6 Child Health

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Improving the survival and well-being of young children remains an important health and development goal. Key child health and nutrition indicators are tracked through the District Health Information Software (DHIS). Two of these child health indicators are reported below:

- Vitamin A coverage in children aged 12 – 59 months is an important indicator in its own right, but also provides useful information on coverage of preventive child health interventions in children in this age group.
- Strengthening of school health services is an important component of primary health care re-engineering or reform. Progress is best captured through tracking of the Grade 1 screening rate (presented in Section 7.2 below).

6.1 Vitamin A coverage 12 to 59 months

Vitamin A deficiency (VAD) in young children remains an important public health problem in South Africa. The World Health Organization recommends that any country with a VAD prevalence rate greater than 20% should consider this a severe public health problem that requires supplementation.[a] The SANHANES study found 43.6% of children under 5 years of age to be vitamin A deficient (as defined by a serum retinol level below 0.75 µmol/l).[b]

Provision of vitamin A on a six-monthly basis to all children between 6 months and 5 years of age is an important component in the package of services that should be provided to all children. The first dose of vitamin A is given to children at the time of measles immunisation at 9 months of age; coverage is high and is no longer monitored on a routine basis.

In contrast, coverage in children aged 12 – 59 months is generally low. These children tend to access health services less frequently than children under 1 year of age; reaching these children requires additional interventions and special care should be taken to ensure that all interactions with health care workers are used as an opportunity to provide vitamin A. This includes vitamin A as part of the package of services provided at household level by ward-based outreach teams (WBOTs). Although the regulatory framework has been amended to allow WBOT members to administer vitamin A, the extent to which this is in fact implemented is difficult to assess.

During 2014/15, national vitamin A coverage in children aged 12 – 59 months was 52.2%, compared with the national target of 55%. Coverage figures from 2004/05 are shown in Table 1, and indicate a sustained increase in coverage over the period (the decline between 2011/12 and 2012/13 reflects changes in the target population estimates).

Table 1: National vitamin A coverage 12 to 59 months, 2004/05 – 2014/15

	Coverage (%)
2004/5	12.8
2005/6	18.9
2006/7	25.1
2007/8	28.1
2008/9	32.2
2009/10	33.9
2010/11	34.6
2011/12	41.6
2012/13	40.5
2013/14	44.3
2014/15	52.2

Only two provinces, Free State (FS) and Gauteng (GP) reached the target of 55% coverage, with figures of 58.7% and 56.6% respectively (Figure 1). Three provinces reported coverage figures below 50%. These were Limpopo (LP) (44.4%), Northern Cape (NC) (45.3%) and Western Cape (WC) (47.4%).

However, all provinces reported improvements in coverage when compared with coverage data reported in 2013/14 (Table 2).

a World Health Organization. Serum retinol concentrations for determining the prevalence of vitamin A deficiency in populations. Vitamin and Mineral Nutrition Information System. Geneva: WHO; 2011 (WHO/NMH/NHD/MNM/11.3). Available from: http://www.who.int/vmnis/indicators/retinol.pdf [accessed 28 July 2015].

b Shisana O, Labadarios D, Rehle T, Simbayi L, Zuma K, et al. South African National Health and Nutrition Examination Survey (SANHANES-1). Cape Town: HSRC Press; 2014.

Table 2: Vitamin A coverage 12 to 59 months by province, 2010/11 – 2014/15 (percentage)

	2010/11	2011/12	2012/13	2013/14	2014/15
Eastern Cape	36.5	41.8	40.1	44.7	53.0
Free State	39.1	57.8	59.3	54.8	58.7
Gauteng	43.7	47.1	45.6	49.9	56.6
KwaZulu-Natal	32.8	41.1	41.4	47.8	54.5
Limpopo	30.3	42.9	35.8	33.8	44.4
Mpumalanga	29.1	34.2	34.8	36.0	50.0
Northern Cape	26.2	31.9	34.7	38.7	45.3
North West	27.0	34.0	32.2	39.3	52.2
Western Cape	32.3	36.3	37.8	44.4	47.4
South Africa	34.6	41.6	40.5	44.3	52.2

District coverage ranged from 93.1% (Xhariep (FS)) to 30.9% (Pixley ka Seme (NC)) (Figure 2 and Map 1). Eighteen districts reached the national target of 55%. No districts in the Northern Cape, Mpumalanga (MP) and Limpopo reached the target.

Some provinces showed wide variation in district coverage. For example, in the Free State, coverage was over 80% in Xhariep and Lejweleputswa but only 40.7% in Mangaung; in the Eastern Cape (EC), coverage ranged from 73.6% in Amathole to 41.7% in Buffalo City. This suggests that local practices play an important role in determining coverage, and that opportunities exist to scale up coverage relatively quickly in districts with low coverage.

Coverage decreased in nine districts and increased in the remaining 43 districts (Figure 3). Six districts increased coverage by 50% or more between 2013/14 and 2014/15. These were: uMgungundlovu (58.7%) and uThukela (54.4%) in KwaZulu-Natal (KZN); Gert Sibande (53.8%) and Ehlanzeni (50.8%) (MP); Bojanala (51.7%) in North West (NW); and ZF Mgcawu (50.6%) (NC).

Coverage was similar in non-metro (52.5%) and metro districts (51.7%). Coverage was also relatively consistent across socio-economic quintiles, being highest in SEQ4 (56.1%) and SEQ1 (54%) (Table 5).

Figure 1: Vitamin A coverage 12 to 59 months by province, 2014/15

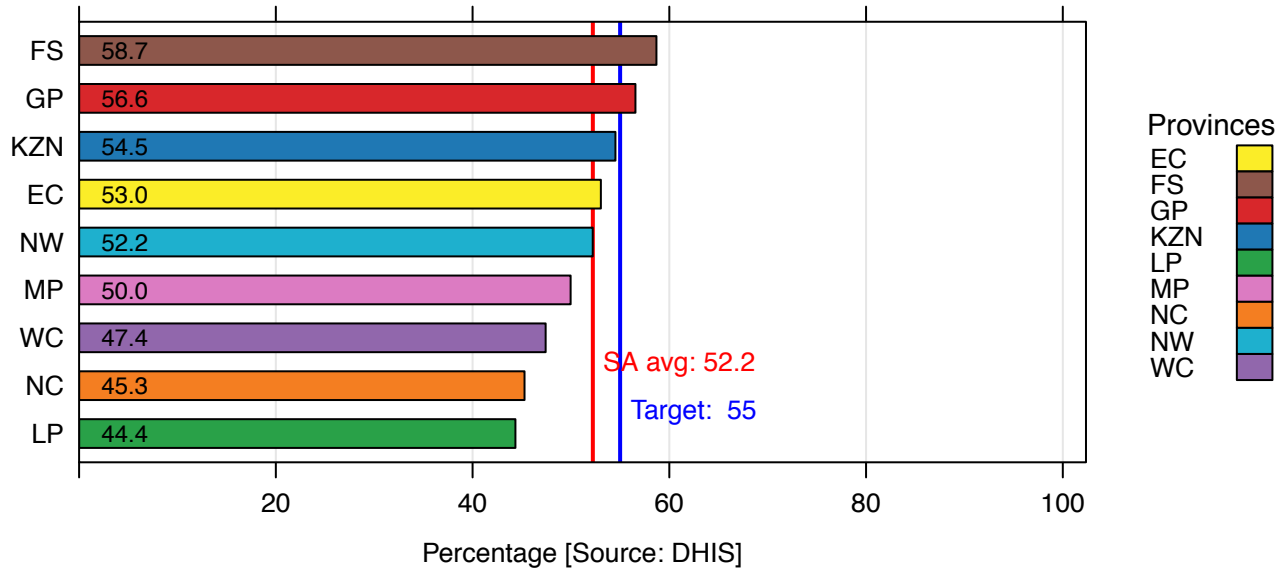
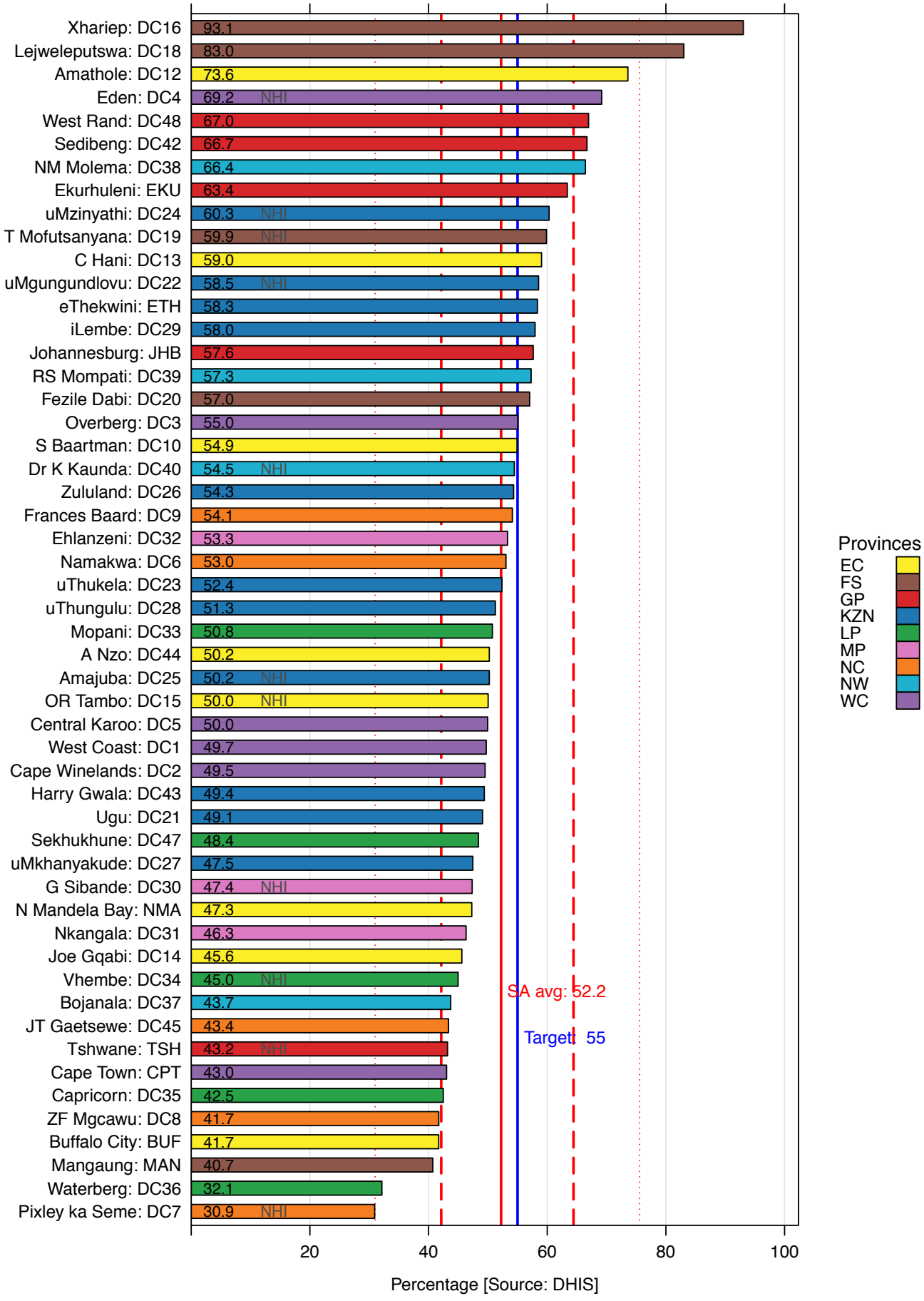


Figure 2: Vitamin A coverage 12 to 59 months by district, 2014/15



Map 1: Vitamin A coverage 12 to 59 months by sub-district, 2014/15

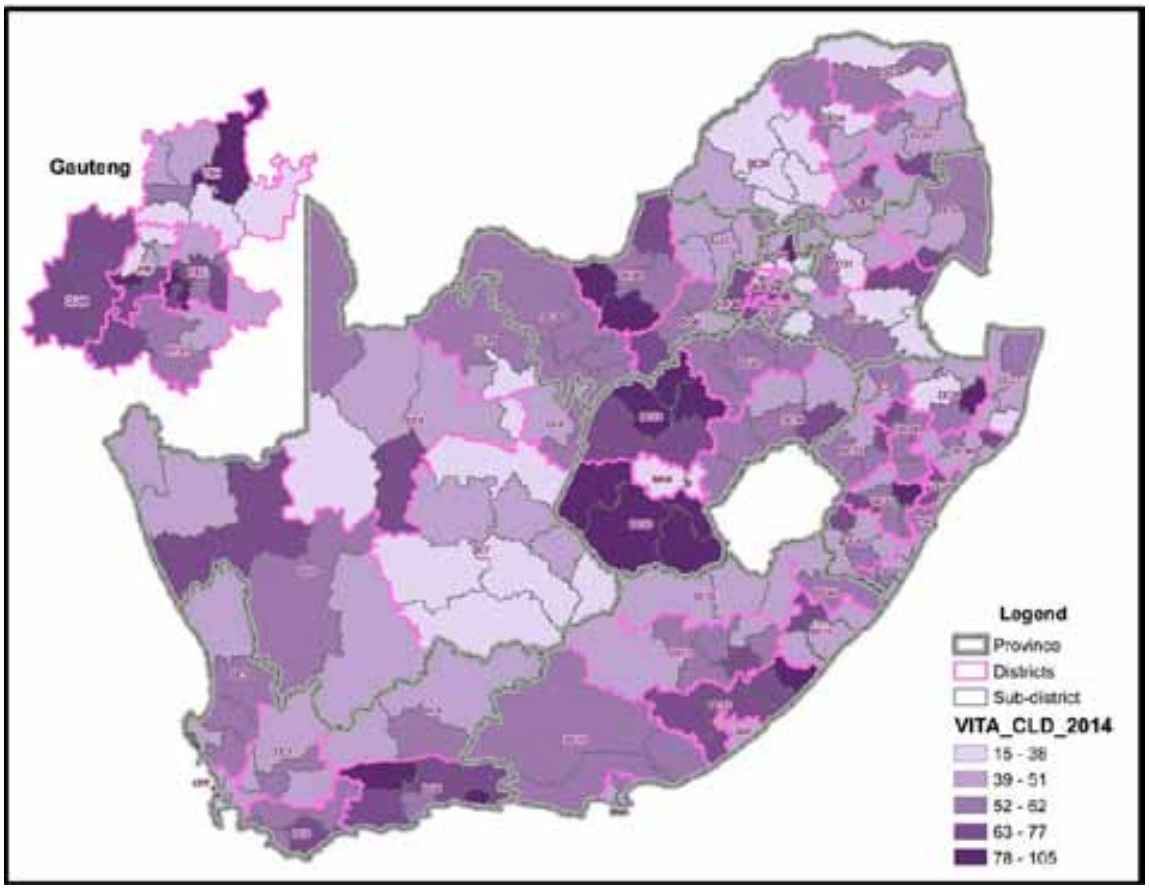
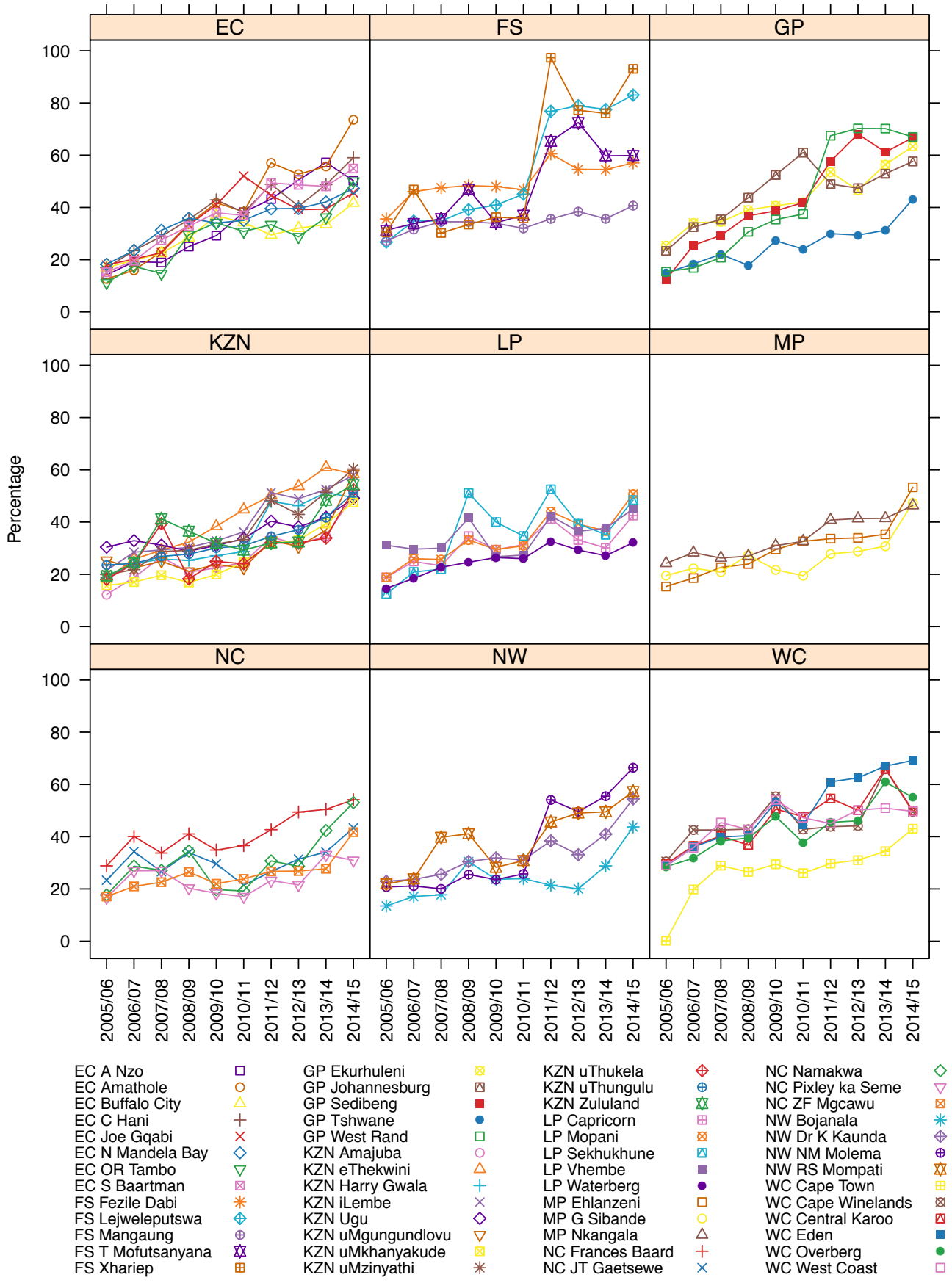


Figure 3: Annual trends: Vitamin A coverage 12 to 59 months



Discussion

Vitamin A coverage has improved in all provinces and most districts, but a high proportion of children aged 12 – 59 months are still not receiving vitamin A supplementation.

High coverage in some districts, including rural and disadvantaged districts, suggests that high coverage can be reached in such settings.

Recommendations

All community health workers must administer vitamin A and these doses must be recorded and reported through the DHIS.

All routine visits to health facilities (including hospitals) should be used as an opportunity to check the vitamin A status of children and to administer vitamin A if due.

Lessons from districts and sub-districts with high coverage should be identified and shared. Districts and sub-districts with low coverage should be identified, and interventions to increase coverage (such as local campaigns) should be implemented.

6.2 School Grade 1 screening coverage

Strengthening of school health services represents one of the three strands of primary health care restructuring. The new school health policy launched by the Department of Basic Education (DBE) in 2012 includes:[c]

- A commitment to close collaboration between key role-players, namely the departments of Health, Basic Education and Social Development.
- Provision of a more comprehensive package of services.
- Provision of services to learners in all educational phases.
- More emphasis on provision of health services (as opposed to screening and referral).
- Mechanisms to be in place ensuring that learners assessed as requiring additional services receive these services.
- A more systematic approach to implementation (starting with quintile 1 and quintile 2).

Although the school health programme's long-term goal is to reach each learner once during each of the four educational phases, Grade 1 and Grade 8 learners are prioritised.

National Grade 1 screening coverage data have only been collected reliably through the DHIS since 2013/14. During 2014/15, 23.2% of all Grade 1 learners in public schools received school health services (Table 3). Although this represents an increase when compared with coverage of 17.2% in 2013/14, it remained below the national target of 30%.

Table 3: National School Grade 1 screening coverage, 2013/14 and 2014/15

	Grade 1 screening coverage (%)
2013/14	17.2
2014/15	23.2

Provincial coverage for the last two financial years is shown in Table 4. Three provinces reported coverage in line with or above the national target of 30%; these were North West (38.2%), Western Cape (36.6%) and Gauteng (31.1%). Three provinces reported coverage less than half the national target; these were Northern Cape (11.3%), Mpumalanga (12.4%) and Eastern Cape (13.4%) (Figure 4).

Improved coverage between the two financial years was primarily due to improved coverage in the Western Cape (no data available in 2013/14), KwaZulu-Natal (9.4% in 2013/14 and 20.7% in 2014/15) and North West (increase from 20.2% to 38.2%). Coverage rates declined in three provinces, namely the Eastern Cape (from 17.1% to 13.4%), Mpumalanga (from 14.9% to 12.4%) and Northern Cape (from 13.9% to 11.3%).

c Departments of Basic Education and Health. The Integrated School Health Policy. Pretoria: National Department of Health. 2012.

Table 4: School Grade 1 screening coverage by province, 2013/14 and 2014/15

	Grade 1 screening coverage (%)	
	2013/14	2014/15
Eastern Cape	17.1	13.4
Free State	21.0	24.4
Gauteng	32.9	31.1
KwaZulu-Natal	9.4	20.7
Limpopo	22.0	22.2
Mpumalanga	14.9	12.4
Northern Cape	13.9	11.3
North West	20.2	38.2
Western Cape	No data	36.6
South Africa	17.2	23.2

Seventeen districts achieved coverage of 30% or more (Figure 5 and Map 2). Coverage greater than 100% was reported in the Central Karoo (WC), and three other districts reported coverage greater than 50%; these were Overberg (95.4%), Eden (70.7%) (both in WC) and West Rand (GP) (52.5%). Two districts reported that no school health services were provided (ZF Mgcawu and Namakwa (both in NC)), and an additional 16 districts reported coverage rates below 15%. This included all three districts in Mpumalanga, and six out of eight districts in the Eastern Cape.

Coverage was marginally higher in metro districts (24.5%) compared with non-metro districts (22.6%). Likewise, coverage was slightly higher in National Health Insurance (NHI) districts than non-NHI districts (24.8% versus 22.7% respectively).

Coverage of school health services across socio-economic quintiles is shown in Table 5. School health services targeted the most disadvantaged schools (quintile 1 and quintile 2 schools); however, school health coverage was lowest in the most disadvantaged districts (16.7%) and highest in the more advantaged districts (29.9% and 27.0% in SEQs 4 and 5 respectively).

Table 5: Vitamin A and Grade 1 screening coverage by socio-economic quintile, 2014/15

	SEQ1	SEQ2	SEQ3	SEQ4	SEQ5	Total
Vitamin A coverage (%)	54.0	49.7	49.8	56.1	52.6	52.2
Grade 1 screening coverage (%)	16.7	24.2	19.6	29.9	27.0	23.2

Figure 4: School Grade 1 screening coverage by province, 2014/15

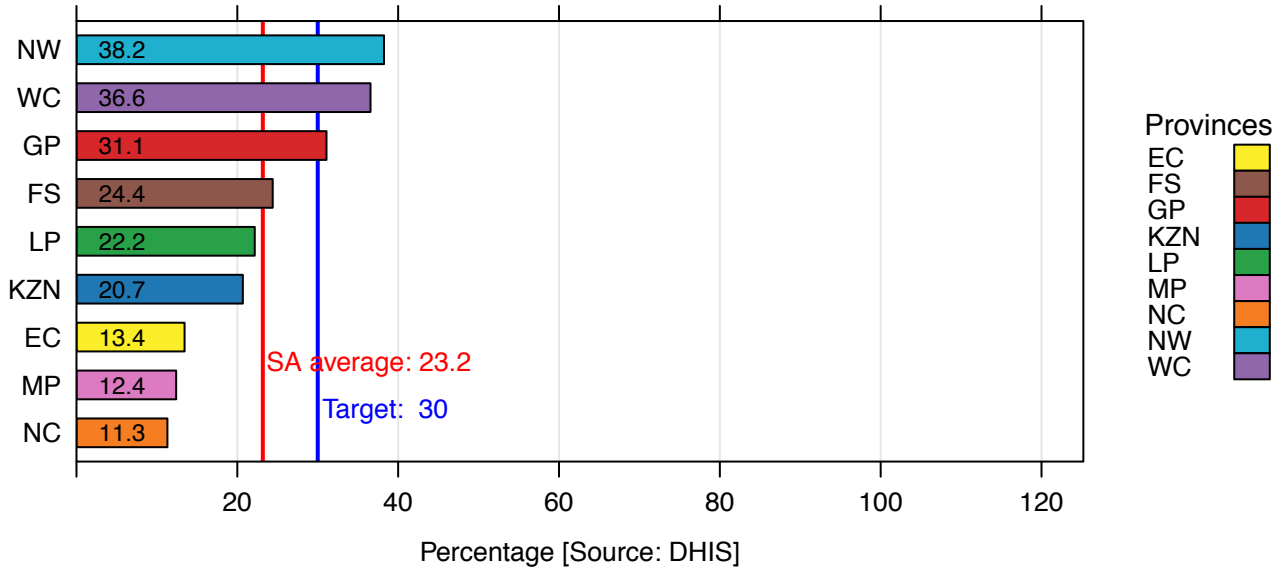
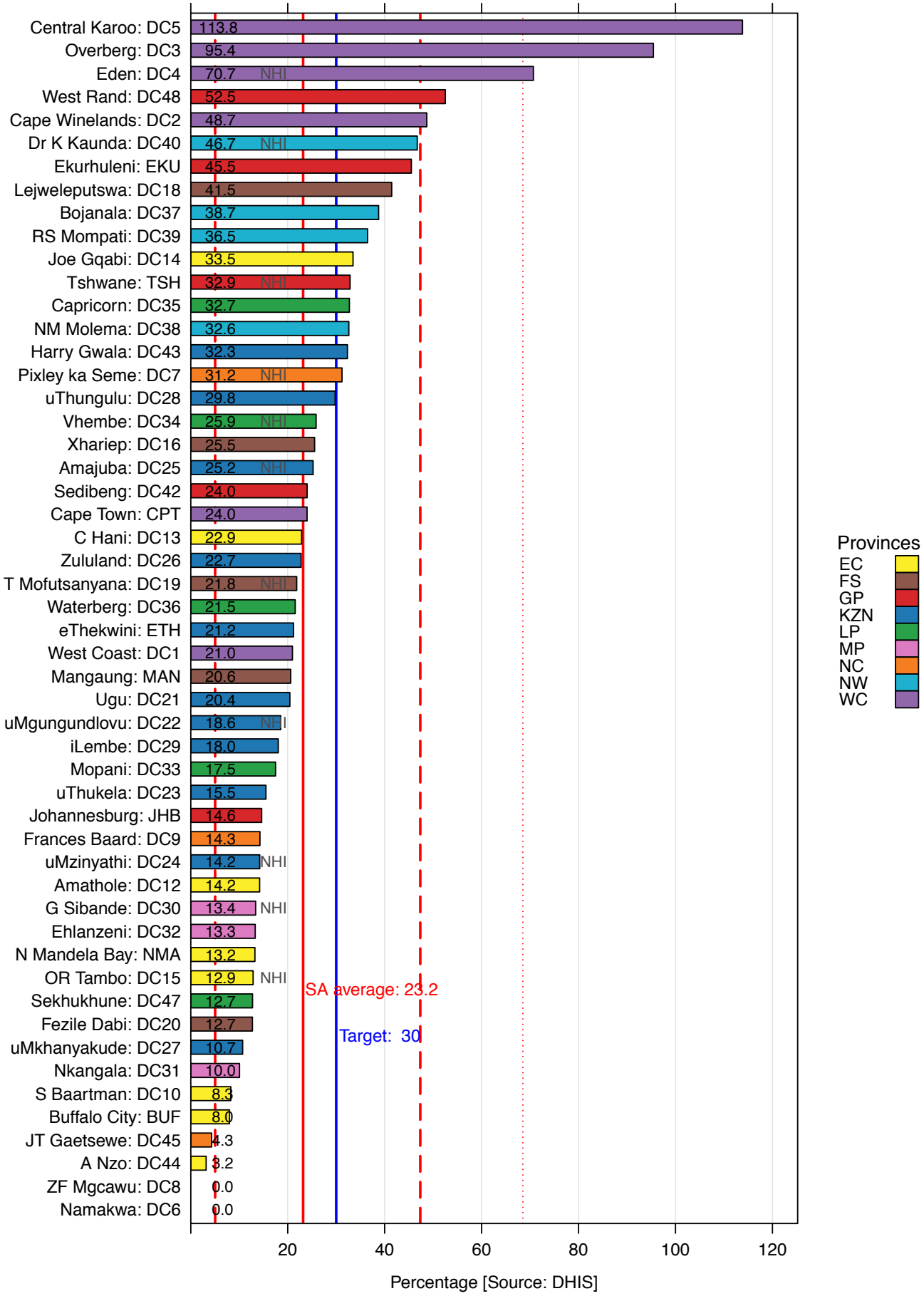
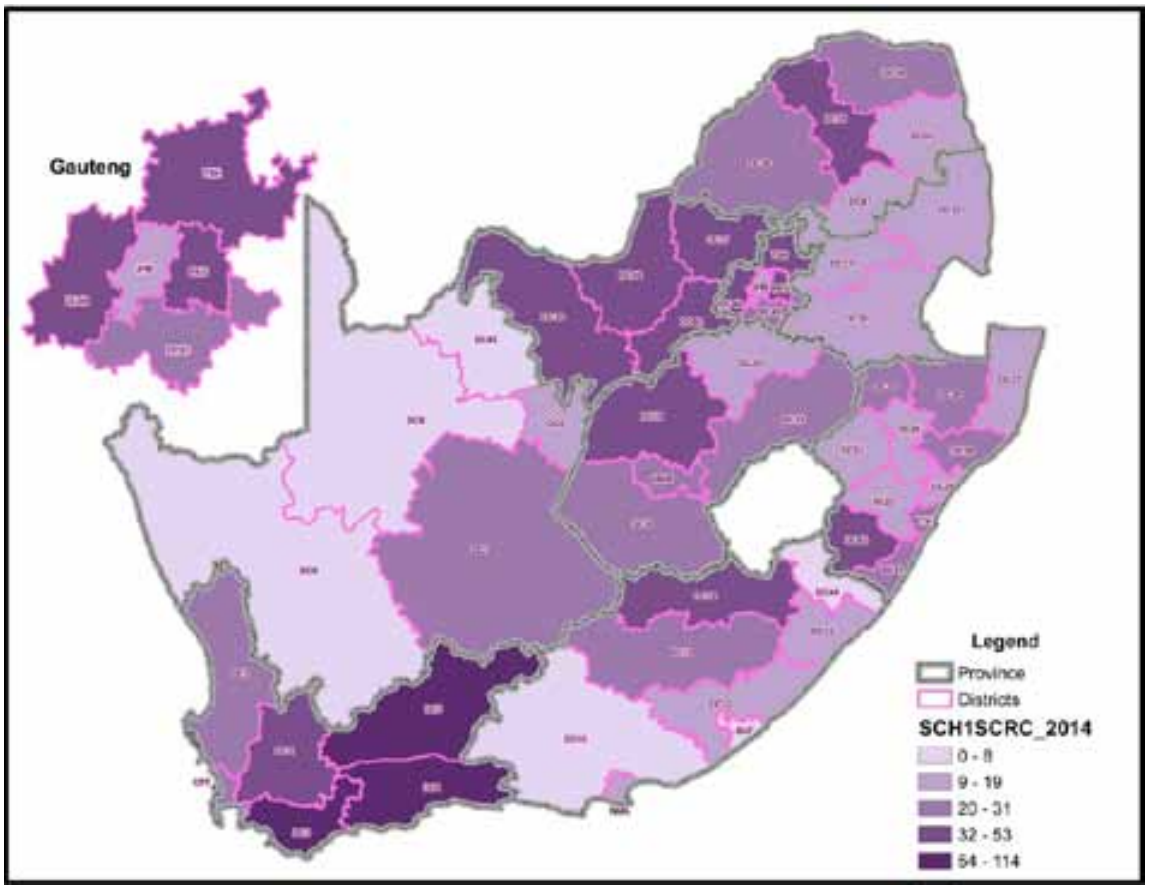


Figure 5: School Grade 1 screening coverage by district, 2014/15



Map 2: School Grade 1 screening coverage by district, 2014/15



Discussion

Coverage of Grade 1 screening has increased on a national level, with school health services now being provided in all but two districts. Unfortunately, coverage still remains relatively low in the three provinces that have the most learners in quintile 1 and quintile 2 schools, namely the Eastern Cape, KwaZulu-Natal and Limpopo.

Increased coverage of school health services has until recently been achieved through appointment of new school health teams (led by professional nurses). It is unlikely that this will continue, and further gains in coverage will have to be achieved through increasing the efficiency of existing school health teams or task-shifting to other health worker cadres (such as community health workers).

Efficiency gains can be achieved primarily through ensuring that school health teams dedicate as much time as possible to providing services to learners. However, contact time with learners is often limited by a number of factors. These include: schools not being open or limiting the times when school health teams can visit; school health nurses being diverted to other activities (either filling in at primary health care facilities or being involved in other campaigns or activities); and being unable to visit schools due to lack of transport. These issues will need to be addressed if coverage is to be increased.

Establishment of closer working relationships between school health teams and ward-based outreach teams would facilitate task-shifting and more efficient use of school health nurses' skills and time. However, robust models for this interaction need to be developed. The role of educators in supporting and providing health services should also be explored, although care will need to be taken that this does not detract from their core responsibility to ensure teaching and learning.

While the quality of reporting of school health data has improved substantially, it is likely that under-reporting continues. This includes situations where nurses from primary health care facilities visit local schools, but do not report the data through the school health module in the DHIS.

Recommendations

All school health teams should set realistic coverage targets (based on the national norm of 2 000 targeted learners per school health team). District management teams should then ensure that the teams are provided with the necessary resources and have support to reach the targeted learners.

School health teams should work more closely with Ward Based Outreach Teams (WBOTs). Successful models that facilitate the reach of the school health programme through collaboration with WBOTs should be identified and shared with other districts. The role of educators should also be explored.

Monitoring of school health data should focus on ensuring completeness of reporting. More attention should be paid to using data to measure and improve efficiency through linking coverage to inputs (i.e. the number of school health teams in a district or sub-district).

Coverage should also be disaggregated by school quintile in order to monitor whether school health services are reaching learners in the most disadvantaged schools.