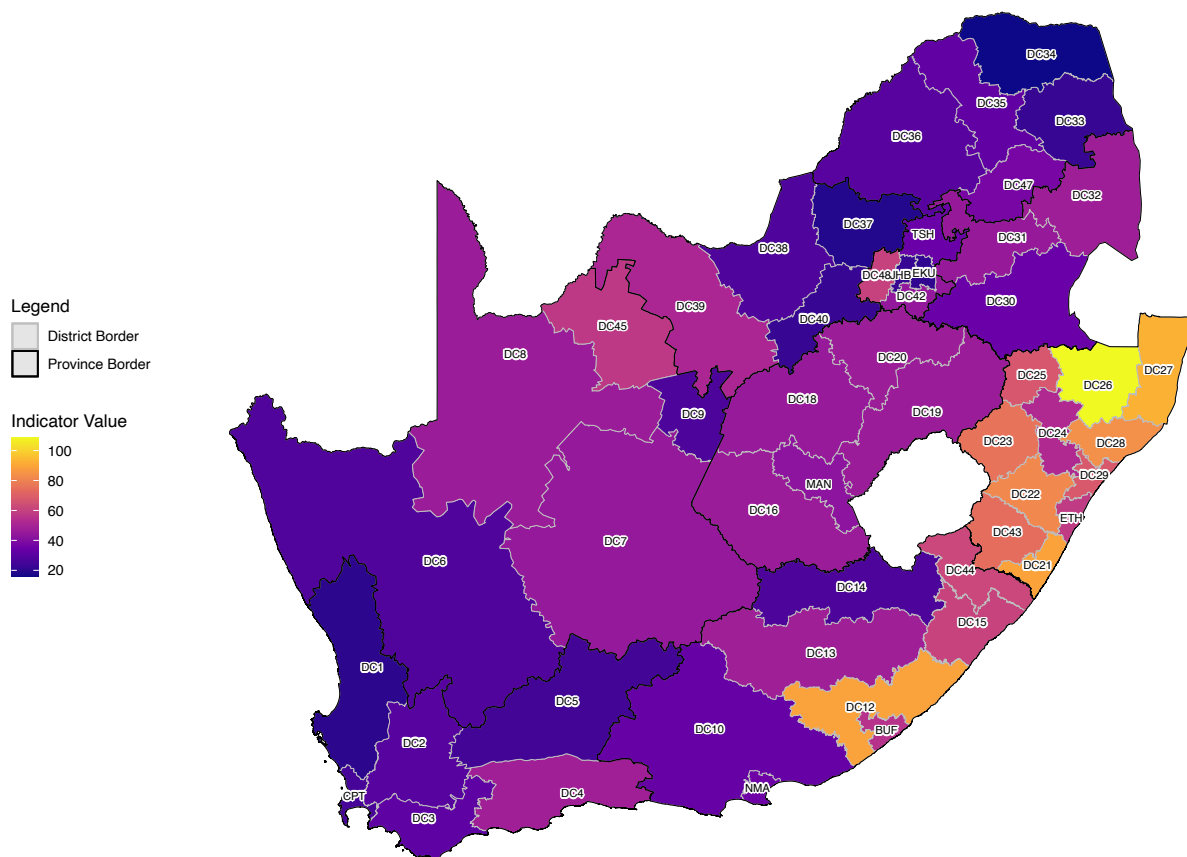
The cervical cancer screening coverage among districts shows a 6.6-fold variation between Vhembe in Limpopo with the lowest coverage at 16.3% and Zululand in KZ with the highest coverage of 108.3% (Figure 4 and Map 1). A coverage above 100% in Zululand may be indicative of data challenges including an underestimation in the denominator. Thirty districts (57.7%) performed above the national average of 40.5%. In KZ, nine of the 11 districts were ranked among the top ten performing districts with seven districts reaching and exceeding the WHO target of 70%. In EC five of the eight districts performed above the national average with Amathole exceeding the WHO target at 88.5%, placing the province second best in provincial performance. This is a milestone achievement for KZ and Eastern Cape provinces and highlights the need for benchmarking across districts to inform evidence-based interventions for scaling-up cervical cancer screening and treatment. All five districts in the FS province performed above the national average.

Among the ten lowest ranking districts were three districts in the WC (West Coast, 20.4%), (Central Karoo, 24.9%) and (Cape Town, 26.1%), two in LP (Vhembe, 16.3%) and (Mopani, 22.4%), two in GP (City of Ekurhuleni, 21.2%) and (City of Johannesburg, 22.4%), two in the NW (Bojanala Platinum, 18.9%) and (Dr Kenneth Kaunda, 22.5%) and one in EC (Joe Gqabi, 27.2%).



**Figure 4** Cervical cancer screening coverage by district, 2023/24

Source: DHIS



**MAP 1** Cervical cancer screening coverage by district, 2023/24

Source: DHIS

Table 2 shows the cervical cancer screening coverage by district between 2019/20 and 2023/24. All districts (n=52) had an increase in the cervical cancer screening coverage in 2023/24 compared to the coverage in 11 districts in 2022/23. The average percentage point increase for districts was 24.1 with the highest increase in Amatole (EC) with 53.8 percentage points, followed by King Cetshwayo and Zululand (both in KZ) with 51.3 and 50.4 percentage points respectively. Among districts with the lowest increase in the cervical cancer screening coverage were City of Ekurhuleni (GP), Vhembe (LP), Cape Town (WC) and Bojanala Platinum (NW) with increases of 6.4, 7.5, 9.3 and 9.6 percentage points respectively.

**Table 2** Cervical cancer screening coverage by district, 2019/10 – 2023/24 (%)

PROVINCE	DISTRICT	2019/20	2020/21	2021/22	2022/23	2023/24	PERCENTAGE POINT DIFFERENCE BETWEEN 2022/23 AND 2023/24
Eastern Cape	A Nzo	45.7	24.3	16.7	24.6	62.0	37.4
	Amathole	56.4	28.6	31.0	34.8	88.6	53.8
	Buffalo City	59.8	16.9	18.3	25.0	55.3	30.3
	C Hani	52.0	24.2	22.3	27.9	47.8	19.9
	Joe Gqabi	57.5	19.1	13.7	15.7	27.2	11.5
	N Mandela Bay	38.0	5.4	6.3	8.6	35.7	27.1
	OR Tambo	53.5	15.7	22.0	29.8	60.5	30.7
	Sarah Baartman	43.5	11.2	11.0	17.5	33.6	16.1
Free State	Fezile Dabi	50.5	16.9	17.6	21.0	47.0	26.0
	Lejweleputswa	46.4	9.2	16.7	19.9	45.6	25.7
	Mangaung	39.2	15.1	22.5	21.5	42.8	21.3
	T Mofutsanyana	48.8	20.2	25.5	32.8	46.7	13.9
	Xhariep	55.1	29.1	22.9	20.5	46.7	26.2

<b>Gauteng</b>	City of Ekurhuleni	45.0	6.7	12.9	14.8	21.2	6.4
	Johannesburg	35.9	5.0	11.3	11.1	22.4	11.3
	Sedibeng	45.3	9.5	20.6	26.6	44.8	18.2
	Tshwane	44.3	8.5	16.0	21.4	34.8	13.4
	West Rand	55.3	18.1	29.1	40.3	60.1	19.8
<b>KwaZulu-Natal</b>	Amajuba	50.8	18.3	25.2	29.9	67.1	37.2
	eThekweni	47.2	18.1	29.1	34.3	58.1	23.8
	Harry Gwala	80.9	27.1	38.2	37.9	73.8	35.9
	iLembe	61.7	22.2	34.9	35.4	67.7	32.3
	King Cetshwayo	61.3	17.5	27.1	32.3	83.6	51.3
	Ugu	49.6	25.8	33.0	40.9	88.8	47.9
	uMgungundlovu	61.0	30.3	35.9	45.5	81.6	36.1
	uMkhanyakude	66.9	28.0	41.0	48.3	92.5	44.2
	uMzinyathi	63.3	18.6	20.2	22.3	52.8	30.5
	uThukela	50.5	36.4	61.4	59.4	75.4	16.0
Zululand	61.9	30.6	46.4	57.9	108.3	50.4	
<b>Limpopo</b>	Capricorn	28.1	8.6	7.3	11.4	32.4	21.0
	Mopani	38.3	12.8	7.8	12.3	22.4	10.1
	Sekhukhune	30.7	10.5	8.8	12.5	37.6	25.1
	Vhembe	31.6	5.9	5.0	8.8	16.3	7.5
	Waterberg	43.7	12.5	13.8	18.2	30.2	12.0
<b>Mpumalanga</b>	Ehlanzeni	58.7	24.6	28.1	29.0	47.6	18.6
	G Sibande	63.8	30.8	29.1	21.3	34.8	13.5
	Nkangala	52.0	18.8	24.4	22.6	45.2	22.6
<b>Northern Cape</b>	Frances Baard	30.3	4.5	4.3	8.1	27.3	19.2
	JT Gaetsewe	35.5	5.7	5.4	12.9	57.3	44.4
	Namakwa	35.1	5.6	4.9	5.3	28.1	22.8
	Pixley Ka Seme	32.8	5.4	6.7	14.0	45.1	31.1
	ZF Mgcawu	30.3	5.0	4.6	7.4	46.4	39.0
<b>North West</b>	Bojanala Platinum	54.1	9.3	10.1	9.3	18.9	9.6
	Dr K Kaunda	62.4	15.8	12.5	9.0	22.5	13.5
	NM Molema	57.7	15.0	10.5	8.3	27.8	19.5
	Dr RS Mompoti	49.1	12.5	12.1	15.6	51.2	35.6
<b>Western Cape</b>	Cape Town	39.1	13.9	20.7	16.8	26.1	9.3
	Cape Winelands	40.8	12.4	18.8	16.0	29.8	13.8
	Central Karoo	68.8	10.6	13.0	13.7	24.9	11.2
	Garden Route	59.2	24.3	26.1	29.1	48.1	19.0
	Overberg	52.1	11.5	18.8	20.9	31.7	10.8
	West Coast	33.2	9.6	11.5	10.0	20.4	10.4

Source: DHIS



## Recommendations

- Use existing platforms and develop networks for sharing lessons and good practices within and across districts and provinces for scaling-up focused interventions towards meeting the 2030 WHO elimination targets.
- Apply capacity building models for undertaking implementation science research to inform evidence-based cervical cancer services nationally.
- Increase and sustain efforts to raise awareness of cervical cancer screening among under-screened populations through the use of culturally relevant communication approaches.
- Leverage HPV vaccination campaigns as an opportunity to educate young women about comprehensive cervical cancer prevention, including the need for regular screening.
- Transition fully to HPV DNA testing for cervical cancer screening to enable more accurate detection of high-risk HPV strains.
- Review the NIDS for inclusion of additional data elements for monitoring the entire treatment cascade for cervical cancer.
- Implement quality improvement processes at various levels, i.e., facility, district, and sub-district/local municipalities to address barriers in the cervical cancer prevention and treatment programmes.

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