LET OUR ACTIONS COUNT

SOUTH AFRICA'S NATIONAL STRATEGIC PLAN FOR HIV, TB and STIs 2017-2022

NATIONAL AIDS SPENDING ASSESSMENT *plus* (NASA+)

HIV and TB SPENDING IN SOUTH AFRICA:

2017/18 – 2019/20

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Abbreviations

ABYM	Adolescent boys and young men
AGYW	Adolescent girls and young women
AYP	Adolescents and young persons
AIDS	Acquired Immune Deficiency Syndrome
ASC	AIDS Spending Category
ART	Antiretroviral therapy
ARV	Antiretroviral
ASC	AIDS Spending Category
BAS	Budget Accounting System (South African government's accounting system)
BP	Beneficiary Population
CDL	Chronic disease list (used by medical insurance schemes)
CEGAA	Centre for Economic Governance and Accountability in Africa
CG	Conditional grant
CHAI	Clinton Health Access Initiative
CMS	Council for Medical Schemes
COS	Community outreach services
COP	Country Operational Plan (PEPFAR)
CSO	Civil society organisation
C&T	Care and treatment
DCT	Data Consolidation Tool
DBE	Department of Basic Education
DCS	Department of Correctional Services
DOD	Department of Defense
DOH	Department of Health
DHE	Department of Higher Education
DSD	Department of Social Development
DSD	Differentiated service delivery
DS-TB	Drug-sensitive tuberculosis
DR-TB	Drug-resistant tuberculosis
DTG	Dolutegravir
EA	Expenditure analysis (PEPFAR data)
EID	Early infant diagnosis
ER	Expenditure Report (PEPFAR data)
EU	European Union
FE	Financing entity
FAP	Financing agent – purchaser
FSW	Female sex workers
GAM	Global AIDS Monitor (formerly GARPR)
GBV	Gender-based violence
GoSA	Government of South Africa
GDP	Gross Domestic Product
GDI	Gross domestic income
GF	Global Fund to Fight AIDS, Tuberculosis, and Malaria
HEAIDS	Higher Education HIV/AIDS Programme
HE^2RO	Health Economics and Epidemiology Research Office
HIV	Human Immunodeficiency Virus
HOP	PEPFAR Head Quarter's Operational Plan
HPV	Human papillomavirus
HSS	Health systems strengthening
HTA	High transmission area
HTC	HIV testing and counselling
HTS	HIV testing services
IP	Implementing partners
MDR-TB	Multi-drug resistant tuberculosis

MSM	Men who have sex with men
NASA	National AIDS Spending Assessment
ND	Not disaggregated
NDOH	National Department of Health
NDP	National Development Plan
n.e.c.	Not elsewhere classified
NGO	Non-governmental organisation
NHA	National Health Accounts
NHLS	National Health Laboratory Service
NPO	Non-profit organisation
NSP	National Strategic Plan for HIV, TB and STIs
OOP	Out-of-pocket payments
OOPE	Out-of-pocket expenditures
OVC	Orphans and vulnerable children
PEP	Post-exposure prophylaxis
PEPFAR	(US) President's Emergency Plan for AIDS Relief
PF	Production factor
PMB	Prescribed minimum benefits (for medical insurance schemes)
PR	Principal recipients
PTB	Pulmonary tuberculosis
PUDR	Progress Update & Distribution Reports (of Global Fund principal recipients)
PWID	People who inject drugs
PLHIV	People living with HIV
PMTCT	Prevention of mother-to-child transmission
PrEP	Pre-exposure prophylaxis
PS	Provider of services
PxQ	Price multiplied by quantity
R	South African rand (local currency)
REV	Financing revenues
RTT	Resource Tracking Tool (NASA)
SAG	South African Government
SANAC	South African National AIDS Council
SANBS	South African National Blood Services
SBCC	Social behaviour change communication
SDM	Service delivery modality
SHA	System of Health Accounts
SCH	Financing schemes
SNU	Sub-national units (districts)
SPES	Social protection and economic support
STI	Sexually Transmitted Infection
TB	Tuberculosis
UN	United Nations
UNAIDS	Joint United Nations Programme on AIDS
UNGASS	United Nations General Assembly on HIV/AIDS
USD	United States dollar
USG	United States government
VMMC	Voluntary medical male circumcision
WB	World Bank
WHO	World Health Organisation
WITS	Witwatersrand University
ZAR	South African rand (local currency)

Foreword

In December 2020, the South African National AIDS Council (SANAC) coordinated the undertaking of a comprehensive National AIDS Spending Assessment "Plus" (NASA+) of public, international, and private expenditure on Human Immunodeficiency Virus (HIV) and Tuberculosis (TB). SANAC took the lead in coordinating the development of the NASA+ with funding from the Joint United Nations Programme for HIV/AIDS (UNAIDS), the Global Fund, and PEPFAR through USAID, including participation from multisectoral stakeholders (government departments, civil society, developmental partners, research institutions, provincial heads of secretariats and the private sector).

The usual NASA Report only focuses on HIV and HIV/TB co-infection interventions. The South African NASA+ Report includes all TB-related expenditures as these investments are also guided by the National Strategic Plan (NSP) for HIV, TB and STIs. This report therefore provides estimates of total HIV and TB spending in South Africa for three financial years, from April 2017 to March 2020. This NASA report will be of much value to SANAC, and all its stakeholders interested in understanding the financial flows for the national AIDS and TB response.

The NASA methodology seeks to ascertain the flow of funds used to finance national responses to the HIV epidemic. The resource tracking process follows the financial transactions from their origin down to the destination (i.e., the beneficiaries receiving goods and services). NASA is not limited to tracking health-related HIV expenditures; it also tracks non-health HIV expenditures such as social mitigation and other sectors related to the multisectoral HIV response. NASA produces a standardized reporting method and indicators to monitor progress towards the targets of the Declaration of Commitment adopted by the United Nations General Assembly Special Sessions on HIV (UNGASS). NASA delivers strategic information for the co-ordination and management of the national HIV response that provides crucial input for the framework of action and is part of the construction of a single monitoring and evaluation framework. NASA is therefore valuable as a planning tool, which generates information useful for the decision-making process, and supports the design of policies aimed to control the HIV epidemic.

This NASA+ identifies possible funding gaps and duplication of funding in the national response to HIV and TB epidemics in South Africa. Unless new infections can be prevented, future treatment costs will continue to mount. Similarly, access to treatment is critical to avert productivity losses and alleviate the epidemic's impact on the economy and human development. Given the many challenges that need to be overcome in providing quality HIV services in South Africa, high levels of funding will be needed to move towards universal access in the coming years. It is therefore imperative to have accurate knowledge of what is being spent on HIV and TB, to ascertain if the expenditures are targeted to the most cost-effective interventions. Additionally, knowledge of the actual expenditure for the national response promotes greater transparency and accountability amongst all stakeholders.

Message from SANAC Chief Executive Office (CEO): Dr. Thembisile Xulu

The current South African NASA project has been a unique journey, in the sense that it has been conducted in a challenging environment due to the Coronavirus Disease (COVID-19) and it combines both HIV and TB expenditures. This NASA has come at an opportune time since the findings have informed financial projections for the Global Fund Request for Proposal (RFF) and will inform the development and costing of the next National Strategic Plan (NSP) and Provincial Implementation Plans (PIPs). SANAC and all its stakeholders are excited to present the NASA+ Report depicting Provincial and District HIV and TB expenditure data for the period April 2017 to March 2020. The report is also unique because it is referred to as the **NASA+ Report**. The NASA+ Report includes all TB-related expenditures as these investments are also guided by the NSP.

SANAC and its stakeholders undertook this NASA+ Project under very difficult times globally and in South Africa, when the resource envelope for HIV and TB response from the public sector, development partners and the private sector is dwindling in the face of both the increasing demand for HIV and TB services and competing priorities with COVID-19. This calls for critical examination of the sustainability, efficiency, and effectiveness of resource utilization in the national HIV and TB responses. Thus, there is a greater need to use scarce resources more strategically, for greater impact and ensuring longer term sustainability, in times of resource constraints and the increasing need for Universal Health Care (particularly in the COVID-19 era).

As so many informed stakeholders have noted since the onset of the COVID-19 pandemic, the current environment is all too suggestive of the early days of the global HIV crisis. We should therefore take that as a reminder that we need to fight as hard as we did back at the time – to protect all the TB/HIV gains that we have made to date and ensuring continued progress. We should not allow the COVID-19 pandemic to be an excuse to divert much needed investment from HIV and TB. This is a time when we must maintain and increase funding for all HIV and TB efforts.

It is my sincere hope that the findings of this NASA will trigger actions at both policy and operational level in directing resources appropriately in the National HIV and TB response so that our common aspiration of ending AIDS as a public health threat by 2030 becomes a reality. It is also my sincere hope that all stakeholders will use the findings of this NASA to inform advocacy and decisions in financing the HIV and TB response in South Africa. We envisage the NASA data being part of our routine M&E reporting, strategic information processes and datasets which will allow for real-time evidence to inform our flexible, innovative, and efficient response!

On behalf of the SANAC Trust and Secretariat, given the challenges encountered, I would like to express my sincere gratitude to all stakeholders who tirelessly committed to ensure the successful completion of the NASA+ Project. These stakeholders include the following: NASA Funders, (UNAIDS PEPFAR through USAID and Global Fund); NASA Reference Group Members, NASA Service Providers, and all custodians of NASA related data.

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- Coceka Nogoduka; Roger Phili; Zwebuka Khumalo *(Strategic Information Managers-NASA technical & authorisation Leads)*
- Anthony Odama; Lifutso Motsieloa *(NASA technical team members)*

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Executive Summary

South Africa has the highest number of people living with HIV (PLHIV) in the world with almost 7.9 million PLHIV[1], demanding strategic programme and financial planning of the response to the Human immunodeficiency virus (HIV) epidemic to save lives and sustain livelihoods. The South African Government's (SAG) response is important to ensure its constitutional mandate to provide high quality health care to everyone. Despite the volatile economic performance that South Africa has faced in recent years (National Treasury, 2021[2]), there is continued commitment to the fight against HIV and tuberculosis (TB). Government, development partners', non-profit organisations' and private healthcare providers' continued commitments are demonstrated by the increasing financial resources obligated by government and development partners, as well as the efforts of non-profit organizations and private health care providers, to deliver the required HIV and TB services according to the National Strategic Plan (NSP) for HIV/AIDS, TB and Sexually Transmitted Infections (STIs).

The South African National AIDS Council (SANAC) led this National AIDS and TB Spending Assessment (NASA+), which covers the years 2017/18 to 2019/20, and includes a separate analysis of all NSP-related TB expenditures. The findings provide a wealth of information and will contribute to national, provincial and district planning, resource mobilization and allocation, as well as to the identification of areas where greater efficiency gains could be made.

To have meaningful insight into the HIV and TB funding picture and understand the funding gaps it is important that all stakeholders - financing entities and service providers - commit themselves to transparent and coordinated planning, resource allocation and reporting of HIV- and TB-related expenditures. This would ensure good intersectoral coordination to achieve NSP strategic objectives and to avoid possible duplication of funding.

The South African NASA+ findings indicate increasing allocations to HIV over the study period, rising in total from R30.6 billion (US$ 2.4 billion) in 2017/18 to R37.6 billion (US$ 2.5 billion) in 2019/20, with an initial increase between 2017/18 and 2018/19 of 15% and then 7% between 2018/19 and 2019/20 (in ZAR terms). Importantly, the SAG financed almost three-quarters of the total HIV response in each year (72%, 68%, 69% in 2017/18, 2018/19, 2019/20 respectively), with an annual average increase of 8%, in nominal ZAR terms. The international financing entities' (development partners') contributions dramatically increased by 18% between 2017/18 and 2018/19 and then by just 5% in 2019/20, accounting for 25%, 30% and 28% of the total in the three study years. The private medical insurers (with contributions from employers and individuals) accounted for around 3% of the total HIV expenditure in each year (which made up 6% of total ART expenditure). Contributions from other private businesses was minimal, or under-represented due to their poor response rate. The bulk of HIV and TB expenditure was managed by public agents and purchasers (70%), to services delivered mostly by public service providers (91%), with some, rather limited, funding (8%) for non-profit organizations and 1% for parastatals and universities. (Refer to chapters 3.3 and 3.4).

The growth in foreign aid prior to 2019/20 is welcomed, but somewhat concerning is their more recent slowing rate of increase and fluctuating proportional contributions to total HIV envelope. This could mean that the government should prepare itself to fill the potential funding gaps for certain interventions, if international financing falls short to sustain those interventions, in order to ensure efficient implementation of the NSP in a government-driven and sustainable way. Although not explored in this NASA+, implementation could perhaps be further enhanced by exploring how government funding to non-governmental service providers could boost government capacity to deliver. Domestic resource mobilization is important for sustainability to ensure continued NSP achievements, supplemented by coordinated and harmonized foreign aid to achieve impact.

The National Health Insurance (NHI) seeks to ensure adequate financing of key health policy priorities which would also benefit HIV and TB. The revised financing model for the NHI suggests that an additional R33 billion annually is required to rollout the NHI from FY2025. This would increase public health spending from 4 per cent to 6 per cent of GDP over a 15-year period, potentially making more resources available for HIV and TB[3].

Total HIV spending in South Africa by Programme Area (2017/18-2019/20, ZAR, %)

Total HIV spending per programme are	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
Prevention	3 405 503 382	3 944 661 024	3 153 501 544	11%	11%	8%
HIV testing and counselling (HTC)	1 815 308 172	1 865 758 359	1 702 404 025	6%	5%	5%
HIV Care and Treatment	19 407 752 141	23 151 117 433	26 714 078 912	63%	66%	71%
Social protection and economic support	2 204 626 592	1 895 973 920	2 188 478 809	7%	5%	6%
Social enablers	52 157 390	15 441 119	43 688 212	0.2%	0.0%	0.1%
Programme enablers and systems strer	2 863 491 877	3 301 191 957	2 827 762 856	9%	9%	8%
Development synergies	353 309 896	389 417 895	475 089 467	1%	1%	1%
HIV-related research	486 985 306	532 636 515	456 759 436	2%	2%	1%
Total HIV spending (ZAR)	**30 589 134 755**	**35 096 198 222**	**37 561 763 260**	**100%**	**100%**	**100%**

(Refer to chapter 3.5)

Given the large HIV-positive population in South Africa, and government's commitment to provide free HIV treatment to at least 90% of PLHIV, it is not surprising that the bulk of the HIV expenditure went towards care and treatment activities (these include more than just antiretroviral treatment, ART), and with increasing proportions over the three years: 63%, 66% and 71% of the total envelope (2017/18 – 2019/20), reaching ZAR 26.7 billion (US$ 1.8 million). However, only 66% of PLHIV were accessing ART in 2020, despite these high commitments to care and treatment.

To ensure the optimal impact of South Africa's spending on ART, concurrent efforts to seamlessly link PLHIV to, and maintain them on, treatment are required.

Notwithstanding the prevention benefit of increasing access to HIV treatment, of some concern is the decreasing expenditure for prevention in nominal and proportional terms (from 11% to 8% of the total envelope). Funding for HIV testing and counselling also decreased slightly in nominal and proportional terms (from 6% to 5% in the two outer years). Programme enablers and systems strengthening took the second largest portion at 8% in 2019/20, followed by social protection and economic support (6%). Development synergies and HIV-related research only received around 1% of total HIV expenditure, but the latter may have

been under-represented due to the low response rate from universities and other research institutions. (Refer to chapter 3.5).

It is concerning to see decreased investments in HIV prevention as South Africa still faces high HIV incidence rates. Research is required to identify leading causes of new infections and the best ways to prevent them, with adequate resources allocated to effective interventions.

The comparison of expenditure to estimated resources needed for the NSP (2017-2021) found that there may have been a modest annual funding shortfall (lower expenditure than need) of R2 billion, R4 billion and R6 billion in 2017/18, 2018/19 and 2019/20 respectively. Within this gap, the largest funding 'shortfall' may have been for the treatment and care, of R1.7 billion in 2018/19 and R1.2 billion in 2019/20. However, the NSP cost estimates did not take into account the roll-out of the cheaper Dolutegravir (DTG) antiretroviral (ARV) formulations, hence the actual expenditure, once this roll-out occurred, would be less than had been estimated as needed for the NSP. The analysis of the unit of expenditure per ART patient per annum also confirmed a reduction from R2,930 (USD 226) in 2017/18 to R2,846 (USD193) in 2019/20, mostly driven reductions in DTG ARV prices. Economies of scale may also have been achieved with the increased volume of patients on ART (increased by 19% over the three-year period), but could have been maximized further, especially through negotiated reductions in laboratory costs. Alternatively, or additionally, the ART targets set for 2019/20 were not achieved and hence resulted in underspending. (Refer to chapter 4).

Of concern were the prevention interventions for which expenditure was less than anticipated as needed, and declining. Social behavioural change communication (SBCC), condoms, interventions for adolescent girls and young women (AGYW), and voluntary medical male circumcision (VMMC) all had a funding shortfall in 2019/20. Social and structural drivers as well as health systems strengthening may have been under-funded, although the resources needed for these types of interventions could be limitless and require clearly defined projects with specific costing of interventions. Interestingly programme management and prevention of mother to children transmission (PMTCT) had a possible excess spending of over R1.1 billion and R350 million respectively for 2019/20 compared to the resource needs estimates.

Institutionalized annual expenditure and performance analyses and reflections could help to take advantage of efficiency gains and inform allocative and programmatic decisions to direct scarce resources to impactful interventions.

When comparing NASA+ spending by financing entities against the estimated NSP costs per intervention it becomes clear that the government is prioritizing many key intervention areas in its resource allocative processes. For instance, 85% of ART specifically is funded by government (when excluding supportive, care and treatment non-disaggregated activities, which tend to be funded by development partners) with 5% contribution from donors and some 2% from the private sector. Condoms are underfunded by government, at 50% of the resource need estimate, with no supplementary funding from elsewhere. Surprisingly, Provincial Departments of Health (PDOHs) reported underspending of their condom conditional grant allocations.

Condoms, being one of the most effective ways of prevention, should be prioritised in resource allocation and distribution.

Government finances are not always adequate for key prevention interventions. Thus, the contributions from international development partners are essential, especially where donors contribute more funding than government for certain interventions. For instance, AGYW interventions were primarily funded by donors (80%), as compared to 20% contributed by the government. Compared to the resources needed for AGYW, there remained a possible shortfall of 45% on 2019/20 – which subsequently may have been addressed by increasing donor funding. Some interventions are entirely dependent on external funding sources, raising a concern for local ownership and sustainability of these donor funded efforts. Community systems strengthening, human rights related barriers, other health systems strengthening interventions and Pre-Exposure Prophylaxis (PrEP), inter alia, are only funded by donors, leaving funding gaps. It is important to note that identified funding gaps are proportional to the NSP cost estimates, and some of these require very small funding amounts to be fully funded, as compared, for example, to the 8% funding gap for ART which seems small as a proportion of total NSP resource need but large in absolute amounts. (Refer to chapter 4.1).

Based on discussions on donor transition during this NASA+ assessment period and before, it is important for the South African government to consider the integration of these donor-funded activities in its planning and allocations, should donors decide to transition from funding these interventions. However, the decision to absorb donor-funded projects and their costs into public budgets should be based on the assessment of their cost-effectiveness and affordability. Government could need technical support from international aid organisations to prepare for and manage the transitioning process properly without disadvantaging health care recipients. Additional effort is required for sustainable NGO funding, to ensure donor-funded NGOs continue to operate with government support in providing essential HIV and TB services. The SANAC Sustainability Assessment Report (forthcoming) also recommends that a transition plan 'must reflect a gradual transition to domestic funding for community health workers (CHWs) and be aligned to NHI planning and social contracting guidelines.[4]

TB expenditure in South Africa was largely funded from public finances, with the SAG spending the largest amounts, but with decreasing proportions from 72% in 2017/18 to 66% in 2019/20, whilst the share of international entities in TB spending has increased from 21% to 27%. This increase is mainly due to The United States of America President's Emergency Plan for AIDS Relief (PEPFAR) TB Country Operational Plan (COP) budgets, with a decline in Global Fund (GF) spending on TB over the years. Nevertheless, the total TB spending has remained the same between 2018/19 and 2019/20, having recorded R4.4 billion in both years, with the increased PEPFAR TB spending helping to maintain this level of spending. (Refer to chapter 5).

The largest, but declining, share of expenditure went towards the treatment of DR-TB patients (from 51% in 2017/18 to 45% in 2019/20) and which is likely to decline further with the roll-out of the shorter Bedaquiline treatment and reduced hospitalization costs, especially with the decentralization of MDR-TB treatment. The treatment of DS-TB formed only 14% of the total TB spend in 2019/20. Unfortunately, the spending on TB prevention was generally low but also under-represented, due to the TB Preventive Treatment (TPT) drug costs being captured

under the treatment category (due to labelling in the public accounting system). Nevertheless, greater TB prevention allocations would be important to reduce the TB burden in the country. Overall, TB spending was lower than the NSP TB cost estimates, with TB screening and diagnosis facing a seemingly R3.3 billion shortfall in 2019/20. However, it is important to note that the NSP TB cost estimates need to be updated, while improved labelling of TB prevention and diagnostic expenditure will likely reduce this possibly over-estimated funding shortfall.

As TB tops the leading causes of natural deaths in South Africa (Stats SA, 2018),[5] it is desirable that the government share in TB spending is increased to ensure that TB services remain available, accessible and of acceptable quality with good health outcomes. Availability of international financing for TB services is welcomed but should not be used to divert government attention away from serious health challenges imposed by TB, particularly DR-TB, on the overall health system and community health and livelihoods. The NASA+ findings underscore the need for South Africa to further increase its efforts to reduce the transmission of DR-TB as the greatest cost driver of the TB expenditure in the country.

Overall, the South African government (SAG) and its development partners have remained fully committed to fund the fight against HIV and TB. Greater efforts are required to improve the expenditure reporting of the business sector, universities, and research agencies, while also considering the cost to individuals and households (through out-of-pocket payments). The NASA+ exercise has shown how coordinated and harmonized efforts can yield visible results. However, there is a need to keep a close watch on budgeting and spending on an annual basis, which would firstly require reducing the workload and challenges faced by NASA researchers in tracking multi-year expenditures, and secondly, building the capacity of government to institutionalize NASAs – so they can routinely plan, coordinate and manage the NASA process and ensure quality data, analysis and outputs.

1. Introduction and background

1.1. South African HIV and TB situation

South Africa has the highest number of people living with HIV and AIDS (PLHIV) globally, around 7,892,070[6] with an estimated overall HIV prevalence rate of approximately 13.4% of the total population (Tembisa Model 4.4[7]). The new HIV infection numbers remain high at 200 000 per year (UNAIDS Data, 2020[8]) having declined from 210 000 in 2019. The country has the largest ART programme in the world and by March 2021, 5,423,647 people were accessing ART at public health facilities, and a further 307,613 through the private sector[9]. South Africa reported that 93% of all PLHIV know their HIV status, 75% of those are on ART, and 88% are virally supressed, in 2020[10].

South Africa is one of the 30 high burden countries for tuberculosis (TB), contributing 87% of estimated incident cases worldwide, and on its own, 3.6% of global case load[11]. The number of new TB cases was estimated at 360,000 in South Africa in 2019/20 (WHO, 2020[12]). Additionally, South Africa faces a substantial drug-resistant TB (DR-TB) burden, with 14,000 estimated incident cases in 2019, (3.4% and 7.1% among new and re-treatment cases, respectively[13]). Of concern is that a quarter of all new TB cases are lost to follow-up (LTFU) prior to treatment initiation[14]. Substantial progress has been made in access to TB preventive therapy (TPT) among people on ART, with 3.5 million reached in 2019.

To respond to the HIV and TB epidemics, South Africa developed its fourth National Strategic Plan for HIV, TB, and STI 2017–2022 (NSP), which aims to reduce new HIV infections by more than 60% and cut TB incidence by at least 30%. After the Mid-Term Review of the NSP, the country has developed a NSP catch-up plan to revitalize HIV and TB programmes in 2021 and 2022, ahead of developing the NSP for 2023-2028[15]. The NSP (2017-2022) mainly focuses on five key aspects which are putting prevention back at the top of the agenda, focusing on towns and cities with the highest TB and HIV burden, focusing on "key and vulnerable" populations at high-risk infection, paying attention to the HIV risks faced by adolescent girls and young women (AGYW) and using the most effective methods for prevention and treatment delivery.

Financing the implementation of this NSP has mainly relied on the ability of the South African government (SAG) to raise funds domestically, as well as additional funds from foreign sources. Such investments and commitment have contributed to the improved life expectancy rates from its lowest level of 54 years in 2005 to 64.8 years in 2018 (MRC, 2020[16]).

1.2. South African economic situation

South Africa has experienced a low rate of economic growth in the last five to ten years which could have a negative impact on public budgets including health funding. The slow levels of economic growth have been influenced by many factors including the general levels of commodity prices which have been one of the significant constraints of the growth of the economy since South Africa is a major net exporter of minerals and oil (Stats SA, 2021[17]). The impact of lockdown due to corona virus disease (COVID-19) and reduced economic activity

further slowed the country's economic growth. These factors have significantly affected the government's ability to raise domestic public revenues. Reportedly "…the difference between projected and collected revenue has grown progressively larger in the face of a persistent slowdown in economic growth and a weakened SARS…", and the increasing debt-to-gross domestic product (GDP) ratio that continues to harm the economy's ability to recover (National Treasury, 2021[18]).

In 2019/20, the total health expenditure[1] budget constituted 11.8% of total government expenditures, and equalled 4% of the country's GDP (UNICEF, 2019[19]). After the COVID-19 related adjustments made in 2020/21, the health budget constituted 12.1% of consolidated national and provincial public allocations (UNICEF, 2020[20]). In 2020/21 a new R3.5 billion COVID-19 component was added in the HIV, TB, malaria and community outreach grant to ensure availability of resources to respond to the COVID-19 outbreak (National Treasury, 2020[21]). HIV and TB expenditures have been absorbing increasing allocations from the health budget, with additional expenditures located in other (non-health) departments. With the impact of COVID-19, further slowing of the economy due to lockdown, and extra demands on the health budget, the Conditional Grant allocations for HIV and TB in the 2021/22 Estimates of National Expenditure show a decline of 2% in real terms. The national health budget, excluding provinces, depicts a real growth of 3% in 2021/22[22], driven by the allocation of R6 billion for the COVID-19 vaccination programme (excluding which the general health budget experienced a negative growth).

Against this backdrop, the South African National AIDS Council (SANAC) led the National AIDS *plus TB* Spending Assessment (NASA+)[2] which measures and tracks resources of the national responses to HIV and TB, as guided by the in the NSP. It collates all HIV and TB expenditures across all sectors, from all financing entities. These results will be used for policy review and development (such as for the new NSP 2023-2028), investment case development, improved financial planning for HIV and TB, and ensuring that the response is directed towards cost-effective and high impact interventions. The resultant data have already fed into the funding request to the Global Fund (GF). Development partners will also use the data in their planning, such as PEPFAR's Country Operational Plan (COP) development. This NASA+ process also sought to also build national level capacity for systematic monitoring of HIV/AIDS financing flows using the NASA methodology, with a view to a yearly, fully institutionalized NASA.

2. The National AIDS plus TB Spending Assessment (NASA+) in South Africa

2.1. Objectives and scope of the NASA+ in South Africa

The primary objective of this assessment was to collect, collate and analyse all HIV and TB expenditure data in South Africa for financial years 2017/18 to 2019/20[3], applying the NASA

[1] National and provincial departments of health budgets (excluding Department of Defense health services, Road Accident Fund, Workmen's Compensation Fund).

[2] This assessment is called a NASA+ because of the additional TB component.

[3] The South African financial year was used: 1 April to 31 March.

2020 methodology developed by UNAIDS. District and provincial level disaggregation was undertaken for 2019/20[4].

The assessment's specific objectives were to:

1. Track the allocation and utilisation of HIV and TB funds from their origin down to the end point of service delivery, from all financing entities (FE) and revenues (REV) (public, private or external), via financing schemes (SCH) and funding agent-purchasers (FAP), to the different providers (PS), the services they provide (AIDS spending categories, ASC) and their service delivery modality (SDM), broken down by production factor / cost components (PFs) and reaching their beneficiaries (target groups) (BP).
2. Develop a slide deck with all the detail required, and one report of expenditure trends (with national and provincial level details) that will inform the development of Sustainability Plans, mid-term review of the National Multisectoral Strategic Plan 2023-2028, and Global Fund Application April 2022 to March 2025.
3. Undertake additional efficiency analysis of the HIV and TB spending in South Africa.
4. Document the impact of previous expenditure and efficiency analysis.
5. Enhance national government capacity for systematic monitoring of HIV/AIDS financing flows using the NASA methodology.

The assessment adhered to the NASA 2020 framework, utilising the NASA methodology, classification and tools, which were applied to national, provincial and district data in South Africa, covering the public, private (profit and non-profit) and international financing entities for HIV but *excluding out-of-pocket payments* (OOP).

In addition to the HIV-specific expenditures, this NASA+ assessment included:

- ✓ The spending of the HIV conditional (earmarked) grant by the Department of Health (DOH) on the Human Papillomavirus (HPV) vaccination for adolescent girls.
- ✓ PEPFAR funds (earmarked for HIV) that were labelled as psychosocial support for young and vulnerable persons (not necessarily OVCs or PLHIV), although these were very small amounts.
- ✓ A share (20%) of the Department of Social Development's spending on the prevention of gender-based violence (GBV) and reduction of substance abuse (which increases the incidence of GBV) since, in South Africa, alcohol abuse and GBV contributes to the transmission of HIV infection to adolescent girls and young women, and therefore these expenditures were considered important efforts at HIV prevention (NSP Goals 4.2 and 4.4).
- ✓ All TB-related expenditures as these investments are also guided by the NSP. These are reported separately since they are greater than, but include, HIV/TB interventions for co-infected patients (the usual scope of the NASA methodology, hence **NASA+**).

Note that COVID-19 related expenditures were not included in this NASA (and not much had been incurred by the end of 2019 anyway).

[4] District disaggregation was only possible in 2019/20 because the PEPFAR and GF data for the two previous years were not labelled by location.

2.2. NASA+ methodology, classifications and implementation phases

2.2.1. Methodology

The South African NASA+ fully applied the new NASA 2020 framework and tools in order to track HIV and TB expenditures in a comprehensive and systematic manner to determine the flow of resources intended for the multisectoral response to HIV and TB. The findings for each of these diseases are reported separately (sections 3 and 5 respectively).

2.2.2. Classifications

In line with the latest NASA 2020 framework, the financial flows and expenditure related to the national response to HIV and AIDS are grouped into three dimensions: finance, provision, and use. Each of these dimensions is broken down to give a total of nine vectors that were applied in this assessment, as follows:

Financing vectors:

i. Financing entities (FE) refers to economic units providing the resources to the schemes.
ii. Financing revenues (REV) are mechanisms to provide resources to financing schemes.
iii. Financing schemes (SCH) are modalities through which the population accesses the services.
iv. Financing agents & purchasers (FAP) are economic units that operate the schemes. They collect revenue, pool financial resources, take programmatic decisions (allocation and purchase modalities), and pay for service provision.

Provision vectors:

i. Providers of services (PS) are entities that engage in the production, provision, and delivery of HIV services.
ii. Production factors (PF) are inputs/resources (labour, capital, natural resources, "know-how," and entrepreneurial resources) used to produce interventions and activities.

Use / consumption vectors:

i. AIDS spending categories (ASC) are HIV-related interventions and activities.
ii. Beneficiary segments of the population (BP) are populations intended to benefit from specific activities (e.g. key population groups such as men who have sex with men [MSM], people who use/ inject drugs [PWID], etc.).
iii. Service delivery modality (SDM) – is a new classification created by UNAIDS to add the option of analysing programs disaggregated by models of service provision in terms of efficiency and effectiveness.

This NASA+ assessment provides answers to the following questions regarding past expenditure:

- ✓ Who paid for HIV and TB services in South Africa?
- ✓ What mechanisms were in place to provide resources to financing schemes?
- ✓ What were the modalities through which populations access services?
- ✓ Who pooled funds and purchased HIV and TB services?
- ✓ Who were the providers of HIV and TB services?

- ✓ What HIV and TB services were provided, what was spent on them, and what service delivery modes were being used?
- ✓ Who were the beneficiaries of HIV spending?
- ✓ What were the key cost drivers of HIV and TB spending?

The TB questions are answered separately.

2.2.3. Implementation

The implementation involved the following phases:

1. Planning, mapping/identification of, and communications with, actors in the HIV field in South Africa
2. Capacity building of SANAC staff and data collectors in the NASA methods.
3. Sampling and data collection.
4. Quality control and data cleaning, capturing and validation.
5. Data analysis and report writing.

SANAC led the communications and awareness raising with all partners, and facilitated the necessary permissions from government departments for the NASA team to access relevant data and conduct the assessment. Importantly, SANAC established the NASA Reference Group comprising of governmental institutions (SANAC, Departments of Health, Education, Social Development and the National Treasury, as well as heads of Provincial AIDS Council Secretariats), private sector, civil society organisations (CSOs) and development partners to provide guidance and oversight of the activity and review all draft outputs to ensure their quality. Once the preliminary findings were generated, validation engagements were held with all stakeholders, allowing for inputs and confirmation of data accuracy and completeness.

SANAC contracted the Centre for Economic Governance and Accountability in Africa (CEGAA) to undertake the entire NASA+ process, from conceptualisation and planning, through tool development, data collection, cleaning, collation and analysis, to report preparation.

Sampling

To facilitate the sampling process, a database of all the stakeholders involved in HIV and TB financing and implementation was developed by CEGAA with assistance from SANAC to capture all financing entities, financing agents/purchaser, and/or providers of HIV or TB services. The sampling frame included development partners, government departments, non-governmental organisations (NGOs, both international and local), CSOs, the private sector organizations (business and health insurance (medical aid) schemes). For the purposes of this study, all the main sources of funds (public, private and international), and all agents of funds in South Africa were included in the sample (no sampling was undertaken but a census approach was applied). With regards to service providers, extensive efforts were made to contact all those in the database, but poor response rates due to COVID-19 hampered successful data collection.

Data collection

The assessment used a top-down and bottom-up approach to data collection, for both HIV and TB interventions.

The **top-down approach** identified sources of expenditure data from government expenditure statements and donor expenditure reports. For example, the Budget Accounting System (BAS) is the government expenditure management tool that provided HIV and TB expenditures per province, covering the Departments of Health (DOH), Social Development (DSD), Basic and Higher Education (DBE, DHE) and other public departments; PEPFAR Expenditure Report (ER) datasets provided the breakdown of USG expenditure though these did not provide the individual implementing partners' (IPs) names but these had been coded with the NASA PS codes, and; the GF's principal recipients' (PRs) detailed expenditure report (General Ledgers), and/or their Progress Update & Distribution Reports (PUDRs).

In close consultation with the National DOH HIV/AIDS Conditional Grant Directorate the correct NASA codes were applied to the HIV and TB expenditure in the BAS records – the process of identifying, extracting and coding these data was automated in the BASLY tool developed by the Health Economics and Epidemiology Research Office (HE^2RO) at WITS University and the CEGAA team.

Through consultation with the PEPFAR agencies and GF, the NASA team developed the crosswalk to apply to the PEPFAR ER data and the GF modules and interventions. The NASA team developed automated Microsoft Excel® tools to code and structure the ER and GF data into the format required by the NASA Resource Tracking Tool (RTT) – the software developed by UNAIDS to consolidate the NASA data.

The **bottom-up approach**, which collected expenditures from service providers' expenditure records, was used for the private sector (For-Profit and Not-For-profit). This required the resource tracking team to conduct virtual interviews in the second phase of data collection as physical meetings were not possible due COVID-19 restrictions. For each of these organisations/businesses, interviews were conducted with directors, programme managers, finance directors and finance officers. The NASA research team helped the respondents to complete the NASA tool, or collected their detailed expenditure reports and captured their HIV expenditure in the NASA data consolidation tool.

The assessment also used secondary data through a desk review of key financial reports and documents, policies, expenditure reviews previously done by the Department of Health and partners (e.g. CEGAA, Results for Development (R4D) and HE^2RO). In addition, performance indicators for key interventions were collected to enable the efficiency analysis as an additional exercise.

The NASA team ensured the completeness and accuracy of the collected data, and triangulated data from the different respondents (representing FE, FAP and PS), so that the full transactions could be recreated with the nine NASA vectors. In this way, double counting was minimized and incomplete transactions were avoided. The team captured all data into the Excel® Data Consolidation Tool (DCT) which were then imported into the NASA Resource Tracking Tool (RTT).

For the TB data, the existing ASC codes were deemed adequate to correctly capture all the TB activities (not only the TB/HIV interventions) and hence ASC.03.04.01[5] sub-codes were used to label all TB expenditures. The other NASA vectors and classifications were also applied fully to TB transactions. This also meant that the TB expenditure could be collated in the DCT tool and imported into the RTT with no challenges, and therefore the RTT outputs included all the HIV and TB expenditure. However, to maintain the purity of the NASA with only HIV expenditure, HIV and TB are reported separately here. Since the South African NSP incorporates TB fully, *there was no need to separate* the integrated HIV/TB expenditure for those co-infected HIV and TB persons from the rest of the TB expenditure (for non-HIV-infected persons). For purposes of the Global AIDS Monitor (GAM) report, the HIV/TB spending for those co-infected HIV and TB persons should be included (and all the other TB spending excluded), and *hence an assumption shall be applied to the TB treatment spending based on the portion of TB patients who are also HIV-positive.*

Analysis
The imported data were consolidated by the RTT, which also identified coding or data errors that were corrected. The data were then exported to Excel® where they were analyzed. Draft findings were presented to the Reference Group and key stakeholders for review of their data (e.g. DOH, DSD, DBE, PEPFAR agencies, GF). Additionally, UNAIDS provided an external expert review of the completed data tools, RTT file, preliminary analysis and draft report, and issues raised were addressed by the team, ensuring compliance with global standards.

Findings are presented in South African Rand (ZAR), with some of the key tables and matrices converted to United States dollars (USD), in order to allow for international dissemination and comparability. The OANDA[23] annual average USD to ZAR exchange rates were applied as follows:

Exchange rates per Oanda.com (USD:ZAR)	1USD =
1 Apr 2017 to 31 Mar 2018 Annual Average	R 12.963
1 Apr 2018 to 31 Mar 2019 Annual Average	R 13.742
1 April 2019 to 31 Mar 2020 Annual Average	R 14.769
1 April 2020 to 31 Mar 2021 Annual Average	R 16.350

Source: https://www1.oanda.com/currency/converter/

2.3. Overview of the data included in NASA+

Table 1 below shows the response rate and completeness of information received from different stakeholders. As indicated, there was a very poor response from business organisations (3% response rate), and most of the private sector data was contributed by medical aid insurance schemes (100% response rate), through the Council for Medical Schemes (CMS). A very poor response was also obtained from research and academic institutions, recording a 14% response rate – however, the largest players in the HIV research field were included: WITS Health Consortium, Centre for the AIDS Programme of Research in South Africa (CAPRISA), South African Medical Research Council (SAMRC), Health Systems Trust (HST), Genesis, University of KwaZulu-Natal (UKZN), as well as implementing partners funded by Bill and Melinda Gates Foundation (BMGF) or PEPFAR who were undertaking

[5] ASC.03.04.01.01 to ASC.03.04.01.99 were used for only, and all, the TB-related expenditures.

research or evaluations would have been captured. Therefore it is estimated that 70% of spending on HIV research may have been captured.

Although there was a very poor response from many of the NGOs contacted, the financing for South African NGOs from GF, PEPFAR, DOH, DSD and other development partners, were captured through these financing entities' reports, and it is estimated that their funds made up 95% of the financing for NGOs in the country. By asking the larger NGOs for their additional funding sources, twelve other international financing entities' data were also captured, although it is difficult to measure which ones might have been omitted and the size of their contributions.

Table 1: Overview of NASA data collected and included in the assessment

Organisation/ Department	Contacted	Responded	Data Received	% Data Received from Responders	Response rate
Government Departments	12	10	10	**100%**	75%
Parastatals	7	6	6	**100%**	86%
Non-Profit Organisations (for their non PEPFAR/ GF/ UN/ DOH/ DSD funding)	130	4	4	**100%**	3%
International Partners	29	26	26	**100%**	90%
Private for-Profit Organisations:					
Business Organisations	*33*	*3*	*1*	**33%**	3%
Medical Aid Insurances	*27*	*27*	*27*	**100%**	100%
Research and Academic Institutions	42	8	6	**75%**	14%

The quality of the NASA data can be measured by the degree to which primary expenditure data have been collected, or if budgets, estimations or secondary data sources were used. Every transaction is labelled accordingly, and Table 2 provides a summary of these quality control indicators. The South African NASA+ collected 100% expenditure data in 2018/19 and 2019/20, while in 2017/18 only 3% of the data were obtained from budgets/ commitments while 97% were from actual expenditure records. All data were from primary sources in all three years. In the case of the production factors, there were only a few transactions (3% or less) that needed some adaption or estimation, while the rest were certified from primary sources. These confirm the quality and accuracy of NASA data presented here.

Table 2: Quality of data captured in the NASA assessment

SA NASA Data quality / sources	2017/18	2018/19	2019/20
Overall type of NASA data:			
Based on budgets	3%	0%	0%
Expense reports	97%	100%	100%
Transaction source type:			
Primary source certificate	100%	100%	100%
ASC source type:			
Primary source certificate	100%	100%	100%
BP source type:			
Primary source certificate	100%	100%	100%
PF source type:			
Primary source certificate	96%	97%	98%
Adaption of primary source	3%	2%	2%
Estimation or imputation	1%	1%	0%

2.4. Limitations and assumptions applied

The NASA+ process and data faced some limitations:

i. This NASA+ collected expenditure data during COVID-19 lockdown, hence contact with respondents was particularly difficult. Verifying information for accuracy and completeness also took longer than usual, delaying other stages in the NASA process. Despite these challenges, it is estimated that 100% of government, 95% of development partners, 95% of NGOs and 100% of private medical insurances expenditure have been collected and presented here. The response rate from universities and research institutions was very low, around 14%, but the larger entities' data have been included.

ii. Unfortunately, the response from private-for-profit businesses was extremely poor at 3%, and hence their financial contributions could not be included in the assessment other than expenditures by medical aid schemes, collated by the Council for Medical Schemes (CMS).

iii. The CMS data provided the payments made by medical schemes to the private health care services – for those claims made for patients registered as having HIV according to the Prescribed Minimum Benefits list of chronic diseases. Unfortunately, the contributions to members' premiums from either employers or the employees/ individuals/ households to the schemes could not be ascertained. Also details of the services accessed by the members were not identified, and hence it was assumed that HIV patients received care and treatment not disaggregated, and TB patients received drug-sensitive TB treatment.

iv. Some organisations were not able to provide data disaggregated to the level required by NASA. In some cases, funds spent on different activities could not be broken into specific production factors and thus were labelled as "PF. not disaggregated". However, this labelling approach was applied to only 14% of expenditure in 2019/20, reduced from previous years where a few of the GF PRs from the previous GF grant (who were no longer current PRs) were unable to provide their detailed General Ledger reports.

v. Different development partners have different fiscal years for reporting expenditure. As far as possible their years were aligned with the South African fiscal year. However, this was not possible with the PEPFAR ER data which are reported annually according to the USG fiscal year. Therefore, for the 2018/19 SA fiscal year (1 April 2018 – 31 March 2019), the PEPFAR 2019 expenditure report (for 1 Oct 2018 to 30 Sept 2019) was used. This approach had been used in all the previous expenditure tracking efforts, and hence over time, the mismatch becomes insignificant.

vi. Importantly, no estimations of the more 'hidden' HIV expenditures were undertaken. For example, the spending by the DOH for the treatment of opportunistic infections or STIs was not estimated. The cost of nurse time in primary health care facilities undertaking HIV and other services, where their salaries were not labelled specifically for HIV, were not estimated. These and other 'shared' or embedded costs of service delivery covered by the general health budgets were not estimated, and hence this important contribution of the public health care system is under-represented.

vii. Similarly, the nurse time in screening for TB in clinics was not estimated for TB case finding expenditure. Spending on TB wards in general hospitals could not identified in the BAS records, and were therefore not estimated. However, spending in special TB hospitals could be captured, assumed to be entirely for the treatment of DR-TB.

viii. While this approach of not using estimated expenditure increases the quality of the NASA data presented here, it has also omitted some of the departments' 'hidden' contributions.

However, these were deemed to be small in comparison to the large HIV-specific public expenditure.

ix. As noted previously, the scope of this NASA did not include the expenditures of individuals and households (out-of-pocket payments, OOP). The majority of these may have been included in their contributions to their private medical insurance schemes, and given that HIV treatment is provided free to PLHIV in South Africa, the missing OOP may be small (relative to the large HIV expenditure from other sources). Nevertheless, these may have a large impact on poor households.

x. Disaggregation of expenditure data by district could only be undertaken in the third year of assessment (2019/20), because PEPFAR and GF data did not have district location identifiers in the previous years. Additionally, while departments are meant to label all their expenditure by district and sub-district in the BAS system, this was done to differing degrees by Provincial Departments of Health (PDOHs). The DBE and DSD data were not disaggregated at all by district. The district analysis has been somewhat undermined by these factors.

xi. The PEPFAR ER data no longer have district (sub-national unit, SNU) identifiers. Hence for their ER20 data, the PEPFAR agencies with support from Expenditure Analysis and Resource Tracking for HIV teams (EARTH[6]) undertook an estimation of the district allocations, according to the following:

- Applied proportion of Monitoring, Evaluation and Reporting (MER) Indicators by district assigned to/reported by partner at mechanism level.
- Used high level PEPFAR indicators: persons currently on treatment (TX_CURR), HIV tests performed (HTS_TST), medical male circumcisions performed (VMMC_CIRC), numbers of key population persons reached with prevention package (KP_PREV), and numbers of orphans and vulnerable children reached (OVC_SERV).
- Where IPs had no assigned indicators but had indicated site level interventions (either service-delivery or non-service-delivery interventions that are not above site programmes or program management), the EARTH team conferred with agencies on where their IPs work, or to provide their preferred district allocations to be consistent with prior years analysis.
- Only program funds were included in the NASA estimates (no USG management and operation spending, as these are high level costs mostly outside of South Africa)
- Above-Site Program (ASP) interventions and their cost categories were not allocated to SNU or priority SNU (PSNU).
- Program Management interventions and their cost categories are not allocated to SNU/PSNU
- Adult ARVs were not allocated to SNU/PSNU. If there were any such funds in the period of assessment, they were channelled to the NDOH for their distribution.

[6] EARTH: CDC ER technical support team.

3. Key NASA+ HIV Findings

3.1. Financing flows for HIV in South Africa

The South African Government (SAG) plays the primary role in the financing (as financing entity, FE) of HIV and TB services in South Africa. Internal grants and transfers from the government's budget are the primary revenue (REV), and these flow through government schemes (SCH), mostly to public financing agents and purchasers (FAP) for services that are delivered primarily by public service providers (PS)[7]. The majority of the public HIV financing, and some of the TB financing, has been ring-fenced by the central government under the Comprehensive HIV/AIDS and TB Conditional Grant[8] (CG) for the DOH, as well as the Life-skills Conditional Grant for DBE. The remaining public financing for HIV and the bulk of TB funds fall under the provincial DOHs' discretionary (voted) health budgets.

International financing entities also play an important role, with revenue from direct foreign financial transfers, some of which go through government schemes to public FAPs, but the bulk of which are channelled via resident foreign agencies schemes and managed by international FAPs.

The private sector also contributes a smaller proportion to the financing of HIV and TB services. Private-for-profit businesses either provide health services directly for their employees, or donate funds, as corporate social investment (CSI), to service providers. Unfortunately, the business sector's poor response rate to the NASA requests for data undermined the ability to quantify their contribution. However, comprehensive data were obtained from the Council of Medical Schemes (CMS) for all the payments made by voluntary private health insurances for users of private health services, estimated to be around 6% of the total South African population (Thembisa Model 4.4). These insurance payments could not be identified as either coming from employers or employees (households) and hence have been labelled in this report as 'FE.02.99 Other private financing not elsewhere classified' (n.e.c) and as 'REV.05.98 Voluntary prepayment not disaggregated' (ND). They flow via voluntary insurance schemes (SCH), managed by the private insurance enterprises (FAP) to private-for-profit health care providers (PS). There are small amounts of financing from domestic not-for-profit institutions FEs and REVs (mostly SA National Lotteries), which were managed by SANAC (public FAP) and other non-profit organisations (NPO FAPs), mostly for non-profit service providers (NGO PSs).

The following sections of this report unpack each of these aspects in greater detail, and the following two figures depict visually the financing flows for HIV in South Africa, and the relative contributions of, or roles played by, the FE, REV, SCH, FAP and PS entities. Thereafter, Figure 3 provides the total expenditure for HIV only, while the TB (and all HIV/TB) spending in presented in section 5.

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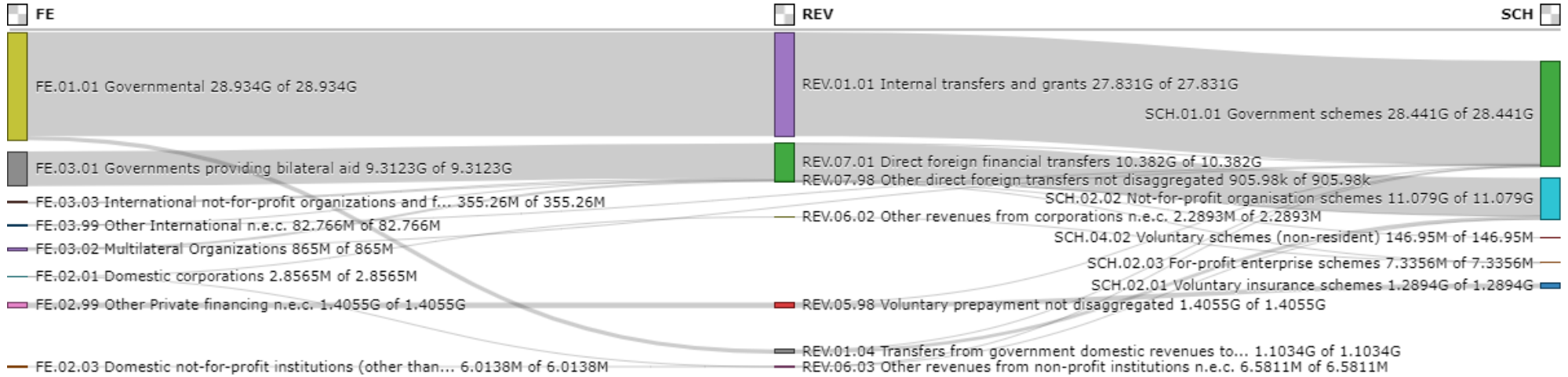
[7] Please refer to the previous section for definitions of the NASA vectors.

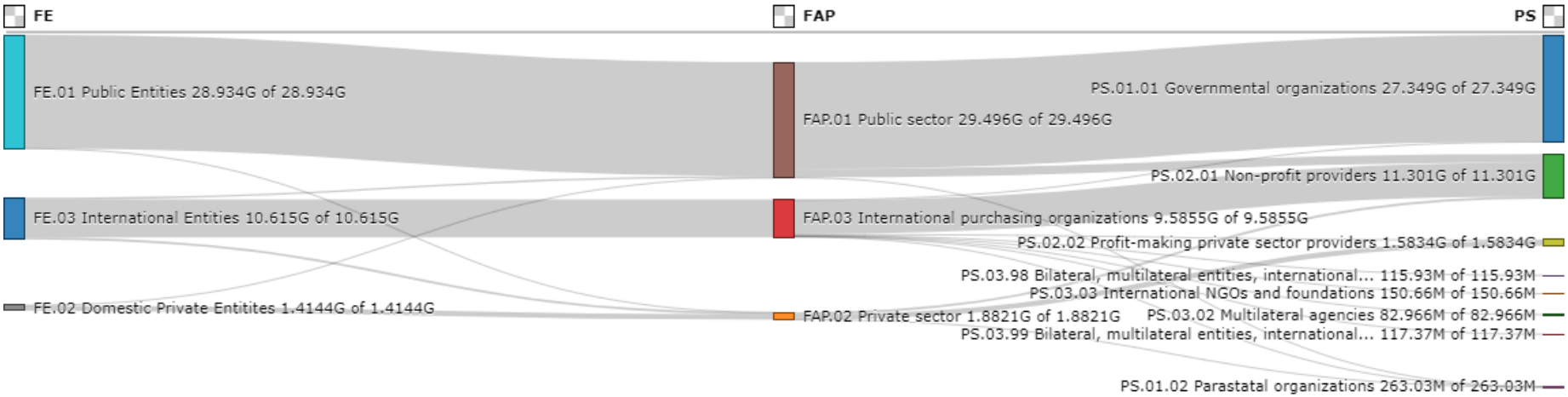
[8] In the 2020/21 Estimates of National Revenue and Expenditure, additional components were added to the HIV/AIDS and TB conditional grant: community outreach services, malaria, oncology and mental health services, while TB and HPV were given their separate components (previously included under HIV). The CG is now called the HIV, TB, malaria and community outreach grant.

Figure 1: Financing flows for HIV in South Africa: FE-REV-SCH (2019/20, ZAR)



* FE.02.99 Other private financing not elsewhere classified (n.e.c.) is the code used for **all the private health insurance schemes** since these were not provided split by employer / employee.

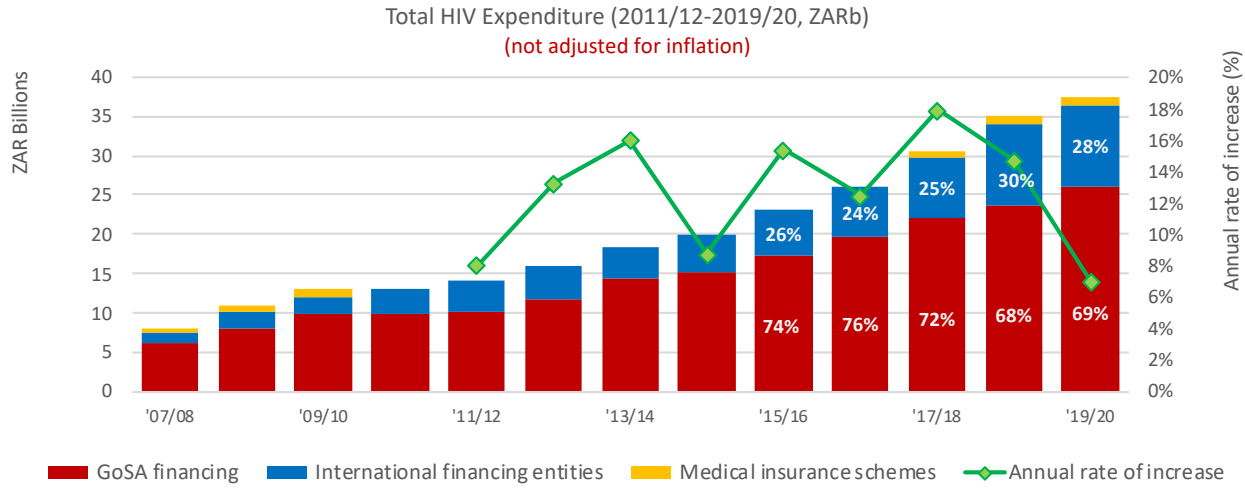
Figure 2: Financing flows for HIV in South Africa: FE-FAP-PS (2019/20, ZAR)



3.2. Historical trends in HIV spending (2007/08-2019/20)

Previous expenditure tracking efforts in South Africa have demonstrated the increasing financial commitments to the HIV response. From ZAR 7.9 billion in 2007/2008, the total expenditure has annually increased to ZAR 37.6 billion (in nominal Rand amounts), representing an annual average increase of 15%, with government contributions representing around two-thirds of the total, having declined from 76% in 2015/16 to 69% in 2019/20.

Figure 3: Historical trends in HIV expenditure in South Africa (2007/08-2019/20, ZAR billions)

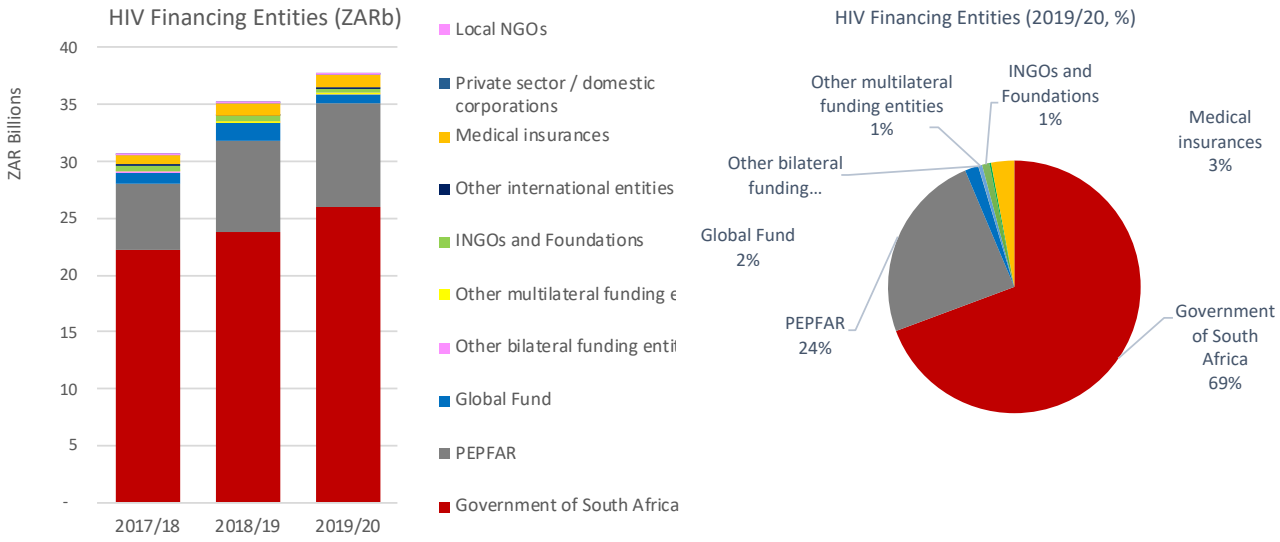


Sources of data: 2007/08-2009/10: NASA (undertaken by CEGAA). 2011/12-2013/14: SA Investment Case expenditure tracking (undertaken by R4D & CEGAA). 2014/15-2016/17: SA expenditure tracking (undertaken by R4D, CEGAA, HE²RO & NDOH). 2017/18-2019/20: NASA (undertaken by CEGAA & HE²RO).

3.3. HIV financing entities, revenues, schemes and agents/purchasers (2017/18-2019/20)

The South African NASA+ findings indicate increasing allocations to HIV over the study period, rising in total from R30.6 billion (US$ 2.4 million) in 2017/18 to R37.6 billion (US$ 2.5 million) in 2019/20, with an initial increase of 15% and then 7% in the latter year (in ZAR terms). Importantly, the SAG financed almost three-quarters of the total HIV response in each year (72%, 68% and 69% in 2017/18, 2018/19, 2019/20 respectively), with an annual average increase of 8%, in nominal ZAR terms. The international financing entities' (development partners) contributions dramatically increased by 18% between 2017/18 and 2018/19 and then by just 5% in 2019/20, forming 25%, 30% and 28% of the total in the three study years. The private medical insurances (with contributions from employers and individuals) accounted for around 3% of the total HIV expenditure in each year (Figure 4).

Figure 4: Financing entities contributions to HIV in South Africa (2017/18-2019/20, ZAR billion, %)



Note that 2019/20 was the first year of the second Global Fund (GF) New Funding Model (NFM II) to South Africa, and experienced the usual slow start up and under-spending, as shown by the decrease in GF spending between 2018/19 and 2019/20 (Table 3). The second and third years' of GF expenditures are anticipated to increase.

Table 3: Financing entities contributions to HIV in South Africa (2017/18-2019/20, ZAR, %)

HIV Funding Entities (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
Government of South Africa	22 174 807 439	23 715 850 996	26 039 000 179	72%	68%	69%
PEPFAR	5 875 239 835	8 101 197 101	9 131 899 608	19%	23%	24%
Global Fund	992 612 830	1 582 377 302	650 911 799	3%	5%	2%
Other bilateral funding entities	37 597 640	24 906 829	9 063 637	0.1%	0.1%	0.0%
Other multilateral funding entities	84 022 352	128 771 599	182 621 861	0.3%	0.4%	0.5%
INGOs and Foundations	407 180 825	412 768 984	355 258 335	1.3%	1.2%	0.9%
Other international entities	135 925 855	116 637 361	82 765 950	0.4%	0.3%	0.2%
Medical insurances	879 902 138	1 009 827 415	1 101 371 508	2.9%	2.9%	2.9%
Private sector / domestic corporations	1 535 165	2 174 185	2 856 535	0.0%	0.0%	0.0%
Local NGOs	310 676	1 686 451	6 013 849	0.0%	0.0%	0.0%
Total HIV (ZAR)	**30 589 134 755**	**35 096 198 222**	**37 561 763 260**	**100%**	**100%**	**100%**

Table 4: Financing entities contributions to HIV in South Africa (2017/18-2019/20, USD)

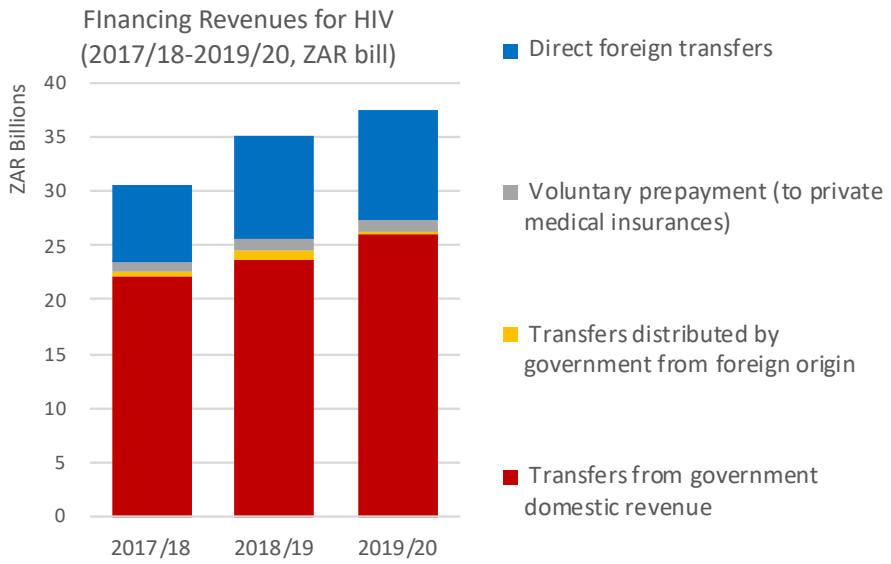
HIV Funding Entities (USD)	2017/18	2018/19	2019/20
Government of South Africa	1 710 623 115	1 725 793 261	1 763 084 852
PEPFAR	453 231 492	589 520 965	618 315 364
Global Fund	76 572 771	115 148 981	44 072 842
Other bilateral funding entities	2 900 381	1 812 460	613 693
Other multilateral funding entities	6 481 706	9 370 659	12 365 215
INGOs and Foundations	31 411 002	30 037 039	24 054 326
Other international entities	10 485 679	8 487 655	5 604 032
Medical insurances	67 877 971	73 484 749	74 573 194
Private sector / domestic corporations	118 427	158 215	193 414
Local NGOs	23 966	122 722	407 194
Total HIV (USD)	**2 359 726 510**	**2 553 936 707**	**2 543 284 126**

* OANDA annual average ZAR:USD exchange rates[9].

[9] OANDA annual average exchange rates (USD:ZAR): 2017/18 = 12.963. 2018/19 = 13.742. 2019/20 = 14.769.

The revenue (REV) mechanisms that provide resources to financing schemes are indicated in Figure 5, which shows that in 2019/20, 69% were transfers from government domestic revenue, while the majority of the international financing (27% of their total 28%) were direct foreign transfer revenues, while the 1% were transfers that were distributed by government (specifically the Global Fund financing that went to public principle recipients). Voluntary prepayment revenue from medical aid premiums made up 3% of the total HIV financing in all the years.

Figure 5: Financing revenues for HIV (2017/18-2019/20, ZAR billion)



In terms of the schemes, which are the financing arrangements through which people obtain health services, Table 5 indicates that the bulk (67%) of HIV financing are channelled through government schemes, mostly provincial government schemes (65%) as well as 2% through central government schemes. The majority of the international entities' financing flow via the resident foreign agencies' schemes (25% of total). Only 3% of HIV financing went through non-profit organisations.

Table 5: HIV financing entities and their financing schemes (2017/18-2019/20, ZAR)

HIV Financing Entities and their Schemes (ZAR)	2017/18	2018/19	2019/20
FE.01 Public Entities	**22 174 807 439**	**23 715 850 996**	**26 039 000 179**
SCH.01 Government schemes and compulsory contributory h	20 209 890 512	21 641 693 749	24 315 357 418
SCH.01.01.01 Central government schemes	428 396 678	939 355 158	636 797 904
SCH.01.01.02 State/regional/local government schemes	19 781 493 835	20 702 338 591	23 678 559 514
SCH.02 Voluntary payment schemes	1 964 916 926	2 074 157 246	1 723 642 761
SCH.02.02.01 Not-for-profit organisation schemes (excludin	1 964 916 926	2 074 157 246	1 723 642 761
FE.02 Domestic Private Entitites	**881 747 980**	**1 013 688 051**	**1 110 241 893**
SCH.01 Government schemes and compulsory contributory h	123 906 612	113 586 898	121 763 677
SCH.01.01.01 Central government schemes	123 607 012	112 795 501	116 108 288
SCH.01.01.02 State/regional/local government schemes	299 601	791 398	5 655 389
SCH.02 Voluntary payment schemes	757 841 367	900 101 152	988 478 216
SCH.02.01.98 Voluntary insurance schemes not dissagregat	756 306 202	897 609 142	985 263 220
SCH.02.02.01 Not-for-profit organisation schemes (excluding SCH.02.02.02)		317 825	358 460
SCH.02.02.98 Not-for-profit organisation schemes not disag	966 165	534 802	567 283
SCH.02.03.01 Enterprises (except health care providers) sch	569 000	1 639 383	2 289 252
FE.03 International Entities	**7 532 579 337**	**10 366 659 175**	**10 412 521 189**
SCH.01 Government schemes and compulsory contributory h	594 080 122	1 095 806 777	227 869 461
SCH.01.01.01 Central government schemes	517 811 445	811 895 045	227 869 461
SCH.01.01.02 State/regional/local government schemes	76 268 677	283 911 732	
SCH.02 Voluntary payment schemes	6 606 464 185	8 894 028 447	10 037 704 981
SCH.02.02.01 Not-for-profit organisation schemes (excludin	752 876 204	855 623 284	577 859 399
SCH.02.02.02 Resident foreign agencies schemes	5 677 061 392	7 814 658 422	9 259 296 358
SCH.02.02.98 Not-for-profit organisation schemes not disag	13 085 876	5 872 893	1 229 447
SCH.02.02.99 Not-for-profit organisation schemes n.e.c.	159 618 155	206 478 609	194 273 418
SCH.02.03.98 For-profit enterprise schemes not dissagregat	3 822 559	11 395 239	5 046 360
SCH.04 External schemes (non-resident)	332 035 030	376 823 952	146 946 747
SCH.04.02.02 Other schemes (non-resident)	332 035 030	376 823 952	146 946 747
Total (ZAR)	**30 589 134 755**	**35 096 198 222**	**37 561 763 260**

The financing agents and purchasers (FAPs) are the economic units that operate the schemes. They collect revenue, pool financial resources, pay for the service provision, and take programmatic decisions (allocation and purchase modalities). They are therefore important 'drivers' of the response. Because the bulk of the HIV financing in South Africa comes from government revenue, these were mostly managed by public departments (70% in 2019/20), while 24% were managed by in-country bilateral agencies (these were all the PEPFAR agencies which determine the use of their contributions). The other FAPs were responsible for the remaining small amounts (Figure 6 and Table 6 provide details).

Figure 6: Financing agents & purchasers for HIV services (2017/18-2019/20, ZAR billion)

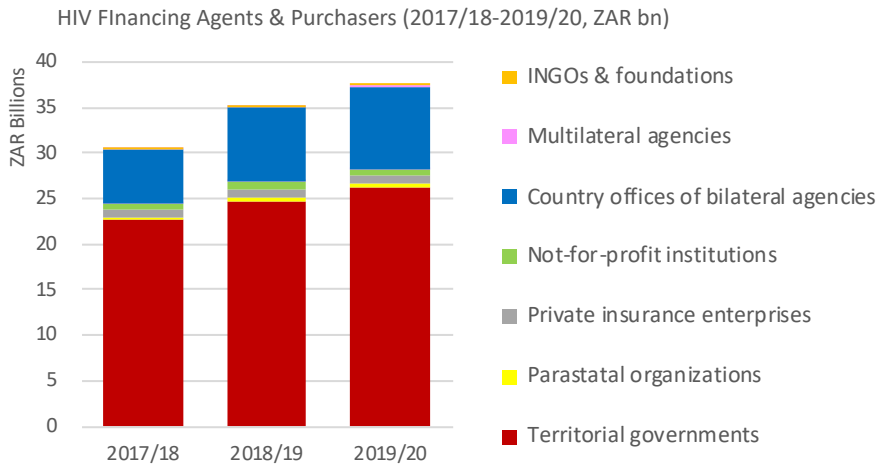


Table 6: Financing entities and their agents & purchasers for HIV services (2017/18-2019/20, ZAR)

HIV Financing Entities and their Financing	2017/18	2018/19	2019/20
FE.01 Public Entities	**22 174 807 439**	**23 715 850 996**	**26 039 000 179**
FAP.01 Public sector	22 161 357 978	23 702 900 989	26 025 749 350
FAP.01.01 Territorial governments	22 107 453 426	23 629 632 379	25 952 486 410
FAP.01.04 Parastatal organizations	53 904 552	73 268 610	73 262 940
FAP.02 Private sector	13 449 461	12 950 007	13 250 828
FAP.02.05 Not-for-profit institution	13 449 461	12 950 007	12 343 331
FAP.02.06 Corporations other than providers of health services (nonparastata			907 497
FE.02 Domestic Private Entitites	**881 747 980**	**1 013 688 051**	**1 110 241 893**
FAP.01 Public sector	123 906 612	113 586 898	121 763 677
FAP.01.01 Territorial governments	123 906 612	113 586 898	121 763 677
FAP.02 Private sector	757 841 367	900 101 152	988 478 216
FAP.02.03 Private insurance enterpr	756 306 202	897 609 142	985 263 220
FAP.02.05 Not-for-profit institution	966 165	852 627	925 743
FAP.02.06 Corporations other than	569 000	1 639 383	2 289 252
FE.03 International Entities	**7 532 579 337**	**10 366 659 175**	**10 412 521 189**
FAP.01 Public sector	699 316 739	1 205 764 586	422 142 879
FAP.01.01 Territorial governments	442 865 912	915 175 438	204 068 727
FAP.01.04 Parastatal organizations	256 450 827	290 589 148	218 074 152
FAP.02 Private sector	763 148 024	866 190 978	576 185 871
FAP.02.05 Not-for-profit institution	759 325 465	854 795 738	571 139 511
FAP.02.06 Corporations other than	3 822 559	11 395 239	5 046 360
FAP.03 International purchasing orgar	6 070 114 573	8 294 703 611	9 414 192 439
FAP.03.01 Country offices of bilatera	5 875 239 835	8 101 197 101	9 131 899 608
FAP.03.02 Multilateral agencies mar	64 540 120	94 399 446	147 074 478
FAP.03.03 International not-for-pro	130 334 619	99 107 064	135 218 353
Total (ZAR)	**30 589 134 755**	**35 096 198 222**	**37 561 763 260**

3.4. Providers of HIV Services in South Africa

As explained above, 70% of HIV financing flowed through governmental departments as agents/ purchasers in 2019/20. Most of these public funds went to public service providers (making up 65% of total HIV expenditure) while the other 4% went to non-profit service providers (NGOs) and 1% to parastatal laboratories, research organisations and universities. In addition, the NGOs implemented services with external funding, and in total, accounted for 30% of expenditure in 2019/20. The private-for-profit health care services spent the 3% of funding from the voluntary health insurances. The resident international agencies (bilateral, multilateral and INGOs/foundations) only spent 1% themselves in service delivery (Figure 7).

Figure 7: HIV service providers (2017/18-2019/20, ZAR billion)

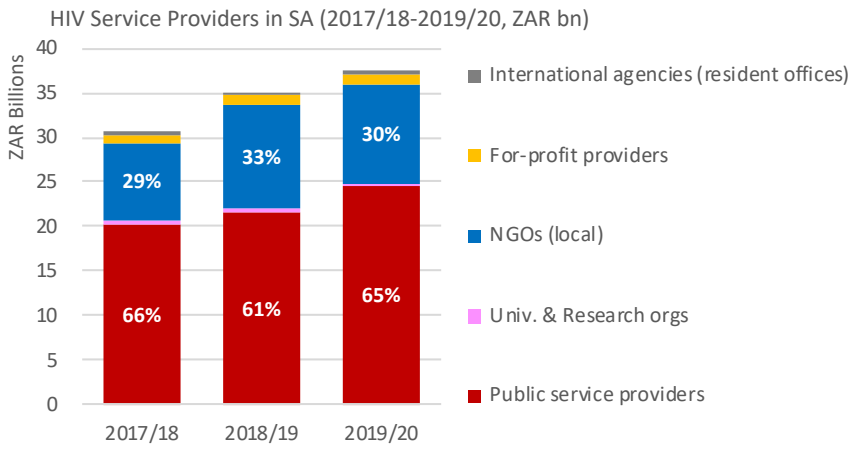


Table 7: HIV financing agents/ purchasers and their service providers (2017/18-2019/20, ZAR)

HIV Financing Agents/providers & their Service Providers (ZAR)	2017/18	2018/19	2019/20	% 2019/20
FAP.01 Public sector	**22 984 581 329**	**25 022 252 473**	**26 569 655 907**	**71%**
PS.01.01 Governmental organizations	20 061 795 772	21 493 370 437	24 261 216 184	65%
PS.01.02 Parastatal organizations	274 110 863	267 606 506	195 085 841	1%
PS.02.01 Non-profit providers	2 648 674 695	3 228 195 938	2 113 353 882	6%
PS.02.02 Profit-making private sector providers		33 079 592		0%
FAP.02 Private sector	**1 534 438 853**	**1 779 242 137**	**1 577 914 915**	**4%**
PS.01.02 Parastatal organizations	1 231 568	1 305 578	1 403 149	0%
PS.02.01 Non-profit providers	773 741 091	868 598 373	584 408 585	2%
PS.02.02 Profit-making private sector provide	759 466 194	909 338 187	992 103 180	3%
FAP.03 International purchasing organizations	**6 070 114 573**	**8 294 703 611**	**9 414 192 439**	**25%**
PS.01.01 Governmental organizations	57 813 235	74 474 153	203 382 465	1%
PS.01.02 Parastatal organizations	195 531 975	143 293 194	66 544 849	0%
PS.02.01 Non-profit providers	5 347 604 118	7 542 417 443	8 410 757 500	22%
PS.02.02 Profit-making private sector provide	132 904 336	130 858 486	287 138 204	1%
PS.03.02 Multilateral agencies	37 014 599	72 175 994	64 654 799	0%
PS.03.03 International NGOs and foundations	192 227 915	158 779 817	148 405 709	0%
PS.03.98 Bilateral, multilateral entities,	35 050 513	63 736 303	115 934 455	0%
PS.03.99 Bilateral, multilateral entities,	71 967 882	108 968 222	117 374 458	0%
Total (ZAR)	**30 589 134 755**	**35 096 198 222**	**37 561 763 260**	**100%**

The details of the types of service providers are provided in Table 8 below.

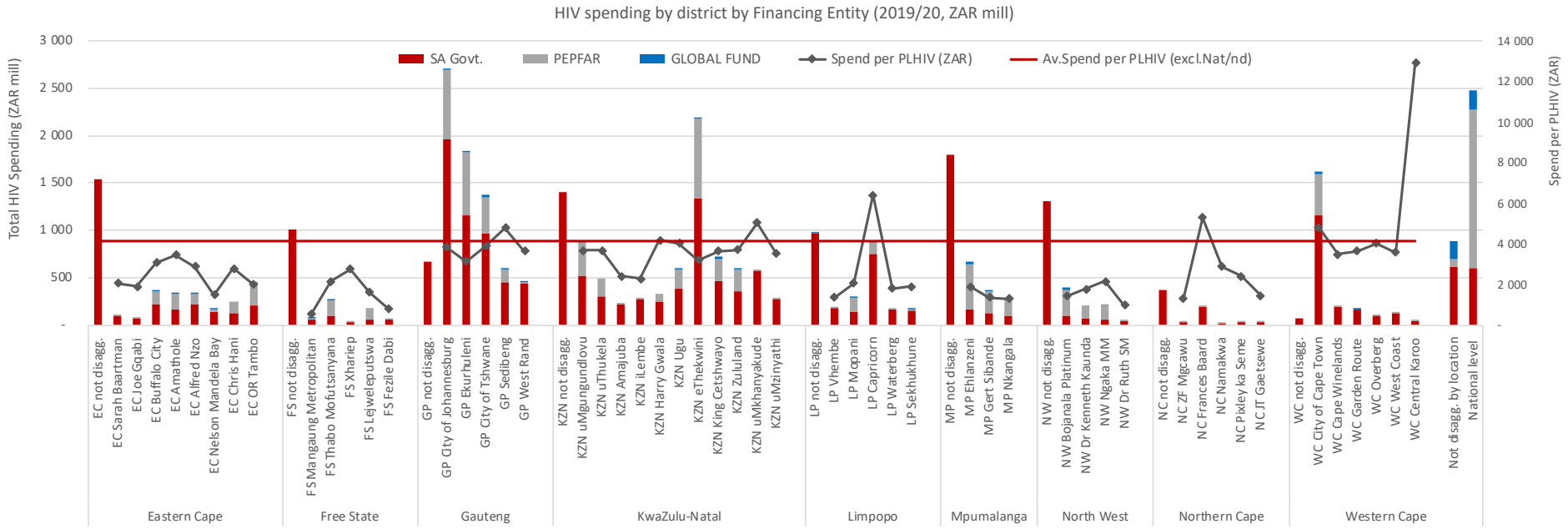
Table 8: Types of HIV service providers (2017/18-2019/20, ZAR)

Providers of HIV Services per Sector (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
PS.01.01 Governmental organizations	**20 119 609 007**	**21 567 844 590**	**24 464 598 649**	**66%**	**61%**	**65%**
Clinics	16 843 335 172	18 810 005 594	20 818 067 787	55%	54%	55%
Labs	96 924 335	80 768 851	41 169 010	0%	0%	0%
Research institutions	1 170 540	58 063 436	58 063 436	0%	0%	0%
Other public departments (units within DOH, DSD, DBE, SANAC etc.)	3 178 178 960	2 619 006 710	3 547 298 416	10%	7%	9%
PS.01.02 Parastatal organizations	**470 874 406**	**412 205 278**	**263 033 839**	**2%**	**1%**	**1%**
Labs	63 519 157	82 356 451	27 992 410	0%	0%	0%
Research institutions	407 355 249	329 848 827	235 041 429	1%	1%	1%
PS.02.01 Non-profit providers	**8 770 019 904**	**11 639 211 754**	**11 108 519 967**	**29%**	**33%**	**30%**
NGOs (non-faith-based)	8 770 019 904	11 574 919 163	10 994 390 837	29%	33%	29%
NGOs (faith-based)	-	64 292 591	114 129 130	0%	0%	0%
PS.02.02 Profit-making private sector providers	**892 370 530**	**1 073 276 264**	**1 279 241 385**	**3%**	**3%**	**3%**
Hospitals (profit-making private)	83 715 947	43 161 628	61 128 369	0%	0%	0%
Clinics (profit-making private)	672 590 255	854 447 514	924 134 852	2%	2%	2%
Schools and training facilities (profit-making)	-	1 639 383	2 289 252	0%	0%	0%
Research institutions (profit-making private)	2 590 992	10 089 662	4 550 708	0%	0%	0%
Consultancy firms (profit-making private)	131 076 228	149 296 787	170 443 609	0%	0%	0%
Profit-making providers not disagg.	1 828 108	14 641 291	116 694 595	0%	0%	0%
Profit-making providers n.e.c.	569 000	-	-	0%	0%	0%
PS.03. International agencies (summed)	**336 260 909**	**403 660 336**	**446 369 421**	**1%**	**1%**	**1%**
Grand Total	**30 589 134 755**	**35 096 198 222**	**37 561 763 260**	**100%**	**100%**	**100%**

* Note that not all the public spending on laboratory diagnostics were captured under the laboratory PS above because they were not labelled as such in the public accounting system.

Considering the geographic distribution of HIV expenditure in South Africa, Figure 8 shows the nominal amounts per financing entity (left axis) per district and calculates the spending per PLHIV per district (right axis).

Figure 8: Geographic distribution of HIV expenditure and spending per PLHIV (2019/20, ZAR)



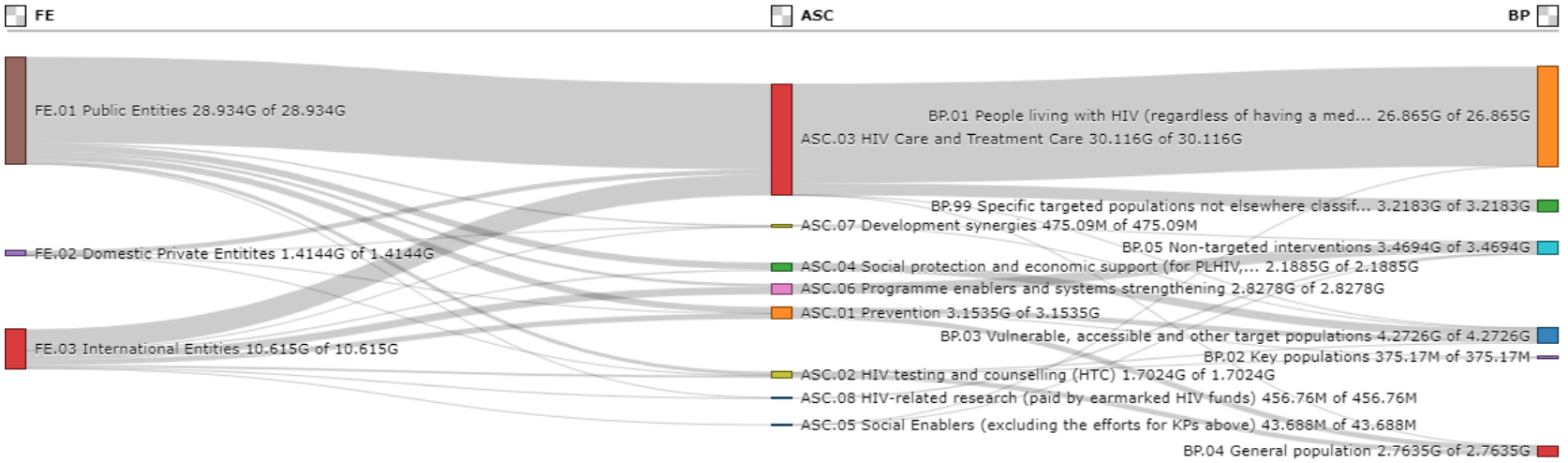
In 2019/20[10] the HIV expenditure (from all financing entities) per PLHIV was R4,566 (US$ 309) (note, when including the national level and not disaggregated spending, the average is higher than most districts). The grey line gives an idea of variation in spending per PLHIV, and apart from some outliers (such as Central Karoo, WC, and Capricorn, LP), there appears more or less similar spending per PLHIV around the national average in GP, KZN and WC, implying expenditure has been matching the burden of disease (PLHIV population). Unfortunately, the Eastern Cape, Free State, Mpumalanga and North West provinces had large portions of their public spending not disaggregated which undermined the equity analysis in their districts, illustrated by their district spending per PLHIV being far lower than the national average. PEPFAR had the largest amount of spending at national level (far right). GF spending was mostly prevention related and therefore the PLHIV denominator may not be the most relevant here.

[10] The district analysis was only possible in 2019/209 when the GF and PEPFAR data were disaggregated. The PEPFAR ER data no longer have the sub-national unit identifier, therefore distribution per district was estimated by EARTH, using their district output performance per sub-program. Source of district PLHIV: NAOMI model: https://www.hivdata.org.za/

3.5. HIV/AIDS spending activities (programme areas and interventions)

The NASA classification system provides a comprehensive list of interventions, grouped into eight programme areas. All collected data were cross-walked (matched) to these AIDS Spending categories (ASC) and are presented in this section. The following chart shows how funds flowed from financing entities (FE) to programmes areas (ASC) and to which beneficiary populations (BP).

Figure 9: HIV financing flows from entities (FE) to programme areas (ASC) to beneficiaries (BP) (2019/20, ZAR)



It can be seen that the bulk of public financing went towards care and treatment[11] interventions, followed by much smaller amounts to the other programme areas. The largest portion of international financing also went to care and treatment, as well as to prevention, programme enablers and systems strengthening, and lesser amounts to the other areas. The beneficiaries of the care and treatment spending were PLHIV, while vulnerable, accessible and other target populations benefitted from prevention interventions, social protection and economic support. Key populations: sex workers (SW), gay men and other men who have sex with men (MSM), people who inject drugs (PWID), transgender persons (TG) and inmates of correctional facilities, received very little funding overall, the majority of it coming from international sources, although some from public funds.

[11] Care and treatment (C&T) includes ART, adherence support, community outreach services, ART nutritional support, psychological support and PEPFAR's 'HIV clinical services'.

Before examining the programme areas in detail, a reminder that in addition to the usual NASA HIV activities, this NASA included HPV vaccinations (DOH HIV conditional grant) captured under prevention n.e.c, psycho-social support for young persons (PEPFAR funds) captured under the C&T psychosocial category, and GBV and substance abuse reduction (20% of these DSD programme expenditures) – refer to Section 2.1 for further explanation.

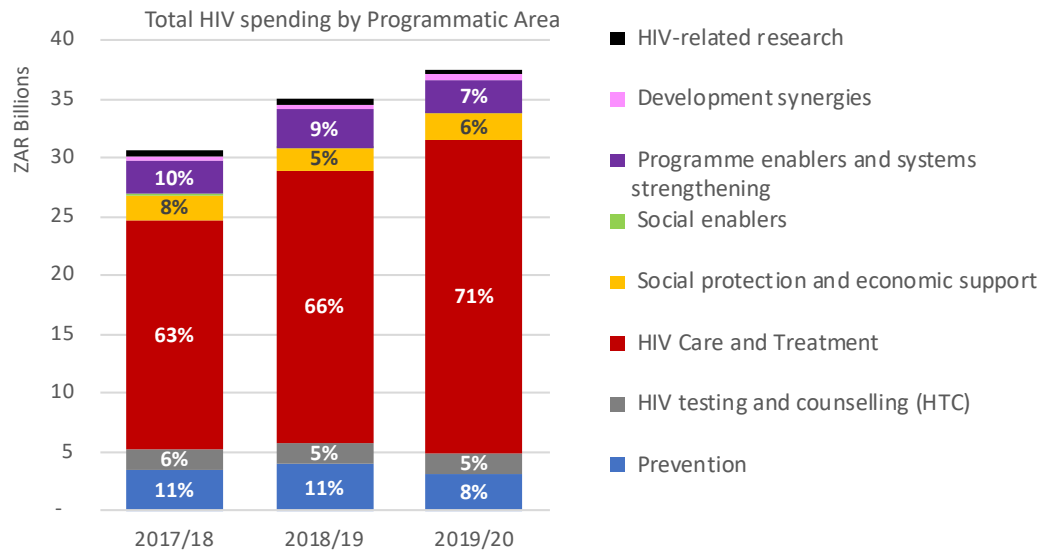
The overall amounts and proportional share of HIV funding going to each of the programme areas can be seen in Figure 10 and Table 9, with the total spending on all care and treatment increasing by 9% and 11% per annum to reach R 26.7 billion (US$ 1.8 billion, 71% of the total envelope) in 2019/20. Prevention interventions experienced a 20% reduction in nominal terms in 2019/20, and only benefitted from 8% of total HIV expenditure. Section 3.5.2 will examine which specific prevention interventions were prioritised or deprioritized. Spending on HIV testing and counselling (HTC) also decreased by 9% in 2019/20, but as Section 4.2 indicates, the numbers of tests performed increased, implying some efficiency gains were achieved, possibly through the use of community health workers through the government's community outreach services (COS) programme. Spending on social protection and economic support declined by 14% between 2017/18 and 2018/19 but then increased again by 15% in 2019/20. These were mostly the funds from the DSD for important support to vulnerable children and youth, and other mitigating interventions. Spending on social enablers, which includes human rights protection, stigma reduction, advocacy and so on, was very small (less than 1% of the total) in South Africa in all three years, and was mostly the efforts of the DSD to reduce gender-based violence (GBV) due to the increased risk of HIV infection for AGYW through GBV. Expenditure on development synergies and research were also found to be low in both years (both taking only 1%). The response rate from research agencies and universities was poor, however several of the largest research agencies in the HIV field were captured. Additionally, many received research funding from PEPFAR Head Quarter's Operational Plan (HOP) but these did not flow via in-country PEPFAR agencies and could not be verified. They were therefore left out of the assessment, as per PEPFAR's guidance. Programme enablers and systems strengthening, which encompassed strategic information, planning and coordination, community systems strengthening (CSS) and health systems strengthening (HSS), altogether made up 7% in 2019, having declined by 14% from 2018/19.

Table 9: Total HIV spending per programme area (2017/18-2019/20, ZAR)

Total HIV spending per programmatic area (ZAR)	2017/18	2018/19	2019/20
Prevention	3 405 503 382	3 944 661 024	3 153 501 544
HIV testing and counselling (HTC)	1 815 308 172	1 865 758 359	1 702 404 025
HIV Care and Treatment	19 407 752 141	23 151 117 433	26 714 078 912
Social protection and economic support	2 204 626 592	1 895 973 920	2 188 478 809
Social enablers	52 157 390	15 441 119	43 688 212
Programme enablers and systems strengthening	2 863 491 877	3 301 191 957	2 827 762 856
Development synergies	353 309 896	389 417 895	475 089 467
HIV-related research	486 985 306	532 636 515	456 759 436
Total HIV spending (ZAR)	**30 589 134 755**	**35 096 198 222**	**37 561 763 260**

* HTC sub-categories include the *testing for KPs*, and therefore spending on KP testing should be included in HTC (and not prevention). However, where a package of KP prevention services is delivered and the specific spending on their testing cannot be disaggregated, then these were all included under prevention (and were not double counted in both categories).

Figure 10: Total HIV spending per programme area (2017/18-2019/20, ZAR billion)



The provincial split of HIV spending displayed similar proportional splits, with C&T taking the largest share in all provinces (Figure 11): 73% in Limpopo and up to 82% in Gauteng. Prevention was low in all provinces, from 5% in Gauteng to 12% in KwaZulu-Natal.

Figure 11: Provincial HIV expenditure per programme area (2019/20, ZAR billion, %)

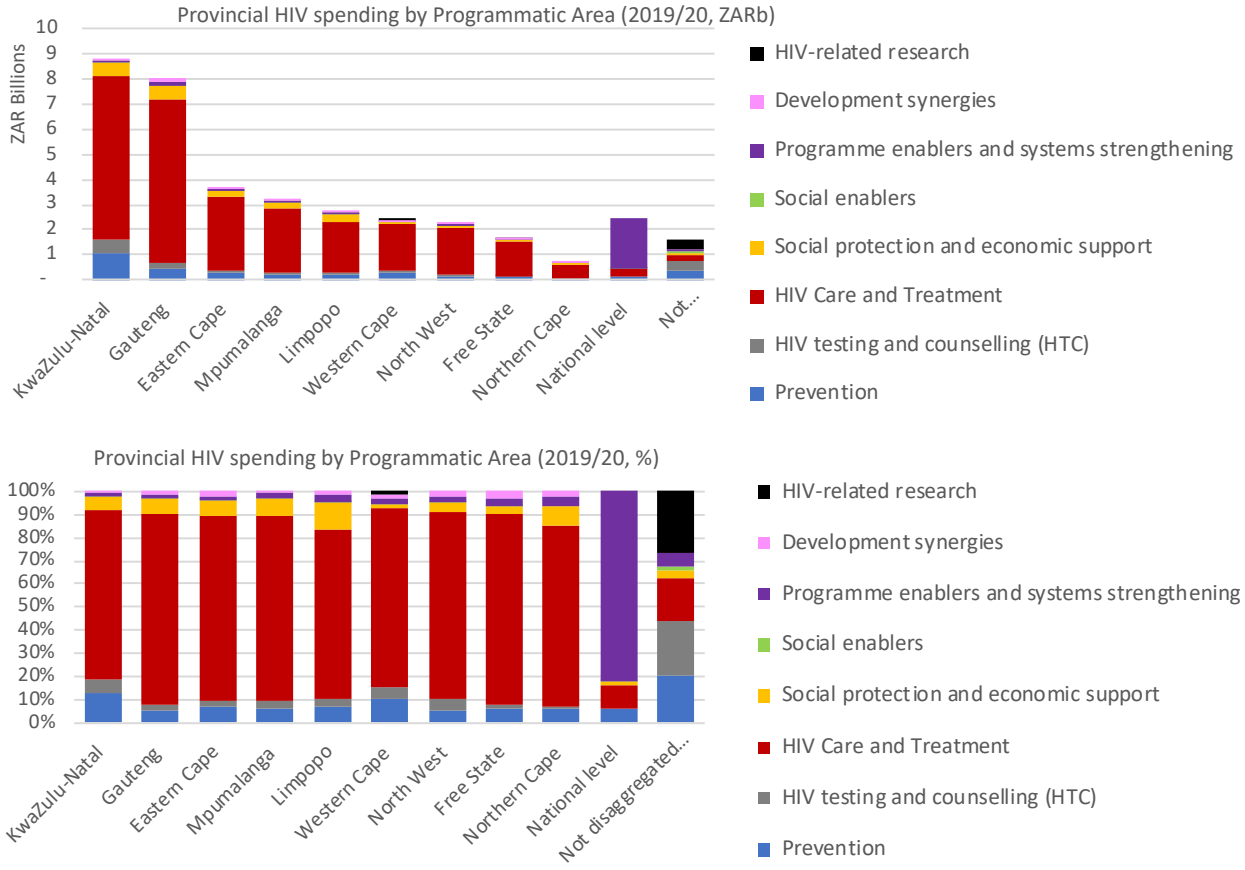
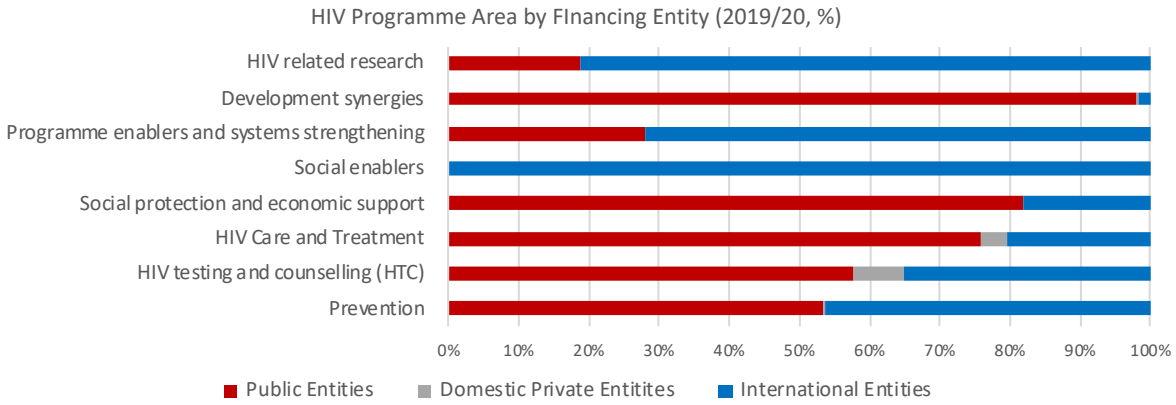


Figure 12 indicates the proportional contributions of different financing entities to each of the programme areas in 2019/20. Care and treatment was predominantly (76%) public financed,

21% from international entities, and the private sector 7%. Prevention interventions were more or less equally financed by public and international entities. Social protection and economic support is more than 80% funded by public financing, mostly through the DSD interventions for orphans and vulnerable children (OVC), youth and other vulnerable populations. Programme enablers and systems strengthening are almost three-quarters funded by international entities.

Figure 12: Financing entities' contributions to HIV programme areas (2019/20, %)

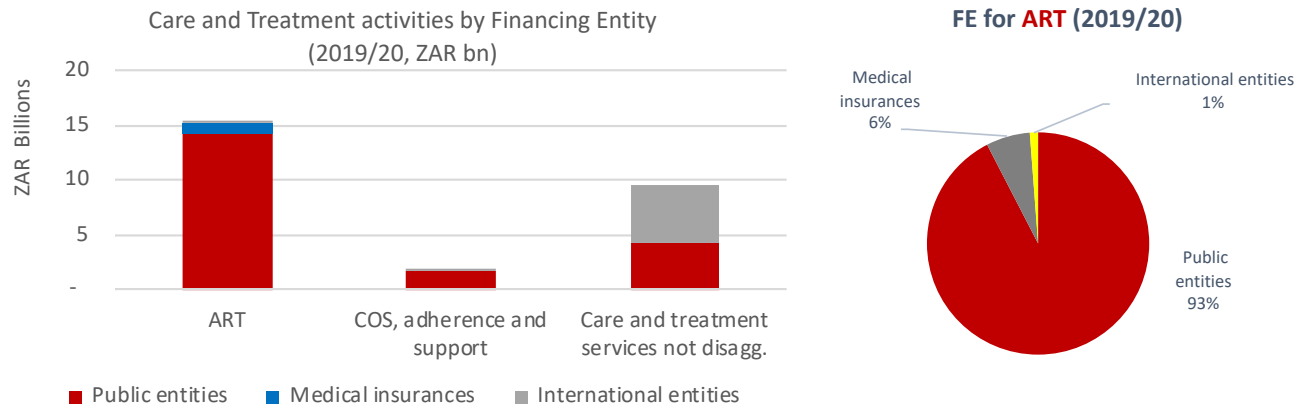


Each of the programme areas are examined in more detail in the following sections, starting with care and treatment because of its dominance in South Africa.

3.5.1. Spending on HIV care & treatment activities

The South African ART programme, being the largest in the world, absorbed over half (58%) of the total care and treatment (C&T) spending in 2019/20, reaching R15.4 billion (US$ 1 billion). This equated to 41% of all HIV spending. Almost all (92.4%) of the ART spending was funded from public financing scheme, 6.4% from private voluntary medical insurance schemes, and only 1.2% were from international financing schemes (Figure 13). Although ART experienced an increase of 6% in nominal terms in the outer year, it proportionally declined due to the increase in the 'not disaggregated care and treatment' spending, which was mostly driven by PEPFAR's spending labelled as 'HIV clinical services' that were not specifically for ART but other, non-disaggregated, supportive activities, and included differentiated services, cervical cancer screening and diagnosis, as well as their TB-related activities that could not be disentangled from this ER category.

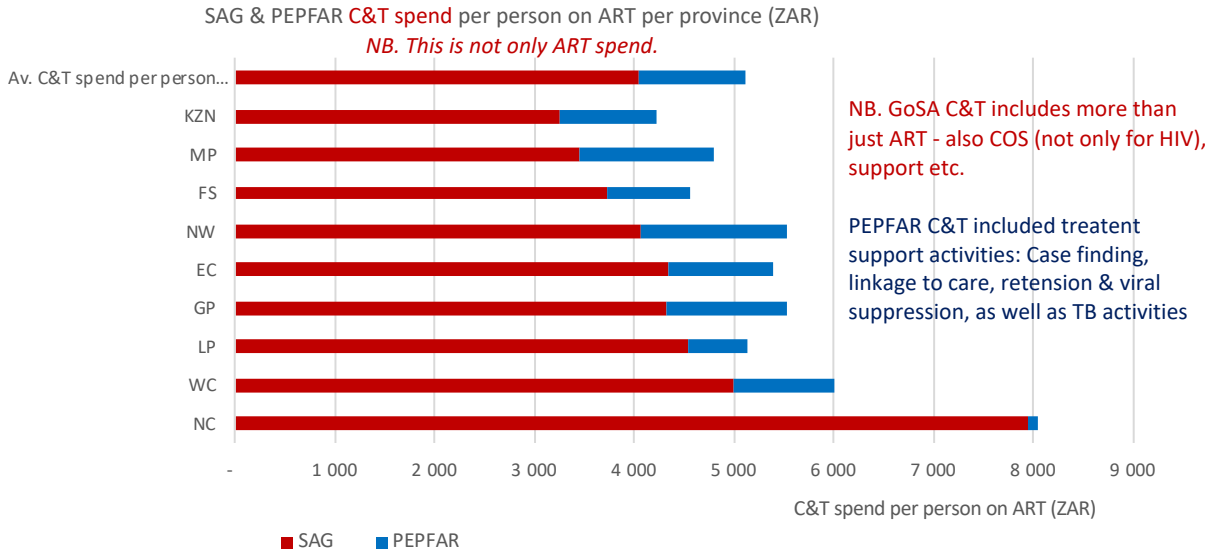
Figure 13: Financing entities' contribution to care and treatment activities (2019/20, ZAR, %)



Importantly, the DOH's community outreach services (COS) also had increasing allocations under the conditional HIV and TB grant. The spending on these public COS services could not be disaggregated into specific activities, but included outreach, adherence, support and homebased care, as needed (and for other chronic diseases, not only HIV).

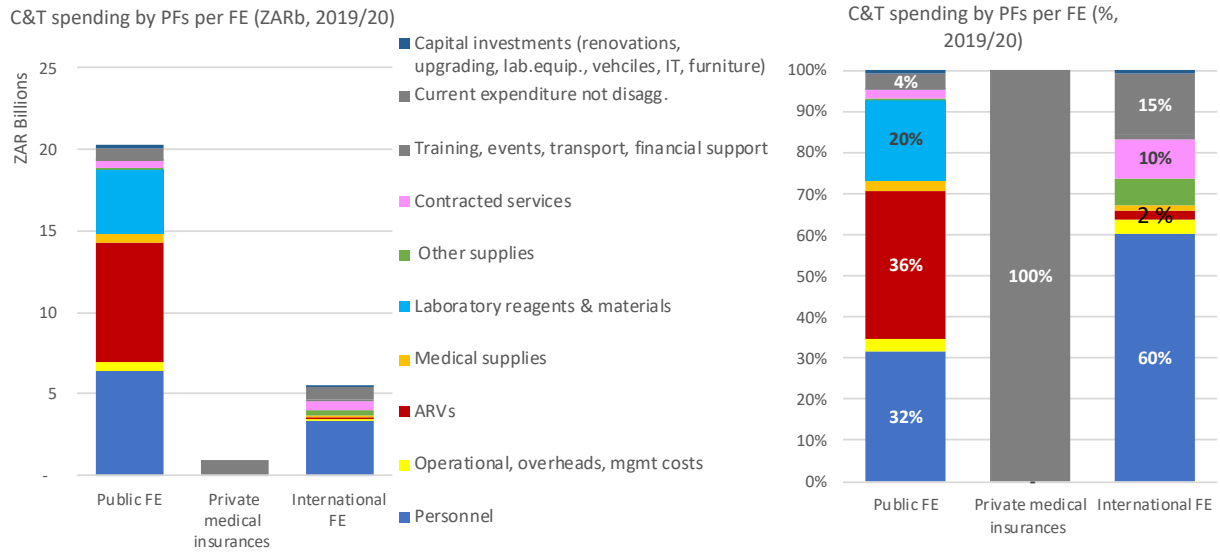
Dividing the total C&T spending by the numbers of PLHIV indicates that R4,241 (US$ 287) was spent per PLHIV in 2019/20. When dividing C&T by persons on ART the amount increases to R5,135 (US$ 348) on average, with variations per province (Figure 15). Of this, South African government (SAG) contributed R4,044 (US$ 274), PEPFAR R1,072 (US$ 73) and GF R19 (because of their low spending in 2019/20 as first year of the new grant). The highest C&T spend per ART patient was in the Northern Cape (R8,000 mostly SAG funding) and lowest in KZN (R4,233). Note that these *costs were for more than just ART services*. When dividing *only the ART expenditure* by the numbers of persons on ART, the amount spent was R3,050 per ART patient (US$ 207) in 2019/20. Compare this with the spending of private medical insurances per their HIV-positive beneficiaries (Figure 14 below).

Figure 14: SAG and PEPFAR HIV C&T spending per person on ART per province (2019/20, ZAR)



The international entities spending on C&T was largely (60%) on salaries (Figure 15), while the public spending was 32% for salaries, 36% for ARVs and 20% for laboratories (refer to section 4.2 for more detail on the public ART expenditure, and appendices for detailed tables).

Figure 15: Financing entities' spending on C&T activities by production factor (2019/20, ZAR, %)



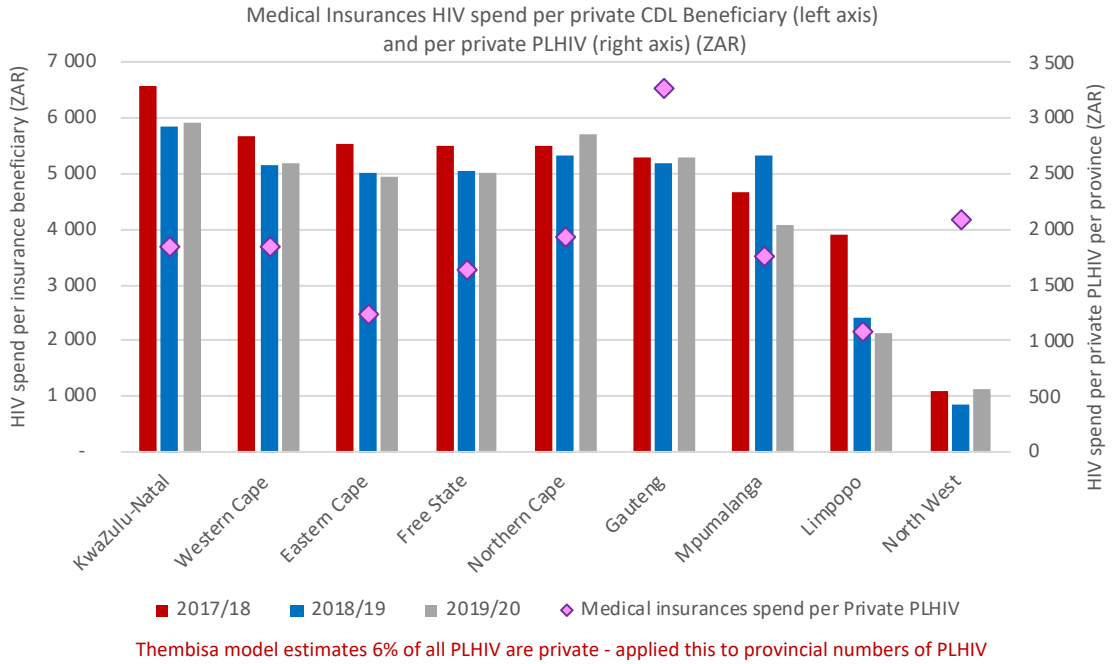
Private sector (medical insurance schemes') expenditure on HIV-positive private patients

The Council for Medical Schemes (CMS) in South Africa provided the HIV-related expenditure of all the registered private voluntary medical insurances for their members that had registered as living with HIV according to the Chronic Disease List (CDL) for the Prescribed Minimum Benefits (PMB), or for members that made a claim labelled as HIV-related (even if they had not registered as being HIV-positive). Details of the types of interventions were not provided, and it was assumed that the bulk of these costs would have been for ART, although small amounts may have been to treat other OIs. Using the reported numbers of registered HIV-positive beneficiaries as the denominator, Figure 16 indicates the medical schemes' spending per registered HIV-positive member per province, for each of the study years (left axis).

Generally, there appeared to have been decreasing or plateauing spending per private HIV-positive beneficiary, except for Northern Cape and North West where the unit of expenditure increased slightly in the third year. Removing Limpopo and North West as outliers, the average annual spending by insurance schemes in South Africa per registered HIV-positive beneficiary was close to R5,000 in 2017/18 and reduced to R4,500 in 2019/20 (on left axis). The reason for this 9% reduction could not be ascertained.

Considering the burden of HIV disease per province, and assuming 6% of the PLHIV per province have medical insurance (as per Thembisa Model 4.4, 2021[24]), the pink markers in Figure 16 show the range of spending per private PLHIV population. Except for a higher unit of expenditure in Gauteng and lower in Limpopo, the other provincial average spending per private PLHIV, varied only slightly between R1,500 and R2,000, implying there has been some equity in matching private resources to the provincial burden of the disease.

Figure 16: Medical insurances' HIV expenditure per private HIV-positive beneficiary (2017/18-2019/20, ZAR)

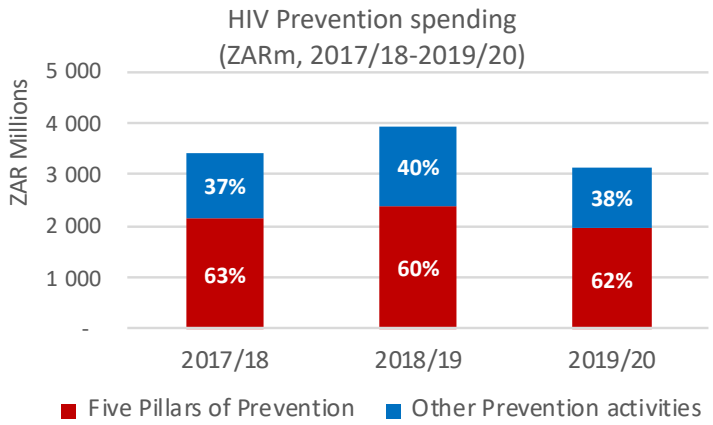


NB. CMS indicated that some Schemes did not report their numbers of HIV-positive beneficiaries, but reported HIV expenditure, hence the beneficiaries may be under-represented (and the spend/private patient been over-estimated).

3.5.2. Spending on HIV prevention activities

Total spending on HIV prevention activities declined in the outer year by 20%. Around 60% of prevention spending went towards the Five Pillars of Prevention in each year, and the remaining to other prevention interventions (Figure 17), such as PMTCT, SBCC, community mobilization, interventions for vulnerable children and youth (not AGYW specifically), workplace wellness programmes and the human papillomavirus (HPV) vaccination programme (which was financed under the DOH Comprehensive HIV and TB conditional grant).

Figure 17: Spending on the Five Pillars of HIV prevention (2017/18-2019/20, ZAR million)



* Five Pillars: Prevention for AGYW, services for key populations, condoms, VMMC and PrEP.

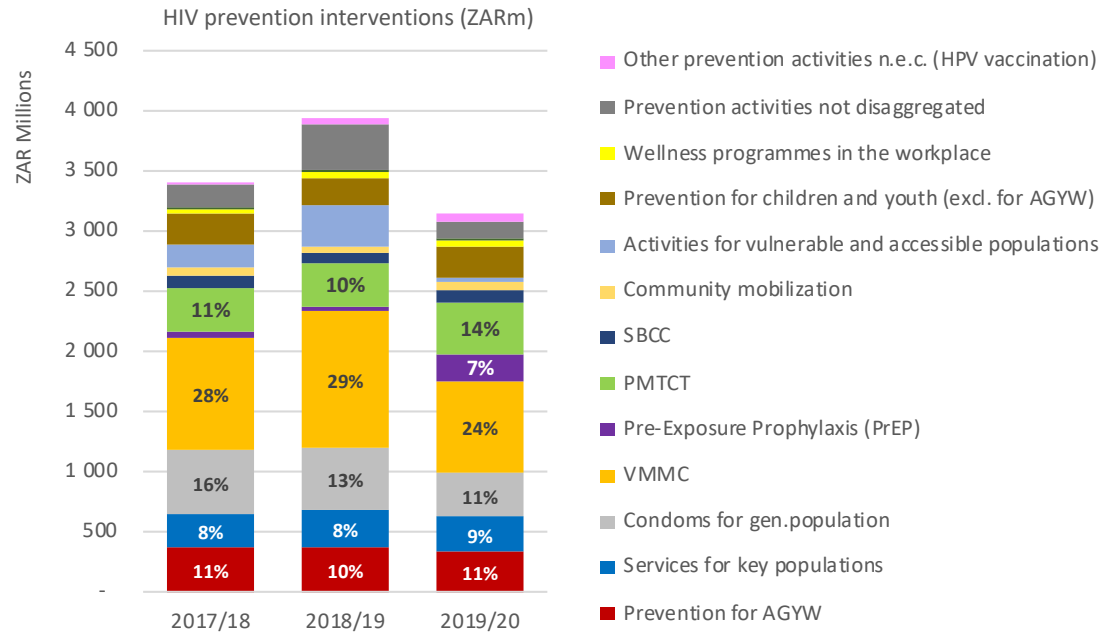
Voluntary medical male circumcision (VMMC) received the largest portion of the prevention spending in all years, with a slightly declining amount and portion in 2019/20 (from 29% to 24%). PMTCT was next prioritised with 14% in 2019/20, followed by condoms for the general population (11%) and interventions for AGYW (also 11%), and key populations with 9%. The spending on PrEP has been scaled up over the period, reaching just over R220,000 (7%) in 2019/20 (Table 10 and Figure 18). Refer to the annex for further details.

Table 10: Spending on HIV prevention interventions (2017/18-2019/20, ZAR million)

HIV Prevention interventions (ZAR)	2017/18	2018/19	2019/20
Five Pillars of Prevention	**2 162 467 220**	**2 363 695 531**	**1 967 661 628**
Prevention for AGYW	367 864 866	377 790 438	338 625 650
Services for key populations	273 103 079	303 352 400	288 914 132
Condoms for gen.population	533 440 264	520 474 028	361 879 116
VMMC	941 776 330	1 139 821 748	757 019 339
Pre-Exposure Prophylaxis (PrEP)	46 282 681	22 256 918	221 223 391
Other Prevention activities	**1 243 036 162**	**1 580 965 493**	**1 185 839 916**
PMTCT	358 571 241	376 456 013	438 885 114
SBCC	112 703 824	77 076 810	95 247 987
Community mobilization	63 346 279	50 655 970	66 952 786
Activities for vulnerable and accessible populations	196 175 065	341 595 597	38 634 696
Prevention for children and youth (excl. for AGYW)	244 547 023	235 030 779	262 150 183
Wellness programmes in the workplace	44 599 737	51 197 660	55 282 305
Post-exposure prophylaxis (PEP)	11 582 450	17 497 258	11 872 273
STI prevention & treatment for gen.pop	15 785 350	-	(110 080)
Prevention activities not disaggregated	193 753 316	375 130 349	138 404 077
Other prevention activities n.e.c. (HPV vaccination)	1 971 877	56 325 055	78 520 573
Total Prevention spending (ZAR)	**3 405 503 382**	**3 944 661 024**	**3 153 501 544**

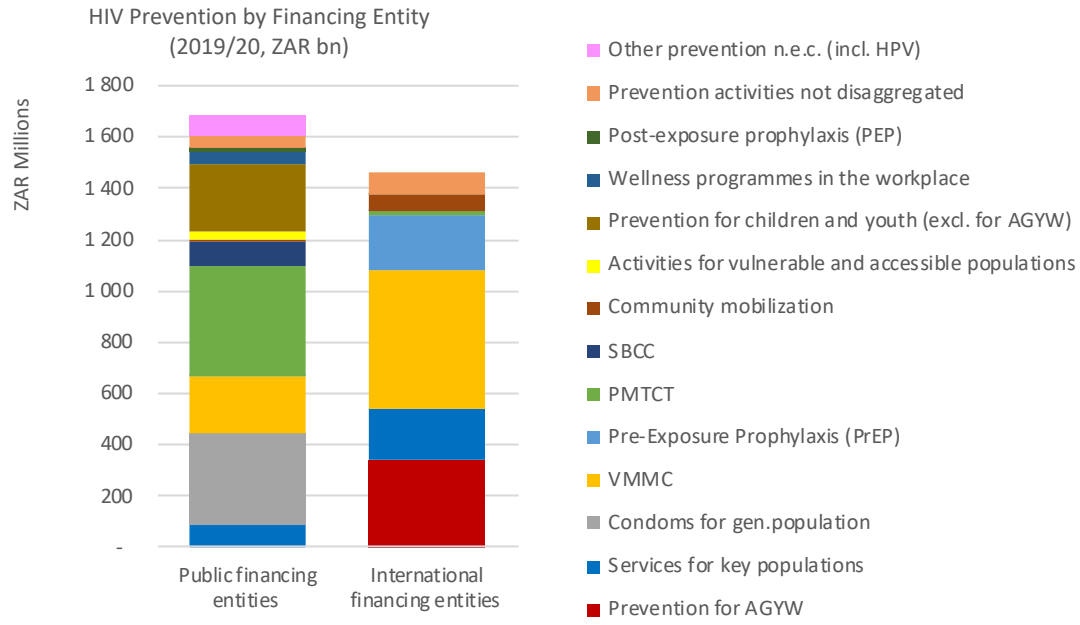
* KP interventions should not include their HIV testing as these expenditures are captured under HTC.
* STI spending was not labelled in the DOH BAS records.

Figure 18: Spending on HIV prevention interventions (2017/18-2019/20, ZAR million)



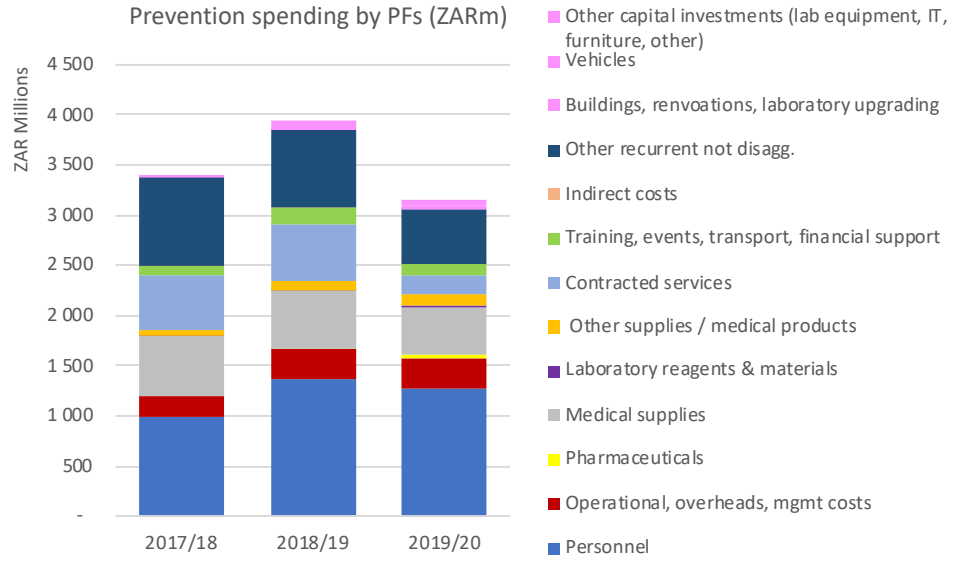
In 2019/20, public prevention financing prioritised PMTCT, condoms, VMMC, interventions for vulnerable children and youth (not specifically AGYW) and some for key populations, the latter through the DOH high transmission area (HTA) programme. The international financing prioritised VMMC (more than public), AGYW interventions, key populations and PrEP.

Figure 19: HIV prevention activities by financing entity (2019/20, ZAR million)



Personnel costs made up 40% of the prevention spending in 2019/20, operational and overhead costs 10% and medical supplies 15%. Spending on contracted services decreased over the period, from 16% to 6% of prevention costs. The capital investments made up only 3% (Figure 20 and table in the annexes).

Figure 20: HIV prevention spending by production factor (2017/18-2019/20, ZAR million)

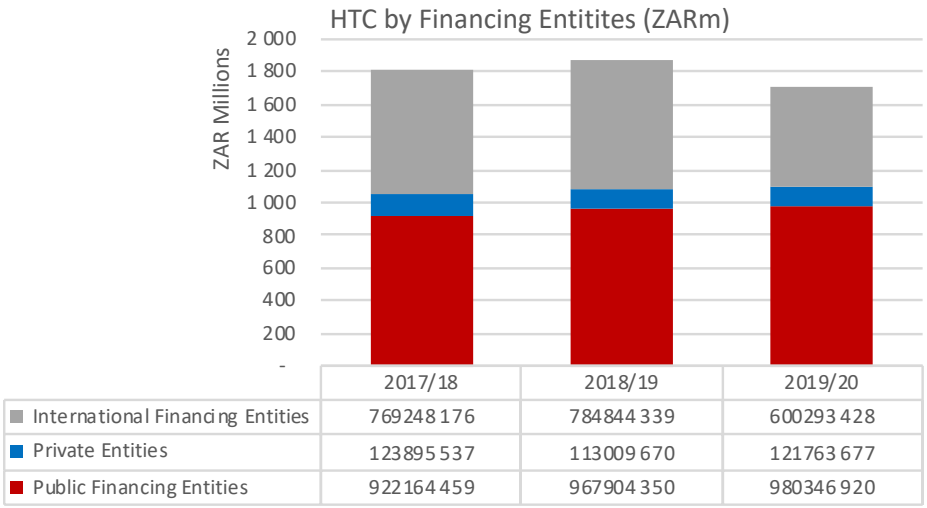


3.5.3. Spending on HIV testing and counselling

The spending on HIV testing and counselling (HTC), or HIV testing services (HTS), declined by 9% to R1.7 billion in 2019/20, which was driven by a reduction of 24% in international HTC financing (Figure 21). The public financing increased by 1% to reach R980 million in

2019/20, and managed to increase the numbers of tests performed, according to the programme's performance data (see section 4.2). Three-quarters of HTC spending went towards testing the general population, with very small amounts (4%) for testing of key or vulnerable populations, while 20% was for screening in blood banks in 2019/20.

Figure 21: Financing entities for HIV testing and counselling (2017/18-2019/20, ZAR million)



In terms of the targeted population with these HIV testing services, the bulk (76-80% in all three years) went towards testing the general population, and another 20% for blood bank testing. Very small proportions, less than 1%, went towards key populations (Table 11).

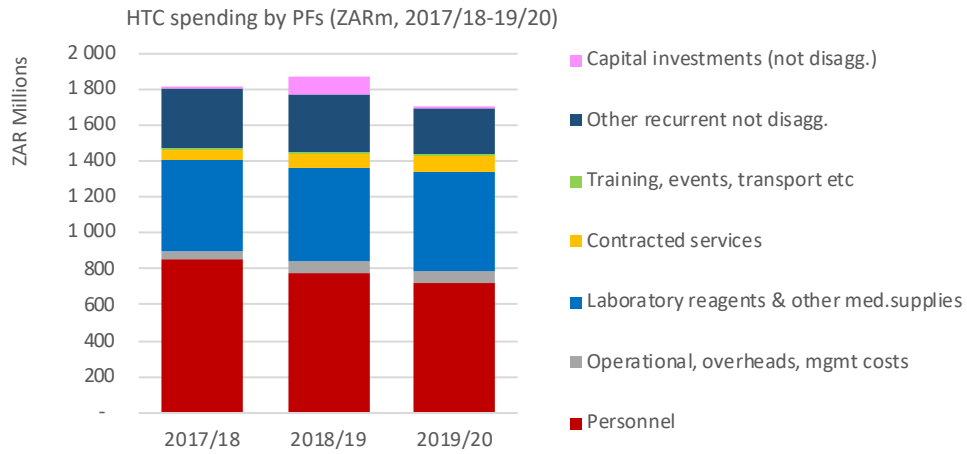
Table 11: HTC spending by target population (2017/18-2019/20, ZAR, %)

HIV testing & counselling interventions	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
HTC for sex workers	9 119 990	-	8 335 351	0.5%	0.0%	0.5%
HTC for MSM	2 514 925	2 466 180	6 112 786	0.1%	0.1%	0.4%
HTC for TG	-	-	106 964	0.0%	0.0%	0.0%
HTC for PWID	-	5 071 308	5 763 072	0.0%	0.3%	0.3%
HTC for inmates	3 217 728	3 501 600	9 322 118	0.2%	0.2%	0.5%
HTC for vulnerable & accessible pops	4 509 724	8 808 170	32 227 435	0.2%	0.5%	1.9%
Voluntary HTC for general population	1 441 221 423	1 488 580 623	1 295 657 229	79%	80%	76%
HIV screening in blood banks	354 724 382	357 092 203	344 879 070	20%	19%	20%
HTC total (ZAR)	**1 815 308 172**	**1 865 758 359**	**1 702 404 025**	**100%**	**100%**	**100%**

NB. Where a package of KP prevention services is delivered and the specific spending on their testing cannot be disaggregated, then their total spending would have been captured under prevention – KP interventions (but would not have been double counted here and in prevention).

Personnel and laboratory cost components were the main production factors for the HTC expenditure, at 42% and 32% respectively in 2019/20 (Figure 22). The reduction in salary expenditure over the period was reportedly due to DOH using community health workers in the community outreach services (COS), achieving important efficiency gains.

Figure 22: HTC expenditure by production factor (2017/18-2019/20, ZAR)



3.5.4. Spending on the other HIV programme areas

Figure 23 shows the expenditure on the other HIV programme areas, indicating the contributions of public and international financing entities to:

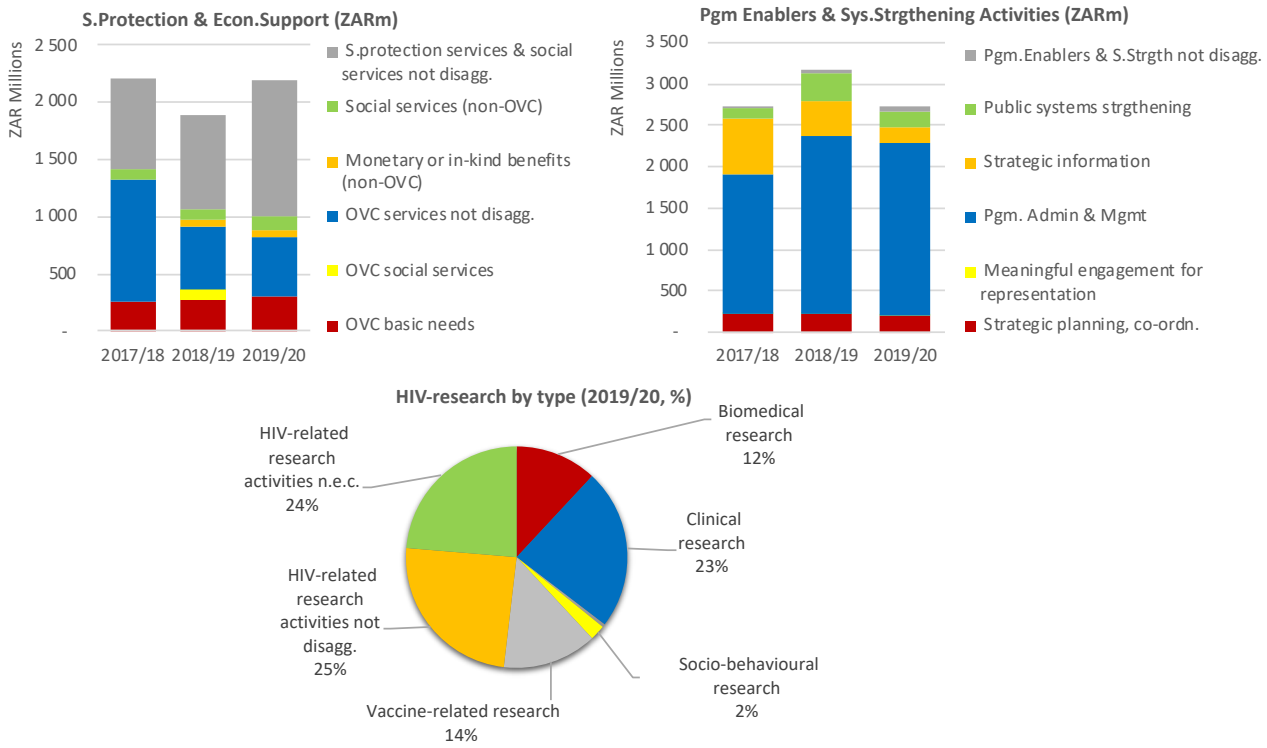
- Social protection and economic support (which includes OVC support);
- Programme enablers and systems strengthening;
- HIV-related research.

Figure 23: Financing entities for social protection, programme enablers and research (2017/18-2019/20, ZAR million)

* The contributions of domestic private entities were small to zero for these programme areas, while it was mostly public financing for development synergies, hence not show here.

Figure 24 provides insight into the different interventions within each of the above three programme areas.

Figure 24: Interventions for social protection, programme enablers and research (2017/18-2019/20, ZAR million)



Within social protection and economic support, the expenditure labelled for OVC appeared to have declined over the three years, however the amount that could not be disaggregated increased and may have included OVC support – possibly due to the changing PEPFAR ER categories. Within programme enablers and systems strengthening, the largest portion was for programme administration and management (Table 12 provides further detail of the sub-interventions financed by the public and international entities). Expenditure on strategic information declined, which includes monitoring and evaluation (M&E) as well as sero-surveillance surveys – the latter causing lumpiness in spending depending on their year of implementation. The research expenditure covered a range of research types: biomedical, clinical, socio-behavioural (the least funded) and vaccine-related. Almost half of the research expenditure could not be disaggregated by type or was not elsewhere classified.

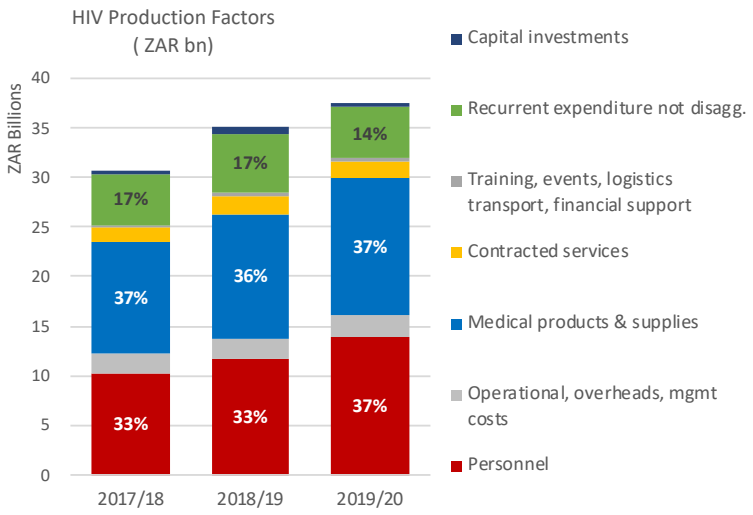
Table 12: Sub-activities within programme enablers and systems strengthening by financing entity (2019/20, ZAR)

HIV Pg.Enablers spending per intervention (2019/20)	FE.01 Public Entities	FE.03 International Entities	Total ZAR (2019/20)
ASC.06.01 Strategic planning, coordination and policy development	**8 168 515**	**194 556 788**	**202 725 303**
ASC.06.02 Building meaningful engagement for representation in key governance, policy reform and development processes	**4 159 535**		**4 159 535**
ASC.06.02.98 Building meaningful engagement activities not disaggregated by target group	4 159 535		4 159 535
ASC.06.03 Programme administration and management costs (above service-delivery level)	**707 356 959**	**1 371 007 109**	**2 078 364 067**
ASC.06.04 Strategic information	**4 820 842**	**191 151 244**	**195 972 086**
ASC.06.04.01 Monitoring and evaluation	4 820 842	40 748 573	45 569 415
ASC.06.04.02 Operations and implementation science research		6 198 253	6 198 253
ASC.06.04.04 Management information systems		19 021 042	19 021 042
ASC.06.04.98 Strategic information not disaggregated by type		123 533 762	123 533 762
ASC.06.04.99 Strategic information n.e.c.		1 649 614	1 649 614
ASC.06.05 Public Systems Strengthenin	**907 497**	**176 437 520**	**177 345 018**
ASC.06.05.01 Procurement and supply chain		109 744 854	109 744 854
ASC.06.05.02 Laboratory system strengthening		53 853 299	53 853 299
ASC.06.05.04 Financial and accounting systems strengthening	907 497	12 839 367	13 746 865
ASC.06.06 Community system strengthening		**34 715 376**	**34 715 376**
ASC.06.06.01 Civil society institutional and NGO development		27 586 426	27 586 426
ASC.06.06.98 Community system strengthening not disaggregated		5 793 149	5 793 149
ASC.06.06.99 Community system strengthening n.e.c.		1 335 801	1 335 801
ASC.06.07 Human resources for health (above-site programmes)		**67 051 910**	**67 051 910**
ASC.06.07.98 Health and community workforce intervention(s) not dissagregated		67 051 910	67 051 910
ASC.06.98 Programme enablers and systems strengthening not disagregate	**65 138 830**	**2 290 731**	**67 429 561**
Total ZAR (2019/20)	**790 552 178**	**2 037 210 678**	**2 827 762 856**

3.6. Production factors of overall HIV spending

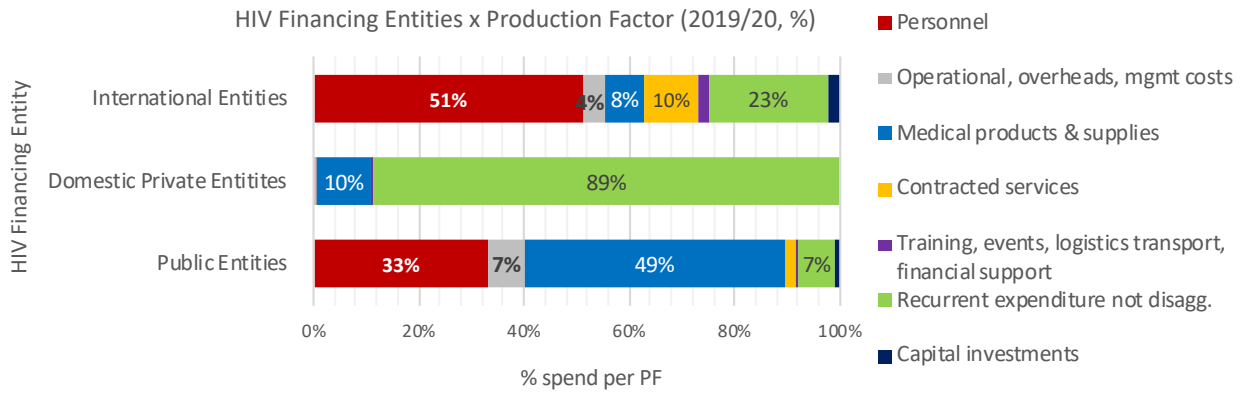
The production factors (cost components) of each of the programme areas have been presented above in their relevant sections, and/or in the detailed tables in the appendices. Figure 25 presents the production factors for the total HIV spending in the country, and per financing entity is shown proportionally in Figure 26.

Figure 25: Total HIV expenditure by production factor (2017/18-2019/20, ZAR million)



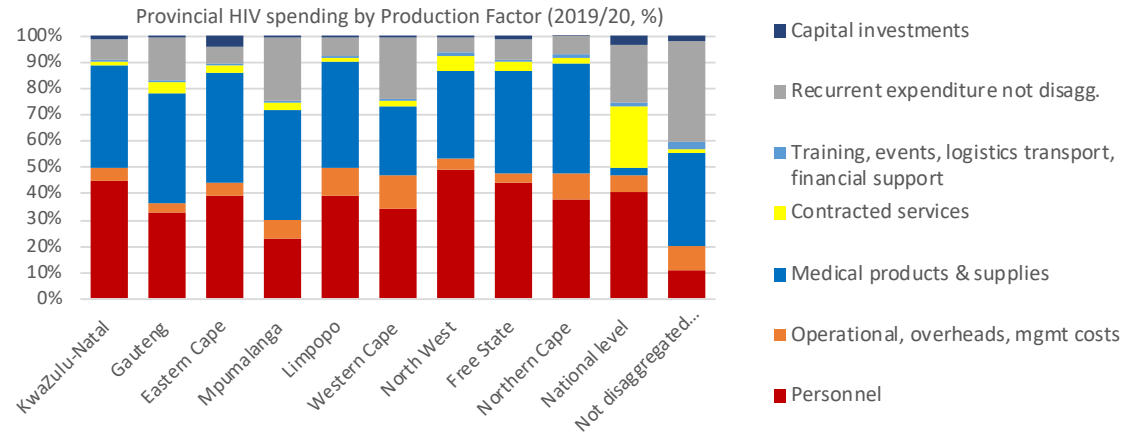
Overall, personnel costs and medical products and supplies took equal shares in 2019/20 (both 37% of total HIV expenditure). However, this varied by financing entity with international entities spending just over half (51%) on personnel and only 8% on medical supplies, while public spent 33% and 49% respectively. Capital investments were very small: R246 million from international entities (2%) and $ 193 million from public entities (1%). Their operational costs including overheads and management costs were relatively low for both: 7% for public and 7% for international, and the latter had a higher proportion that were not disaggregated (23%). The domestic private entities were mostly the insurance schemes and their data were not provided with production factor details (89% not disaggregated).

Figure 26: HIV financing entities' production factors (2019/20, %)



The provincial split of HIV expenditure by production factor varied somewhat. Personnel and medical products and supplies were the largest cost drivers in most provinces, both taking around 40% each (Figure 27).

Figure 27: Provincial HIV spending by production factor (2019/20, %)

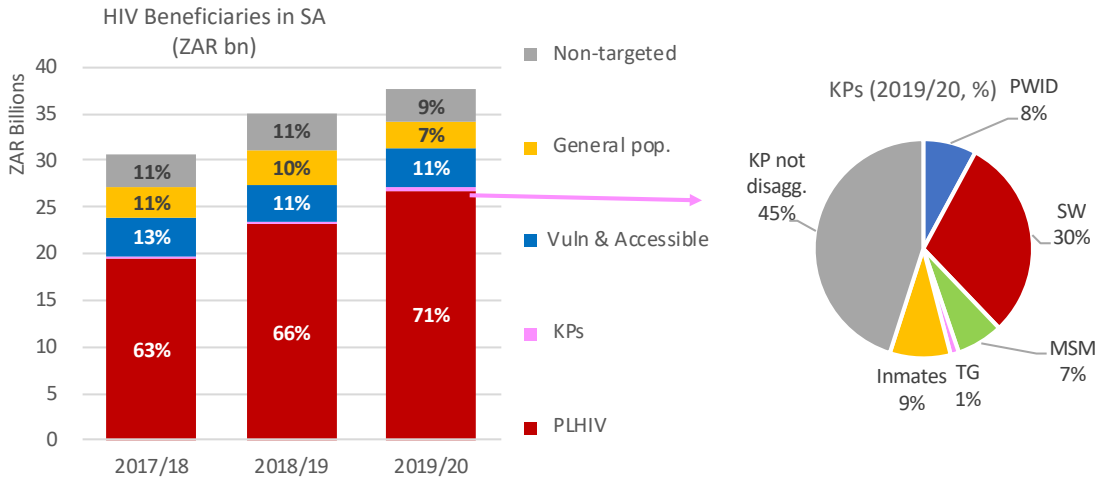


3.7. Beneficiaries of overall HIV spending

In South Africa, PLHIV are the beneficiaries of the large spending on care and treatment, with increasing shares from 63% in 2017/18 to 71% by 2019/20. Vulnerable and accessible populations, which include the youth and vulnerable children, benefitted from 11%, general population 7% and 9% was not targeted at any specific beneficiary population. In all three

years, spending for key populations was only 1%, but increased slightly in 2019/20 reaching R375 million. Table 13 provides the detail of sub-beneficiary groups within these populations.

Figure 28: Total HIV spending by beneficiary population (2017/18-2019/20, ZAR million)



Of the 1% of total HIV expenditure that went towards key populations, sex workers benefitted from 30% in 2019/20, inmates of correctional facilities 9%, people who inject drugs (PWID) 8%, MSM 7%, transgendered 1% while almost half (45%) could not be disaggregated by the specific key population.

Table 13: HIV spending by sub-beneficiary population (2017/18-2019/20, ZAR, %)

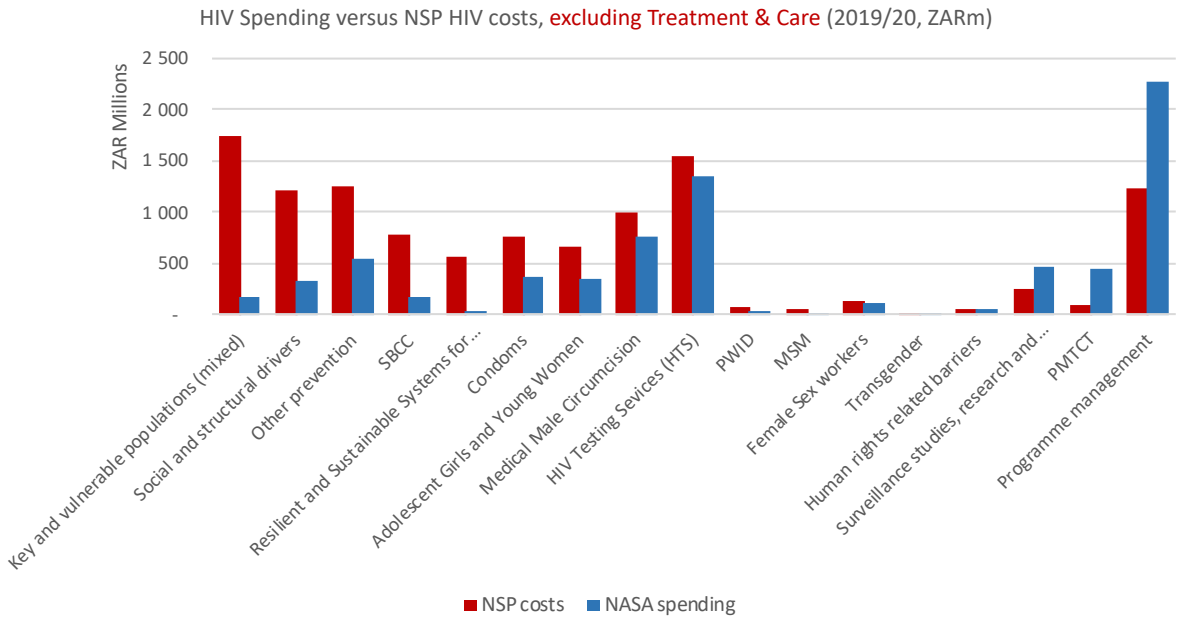
Beneficiaries of HIV spending	2017/18	2018/19	2019/20	% of total exp. (2019/20)	% of sub-category (2019/20)
BP.01 People living with HIV (regardles	**19 393 154 028**	**23 135 976 665**	**26 717 745 025**	71%	
BP.01.01 Adult and young people (age	19 247 541	20 796 694	173 163 056	0.5%	1%
BP.01.02 Children (aged under 15) livi	10 491 252	57 175 804	100 864 972	0.3%	0%
BP.01.98 People living with HIV not br	19 363 415 235	23 058 004 167	26 443 716 997	70%	99%
BP.02 Key populations	**333 672 218**	**319 599 336**	**375 173 179**	**1%**	
BP.02.01 Persons who Inject drug user	12 295 822	19 394 252	29 547 029	0.1%	8%
BP.02.02 Sex workers (SW) and their cl	147 499 219	127 524 890	112 512 460	0.3%	30%
BP.02.03 Gay men and other men who	87 201 209	74 508 623	25 832 679	0.1%	7%
BP.02.04 Transgender			4 607 559	0.0%	1%
BP.02.05 Inmates of correctional facili	32 956 751	23 631 019	33 678 570	0.1%	9%
BP.02.98 "Key populations" not broke	53 719 216	74 540 552	168 994 882	0.4%	45%
BP.03 Vulnerable, accessible and other	**4 051 151 455**	**3 994 014 784**	**4 272 345 819**	**11%**	
BP.03.01 Orphans and vulnerable chil	1 331 279 867	907 790 914	819 551 525	2%	19%
BP.03.02 Pregnant and breastfeeding h	358 571 241	376 456 013	438 885 114	1%	10%
BP.03.03 Adolescent girls and young w	452 467 712	543 762 730	727 435 075	2%	17%
BP.03.14 Recipients of blood or blood	354 724 382	357 092 203	344 879 070	1%	8%
BP.03.15 People attending STI clinics	15 785 350		(110 080)	0.0%	0%
BP.03.17 Junior high/high school stud	234 807 394	227 955 055	262 077 298	1%	6%
BP.03.18 University students	24 126 232	31 448 343	33 273 515	0.1%	1%
BP.03.21 Military	2 961 242			0.0%	0%
BP.03.22 Police and other uniformed s	8 089 174	8 690 966	9 922 716	0.0%	0%
BP.03.24 Employees (e.g. for workplac	36 510 564	42 506 694	45 359 589	0.1%	1%
BP.03.98 Vulnerable, accessible and ot	1 231 828 298	1 498 311 866	1 591 071 997	4%	37%
BP.04 General population	**3 306 412 216**	**3 684 433 351**	**2 727 105 693**	**7%**	
BP.04.01 General adult population (ag	756 652 755	907 350 789	561 756 298	1%	21%
BP.04.02 Children (aged under 15)		231 525		0.00%	0%
BP.04.03 Youth (aged 15 to 24)	243 763 095	262 184 729	291 135 665	1%	11%
BP.04.98 General population not brok	2 305 996 366	2 514 666 308	1 874 213 730	5%	69%
BP.05 Non-targeted interventions	**3 504 744 839**	**3 962 174 085**	**3 469 393 544**	**9%**	
Total. HIV spend (ZAR)	**30 589 134 755**	**35 096 198 222**	**37 561 763 260**	**100%**	

4. Adequacy of Funding, Prioritisation, Sustainability and Efficiency Gains

4.1. Adequacy and prioritization of past expenditure

To ascertain if past spending was adequate to meet the NSP targets in the year 2019/20, its direct comparison with the estimated NSP costs is challenging given that targets and actual performance have not been compared. However, to give a sense of the volume of NSP resource need versus resources utilized and their prioritisation, Figure 29 (which excludes ART) shows that there may have been some under-funding of interventions for 'key and vulnerable' populations, SBCC, condoms, AGYW[12], VMMC and HTS (on left-hand side of the figure).

Figure 29: Comparison of HIV spending with estimated NSP costs – excluding ART (2019/20, ZAR mill)



* NB. **"Key and vulnerable population (mixed)"** costs include interventions for people living with disabilities, with mental health disorders, drop-in-centres & community services for children/ youth, Hepatitis B screening and vaccination for KPs, psychosocial support for KPs, high transmission areas and mobile health services for KPs. NASA+ did not collect many of these expenditures, hence the large gap.

For ART specifically, when omitting all the other 'care and treatment' spending (which is more than ART), the comparison shows that the NSP ART cost estimates were slightly higher than the expenditure on ART over the period, particularly by 2019/20 (Figure 30). However, this may not imply a funding gap but rather that some cost efficiencies were achieved, such as due to reduced ARV unit prices, compared to those applied in the NSP costing in 2016 (see section 4.2 on technical efficiencies). Alternatively, it may imply underspending which could have resulted in the ART targets not being reached in 2019/20.

[12] PEPFAR's DREAMS expenditure is labelled under different programme areas, such as economic support, prevention and/ or PrEP, mostly with the AGYW beneficiary label. If the AGYW label was not applied consistently, some expenditures would not have been identified as AGYW and therefore the AGYW variance might be over-estimated here.

Figure 30: Estimated NSP ART costs and realised expenditure (2017/18-2019/20, ZAR billion)

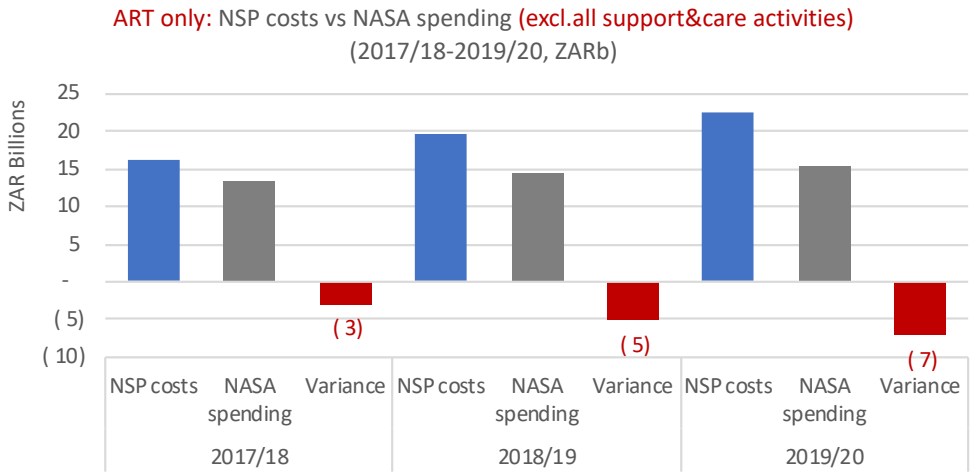
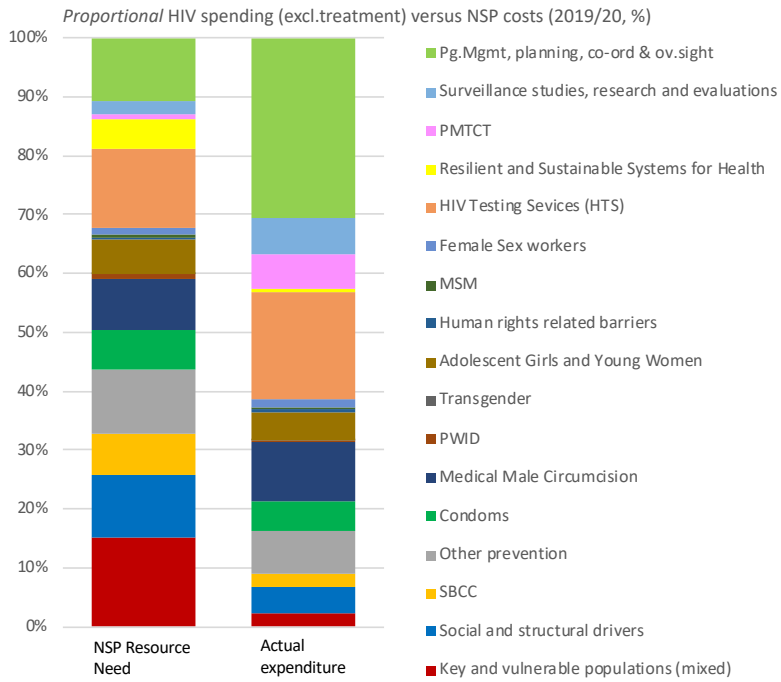


Figure 31 compares *proportional* spending per NSP intervention with their *share* of estimated costs to provide some indication of the degree to which they were prioritized as had been planned in the NSP (*but noting that programmatic performances were not compared*).

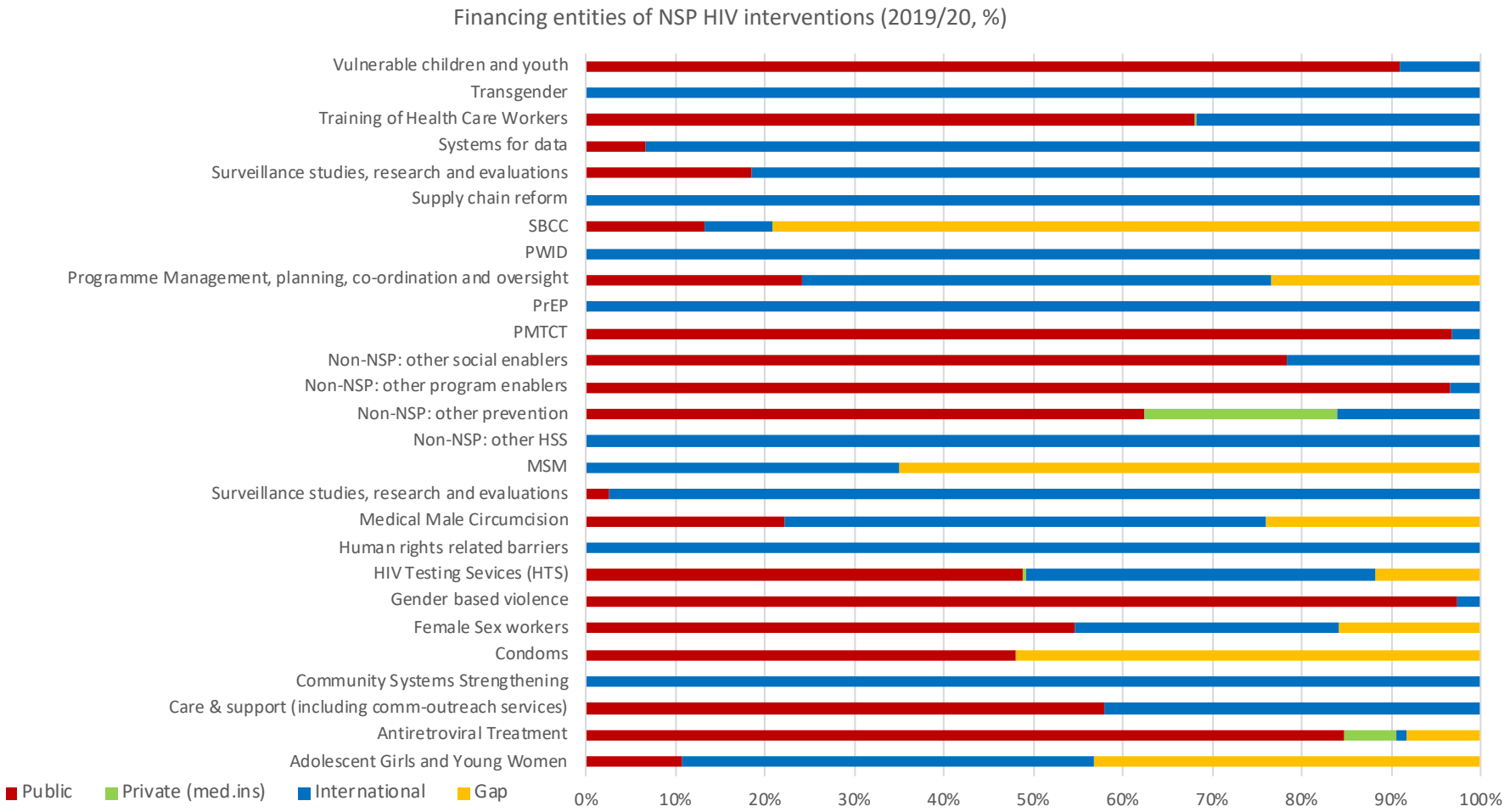
Figure 31: Proportional NSP cost estimates versus expenditure (2019/20, %)



NB. **"Key and vulnerable population (mixed)"** costs include interventions for people living with disabilities, with mental health disorders, drop-in-centres & community services for children/ youth, Hepatitis B screening and vaccination for KPs, psychosocial support for KPs, high transmission areas and mobile health services for KPs. NASA+ did not collect many of these expenditures, hence the large gap.

A comparison of the different financing entities' contributions to the NSP interventions illustrates possible sustainability challenges, should development partners reduce or change, their commitments (Figure 32).

Figure 32: Proportional contributions of financing entities and potential funding gap per NSP intervention (2019/20, %)



Interventions with the largest portion of international financing (blue bars) may be vulnerable if external financing declines, while those with the largest portion of funding 'shortfalls' (orange bars) may be underfinanced and unsustainable. Those with the largest public financing (red bars) may be the most 'secure' or sustainable, if public financing can be maintained at the same level, or increased, in future years.

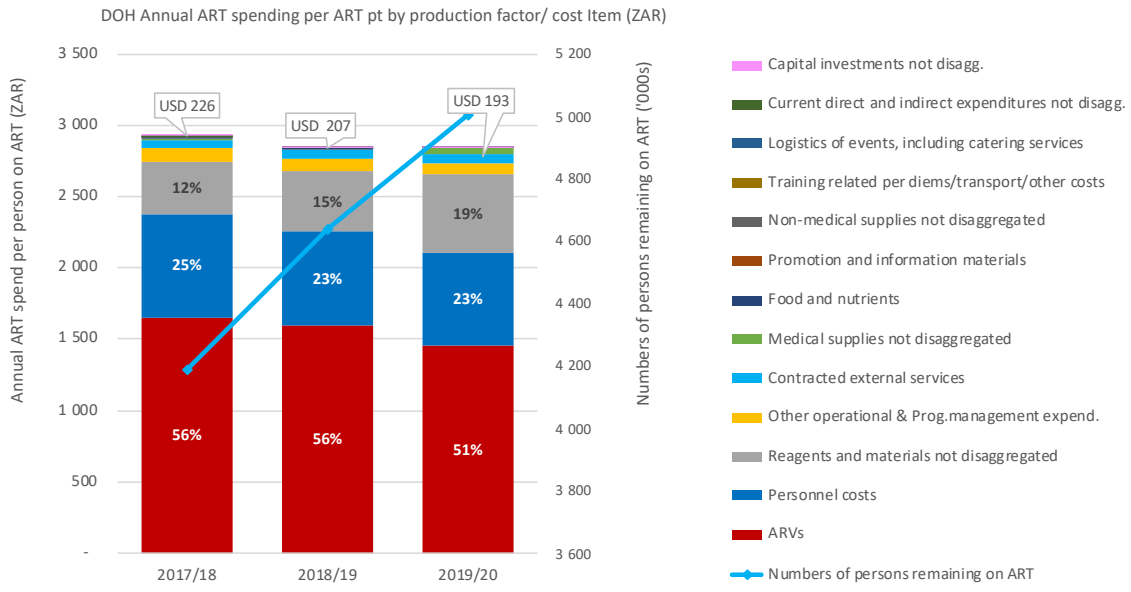
4.2. Areas of potential technical efficiencies

For specific interventions, the unit of expenditure per output has been calculated to highlight where efficiency gains may have been made over the three-year period. Similarly, variations in units of expenditure between provinces may indicate equity or inequity in resource distribution, and/or areas where further savings could be made. The analysis is limited to interventions where discrete outputs can be directly attributed to the expenditure, such as DOH's ART, VMMC, HTC, and condom programmes – which are presented here, split by production factor to show the main cost drivers for each intervention. This simple analysis does not attempt to evaluate the many factors which may influence technical efficiencies. In the appendices, the GF's PR's units of expenditure are provided. The PEPFAR output data were limited to those available publicly, and could not be attributed to specific implementing partners' expenditure since these were de-identified.

DOH ART programme

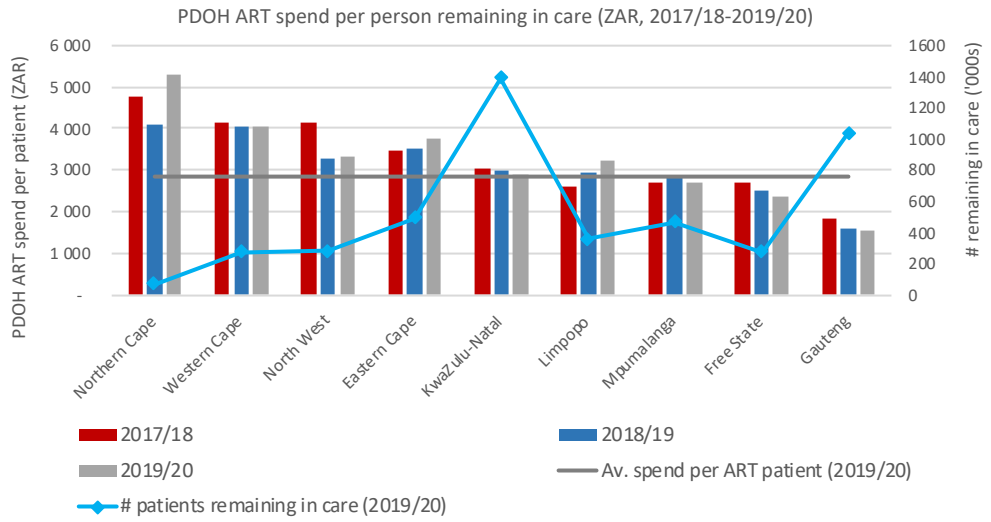
Figure 33 indicates the DOH's spending per person on ART in each study year (in Rand, on the left axis). These amounts are disaggregated by the production factors. It also shows the numbers of persons remaining on ART at the end of each year (right axis) and the blue line shows these increasing numbers over the three years (with an annual average increase of 9% over the period). The unit of expenditure per ART patient declined by 3% from R2,936 (US$ 226) in 2017/18 to R2,851 (US$ 193), which aligns closely with the estimated Investment Case cost of R3,080. This reduction was driven mostly by a 12% reduction in the cost of the ARVs, with the start of the roll-out of Dolutegravir (DTG) formulations, and a 10% reduction in personnel costs, possibly due to increasing differentiated ART delivery models. However, any savings were undermined by the 14% increase in the diagnostic reagents and materials. To achieve greater economies of scale with the increasing ART patient numbers, the laboratory costs will need to be negotiated down, as well as greater uptake of DTG ARV formulations.

Figure 33: DOH ART spending per person on ART by production factor (2017/18-2019/20, ZAR)



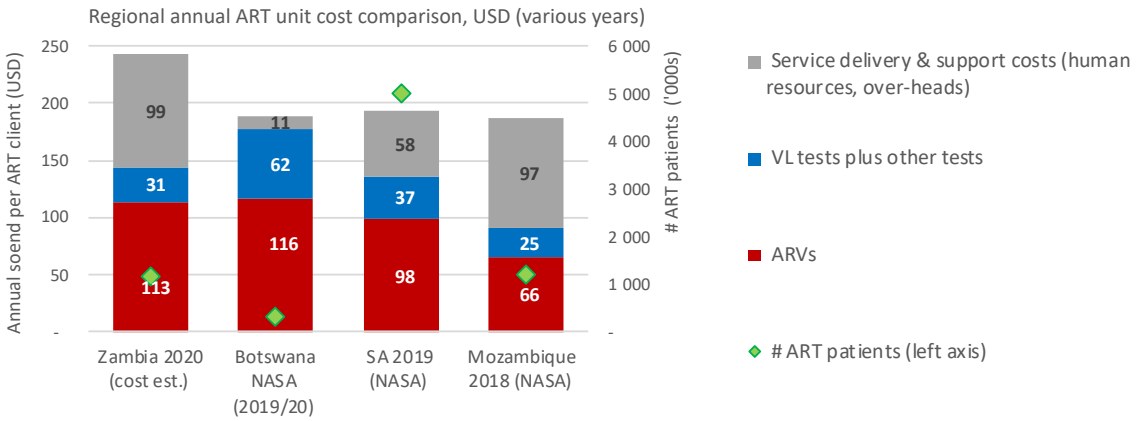
An examination of the provincial DOHs' (PDOHs) annual expenditure per person on ART shows some variation around the average (R2,850) from R1,572 in Gauteng to R5,269 in Northern Cape (Figure 34). Gauteng's low unit of expenditure appears to have been an outlier and possibly due to non-capture of all ART expenditure. Northern Cape increased by 29% in 2019/20 from the previous year, showing no efficiency gains over time nor gains from DTG roll-out, possibly due to increased delivery costs due to the sparse population and hard to reach areas. Apart from these two provincial outliers, the other provinces' units of expenditure varied slightly, with some inverse relationship to their volume of ART patients (the dashed grey and blue lines show some trend where lower volume provinces had higher spend/unit).

Figure 34: Provincial DOH spending per person on ART (2017/18-2019/20)



Comparing regionally with a few countries (Figure 35), South Africa's ART programme (US$ 193 per client) appears to have achieved some economies of scale, but with the possibility of greater savings due to her higher volume of ART clients. Zambia's higher estimated cost of US$ 243 would have included all expected ingredients and shared costs, some of which might not have been included in the NASAs in South Africa and Mozambique. Botswana's NASA found similar spending per ART client (US$ 189), but this omitted the Ministry of Health and Wellness (MOHW) shared expenditures on salaries and overheads (for integrated primary health services).

Figure 35: Regional comparison of South Africa's ART expenditure per ART patient (varying years, USD)



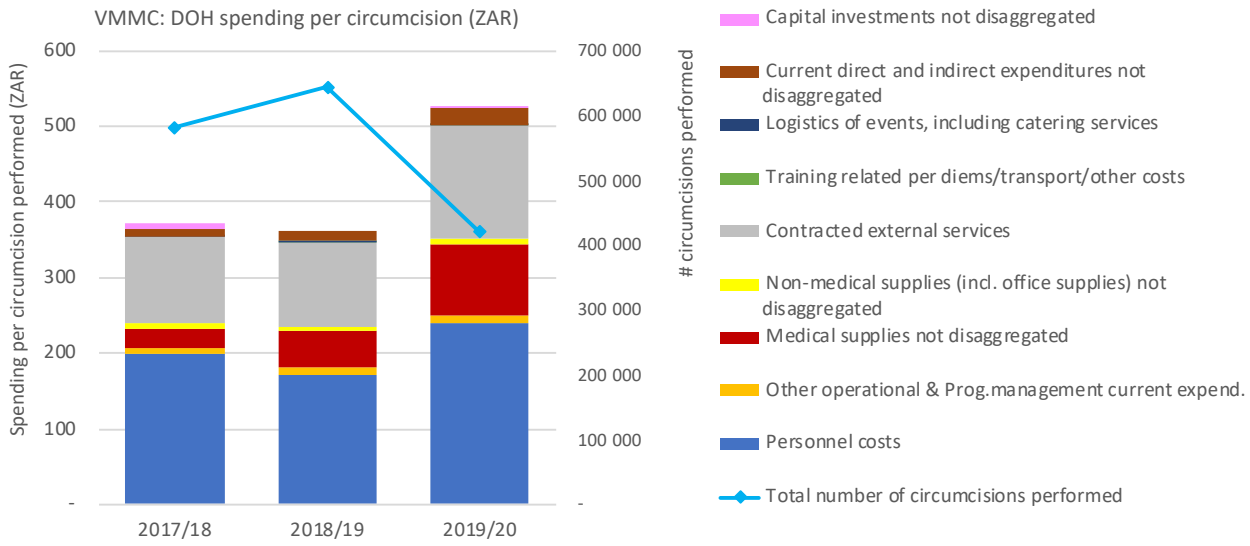
Sources of data: Botswana NASA, 2021. Zambia NSF costing, 2020. Mozambique NASA, 2018.

NDOH could explore why their average **ARV** spending per person (US$ 98) is higher than Mozambique's (US$ 66) despite the latter having a lower number of ART clients. There may be scope to negotiate ARV price reductions based on the larger client volumes in South Africa.

DOH VMMC programme

The DOH VMMC programme appears to have suffered from diseconomies of scale. Figure 36 indicates that the numbers of circumcisions declined in the outer year (2019/20) by 35% (blue line measured on right axis), and the expenditure per circumcision increased by 45% to R526 (US$ 36), (bars on left axis). This could be due to fixed personnel and overhead costs which are not dependent on the number of circumcisions done, as illustrated by the increased personnel expenditure per circumcision. Somewhat counter-intuitive was the increased spending on medical supplies per circumcision, which are direct patient costs and for which we would have expected a similar unit price per circumcision. Equally for contracted external services – if these were based on a fee-for-service agreement, then the unit of expenditure should have remained the same per circumcision, unless an agreed minimum volume was not realised. NDOH could explore the reasons for these variations, and take extra measures to increase demand for VMMC so as to maintain and increase the volumes needed to realise efficiencies from economies of scale. Sadly, the impact of COVID-19 (in 2020/21) has probably caused further declining circumcisions with increased units of expenditure.

Figure 36: DOH spending per male circumcision (2017/18-2019/20, ZAR)



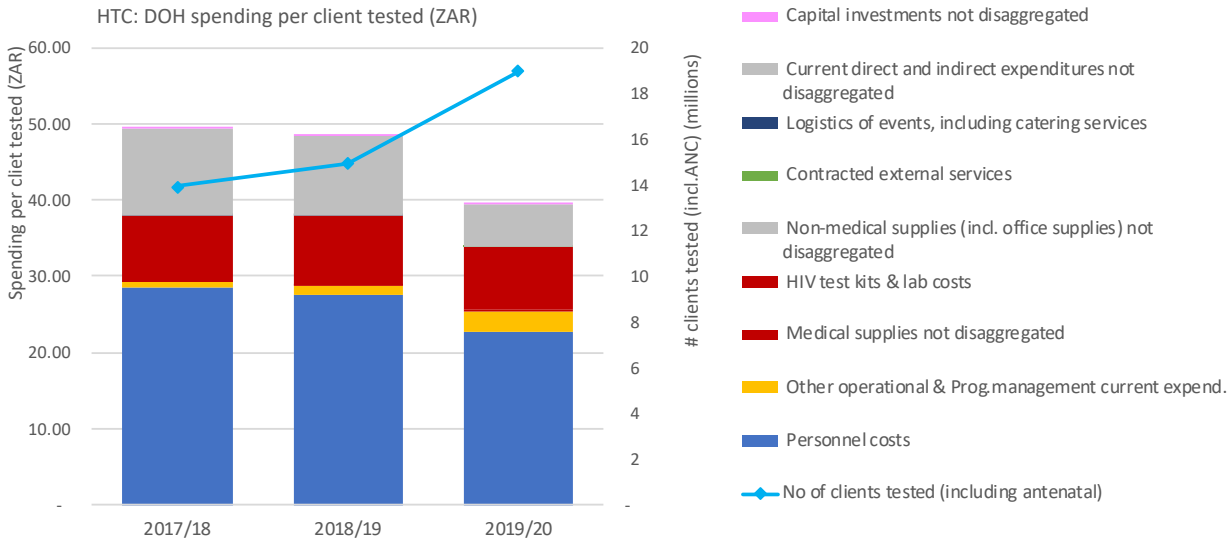
The comparison of provincial VMMC units of expenditure was undermined by differing degrees of consistency and completeness in the PDOHs' labelling of VMMC expenditures[13]. This may be confirmed by the average spend of R526 being only a third of the VMMC cost estimated for the Investment Case of R1,419 (in 2020/21), or which implies some efficiencies have been achieved in the DOH programme. Alternatively, programme enabling efforts, such as VMMC demand creation, may have been paid for by development partners and are therefore not reflected in the PDOH expenses.

[13] For example, North West, Mpumalanga and Gauteng reported performing circumcisions, but little or no expenditure for these.

DOH HIV testing services (HTS)

The NDOH reported an increased number of HIV tests performed in each year of the NASA assessment (7% increase in 2018/19 and 27% in 2019/20 to reach nearly 19 million tests), and a concurrent reduction in expenditure per test performed (reduced by 18% in 2019/20 to R40/test). This was mostly driven by a reduction in the personnel costs per test (from R29 to R23) as well as more than halved recurrent costs (not disaggregated) (Figure 37). The NDOH attributed these savings to the expansion of the Community Outreach Services (COS) which utilises community health workers whose salaries would be less than facility-based nurses. This may also explain the reduced facility recurrent costs, if indeed, less of these were 'attributed' to HTS in the BAS expenditure records. Important efficiency gains appear to have been achieved in the HTS programme which could be further enhanced if reduced HIV test kits and other laboratory costs could be negotiated (since these did not appear to reduce over the period, remaining at around R8 per test).

Figure 37: DOH spending per HIV test performed (2017/18-2019/20, ZAR)



Condoms

The DOH reported expenditure on condoms is not disaggregated by male or female condoms (the latter being more expensive, and therefore the unit of expenditure shown in Figure 38 indicates a weighted average unit of expenditure across the male and female condoms, which has declined by 15% in 2018/19 and 21% in 2019/20 – the latter reduction *despite* a decrease (of 12%) in the numbers of condoms distributed by the DOH. The production factors show the majority of these costs are the commodities themselves, with very little operational or other recurrent costs, and therefore implies there were important savings achieved through the pricing of the condoms themselves.

Figure 38: DOH spending per condom distributed (2017/18-2019/20, ZAR)

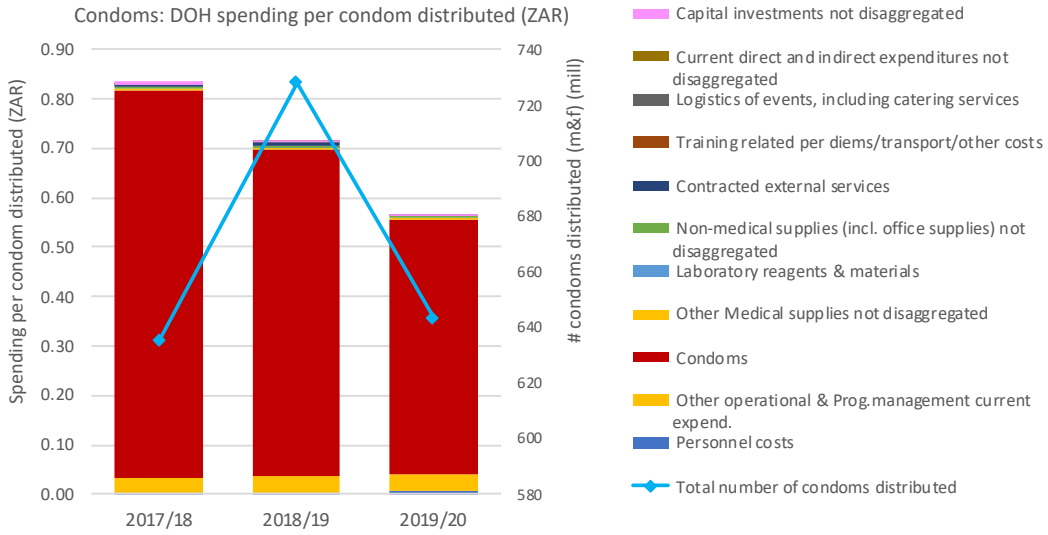


Table 14: Summary of DOH's expenditure versus outputs (2017/18-2019/20, ZAR)

DOH programme unit/spend (ZAR)	2017/18	2018/19	2019/20
ART			
ART Spending	12 294 292 374	13 209 095 259	14 265 073 108
ART patients remaining in care (TROA)	4 188 074	4 638 298	5 004 205
ART unit spend	2 935.55	2 847.83	2 850.62
Condoms (male & female)			
Condoms Spending	532 086 887	520 474 028	361 879 116
Condoms distributed	635 176 656	728 200 778	643 546 644
Condom unit spend	0.84	0.71	0.56
VMMC			
VMMC spending	215 427 071	233 148 591	220 844 131
VMMC performed	581 109	643 630	419 635
VMMC unit spend	370.72	362.24	526.28
HTC			
HTC spending	691 036 013	723 030 420	751 576 138
Tests performed	13 932 499	14 935 129	18 993 770
HTC unit spend	49.60	48.41	39.57

The analyses of Global Fund and PEPFAR's units of expenditure are available in the Appendices.

This section has shown some *allocative efficiency* in terms of past expenditures having been aligned *proportionally* to the resources needed for the NSP, with direct comparison showing some possible under-resourcing for certain interventions – noting, however, that all targets and performance outputs were not compared to rule out their influence on the calculated 'gap or surplus' of funding. Notwithstanding the important contribution of the scaled-up ART programme in reducing HIV transmission, it is concerning that prevention interventions have not been prioritized, to the degree envisaged in the NSP costing.

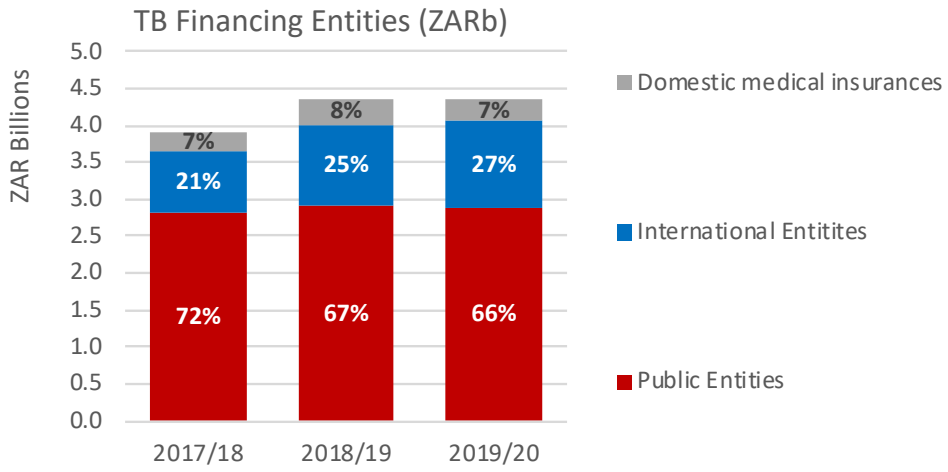
Some important technical efficiencies have been achieved to varying degrees by the DOH for specific programmes: ART, HTS, condoms, while the VMMC unit/expenditure has been negatively impacted by the demand reduction. Combined efforts to improve these and other potential areas of efficiency gains are needed.

5. Key NASA+ TB Findings

The South African NSP prioritizes TB interventions, to prevent, treat and reduce the burden of TB in the country. This NASA+ included **all the TB spending** in the country, **not only** the spending on interventions for TB-HIV co-infected persons, which are also included here – rather than in the HIV section[14] (as is the traditional NASA approach).

Total TB expenditure in South Africa increased by 11% between 2017/18 and 2019/20, but then flatlined at R4.4 billion (US$ 296 million) in 2019/20 (Figure 39). Public financing entities funded two-thirds, although with a stagnated amount of R2.9 billion (US$ 196 million) in 2018/29 and 2019/20, decreasing proportionally from 72% in 2017/18 to 66% in 2019/20. Of these public funds, an important contribution (18%) came from the ring-fenced public-financed Conditional Grant for HIV and TB, while the bulk of the TB expenditure came from the voted (Equitable Share) allocations made by the PDOHs and by the Department of Defence (DOD) – altogether forming 48% of the total in 2019/20 (Table 15).

Figure 39: TB expenditure by financing entity (2017/18-2019/20, ZAR billion)



International financing entities' contributions increased from 21% to 27% of the total TB spending, also flatlining at R1.2 billion (US$ 8.9 million) in the two outer years. Note these amounts included PEPFAR's COP TB allocations, which could not be identified in their Expenditure Reporting because of being lumped in their 'HIV clinical services' category. The private medical insurances covered around 7-8% each year, declining to R304 million (US$ 20.6 million) in 2019/20 (Table 15). Note that the smaller amount of GF TB financing in 2019/20 (reduced from 2018/19) was due to the start of their new grant cycle, and hence scale-up of the programmes was delayed, but expenditure is anticipated to have increased in 2020/21 (not studied in this NASA+). Other international entities that provided some financing for TB (apart from PEPFAR, GF and USAID) were UNAIDS and DfID.

[14] No attempt was made to split TB into spending on HIV and TB coinfected patients verses TB-only patients since the NSP covers all TB efforts combined. For the GAM reporting, only the portion that could be assumed to be for HIV/TB coinfected patients will be calculated and included.

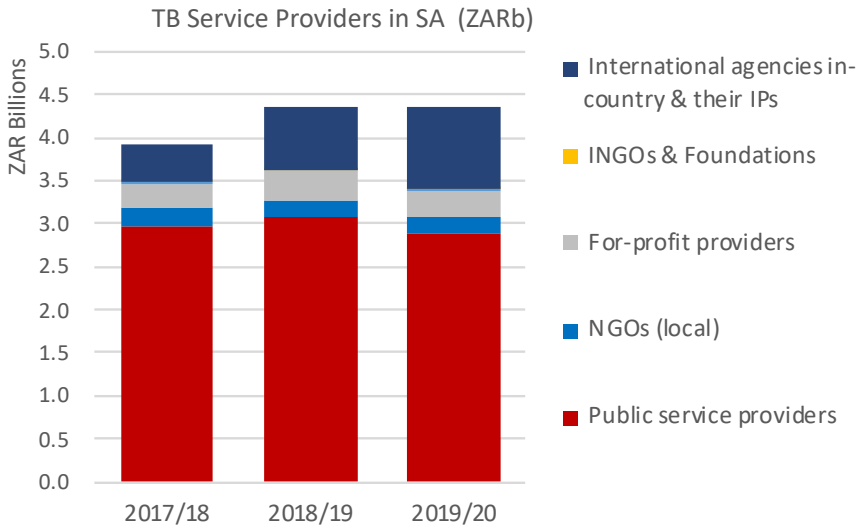
Table 15: TB financing entities (2017/18-2019/20, ZAR, %)

TB financing by FE (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
Public Financing: conditional HIV & TB grant	780 733 186	805 098 426	796 635 673	20%	18%	18%
Public Financing: voted funds	2 035 738 805	2 099 270 452	2 098 351 054	52%	48%	48%
Private Entitites (medical insurances)	278 434 937	352 019 060	304 143 101	7%	8%	7%
Global Fund	182 817 889	201 634 609	31 462 817	5%	5%	1%
PEPFAR TB (COP budgets: embedded in 'HIV Clinical Services')	434 262 470	735 485 884	962 467 241	11%	17%	22%
USAID (non-PEPFAR)	198 362 765	165 034 949	169 050 101	5%	4%	4%
Other international entities	5 256 980	6 119 033	2 251 489	0.1%	0.1%	0.1%
TB Total (ZAR)	**3 915 607 032**	**4 364 662 412**	**4 364 361 476**	**100%**	**100%**	**100%**

NB. Govt TB funds include DOH, DOD (health services for armed forces).

The distribution of TB expenditure between financing agents and purchasers (FAPs) displays similar proportions as the sources of funding shown above. The bulk of the funds (67% in 2019/20) were managed by public FAPs, although declining from 77% in 2017/18. Private medical insurance schemes managed 7%, while 26% were managed by international FAPs. Similarly, the ownership of TB service providers was primarily public (66% in 2019/20), 22% international agencies and an important 4% local non-profit service providers (NGOs). The for-profit providers were those paid by the medical insurances (7%) (Figure 40). The details of types of providers are provided in Table 16.

Figure 40: TB expenditure per service provider type (2017/18-2019/20, ZAR billion)



- NB. Govt TB funds include DOH, DOD (health services for armed forces).
- The IPs for the PEPFAR COP TB budgets could not be identified by provider type (because they were embedded in ER data as HIV clinical services), and their PFs also could not be disaggregated.

The large portion of TB spending in public hospitals were assumed to be for drug-resistant (DR) TB (see Figure 41) followed by public clinics for drug-sensitive (DS) TB treatment. Interestingly, the TB spending by medical insurances occurred mostly in private hospitals which implies private patients are either in hospital for other conditions and are discovered to be TB-positive, or they are admitted for severe TB symptoms (the former being more likely). The type of PEPFAR implementing partners (IPs) were unknown.

Table 16: TB service providers (2017/18-2019/20, ZAR)

TB service providers	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
Governmental service providers	**2 963 325 420**	**3 084 527 069**	**2 884 564 997**	**76%**	**71%**	**66%**
Hospitals (public)	1 869 010 455	1 964 226 653	1 886 609 113	48%	45%	43%
Clinics (public)	891 850 823	897 312 927	976 837 130	23%	21%	22%
Laboratory and imaging facilities (public)*	19 342 703	20 977 778	20 891 535	0%	0%	0%
Other Government entities (public)	183 121 439	202 009 712	227 219	5%	5%	0%
Non-profit providers	**224 916 509**	**186 416 755**	**192 623 776**	**6%**	**4%**	**4%**
NGO providers	224 916 509	186 416 755	192 623 776	6%	4%	4%
Profit-making private sector providers	**278 434 937**	**352 019 060**	**304 143 101**	7%	8%	7%
Hospitals (profit-making private)	270 691 688	343 390 036	296 805 141	7%	8%	7%
Clinics (profit-making private)	7 743 249	8 629 023	7 337 961	0%	0%	0%
Multilateral agencies	**10 061 095**	**94 610**	**18 310 872**	0%	0%	0%
INGOs and foundations	**4 606 600**	**6 074 015**	**2 251 489**	0%	0%	0%
Bilateral – in country offices - and their IPs	**434 262 470**	**735 530 903**	**962 467 241**	11%	17%	22%
Grand Total	**3 915 607 032**	**4 364 662 412**	**4 364 361 476**	**100%**	**100%**	**100%**
* Many transfers to NHLS were incorrectly labelled as clinics						

Figure 41 presents the TB expenditure by intervention and reveals that the largest share went to the treatment of DR-TB, although this declined proportionally and nominally from 51% to 45% (R2 billion) in 2019/20. This reduction in DR-TB treatment spending is due to the roll-out of the shorter Bedaquiline treatment regimen which began in 2019/20. This has reduced hospital costs, a major cost driver in the treatment of DR-TB. Expenditure on treatment of DS-TB was far less, consuming only 14% of the total (R625 million) in 2019/20. The diagnostic expenditure came to R487 million in 2019/20 (11%), but which under-estimated the screening costs since the time and salaries of the primary health care nurses undertaking TB screening could not be estimated. Additionally, the GoSA's expenditure on TB preventive therapy (TPT) could not be disentangled from the public BAS records because the TPT pharmaceuticals were labelled as 'anti-TB medicines' (as for all other TB medicines) and which were therefore labelled as DS-TB treatment. Hence the expenditure indicated for TB prevention was very little in all three years, around 1% (Figure 41, Table 18). The large portion labelled as 'TB activities not disaggregated' were mostly the PEPFAR COP TB allocations, with no details on their use. Data were also unavailable for the TB interventions paid for by medical insurance schemes, and hence these were assumed to have been for DS-TB treatment (Table 17).

Figure 41: TB expenditure per intervention (2017/18-2019/20, ZAR billion)

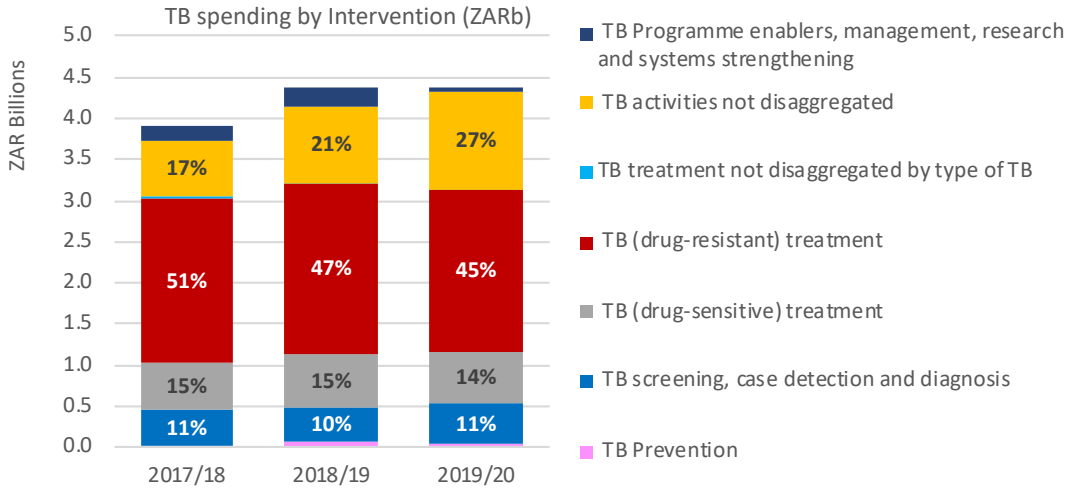
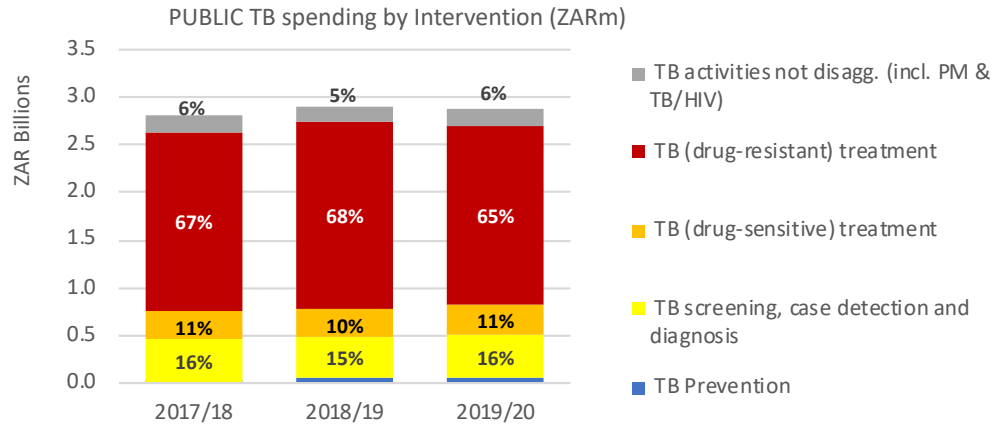


Table 17: Financing entities contributions to TB interventions (2017/18-2019/20, ZAR billion)

Total TB spending per intervention by FE (ZAR)	2017/18	2018/19	2019/20
Public financing	**2 816 471 991**	**2 904 368 878**	**2 894 986 728**
TB Prevention	6 014 330	48 405 764	36 412 980
TB screening, case detection and diagnosis	439 763 194	425 062 733	460 737 858
TB (drug-sensitive) treatment	300 464 721	296 295 626	320 703 879
TB (drug-resistant) treatment	1 896 477 427	1 980 690 993	1 892 087 755
TB activities not disaggregated *	173 752 319	153 913 762	185 044 255
Medical Insurances	**278 434 937**	**352 019 060**	**304 143 101**
TB (drug-sensitive) treatment	278 434 937	352 019 060	304 143 101
Global Fund	**182 817 889**	**201 634 609**	**31 462 817**
TB screening, case detection and diagnosis	-	-	26 586 957
TB (drug-resistant) treatment	34 972 282	20 790 473	4 875 860
TB Programme enablers, management, research and	147 845 607	180 844 136	-
PEPFAR COP TB budgets	**434 262 470**	**735 485 884**	**962 467 241**
TB activities not disaggregated by type	434 262 470	735 485 884	962 467 241
USAID (non-PEPFAR)	**198 362 765**	**165 034 949**	**169 050 101**
TB prevention	18 203 887	17 974 309	14 502 869
TB (drug-resistant) treatment	50 782 949	57 115 507	64 219 041
TB treatment not disaggregated by type of TB	39 138 357	17 995 334	16 398 198
TB activities not disaggregated by type	47 330 106	35 948 619	33 907 601
Other TB activities n.e.c (systems strengthening etc.)	42 907 466	36 001 180	40 022 392
Other international entities	**5 256 980**	**6 119 033**	**2 251 489**
TB activities not disaggregated by type	5 256 980	6 119 033	2 251 489
Total (ZAR)	**3 915 607 032**	**4 364 662 412**	**4 364 361 476**
* May include public funding for TPT			

Figure 42 highlights the public sector's emphasis on DR-TB treatment expenditure, which included all the TB hospitals and their high operational and personnel costs. These will reduce further as Bedaquiline is rolled out and hospital stays are reduced.

Figure 42: Public financing for TB interventions (2017/18-2019/20, ZAR billion)

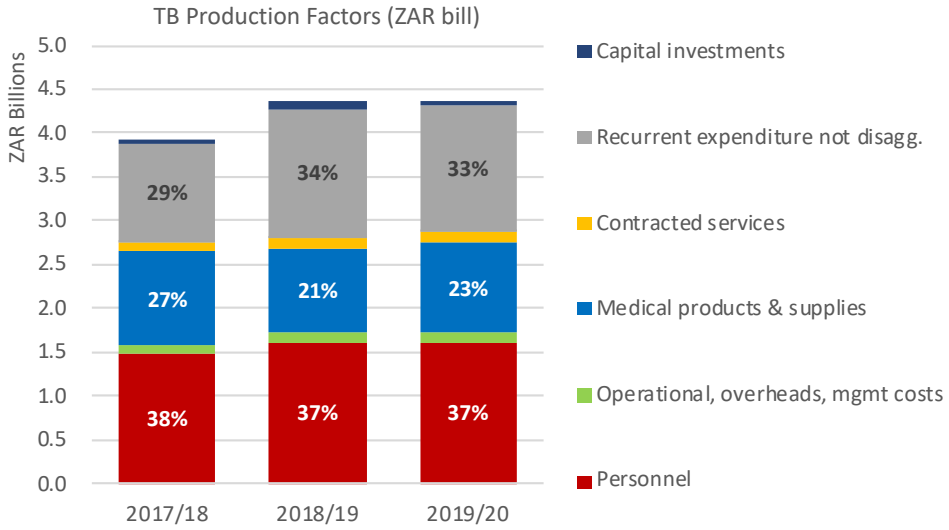


Includes DOH (voted & CG), & DOD TB spending. TB Prevention activities (TPT) were not well labelled in BAS – only 2% or less. Probably captured in the DS-TB treatment category because the drugs were labelled as 'anti-TB meds' (as for TB treatment).

The foci of the other financing entities are shown in Table 17 above.

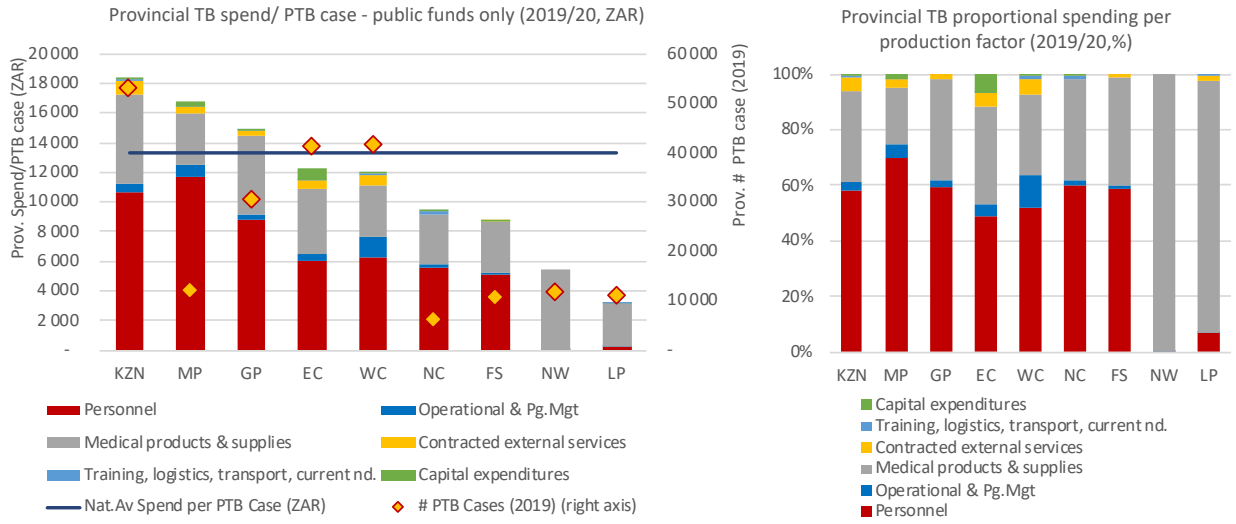
Regarding the production factors, Figure 43 indicates that the category of medical products and supplies (which included both pharmaceuticals and laboratory reagents) took 23% of total TB expenditure in 2019/20, while personnel consumed 37%. The large portion of 'recurrent not disaggregated' were mostly the PEPFAR COP allocations, for which cost categories were not provided.

Figure 43: TB expenditure by production factors (2017/18-2019/20, ZAR billion)



The examination of the production factors becomes more informative when comparing the provincial TB spending against their burden of TB. Figure 44 shows the provincial public spending per pulmonary TB patient (PTB) split by production factor, providing some insight into the cost drivers in each province, and whether their spending was matching need. The left-hand figure also shows the provincial numbers of PTB patients (measured on the right axis) with KZN displaying the highest burden of the disease, and Northern Cape (NC) the lowest.

Figure 44: Public provincial TB expenditure per PTB patient (2019/20, ZAR, %)



NB. Includes DOH voted and CG, plus some DOD.

The national average public expenditure was just over R13,000 per PTB patient per annum in 2019/20. However, there was a large range in provincial spending per PTB patient from R3,176 in Limpopo (LP) to R18,342 in KwaZulu-Natal (KZN), the latter seemingly not achieving any economies of scale with their greater numbers of TB patients. KZN's higher spending may have been driven up by a larger proportion of DR-TB patients. Conversely, NC and Free State (FS) had very low numbers of PTB cases, while also having the lowest spending per patient – interestingly not displaying the much higher spend per patient that they had for HIV spending per PLHIV. It can also be seen that LP and North West (NW) only had medical products and supplies labelled as TB-related while their personnel spending were missing, hence under-representing their TB expenditure. The right-hand proportional figure shows that apart from LP and NW, the other provinces spent between 50% and 60% on personnel (MP slightly higher), and around 30% to 40% on medical products and supplies (which included both pharmaceuticals and diagnostic reagents).

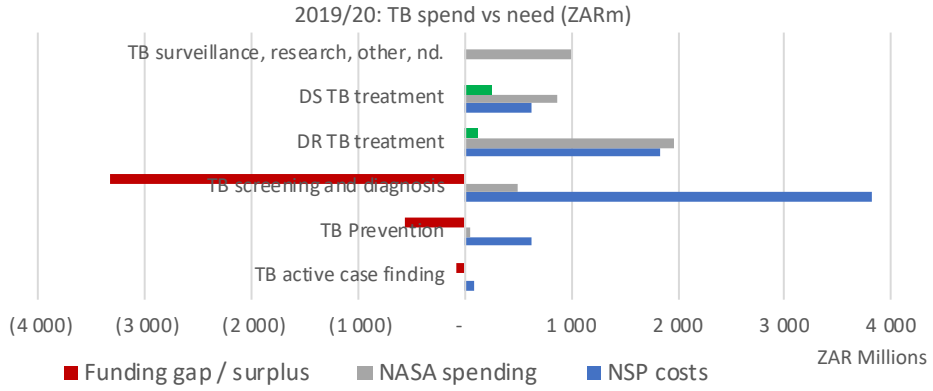
Table 18: Public provincial TB expenditure and PTB patients (2019/20, ZAR)

Provincial TB spend/PTB pt (2019/20)	TB spending (ZAR)	PTB patients (total)	Prov. TB Unit/spend (ZAR)
KZ	972 635 428	53 028	18 342
MP	200 746 980	11 952	16 796
GP	449 013 982	30 338	14 800
EC	503 686 164	40 989	12 288
WC	497 422 113	41 349	12 030
FS	94 060 523	10 752	8 748
NC	57 650 167	6 145	9 382
NW	63 213 677	11 556	5 470
LP	35 438 939	11 160	3 176
Not disagg. Spending	21 118 754		
Total	**2 894 986 728**	**217 269**	**13 324**

Source of TB stats: NDOH report to WHO for 2019.

Comparing the TB expenditure with the NSP TB cost estimates (Figure 45) indicates there may have been an overall funding shortfall of R3.6 billion in 2019/20, the bulk of which may have been for TB screening and diagnosis (R3.3 billion in 2019/20), while noting that the nursing time for screening in primary health care facilities was not estimated here. Additionally, some NHLS bills for TB diagnostics may have been incorrectly labelled as HIV-related in the cross-walk. The funding shortfall for TB may also be exaggerated by the very high cost estimates, which need to be updated for the new NSP period.

Figure 45: TB expenditure compared with NSP TB resource need by intervention (2019/20, ZARm)



6. Summary and Recommendations

South Africa has continued to show commitment to the fight against HIV and TB, demonstrated by the increasing financial resources obligated by government and development partners, as well as the efforts of non-profit organizations and private health care providers, to deliver the required HIV and TB services according to the NSP.

UNAIDS developed the NASA methodology to enable global resource tracking in a standardized, comprehensive manner, and has been applied by many countries for over a decade. The first NASA in South Africa covered the years 2007/08 to 2009/10 and subsequent resource tracking efforts (not full NASAs) were done for 2011/12-2016/17. This NASA+, led by SANAC, covers the years 2017/18 to 2019/20, as well as separate analysis of all NSP-related TB expenditure. The findings provide a wealth of information and will contribute to national, provincial and district planning, resource mobilization and allocation, as well as to the identification of areas where greater efficiency gains could be made.

This NASA+ collected expenditure data during COVID-19 lockdown, hence contact with respondents was particularly difficult. Verifying information for accuracy and completeness also took longer than usual, delaying other stages in the NASA+ process. Despite these challenges, it is estimated that 100% of government, 95% of development partners, 95% of NGOs and 100% of private medical insurances expenditure has been collected and presented here. The response rate from universities and research institutions was very low, around 14%, but the larger entities' data have been included. Unfortunately, the response from private-for-profit businesses was extremely poor at 3%, and hence their financial contributions could not be included in the assessment other than expenditures by medical aid schemes, which the Council for Medical Schemes had collated. The scope of this NASA+ did not include the out-of-pocket payments of individuals and households (apart from their premium payments made to voluntary private medical insurances), hence the size of the financial burden on individuals is not known.

To have meaningful insight into the funding picture and understand the funding gaps it is important that all stakeholders - financing entities and service providers - commit themselves to transparent and coordinated planning, resource allocation and reporting of HIV- and TB-related expenditures. This would ensure good intersectoral coordination to achieve NSP strategic objectives and to avoid possible duplication of funding.

The South African NASA+ findings indicate increasing allocations to HIV over the study period, rising in total from R30.6 billion (US$ 2.4 billion) in 2017/18 to R37.6 billion (US$ 2.5 billion) in 2019/20, with an initial increase of 15% between 2017/18 and 2018/19, and then 7% between 2018/19 and 2019/20 (in ZAR terms). Importantly, the South Africa government financed almost three-quarters of the total HIV response in each year (72%, 68%, 69% in 2017/18, 2018/19, 2019/20 respectively), with an annual average increase of 8%, in nominal ZAR terms. The international financing entities' (development partners') contributions dramatically increased by 18% between 2017/18 and 2018/19 and then by just 5% in 2019/20, accounting for 25%, 30% and 28% of the total in the three study years. The private medical insurances (with contributions from employers and individuals) accounted for around

3% of the total HIV expenditure in each year (which made up 6% of total ART expenditure). Contributions from other private businesses was minimal, or under-represented due to their poor response rate.

The growth in foreign aid prior to 2019/20 is welcomed, but somewhat concerning is their more recent slowing rate of increase and fluctuating proportional contributions to total HIV envelope. This could mean that the government should prepare itself to fill the potential funding gaps for certain interventions, if international financing falls short to sustain these interventions, in order to ensure efficient implementation of the NSP in a government-driven and sustainable way.

The HIV financing is primarily (almost three-quarters) from central government revenues (mostly ring-fenced[15] and some discretionary[16]) and flows from public financing entities (National or Provincial Treasuries) through public financing schemes (68%) and managed by public agents and purchasers (70%), to services delivered mostly by public service providers (91%), with some, rather limited, funding (8%) for non-profit organizations and 1% for parastatals and universities.

All these efforts aim to ensure efficient implementation of the NSP in a government-driven and sustainable way. Although not explored in this NASA+, implementation could perhaps be further enhanced by exploring how government funding to non-governmental service providers could boost government capacity to deliver. Domestic resource mobilization is important for sustainability to ensure continued NSP achievements, supplemented by coordinated and harmonized foreign aid to achieve impact.

The National Health Insurance (NHI) seeks to ensure adequate financing of key health policy priorities which would also benefit HIV and TB. The revised financing model for the NHI suggests that an additional R33 billion annually is required to rollout the NHI from FY2025. This would increase public health spending from 4 per cent to 6 per cent of GDP over a 15-year period, potentially making more resources available for HIV and TB[25].

Given the large HIV-positive population in South Africa, and government's commitment to provide free HIV treatment to at least 90% of PLHIV, it is not surprising that the bulk of the HIV expenditure went towards care and treatment activities (more than only ART), and with increasing proportions over the three years: 63%, 66% and 71% of the total envelope (2017/18 – 2019/20), reaching ZAR 26.7 billion (US$ 1.8 billion). However, only 66% of PLHIV were accessing ART in 2020, despite these high commitments to care and treatment.

To ensure the optimal impact of South Africa's spending on ART, concurrent efforts to seamlessly link PLHIV to, and maintain them on, treatment are required.

Notwithstanding the prevention benefit of increasing access to HIV treatment, of some concern is the decreasing expenditure for prevention in nominal and proportional terms (from 11% to 8% of the total envelope). Funding for HIV counselling and testing also decreased

[15] Conditional grants.
[16] Voted funds for provincial departments to allocate.

slightly in nominal terms (from 6% to 5% in the two outer years). Programme enablers and systems strengthening took the second largest portion at 8% in 2019/20, followed by social protection and economic support (6%). Development synergies and HIV-related research only received around 1% of total HIV expenditure, but the latter may have been under-represented due to the low response rate from universities and other research institutions.

It is concerning to see decreased investments in HIV prevention as South Africa still faces high incidence rates, with South Africa recording 230 000 adults and children newly infected with HIV in 2020 (UNAIDS Factsheet, 2020)[26]. Research is needed to identify leading causes of new infections and the best ways to prevent them, with adequate resources allocated to effective interventions.

The comparison of expenditure to estimated resources needed for the NSP (2017-2021) found that there may have been a modest annual funding shortfall (lower expenditure than need) of R2 billion, R4 billion and R6 billion in 2017/18, 2018/19 and 2019/20 respectively. Within this gap, the largest funding 'shortfall' may have been for the treatment and care, of R1.7 billion in 2018/19 and R1.2 billion in 2019/20. However, the NSP cost estimates did not take into account the roll-out of the cheaper Dolutegravir (DTG) antiretroviral (ARV) formulations, hence the actual expenditure, once this roll-out occurred, would be less than had been estimated as needed for the NSP. The analysis of the unit of expenditure per ART patient per annum also confirmed a reduction from R2,930 (USD 226) in 2017/18 to R2,846 (USD193) in 2019/20, mostly driven reductions in DTG ARV prices. Economies of scale may also have been achieved with the increased volume of patients on ART (increased by 19% over the three-year period), but could have been maximized further, especially through negotiated reductions in laboratory services. Alternatively, or additionally, the ART targets set for 2019/20 were not achieved and hence resulted in underspending.

Institutionalized annual expenditure and performance analyses and reflections could help to take advantage of efficiency gains and inform allocative and programmatic decisions to direct scarce resources to impactful interventions.

Of concern were the prevention interventions for which expenditure was less than was anticipated resources needed. Social behaviour change and communication (SBCC), condoms, AGYW interventions, and voluntary medical male circumcision (VMMC) all had a funding shortfall in 2019/20. Other prevention interventions also had a funding shortfall, recording a gap of over R700 million in the same year. Social and structural drivers as well as health systems strengthening may have been under-funded, although the resources needed for these types of interventions could be limitless and require clearly defined projects with specific costing of interventions. Interestingly programme management and PMTCT had excess spending of over R1.1 billion and R350 million respectively for 2019/20 compared to the resource needs estimates.

Further analysis is needed to understand how the funding decisions were made for PMTCT and programme management, given that their spending went over the cost estimates, and to determine if such spending did not shift funds from other sub-programmes such as prevention.

When comparing NASA+ spending by financing entities against the estimated NSP costs per intervention it becomes clear that the government is prioritizing many key intervention areas in its resource allocative processes. For instance, 85% of ART specifically is funded by government (when excluding supportive, care and treatment non-disaggregated activities, which tend to be funded by development partners) with 5% contribution from donors and some 2% from the private sector. Condoms are underfunded by government, at 50% of the resource need estimate, with no supplementary funding from elsewhere. Surprisingly, PDOHs reported underspending of their condom conditional grant allocations.

Condoms, being one of the most effective ways of prevention, should be prioritised in resource allocation and distribution.

Government finances are not always adequate for key prevention interventions. Thus, the contributions from international development partners are essential, especially where donors contribute more funding than government for certain interventions. For instance, AGYW interventions were primarily funded by donors (80%), as compared to 20% contributed by the government. Compared to the resources needed for AGYW, there remained a possible shortfall of 45% on 2019/20 – which subsequently may have been addressed by increasing donor funding. Some interventions are entirely dependent on external funding sources, raising a concern for local ownership and sustainability of these donor funded efforts. Community systems strengthening, human rights related barriers, other health systems strengthening interventions and PrEP, inter alia, are only funded by donors, leaving funding gaps. It is important to note that identified funding gaps are proportional to the NSP cost estimates, and some of these require very small funding amounts to be fully funded, as compared, for example, to the 8% funding gap for ART which seems small as a proportion of total NSP resource need but large in absolute amounts.

Based on discussions on donor transition during this NASA+ assessment period and before, it is important for the South African government to consider the integration of these donor-funded activities in its planning and allocations, should donors decide to transition from funding these interventions. However, the decision to absorb donor-funded projects and their costs into public budgets should be based on the assessment of their cost-effectiveness and affordability. Government could need technical support from international aid organisations to prepare for and manage the transitioning process properly without disadvantaging health care recipients. Additional effort is required for sustainable NGO funding, to ensure donor-funded NGOs continue to operate with government support in providing essential HIV and TB services. The SANAC Sustainability Assessment Report (forthcoming) also recommends that a transition plan 'must reflect a gradual transition to domestic funding for community health workers (CHWs) and be aligned to NHI planning and social contracting guidelines.[27]

TB expenditure in South Africa was largely funded from public finances, with the SAG spending the largest amounts, but with decreasing proportions from 72% in 2017/18 to 66% in 2019/20, whilst the share of international entities in TB spending has increased from 21% to 27%. This increase is mainly due to PEPFAR TB COP budgets, with a decline in GF spending on TB over the years. Nevertheless, the total TB spending has remained the same between 2018/19 and 2019/20, having recorded R4.4 billion in both years, with the increased PEPFAR TB spending helping to maintain this level of spending.

The largest, but declining, share of expenditure went towards the treatment of DR-TB patients (from 51% in 2017/18 to 45% in 2019/20) and which is likely to decline further with the roll-out of the shorter Bedaquiline treatment and reduced hospitalization costs, especially with the decentralization of MDR-TB treatment. The treatment of DS-TB formed only 14% of the total TB spend in 2019/20. Unfortunately, the spending on TB prevention was generally low but also under-represented, due to the TPT drug costs being captured under the treatment category (due to labelling in the BAS records). Nevertheless, greater TB prevention allocations would be important to reduce the TB burden in the country. Overall, TB spending was lower than the NSP TB cost estimates, with TB screening and diagnosis facing a seemingly R3.3 billion shortfall in 2019/20. However, it is important to note that the NSP TB cost estimates need to be updated, while improved labelling of TB prevention and diagnostic expenditure will likely reduce this possibly over-estimated funding shortfall.

As TB tops the leading causes of natural deaths in South Africa (Stats SA, 2018),[28] it is desirable that the government share in TB spending is increased to ensure that TB services remain available, accessible and of acceptable quality with good health outcomes. Availability of international financing for TB services is welcomed but should not be used to divert government attention away from serious health challenges imposed by TB, particularly DR-TB, on the overall health system and community health and livelihoods. The NASA+ findings underscore the need for South Africa to further increase its efforts to reduce the transmission of DR-TB as the greatest cost driver of the TB expenditure in the country.

Overall, the South African government and its development partners have remained fully committed to fund the fight against HIV and TB. Greater efforts are required to improve the expenditure reporting of the business sector, universities and research agencies, while also considering the cost to individuals and households (through out-of-pocket payments). The NASA+ exercise has shown how coordinated and harmonized efforts can yield visible results. However, there is a need to keep a close watch on budgeting and spending on an annual basis, which would firstly require reducing the workload and challenges faced by NASA researchers in tracking multi-year expenditures, and secondly, building the capacity of government to institutionalize NASAs – so they can routinely plan, coordinate and manage the NASA process and ensure quality data, analysis and outputs.

7. APPENDICES

7.1. Detailed NASA tables

i. Summary data (FE x ASC) for the GAM MATRIX 8.3

HIV Intervention	FE.01 Public Entities	FE.02 Domestic Privat	FE.03 International En	Total 2019/20 (ZAR)
ASC.01 Prevention	1 684 916 537	2 647 712	1 465 937 294	3 153 501 544
ASC.01.01.01.02 Youth-friendly SRH services for AGYW - only if earmarked HIV funds are spent			33 843 767	33 843 767
ASC.01.01.01.03 Behaviour change communication (BCC) as part of programmes for AGYW and their male partners - only			121 359 758	121 359 758
ASC.01.01.01.04 Cash transfers, social grants and other economic empowerment as part of programmes for AGYW - only i			29 076 485	29 076 485
ASC.01.01.01.98 Programmatic activities for AGYW not disaggregated by type			138 758 360	138 758 360
ASC.01.01.01.99 Other activities for AGYW n.e.c.			15 587 279	15 587 279
ASC.01.01.02.01.02 STI/SRH services for sex workers (excluding HTC/PrEP/ART) - only if earmarked HIV funds are spent			11 737 421	11 737 421
ASC.01.01.02.01.03 Peer education for sex workers - only if earmarked HIV funds are spent			22 857 212	22 857 212
ASC.01.01.02.01.04 Community empowerment including prevention of violence against sex workers and legal support - or			1 668 596	1 668 596
ASC.01.01.02.01.98 Programmatic activities for sex workers and their client	67 610 133		272 756	67 882 888
ASC.01.01.02.02.01 Condom and lubricant programmes for MSM			611 221	611 221
ASC.01.01.02.02.02 STI/SRH services for MSM (excluding HTC/PrEP/ART) - only if earmarked HIV funds are spent			11 111 305	11 111 305
ASC.01.01.02.02.03 Behaviour change communication (BCC) as part of programmes for MSM			6 016 831	6 016 831
ASC.01.01.02.02.04 Empowerment including prevention of violence against MSM and legal support			1 906 475	1 906 475
ASC.01.01.02.03.01 Condom and lubricant programmes for transgenders			113 856	113 856
ASC.01.01.02.03.02 STI/SRH services for TG (excluding HTC/PrEP/ART) - only if earmarked HIV funds are spent			3 216 981	3 216 981
ASC.01.01.02.03.03 Behaviour change communication (BCC) as part of programmes for TG			851 838	851 838
ASC.01.01.02.03.04 Community empowerment and prevention of stigma and discrimination among TG			312 472	312 472
ASC.01.01.02.04.03 Behaviour change communication (BCC) as part of programmes for PWID			3 555 961	3 555 961
ASC.01.01.02.04.04 Community empowerment and prevention of stigma and discrimination among PWID			1 458 582	1 458 582
ASC.01.01.02.04.05 Sterile syringe and needle exchange as part of programmes for PWID			10 151 857	10 151 857
ASC.01.01.02.04.06.01 Provision of drug substitution treatment for PWID			7 523 242	7 523 242
ASC.01.01.02.04.98 Other programmatic activities for PWID not disaggregated by type			1 090 307	1 090 307
ASC.01.01.02.04.99 Other programmatic activities for PWID, n.e.c.			4 008	4 008
ASC.01.01.02.05.03 Interpersonal communication on HIV prevention as part of programmes for inmates (prisoners)			6 274 816	6 274 816
ASC.01.01.02.05.98 Programmatic activities for inmates not disaggregated	18 055 450		26 185	18 081 636
ASC.01.01.02.98 Services for key populations not dissagregated (exclusively for the five populations here described)			112 486 626	112 486 626
ASC.01.01.03.98 Condom activities (for HIV prevention) not disaggregated	361 879 116			361 879 116
ASC.01.01.04.01 Voluntary medical male circumcision (VMMC) programmes			1 108 842	1 108 842
ASC.01.01.04.98 VMMC activities (for HIV prevention) not disaggregated	220 844 131		535 066 366	755 910 497
ASC.01.01.05.01 PrEP as part of programmes for AGYW			164 604 636	164 604 636
ASC.01.01.05.02 PrEP as part of programmes for sex workers and their clients			30 992	30 992
ASC.01.01.05.03 PrEP as part of programmes for gay men and other men who have sex with men (MSM)			74 060	74 060
ASC.01.01.05.04 PrEP as part of programmes for Transgenders (TG)			5 448	5 448
ASC.01.01.05.98 PrEP not disaggregated by key population	184 090		56 324 166	56 508 256
ASC.01.02.01.98 PMTCT not disaggregated by activity	425 021 601		13 863 513	438 885 114
ASC.01.02.02 Social and behavioural communication for change (SBCC) for	94 885 127	358 460	4 400	95 247 987
ASC.01.02.03 Community mobilization for populations other than key popı	8 101 540		58 851 245	66 952 786
ASC.01.02.04.03 Behaviour change communication (BCC) as part of progra	8 033 975			8 033 975
ASC.01.02.04.98 Programmatic activities for vulnerable and accessible popı	25 239 540		5 361 181	30 600 722
ASC.01.02.05.01 Prevention activities implemented in school	262 077 298			262 077 298
ASC.01.02.05.98 Prevention activities for children and youth not disaggregated by type			72 885	72 885
ASC.01.02.07 Prevention and wellness programmes in the workplace	51 750 671	2 289 252	1 242 382	55 282 305
ASC.01.02.09 Post-exposure prophylaxis	11 872 273			11 872 273
ASC.01.02.10 STI prevention and treatment programmes for populations ot	(110 080)			(110 080)
ASC.01.02.98 Prevention activities not disaggregated	50 951 098		87 452 979	138 404 077
ASC.01.02.99 Other prevention activities n.e.c.	78 520 573			78 520 573
ASC.02 HIV testing and counselling (HTC)	980 346 920	121 763 677	600 293 428	1 702 404 025
ASC.02.01 HIV testing and counselling for sex workers			8 335 351	8 335 351
ASC.02.02 HIV testing and counselling for MSM			6 112 786	6 112 786
ASC.02.03 HIV testing and counselling for TG			106 964	106 964
ASC.02.04 HIV testing and counselling for PWID			5 763 072	5 763 072
ASC.02.05 HIV testing and counselling for inmates of correctional and pre-trial facilities			9 322 118	9 322 118
ASC.02.08 HIV testing and counselling for vulnerable and accessible populations			32 227 435	32 227 435
ASC.02.09 Voluntary HIV testing and counselling for general population	751 576 138	5 655 389	538 425 702	1 295 657 229
ASC.02.11 HIV screening in blood banks	228 770 782	116 108 288		344 879 070
ASC.03 HIV Care and Treatment Care	20 239 027 350	985 263 220	5 489 788 341	26 714 078 912
ASC.03.01.01.98 Adult antiretroviral therapy not disaggregated by line of tre	12 695 272		82 685 753	95 381 025
ASC.03.01.98 Antiretroviral therapy not disaggregated neither by age nor by	14 242 191 664	985 263 220	101 805 932	15 329 260 817
ASC.03.02 Adherence and retention on ART - support (including nutrition a	73 845 533		14 142 716	87 988 249
ASC.03.03 Specific ART-related laboratory monitoring	22 881 444		11 919 270	34 800 714
ASC.03.06 Palliative care	11 172 692			11 172 692
ASC.03.98 Care and treatment services not disaggregated	5 876 240 745		5 279 234 669	11 155 475 414
ASC.04 Social protection and economic support (for PLHIV, their familes, for k	1 792 746 930		395 731 879	2 188 478 809
ASC.04.01.01 OVC Basic needs (health, education, housing)	297 297 546			297 297 546
ASC.04.01.98 OVC Services not disaggregated by activity	424 088 000		98 165 979	522 253 979
ASC.04.02.01 Social protection through monetary or in-kind benefits	63 300 000			63 300 000
ASC.04.02.02 Social protection through provision of social services	123 039 800			123 039 800
ASC.04.02.98 Social protection services and social services not disaggregate	885 021 584		297 565 900	1 182 587 484
ASC.05 Social Enablers (excluding the efforts for KPs above)			43 688 212	43 688 212
ASC.05.01 Advocacy			23 090 908	23 090 908
ASC.05.02.01 Stigma and discrimination reduction			5 545 556	5 545 556
ASC.05.02.02 HIV-related legal services			1 839 852	1 839 852
ASC.05.02.03 Monitoring and reforming laws, regulations and policies relating to HIV			1 510 968	1 510 968
ASC.05.02.04 Sensitization of law-makers and law enforcement agents			1 935	1 935
ASC.05.02.06 Capacity building in human rights			2 413 472	2 413 472
ASC.05.02.98 Human rights programmes not disaggregated by type			9 285 521	9 285 521
ASC.06 Programme enablers and systems strengthening	790 552 178		2 037 210 678	2 827 762 856
ASC.06.01 Strategic planning, coordination and policy development	8 168 515		194 556 788	202 725 303
ASC.06.02.98 Building meaningful engagement activities not disaggregated I	4 159 535			4 159 535
ASC.06.03 Programme administration and management costs (above servic	707 356 959		1 371 007 109	2 078 364 067
ASC.06.04.01 Monitoring and evaluation	4 820 842		40 748 573	45 569 415
ASC.06.04.02 Operations and implementation science research			6 198 253	6 198 253
ASC.06.04.04 Management information systems			19 021 042	19 021 042
ASC.06.04.98 Strategic information not disaggregated by type			123 533 762	123 533 762
ASC.06.04.99 Strategic information n.e.c.			1 649 614	1 649 614
ASC.06.05.01 Procurement and supply chain			109 744 854	109 744 854
ASC.06.05.02 Laboratory system strengthening			53 853 299	53 853 299
ASC.06.05.04 Financial and accounting systems strengthening	907 497		12 839 367	13 746 865
ASC.06.06.01 Civil society institutional and NGO development			27 586 426	27 586 426
ASC.06.06.98 Community system strengthening not disaggregated			5 793 149	5 793 149
ASC.06.06.99 Community system strengthening n.e.c.			1 335 801	1 335 801
ASC.06.07.98 Health and community workforce intervention(s) not dissagregated			67 051 910	67 051 910
ASC.06.98 Programme enablers and systems strengthening not disagregate	65 138 830		2 290 731	67 429 561
ASC.07 Development synergies	465 803 991	567 283	8 718 193	475 089 467
ASC.07.01 Formative education to build-up an HIV workforce and other trai	144 130 391			144 130 391
ASC.07.02.01 Reducing violence against women and young girls	321 673 600		8 708 874	330 382 474
ASC.07.02.98 Formative education to build-up an HIV workforce and other trainings not related to		567 283	9 318	576 601
ASC.08 HIV-related research (paid by earmarked HIV funds)	85 606 271		371 153 164	456 759 436
ASC.08.01 Biomedical research	10 852 631		43 632 356	54 484 987
ASC.08.02 Clinical research	13 288 590		93 871 604	107 160 194
ASC.08.03 Epidemiological research			2 071 659	2 071 659
ASC.08.04 Socio-behavioural research	430 475		9 788 580	10 219 055
ASC.08.06 Vaccine-related research	16 549 139		46 352 794	62 901 933
ASC.08.98 HIV and AIDS-related research activities not disaggregated by typ	16 947 229		94 828 155	111 775 384
ASC.08.99 HIV and AIDS-related research activities n.e.c.	27 538 208		80 608 017	108 146 224
Total 2019/20 (ZAR)	**26 039 000 179**	**1 110 241 893**	**10 412 521 189**	**37 561 763 260**

ii. *Financing revenues for HIV (2017/18-2019/20, ZAR, %)*

HIV Financing Entities and their Revenues (mechanisms for financing services) (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
FE.01 Public Entities	**22 174 807 439**	**23 715 850 996**	**26 039 000 179**	**72%**	**68%**	**69%**
REV.01 Transfers from government domestic revenue including reimbursable loans (allocated to HIV purposes)	22 174 807 439	23 715 850 996	26 039 000 179	72%	68%	69%
FE.02 Domestic Private Entitites	**881 747 980**	**1 013 688 051**	**1 110 241 893**	**3%**	**3%**	**3%**
REV.05 Voluntary prepayment	879 902 138	1 009 827 415	1 101 371 508	3%	3%	3%
REV.06 Other domestic revenues n.e.c.	1 845 841	3 860 636	8 870 385	0%	0%	0%
FE.03 International Entities	**7 532 579 337**	**10 366 659 175**	**10 412 521 189**	**25%**	**30%**	**28%**
REV.02 Transfers distributed by government from foreign origin	338 969 840	841 937 280	188 671 601	1%	2%	1%
REV.07 Direct foreign transfers	7 123 298 993	9 469 662 155	10 211 254 829	23%	27%	27%
REV.98 Revenues of health care financing schemes not disaggregated	70 310 505	55 059 741	12 594 759	0%	0%	0%
Total	**30 589 134 755**	**35 096 198 222**	**37 561 763 260**	**100%**	**100%**	**100%**

iii. *Financing agents & purchasers for HIV (2017/18-2019/20, ZAR, %)*

HIV Financing Agents and Purchasers (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
FAP.01.01 Territorial governments	22 674 225 951	24 658 394 715	26 278 318 814	74%	70%	70%
FAP.01.04 Parastatal organizations	310 355 379	363 857 758	291 337 093	1%	1%	1%
FAP.02.03 Private insurance enterprises (other than social insurance)	756 306 202	897 609 142	985 263 220	2%	3%	3%
FAP.02.05 Not-for-profit institutions (other than social insurance)	773 741 091	868 598 373	584 408 585	3%	2%	2%
FAP.02.06 Corporations other than providers of health services (nonparastatal)	4 391 559	13 034 622	8 243 109	0%	0%	0%
FAP.03.01 Country offices of bilateral agencies managing external resources and fulfilling financing agent roles	5 875 239 835	8 101 197 101	9 131 899 608	19%	23%	24%
FAP.03.02 Multilateral agencies managing external resources	64 540 120	94 399 446	147 074 478	0%	0%	0%
FAP.03.03 International not-for-profit organizations and foundations	130 334 619	99 107 064	135 218 353	0%	0%	0%
Total	**30 589 134 755**	**35 096 198 222**	**37 561 763 260**	**100%**	**100%**	**100%**

iv. *Spending on all HIV care and treatment activities (2017/18-2019/20, ZAR, %)*

Spending on Care & Treatment activities (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
ART	13 163 643 093	14 483 415 776	15 424 641 842	68%	63%	58%
Community outreach, HBC, adherence & support	884 342 949	476 885 022	1 749 132 744	5%	2%	7%
Specific ART-related laboratory monitoring	90 536 074	73 564 266	34 800 714	0%	0%	0%
Psychological treatment and support service	14 598 113	15 140 768	-	0%	0%	0%
Palliative care (and step-down care)	11 526 580	4 734 535	11 172 692	0%	0%	0%
Care and treatment services not disagg.	5 243 105 331	8 097 377 066	9 494 330 919	27%	35%	36%
Grand Total	**19 407 752 141**	**23 151 117 433**	**26 714 078 912**	**100%**	**100%**	**100%**

v. *Financing entities' contribution to care and treatment activities (2019/20, ZAR, %)*

HIV Care and Treatment activities (2019/20)	Public entities	Medical insurances	International entities
ART	14 254 886 936	985 263 220	184 491 685
COS, adherence and support	1 734 990 028	-	14 142 716
ART lab monioring	22 881 444	-	11 919 270
Palliative care / STC	11 172 692	-	-
Care and treatment services not disagg.	4 215 096 250	-	5 279 234 669
Total Care and Treatment (ZAR)	**20 239 027 350**	**985 263 220**	**5 489 788 341**

vi. *Financing entities' spending on all care and treatment activities by production factor (2019/20, ZAR)*

C&T by cost item (2019/20)	Public FE	Private medical insurances	International FE	Total C&T spend (2019/20, ZAR)
Personnel	6 433 160 337	-	3 308 966 749	9 742 127 086
Operational, overheads, mgmt costs	561 025 799	-	194 918 033	755 943 832
ARVs	7 287 221 437	-	111 755 428	7 398 976 865
Medical supplies	566 059 499	-	65 971 413	632 030 912
Laboratory reagents & materials	3 954 007 564	-	-	3 954 007 564
Other supplies	72 612 877		362 440 092	435 052 969
Contracted services	385 659 777	-	526 835 275	912 495 052
Training, events, transport, financial support	14 239 904		62 881 574	77 121 479
Current expenditure not disagg.	829 536 327	985 263 220	804 026 664	2 618 826 211
Capital investments (renovations, upgrading, lab.equi	135 503 830		51 993 112	187 496 943
Total C&T spending (ZAR)	**20 239 027 350**	**985 263 220**	**5 489 788 341**	**26 714 078 912**
Total number of ART patients (remaining in care)	5 004 205			
Average C&T unit cost (ZAR)	4 044	197	1 097	4 241
Average C&T unit cost (USD)	$ 273.84	$ 13	$ 74	$ 287

vii. *Financing entities' spending on ART by production factor (2019/20, ZAR)*

ART by cost item (2019/20)	Public FE	Private medical insurances	International FE	Total ART spend (2019/20, ZAR)
Personnel	3 282 334 840			3 282 334 840
Operational, overheads, mgmt costs	393 428 861			393 428 861
ARVs	7 287 221 437		75 328 118	7 362 549 555
Laboratory reagents & materials	2 720 870 908		-	2 720 870 908
Other supplies	242 045 518		12 374 919	254 420 437
Contracted services	338 849 422		7 924 528	346 773 950
Training & event logistics	768 025			768 025
Current expenditure not disagg.	-	985 263 220	100 783 391	1 086 046 611
Buildings: construction/ renovation	3 011 011			3 011 011
IT technology (hard- & software)	6 871 576			6 871 576
Non-medical equipment and furniture	2 366 781			2 366 781
Total ART spending (ZAR)	**14 277 768 380**	**985 263 220**	**196 410 956**	**15 459 442 556**
FE's proportional contributions:	92.4%	6.4%	1.3%	
Total number of ART patients (remaining in care)	5 004 205			
Average ART unit cost (ZAR)	2 853	197	39	3 050
Average ART unit cost (USD)	$ 193	$ 13	$ 3	$ 207

viii. *HIV prevention activities by financing entity (2019/20)*

HIV Prevention (ZAR, 2019/20)	Public financing entities	International financing entities
Prevention for AGYW	-	338 625 650
Services for key populations	85 665 583	203 248 549
Condoms for gen.population	361 879 116	-
VMMC	220 844 131	536 175 209
Pre-Exposure Prophylaxis (PrEP)	184 090	221 039 302
PMTCT	425 021 601	13 863 513
SBCC	94 885 127	4 400
Community mobilization	8 101 540	58 851 245
Activities for vulnerable and accessible populations	33 273 515	5 361 181
Prevention for children and youth (excl. for AGYW)	262 077 298	72 885
Wellness programmes in the workplace	51 750 671	1 242 382
Post-exposure prophylaxis (PEP)	11 872 273	-
Prevention activities not disaggregated	50 951 098	87 452 979
Other prevention n.e.c. (incl. HPV)	78 520 573	-
Total Prevention (ZAR)	**1 684 916 537**	**1 465 937 294**

ix. Detailed HIV prevention activities (2017/18-2019/20, ZAR)

HIV Prevention spending per intervention (ZAR)	2017/18	2018/19	2019/20
ASC.01.01 Five Pillars of Prevention	**2 162 467 220**	**2 363 695 531**	**1 967 661 628**
ASC.01.01.01 Prevention for adolescent girls and young women (AGYW) and their male partners in settings with high HIV prevalence	**367 864 866**	**377 790 438**	**338 625 650**
funds are spent	21 420 435	25 823 296	33 843 767
ASC.01.01.01.03 Behaviour change communication (BCC) as part of programmes for AGYW and their male partners - only if earmarked HIV funds are spent	116 176 574	146 222 874	121 359 758
ASC.01.01.01.04 Cash transfers, social grants and other economic empowerment as part of programmes for AGYW - only if earmarked HIV funds are spent			29 076 485
ASC.01.01.01.98 Programmatic activities for AGYW not disaggregated by type	228 707 901	202 434 514	138 758 360
ASC.01.01.01.99 Other activities for AGYW n.e.c.	1 559 956	3 309 754	15 587 279
ASC.01.01.02 Services for key populations	**273 103 079**	**303 352 400**	**288 914 132**
ASC.01.01.02.01 Programmatic activities for sex workers and their clients	138 379 229	127 524 890	104 146 118
ASC.01.01.02.02 Programmatic activities for gay men and other men who have sex with men (MSM)	84 686 284	72 042 443	19 645 832
ASC.01.01.02.03 Programmatic activities for Transgenders (TG)			4 495 147
ASC.01.01.02.04 Programmatic activities for People who Inject Drugs (PWID) including harm reduction programmes	12 295 822	14 322 944	23 783 957
ASC.01.01.02.05 Programmatic activities for inmates of correctional facilities or pre-trial detention centres (prisoners)	29 739 023	20 129 419	24 356 452
ASC.01.01.02.98 Services for key populations not dissagregated (exclusively for the five populations here described)	8 002 720	69 332 704	112 486 626
ASC.01.01.03 Condoms (for HIV prevention) for the general population (excluding KPs and AGYW above)	**533 440 264**	**520 474 028**	**361 879 116**
ASC.01.01.03.98 Condom activities (for HIV prevention) not disaggregated	533 440 264	520 474 028	361 879 116
ASC.01.01.04 Voluntary medical male circumcision (VMMC) for HIV prevention	**941 776 330**	**1 139 821 748**	**757 019 339**
ASC.01.01.04.01 Voluntary medical male circumcision (VMMC) programmes	973 250	6 035 900	1 108 842
ASC.01.01.04.98 VMMC activities (for HIV prevention) not disaggregated	940 803 081	1 133 785 848	755 910 497
ASC.01.01.05 Pre-Exposure Prophilaxis (PrEP)	**46 282 681**	**22 256 918**	**221 223 391**
ASC.01.01.05.01 PrEP as part of programmes for AGYW	566 185	17 049 070	164 604 636
ASC.01.01.05.02 PrEP as part of programmes for sex workers and their clients			30 992
ASC.01.01.05.03 PrEP as part of programmes for gay men and other men who have sex with men (MSM)			74 060
ASC.01.01.05.04 PrEP as part of programmes for Transgenders (TG)			5 448
ASC.01.01.05.98 PrEP not disaggregated by key population	45 716 496	5 207 848	56 508 256
ASC.01.02 Other Prevention activities	**1 243 036 162**	**1 580 965 493**	**1 185 839 916**
ASC.01.02.01 Prevention of vertical transmission of HIV infection (PMTCT)	**358 571 241**	**376 456 013**	**438 885 114**
ASC.01.02.01.98 PMTCT not disaggregated by activity	358 571 241	376 456 013	438 885 114
ASC.01.02.02 Social and behavioural communication for change (SBCC) for populations other than key populations	**112 703 824**	**77 076 810**	**95 247 987**
populations	**63 346 279**	**50 655 970**	**66 952 786**
ASC.01.02.04 Programmatic activities for vulnerable and accessible populations	**196 175 065**	**341 595 597**	**38 634 696**
ASC.01.02.04.03 Behaviour change communication (BCC) as part of programmes for vulnerable and accessible populations	78 943 698	158 238 879	8 033 975
ASC.01.02.04.98 Programmatic activities for vulnerable and accessible population not disaggregated by type	16 974 952	35 248 004	30 600 722
populations n.e.c	100 256 415	148 108 714	
ASC.01.02.05 Prevention for children and youth (excluding for AGYW in countries with high HIV prevalence)	**244 547 023**	**235 030 779**	**262 150 183**
ASC.01.02.05.01 Prevention activities implemented in school by type	234 807 394	227 955 055	262 077 298
			72 885
ASC.01.02.05.99 Prevention activities for children and youth n.e.c	9 739 630	7 075 724	
ASC.01.02.07 Prevention and wellness programmes in the workplace	**44 599 737**	**51 197 660**	**55 282 305**
ASC.01.02.09 Post-exposure prophylaxis	**11 582 450**	**17 497 258**	**11 872 273**
ASC.01.02.10 STI prevention and treatment programmes for populations other than key populations - only if funded from earmarked HIV budgets	**15 785 350**		**(110 080)**
ASC.01.02.98 Prevention activities not disaggregated	**193 753 316**	**375 130 349**	**138 404 077**
ASC.01.02.99 Other prevention activities n.e.c.	**1 971 877**	**56 325 055**	**78 520 573**
Grand Total	**3 405 503 382**	**3 944 661 024**	**3 153 501 544**

x. HIV spending by production factor (2017/18-2019/20, ZAR, %)

Prevention by production factor (2019/20)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
Personnel	997 589 295	1 361 575 152	1 266 549 762	29%	35%	40%
Operational, overheads, mgmt costs	207 022 702	312 500 284	309 298 643	6%	8%	10%
Pharmaceuticals	-	1 302 563	30 910 502	0%	0%	1%
Medical supplies	584 834 344	568 996 752	475 795 214	17%	14%	15%
Laboratory reagents & materials	6 814 165	9 649 546	12 152 585	0%	0%	0%
Other supplies / medical products	60 840 437	81 789 470	114 373 944	2%	2%	4%
Contracted services	547 048 590	575 091 870	199 840 813	16%	15%	6%
Training, events, transport, financial support	96 301 166	172 825 218	105 037 465	3%	4%	3%
Indirect costs	1 568 419	1 782 049	3 216 955	0%	0%	0%
Other recurrent not disagg.	878 260 308	763 432 675	544 700 024	26%	19%	17%
Buildings, renvoations, laboratory upgrading	170 866	3 504 800	789 760	0%	0%	0%
Vehicles	460 200	15 514 085	26 667 416	0%	0%	1%
Other capital investments (lab equipment, IT, furniture, oth	24 592 889	76 696 560	64 168 459	1%	2%	2%
Total Prevention spending (ZAR)	**3 405 503 382**	**3 944 661 024**	**3 153 501 544**	**100%**	**100%**	**100%**

xi. Programme enablers spending by intervention (2017/18-2019/20, ZAR)

Prg.Enablers & Systems Strengthening spending per intervention (ZAR)	2017/18	2018/19	2019/20
ASC.06.01 Strategic planning, coordination and policy development	**217 989 650**	**219 637 490**	**202 725 303**
ASC.06.02 Building meaningful engagement for representation in key governance, p	**3 226 427**	**3 973 097**	**4 159 535**
ASC.06.02.04 Representation of key populations in key processes	1 142 693		
ASC.06.02.98 Building meaningful engagement activities not disaggregated by targe	2 083 734	3 973 097	4 159 535
ASC.06.03 Programme administration and management costs (above service-delive	**1 678 985 942**	**2 136 643 487**	**2 078 364 067**
ASC.06.04 Strategic information	**681 650 144**	**420 825 986**	**195 972 086**
ASC.06.04.01 Monitoring and evaluation	19 434 209	61 823 011	45 569 415
ASC.06.04.04 Management information systems			19 021 042
ASC.06.04.05 HIV drug-resistance surveillance	4 357 933	5 300 436	
ASC.06.04.98 Strategic information not disaggregated by type	648 876 206	346 572 340	123 533 762
ASC.06.04.99 Strategic information n.e.c.	2 227 747	2 930 591	1 649 614
ASC.06.04.02 Operations and implementation science research	6 754 049	4 199 609	6 198 253
ASC.06.05 Public Systems Strengthenin	**132 850 404**	**345 843 210**	**177 345 018**
ASC.06.05.01 Procurement and supply chain	62 010 102	202 752 656	109 744 854
ASC.06.05.02 Laboratory system strengthening	58 017 211	107 454 421	53 853 299
ASC.06.05.04 Financial and accounting systems strengthening	12 823 091	35 636 133	13 746 865
ASC.06.06 Community system strengthening	**50 526 328**	**57 820 207**	**34 715 376**
ASC.06.06.01 Civil society institutional and NGO development	31 827 468	39 825 878	27 586 426
ASC.06.06.98 Community system strengthening not disaggregated	112 389		5 793 149
ASC.06.06.99 Community system strengthening n.e.c.	15 818 442	17 826 329	1 335 801
ASC.06.06.03 Resource mobilisation for community-based organisations	2 768 028	168 000	
ASC.06.07 Human resources for health (above-site programmes)	**82 510 573**	**68 849 535**	**67 051 910**
ASC.06.07.98 Health and community workforce intervention(s) not dissagregated	82 510 573	68 849 535	67 051 910
ASC.06.98 Programme enablers and systems strengthening not disagregated	**15 752 408**	**47 598 943**	**67 429 561**
Grand Total	**2 863 491 877**	**3 301 191 957**	**2 827 762 856**

xii. Programme enablers spending by production factor (2017/18-2019/20, ZAR)

Pgm.Enablers & S.Strgthening by PF	2017/18	2018/19	2019/20
Personnel	1 374 803 926	1 375 126 377	1 378 671 058
Operational, overheads, mgmt costs	211 546 866	269 386 209	262 082 460
Medical & non-medical products and supplies	94 613 103	144 708 694	87 610 043
Contracted services	310 888 326	361 152 237	346 989 230
Training, events, transport	53 247 484	62 242 966	54 845 218
Other recurrent not disagg.	481 044 447	645 161 073	173 392 265
Capital investments (not disagg.)	24 125 802	45 157 760	134 019 578
Total Pgm.Enablers & S.Strgthening (ZAR)	**2 550 269 953**	**2 902 935 317**	**2 437 609 852**

xiii. Total HIV expenditure by production factor (2017/18-2019/20, ZAR, %)

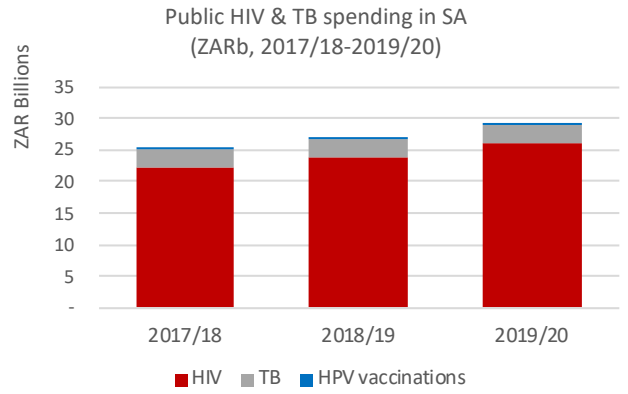
Production Factors of HIV spending (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
Personnel	10 145 754 041	11 743 241 687	13 995 819 301	33%	33%	37%
Operational, overheads, mgmt costs	2 146 062 333	2 008 117 709	2 187 129 327	7%	6%	6%
Medical products & supplies	11 171 376 284	12 582 578 786	13 796 936 560	37%	36%	37%
Contracted services	1 417 704 895	1 728 557 875	1 572 453 141	5%	5%	4%
Training, events, logistics transport, financial support	287 383 242	427 311 748	333 379 586	1%	1%	1%
Recurrent expenditure not disagg.	5 189 736 866	5 924 239 585	5 237 184 501	17%	17%	14%
Capital investments	231 117 094	682 150 832	438 860 844	1%	2%	1%
Total HIV (ZAR)	**30 589 134 755**	**35 096 198 222**	**37 561 763 260**	**100%**	**100%**	**100%**

xiv. Research expenditure by type of research (2017/18-2019/20, ZAR)

Research spending by Type (ZAR)	2017/18	2018/19	2019/20
Biomedical research	76 957 918	59 380 970	54 484 987
Clinical research	112 155 622	153 178 322	107 160 194
Epidemiological research	8 203 721	437 262	2 071 659
Socio-behavioural research	9 687 621	11 895 479	10 219 055
Vaccine-related research	17 199 786	51 149 749	62 901 933
HIV-related research activities not disagg.	123 111 407	144 840 625	111 775 384
HIV-related research activities n.e.c.	139 669 231	111 754 108	108 146 224
Total HIV-research (ZAR)	**486 985 306**	**532 636 515**	**456 759 436**

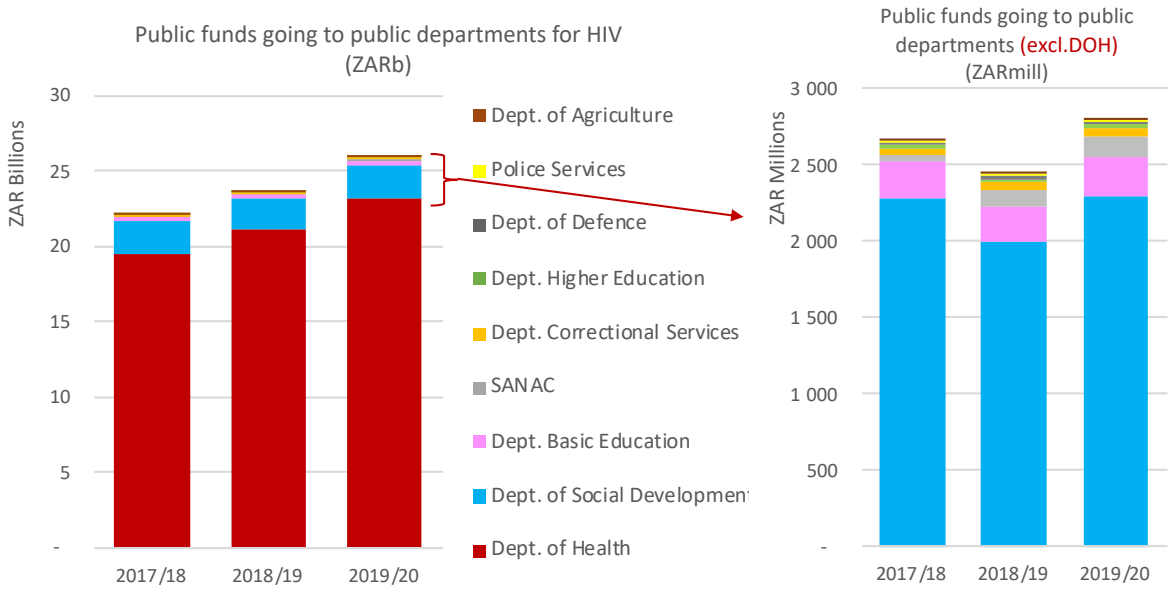
7.2. Additional Detail: PUBLIC FINANCING

i. Total public HIV and TB expenditure (2017/18-2019/20, ZARb, %)



Public financing per disease	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
HIV	22 172 835 561	23 669 764 996	25 960 479 605	89%	89%	90%
TB	2 816 471 991	2 904 368 878	2 894 986 728	11%	11%	10%
HPV vaccinations	1 971 877	46 086 000	78 520 573	0.0%	0.2%	0.3%
Total (ZAR)	**24 991 279 430**	**26 620 219 873**	**28 933 986 906**	**100%**	**100%**	**100%**

ii. Public HIV financing by Department (2017/180-2019/20, ZARb)

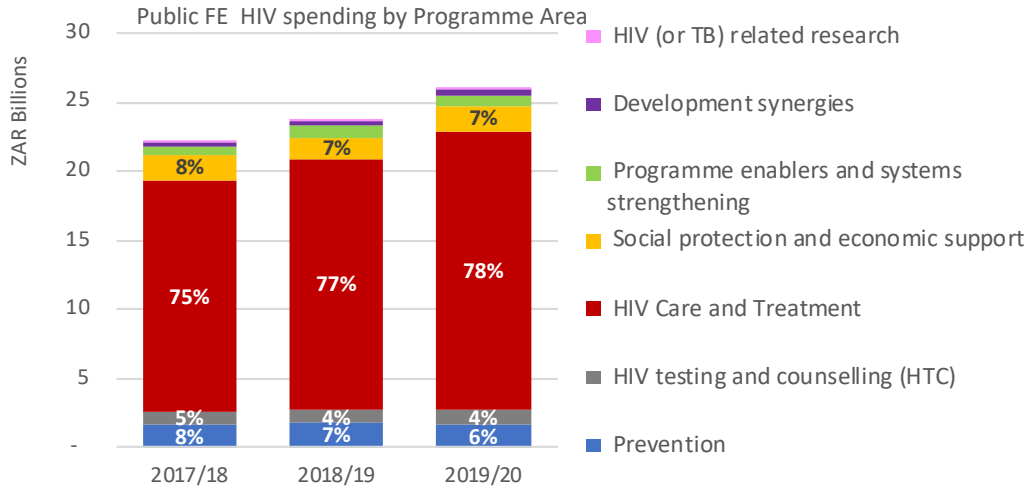


Depts. Managing Public HIV Funds (ZAR)	2017/18	2018/19	2019/20	2017/18 %	2018/19 %	2019/20 %
Dept. of Health	19 446 494 521	21 183 902 490	23 155 468 522	88%	90%	89%
Dept. of Social Development	2 282 941 196	2 002 515 592	2 288 399 522	10%	8%	9%
Dept. Basic Education	234 807 394	227 955 055	262 077 298	1%	1%	1%
SANAC	46 522 796	107 450 303	139 303 623	0.2%	0.5%	0.5%
Dept. Correctional Services	42 154 572	44 642 936	49 572 991	0.2%	0.2%	0.2%
Dept. Higher Education	17 919 321	25 073 177	26 814 975	0.1%	0.1%	0.1%
Dept. of Defence	19 247 541	20 796 694	12 695 272	0.1%	0.1%	0.0%
Police Services	8 089 174	8 690 966	9 922 716	0.0%	0.0%	0.0%
Dept. of Agriculture	9 276 910	8 605 166	8 231 490	0.0%	0.0%	0.0%
Total Public Funding (ZAR)	**R 22 107 453 426**	**R 23 629 632 379**	**R 25 952 486 410**	**100%**	**100%**	**100%**
Total Public Funding (USD)	**$ 1 705 427 249**	**$ 1 719 519 166**	**$ 1 757 227 057**			
Annual increase (in ZAR terms)		7%	10%			
Annual increase (in USD terms)		1%	2%			

Notes:

- DOH funds include the HIV conditional grant and voted funds. DBE funds are the Lifeskills HIV conditional grant.
- DSD funds include their HIV&AIDS sub-programme voted funds, and assumed portions of their other sub-programmes.
- In Rand terms, the total public funding for HIV increased by 7% between 2017/18 and 2018/19, and by 10% in 2019/20.
- However, in US Dollar terms, due to the devaluing Rand, the increase between the years was minimal (1% and 2%).
- NB. These total public funds are slightly lower than previous slide because they exclude funds which go to non-public FAPS (universities etc.)

iii. Public HIV spending by programme area (2017/180-2019/20, ZARb)



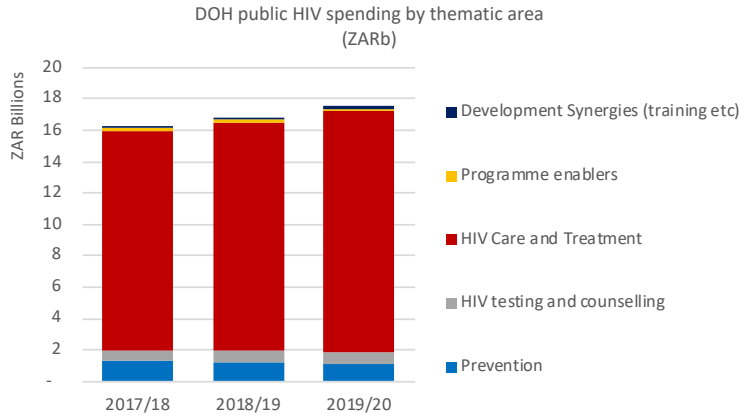
Public FEs HIV spending (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
Prevention	1 702 677 946	1 735 399 812	1 684 916 537	8%	7%	6%
HIV testing and counselling (HTC)	922 164 459	967 904 350	980 346 920	4%	4%	4%
HIV Care and Treatment	16 734 981 931	18 175 660 233	20 239 027 350	75%	77%	78%
Social protection and economic sup	1 848 798 904	1 555 738 261	1 792 746 930	8%	7%	7%
Programme enablers and systems str	546 490 729	806 191 486	790 552 178	2%	3%	3%
Development synergies	352 339 457	388 738 236	465 803 991	2%	2%	2%
HIV (or TB) related research	67 354 013	86 218 617	85 606 271	0%	0%	0%
Total Public HIV (ZAR)	**22 174 807 439**	**23 715 850 996**	**26 039 000 179**	**100%**	**100%**	**100%**

iv. Public HIV financing per Department and their interventions (2017/18-2019/20, ZAR)

Public Funds managed by Public Depts. (ZAR)	2017/18	2018/19	2019/20
Agriculture Dept.	**9 276 910**	**8 605 166**	**8 231 490**
ASC.01.02 Other Prevention activities	**6 426 910**	**6 475 166**	**6 581 490**
ASC.01.02.04 Programmatic activities for vulnerable and accessible populations	6 206 910	6 375 166	6 458 540
ASC.01.02.07 Prevention and wellness programmes in the workplace	220 000	100 000	122 950
ASC.06.03 Programme administration and management costs (above service-delive	**475 000**		
ASC.06.04 Strategic information	**2 375 000**	**2 130 000**	**1 650 000**
ASC.06.04.01 Monitoring and evaluation	2 375 000	2 130 000	1 650 000
Basic Education Dept.	**234 807 394**	**227 955 055**	**262 077 298**
ASC.01.02 Other Prevention activities	**234 807 394**	**227 955 055**	**262 077 298**
ASC.01.02.05 Prevention for children and youth (excluding for AGYW in countries v	234 807 394	227 955 055	262 077 298
Correctional Services Dept.	**42 154 572**	**44 642 936**	**49 572 991**
ASC.01.01 Five Pillars of Prevention	**14 213 744**	**15 758 171**	**18 055 450**
ASC.01.01.02 Services for key populations	14 213 744	15 758 171	18 055 450
ASC.01.02 Other Prevention activities	**27 940 828**	**28 884 765**	**31 517 541**
ASC.01.02.07 Prevention and wellness programmes in the workplace	27 940 828	28 884 765	31 517 541
Higher Education Dept.	**17 919 321**	**25 073 177**	**26 814 975**
ASC.01.02 Other Prevention activities	**17 919 321**	**25 073 177**	**26 814 975**
ASC.01.02.04 Programmatic activities for vulnerable and accessible populations	17 919 321	25 073 177	26 814 975
NDOH	**19 446 494 521**	**21 183 902 490**	**23 155 468 522**
ASC.01.01 Five Pillars of Prevention	**814 765 485**	**804 697 470**	**650 517 469**
ASC.01.01.02 Services for key populations	67 251 528	51 074 852	67 610 133
ASC.01.01.03 Condoms (for HIV prevention) for the general population (excluding k	532 086 887	520 474 028	361 879 116
ASC.01.01.04 Voluntary medical male circumcision (VMMC) for HIV prevention	215 427 071	233 148 591	220 844 131
ASC.01.01.05 Pre-Exposure Prophilaxis (PrEP)			184 090
ASC.01.02 Other Prevention activities	**481 930 876**	**480 554 194**	**542 781 508**
ASC.01.02.01 Prevention of vertical transmission of HIV infection (PMTCT)	354 721 230	372 360 897	425 021 601
ASC.01.02.02 Social and behavioural communication for change (SBCC) for populat	79 196 000		
ASC.01.02.03 Community mobilization for populations other than key populations	2 693 976	9 482 122	8 101 540
ASC.01.02.07 Prevention and wellness programmes in the workplace	6 538 354	10 640 165	10 187 464
ASC.01.02.09 Post-exposure prophylaxis	11 582 450	17 497 258	11 872 273
ASC.01.02.10 STI prevention and treatment programmes for populations other thai	15 785 350		(110 080)
ASC.01.02.98 Prevention activities not disaggregated	9 441 639	24 487 751	9 188 136
ASC.01.02.99 Other prevention activities n.e.c.	1 971 877	46 086 000	78 520 573
ASC.02.09 Voluntary HIV testing and counselling for general population	**691 036 013**	**723 030 420**	**751 576 138**
ASC.03.01 Anti-retroviral therapy	**12 272 824 423**	**13 190 596 895**	**14 242 191 664**
ASC.03.01.98 Antiretroviral therapy not disaggregated neither by age nor by line of	12 272 824 423	13 190 596 895	14 242 191 664
ASC.03.02 Adherence and retention on ART - support (including nutrition and trans	**779 290 690**	**361 909 886**	**73 845 533**
ASC.03.03 Specific ART-related laboratory monitoring	**21 467 951**	**18 498 364**	**22 881 444**
ASC.03.06 Palliative care	**11 526 580**	**4 734 535**	**11 172 692**
ASC.03.98 Care and treatment services not disaggregated	**3 518 881 344**	**4 475 753 457**	**5 748 953 141**
ASC.06.03 Programme administration and management costs (above service-delive	**509 178 284**	**741 101 600**	**673 508 929**
ASC.06.98 Programme enablers and systems strengthening not disagregated	**14 530 322**	**25 926 903**	**65 138 830**
ASC.07.01 Formative education to build-up an HIV workforce and other trainings no	**99 934 107**	**112 224 836**	**144 130 391**
ASC.02.11 HIV screening in blood banks	**231 128 446**	**244 873 931**	**228 770 782**
Police Dept.	**8 089 174**	**8 690 966**	**9 922 716**
ASC.01.02 Other Prevention activities	**8 089 174**	**8 690 966**	**9 922 716**
ASC.01.02.07 Prevention and wellness programmes in the workplace	8 089 174	8 690 966	9 922 716
National Social Development Dept.	**2 282 941 196**	**2 002 515 592**	**2 288 399 522**
ASC.01.02 Other Prevention activities	**69 993 541**	**66 893 528**	**46 691 388**
ASC.01.02.02 Social and behavioural communication for change (SBCC) for populat	4 613 083	6 659 491	4 928 426
ASC.01.02.98 Prevention activities not disaggregated	65 380 458	60 234 037	41 762 962
ASC.03.98 Care and treatment services not disaggregated	**111 743 402**	**103 370 402**	**127 287 604**
ASC.04.01 Social protection and economic support for OVC	**1 027 620 896**	**590 866 291**	**721 385 546**
ASC.04.01.01 OVC Basic needs (health, education, housing)	256 883 196	272 645 291	297 297 546
ASC.04.01.98 OVC Services not disaggregated by activity	770 737 700	318 221 000	424 088 000
ASC.04.02 Other social protection and economic support (non-OVC)	**821 178 008**	**964 871 970**	**1 071 361 384**
ASC.04.02.01 Social protection through monetary or in-kind benefits		59 943 000	63 300 000
ASC.04.02.02 Social protection through provision of social services	99 956 430	94 759 400	123 039 800
ASC.04.02.98 Social protection services and social services not disaggregated by typ	721 221 578	810 169 570	885 021 584
ASC.07.02 Reducing gender based violence	**252 405 350**	**276 513 400**	**321 673 600**
ASC.07.02.01 Reducing violence against women and young girls	252 405 350	276 513 400	321 673 600
SANAC	**46 522 796**	**107 450 303**	**139 303 623**
ASC.01.02 Other Prevention activities	**26 590 673**	**70 417 319**	**89 956 701**
ASC.01.02.02 Social and behavioural communication for change (SBCC) for populat	26 590 673	70 417 319	89 956 701
ASC.06.01 Strategic planning, coordination and policy development	**1 343 516**	**4 645 757**	**8 168 515**
ASC.06.03 Programme administration and management costs (above service-delive	**15 996 741**	**27 333 688**	**33 848 030**
ASC.06.04 Strategic information	**508 132**	**1 080 441**	**3 170 842**
ASC.06.04.01 Monitoring and evaluation	508 132	1 080 441	3 170 842
ASC.06.02 Building meaningful engagement for representation in key governance, p	**2 083 734**	**3 973 097**	**4 159 535**
ASC.06.02.98 Building meaningful engagement activities not disaggregated by targe	2 083 734	3 973 097	4 159 535
Defence Dept.	**19 247 541**	**20 796 694**	**12 695 272**
ASC.03.01 Anti-retroviral therapy	**19 247 541**	**20 796 694**	**12 695 272**
ASC.03.01.01 ART for adults	19 247 541	20 796 694	12 695 272
Transfer to Research Agencies / Univ's	**17 830 897**	**17 559 574**	**17 854 726**

7.2.1. Department of Health

v. Public DOH HIV spending by programme area (2017/180-2019/20, ZARb)

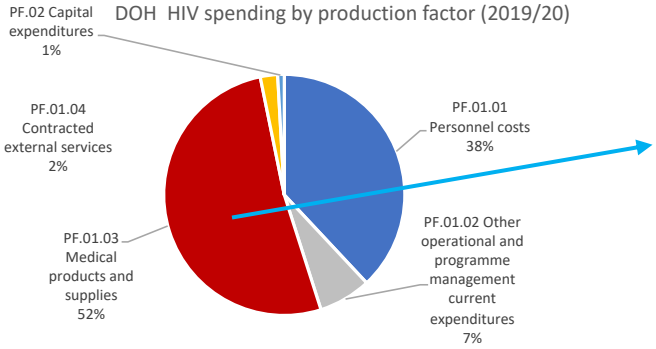


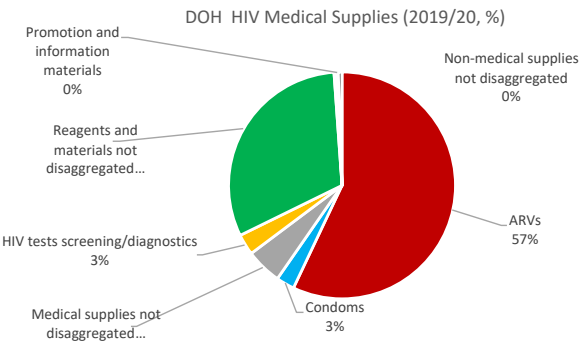
DOH public funding for HIV by programme area	2017/18	2018/19	2019/20	2017/18 %	2018/19 %	2019/20 %
Prevention	1 294 724 484	1 239 165 665	1 114 778 404	8%	7%	6%
HIV testing and counselling	691 036 013	723 030 420	751 576 138	4%	4%	4%
HIV Care and Treatment	13 995 747 523	14 538 909 495	15 319 265 562	86%	87%	87%
Programme enablers	185 278 898	158 648 297	196 216 947	1%	1%	1%
Development Synergies (training etc)	99 934 107	112 224 836	144 130 391	1%	1%	1%
Total DOH public HIV spending (ZAR)	**16 266 721 026**	**16 771 978 712**	**17 525 967 442**	**100%**	**100%**	**100%**

vi. Public DOH HIV spending by intervention (2017/180-2019/20, ZAR)

DOH public funding for HIV and TB by intervention	2017/18	2018/19	2019/20	2019/20 %
HTA: Programmatic activities for sex workers and their clients and others	67 251 528	51 074 852	67 610 133	0.3%
Condom activities (for HIV prevention) not disaggregated	532 086 887	520 474 028	361 879 116	1.6%
VMMC	215 427 071	233 148 591	220 844 131	1.0%
PrEP not disaggregated by key population	-	-	184 090	0.0%
PMTCT	354 721 230	372 360 897	425 021 601	1.8%
SBCC	79 196 000	-	-	0.0%
Community mobilization (ACSM)	2 693 976	9 482 122	8 101 540	0.0%
Prevention and wellness programmes in the workplace	6 538 354	10 640 165	10 187 464	0.0%
Post-exposure prophylaxis (PEP)	11 582 450	17 497 258	11 872 273	0.1%
STI prevention and treatment programmes	15 785 350	-	(110 080)	0.0%
Prevention activities not disaggregated	9 441 639	24 487 751	9 188 136	0.0%
HBV vaccination	1 971 877	46 086 000	78 520 573	0.3%
Voluntary HIV testing and counselling for general population	691 036 013	723 030 420	751 576 138	3.2%
HIV screening in blood banks	231 128 446	244 873 931	228 770 782	1.0%
ART (inclu. Lab monitoring)	12 294 292 374	13 209 095 259	14 265 073 108	61.6%
Community Outreach Services (COS), HBC, adherence and retention support	779 290 690	361 909 886	73 845 533	0.3%
Palliative care / Step-down care	11 526 580	4 734 535	11 172 692	0.0%
Care and treatment services not disaggregated	3 518 881 344	4 475 753 457	5 748 953 141	24.8%
Programme administration and management costs	509 178 284	741 101 600	673 508 929	2.9%
Programme enablers and systems strengthening not disagregated	14 530 322	25 926 903	65 138 830	0.3%
Formative education to build-up an HIV workforce and other trainings	99 934 107	112 224 836	144 130 391	0.6%
Total DOH public HIV spending (ZAR)	**19 446 494 521**	**21 183 902 490**	**23 155 468 522**	**100%**

vii. Public DOH HIV spending by production factor (2019/20, %) and medical supplies' detail





viii. Public DOH HIV spending by production factor (2017/18-2019/20, ZAR, %)

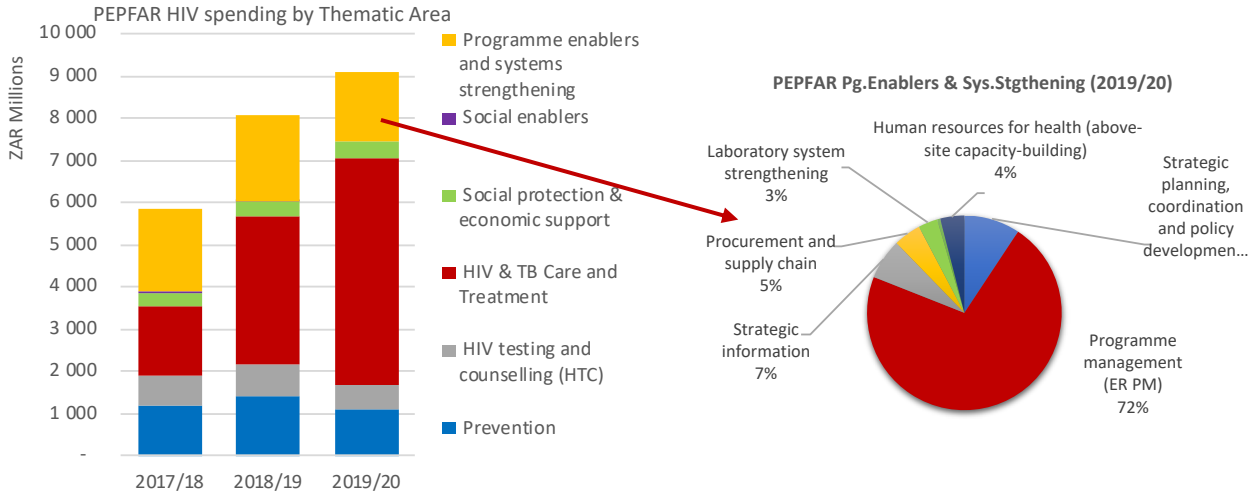
DOH HIV funding by production factor	2017/18	2018/19	2019/20	2017/18 %	2018/19 %	2019/20 %
PF.01 Current direct and indirect expenditures	**19 311 950 849**	**21 002 324 924**	**22 966 865 780**	**99%**	**99%**	**99%**
PF.01.01 Personnel costs	6 334 144 106	6 838 848 216	7 855 051 494	33%	32%	34%
PF.01.02 Other operational and programme manc	721 064 921	821 753 340	929 649 353	4%	4%	4%
PF.01.03 Medical products and supplies	10 593 409 238	11 555 949 902	12 753 353 333	54%	55%	55%
PF.01.04 Contracted external services	408 121 958	446 124 648	493 943 327	2%	2%	2%
PF.01.05 Transportation related to beneficiaries	44	-	4 046	0%	0%	0%
PF.01.08 Training- Training related per diems/trar	18 042 773	14 563 037	25 941 479	0%	0%	0%
PF.01.09 Logistics of events, including catering ser	28 534 772	32 109 776	47 896 559	0%	0%	0%
PF.01.98 Current direct and indirect expenditures	1 208 633 038	1 292 976 005	861 026 189	6%	6%	4%
PF.02 Capital expenditures	**134 543 673**	**181 577 565**	**188 602 742**	**1%**	**1%**	**1%**
PF.02.01 Building	81 277 365	147 219 546	170 983 880	0%	1%	1%
PF.02.02 Vehicles	978 206	4 571 306	2 071 041	0%	0%	0%
PF.02.03 Other capital investment	52 288 101	29 786 714	15 547 821	0%	0%	0%
Total	**19 446 494 521**	**21 183 902 490**	**23 155 468 522**	**100%**	**100%**	**100%**

ix. Public DOH HIV medical supplies detail (commodities) (2017/18-2019/20, ZAR, %)

DOH HIV Medical products & supplies disaggregated:	2017/18	2018/19	2019/20	2017/18 %	2018/19 %	2019/20 %
ARVs	6 924 261 176	7 407 557 980	7 274 526 168	65%	64%	57%
Condoms	514 011 657	482 171 832	332 658 883	5%	4%	3%
Medical supplies not disaggregated	264 787 164	327 836 145	652 234 667	2%	3%	5%
HIV tests screening/diagnostics	350 827 331	380 650 659	380 017 061	3%	3%	3%
Reagents and materials not disaggregated	2 388 748 493	2 801 527 525	3 969 375 269	23%	24%	31%
Food and nutrients	45 289 900	43 328 975	41 808 278	0%	0%	0%
Promotion and information materials	28 534 238	41 991 603	24 101 668	0%	0%	0%
Non-medical supplies not disaggregated	13 293 635	26 210 275	11 203 237	0%	0%	0%
Other medical supplies	63 655 643	44 674 907	67 432 830	1%	0%	1%
Total	**10 593 409 238**	**11 555 949 902**	**12 753 358 062**	**100%**	**100%**	**100%**

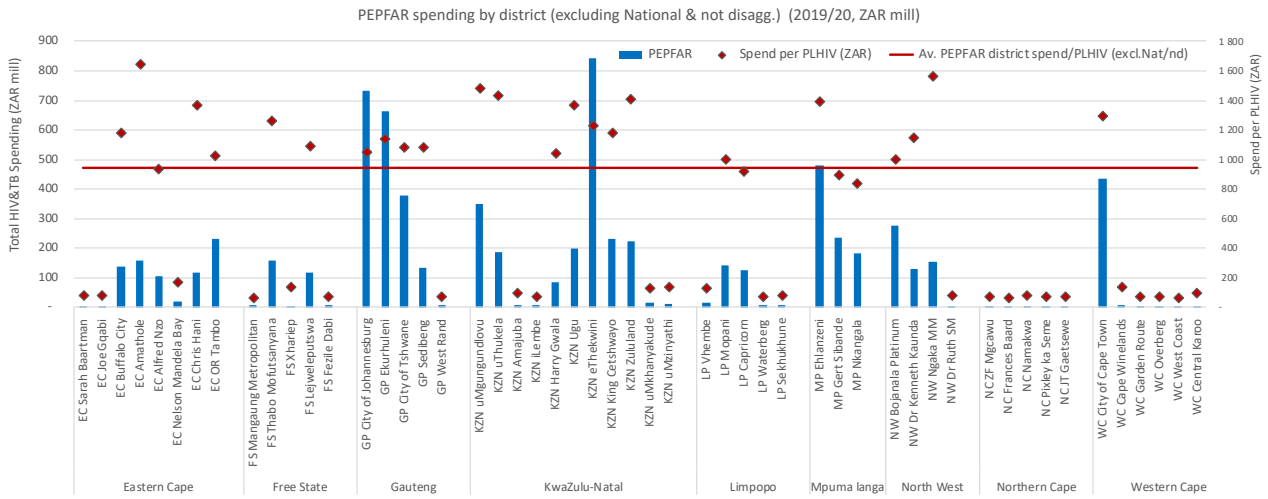
7.3. Additional Detail: PEPFAR

i. PEPFAR HIV expenditure by NASA Programme Area (2017/18-2019/20, ZAR, %)



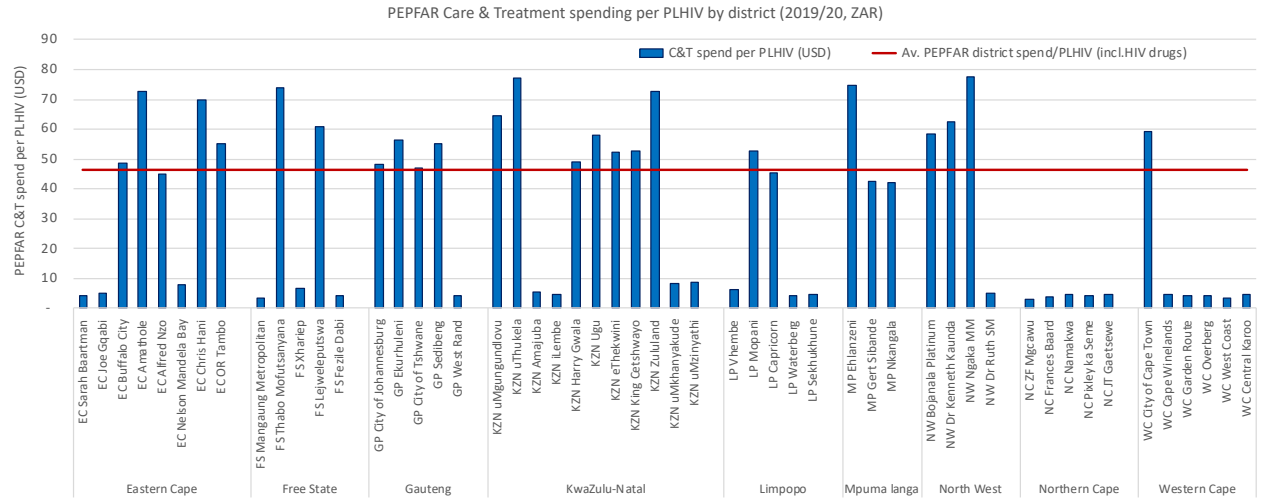
PEPFAR spending per NASA programme area (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
Prevention	1 197 384 260	1 399 583 440	1 141 646 505	20%	17%	13%
HIV testing and counselling (HTC)	711 723 286	773 951 806	555 427 780	12%	10%	6%
HIV & TB Care and Treatment	1 622 703 358	3 534 642 518	5 362 487 316	28%	44%	59%
Social protection & economic support	322 028 554	319 887 262	394 585 869	5%	4%	4%
Social enablers	42 194 188	4 428 909	-	1%	0%	0%
Programme enablers and systems strengthening	1 979 206 189	2 068 703 166	1 677 752 138	34%	26%	18%
Grand Total	**5 875 239 835**	**8 101 197 101**	**9 131 899 608**	**100%**	**100%**	**100%**

ii. *PEPFAR total HIV expenditure by district and per PLHIV (2019/20, ZAR)*



Source of district PLHIV: NAOMI: https://www.hivdata.org.za/

iii. *PEPFAR HIV **C&T** expenditure by district and per PLHIV (2019/20, ZAR)*



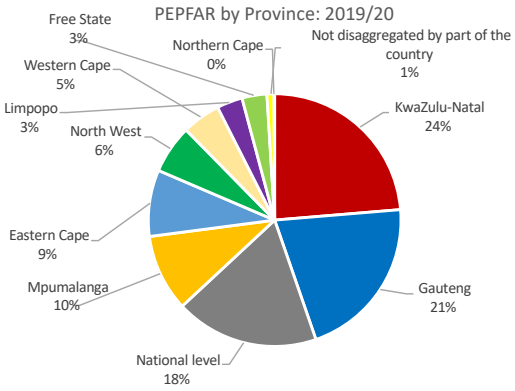
Source of district PLHIV: NAOMI: https://www.hivdata.org.za/

iv. *PEPFAR HIV expenditure by service provider type (2017/18-2019/20, ZAR, %)*

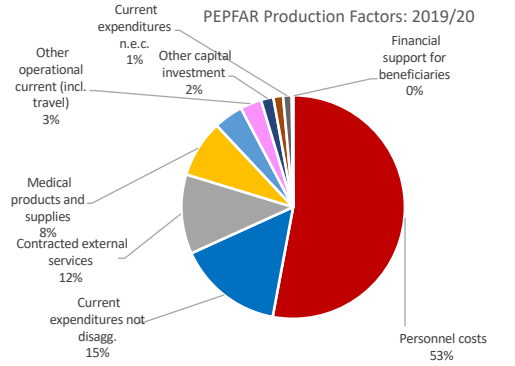
PEPFAR IP spending (ZAR)	2017/18 (ER18)	2018/19 (ER19)	2019/20 (ER20)	% 2017/18	% 2018/19	% 2019/20
PS.01.01.13.01 National AIDS Coordinating Authority (NACs)	8 678 639	5 525 891	5 394 746	0.1%	0.1%	0.1%
PS.01.01.13.02 Departments inside the Ministry of Health or equivalent	49 134 596	68 948 262	197 987 719	0.8%	0.9%	2.2%
PS.01.02.04 Laboratory and imaging facilities (parastatal)	63 519 157	82 356 451	27 992 410	1.1%	1.0%	0.3%
PS.01.02.12 Universities/ Parastatal Research institutions	132 012 818	60 936 743	25 559 793	2.2%	0.8%	0.3%
PS.02.01.01.09 Private training facilities	145 584 056	193 581 145	30 986 942	2.5%	2.4%	0.3%
PS.02.01.01.12 Research institutions (private non-profit non-faith based)	992 650 721	1 275 516 674	1 285 287 381	16.9%	15.7%	14.1%
PS.02.01.01.14 Civil society organizations (private non-profit non-faith base	4 209 369 341	6 009 027 033	6 961 331 383	71.6%	74.2%	76.2%
PS.02.01.02.13 Civil society organizations (private non-profit faith based)	0	64 292 591	114 129 130	0.0%	0.8%	1.2%
PS.02.02.13 Consultancy firms (profit-making private)	131 076 228	102 263 499	146 533 942	2.2%	1.3%	1.6%
PS.02.02.98 Profit-making private sector providers not disaggregated	1 828 108	14 641 291	116 694 595	0.0%	0.2%	1.3%
PS.03.02 Multilateral agencies	7 524 993	41 512 851	33 514 776	0.1%	0.5%	0.4%
PS.03.03 International NGOs and foundations	61 893 296	73 626 448	69 112 333	1.1%	0.9%	0.8%
PS.03.99 Bilateral, multilateral entities, international NGOs and foundation	71 967 882	108 968 222	117 374 458	1.2%	1.3%	1.3%
Total (ZAR)	**5 875 239 835**	**8 101 197 101**	**9 131 899 608**	**100%**	**100%**	**100%**

v. *PEPFAR total HIV expenditure by province (2019/20, ZAR, USD, %)*

PEPFAR provincial spend (2019/20)	Total (ZAR)	Total (USD)
KwaZulu-Natal	2 162 140 452	146 397 214
Gauteng	1 919 796 370	129 988 244
National level	1 677 752 138	113 599 576
Mpumalanga	899 788 255	60 924 115
Eastern Cape	776 618 445	52 584 362
North West	567 016 719	38 392 357
Western Cape	448 602 544	30 374 605
Limpopo	300 179 736	20 324 987
Free State	290 447 088	19 665 996
Not disaggregated by part of the country	82 685 753	5 598 602
Northern Cape	6 872 108	465 306
Total (ZAR)	**9 131 899 608**	**618 315 364**



PEPFAR production factors (2019/20)	Total (ZAR)	Total (USD)
Personnel costs	4 834 316 372	327 328 619
Current expenditures not disagg.	1 395 407 288	94 482 178
Contracted external services	1 050 362 212	71 119 386
Medical products and supplies	757 244 734	51 272 580
Indirect costs	388 124 873	26 279 699
Other operational current (incl. travel)	281 864 711	19 084 888
Other capital investment	164 275 350	11 122 984
Training	128 814 169	8 721 929
Current expenditures n.e.c.	113 451 012	7 681 699
Building	18 024 678	1 220 440
Financial support for beneficiaries	14 208	962
Total (ZAR)	**9 131 899 608**	**618 315 364**



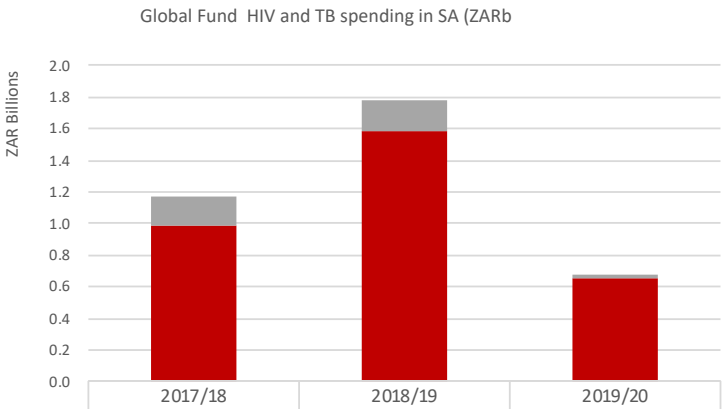
vi. *PEPFAR performance indicators for KPIs (used to calculate their unit of expenditure)*

Fiscal Year	Fiscal Quarter	HTS_TST: Individuals tested for HIV and received their results	HTS_TST_POS: Individuals newly tested positive for HIV	TX_NEW: People newly enrolled on antiretroviral therapy	TX_CURR: People currently receiving antiretroviral therapy
2020	Target	13 078 668	1 088 371	1 061 195	4 881 368
	Q1	3 572 386	170 683	144 676	3 757 729
	Q2	3 867 056	182 191	159 988	3 872 563
	Q3	2 222 854	101 356	100 721	3 774 115
	Q4	5 289 515	258 546	201 557	4 816 026
2019	Target	13 058 216	1 214 629	1 164 100	5 560 797
	Q1	2 471 528	157 175	132 689	3 195 142
	Q2	3 077 781	200 256	171 912	3 399 537
	Q3	3 568 245	193 607	161 249	3 563 245
	Q4	7 287 515	359 959	293 656	4 719 473
2018	Target	10 100 524	982 904	1 034 938	4 386 724
	Q1	2 364 717	183 726	149 473	3 343 429
	Q2	2 804 488	214 179	166 289	3 446 694
	Q3	2 882 186	199 284	152 648	3 517 968
	Q4	5 757 209	342 532	287 431	4 416 016

Source: PANORAMA SPOTLIGHT: https://data.pepfar.gov

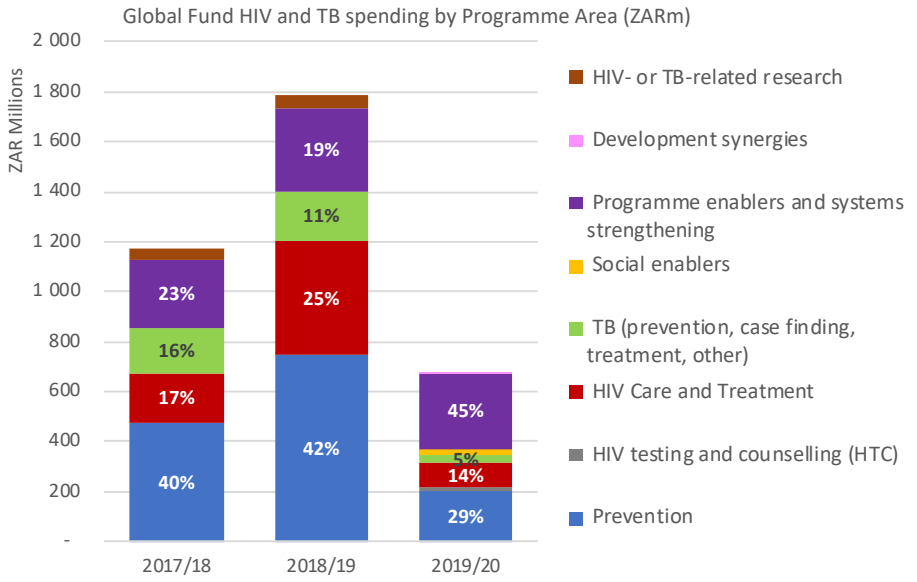
7.4. Additional Detail: GLOBAL FUND

i. GF HIV and TB expenditure in SA (2017/18-2019/20, ZARb)

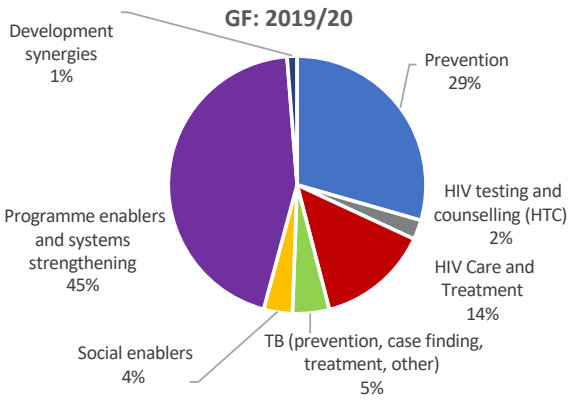


	2017/18 NFM I (YR2)	2018/19 NFM I (YR3)	2019/20 NFM II (YR1)
TB (incl. TB/HIV and MDR)	182 817 889	201 634 609	31 462 817
HIV	992 612 830	1 582 377 302	650 911 799

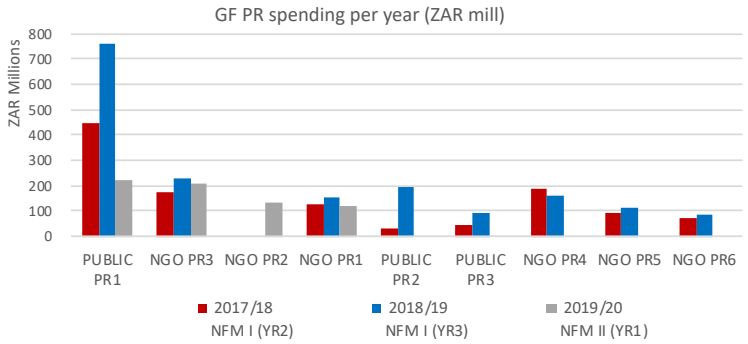
ii. GF HIV and TB expenditure by NASA Programme Area (2017/18-2019/20, ZAR)

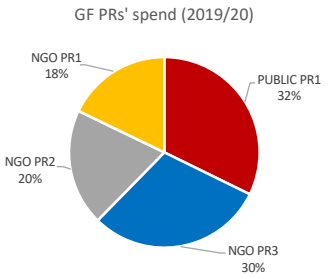


iii. GF HIV and TB expenditure by NASA Programme Area (2019/20, %)



iv. GF HIV and TB expenditure by Principal Recipients (2017/18-2019/20, ZARm, %)





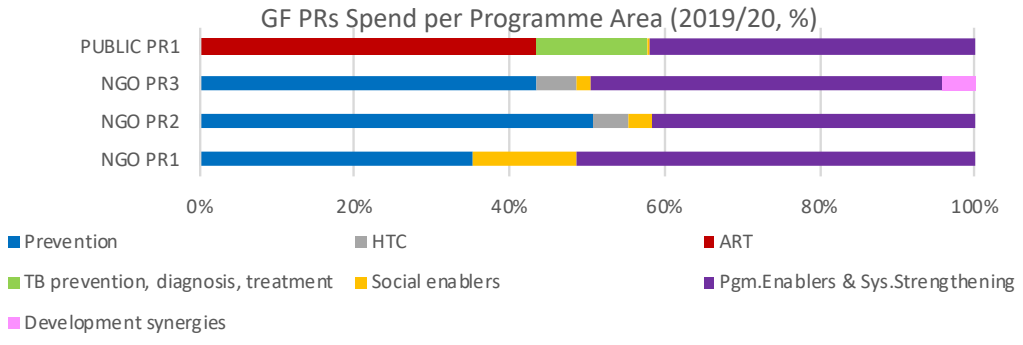
v. GF HIV and TB expenditure by ASC (2017/18-2019/20, ZAR)

GF spending per ASC	'2017/18	'2018/19	'2019/20
ASC.01 Prevention	**473 935 020**	**746 184 060**	**200 893 481**
ASC.01.01 Five Pillars of Prevention	**303 240 177**	**439 963 539**	**200 893 481**
ASC.01.01.01 Prevention for adolescent girls and young women (AGYW	188 810 100	312 193 043	116 910 270
ASC.01.01.02 Services for key populations	114 430 076	127 770 496	77 190 482
ASC.01.01.05 Pre-Exposure Prophilaxis (PrEP)			6 792 729
ASC.01.02 Other Prevention activities	**170 694 843**	**306 220 521**	
ASC.01.02.04 Programmatic activities for vulnerable and accessible pop	160 955 214	299 144 797	
ASC.01.02.05 Prevention for children and youth (excluding for AGYW in	9 739 630	7 075 724	
ASC.02 HIV testing and counselling (HTC)		**238 276**	**16 801 069**
ASC.02.01 HIV testing and counselling for sex workers			**8 335 351**
ASC.02.02 HIV testing and counselling for MSM			**6 112 786**
ASC.02.03 HIV testing and counselling for TG			**106 964**
ASC.02.04 HIV testing and counselling for PWID			**2 245 968**
ASC.02.98 HIV testing and counselling activities not disaggregated		**238 276**	
ASC.03 HIV Care and Treatment Care	**384 267 974**	**655 896 445**	**127 464 217**
ASC.03.01 Anti-retroviral therapy	**106 889 078**	**352 428 780**	**96 001 400**
ASC.03.01.98 Antiretroviral therapy not disaggregated neither by age n	106 889 078	352 428 780	96 001 400
ASC.03.02 Adherence and retention on ART - support (including nutrition	**94 561 007**	**101 833 056**	
ASC.03.04 Co-infections and opportunistic infections: prevention and trea	**182 817 889**	**201 634 609**	**31 462 817**
ASC.03.04.01 TB prevention, case finding, screening, disagnosis, treatm	182 817 889	201 634 609	31 462 817
ASC.05 Social Enablers (excluding the efforts for KPs above)			**24 646 057**
ASC.05.01 Advocacy			**13 334 275**
ASC.05.02 Human rights programmes			**11 311 783**
ASC.05.02.01 Stigma and discrimination reduction			5 545 556
ASC.05.02.02 HIV-related legal services			1 839 852
ASC.05.02.03 Monitoring and reforming laws, regulations and policies relating to HIV			1 510 968
ASC.05.02.04 Sensitization of law-makers and law enforcement agents			1 935
ASC.05.02.06 Capacity building in human rights			2 413 472
ASC.06 Programme enablers and systems strengthening	**265 607 771**	**331 160 817**	**304 003 079**
ASC.06.01 Strategic planning, coordination and policy development	**12 350 863**	**18 593 425**	**3 221 195**
ASC.06.03 Programme administration and management costs (above sel	**124 255 528**	**142 036 971**	**168 183 943**
ASC.06.04 Strategic information	**28 633 809**	**75 509 510**	**61 419 229**
ASC.06.04.01 Monitoring and evaluation	16 551 077	58 612 570	40 748 573
ASC.06.04.04 Management information systems			19 021 042
ASC.06.04.05 HIV drug-resistance surveillance	4 357 933	5 300 436	
ASC.06.04.98 Strategic information not disaggregated by type	5 497 052	8 665 914	
ASC.06.04.99 Strategic information n.e.c.	2 227 747	2 930 591	1 649 614
ASC.06.05 Public Systems Strengthenin	**53 038 768**	**38 270 353**	**36 812 003**
ASC.06.05.01 Procurement and supply chain	38 499 187	24 889 205	33 294 514
ASC.06.05.02 Laboratory system strengthening	14 539 581	11 456 615	
ASC.06.05.04 Financial and accounting systems strengthening		1 924 533	3 517 489
ASC.06.06 Community system strengthening	**47 328 803**	**56 750 557**	**34 366 708**
ASC.06.06.01 Civil society institutional and NGO development	31 510 361	38 924 228	27 237 758
ASC.06.06.98 Community system strengthening not disaggregated			5 793 149
ASC.06.06.99 Community system strengthening n.e.c.	15 818 442	17 826 329	1 335 801
ASC.07 Development synergies			**8 566 712**
ASC.07.02 Reducing gender based violence			**8 566 712**
ASC.08 HIV-related research (paid by earmarked HIV funds)	**51 619 954**	**50 532 313**	
Grand Total	**1 175 430 718**	**1 784 011 910**	**682 374 615**

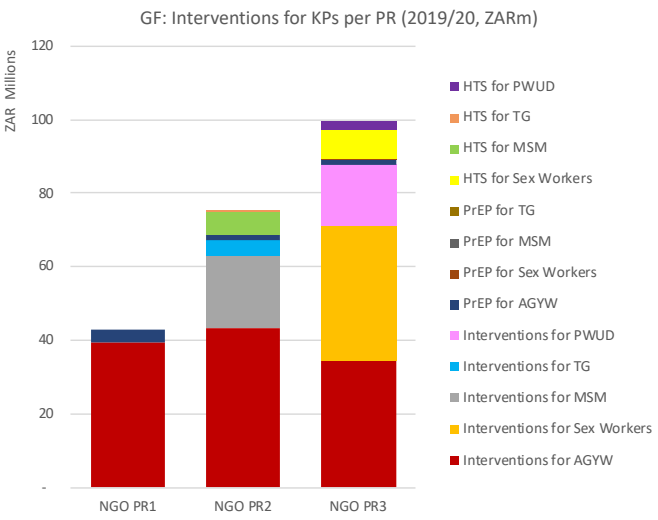
vi. GF HIV and TB expenditure by PR (2017/18-2019/20, ZAR)

GF spending per ASC per PR (2019/20)	NGO PR1	NGO PR2	NGO PR3	PUBLIC PR1	Total (2019/20)
ASC.01 Prevention	**43 053 901**	**68 702 911**	**89 136 670**		**200 893 481**
ASC.01.01 Five Pillars of Prevention	**43 053 901**	**68 702 911**	**89 136 670**		**200 893 481**
ASC.01.01.01 Prevention for adolescent girls and young women (AGYW) and	39 240 902	43 185 546	34 483 822		116 910 270
ASC.01.01.01.02 Youth-friendly SRH services for AGYW - only if ear	8 279 859	13 957 596	11 606 313		33 843 767
ASC.01.01.01.03 Behaviour change communication (BCC) as part	9 408 015	11 768 222	13 849 649		35 025 885
ASC.01.01.01.04 Cash transfers, social grants and other economic	6 752 042	14 082 875	8 241 568		29 076 485
ASC.01.01.01.98 Programmatic activities for AGYW not disaggregated by type		3 376 854			3 376 854
ASC.01.01.01.99 Other activities for AGYW n.e.c.	14 800 987		786 292		15 587 279
ASC.01.01.02 Services for key populations		24 140 979	53 049 502		77 190 482
ASC.01.01.02.01 Programmatic activities for sex workers and their clients			36 535 985		36 535 985
ASC.01.01.02.02 Programmatic activities for gay men and other men who have sex v		19 645 832			19 645 832
ASC.01.01.02.03 Programmatic activities for Transgenders (TG)		4 495 147			4 495 147
ASC.01.01.02.04 Programmatic activities for People who Inject Drugs (PWID) including harm reductic			16 513 518		16 513 518
ASC.01.01.05 Pre-Exposure Prophilaxis (PrEP)	3 812 999	1 376 386	1 603 345		6 792 729
ASC.01.01.05.01 PrEP as part of programmes for AGYW	3 812 999	1 296 877	1 572 353		6 682 229
ASC.01.01.05.02 PrEP as part of programmes for sex workers and their clients			30 992		30 992
ASC.01.01.05.03 PrEP as part of programmes for gay men and other men who have s		74 060			74 060
ASC.01.01.05.04 PrEP as part of programmes for Transgenders (TG)		5 448			5 448
ASC.02 HIV testing and counselling (HTC)		**6 219 750**	**10 581 318**		**16 801 069**
ASC.02.01 HIV testing and counselling for sex workers			**8 335 351**		**8 335 351**
ASC.02.02 HIV testing and counselling for MSM		**6 112 786**			**6 112 786**
ASC.02.03 HIV testing and counselling for TG		**106 964**			**106 964**
ASC.02.04 HIV testing and counselling for PWID			**2 245 968**		**2 245 968**
ASC.03 HIV Care and Treatment Care				**127 464 217**	**127 464 217**
ASC.03.01 Anti-retroviral therapy				**96 001 400**	**96 001 400**
ASC.03.01.98 Antiretroviral therapy not disaggregated neither by age nor by line of treatment nor for PMTCT				96 001 400	96 001 400
(blank)				96 001 400	96 001 400
ASC.03.04 Co-infections and opportunistic infections: prevention and treatment for PLHIV and KPs				**31 462 817**	**31 462 817**
ASC.03.04.01 TB prevention, case finding, screening, disagnosis, treatment and adherence for PLHIV and KPs				31 462 817	31 462 817
ASC.03.04.01.02 TB screening, case detection and diagnosis				26 586 957	26 586 957
ASC.03.04.01.03 TB care and treatment				4 875 860	4 875 860
ASC.05 Social Enablers (excluding the efforts for KPs above)	**16 198 028**	**4 179 596**	**3 666 114**	**602 320**	**24 646 057**
ASC.05.01 Advocacy	**5 488 565**	**4 179 596**	**3 666 114**		**13 334 275**
ASC.05.02 Human rights programmes	**10 709 463**			**602 320**	**11 311 783**
ASC.05.02.01 Stigma and discrimination reduction	5 545 556				5 545 556
ASC.05.02.02 HIV-related legal services	1 839 852				1 839 852
ASC.05.02.03 Monitoring and reforming laws, regulations and policies relating	1 510 968				1 510 968
ASC.05.02.04 Sensitization of law-makers and law enforcement agents	1 935				1 935
ASC.05.02.06 Capacity building in human rights	1 811 152			602 320	2 413 472
ASC.06 Programme enablers and systems strengthening	**62 499 226**	**56 151 052**	**93 284 920**	**92 067 881**	**304 003 079**
ASC.06.01 Strategic planning, coordination and policy development	**676 453**		**1 753 129**	**791 613**	**3 221 195**
ASC.06.03 Programme administration and management costs (above service-	**42 057 753**	**40 828 610**	**56 001 386**	**29 296 194**	**168 183 943**
ASC.06.04 Strategic information	**11 020 760**	**2 205 368**	**28 511 028**	**19 682 073**	**61 419 229**
ASC.06.04.01 Monitoring and evaluation	9 371 146	2 205 368	28 511 028	661 031	40 748 573
ASC.06.04.04 Management information systems				19 021 042	19 021 042
ASC.06.04.99 Strategic information n.e.c.	1 649 614				1 649 614
ASC.06.05 Public Systems Strengthenin	**307 152**			**36 504 852**	**36 812 003**
ASC.06.05.01 Procurement and supply chain				33 294 514	33 294 514
ASC.06.05.04 Financial and accounting systems strengthening	307 152			3 210 338	3 517 489
ASC.06.06 Community system strengthening	**8 437 107**	**13 117 074**	**7 019 378**	**5 793 149**	**34 366 708**
ASC.06.06.01 Civil society institutional and NGO development	8 437 107	11 781 272	7 019 378		27 237 758
ASC.06.06.98 Community system strengthening not disaggregated				5 793 149	5 793 149
ASC.06.06.99 Community system strengthening n.e.c.		1 335 801			1 335 801
ASC.07 Development synergies			**8 566 712**		**8 566 712**
ASC.07.02 Reducing gender based violence			**8 566 712**		**8 566 712**
Total (2019/20)	**121 751 154**	**135 253 309**	**205 235 735**	**220 134 417**	**682 374 615**

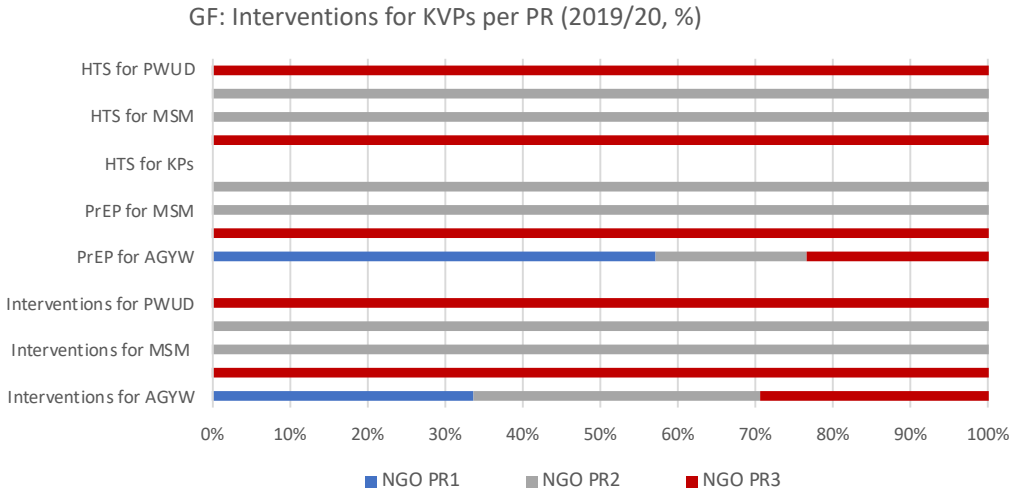
vii. GF PR spending per programme area (2019/20, %)



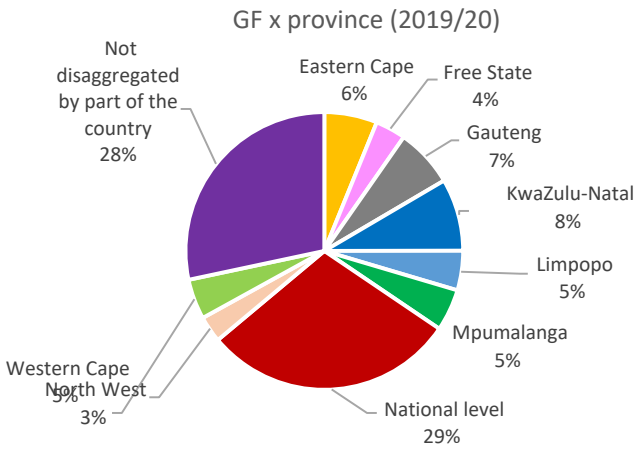
viii. *GF PR spending per KVP intervention (2019/20, ZARm)*



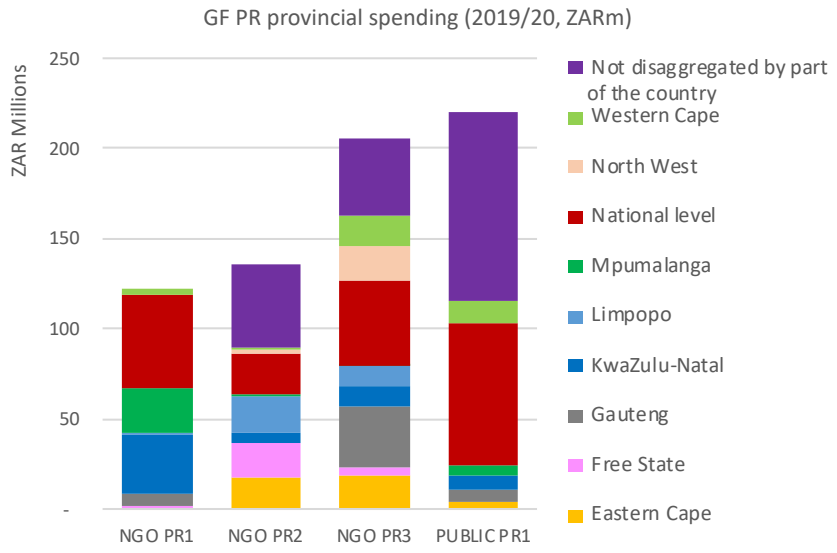
ix. *GF PR spending per KVP intervention (2019/20, %)*



x. *GF PR spending per province (2019/20, %)*

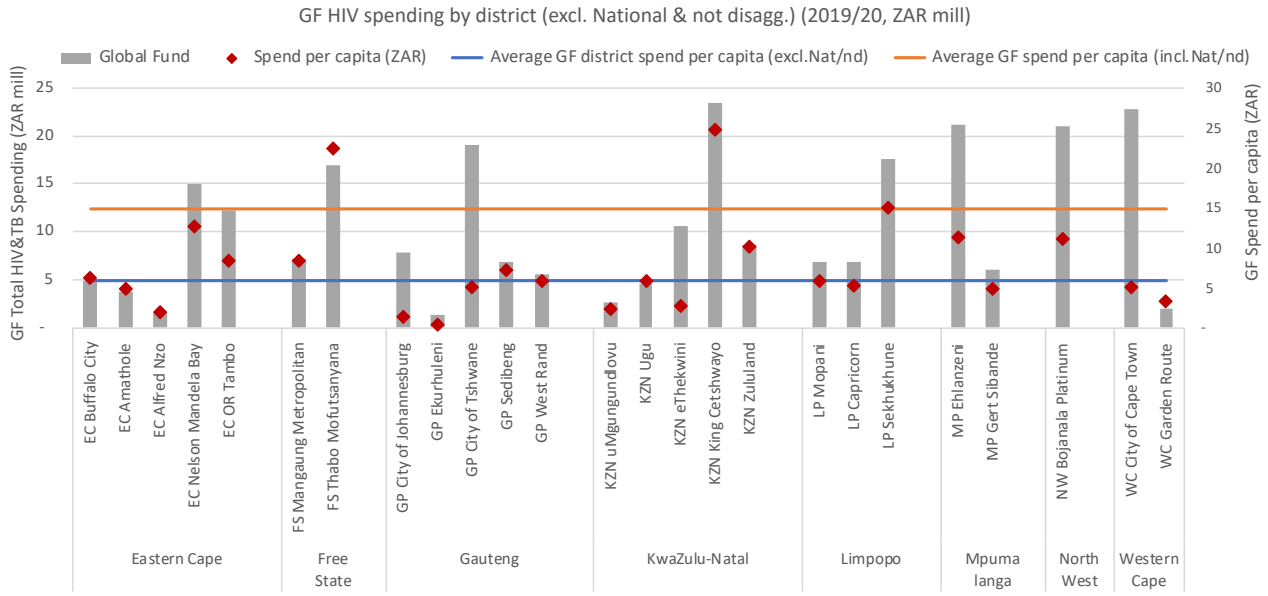


xi. GF PR spending per province (2019/20, ZARm)



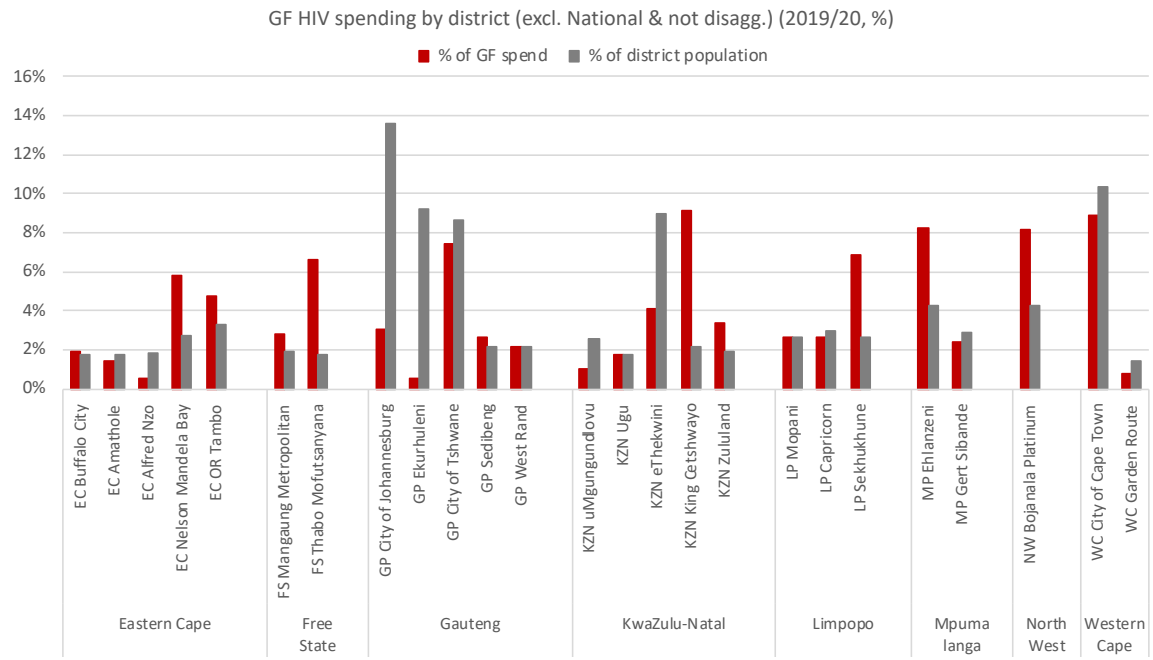
GF PR provincial spend (2019/20)	NGO PR1	NGO PR2	NGO PR3	PUBLIC PR1	Total (ZAR)
Eastern Cape	481 863	17 903 879	19 064 487	4 603 027	42 053 256
Free State	1 329 616	19 108 812	3 664 067	-	24 102 495
Gauteng	6 881 831	-	33 844 434	5 998 459	46 724 724
KwaZulu-Natal	32 714 978	5 437 853	11 729 037	7 703 311	57 585 179
Limpopo	826 535	19 760 542	10 802 987	-	31 390 064
Mpumalanga	24 883 229	1 518 743	926 248	6 034 506	33 362 725
National level	51 878 974	22 548 339	47 168 749	79 338 023	200 934 085
North West	68 535	1 815 324	19 052 228	-	20 936 088
Western Cape	2 685 593	1 748 695	16 052 863	11 441 968	31 929 119
Not disaggregated by part of the country	-	45 411 122	42 930 634	105 015 123	193 356 880
Total (ZAR)	**121 751 154**	**135 253 309**	**205 235 735**	**220 134 417**	**682 374 615**

xii. GF HIV spending per district and per capita spend (2019/20, ZARm)



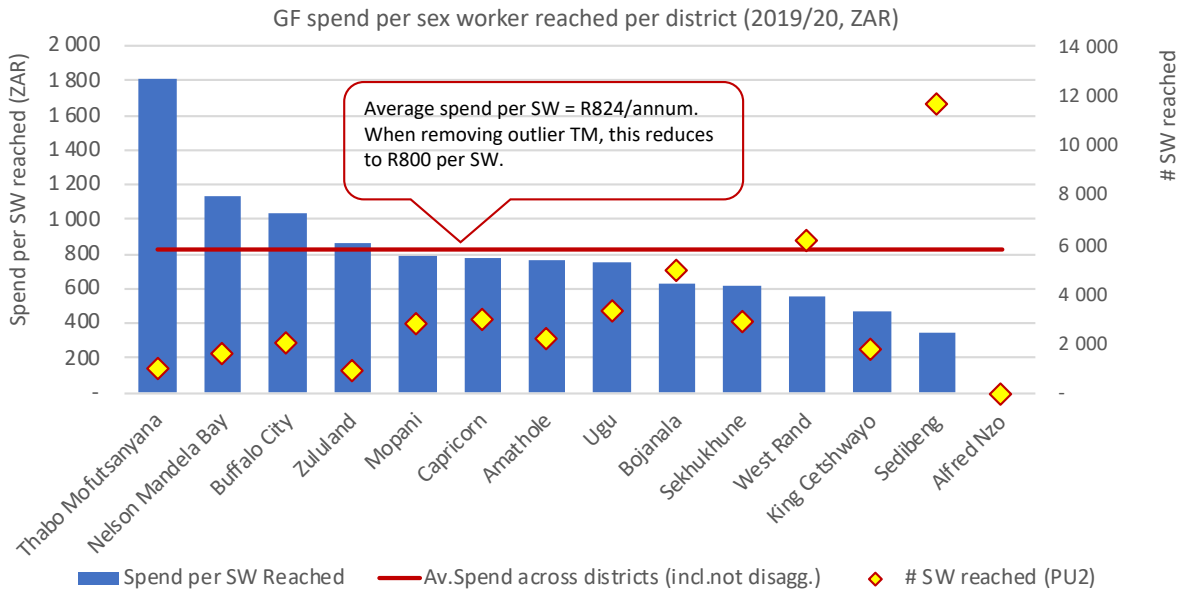
Source of district PLHIV: NAOMI: https://www.hivdata.org.za/

xiii. Percentage of GF HIV spending per district and percentage of population (2019/20, %)

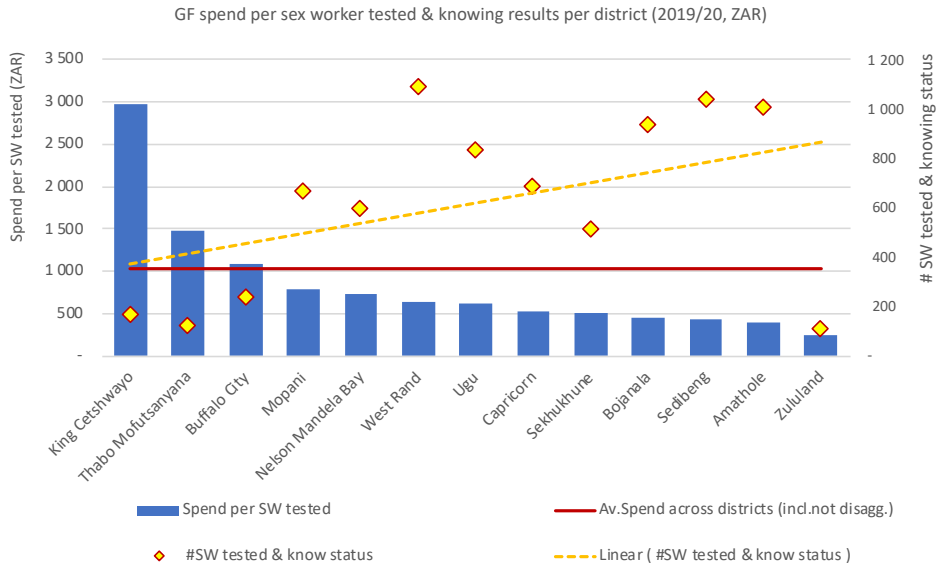


Source of district PLHIV: NAOMI: https://www.hivdata.org.za/

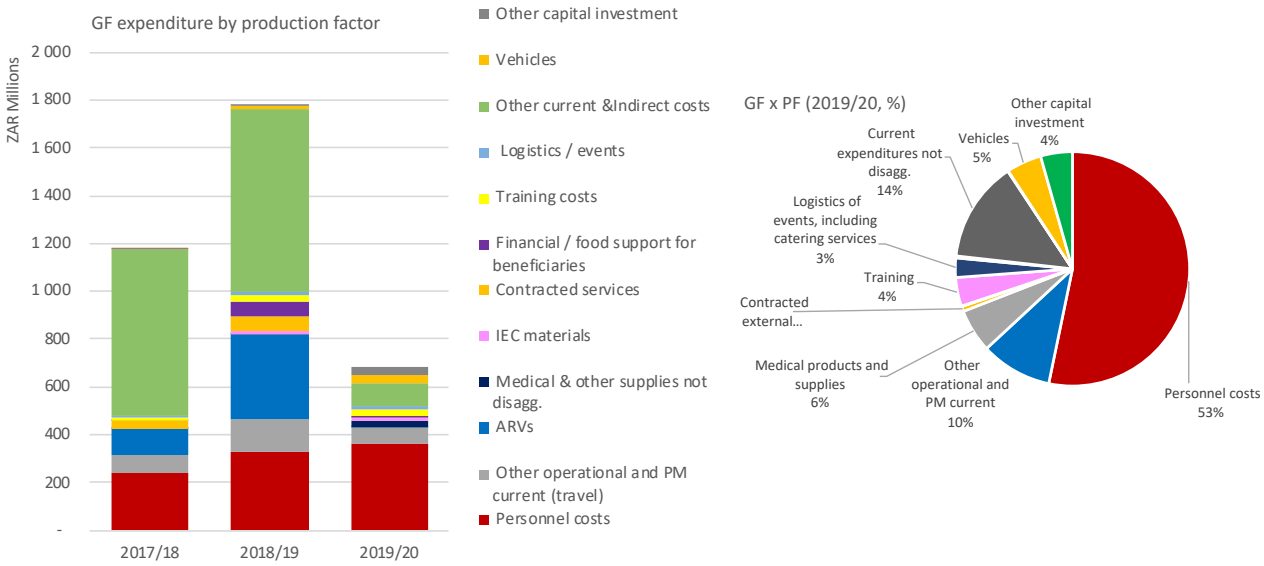
xiv. GF HIV spending per sex worker reached per district and number of sex workers reached (2019/20, ZAR)



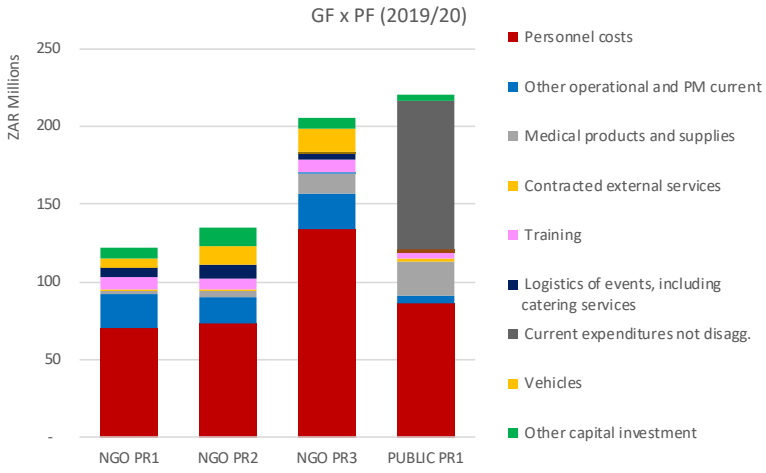
xv. *GF HIV spending per sex worker tested & knowing results per district (left axis, ZAR) and number of sex workers tested & knowing results (right axis) (2019/20)*



xvi. *GF HIV and TB expenditure by production factor (2017/18-2019/20, ZARm)*

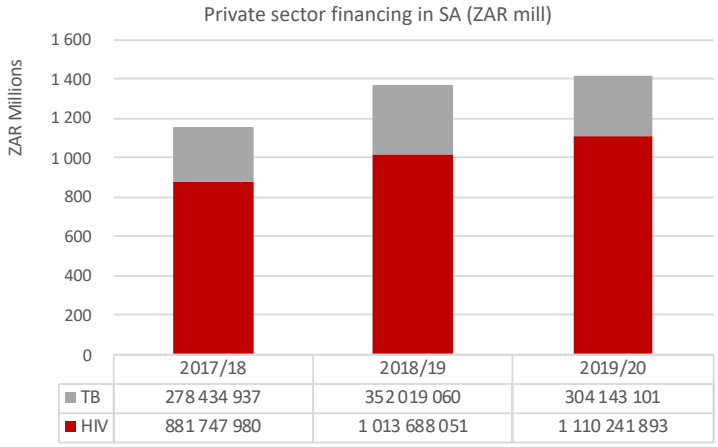


xvii. *GF PRs' HIV and TB expenditure by production factor (2019/20, ZARm, %)*

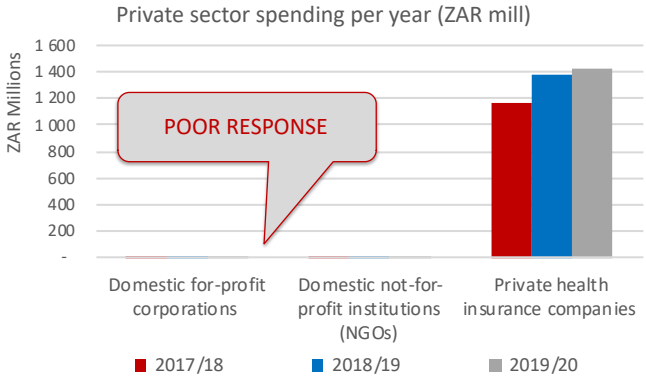


7.5. Additional Detail: PRIVATE SECTOR

i. Total Private sector HIV and TB expenditure in SA (2017/18-2019/20, ZARm)



ii. Type of Private sector HIV and TB expenditure in SA (2017/18-2019/20, ZARm)

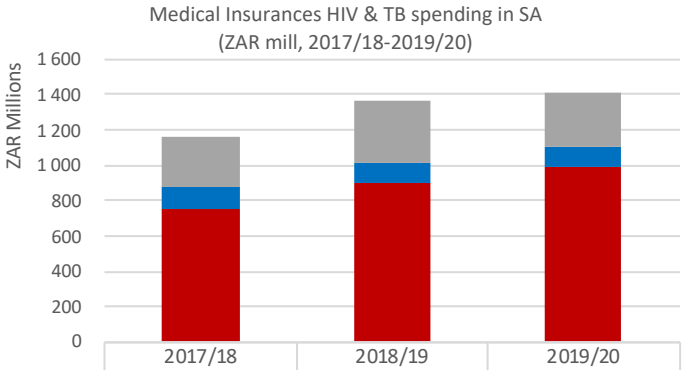


Private sector HIV and TB financing (ZAR)	2017/18	2018/19	2019/20
Domestic for-profit corporations	1 535 165	2 174 185	2 856 535
Domestic not-for-profit institutions (NGOs)	310 676	1 686 451	6 013 849
Private health insurance companies	1 158 337 076	1 361 846 474	1 405 514 609
Total	**1 160 182 917**	**1 365 707 111**	**1 414 384 994**

Due to the non-response of for-profit companies, and limited contributions from local NGOs, the majority of the private sector funds were those reported by the voluntary medical insurances – details provided in the next section.

7.6. Additional Detail: PRIVATE MEDICAL INSURANCES

iii. Medical insurance spending on HIV and TB in SA (2017/18-2019/20, ZARm)

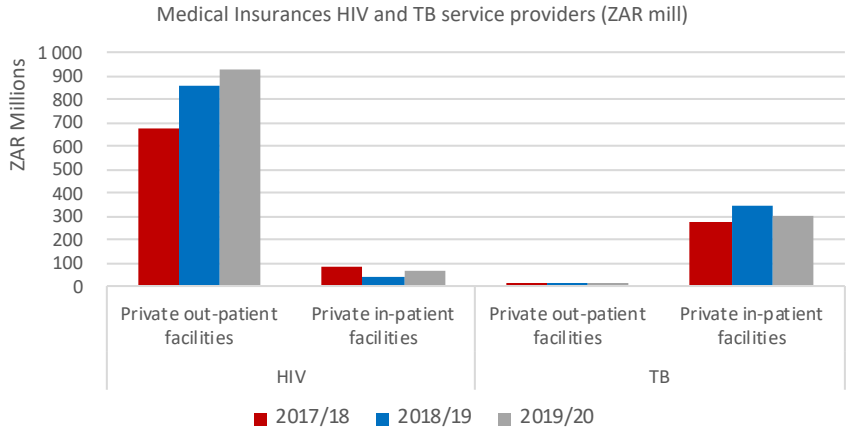


	2017/18	2018/19	2019/20
TB (assumed mostly drug-sensitive TB treatment)	278 434 937	352 019 060	304 143 101
HIV testing in blood banks	123 595 936	112 218 272	116 108 288
HIV treatment	756 306 202	897 609 142	985 263 220

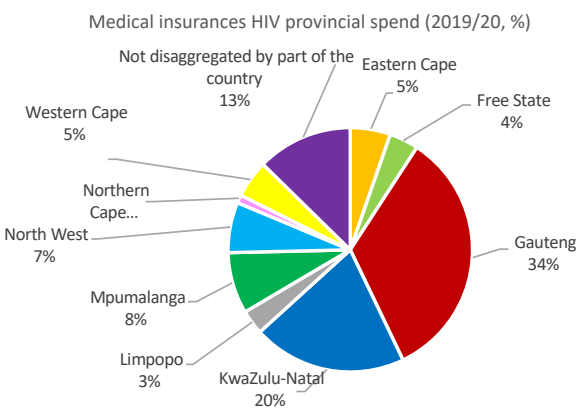
Notes:

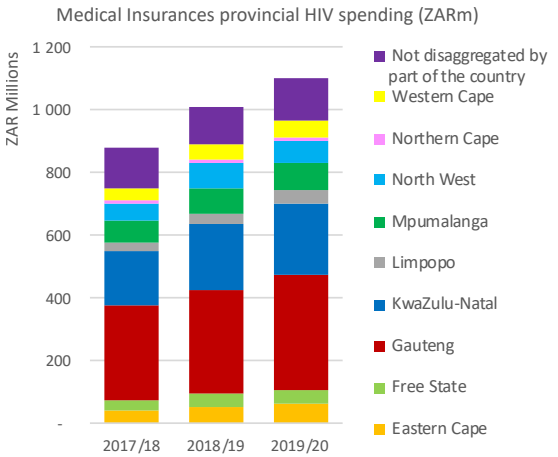
- Medical insurance HIV spending increased by 19% in 2018/19 and then 10% in 2019/20.
- Medical insurances – no detail of interventions, assumed HIV = ART, and TB = DS TB Treatment.
- The HIV spending (assumed for ART) made up 6% of the total ART spending, and the Thembisa Model 4.4 estimates that 6% of the ART patients are in private care (confirming our assumption). While there may have been some OI treatment/claims for the private HIV patients, the spending would have been quite small.

iv. Medical insurance HIV and TB spending by service provider (2017/18-2019/20, ZARm)



v. Medical insurance HIV spending per province (2017/18-2019/20, %, ZARm)





7.7. Additional Detail: TUBERCULOSIS

i. TB financing agents & purchasers, by type, and further disaggregation (2017/18-2019/20, ZAR)

TB Financing Agents and Purchasers (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
FAP.01.01 Territorial governments	2 999 289 880	3 106 003 486	2 926 449 544	77%	71%	67%
FAP.02.03 Private insurance enterprises (other than social insurance)	278 434 937	352 019 060	304 143 101	7%	8%	7%
FAP.02.05 Not-for-profit institutions (other than social insurance)	650 380	0	0	0%	0%	0%
FAP.03.01 Country offices of bilateral agencies managing external resources and fulfilling financing agent roles	632 625 235	900 520 833	1 131 517 341	16%	21%	26%
FAP.03.02 Multilateral agencies managing external resources	0	45 019	0	0%	0%	0%
FAP.03.03 International not-for-profit organizations and foundations	4 606 600	6 074 015	2 251 489	0%	0%	0%
TB Total (ZAR)	**3 915 607 032**	**4 364 662 412**	**4 364 361 476**	**100%**	**100%**	**100%**

ii. TB expenditure per intervention (2017/18-2019/20, ZAR)

Total TB spending per intervention (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
TB Prevention	24 868 597	66 380 074	50 915 849	1%	2%	1%
TB screening, case detection and diagnosis	439 763 194	425 062 733	487 324 815	11%	10%	11%
TB (drug-sensitive) treatment	578 899 659	648 314 686	624 846 980	15%	15%	14%
TB (drug-resistant) treatment	1 982 232 658	2 058 596 973	1 961 182 656	51%	47%	45%
TB treatment not disaggregated by type of TB	39 138 357	17 995 334	16 398 198	1%	0%	0%
TB activities not disaggregated	659 951 495	931 422 279	1 183 670 586	17%	21%	27%
TB Programme enablers, management, research and systems strengthening	190 753 072	216 890 334	40 022 392	5%	5%	1%
TB Total	**3 915 607 032**	**4 364 662 412**	**4 364 361 476**	**100%**	**100%**	**100%**

iii. TB expenditure per service provider type (2017/18-2019/20, ZAR)

TB service providers (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
Public service providers	2 963 325 420	3 084 527 069	2 884 564 997	76%	71%	66%
NGOs (local)	224 916 509	186 416 755	192 623 776	6%	4%	4%
For-profit providers	278 434 937	352 019 060	304 143 101	7%	8%	7%
Multilateral agencies	10 061 095	94 610	18 310 872	0%	0%	0%
INGOs & Foundations	4 606 600	6 074 015	2 251 489	0%	0%	0%
International agencies in-country & their IPs	434 262 470	735 530 903	962 467 241	11%	17%	22%
Total TB (ZAR)	**3 915 607 032**	**4 364 662 412**	**4 364 361 476**	**100%**	**100%**	**100%**

iv. TB expenditure by production factors (2017/18-2019/20, ZAR, %)

TB Production Factors (ZAR)	2017/18	2018/19	2019/20	% 2017/18	% 2018/19	% 2019/20
Personnel	1 482 451 877	1 604 546 598	1 600 824 198	38%	37%	37%
Operational, overheads, mgmt costs	103 035 688	135 469 546	131 092 673	3%	3%	3%
Medical products & supplies	1 066 655 579	931 755 936	1 017 675 110	27%	21%	23%
Contracted services	101 461 155	126 870 580	118 479 839	3%	3%	3%
Training, events, logistics transport etc.	1 804 511	1 017 305	3 699 017	0%	0%	0%
Recurrent expenditure not disagg.	1 129 860 944	1 475 810 054	1 446 083 817	29%	34%	33%
Capital investments	30 337 277	89 192 395	46 506 822	1%	2%	1%
Total TB (ZAR)	**3 915 607 032**	**4 364 662 412**	**4 364 361 476**	**100%**	**100%**	**100%**

v. Public TB interventions by production factor (2019/20, ZAR)

Public TB production factors (2019/20)	TB prevention	TB screening & diagnosis	DS-TB treatment	DR-TB treatment	TB not disagg.	Total (2019/20)
Personnel	30 604 384	-	11 747 362	1 446 300 787	83 007 718	1 571 660 252
Operational & Pg.Mgt	745 718	-	488 260	97 012 423	32 759 853	131 006 253
Medical products & supplies	4 370 868	460 737 858	302 987 891	187 418 136	62 036 062	1 017 550 815
Contracted external services	68 599	-	1 569 637	115 436 987	1 275 175	118 350 397
Training, logistics, transport	130 650	-	-	658 385	1 053 224	1 842 259
Current expenditure not disagg.	-	-	3 653 052	5 478 642	1 290 037	10 421 731
Capital expenditures	492 761	-	257 677	39 782 395	3 622 186	44 155 020
Total public TB spending (ZAR)	**36 412 980**	**460 737 858**	**320 703 879**	**1 892 087 755**	**185 044 255**	**2 894 986 728**

7.8. South Africa District population and PLHIV in 2020

(source: NAOMI: https://www.hivdata.org.za/)

SA District name	District population, 2020 (NAOMI)	District PLHIV#, 2020 (NAOMI)
EC Sarah Baartman	473 541	52 191
EC Joe Gqabi	330 776	40 168
EC Buffalo City	788 252	116 839
EC Amathole	767 471	95 637
EC Alfred Nzo	791 836	113 572
EC Nelson Mandela Bay	1 198 085	119 001
EC Chris Hani	697 744	86 756
EC OR Tambo	1 461 588	227 518
FS Mangaung Metropolitan	859 534	131 047
FS Thabo Mofutsanyana	755 688	126 958
FS Xhariep	128 185	14 053
FS Lejweleputswa	642 573	107 170
FS Fezile Dabi	502 319	75 800
GP City of Johannesburg	5 953 923	703 042
GP Ekurhuleni	4 030 224	582 291
GP City of Tshwane	3 775 101	351 669
GP Sedibeng	962 378	124 634
GP West Rand	963 009	125 576
KZN uMgungundlovu	1 130 040	237 441
KZN uThukela	697 486	132 050
KZN Amajuba	559 545	92 585
KZN iLembe	682 277	126 590
KZN Harry Gwala	502 450	79 463
KZN Ugu	784 843	145 898
KZN eThekwini	3 928 645	687 580
KZN King Cetshwayo	949 251	197 314
KZN Zululand	860 859	159 528
KZN uMkhanyakude	671 010	118 088
KZN uMzinyathi	553 455	82 478
LP Vhembe	1 418 648	139 829
LP Mopani	1 175 253	144 379
LP Capricorn	1 304 346	138 503
LP Waterberg	738 205	94 853
LP Sekhukhune	1 177 762	95 249
MP Ehlanzeni	1 879 126	346 737
MP Gert Sibande	1 273 845	264 765
MP Nkangala	1 645 406	220 209
NW Bojanala Platinum	1 883 709	278 802
NW Dr Kenneth Kaunda	779 078	114 240
NW Ngaka MM	890 478	99 602
NW Dr Ruth SM	464 038	48 824
NC ZF Mgcawu	242 998	21 726
NC Frances Baard	362 016	37 758
NC Namakwa	99 478	4 447
NC Pixley ka Seme	185 715	12 206
NC JT Gaetsewe	239 696	25 370
WC City of Cape Town	4 550 479	335 307
WC Cape Winelands	930 033	57 883
WC Garden Route	618 205	46 691
WC Overberg	296 800	24 574
WC West Coast	454 959	34 155
WC Central Karoo	74 609	3 072
Total 2019/20	**59 086 968**	**7 842 119**

8. References

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