

6 Child health

Neil McKerrow

This chapter covers four indicators, namely child under 5 years diarrhoea case fatality rate, child under 5 years pneumonia case fatality rate, child under 5 years severe acute malnutrition case fatality rate and infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate.

6.1 Child under 5 years diarrhoea case fatality rate

Despite the availability of cost-effective measures to prevent diarrhoeal diseases they remain the leading cause of child mortality outside the neonatal period in South Africa, and in 2015 accounted for 10.1% of all under-5 deaths.^a Diarrhoeal diseases and pneumonia are sentinel conditions for the assessment of health services for children and the reduction of the facility case fatality rates for these two conditions is a key indicator in the National Department of Health's (NDoH) 2012–2016 Strategic Plan for Maternal, Newborn, Child and Women's Health (MNCWH) and Nutrition.^b

The child under 5 years diarrhoea case fatality rate (CFR) measures the proportion of all admissions under 5 years that died due to diarrhoea. The numerator is 'child under 5 years with diarrhoea death' and the denominator 'child under 5 years with diarrhoea admitted' expressed as a percentage. The target identified in the MNCWH plan is to reduce this to less than 3% by 2016.^b The Annual Performance Plan (APP)^c of the NDoH target for 2016/17 is 3.3%.

National overview

Table 1 shows that since 2012/13 there has been a sustained decline in the national diarrhoea CFR from 4.3% to 2.0% in 2016/17. The 2016/17 national APP target of 3.3% had already been achieved in 2014/15 although the rate of decline of the diarrhoea CFR has slowed over the past year.

Table 1: Trend in child under 5 years diarrhoea case fatality rate, 2012/13–2016/17 (%)

	2012/13	2013/14	2014/15	2015/16	2016/17
Eastern Cape	6.6	6.9	5.2	3.6	3.7
Free State	3.6	4.5	4.1	2.8	2.8
Gauteng	3.3	3.5	2.9	1.8	1.7
KwaZulu-Natal	4.3	3.3	3.0	2.2	2.0
Limpopo	7.8	5.2	4.7	3.0	2.1
Mpumalanga	7.5	4.9	5.3	2.7	1.5
Northern Cape	2.1	3.2	3.4	1.8	3.8
North West	5.8	4.8	3.4	4.0	3.2
Western Cape	0.1	0.2	0.2	0.1	0.3
SA	4.3	3.9	3.3	2.2	2.0

Source: DHIS.

This ongoing decline in the child under 5 years diarrhoea CFR must be interpreted together with the absolute numbers which are presented in Table 2. The 5 years diarrhoea deaths have dropped to fewer than 1 000 for the first time since 2012/13.

a Statistics South Africa. Mortality and causes of death in South Africa, 2015: Findings from death notification. Statistics South Africa. Pretoria. 2017.

b National Department of Health. Strategic Plan for Maternal, Newborn, Child and Women's Health (MNCWH) and Nutrition in South Africa: 2012–2016. National Department of Health. Pretoria. 2012.

c National Department of Health. Annual Performance Plan 2017/18–2019/20. National Department of Health. Pretoria. 2016.

Table 2: Trend in national diarrhoea admissions, deaths and case fatality rates in child under 5 years, 2012/13–2016/17

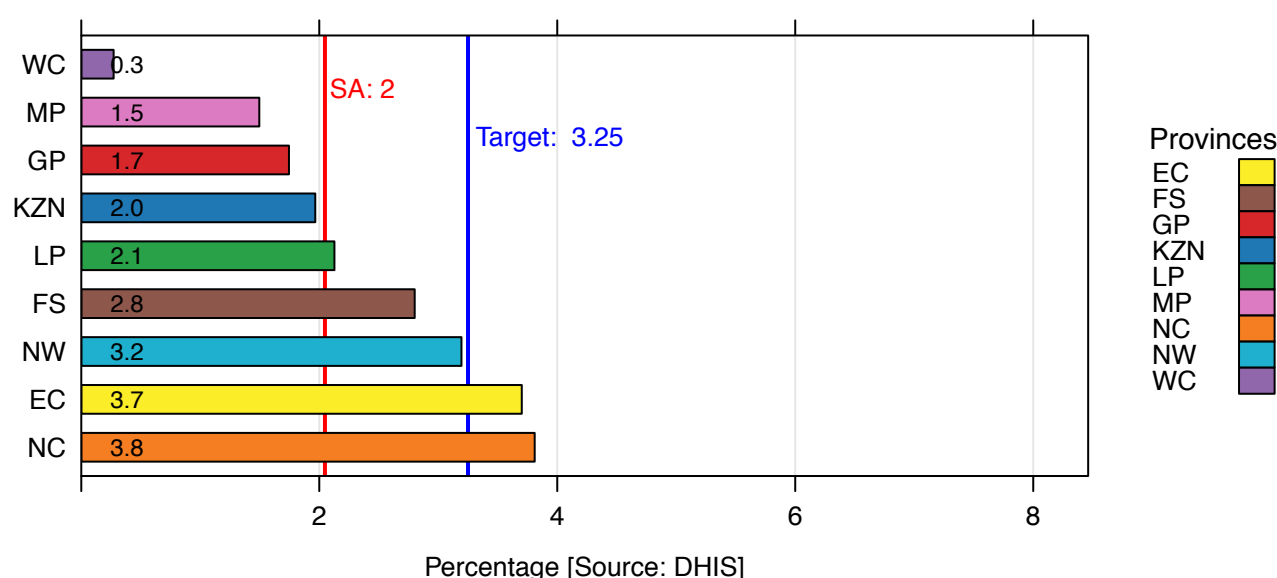
Year	Admissions (No)	Deaths (No)	Child under 5 years diarrhoea CFR (%)
2012/13	35 692	1 526	4.3
2013/14	45 880	1 775	3.9
2014/15	45 787	1 513	3.3
2015/16	47 758	1 049	2.2
2016/17	43 265	886	2.0

Source: DHIS.

In light of the ongoing high number of admissions, the reduction in deaths and the drop in child under 5 years diarrhoea CFR possibly reflects earlier entry into the health service, less advanced disease on presentation or better care within the health service.

Provincial overview

The national figure hides a wide inter-provincial variation, shown in Figure 1, from a low of 0.3% in the Western Cape (WC) to a high of 5.3% in Limpopo (LP). Seven provinces had rates below the APP 2016/17^c target of 3.3%.

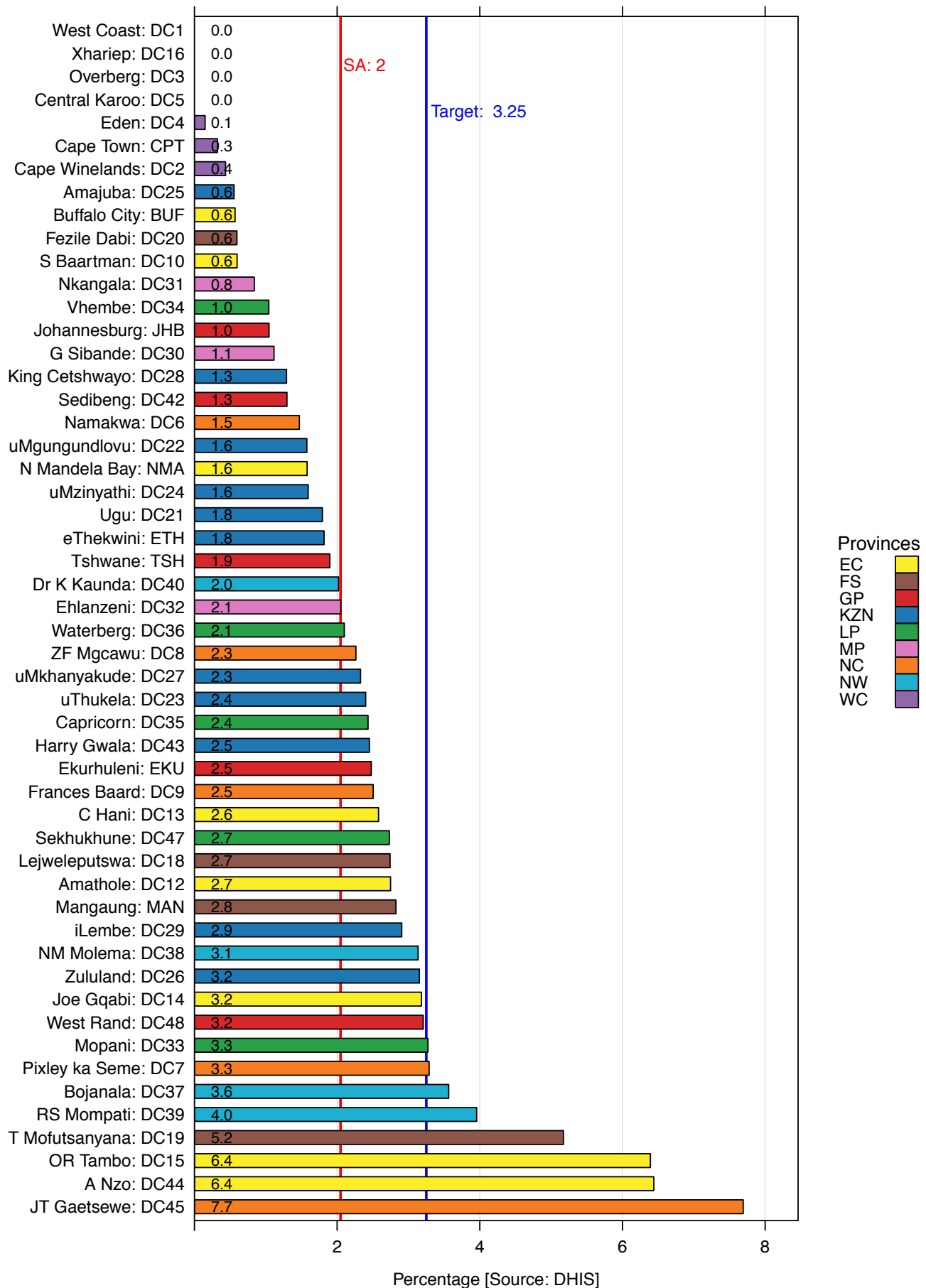
Figure 1: Child under 5 years diarrhoea case fatality rate by province, 2016/17

In the past year the child under 5 years diarrhoea CFR declined in five provinces and increased in three, and was static in the Free State (FS). However, over the past five years only three provinces, Gauteng (GP), KwaZulu-Natal (KZN) and Limpopo, have maintained a year-on-year reduction in the child under 5 years diarrhoea CFR.

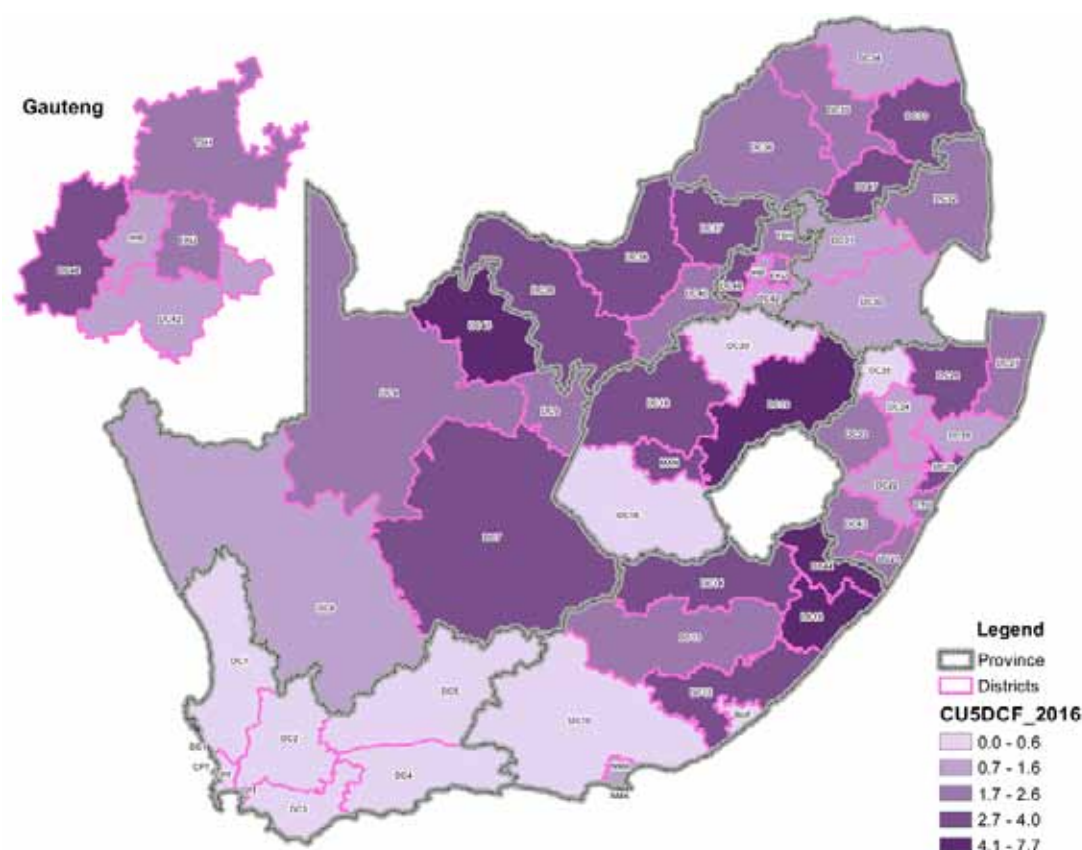
District overview

The range of the child under 5 years diarrhoea CFR in the 52 districts in the country is reflected in Figure 2 and Map 1 which show a range from zero deaths in four districts (West Coast, Overberg and the Central Karoo in the Western Cape and Xhariep in the Free State), to a high of 7.7% (JT Gaetsewe in the Northern Cape (NC)). Only eight districts – two in the Eastern Cape (OR Tambo and Alfred Nzo); two in North West (NW) (Bojanala Platinum and RS Mompoti); two in the Northern Cape (Pixley Ka Seme and JT Gaetsewe) and one each in Limpopo (Mopani) and the Free State (Thabo Mofutsanyana) – had a child under 5 years diarrhoea CFR above the 2016/17 target. The Western Cape and Mpumalanga (MP) were the only provinces where all districts have achieved a child under 5 years diarrhoea CFR below the national average and the 2016/17 target, and in KwaZulu-Natal and Gauteng all districts achieved a child under 5 years diarrhoea CFR below the 2016/17 target.

Figure 2: Child under 5 years diarrhoea case fatality rate by district, 2016/17



Map 1: Child under 5 years diarrhoea case fatality rate by district, 2016/17



Although most districts show increases and decreases in the child under 5 years diarrhoea CFR from year to year the general trend over the past eight years across all districts is a falling child under 5 years diarrhoea CFR. The greatest decline has been in the districts in the Eastern Cape and the Free State and understandably the least decline has been in the districts of the Western Cape where the baseline child under 5 years diarrhoea CFR was already low. The greatest reduction in the child under 5 years diarrhoea CFR in the past year was 100% in the Central Karoo (WC), although this represented a drop from two deaths in 2015/16 to none in 2016/17, and the greatest increase was 929.6% in Pixley Ka Seme (NC) which represented an increase from just one death in 2015/16 to four in 2016/17.

The five districts with the highest child under 5 years diarrhoea CFR are listed in Table 3. Whilst these five districts accounted for 24.6% of deaths due to diarrhoeal diseases they did not necessarily have the greatest number of diarrhoeal deaths. However, OR Tambo (EC) had both the greatest number of deaths (110) and the third highest child under 5 years diarrhoea CFR (6.4%). The districts with the next greatest number of deaths but not the highest child under 5 years diarrhoea CFR were eThekweni in KwaZulu-Natal (41 deaths) and Tshwane in Gauteng (37 deaths).

Table 3: Districts with the highest child under 5 years diarrhoea case fatality rates, 2016/17

District	Admissions (No)	Deaths (No)	Child under 5 years diarrhoea CFR (%)
JT Gaetsewe (NC)	416	32	7.7
Alfred Nzo (EC)	528	34	6.4
OR Tambo (EC)	1 721	110	6.4
Thabo Mofutsanyana (FS)	466	24	5.2
RS Mompoti (NW)	455	18	4.0
Total	3 586	218	6.1

Source: DHIS.

Table 4 shows the child under 5 years diarrhoea CFR according to socio-economic circumstance and Figure 3 shows the trend in child under 5 years diarrhoea CFR across the five socio-economic quintiles (SEQ) since 2010. As one would expect the child under 5 years diarrhoea CFR declined as socio-economic circumstances improved, dropping from 3.6% in SEQ1 to 1.2% in SEQ5 in 2016/17.

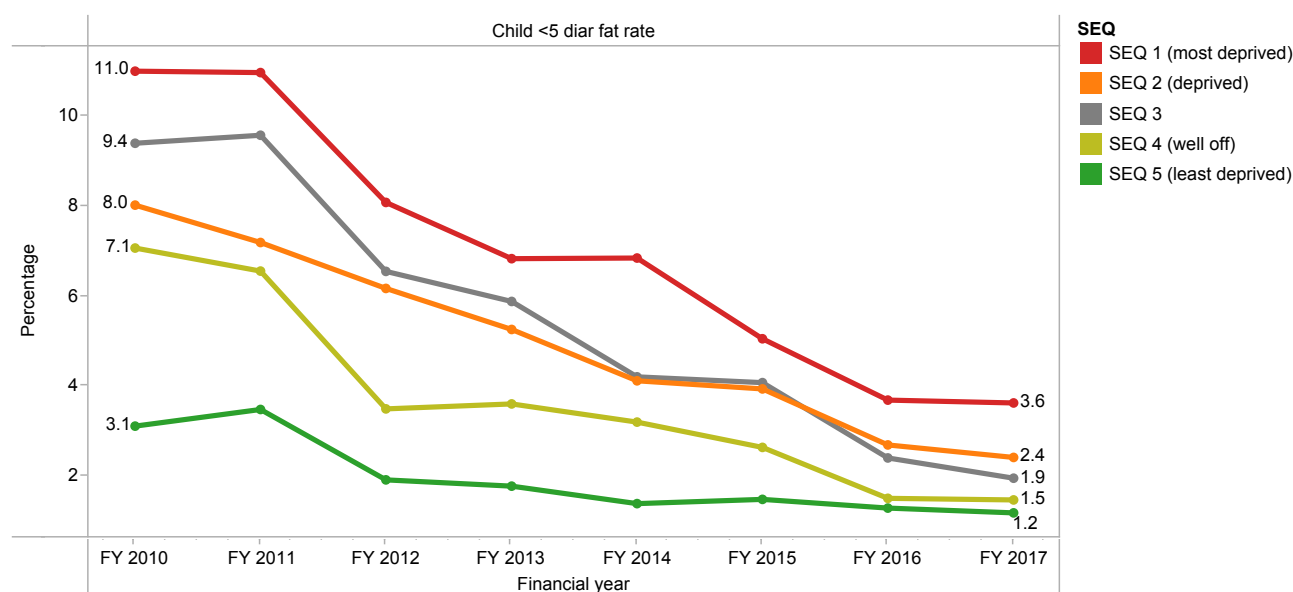
Section A: Child health

Since 2010/11 all SEQs have experienced a sustained decline in the child under 5 years diarrhoea CFR with the greatest decline in SEQ1.

Table 4: Diarrhoea admissions, deaths and case fatality rates in children under 5 years by socio-economic quintile, 2016/17

	SEQ1 Most deprived	SEQ2 Deprived	SEQ3 Average	SEQ4 Less deprived	SEQ5 Least deprived	Total
Admissions No)	8 961	8 078	6 395	4 399	15 432	43 265
Deaths (No)	324	194	124	64	180	886
CFR (%)	3.4	2.9	1.9	1.4	1.2	2.0

Figure 3: Trends in average district values by socio-economic quintile for child under 5 years diarrhoea case fatality rate, 2009/10–2016/17



Key findings

- ◆ The total child under 5 years diarrhoea deaths has dropped with an all-time low of less than 1 000 deaths.
- ◆ The 2016/17 national target for the child under 5 years diarrhoea CFR was met already in 2014/15 and if the current trend is sustained it is likely that all provinces will match the achievement of the Western Cape and may meet the World Health Organization (WHO)/ United Nations Children's Emergency Fund (UNICEF) 2025 target of a mortality rate for diarrhoeal diseases of less than one per thousand live births.^d

Recommendations

- ◆ For provinces to meet the WHO/UNICEF mortality rate for diarrhoeal diseases target of less than one per thousand live births, the following is recommended:
 - Effective treatment at home for children with diarrhoea,
 - Early entry into the health service, and
 - Improved care within the health service.

6.2 Child under 5 years pneumonia case fatality rate

Pneumonia is a major contributor to under 5 mortality and accounts for 9.9% of under 5 deaths in South Africa.^a The child under 5 years pneumonia case fatality rate is a key indicator in the National Department of Health's 2012–2016 Strategic Plan for MNCWH and Nutrition^b and was included as an indicator in the National Department of Health's 2013 programme on mortality targeting for all public sector health facilities and districts.

The child under 5 years pneumonia case fatality rate measures the proportion of all admissions under 5 years that died

^d WHO/Unicef. End Preventable Child Deaths from Pneumonia and Diarrhoea by 2025. The Integrated Global Action Plan for Pneumonia and Diarrhoea. France. 2013.

due to pneumonia. The numerator is 'child under 5 years with pneumonia death' and the denominator 'child under 5 years with pneumonia admitted' expressed as a percentage. The target identified in the MNCWH strategic plan was to reduce this to less than 3% by 2016.^b

National overview

In 2016/17 the national average child under 5 years pneumonia CFR was 2.0% (Table 5). There has been a sustained downward trend in the national pneumonia CFR since 2012/13 when the rate was 3.8%.

Table 5: Trend in national pneumonia admissions, deaths and case fatality rates in child under 5 years, 2012/13–2016/17

Year	Admissions (No)	Deaths (No)	Child under 5 years pneumonia CFR (%)
2012/13	36 444	1 395	3.8
2013/14	43 445	1 532	3.5
2014/15	48 383	1 411	2.9
2015/16	53 343	1 240	2.3
2016/17	49 861	1 003	2.0

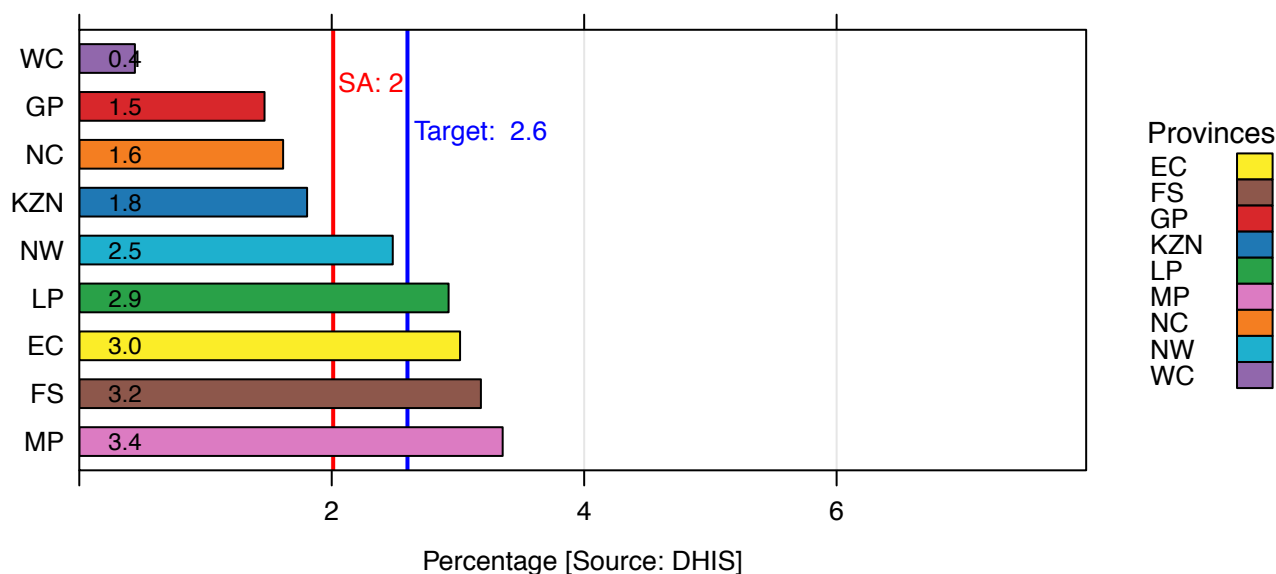
Source: DHIS.

Provincial overview

Figure 4 shows a wide variation in the child under 5 years pneumonia CFR between the provinces from 0.4% in the Western Cape to a high of 3.4% in Mpumalanga. Five provinces had a rate below the 2016/17 target of 2.6%.

In the past year the child under 5 years pneumonia CFR increased in three provinces, namely the Western Cape, Northern Cape and the Free State and declined in all other provinces.

Figure 4: Child under 5 years pneumonia case fatality rate by province, 2016/17



Section A: Child health

As shown in Table 6, the highest number of pneumonia deaths occurred in KwaZulu-Natal, the Eastern Cape and Limpopo, however, the highest child under 5 years pneumonia CFRs were in Mpumalanga and the Free State. Although the Western Cape had the lowest child under 5 years pneumonia CFR, the Northern Cape had the fewest number of deaths from pneumonia.

Table 6: Pneumonia admissions, deaths and case fatality rate in child under 5 years by province, 2016/17

Province	Admissions (No)	Deaths (No)	Child under 5 years pneumonia CFR (%)
Eastern Cape	6 232	188	3.0
Free State	1 980	63	3.2
Gauteng	8 790	129	1.5
KwaZulu-Natal	11 081	200	1.8
Limpopo	5 981	175	2.9
Mpumalanga	3 667	123	3.4
Northern Cape	1 610	26	1.6
North West	2 577	64	2.5
Western Cape	7 943	35	0.4
SA	49 861	1 003	2.0

Source: DHIS.

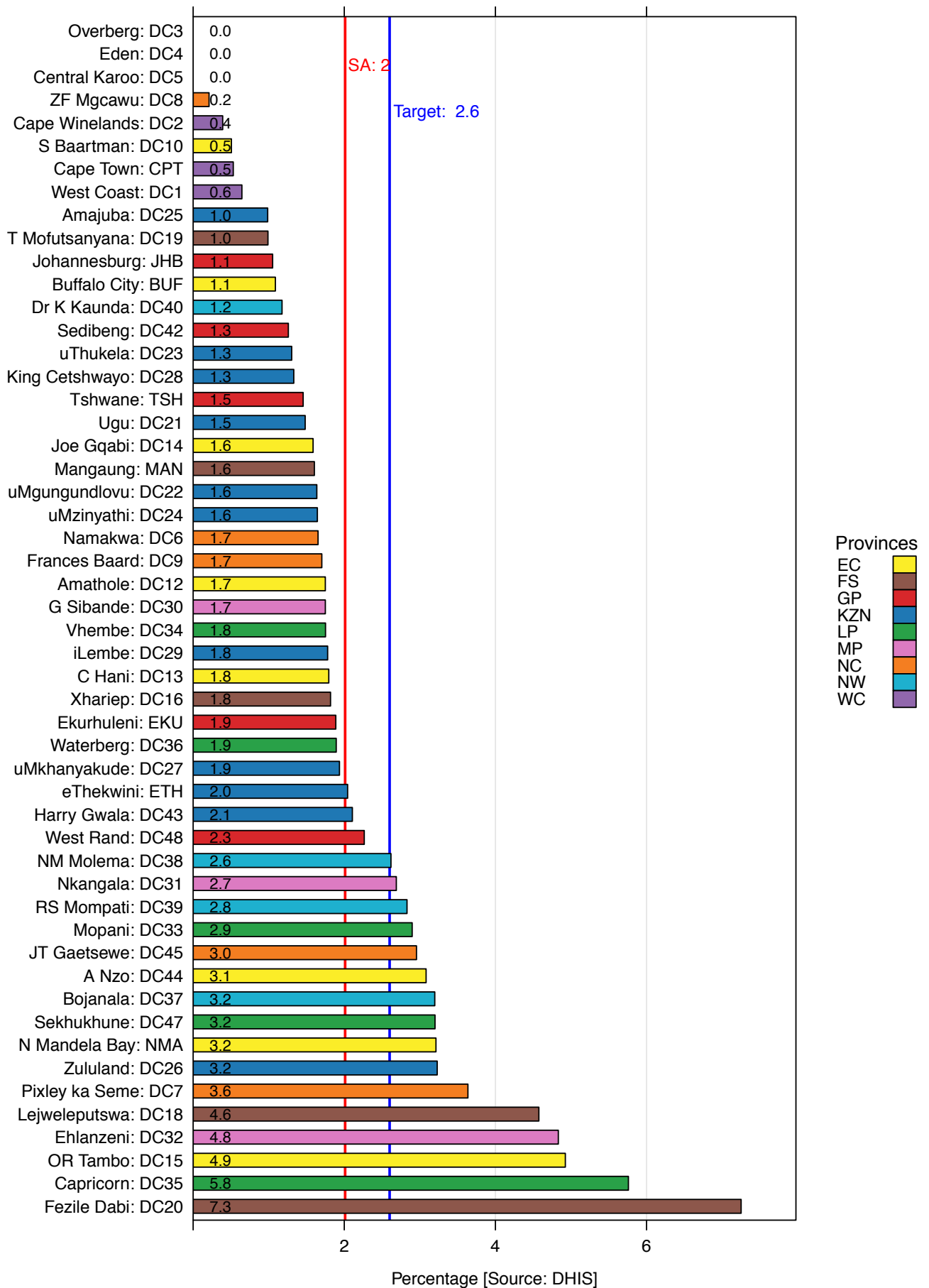
District overview

The range of child under 5 years pneumonia CFR in the 52 districts in the country is reflected in Figure 5 and Map 2. Three districts in the Western Cape (Overberg, Eden and the Central Karoo) had no deaths from pneumonia; and 37 had rates below the national target. The highest child under 5 years pneumonia CFR was 7.3% in Fezile Dabi in the Free State.

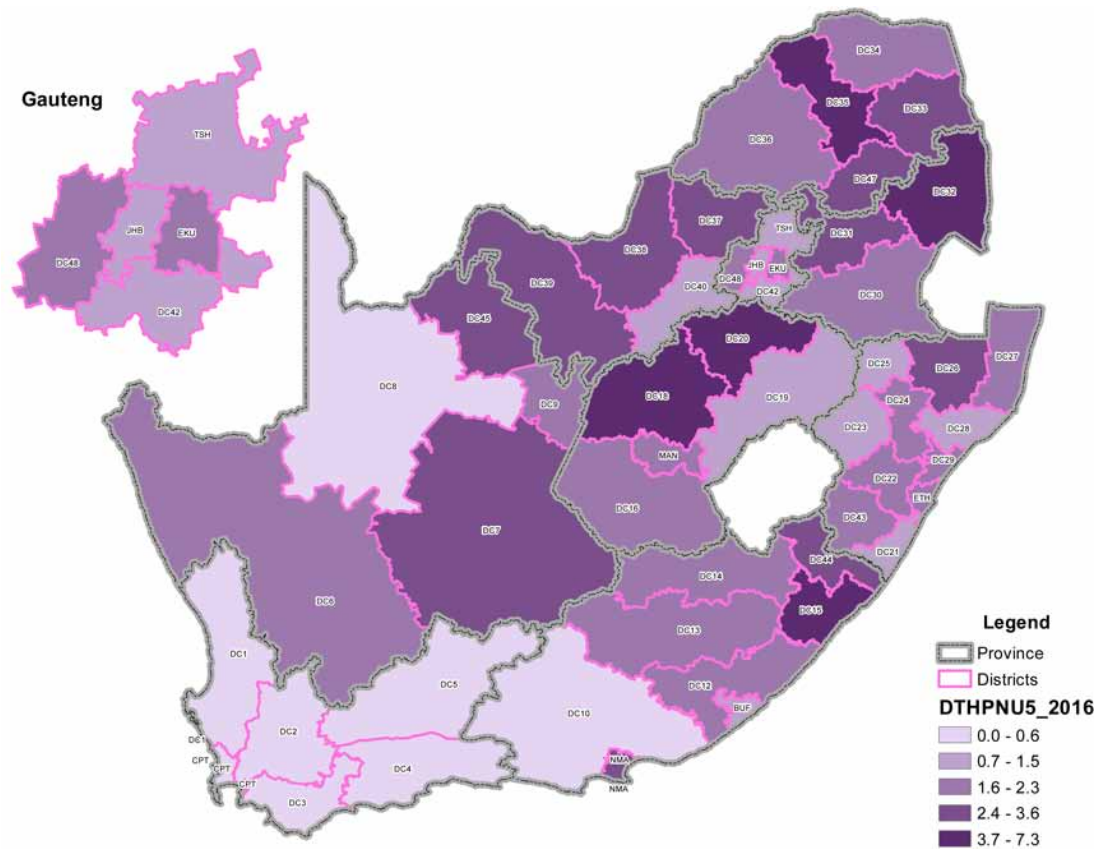
Across the country, 35 districts reduced the child under 5 years pneumonia CFR between 2015/16 and 2016/17. The only province in which this was achieved in every district was the North West whilst in the Free State and Mpumalanga this was only achieved in a single district. A reduction of 100% occurred in two districts in the Western Cape, in Eden, where the number of deaths declined from six to zero, and in Overberg, where the number fell from one to zero. The greatest increase in the child under 5 years pneumonia CFR was 572.7% which was seen in Pixley Ka Seme (NC) and this represented an increase from one death in 2015/16 to six deaths in 2016/17.

The greatest increase in the actual number of deaths occurred in Capricorn (LP), with 35 more deaths in 2016/17 compared to 2015/16, and Lejweleputswa (FS) and West Rand (GP) with 10 more deaths each. The greatest reduction in the number of deaths between 2015/16 and 2016/17 was seen in King Cetshwayo (KZN) and OR Tambo (EC) with 32 fewer deaths each, and eThekweni (KZN) with 27 fewer deaths.

Figure 5: Child under 5 years pneumonia case fatality rate by district, 2016/17



Map 2: Child under 5 years pneumonia case fatality rate by district, 2016/17



The five districts with the highest pneumonia CFR are listed in Table 7. These five districts accounted for 29.4% of all deaths due to pneumonia and OR Tambo (EC) also had the greatest number of diarrhoea deaths. The districts with the next greatest number of deaths were eThekweni (KZN) (59 deaths) and Tshwane (GP) (36 deaths).

Table 7: Districts with the highest child under 5 years pneumonia case fatality rates, 2016/17

District	Admissions (No)	Deaths (No)	Child under 5 years pneumonia CFR (%)
Fezile Dabi (FS)	262	19	7.3
Capricorn (LP)	1 059	61	5.8
OR Tambo (EC)	2 213	109	4.9
Ehlanzeni (MP)	1 614	78	4.8
Lejweleputswa (FS)	612	28	4.6
Total	5 760	295	5.1

Source: DHIS.

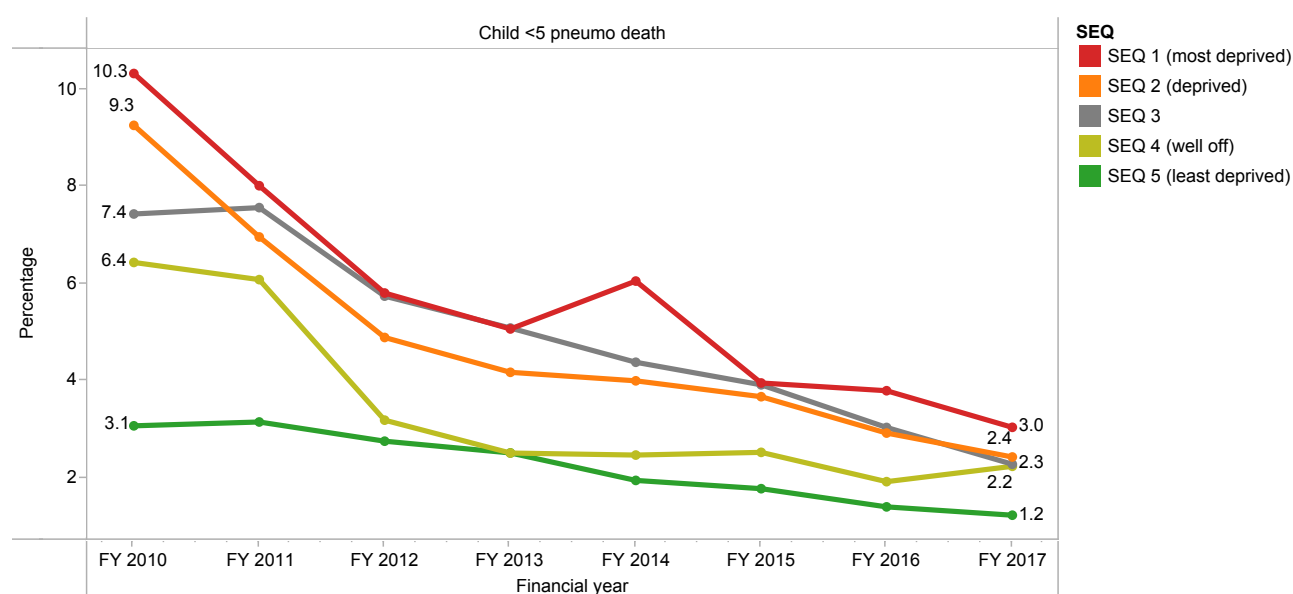
The child under 5 years pneumonia CFR according to socio-economic circumstance is shown in Table 8 and the trend across the five SEQs since 2010/11 is shown in Figure 6. Although the pneumonia CFR is highest in the most deprived communities, SEQ1 (3.0%), and lowest in the least deprived communities, SEQ5 (1.2%), there is very little difference in the rate between the three intermediate SEQs varying between 2.2% and 2.4%. Since 2010/11 all SEQs have experienced a sustained decline in the child under 5 years pneumonia CFR with the greatest decline occurring in SEQ1.

Table 8: Pneumonia admissions, deaths and case fatality rates in children under 5 years by socio-economic quintile, 2016/17

	SEQ1 Most deprived	SEQ2 Deprived	SEQ3 Average	SEQ4 Less deprived	SEQ5 Least deprived	Total
Admissions No)	8 635	8 710	7 433	5 379	19 704	49 861
Deaths (No)	262	211	169	120	241	1 003
CFR (%)	3.0	2.4	2.3	2.2	1.2	2.0

Source: DHIS.

Figure 6: Trends in average district values by socio-economic quintile for child under 5 years pneumonia case fatality rate, 2009/10–2016/17



Key findings

- ◆ In 2016/17 the national average child under 5 years pneumonia CFR was 2.0%. Whilst the number of deaths due to pneumonia has decreased each year, apart from 2013/14, the number of admissions has fluctuated markedly. Despite this there has been a sustained downward trend in the national pneumonia CFR since 2012/13 when the rate was 3.8%.
- ◆ Given the current rates and the general trend for declining pneumonia CFR at both provincial and district levels, there is a realistic chance that the country can meet the WHO/UNICEF 2025 target of a pneumonia case fatality rate of less than three per thousand live births.^d

Recommendations

- ◆ As with diarrhoeal diseases this will require effective prevention programmes, early entry into the health services and improved care once in the health service.
- ◆ Pixley Ka Seme (NC) and OR Tambo (EC) had high child under 5 years diarrhoea and pneumonia case fatality rates and should be investigated.

6.3 Child under 5 years severe acute malnutrition case fatality rate

The most recent death notification processes record that malnutrition accounts for 4.6% of under 5 deaths in South Africa.^a Severe acute malnutrition (SAM) has been included together with diarrhoeal disease and pneumonia in the mortality targeting programme recently introduced by the National Department of Health to improve the performance of health facilities.

The child under 5 years SAM case fatality rate measures the proportion of all admissions under 5 years who died due to severe malnutrition. The numerator is 'child under 5 years with SAM death' and the denominator 'child under 5 years with SAM admitted' expressed as a percentage.

National overview

In 2016/17 the average child under 5 years SAM CFR in children under 5 years in South Africa was 8.0% which is below the national target of 9.0%. Table 9 shows the recent figures for severe acute malnutrition which show a fluctuating number of admissions but a steady decline in deaths and in the child under 5 years SAM CFR, except in 2014/15 when there was an increase in admissions, deaths and the child under 5 years SAM CFR.

Table 9: Trend in national severe acute malnutrition admissions, deaths and case fatality rates in child under 5 years, 2012/13–2016/17

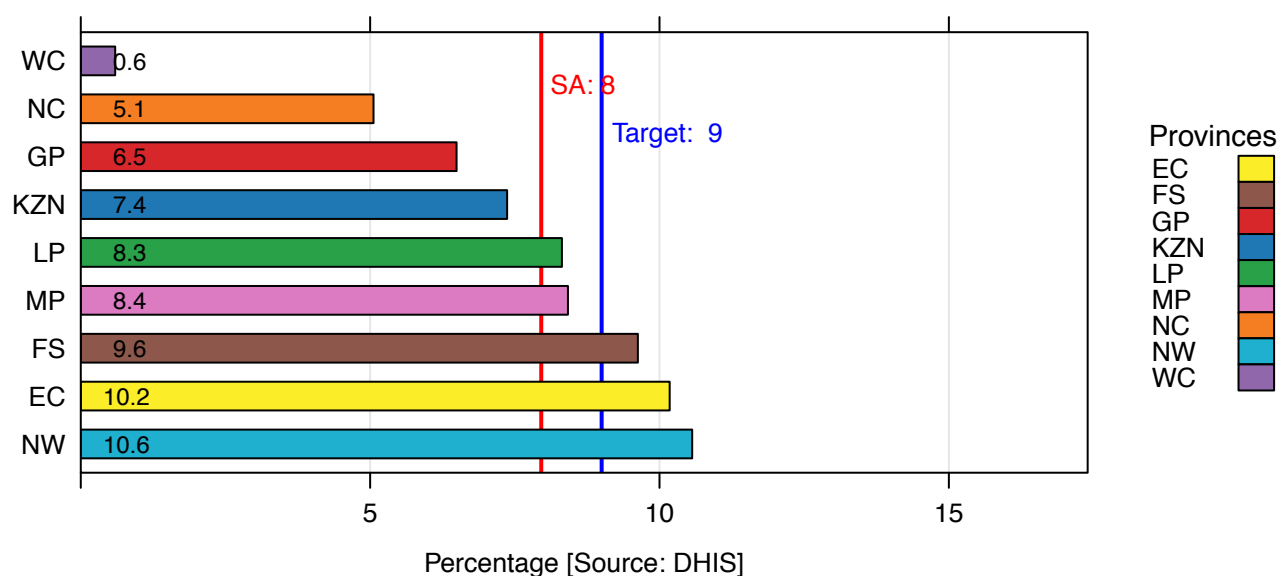
Year	Admissions (No)	Deaths (No)	Child under 5 years SAM CFR (%)
2012/13	12 911	1 642	12.7
2013/14	14 847	1 672	11.3
2014/15	15 910	1 852	11.6
2015/16	15 537	1 380	8.9
2016/17	14 931	1 188	8.0

Source: DHIS.

Provincial overview

The provincial child under 5 years SAM CFRs are presented in Figure 7 and Table 10 which show a wide inter-provincial variation from a low of 0.6% in the Western Cape to a high of 10.6% in the North West. The child under 5 years SAM CFR rose in two provinces, the Eastern Cape and Free State, but fell in the remaining seven. Six provinces had rates below the 2016/17 target of 9%.

The greatest decreases were in the Northern Cape (39.2%), Mpumalanga (32.6%) and the Western Cape (32.2%) and the greatest increase was in the Free State (18.3%). Despite year-on-year fluctuations the child under 5 years SAM CFR has decline substantially across all provinces since 2012/13.

Figure 7: Child under 5 years severe acute malnutrition case fatality rate by province, 2016/17**Table 10: Severe acute malnutrition admissions, deaths and case fatality rates in child under 5 years by province, 2016/17**

Province	Admissions (No)	Deaths (No)	Child under 5 years SAM CFR (%)
Eastern Cape	2 221	226	10.2
Free State	1 070	103	9.6
Gauteng	1 848	120	6.5
KwaZulu-Natal	3 122	230	7.4
Limpopo	2 141	178	8.3
Mpumalanga	986	83	8.4
Northern Cape	771	39	5.1
North West	1 931	204	10.6
Western Cape	841	5	0.6
SA	14 931	1 188	8.0

Source: DHIS.

District overview

The child under 5 years SAM CFR in the 52 districts in the country is reflected in Figure 8 and Map 3. Five districts had no deaths due to SAM (Cape Town, West Coast, Overberg and Central Karoo in the Western Cape and Namakwa in the Northern Cape). Thirty-three districts had rates below the national target of 9.0%. The highest child under 5 years SAM CFR was 15.8% in Lejweleputswa (FS). More than half the districts in the Eastern Cape, Free State and Limpopo did not reach the national target.

Between 2015/16 and 2016/17 the child under 5 years SAM CFR declined in 32 districts including all districts in the Northern Cape and Mpumalanga and the majority of districts in KwaZulu-Natal, Limpopo and the North West. Only in the Eastern Cape, the Free State and Gauteng the child under 5 years SAM CFR increased in more districts than it declined. The greatest increase occurred in Joe Gqabi (EC) (220.7%) with an increase from 8 deaths in 2015/16 to 18 deaths in 2016/17. The greatest decline was in Cape Town (WC) where the number of deaths fell from six to zero in the same period and in the West Coast (WC) and Namakwa (NC) the number fell from one to zero deaths.

The greatest increase in the actual number of deaths occurred in Zululand (KZN) with 25 more deaths in 2016/17 than in 2015/16, RS Mompoti (NW) with 19 more deaths and Tshwane and West Rand (both GP) each with 12 more deaths. The greatest reduction in the number of deaths between 2015/16 and 2016/17 was seen in Vhembe (LP) (40 fewer deaths), Gert Sibande (MP) (38 fewer deaths) and OR Tambo (EC) (29 fewer deaths).

Map 3: Child under 5 years severe acute malnutrition case fatality rate by district, 2016/17

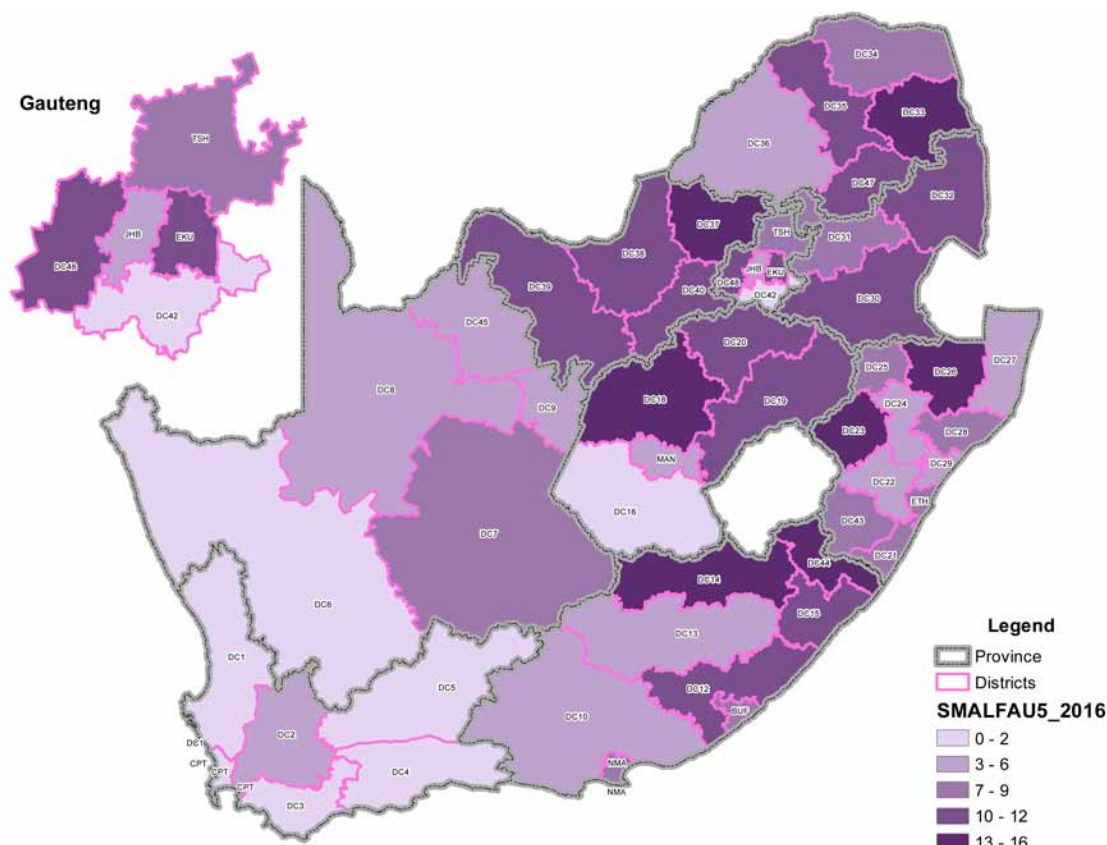
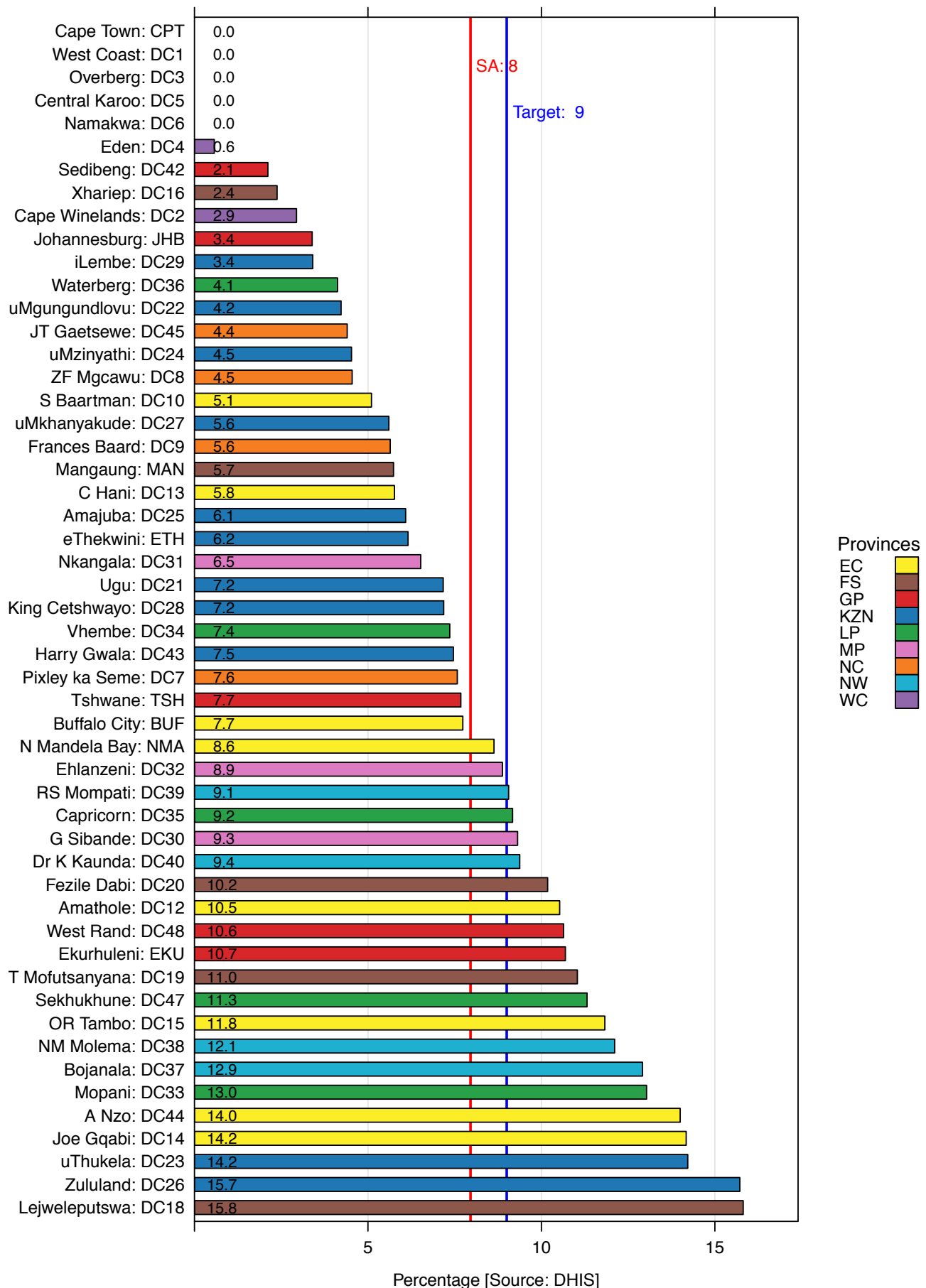


Figure 8: Child under 5 years severe acute malnutrition case fatality rate by district, 2016/17



The five districts with the highest child under 5 years SAM CFR are listed in Table 11. These five districts accounted for 13.6% of deaths due to SAM although only Zululand (KZN) was amongst the five districts with the highest number of deaths. The districts with the greatest number of deaths from severe acute malnutrition in 2016/17 was OR Tambo (EC) (99 deaths), NM Molema (70 deaths) and RS Mompoti (69 deaths) in the North West and Ehlanzeni (MP) (49 deaths).

Table 11: Districts with the highest child under 5 years severe acute malnutrition case fatality rates, 2016/17

District	Admissions (No)	Deaths (No)	Child under 5 years SAM CFR (%)
Lejweleputswa (FS)	196	31	15.8
Zululand (KZN)	299	47	15.7
uThukela (KZN)	211	30	14.2
Joe Gqabi (EC)	127	18	14.2
Alfred Nzo (EC)	250	35	14.0
Total	1 083	161	14.8

Source: DHIS.

The child under 5 years SAM CFR according to socio-economic circumstance is shown in Table 13 and the trend since 2009/10 across the five SEQs is shown in Figure 9. Although the child under 5 years SAM CFR is highest in the most deprived communities, SEQ1 (10.0%), and lowest in the least deprived communities, SEQ5 (5.2%), there is very little difference in the rate between the three intermediate SEQs varying between 7.4% and 9.0%.

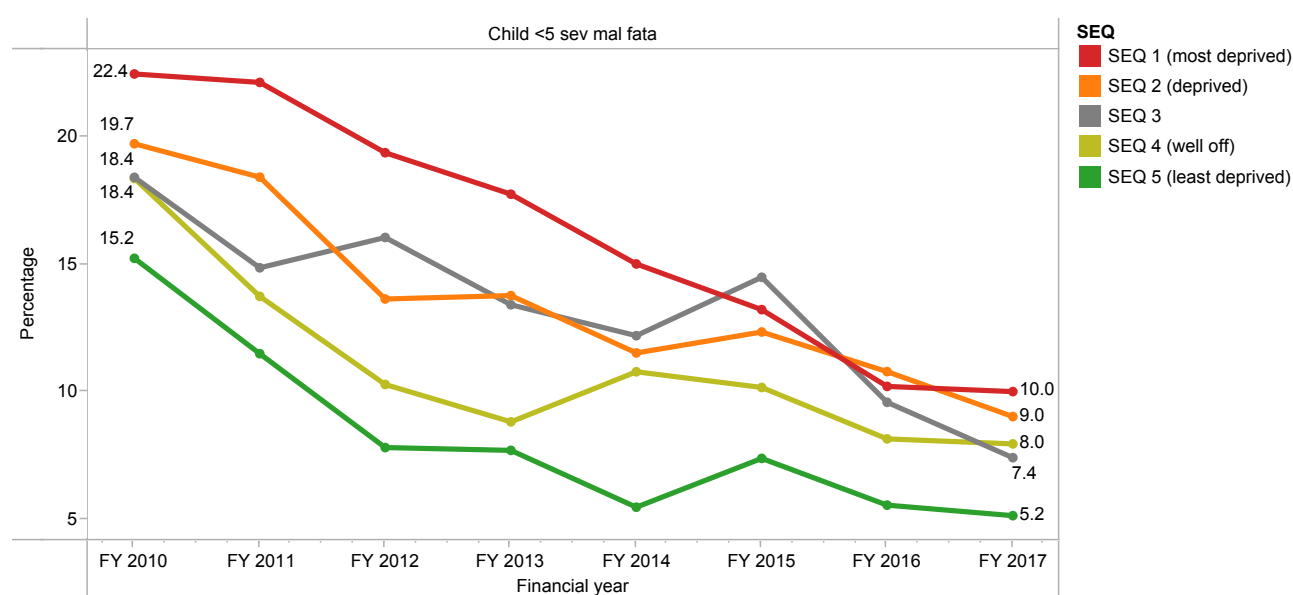
Despite a slight increase in the child under 5 years SAM CFR across all SEQ in 2015/16, they have all experienced a sustained decline in the SAM CFR since 2010/11.

Table 12: Severe acute malnutrition admissions, deaths and case fatality rates in children under 5 years by socio-economic quintile, 2016/17

	SEQ1 Most deprived	SEQ2 Deprived	SEQ3 Average	SEQ4 Less deprived	SEQ5 Least deprived	Total
Admissions (No)	3 867	3 123	2 574	1 834	3 533	14 931
Deaths (No)	387	282	191	146	182	1 188
CFR (%)	10.0	9.0	7.4	8.0	5.2	8.0

Source: DHIS.

Figure 9: Trends in average district values by socio-economic quintile for child under 5 years severe acute malnutrition case fatality rate, 2009/10–2016/17



Key findings

- ◆ Severe acute malnutrition is an underlying factor in almost a third of childhood deaths in the public sector of South Africa.
- ◆ The average children under 5 years SAM CFR in South Africa more than halved from 16.4% in 2010/11 to 8.0% in 2016/17 which is below the national target of 9.0%. There was wide inter-provincial variation in 2016/17 from a low of 0.6% in the Western Cape to a high of 10.6% in the North West.

Recommendations

- ◆ A reduction in the rate of malnutrition requires effective growth monitoring and appropriate early intervention at the primary health care level as well as improved inpatient management of those children who are admitted with severe acute malnutrition.

6.4 Infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate

Breastfeeding is recognised as a key intervention for the prevention of malnutrition, diarrhoeal diseases and pneumonia.

Since the Tshwane Declaration,^e the National Department of Health has recognised the importance of breastfeeding and has increased efforts to promote it. Modelling projections, using the Lives Saved Tool (LiST),^f suggest that if 15 key interventions achieved 95% coverage in South Africa breastfeeding would be the most cost-effective intervention for reducing under 5 mortality.

The infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate is the number of infants exclusively breastfed at 14 weeks as a proportion of those receiving the DTaP-IPV-Hib-HBV 3rd dose vaccination. The numerator is 'infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose' and the denominator 'DTaP-IPV-Hib-HBV B 3rd dose' expressed as a percentage. This indicator was introduced in 2014/15 to monitor infant feeding practices at 14 weeks in order to identify those districts where community interventions need to be strengthened.

Infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose is defined as an infant receiving breast milk only (the child may have received medicines/vaccines prescribed by a health professional). An infant who has received any solids, milk (other than breast milk) or other liquids (including water) should not be counted.

National overview

Since 2014/15 the number of infants being exclusively breastfed has fluctuated markedly and although Table 13 indicates that this number has increased over the past year it remains well below the number achieved in 2014/15. The 2016/17 national Infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate was only 41.6% which is below the national target of 55%. It should be noted that the global shortage of DTaP-IPV-Hib-HBV that lasted approximately 9 months and was resolved at a national level in October 2016 could have resulted in the data for the numerator 'infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose' not being properly recorded.

Table 13: Trend in infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate, 2014/15-2016/17

Year	Breastfeeding (No)	Infant exclusively breastfed at DTaP-IPV-Hib-HBV 3 rd dose rate (%)
2014/15	466 014	45.0
2015/16	339 047	33.7
2016/17	365 419	41.6

Source: DHIS.

Provincial overview

Figure 10 shows the wide difference in the infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate between the provinces, ranging from 55.0% in Northern Cape to 28.9% in Limpopo. Only the Northern Cape has achieved the national target although KwaZulu-Natal was close.

e The South African Journal of Clinical Nutrition. The Tshwane declaration of support for breastfeeding in South Africa. *S Afr J Clin Nutr* 2011;24(4). <http://www.sajcn.co.za/index.php/SAJCN/article/view/586>. [Accessed 29 July 2017].

f Chola L, Pillay Y, Barron P, Tugendhaft A, Kerber K, Hofman K. (2015). Cost and impact of scaling up interventions to save lives of mothers and children: taking South Africa closer to MDGs 4 and 5. *Glob Health Action*, 8: 27265. <http://dx.doi.org/10.3402/gha.v8.27265>.

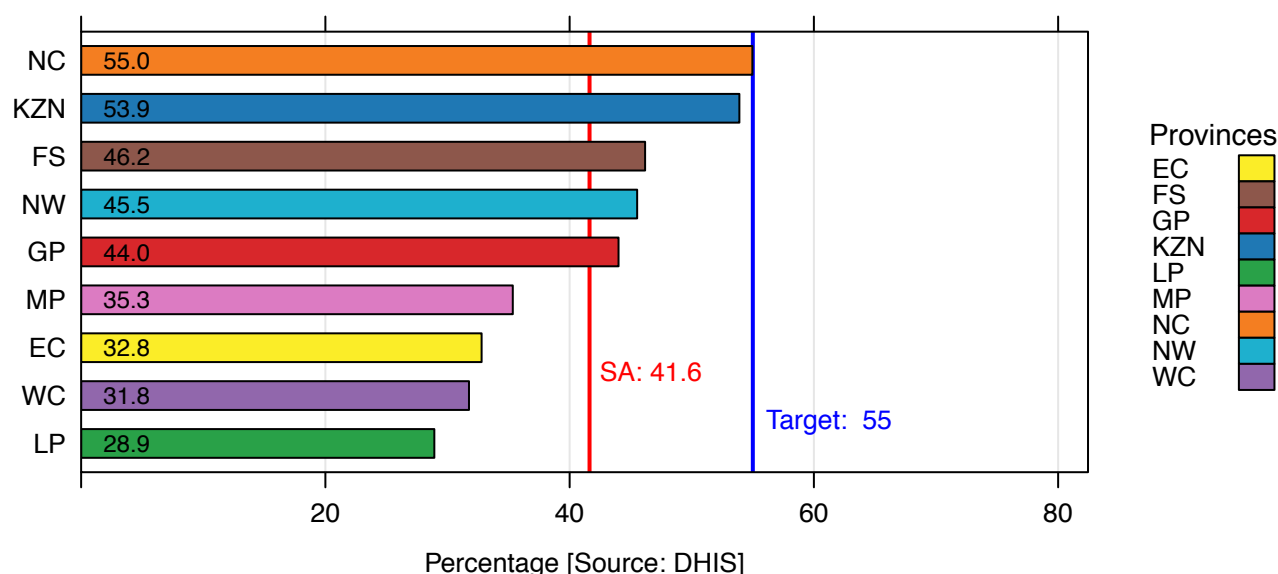
Figure 10: Infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate by province, 2016/17

Table 14 shows the 2016/17 provincial infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rates as well as the wide variation in the trend in the number of infants being exclusively breastfed at 14 weeks across the provinces since 2014/15. Only Gauteng has experienced a sustained increase in the number of infants being exclusively breastfed each year since 2014/15. Four provinces, the Eastern Cape, Limpopo, Mpumalanga and the Northern Cape, have seen a sustained decline over this period and the numbers have moved up or down in the remaining provinces.

Table 14: Infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate by province, 2016/17, and the number of infants being breastfed by province, 2014/15 -2016/17

Province	Infant exclusively breastfed at DTaP-IPV-Hib-HBV 3 rd dose rate 2016/17 (%)	Breastfeeding (No) 2014/15	Breastfeeding (No) 2015/16	Breastfeeding (No) 2016/17
Eastern Cape	32.8	51 234	37 239	34 273
Free State	46.2	41 238	18 577	18 896
Gauteng	44.0	59 056	66 834	90 123
KwaZulu-Natal	53.9	110 038	91 590	104 402
Limpopo	28.9	77 105	34 394	30 684
Mpumalanga	35.3	49 424	28 512	24 899
Northern Cape	55.0	13 898	10 602	10 434
North West	45.5	39 307	24 384	25 736
Western Cape	31.8	24 714	26 915	25 972
SA	41.6	466 014	339 047	365 419

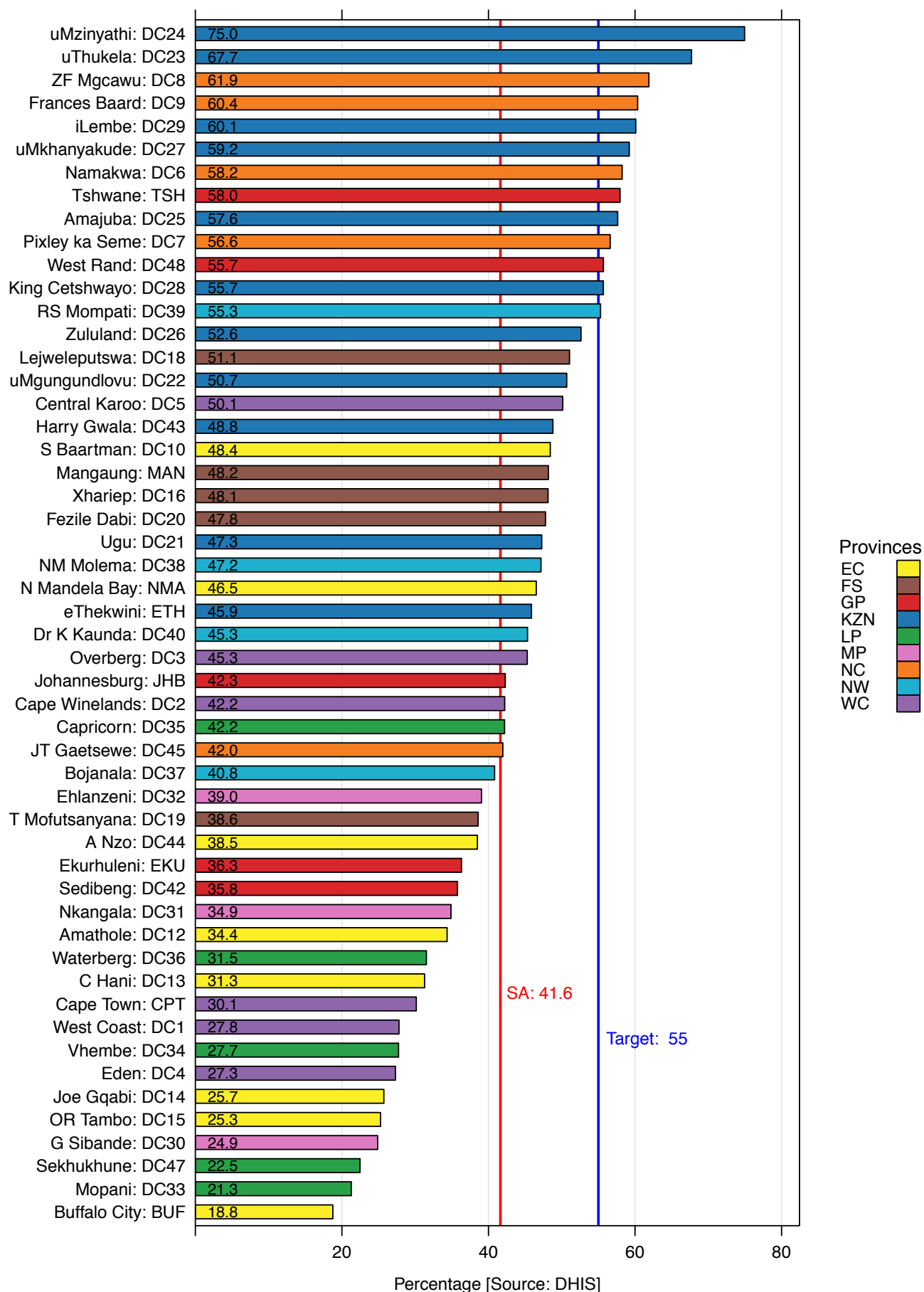
Source: DHIS.

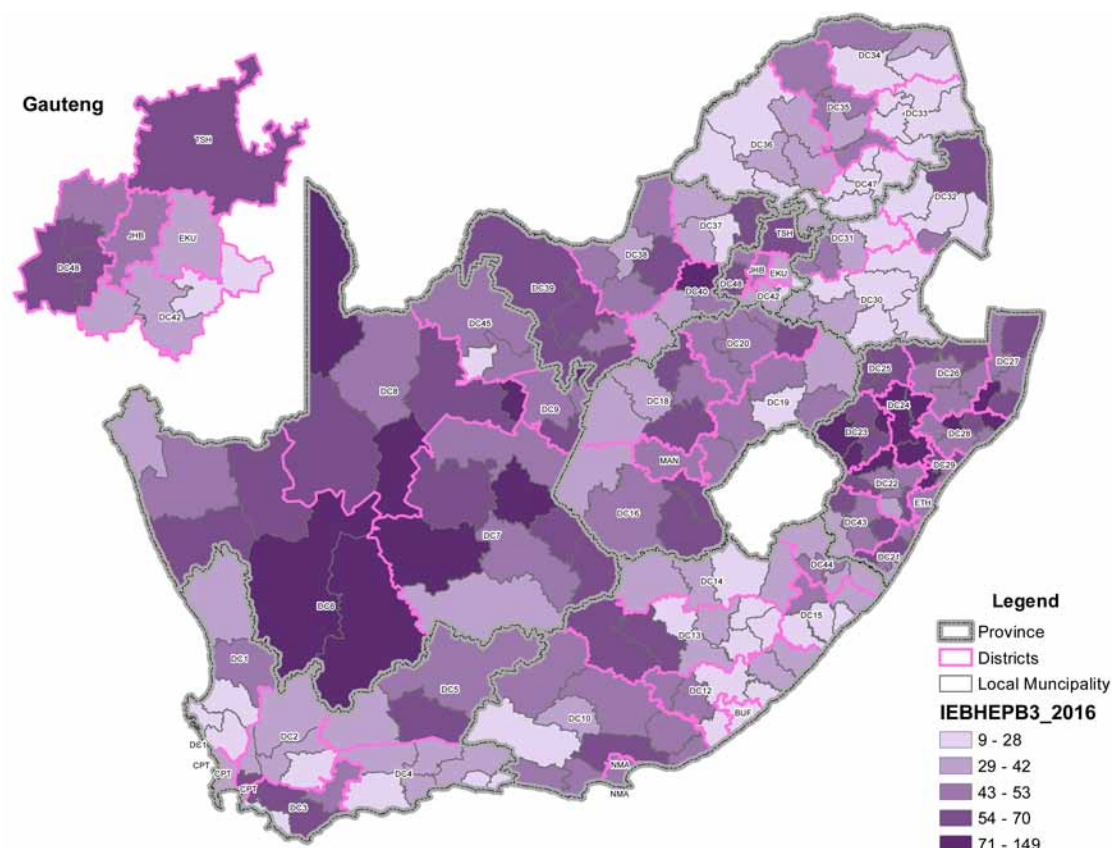
District overview

The infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate in the 52 districts in the country is reflected in Figure 11 and Map 4. These results show a range from just 18.8% in Buffalo City (EC) to 75.0% in uMzinyathi (KZN). Thirteen districts achieved an exclusive breastfeeding rate above the national target, including six districts in KwaZulu-Natal and four in the Northern Cape.

Between 2014/15 and 2015/16 the rate declined in 43 districts across the country. Four of the nine districts where the rate increased were in Gauteng and three were in the Western Cape. From 2015/16 to 2016/17 this pattern was reversed with the rate improving in 41 districts. This included all districts in five provinces –Free State, Gauteng, KwaZulu-Natal, North West and Western Cape. In this second period the rate decline in most districts in Limpopo (three out of five) and Mpumalanga (two out of three) and in an equal number in the Eastern Cape. The greatest improvement in the rate occurred in Alfred Nzo (65.8%) in the Eastern Cape and Ekurhuleni (65.2%) and Tshwane (60.0%) in Gauteng.

Figure 11: Infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate by district, 2016/17



Map 4: Infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate by sub-district, 2016/17

The five districts with the lowest infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate are listed in Table 15. These districts not only had the lowest exclusive breastfeeding at 14 weeks rate but, apart from OR Tambo (EC), were also amongst those districts with the greatest decline in exclusive breastfeeding rates from 2015/16 to 2016/17. The greatest decline occurred in Gert Sibande (34.1%) in Mpumalanga, followed by Buffalo City (17.5%) and Amathole (10.8%) in the Eastern Cape and Mopani (10.1%) in Limpopo.

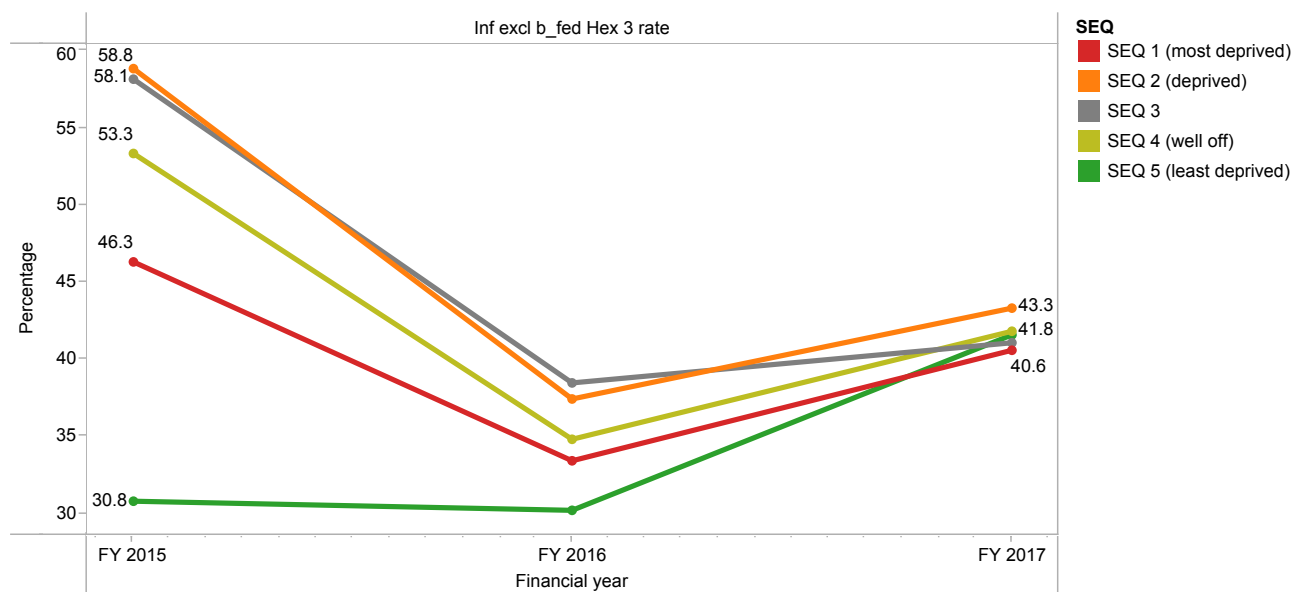
Table 15: Districts with the lowest infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate, 2016/17

District	Infant exclusively breastfed at DTaP-IPV-Hib-HBV 3 rd dose rate (%)	Breastfeeding (No)	% change in Infant exclusively breastfed at DTaP-IPV-Hib-HBV 3 rd dose rate between 2015/16 and 2016/17
Buffalo City (EC)	18.8	2 010	-17.5
Mopani (LP)	21.3	4 408	-10.1
Sekhukhune (LP)	22.5	5 124	-6.7
Gert Sibande (MP)	24.9	3 079	-34.1
OR Tambo (EC)	25.3	6 921	+2.3
Amathole (EC)	34.4	4 380	-10.8

Source: DHIS.

Figure 12 shows the trend in the infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate since 2014/15 across the SEQs. The wide gap between SEQ5 and the other quintiles in 2014/15 narrowed substantially in the following years. Of concern is the persisting trend for the most deprived communities in SEQ1 to have the lowest rate of infants who are exclusively breastfed.

Figure 12: Trends in average district values by socio-economic quintile for infant exclusively breastfed at DTaP-IPV-Hib-HBV 3rd dose rate, 2014/15-2016/17



Key findings

- ◆ Although the exclusive breastfeeding rate at 14 weeks has improved in 41 districts between 2015/16 and 2016/17, it remains low and only one province and 13 districts have met the national target of 55%.

Recommendations

- ◆ A higher exclusive breastfeeding rate is required in order to improve child survival in the country.
- ◆ For successful breastfeeding protection, promotion and support a multi-layered, intersectoral approach involving different government sectors and levels of society are required to create an enabling environment for breastfeeding in South Africa.⁹
- ◆ Three elements of an enabling environment that have been detailed are: knowledge and evidence, politics and governance, and capacity and resources. These are three linked elements that create an enabling environment in South Africa to improve breastfeeding rates.ⁱ

^g du Plessis L, Peer N, Honikman S, et al. (2016). Breastfeeding in South Africa: Are we making progress? In Padarath A, King J, Mackie E, Casciola J, editors South African Health Review. Health Systems Trust. Durban. 2016.