

# Health spending at a time of low economic growth and fiscal constraint

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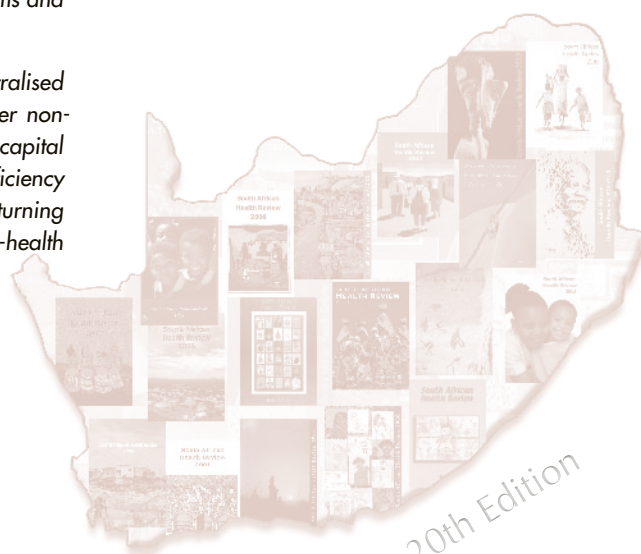
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**T**his chapter reviews public-health spending in South Africa over a 20-year period starting shortly after the dawn of democracy in 1994. Particular emphasis is placed on spending changes following the global economic recession in 2008, which has slowed the upward spending trajectory re-established since 2000. In South Africa, the slowdown in health spending following the global recession was delayed as government followed a counter-cyclical fiscal stance, protecting social-sector spending levels. However, by 2012/13, economic growth and tax revenue collected again slowed and the national deficit had risen to a troubling extent (5% of GDP on the main budget) contributing to growth in health budgets slowing considerably from 2012/13 to 2019/20.

This chapter describes health-expenditure trends in the context of a decade of low national economic growth and rising input costs. Government-expenditure data are used. The chapter reviews some of the ways the health sector has responded to a funding slowdown, both planned and unplanned, and it argues that a better-planned approach to efficiencies and budget constraints might lead to better outcomes. Managing limited budgets under cost pressures while achieving efficiencies and service restructuring is a significant challenge for health service managers. This is contextualised within wider debates on the effects of austerity on health systems and outcomes from experience in other countries.

Strategies adopted by the health sector include limiting personnel numbers, centralised tendering for medicines, prioritising 'non-negotiable' core budget items over non-essential items, prioritising primary health care, and temporarily reducing capital infrastructure spending. The chapter emphasises both the need to seek efficiency solutions and the role that National Health Insurance can potentially play in turning around a seven-year period (from 2012/13 to 2019/20) of reduced public-health spending.

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## Introduction

### Global economic recession of 2008

The 2008 global recession started as a mortgage loan and banking crisis but soon escalated into a large-scale economic recession. A range of cost-containment mechanisms was followed by countries where deficit and debt levels had risen substantially; this was done in order to stabilise public finances, with average fiscal consolidation of 5.5% of gross domestic product (GDP) in Organisation for Economic Co-operation and Development (OECD) countries by 2012.<sup>1</sup> The recession rapidly evolved as slow growth, revenue shortfalls and serious fiscal challenges emerged in many countries. While many countries initially followed counter-cyclical fiscal policies in trying to sustain social-sector expenditure, at some point many OECD countries were forced to implement strategies to control or reduce spending.

The global economic downturn has had a huge impact on health budgets across the world. Negative or slow economic growth has resulted in revenue shortfalls, and governments had to rely partially on loans to cover sustained expenditure. Countries such as Greece and Ireland are widely cited as having cut their health budgets significantly.<sup>2</sup> Other OECD countries, including the UK, Iceland, Portugal and Spain, also saw negative growth in their health budgets between 2009 and 2011.<sup>3</sup>

South Africa has also experienced a period of economic slowdown, causing considerable fiscal constraint. After 2008, the South African government sustained high levels of expenditure despite revenue shortfalls in order to cushion the economy. However, as economic growth did not recover as fast as previously anticipated, government introduced cost-containment and reprioritisation measures from 2011/12 and reduced the public-expenditure growth rate. At the same time, in 2011/12, the Green Paper on National Health Insurance (NHI)<sup>4</sup> was released with the goal of creating a more integrated health system for universal health care. It is envisaged that this will ensure greater access and quality of care for all South Africans, and a significant upward trajectory for health expenditure.

While total public-health spending grew by 8.2% per year in real terms between 2007/8 and 2011/12, this growth has slowed down significantly and is estimated at 1.8% between 2012/13 and 2019/20.<sup>a</sup> This chapter looks at the growth of public sector health expenditure since 2008/9 and budgets up to 2019/20 in the context of a constrained fiscal climate.

This chapter aims to:

- > study how health allocations and expenditure have been constrained in the post-2008 period;
- > document through relevant provincial spending data how provinces have restructured, saved and reprioritised their budgets and highlight areas where this has been done successfully and areas that have impacted service delivery; and
- > explore strategies that are being implemented to achieve technical efficiencies in the health sector.

<sup>a</sup> Authors' calculations based on expenditure data from the National and Provincial Departments of Health, Department of Defence, Department of Correctional Services, Road Accident Fund and Workmen's Compensation Fund.

## Methodology

Public sector health expenditure and budget-allocation trends are reviewed in the context of national fiscal and macro-economic indicators. These data are collected routinely by the National Treasury as part of its oversight of provincial budgeting, and include the latest budgets gazetted by provincial governments (2017/18–2019/20), audited annual reports for historical expenditure, and in-year adjusted budgets for all nine provinces. Provincial health budgets are analysed to determine how the sector has responded to the low growth environment in terms of budgeting and prioritisation of core programmes, sub-programmes and economic classification items, vis-à-vis administration and non-core items. Attention is given to personnel numbers and expenditure and the 'non-negotiable'<sup>b</sup> budget areas announced by the Minister of Health. A few selected lower-priority non-essential items, such as entertainment, travel and subsistence, and consultants are also reviewed to determine the extent to which cost-containment and reprioritisation measures have generated savings. The chapter also discusses other reforms aiming to achieve greater technical efficiency and value for money, such as centralised medicines procurement and a new chronic medicines dispensation model. The time period studied is from 1995/96 to 2019/20, but with a particular emphasis on spending from 2008/09 onward. In cases where prices have been adjusted for inflation, these are presented in terms of 2015/16 prices and indicated as real.

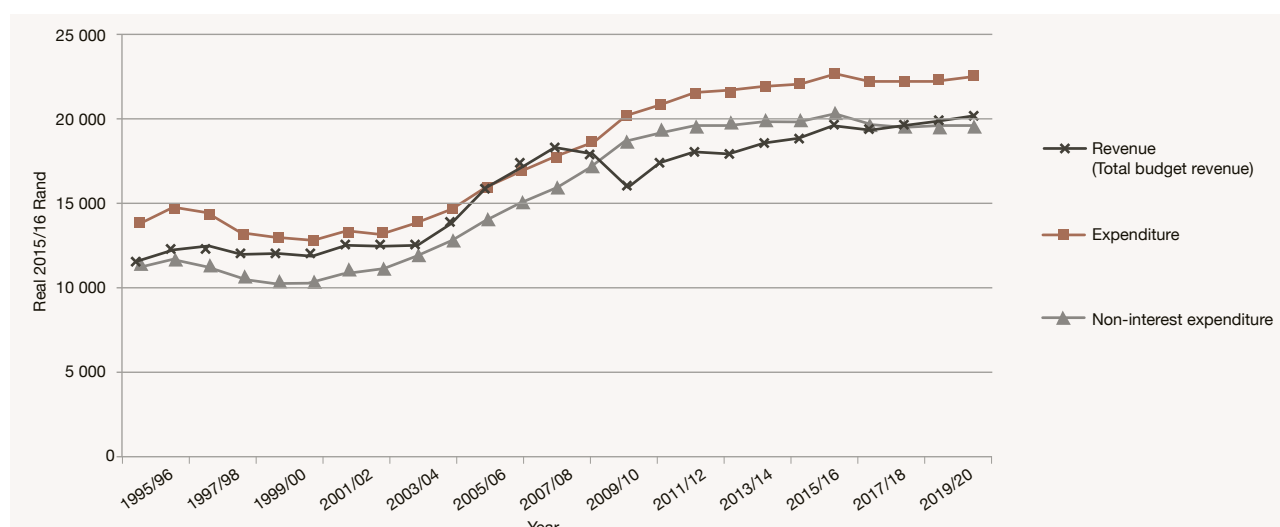
## Key findings

### Macro-economy and fiscal policy: how public spending was protected from full effects of the 2008 global recession until 2012/13

The effects of the 2008 global recession on the South African health sector were delayed until around 2012/13, largely because of the counter-cyclical fiscal policy adopted by government to protect social spending and stimulate economic growth. Figure 1 shows that soon after the start of the 2008 global recession, total government revenue per capita dropped markedly in 2008/09 and 2009/10. However, government spending as a whole continued to rise at the same pace as before, until approximately 2012/13, when total non-interest expenditure per capita began to be constrained as government believed it had reached the limits of sensible deficit and borrowing. Government used this counter-cyclical policy both to protect social services through the period of global recession, but also because maintaining spending stability in the face of economic swings was considered to be a sensible policy objective to reignite economic growth. However, the economy did not respond as strongly as hoped and did not recover substantially. Instead, economic growth recovered to positive levels but has remained low for close to a decade. As projected in the recent Medium-term Budget Policy Statement (MTBPS),<sup>5</sup> total national revenue for

<sup>b</sup> Non-negotiables include: (a) Infection Control and Cleaning, (b) Medical Supplies including Dry Dispensary, (c) Medicines, (d) Medical Waste, (e) Laboratory Services: National Health Laboratory Services (NHLS), (f) Blood Supply and Services: South African National Blood Services (SANBS) or Western Province Blood Transfusion Services (WPBTS), (g) Food Services and Relevant Supplies, (h) Security Services, (i) Laundry Services, (j) Essential Equipment and Maintenance of Equipment, (k) Infrastructure Maintenance, (l) Children's Vaccines, (m) HIV and AIDS, (n) TB, (o) Children's Health Services (including Neonatal and Perinatal Care), (p) Maternal and Reproductive Health Services, (q) Pilot Districts Full Complement (of teams), (r) District Specialist Teams (s) Registrars, and (t) Public Hospital Norms and Standards.

Figure 1: Total government revenue and spending per capita, South Africa, 1995/96–2019/20



Source: Compiled by authors based on Budget Review series for 2006/07–2017/18<sup>6</sup> and the MTBPS 2016.<sup>5</sup>

Table 1: Public-sector health expenditure (Rand million) trend, South Africa, 1995/96–2019/20

Year	Nominal	Real (2015/16 prices)	Change real	Change % real
95/96	18 724	68 086		
96/97	23 709	79 738	11 651	17.1
97/98	25 672	80 065	327	0.4
98/99	26 497	73 609	-6 456	-8.1
99/00	27 652	71 860	-1 749	-2.4
00/01	30 170	72 731	871	1.2
01/02	33 775	76 380	3 649	5.0
02/03	38 165	78 580	2 200	2.9
03/04	42 961	83 843	5 263	6.7
04/05	46 025	86 286	2 443	2.9
05/06	52 674	95 419	9 133	10.6
06/07	60 100	103 476	8 057	8.4
07/08	69 550	110 747	7 271	7.0
08/09	82 657	119 762	9 015	8.1
09/10	97 294	132 366	12 605	10.5
10/11	107 803	141 294	8 928	6.7
11/12	123 566	153 366	12 071	8.5
12/13	134 043	157 547	4 181	2.7
13/14	143 383	159 286	1 740	1.1
14/15	155 643	163 736	4 450	2.8
15/16	171 313	171 313	7 576	4.6
16/17	184 217	173 136	1 824	1.1
17/18	196 812	174 504	1 367	0.8
18/19	208 255	174 362	-142	-0.1
19/20	222 762	176 450	2 089	1.2

Source: Authors' calculations using National Treasury budget and expenditure data.<sup>c</sup>

<sup>c</sup> Authors' calculations. This table is based on the wider definition of public-health spending, which includes several departments and public entities (refer to footnote a). Using the consolidated definition, growth over the Medium-term Expenditure Framework (MTEF) is somewhat higher, averaging 1.6% per annum as unallocated provincial surpluses are allocated out (refer to footnote f).

2019/20 has only grown by 0.7% per year in real<sup>d</sup> per capita terms since 2007/08. The health sector was protected for the first three years (2008/09–2011/12) but has been going through a 'lean period' for four years (2012/13–2016/17), with the tabled provincial budgets for 2017/18 suggesting that this will continue until 2019/20.

#### Total public-health expenditure

In nominal terms, public-health spending has increased from R18.7 billion in 1995/6 to over R220 billion in 2019/20 (Table 1), which in real 2015/16 terms is an increase from R68.0 million to R176.5 million. Despite the sharp revenue drop in 2009/10 shown in Figure 1, health-spending growth was sustained at between 8.5% and 10.5% per year in real terms for three years until 2012/13, when expenditure growth dropped to annual average real growth of R2.9 billion or 1.8% between 2012/13 and 2019/20.

The uninsured population (ie. population without medical aid) has also grown substantially over time. Between 2008 and 2016, the uninsured population grew at an average rate of 1.52% per year,<sup>e</sup> eroding the per capita real trend. Adjusting for population growth, real per capita (uninsured) public-health expenditure has levelled off since 2012/13, and according to some measures it is decreasing (Figure 2).

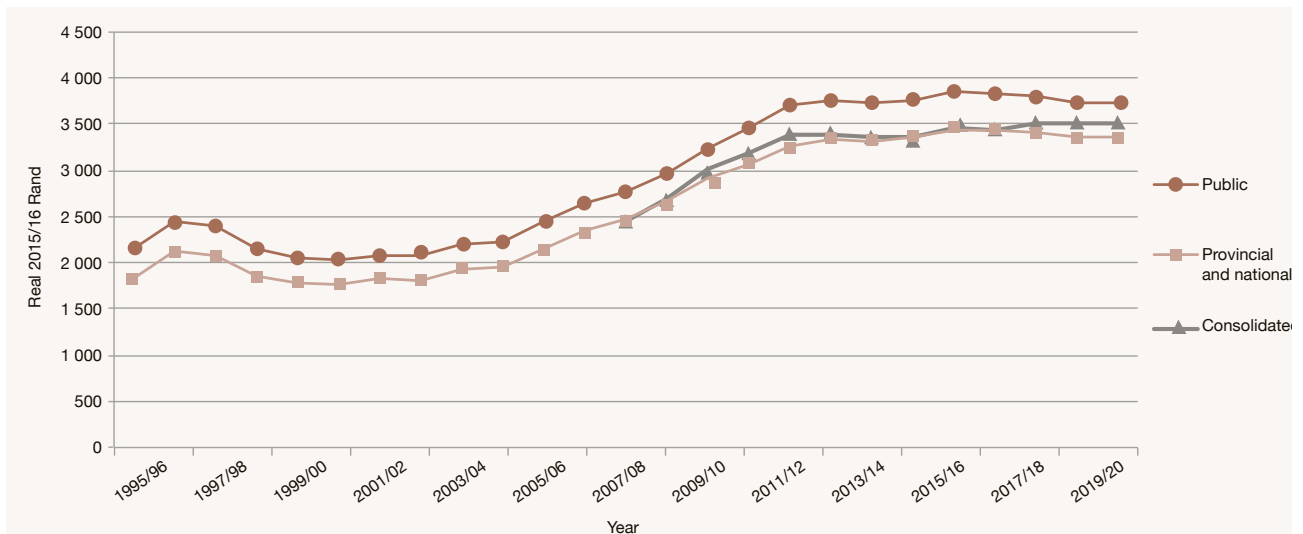
In the decade from 2002/03 to 2012/13, health expenditure doubled in real terms. Some of the key areas that drove spending increases included:

- Rollout of government's HIV and AIDS programme. The HIV conditional grant budget more than doubled in nominal terms from R9.2 billion in 2012/13 to R22 billion in 2019/20.<sup>7</sup>

<sup>d</sup> That is adjusting for inflation and converting all prices to 2015/16 values.

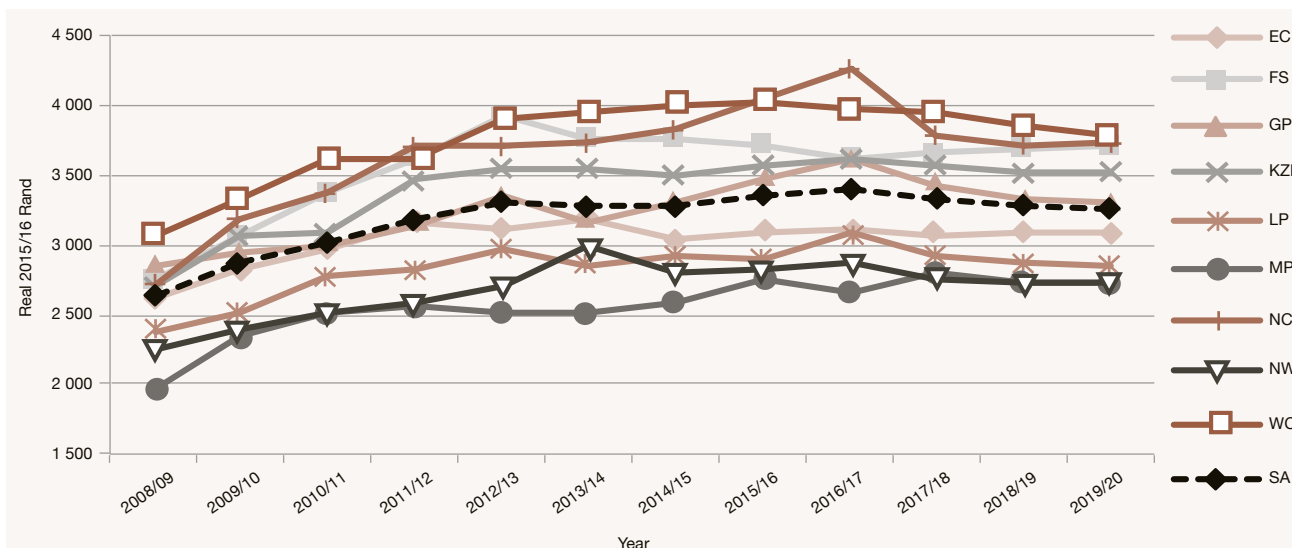
<sup>e</sup> Statistics South Africa (Stats SA) mid-year population estimates less estimates of medical scheme beneficiaries from Stats SA General Household Surveys and Council for Medical Schemes.

Figure 2: Real per capita (uninsured) public-health expenditure, South Africa (2015/16 prices)



Source: Authors' calculations using National Treasury data.<sup>f</sup>

Figure 3: Total provincial health expenditure per capita, 2008/09–2019/20 (real 2015/16 Rand)



Source: Authors' calculations based on Estimates of Provincial Revenue and Expenditure.<sup>11,9</sup>

<sup>f</sup> *Public*: A wider definition that includes other Departments (Defence, Correctional Services etc.) and funds (Road Accident Fund and Workmen's Compensation).

*National and provincial Departments of Health*: The narrowest definition, which only includes published budget information from national and provincial departments of health.

*Consolidated*: Intermediate definition published in Budget Reviews. The consolidated health budget envisages slightly higher forward growth than the other two estimates (1.6% per annum vs 0.6%) because it assumes that a proportion of unallocated provincial surplus funds will still be allocated out to Departments of Health. All three estimates are divided by uninsured population estimates explained in footnote e.

<sup>g</sup> Authors' calculations using data from reference 11 divided by uninsured population estimates explained in footnote e.

Table 2: Trends in filled posts, real personnel expenditure and real unit costs of personnel in the health sector, South Africa, 2005/06–2015/16 (2015/16 prices)

Year	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Filled posts (n)	228 789	237 887	255 091	265 856	271 971	284 191	308 813	314 636	303 631	306 784	309 367
Real average unit cost (Rand per filled post)	201 285	208 011	218 615	234 080	250 837	271 638	272 601	277 161	299 501	304 359	312 598
Real expenditure on compensation (Rand million)	46 052	49 483	55 767	62 232	68 220	77 197	84 183	87 205	90 938	93 373	96 707
<b>Annual change</b>											
Filled posts (%)	2.7	4.0	7.2	4.2	2.3	4.5	8.7	1.9	-3.5	1.0	0.8
Real average unit cost (Rand per filled post) (%)	2.2	3.3	5.1	7.1	7.2	8.3	0.4	1.7	8.1	1.6	2.7
Real expenditure on compensation (Rand million) (%)	5.0	7.5	12.7	11.6	9.6	13.2	9.0	3.6	4.3	2.7	3.6

Source: Authors' calculations based on Estimates of Provincial Expenditure 2008/09–2016/17<sup>h</sup> and personnel headcount data from Vulindlela, National Treasury.<sup>8</sup>

- Personnel numbers, which increased by more than 80 000 from 228 000 in 2005/06 to 313 000 in 2012/13, including a net additional 27 842 nurses, 5 088 doctors and 6 597 pharmacists and pharmacy assistants.<sup>8</sup>
- A series of expensive occupation-specific dispensations (OSDs) or remuneration improvements for health professionals implemented from 2006 to 2009. It took several years for provinces to phase in the OSDs fully and they continued to drive spending for several years beyond the 2008 recession, raising personnel costs at the same time as growth was slowing and fiscal pressure was intensifying. The overall average unit cost per employee in provincial Departments of Health increased by 38.2% above inflation between 2005/06 and 2012/13.
- Non-personnel unit costs rising above consumer price index (CPI) inflation, especially for imported products (e.g. medicines) during a period of currency depreciation.
- New interventions such as the introduction of rotavirus, pneumococcal and human papillomavirus vaccines.
- Primary care visits, which increased from 101.7 million in 2005/06 to 128.9 million in 2012/13.<sup>9</sup>

The period from 2012/13 onwards has been entirely different. While health budgets will continue to grow in real terms over the medium term, there is at best a levelling off of per capita health expenditure in provinces (Figure 3), particularly from 2016/17. Once conditional grant allocations such as the HIV and AIDS grant are excluded and annual cost increases above inflation are factored in, the situation is even starker. These cost pressures include continuing personnel cost increases above inflation, e.g. negotiated wage increases of CPI +1 pay progression, improved medical and housing benefits,<sup>10</sup> and medical inflation on goods and services. Taking these into account, Mr AJ van Niekerk,<sup>i</sup> Chief Financial Officer (CFO) of the Western Cape Department of Health, suggests an adjusted real decline in health budgets of 1.3–2.2% per annum or R7 billion in total over the period from 2015/16 to 2018/19.

## How the health sector responded to declining budget growth and rising costs

The health sector has responded to the slowing budget growth and rising costs in the following ways:

- Control of personnel costs
- Control of medicine costs
- Protection of 'non-negotiable' budget items and saving on non-essential items
- Reduction in capital spending on buildings
- Prioritisation of primary health care (PHC)
- Chronic medicine dispensing and distribution at additional and alternate sites to reduce queues and improve access
- Focus on health outcomes.

### Control of personnel costs

Average real unit costs of personnel continue to exceed CPI inflation (Table 2). During the period that OSDs were phased in (2006/07–2011/12), personnel spending grew by R28.4 billion in real terms and by a further R13.3 billion from 2010/11 to 2015/16. Real unit costs of personnel have increased on average by 4.5% per annum above inflation over a decade. Given the apparent inability of government to control personnel unit costs, limits on personnel numbers have been put in place to control personnel expenditure, which is increasingly being capped and specifically and exclusively appropriated. Most provinces have imposed some form of restrictions in terms of filling vacant posts. In some cases they require appointments to be approved by both the provincial Treasury and the Office of the Premier, although the intention is for provinces to exclude health professionals from this requirement as far as possible.<sup>12</sup>

The total number of filled posts in provincial Departments of Health peaked at around 314 636 in 2012/13 and has since declined by an average of 0.5% per year.<sup>8</sup>

<sup>h</sup> <http://www.treasury.gov.za/documents/provincial%20budget/default.aspx>

<sup>i</sup> van Niekerk A. Analysis of the MTEF budget allocations. Presentation at Health Sector 10 by 10 Budget Meeting. Pretoria: National Department of Health; 2016.

Table 3: Filled posts in provincial Departments of Health as at March each year, South Africa, 2006–2016

Occupational Classification	March 2006	March 2008	March 2012	March 2016	Change 2006 – 2012	Change 2012 – 2016
Medical Practitioners	9 603	10 781	13 204	14 454	3 601	1 250
Medical Specialists	3 711	4 050	5 198	4 990	1 487	-208
Nursing Assistants	31 923	34 082	35 377	32 843	3 454	-2 534
Professional Nurses	44 245	47 975	58 274	66 024	14 029	7 750
Staff Nurses and Pupil Nurses	20 866	22 781	29 353	30 774	8 487	1 421
Student Nurses	8 944	9 789	10 816	6 911	1 872	-3 905
Dental Practitioners	719	655	997	1 143	278	146
Dental Specialists	41	32	143	173	102	30
Dental Technicians	38	39	42	45	4	3
Dental Therapy	147	146	259	318	112	59
Ambulance and Related Workers	7 672	10 304	11 308	12 361	3 636	1 053
Emergency Services Related	168	611	2 240	2 360	2 072	120
Pharmaceutical Assistants	409	648	1 439	1 723	1 030	284
Pharmacists	1 755	2 157	3 710	4 874	1 955	1 164
Radiography	2 109	2 155	4 714	4 973	2 605	259
Supplementary Diagnostic Radiographers	186	180	904	982	718	78
Community Development Workers	202	164	96	95	-106	-1
Dieticians and Nutritionists	515	612	940	1 253	425	313
Environmental Health	883	820	902	442	19	-460
Health Sciences Related	2 388	4 423	4 247	3 751	1 859	-496
Medical Research and Related Professionals	80	69	2 076	1 731	1 996	-345
Medical Technicians/Technologists	819	413	464	515	3 55)	51
Occupational Therapy	672	789	1 020	1 251	348	231
Optometrists and Opticians	52	33	2 310	2 445	2 258	135
Oral Hygiene	143	159	308	336	165	28
Physiotherapy	790	908	1 069	1 306	279	237
Psychologists and Vocational Counsellors	406	441	669	774	263	105
Speech Therapy and Audiology	283	337	491	702	208	211
<i>Subtotal Clinical Posts</i>	<i>139 769</i>	<i>155 553</i>	<i>192 570</i>	<i>199 549</i>	<i>52 801</i>	<i>6 979</i>
Total	234 180	261 851	314 859	309 386	80 679	-5 473

Source: Vulindlela, National Treasury.<sup>8</sup>

However, from a somewhat more encouraging perspective, there has on average been some protection of clinical posts during the period. From 2006 to 2012, the number of employees in provincial Departments of Health increased by 80 679, whereas in the period from 2012 to 2016, the number of net filled posts declined by 5 473 (Table 3). Clinical filled posts increased by 53 100 in the first period, and continued to increase by 7 038 in the latter period. While the number of core administrative posts was supposed to have been contained in favour of direct service delivery posts, these also increased by close to 3 000 over the past three years (from 34 517 to 37 391). The biggest decreases have been in the 'Other' category, which includes general support and non-clinical staff.<sup>8</sup>

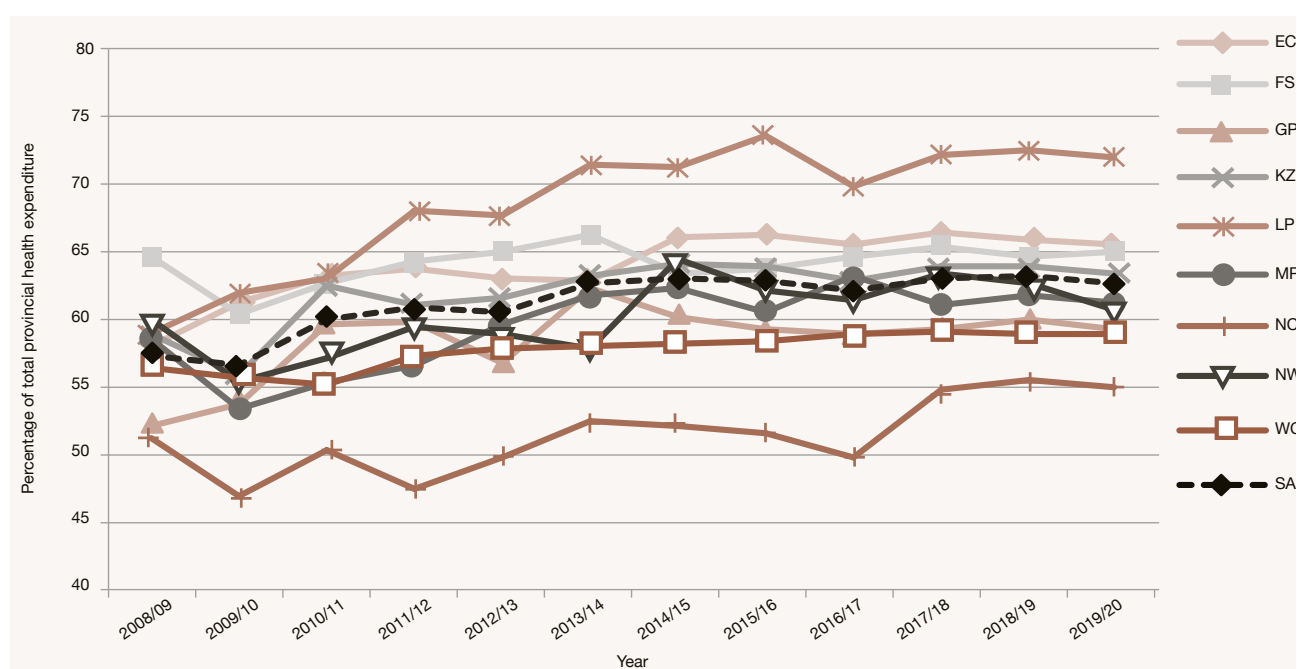
Figure 4 shows that compensation of employees constitutes an increasingly large proportion of provincial health budgets, but also that there is significant interprovincial variation in this regard. In South Africa as a whole, health personnel costs have increased from 57.2% of total expenditure in 2008/09 to 63.4% in 2016/17, after which personnel costs will remain relatively stable. While there has been a slight convergence across provinces over this time-period, Limpopo Province has the highest proportion of spending on compensation relative to other items, which could potentially

crowd out funding for essential goods and services, such as medical supplies and laboratory services.

#### Control of medicine costs

Control of medicine price increases has generally been one of the Department of Health's greatest successes. Overall, medicine spending has been prioritised, rising by 6.7% per annum above inflation from 2005/06 to 2012/13 and 4.8% per annum in real terms from 2011/12 to 2019/20 (Table 4). Most spending increases are attributed to the progressive expansion of antiretroviral (ARV) treatment, with approximately 400 000 net additional patients per annum and 3.6 million patients remaining in care (unpublished data)<sup>13</sup> and the introduction of new-generation child vaccines. Significant progress has been made through centralised procurement of medicines, essential medicine lists and treatment protocols, improved international price benchmarking, and price-negotiation strategies. Medicines comprise only 8% of provincial health spending in South Africa, compared with 20% in the OECD countries and 15.3% in South African medical schemes,<sup>14</sup> which reflects some success in controlling medicine costs in the public sector.

Figure 4: Percentage of total health budget spent on compensation of employees, South Africa, 2008/09–2019/20



Source: Authors' calculations based on Estimates of Provincial Expenditure 2011/12–2016/17.<sup>11</sup>

Table 4: Medicine expenditure by provincial Departments of Health, 2011/12–2019/20 (nominal Rand million)

Year	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	Real annual growth 2011/12 to 2019/20 (%)
Eastern Cape	861	1 031	1 087	1 219	1 074	1 417	1 516	1 857	2 031	5.2
Free State	437	472	587	668	706	646	698	753	873	3.1
Gauteng	1 869	1 993	2 214	2 387	2 804	3 384	3 885	4 275	4 793	6.4
KwaZulu-Natal	1 865	2 317	2 521	2 393	2 895	3 204	3 527	3 876	4 404	5.3
Limpopo	629	829	910	897	819	1 148	1 166	1 257	1 489	5.3
Mpumalanga	656	781	851	1 020	1 118	1 233	1 299	1 307	1 458	4.5
Northern Cape	196	192	222	187	255	306	280	298	346	1.5
North West	410	536	633	559	580	767	808	889	1 116	7.1
Western Cape	766	840	890	1 028	1 136	1 260	1 448	1 559	1 672	4.2
Total	7 689	8 991	9 914	10 357	11 388	13 366	14 627	16 069	18 182	5.3

Source: Estimates of Provincial Revenue and Expenditure 2015/16 and 2016/17.<sup>11</sup>

Two specific medicine-related problems have been currency depreciation and medicine stock-outs. A high proportion of active pharmaceutical ingredients are imported, and currency depreciation has arisen as a significant problem since the value of the Rand dropped by 38% against the US Dollar, from R8.51 in 2012/13 to R13.78 in 2015/16. The sector has largely coped with increases in volume of patients on ARVs and currency depreciation due to the effectiveness of central procurement and international benchmarking. Prices of ARVs are generally considered the lowest in the world, and overall public-sector medicine prices have been said to be 87% lower than average OECD prices.<sup>i</sup> Although medicine cost-saving strategies appear to have been very successful overall, it is possible that some aspects of aggressive tendering strategies may at times have contributed to medicine stock-outs. However, the latter are usually considered to arise mainly from logistical and

managerial problems rather than from procurement.

#### Protection of 'non-negotiable' budget items and saving on non-essential items

In 2012, the Minister of Health and the National Health Council adopted a set of non-negotiable budget items to protect in provincial budgets. Provincial CFOs monitor and report back to the national Department on these items on a regular basis.<sup>15,16</sup> The items include medicines, medical supplies, laboratory services, food services, HIV and AIDS treatment, medical equipment, and infrastructure (including maintenance). Budget growth between 2012/13 and 2019/20 (Table 5) shows that all of these items (except for buildings) have been above overall growth in the provincial Health Departments, indicating that they have indeed been relatively protected. The strong growth in spending on HIV and AIDS (and to some extent medicines and laboratory services) can largely be attributed to the additional allocations through the HIV and AIDS and TB conditional grant to sustain the expanding

<sup>i</sup> Steel G. Medicine supply, stock control, and Central Chronic Medicines Dispensing and Distribution (CCMDD). Presentation at Health Sector 10 by 10 Budget meeting. Pretoria: National Department of Health; 2016.

Table 5: Real growth for selected non-negotiable health budget items between 2012/13 and 2019/20

Year	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	Average growth 2012/13 – 2019/20 (%)
Medicines (%)	10.7	4.2	-1.1	4.5	10.3	3.2	3.7	7.0	4.6
Medical supplies (%)	4.1	-0.3	6.6	-0.1	2.4	1.8	2.5	2.9	2.3
Laboratory services (%)	-0.2	-12.1	18.5	6.0	7.5	-2.2	4.6	1.4	3.4
Food services (%)	-24.0	-10.2	8.8	-1.3	9.9	2.8	2.0	-0.7	1.6
HIV/AIDS (%)	16.0	13.2	6.3	6.7	7.1	7.0	6.2	4.4	7.3
Buildings (%)	8.1	-23.0	-18.0	10.7	-11.2	6.8	-12.0	2.1	-6.4
Equipment (%)	-30.0	7.3	-20.1	-4.6	46.0	15.0	-10.5	1.3	4.9
Weighted average (%)	5.4	-0.8	0.8	4.8	6.6	4.6	2.0	4.1	3.2
Overall PDoH budgets (%)	4.1	0.8	2.1	4.0	3.3	-1.0	-0.2	1.2	1.5

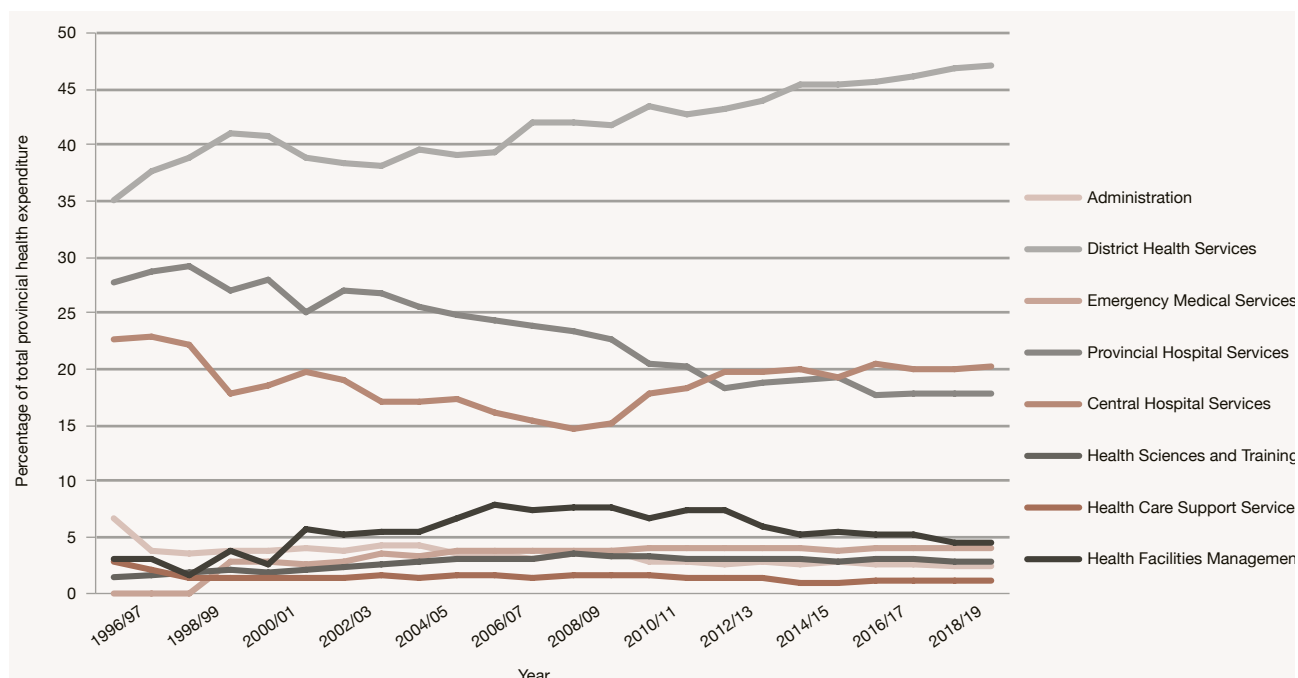
Source: Authors' calculations based on Estimates of Provincial Revenue and Expenditure 2016.<sup>11</sup>

Table 6: Real growth in administration and selected non-core health budget items, 2012/13–2019/20

Year	2013/14	2014/15	2015/15	2016/17	2017/18	2018/19	2019/20	Average real growth 2012/13 – 2019/20 (%)
Administration (%)	5.7	-4.8	13.9	-0.2	-7.1	-3.9	1.5	0.7
District Management (%)	-1.9	-0.9	2.4	7.2	-14.4	1.1	0.6	-0.8
Travel and Subsistence (%)	-39.6	-4.5	-11.4	-5.5	-10.1	-11.2	0.2	-11.7
Venues, Catering and Entertainment (%)	-16.0	-13.6	-23.5	-14.8	-11.0	-1.4	-1.2	-11.7
Consultants (%)	-14.3	9.9	-15.3	11.5	9.7	-10.9	7.5	-0.3
Weighted Average (%)	-4.8	-1.8	4.6	2.1	-8.7	-2.7	1.2	-1.5
Overall PDoH budgets (%)	0.8	2.1	4.0	3.3	-1.0	-0.2	1.2	1.5

Source: Authors' calculations based on Estimates of Provincial Revenue and Expenditure 2016.<sup>11,k</sup>

Figure 5: Health spending by budget programme, South Africa, 1996/97–2019/20



Source: Authors' calculations based on Estimates of Provincial Revenue and Expenditure.<sup>11</sup>

k These two grants are (1) the Health Facility Revitalisation Grant, which is a direct conditional grant transferred to the provincial Departments via the National Department of Health (NDoH) and (2) the Health Facility Revitalisation component of the Indirect National Health Insurance Grant, which is managed and implemented by the NDoH on behalf of provinces.



antiretroviral therapy (ART) programme. However, other items, such as medical supplies and food services, have also grown in real terms (by 2.3% and 1.6% per year respectively) compared with the overall provincial health budget growth of 1.5%. Expenditure on the buildings item has declined in real terms, as discussed later in this chapter.<sup>l</sup>

At the same time, both the Health and Finance Ministries have tried to reduce administration costs and make savings in non-core items. Table 6 shows the administration programme growing by only 0.7% in real terms between 2013/14 and 2019/20 and making up only 2.4% of the total provincial budgets in 2019/20 (Figure 5). Similarly, in the district management sub-programme, which is responsible for primary health care administration, the real average growth rate over the seven-year period is -0.8%. While frontline service-delivery programmes are generally prioritised over administration, caution must also be taken so that this does not have a negative impact on management capacity in provincial Departments, thereby undermining important functions such as financial management, human resources and health-services planning.

In December 2013, the Office of the Accountant-General at the National Treasury issued an instruction note<sup>17</sup> and guidelines<sup>18</sup> on cost-containment measures, mainly pertaining to spending on non-core items such as entertainment, travel and subsistence, and consultants. A subsequent instruction note was issued in 2016, imposing further restrictions on these and other areas.<sup>19</sup> However, it should be noted that provincial Departments of Health had already started implementing cost-containment measures as early as 2009/10 due to the pressure exerted by the nursing OSD on the budget and directives from some provincial Treasuries.

It is evident from Table 6 that these interventions have had the intended effect and generated significant savings. Over the six-year period, expenditure on venues, catering and entertainment will on average have declined by 11.7% per year, travel and subsistence also by 11.7% per year, and consultants by 0.3%.

#### Reduction in capital spending on buildings

While health infrastructure (including maintenance) is included in the non-negotiable items, it appears to be the area where the largest savings have been effected in the health sector. Based in part on significant historical underspending,<sup>20,21</sup> budget reductions have been made to the two conditional grants<sup>l</sup> that fund the majority of capital projects in the health sector.<sup>7,22</sup> As shown in Table 5, provincial spending on buildings will have declined substantially in real terms between 2012/13 and 2019/20. Health Departments have in some cases postponed certain projects in the planning phase and refurbished hospitals instead of replacing them.<sup>m</sup>

#### Prioritisation of primary health care

A shift towards primary health care has long been a policy intention and is reflected in the spending numbers. Figure 5 shows the composition of provincial spending by budget programme. Expenditure on district services will have increased from 35.1% of total provincial health budgets in 1995/96 to 43.3% in 2012/13 and to 47.1% by 2019/20. Thus this is not only a new emphasis, but a long-term policy shift from 1994. Table 7 shows that District Health Services received a real R28.9 billion spending increase between 2005/06 and 2012/13 (49.2% of all new health funds) and a further increase of R12.7 billion between 2012/13 and 2019/20 (88% of new health funds).

Table 7: Provincial health spending by budget programme, 2012/13–2019/20

R million	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	Change real 2005/06– 2012/13	Change real 2012/13– 2019/20	Change real pa 2002/13– 2015/16 (%)	Change real pa 2015/16– 2019/20 (%)	Change real pa 2012/13– 2019/20 (%)
Administration	3 202	3 580	3 598	4 308	4 538	4 455	4 638	4 925	789	138	4.6	-2.5	0.5
District Health Services	53 034	57 517	63 805	69 788	74 883	81 108	87 593	94 735	28 960	12 706	4.0	1.7	2.7
Emergency Medical Services	5 050	5 347	5 556	6 025	6 686	7 281	7 694	8 108	2 752	487	0.5	1.6	1.1
Provincial Hospital Services	22 531	24 443	26 687	29 628	29 568	31 541	33 370	35 783	5 295	1 862	3.8	-1.1	1.0
Central Hospital Services	24 268	25 890	28 166	29 513	32 653	34 585	36 586	40 540	13 789	3 588	1.2	2.1	1.7
Health Sciences and Training	3 726	4 041	4 244	4 521	4 890	5 216	5 408	5 812	1 671	224	1.0	0.5	0.7
Health Care Support Services	1 764	1 927	1 322	1 465	1 919	1 904	2 000	2 184	634	-343	-10.4	3.8	-2.6
Health Facilities Management	8 965	7 926	7 491	8 513	8 797	9 093	9 551	9 124	4 916	-3 310	-6.9	-4.0	-5.2
<b>Total</b>	<b>122 540</b>	<b>130 672</b>	<b>140 868</b>	<b>153 762</b>	<b>163 934</b>	<b>175 182</b>	<b>186 840</b>	<b>201 211</b>	<b>58 805</b>	<b>15 353</b>	<b>2.3</b>	<b>0.9</b>	<b>1.5</b>

Source: Authors' calculations based on Estimates of Provincial Revenue and Expenditure 2016/17 and 2017/18.<sup>11</sup>

<sup>l</sup> It should, however, be noted that the sharp decrease in buildings spending in 2013/14 seen in Table 5 was largely due to the creation of the Health Facility Revitalisation component of the Indirect National Health Insurance Grant, when approximately R1 billion per year was shifted from provincial Departments to the national Department.

<sup>m</sup> Examples of such projects are the Bambisana and Zithulele Hospitals in the Eastern Cape. It was initially planned that they would be replaced, but instead they will undergo major refurbishment, funded by the indirect grant.

The District Health Services programme includes district hospitals, which are not traditionally seen as part of primary health care. Primary health care, including HIV services,<sup>n</sup> has also increased significantly as a proportion of total provincial health budgets, from 21.0% in 2008/09 to 28.5% in 2019/20.<sup>o</sup>

The shift of ART from hospitals, mostly to the primary care setting, has been an important efficiency gain. Around half of the real growth in District Health Services expenditure has been in the HIV and AIDS sub-programme, with total real growth of R14 billion from 2006/07 to 2012/13 and R6.9 billion from 2012/13 to 2019/20. This is likely to have contributed to total national primary care visits rising from 101.7 million in 2005/06 to 128.9 million in 2012/13 (and from 2.5 to 3 visits per capita uninsured). Early initiation of ART has helped to reduce the need for hospital admissions, and hospital admission rates have remained relatively stable, having only increased by an average of 0.4% (which is a per capita decrease) per year from 3.7 million in 2008 to 3.8 million in 2015.<sup>23</sup>

#### Chronic medicines dispensing and distribution at additional and alternative sites to reduce queues and improve access

Over recent years, a Central Chronic Medicines Dispensing and Distribution (CCMDD) programme has been initiated in most provinces to dispense chronic medicines at external pick-up points such as community halls and private pharmacies. This has the potential to improve efficiencies by reducing the need for stable patients to visit public PHC facilities to collect chronic medicines. This is important for HIV and AIDS, hypertension, diabetes and other chronic-disease patients. While a systematic review on the effectiveness of the CCMDD programme should be done, it appears to have helped to reduce unnecessary consultations, decongest clinics, and reduce waiting times. Primary care visits declined from 129 million in 2012/13 to 126 million in 2015/16 (from 3 to 2.8 per capita uninsured), likely due to CCMDD and the Ward-based Outreach Teams. These programmes have been operated by both the national and several provincial Departments. As of September 2016, 700 facilities in the NHI pilot districts were implementing CCMDD, reaching 521 798 patients, and 329 external pick-up points had been contracted, according to the conditional grants report (when including other districts, these numbers are even higher).<sup>24</sup> Unfortunately, there are inadequate consolidated national data to track the emerging scale of the programme as a whole (including non-NHI districts), and this should be addressed.

#### Focus on health outcomes

South Africa has an unusual arrangement in which Ministers sign outcomes-based performance agreements and report on these regularly to Cabinet and the new Department of Planning, Monitoring and Evaluation. Given the difficulty of shifting outcomes, this was a brave move, but the sector has been surprisingly effective in prioritising to make real progress on what were extremely poor health outcomes:

- National life expectancy rose to 62 years in 2014,<sup>25</sup> up from 52 years in 2006.

- Infant mortality rates dropped from 57.8 deaths per 1 000 live births in 2002 to 34.4 per 1 000 in 2014.<sup>25</sup>
- The under-5 mortality rate dropped from 85.2 deaths per 1 000 live births in 2002 to 44.1 per 1 000 in 2014.<sup>25</sup>
- The maternal mortality rate dropped to 141 per 100 000 live births in 2013, after an increasing trend which peaked at 312 per 100 000 in 2009.<sup>25</sup>
- Mother-to-child transmission of HIV decreased from 10.9% in 2009/10<sup>26</sup> to 1.5% in 2015/16.<sup>27</sup>

These outcome improvements are likely to have been achieved by focusing, inter alia, on improving ART coverage, introduction of new child vaccines, as well as other developmental interventions such as widening coverage of child-support grants, and improved water, sanitation, electricity and housing access.

## Discussion

### Lessons from OECD countries

Lessons, both positive and negative, can be derived from the experience of other countries. Many OECD countries experienced economic turbulence in the period following the global recession in 2008. Greece faced one of the most profound fiscal crises of all the European countries. Unemployment rose from 7% to 24% and public debt increased from 105% to 142% of GDP between 2007 and 2014.<sup>28</sup> The main strategies to reduce health expenditure were hospital rationalisation and consolidation, savings in personnel expenditure (both numbers and wage rates) and pharmaceutical expenditure, and better expenditure management and oversight. Greece's attempts to deal with fiscal constraint in the health sector have been criticised in the literature,<sup>29</sup> partly because of the magnitude of health-expenditure reduction and the lack of risk protection for vulnerable groups.

Ireland experienced a severe banking crisis, negative GDP growth, a rise in unemployment, revenue reductions and a substantial fiscal imbalance leading to a public debt of over 120% of GDP, requiring a €85 billion bail-out package. Governmental expenditure, which had peaked in 2009 at around 39% of GDP, has been reduced very substantially by 8% to 31% of GDP in 2014. In this context, health expenditure declined by 8.6% from €15.5 billion to €14.2 billion in two years. There were few interventions that could achieve this magnitude of savings. Given that personnel tends to be the largest area of health spending, in an unprecedented step, social partners agreed to reduce public-sector wages instead of focusing exclusively on downsizing personnel numbers (12 000 were downsized<sup>3</sup>). Gross pay in the Irish health sector declined from €7.5 billion to €6.3 billion. Capital projects were delayed and capital budgets reduced by 26%.<sup>1</sup> Ireland also decided to increase co-payments for medicines and hospital accident and emergency visits. Hospital beds were consolidated, leading to a reduction of 941 beds countrywide.<sup>1</sup>

In the UK, when the effects of the banking and fiscal crisis finally affected the health budget, spending declined by £3 billion in real terms between 2009 and 2011 and budgets were effectively capped until 2015.<sup>2</sup> This led to spending cuts in many areas. At the same time, it is estimated that long-term sectoral pressures, including pay rises, rising chronic diseases and population growth, have cost

n Primary health care spending here is made up of the following sub-programmes: community health clinics, community health centres, HIV and AIDS (prevention and treatment), community-based services and other community services.

o Authors' calculations based on Estimates of Provincial Revenue and Expenditure.

implications of £13 billion in 2015 and will cost £30 billion by 2021. The combined effect of cuts and spending pressures in the UK has sometimes been referred to as the 'Nicholson challenge' after the former chief executive of the UK's National Health Service (NHS).<sup>30</sup> Strong institutions, better planning and huge public protests in support of the NHS have helped to limit the effects of the recession on the health sector.

Table 8 shows a selection of some of the potential options followed by different OECD countries.

Table 8: Selected policy options used by OECD countries after the 2008 recession

Area	Intervention	Country	Interventions implemented in South Africa
Fiscal cushion	Counter-cyclical fiscal policy		Yes, particularly until 2012/13.
	Use accumulated surpluses in insurance fund/hospitals	Estonia	Departments/hospitals are not allowed to keep surpluses, but some provincial Treasuries are holding surpluses which they sometimes use to augment budgets.
Improve budget management and expenditure oversight	Improve expenditure monitoring, controls and oversight, management, improved budgeting, e.g. better links to outputs and tightening up on unspent funds		Focus on non-negotiable items, cost-containment measures and budget cuts in underspending areas.
	Performance-based budgeting, performance monitoring, value for money monitoring		Increased focus on performance and health outcomes, but linking of these focus areas to budgeting can be improved.
Revenue	New or increased taxes, in some cases earmarked		As NHI unfolds, additional revenue streams may be introduced.
	Increase insurance contributions, or broaden base, change limits, etc.		N/A
	Introduction or increase of user fees (not recommended)	Ireland, Greece	No plans to introduce user fees as this may discourage necessary use of health services. There may be a role for by-pass fees under NHI.
Hospitals	Rationalisation by consolidating hospitals with low occupancy		Limited use to date, but addressing low occupancies through consolidation has potential to improve economies of scale and efficiencies. This may become necessary as resource allocation becomes more demand-driven under NHI.
	More day surgery, shorter length of stay	Many OECD countries	No specific interventions to date, but the introduction of DRG reimbursement is likely to improve efficiencies.
	Increasing productivity e.g. doctor: patient ratio		More work on staffing norms, including the evolution of the Workload Indicators for Staffing Needs (WISN) tool for hospitals would be useful.
	Standardisation of procedures, beds and admissions		Standard treatment guidelines are available in South Africa.
Level of care	Primary Health Care (PHC) gatekeeping		Plans to introduce more explicit referral pathways under NHI (potentially including by-passing fees).
	Shifting balance of work to treat patients at appropriate level, e.g. more at PHC, lower-level hospitals through improved demand-management tools and referral chains		Shift from largely hospital-based to nurse-initiated and managed ART (NIMART) at PHC level in 2010.
	Self care, demand-management tools, call-lines		Removal of hospital user fees has the potential to lead to by-passing and attention to this area could be useful in helping individuals to access the appropriate levels of care.
Reimbursement reform	Capitation for PHC as a supply-side reform which helps to contain price and quantity	Thailand, UK	Planned under NHI
	DRG, capped DRG	Thailand, most OECD countries	Planned under NHI
	Budget holding, e.g. to control referrals	UK	
Medicines	Central procurement		Medicines intervention have been among the most widely used and successful during the post-2008 recession and has resulted in South Africa having the lowest ARV prices in the world.
	Tougher negotiation, benchmarking international and local prices	Australia	Yes, with largely positive results, i.e. lower pharmaceutical prices.
	Generics policy		Yes, public sector uses largely generic medicines.
	Essential drug lists (EDLs), treatment guidelines, appropriate use of medicines		Yes, EDLs and standard treatment guidelines are in use.

Area	Intervention	Country	Interventions implemented in South Africa
Benefit package	Use of HTA to exclude less cost-effective new interventions	Thailand, UK	Limited use of HTA to date, although it has been used in specific areas such as HIV and TB. HTA agency is being considered.
Capital projects	Delay projects; don't over-capitalise; use of standardised designs; competitive purchasing and dealing with cartels	Ireland	Yes, capital budgets have been reduced and projects delayed. Standardised designs for PHC facilities form part of the Ideal Clinic initiative.
Medical equipment	Delay purchase, essential equipment lists, servicing and appropriate technologies		Yes, essential equipment lists are used. Some purchases delayed to save capital budgets.
Personnel	Retrenchment, staff mix and lower-level cadre substitution		Personnel costs are the largest cost driver in the South African health system. Retrenchment is not possible in the public sector, but limitations on filling vacant posts are widely implemented, although often with exemptions for clinical staff.
	Technically efficient allocation of personnel to match workloads		WISN have been developed but implementation is limited. There appears to be significant potential to better match personnel with workload.
	Freeze or reduce wage levels, benefits, salary freeze	Ireland	On the contrary, recent wage negotiations have resulted in increased costs of employment.
Laboratory	Protocols, cheaper inputs		Better gate-keeping measures are introduced at National Health Laboratory Services. A move away from fee-for-service to a capitated model is also planned.
Administration	Consolidate and review multi-level administrations	UK	
Funding pool consolidation	Consolidation of multiple fragmented funding pools into one or a few larger pool/pools to achieve economy of scale and increase purchasing power	Turkey	Plans to consolidate pools under NHI, starting with public sector funds.
Information systems	Improving health IT systems to streamline processes in health facilities, improve medicines stock management and help avoid duplicate laboratory tests		New patient registration system being rolled out at PHC level. New electronic stock management system being implemented nationally.
Coverage	Exclusion of certain groups, e.g. wealthier		No plans to implement this reform in South Africa.
Prevention and public health	Focus on disease prevention strategies and health promotion	UK	New vaccines, e.g. pneumococcal, rotavirus and HPV have been introduced and significant improvement in prevention of mother-to-child transmission of HIV have been achieved. Plans to introduce a tax on sugary beverages are far advanced.

## The South African experience

International experience suggests that if downsizing is unplanned and done in a haphazard way, it is more likely to be harmful. The results presented in this chapter suggest that South Africa has been fairly successful in some of the ways in which budget constraints have been addressed, including centralised medicines procurement, focus on health outcomes, control of personnel numbers, prioritisation of 'non-negotiable' spending areas, prioritisation of PHC in budgets, the chronic medicines dispensing programme, and reduction of new-build programmes.

However, there are areas of potential weakness. For example, concerns have been raised about insufficient mechanisms to identify and prioritise the refilling of critical vacant posts. Inefficiencies and suboptimal service configurations should be looked for so that resource utilisation can be restructured optimally. There are still significant inequities in the distribution of skilled health personnel.

Improved matching of posts and budget with workload could contribute to improved efficiencies. Some clinics have very heavy workloads and a severe shortage of staff, whereas others are relatively empty. While the sector has developed workload indicators for staffing needs, implementation of the tool varies, partly because the WISN indicators are perceived by some to be unaffordable.

There is also a need to review the nature of hospital platforms. The Eastern Cape has over 40 district hospitals, many located close to each other, but each with low bed occupancies and inadequate professional staff to achieve quality care. Internationally, the trend has been to move towards shorter lengths of stay and more day

cases and outpatient care. A better-quality and more efficient dispensation in South Africa might see some consolidation of district hospitals, with fewer inpatient facilities of higher quality. However, appropriate buy-in and management capacity would be essential for such reforms. An additional challenge is newly built facilities that are not, or only partially, operationalised after completion due to lack of operational budgets (e.g. Trompsberg Hospital in Free State), indicating a disjuncture between infrastructure planning and service and financial planning. Partly as a result of this, the NDoH has stressed the need for the sector to shift its focus from building new facilities to maintaining its existing estate.

While finding efficiencies is essential in times of economic slowdown, if cuts are too deep or poorly managed, there can be adverse consequences in health-service delivery, as occurred in Greece. Adequate planning is required to achieve efficiencies and attention should be given to management capacity and change management. Managing a combination of low-growth and high-cost pressures presents a formidable challenge for health managers in South Africa. Most managers aspire to grow services and dealing with restructuring to achieve greater efficiency requires stability in leadership positions, change-management strategies and strong management capacity. This can be all the more difficult in a context of public pressure around perceived austerity. Management should work with communities and staff to plan and prioritise, thus building collective ownership. This enables decisions that achieve greater efficiencies and buy-in for appropriate restructuring of services.

## Towards National Health Insurance

A potential disjuncture may be emerging between the path of increasing patient choices, a mixed-provision model, greater pooling and improved resourcing envisaged by the NHI, and a seven-year 'lean' period in public budgets for health services as published for the period 2012/13–2019/20. There is a need to bridge this disjuncture more clearly and begin to put in place one of the financing sources for NHI indicated in the White Paper.<sup>31</sup> In his Budget speech, the Minister of Finance recently announced an intention to establish the NHI Fund, and to support key benefits in the areas of maternal health, school health, and services for the disabled and elderly. The possibility of slightly reducing the tax credit for medical-scheme contributions and the consolidation of public-sector schemes was raised.<sup>32</sup>

Although NHI will in due course be a game-changer and there has been some health-service strengthening in NHI pilot districts to date, in general, implementation has been slower than anticipated in the NHI Green Paper released in August 2011.<sup>33</sup> The NHI White Paper<sup>31</sup> indicated that public healthcare spending was likely to increase substantially, potentially over 15 years, from 4% to 6% of GDP. Several mechanisms for revenue-raising have been proposed, including some combination of an increase in VAT or payroll tax, or a surcharge on personal income tax.

National Health Insurance<sup>31</sup> also has the potential to improve efficiencies in the overall health system through the following: improved pooling; strategic purchasing; medicine price reductions through central procurement; redistribution; improved quality in the public sector; and providing greater access to general practitioners. South Africa is also considering how to build Health Technology Assessment capacity to inform priority-setting and decision-making in an objective and scientifically robust manner (e.g. 'best buys' for specific health outcomes).

## Conclusions and recommendations

The global recession of 2008 has negatively affected economic growth in South Africa and has continued to do so for almost a decade, from 2008/09 to 2016/17 and beyond. Government protected social-sector spending by means of a counter-cyclical fiscal stance, but after 2012/13 there has been considerable constraint, as evidenced by the lower real health expenditure growth of 1.8% per annum between 2012/13 and 2019/20. Although the sector has not been subject to the drastic budget cuts experienced in several OECD countries, this slow growth, along with increased personnel expenditure, currency depreciation and increased expenditure on ART, has put pressure on health budgets. The sector has responded with strategies that include limiting personnel numbers, centralised tendering for medicines, delay of major capital projects, and reprioritisation within available budgets, although the effect of these interventions should be fully evaluated. This slow-down in growth may last for a long time, impacting health budgets negatively, while the NHI has the potential to reverse this trend through additional revenue streams to fund health services.

The key recommendations emanating from this chapter are:

- During economic downturns, Government should continue to protect key social services, including health. While the rapid expenditure growth seen pre-2012/13 may not be fiscally sustainable, maintaining real growth in health spending (albeit at a lower rate) is vital to continue to realise improved health outcomes. Too-low levels of public health expenditure growth may create problems and hamper a smooth transition to NHI, which envisages, and is likely to require, a more positive growth trajectory.
- The more recent low expenditure growth trend places a greater onus on health managers to prioritise within their available budget. Both positive and negative lessons from OECD and other countries can be applied to contain health expenditure. Measures that focus on improved efficiencies and rationalisation (e.g. prioritisation of non-negotiables) should take precedence over blunt cutting of health services, which may harm the health system and lead to a reversal of South Africa's health-outcome gains made in recent years.
- In order to contain personnel expenditure without negative impacts on health services, it is essential that provinces have systems in place to prioritise critical service-delivery posts and ensure that these are filled without undue delays. The NDoH should support provinces in this regard and close collaboration between provincial Departments of Health and provincial Treasuries will be required.
- Significant progress has been made in medicines procurement, which has resulted in significant savings. Further development in this area is recommended, but it is also important to ensure that prices do not become so low that they impact negatively on supplier performance. It is also recommended that similar procurement strategies be extended to other areas such as medical supplies, equipment, and non-medical consumables.
- National Health Insurance has the potential to generate additional funding for health, and to improve equity and efficiency through implementing financing, pooling, purchasing, and provision reforms. While several decisions pertaining to the design of NHI are yet to be made and considered carefully, it is recommended that Government increasingly start planning for implementation, as this could potentially play an important role in turning around the trend of low public-health expenditure growth.
- While many of the efficiency reforms already undertaken, such as alternative chronic medicines distribution appear promising, these should be evaluated systematically to see if they warrant expansion. Additional health-system innovations that improve efficiencies should also be explored.
- In times of financial constraint, it is important to prioritise among health interventions and implement only those that achieve the greatest value for money. South Africa should therefore consider how to build Health Technology Assessment capacity and establish more formal processes to evaluate the cost-effectiveness and value-for-money of new interventions and enable more evidence-based decision-making.

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