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(REVIEW ARTICLE)

Reflection on performance health indicators of the Free State Department of Health in comparison with North West, Northern Cape, Western Cape and Gauteng Provinces of South Africa

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Abstract

Performance health indicators (PHIs) are a vehicle designed to improve the health outcomes. International bodies advocate for the public health system to be embedded with monitoring and evaluation mechanisms for full realisation of *health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity* [1]. In recognising that public health sector relies on government funding, health performance indicators become imperative for ensuring stewardship of the resources and meeting its constitutional mandate. This review compares the Free State Department of Health with four other provinces namely North West, Northern Cape, Western Cape and Gauteng of South Africa on selective performance indicators for improved health outcomes [2]. The review found that the Free State Department of Health has shortcomings on some of the PHIs, hence recommendations are made for it to fulfil and exceed its set performance targets.

Keywords: Performance health indicators; Health Outcomes; Oversight, Free State Department of Health, South Africa

1. Introduction

In pursuit of improving the health outcomes, the health system has prescribed periodic assessments of PHIs on the public health sector. The PHIs serve twofold objectives namely; to justify the incremental annual allocation and to raise the red flag where set targets are not being met [2]. PHIs also help the public sector to develop specific, measurable, attainable, realistic and timely (smart) targets, hence periodic reviews are conducted to ascertain the outcome. Globally health systems ought to have performance indicators in order to improve its response to the burden of disease [3]. Another objective for performance indicators is to enhance the oversight bodies such as the legislature in relation to public health. This review compares the Free State Department of Health with North West, Northern Cape, Western Cape and Gauteng on selective PHIs for improved health outcomes.

2. Health performance indicators

This section reviews carefully selected PHIs for the Free State Department of Health and compares it with North West, Northern Cape, Western Cape and Gauteng on selective performance indicators.

2.1. Immunisation coverage under 1 year

The most recognisable scientific intervention in prevention of illnesses is to ensure that immunisation coverage is properly administered particularly among children. Immunisation among children against measles has been one of the targets used in monitoring progress towards achieving Millennium Development Goal 4 [4]. The average vaccine expenditure in South Africa during 2014/15 was R1 148 per child under 1 year. Key to a successful immunisation

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programme is a deliberative commitment that ensures all children, including and especially the most vulnerable children, receive all routine immunisations [4]. Below are key immunisations administered to children under 1 year.

- At birth: OPV (oral polio vaccine) (0), BCG (bacille Calmette-Guérin) vaccine;
- 6 weeks: OPV (1), Pentavalent vaccine (1), Hepatitis B vaccine (1), b RV (Rotavirus vaccine;
- 10 weeks: Pentavalent vaccine (2), Hepatitis B vaccine (2);
- 14 weeks: Pentavalent vaccine (3), Hepatitis B vaccine (3), RV (2), PCV (2); and
- 9 months: Measles vaccine (1), PCV (3).

In 2014/15, the immunisation under 1-year coverage for South Africa was 89.8% which shows a decrease from national target of 95%. Below is table 1 which shows how the Province of the Free State performed in this indicator when compared to its sister provinces [4].

Table 1 Immunisation coverage under 1 year in 2014/15

	2014/15	**2013/14**
Free State	90.1	86.6
Gauteng	107.7	109.0
Northern Cape	85.4	84.9
North West	82.1	74.2
Western Cape	90.9	84.9

In reference to table 1 Gauteng excelled in the immunisation coverage under 1 year followed by the Western Cape. The Free State fell short of reaching the national target of 95%. The decline in coverage indicates that there is a challenge that requires investigation to ensure that all children are afforded with immunisations to strengthen their immune system against illnesses.

2.2. Primary health care management/supervision

Primary health care (PHC) management is defined as "a process during which managers in higher levels of a health system (e.g. district) interact with peripheral health care workers to monitor work processes, understand the causes of problems and provide possible solutions, as well as general management to improve operations, clinical direction, review guidelines, and provide approaches to effective service delivery, including patient safety, treatment and health promotion" [2]. The PHC Management is a cardinal indicator because it fosters mutual rapport between the lower and higher structure of health systems in South Africa. It is also a solution driven indicator as it identify bottlenecks and resolve them.

It also rates the number of fixed PHC facilities, including community health centres (CHCs) and community day centres (CDCs) (thereafter health establishments), visited by a clinical supervisor at least once a month, as a proportion of the total number of fixed PHC facilities visited. Accordingly, all health establishment should be visited by a clinic supervisor once a month mainly for key objectives of strengthening health outcomes at clinic level and ensuring that service delivery is effective and accessible to members of the public [2].

In 2014/15 financial year, the national PHC indicator for health establishments remained unchanged when compared to the previous financial year 2013/14 at 73.5% [2, 3]. However, it is noticeable that the number of health establishments visited per province differs extensively, which indicates a challenge by the province to meet this indicator. Figure [1] hereunder, compares the Free State's performance in PHC Management indicator with North West, Northern Cape and Western Cape and Gauteng provinces.

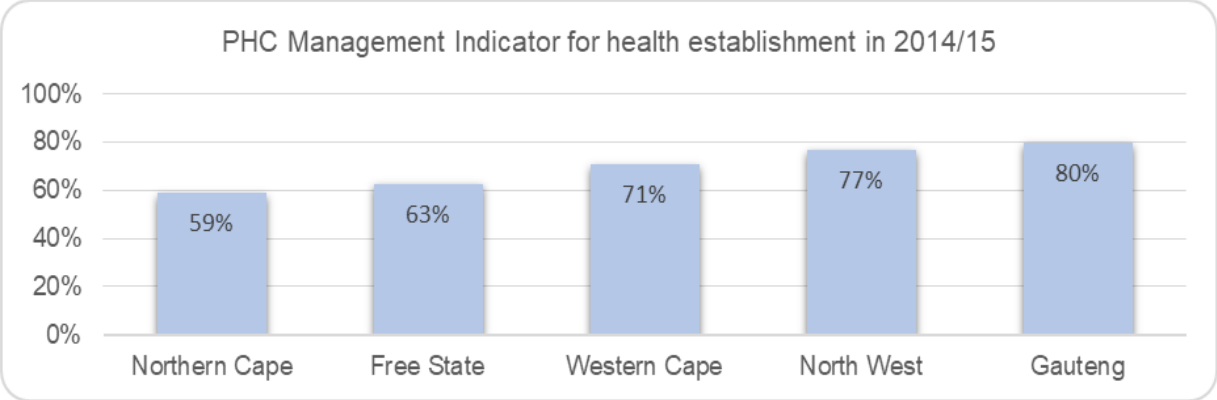


Figure 1 PHC Management Indicator for Health Establishment in 2014/15

Source. Dombo, (2015).

In respect to figure [1], the national average performance which all provinces had to meet or exceed was 73.5%, which was exceeded by the Gauteng and North West by 80% and 76% respectively [3, 4]. The Free State province as reflected in figure 2 only managed to cover about 63% of its health establishments. The failure by the province to meet this target, suggests that the health-related challenges faced by health officials in health establishments remained unresolved as this performance indicator was compromised. This shortfall also denotes that the challenges patients/communities had the delivery of health services was not attended to by the senior district health personnel.

Provinces that did not meet the set national target for coverage of health establishment for this performance indicator, like Free State attributed the following reasons for the failure [4].

- Failure to adhere to planned roaster by PHC supervisors;
- Shortage of transport due to shortage of government vehicles; and
- Shortage of PHC supervisors compared to many health establishments.

2.3. Average length of stay in district hospitals

The average length of stay is one of the essential performance indicators in the health sector because it ascertains the extent to which the district hospitals kept the patients in their facilities for treatment purposes. The average length of stay (ALOS) refers to the period/time/days the patient is kept in hospital [4, 5].

In 2014/15, the national average of stay was 4.6 days, which means that district hospitals were not expected to keep patients more than 4.6 days. However, during the year under review, the provincial pattern shows that Free State had the lowest ALOS (3.16 days) compared to other provinces like North West, which exceeded the national average to 4.71 days [6, 7]. Figure [2] depicts the provincial performance in this important indicator:

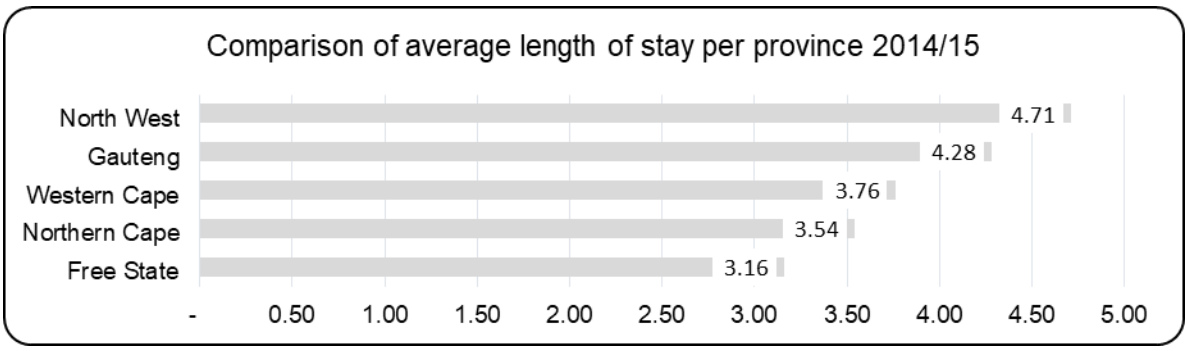


Figure 2 Comparison of the average length of stay per province 2014/15

Source. Dombo M. (2015).

Pursuant to figure [2], the following are raised as reasons for failure to meet the ALOS [4].

- Shortage of doctors, leads to a lack of regular ward rounds, which result in inappropriate patient management, such as patients not being discharged or transferred; and
- Some district hospitals have inadequate medical laboratories, which forces patients to stay in hospital until results are available from distanced laboratories; and
- A high ALOS is also caused by data quality issues such as undercount of the number of discharges, which results in a false elevation.

2.4. Inpatient crude death rate (ICDR)

This is one of the key indicators that focuses on deaths from all causes that occur in a health facility. It is important because it highlights how provinces play their part in preventing death and prolonging quality of life for patients [7]. This indicator also helps with appreciating the provinces that have significant death rate, which symbolises two things firstly, weakness in the concerned health establishment/s to provide adequate health care service to patients and secondly a call by health establishments to higher sphere of health for support to improve patient management. The provinces that require special attention are those that depict significant proportion of deaths compared to the national rate [7, 8]. On the other hand, the provinces with lowest ICDR are looked at as a model for other provinces to emulate. It is argued that the ICDR is generally lowest in the least deprived districts and higher in the most deprived, which demonstrates the need for provinces to ensure equity in their allocation of resources including human capital for optimal service delivery. Figure [3] compares the Free State province with others in respect of ICDR.

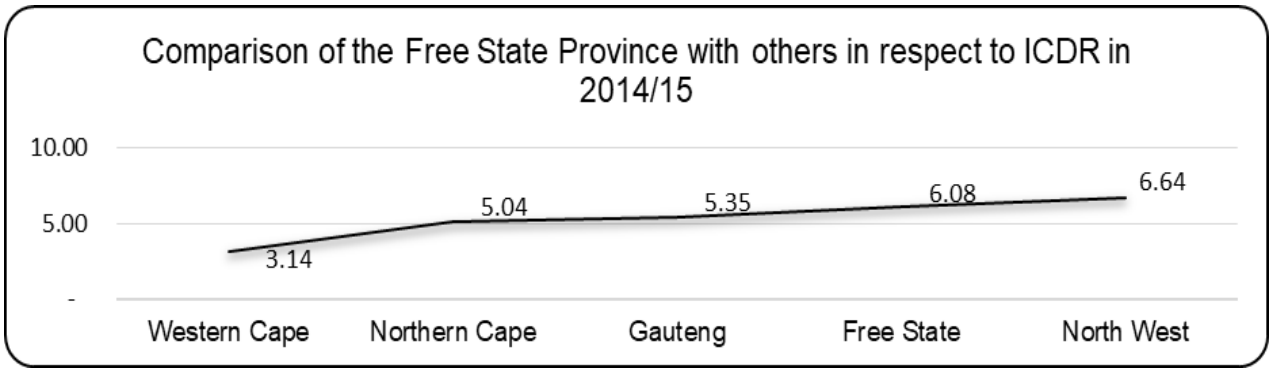


Figure 3 Comparison of the Free State province with other in respect to ICDR in 2014/15

Source. Dombo, (2015).

Figure [3] above shows that during the year under review, the Western Cape performed well amongst the provinces in terms of decreasing the proportion of mortality in hospitals [9, 10]. When considering the national average of 5.2% against 3.14, it demonstrates that the Western Cape did far better. While Western Cape excelled, the Free State and North West performed poorly in this indicator with 6.08 and 6.64 of ICDR respectively in 2014/15. The implication of this gross failure to contain conditions that lead to increased death rate require concerted effort and other special intervention to ensure that under-performance and loss of life are prevented.

2.5. Child under 5 years diarrhoea case fatality rate (CFR)

The National Development Plan envisions for the reduction in under-5 child mortality rate to at least 30 per 1 000 live births by 2030. This objective is well-aligned with Goal 3 of the Sustainable Development Goals, which focuses on "ensuring healthy lives and promoting wellbeing for all at all ages" [8]. South Africa has observed the steady decline of child mortality under 5 years for diarrhoea CFR since 2006/07 [9]. This decline is continuing, with a national rate of 3.3% being reported during 2014/15, which is in line with the national target of less than 3.5%. Figure [4] shows the provincial performance in reducing the Child under 5 year diarrhoea case fatality rate (CFR).

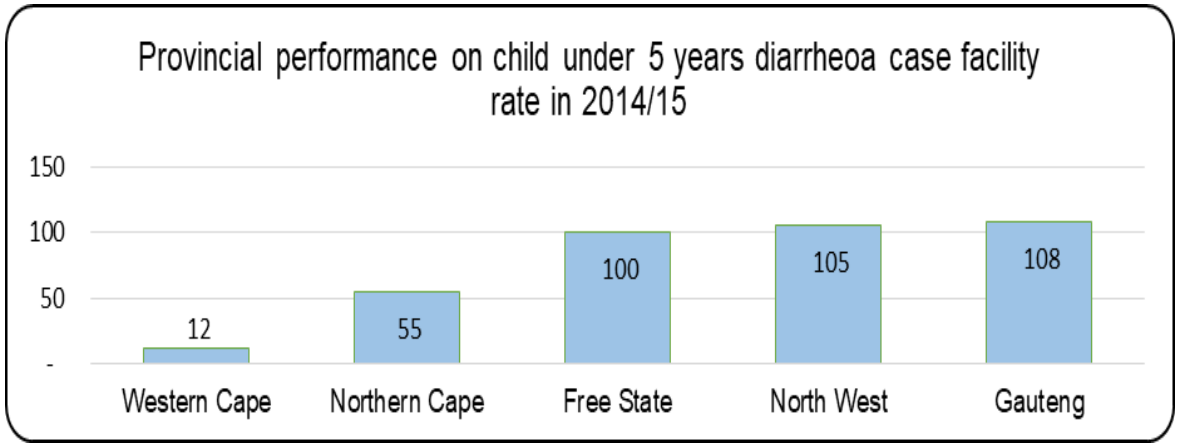


Figure 4 Provincial performance on child under 5 years diarrhoea case facility rate in 2014/15

Source. Bamford, (2015).

In relation to figure [4], the Western Cape had only 12 deaths out of 7704 admissions, while Free State had 55 deaths out of 1 618 admissions. All these provinces did not exceed the national average but the Western Cape put stringent measures in place to mitigate unnecessary deaths. It shows that other provinces can strengthen their interventions to ensure that the overall objective of child survival target to end preventable deaths of new-born and under-5 children by 2030 is realized.

2.6. Maternal mortality in facility ratio

Feminist movements and human rights activists have lamented the existence of maternal mortality rate and urged governments to do all possible to prevent it [13]. On the other hand, Goldman and Hatch define *maternal death as a death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management* [13, 14]. Given this context, the maternal mortality ratio (MMR) refers to the number of maternal deaths per 100 000 live births. In 2014/15, there was a marginal decrease in the national institutional MMR (iMMR) from 133.3 to 132.5 deaths per 100 000 live births [6]. Figure [5] depicts the iMMR in facility ratio by province in 2014/15.

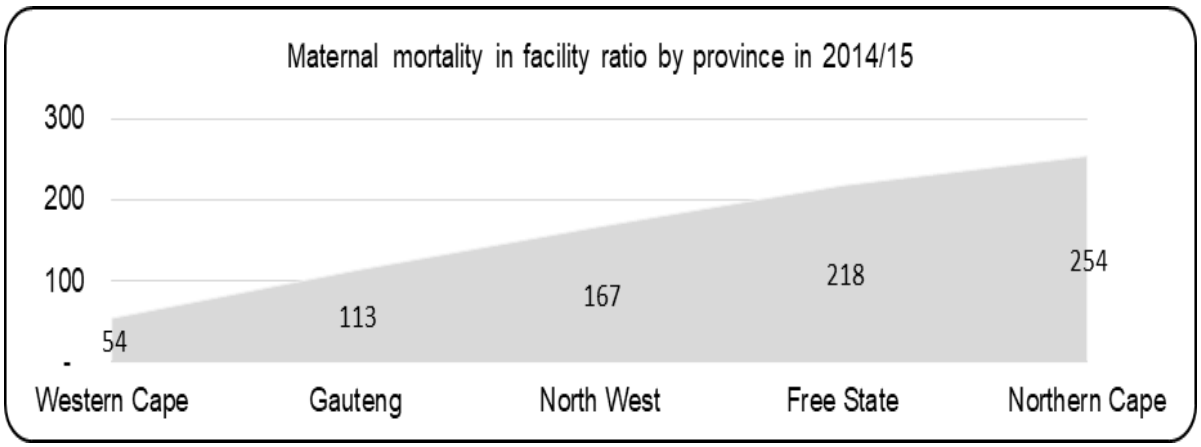


Figure 5 Maternal mortality ratio in facility ratio by province in 2014/15

Source. Bamford, (2015).

In respect to figure [5], the Western Cape had only 54 maternal deaths followed by Gauteng with 113. The Free State had 218 maternal deaths while Northern Cape had 254. Just like in the previous indicator, the Western Cape demonstrated the ability to mitigate the child deaths from diarrhoea. Even on this indicator, the Western Cape leads with minimal maternal deaths while Free State and Norther Cape require more intervention to cease maternal deaths.

The argument raised for Gauteng is that it has more population, strained human capital and inadequate infrastructure compared to Western, which has less population hence the number of deaths in its facilities is less alarming.

3. Comparison of the Districts Health in Free State on selected performance indicators

This section is inward based as it compares the five districts in the province on four selected performance indicators namely; male condom distribution coverage, cervical cancer screening rate, HIV prevalence in the province and teenage pregnancy.

3.1. Male condom distribution coverage

In the advent of teenage pregnancy and proportion of sexually transmitted infections (STIs), such as HIV, the Department of Health decided to provide male condoms as a control measure. The male condom distribution coverage refers to the number of male condoms distributed through public health facilities, identified outlets and other non-medical sites in a given 12-month period per male aged 15 years and older [10]. Condoms are regarded as a critical component in prevention of teenage pregnancy, STIs and HIV [10, 11]. Figure [6], demonstrates the extent of male condom distributed in the districts of the Free State.

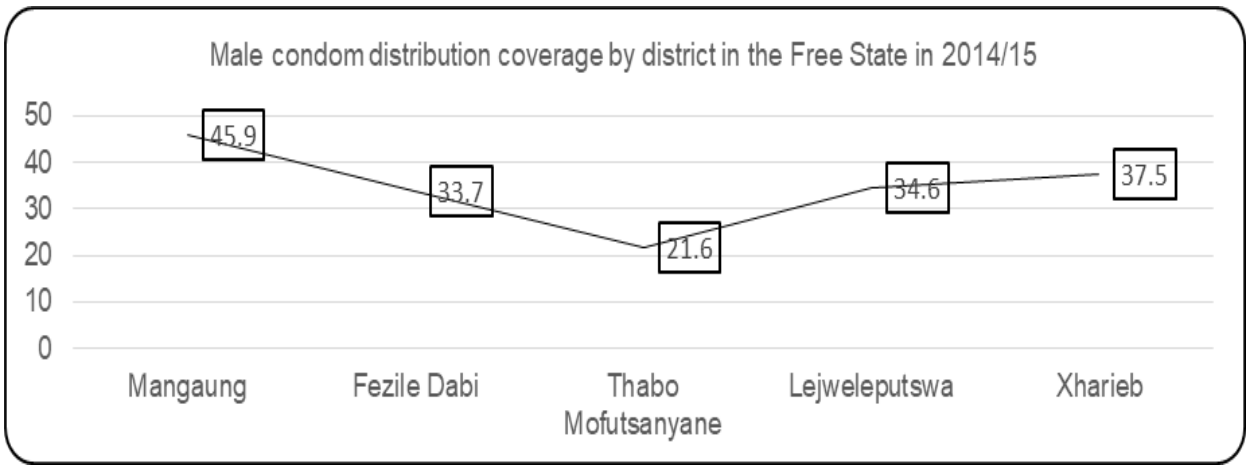


Figure 6 Male condom distribution by district in the Free State in 2014/15

Source. Peer, Bamford and Barron, (2015).

Figure [6] shows that Mangaung performed better in this indicator when compared to other sister districts in the province. Its performance is highest at 45,9 when compared to Thabo Mofutsanyane which only performed the lowest at 21,6. It is also recognised that for every 500 condoms distributed, one new HIV infection is averted, it is therefore critical for all districts to increase distribution for maximum coverage.

3.2. Cervical cancer screening coverage rate

The cervical cancer screening coverage measures the annual number of cervical smears taken from women who are 30 years and older as a proportion of this cohort of population [3, 10]. Screening coverage of 100% per year means that every woman in the eligible age group is screened once in 10 years. This is in keeping with the national policy, which states that women should have three cervical smears done at 10-yearly intervals starting at the age of 30 year. Moreover, the department of Health has introduced the human papillomavirus (HPV) vaccine which, is administered to school girls at Grade 4 (around 9–10 years of age). The HPV vaccine is scientifically proven to significantly reduce the incidences of cervical cancer over among young women hence it is advocated for use in many countries as a prevention measure. [13, 14]. Hereunder is figure [7], which shows the cervical cancer screening coverage rate in Free State health districts.

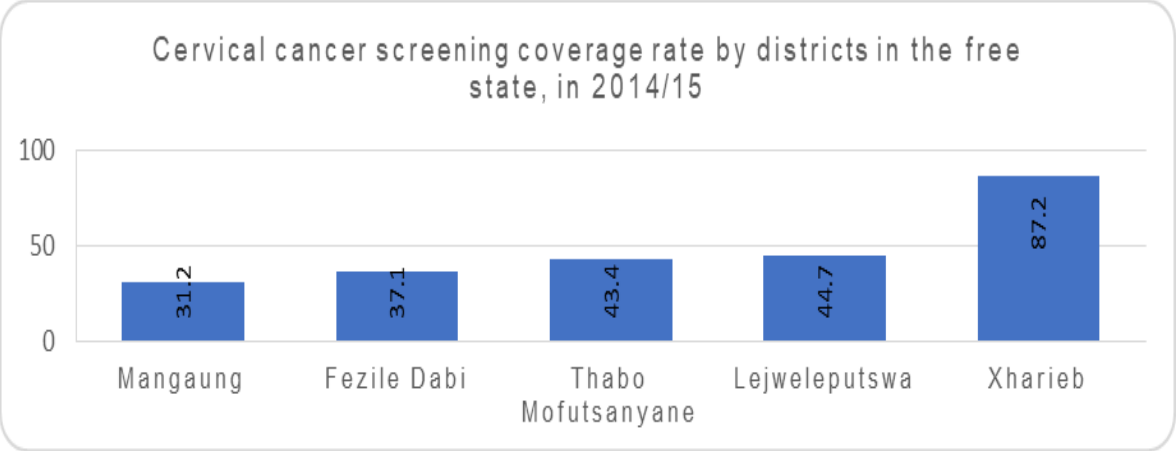


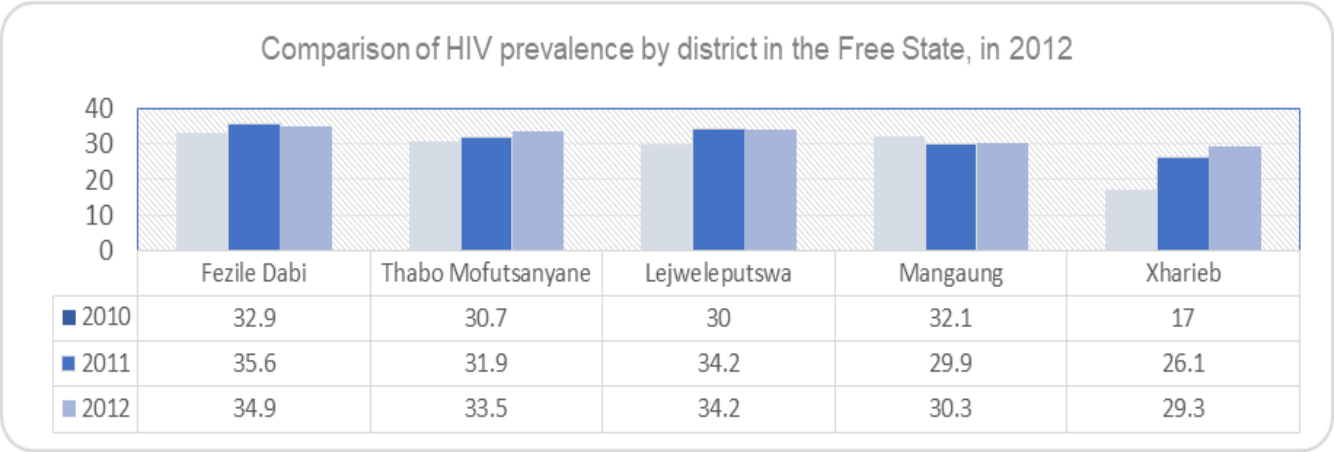
Figure 7 Cervical cancer screening coverage per districts in the Free State

Source. Peer, Bamford and Barron (2015).

Figure [7] shows a considerable variation between Mangaung's lowest coverage of 31,2 compared to Xharieb with highest coverage of 87,2%. It is difficult to deduct the reason for Mangaung's poor performance in this indicator considering that it is densely populated and have more health establishments compared to Xharieb. For meeting the national and global commitments, it is essential for districts to be innovative with their limited resources to stimulate coverage.

3.3. HIV prevalence in the Province

HIV continues to be a health and socio-economic conundrum that South Africa and the international community confront [14]. Though, HIV has been there for more than 4 decades, the trends of HIV prevalence in the Free State's districts display an upsurge. Four of the five districts in the province recorded an HIV prevalence of above 30%, which is more than the results found in 2011 [14]. Figure [8], below compares the districts performance to HIV prevalence:



	Fezile Dabi	Thabo Mofutsanyane	Lejweleputswa	Mangaung	Xharieb
2010	32.9	30.7	30	32.1	17
2011	35.6	31.9	34.2	29.9	26.1
2012	34.9	33.5	34.2	30.3	29.3

Figure 8 Comparison of HIV prevalence by districts in the Free State

Source. Peer, Bamford and Barron, (2015).

As reflected above, Xhariep District recorded a slightly lower prevalence at 29.3% which is itself an increase of 12% from 17.0% in 2010. Thabo Mofutsanyane reported an increase from 30.7% in 2010, 31.9% in 2011 to 33.5% in 2012. In 3 consecutive years (2010, 2011 and 2012) Mangaung hovers around 32.1, 29.9 and 30.3 which indicates a greater concern of HIV infection in this district.

3.4. Teenage pregnancy

Teenage pregnancy in the Free State was estimated at 53.6% of the 2837 learners in 2012 [12]. This indicates that teenage pregnancy continues to be a serious health and socioeconomic challenge that derail the interventions to manager and cease the spread of HIV [15, 16]. The significance of teenage pregnancy is of raising a concern of sexual infections including HIV among the teenagers, which compromise the family setup [17]. Given the stated interrelated implications of teenage pregnancy, it is essential for measures to be strengthened to protect teenagers from falling pregnant. Another teenage pregnancy implication is that it burdens the department's budget unlike when patients consult for family planning [17].

4. Conclusion

All PHIs reviewed in this paper are essential in the provision of health care services. They are important because they propel the public health sector to excel in its mandate, while on the other hand it enhances the delivery of services to the public. The shortcomings on these health indicators by the Free State Department of Health requires various interventions to ensure that set targets are not only met but exceeded for the benefit health beneficiaries. Three specific interventions may be considered include such as procurement of adequate equipment such as vehicles for health professionals to perform their functions. Another recommendation that may be considered is that of investing on human resources for health for long term supply of health professionals. Lastly, the Free State Department of Health may consider coordinating targeted virtual forums among districts to share best practices and stimulate innovation to meet set targets.

Compliance with ethical standards

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Disclosure of conflict of interest

No known conflict of interest that could have influenced this manuscript.

References

[1] Binns C and Low W. (2015). What Is Public Health? Asia-Pacific Journal of Public Health, 27(1), 5-6.

[2] Malakoane B, Heunis JC, Chikobvu P, Kigozi, NG and Kruger WH. (2020). Public health system challenges in the Free State, South Africa: A situation appraisal to inform health system strengthening. BMC Health Serv Res, 20, 58.

[3] Peer N, Bamford L and Barron P. (2015). Management inpatients. In Massyn N, Peer N, Padarath A, Barron P, Day C. (Editors), Health Systems Trust (2015) District Health Barometer 2014/15. Durban, 26-66.

[4] Bamford L. (2015). Immunisation. In Massyn N, Peer N, Padarath A, Barron P, Day C. (Editors), Health Systems Trust (2015) District Health Barometer 2014/15. Durban, 128-139.

[5] United Nations Development Programme. (2016). Sustainable Development Goals: Background to the goals. New York, United States

[6] Dombo M. (2015). PHC Management. In Massyn N, Peer N, Padarath A, Barron P, Day C. (Editors), Health Systems Trust (2015) District Health Barometer 2014/15. Durban, 21-25

[7] Kara R and Maharaj P. (2015). Childbearing among young people in South Africa: Findings from the National Income Dynamics Study. S Afr J Demogr ,16(1), 57-85.

[8] Statistics South Africa. (2016). Quarterly Labour Force Survey. Pretoria, South Africa.

[9] Moodley R. (ed). (2020). National development Plan 2030 In-South African Government News Agency (2015). Pretoria, South Africa

[10] Van der Merwe M. (2015). Maternal mortality: Breaking avoidable barriers to healthcare. Cape Town, South Africa.

[11] Amoo EO, Igbinoba AO, Imhonopi D, et al. (2017). Trends, drivers and health risks of adolescent fatherhood in sub-Saharan Africa. Ethiopian Journal Health Sciences, 28(4), 433–442.

[12] Loaiza E and Liang M. (2013). Adolescent pregnancy: A review of the evidence. New York: United Nations Population Fund.

[13] Goldman MB and Hatch MC. (ed). (2000). Women and Health. Academy Press. San Diego

[14] Panday S, Makiwane M, Ranchod C and Letsoalo T. (2009). Teenage pregnancy in South Africa: With a specific focus on school going learners. Pretoria, South Africa

[15] HSRC. (2011). The 2011 National Antenatal Sentinel HIV & Syphilis Prevalence Survey in South Africa. Cape Town, South Africa.

[16] Odimegwu CO and Amoo EO. (2018). Teenage pregnancy in South Africa: Where are the young men involved? South African Journal of Child Health, 44-50.

[17] Bosch S. (2009). The communication approach of the loveLife HIV/AIDS prevention programme [dissertation]. Potchefstroom: North-West University, South Africa.

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