

PROPOSAL IN RESPONSE TO:


Program Title	Accelerating Program Achievements to Control the Epidemic (APACE) in South Africa
Request for Applications Number	72067418RFA00001
Prime Applicant Organization	Anova Health Institute (Anova)
DUNS Number	538544105
Sub-Awardee Organizations	South African Organizations: CHoiCe Trust, HIVSA, Hospice Palliative Care Association (HPCA), Right to Care
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Type of Organization	South African – Not for Profit
Performance Period	Estimated period 1 October 2018 – 30 September 2023
Provinces in proposal	Gauteng, Limpopo, Western Cape
Estimated Value over 5 years, excluding cost share	\$226 million
Signature	

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Section 2: Acronym List

Anova	Anova Health Institute
APACE	Accelerating Program Achievement to Control the Epidemic
ACC	Advanced Clinical Care
AGYW	Adolescent Girls and Young Women
ANC	Antenatal Care
APL	Approved Post List
ART	Antiretroviral Treatment
ARV	Antiretroviral Drug
AYFS	Adolescent and Youth Friendly Services
CBO	Community-Based Organization
CBCT	Community Based Counselling and Testing
CCMDD	Central Chronic Medicine Distribution Dispensing
CD4	CD4 (Cluster of Differentiation 4) T Helper Cells
CDU	Central Dispensing Unit
CEGAA	Centre for Economic Governance and AIDS in Africa
CEO	Chief Executive Officer
CHC	Community Health Center
CLI	Clinic-Laboratory Interface
COO	Chief Operating Officer
COP	Country Operational Plan
DCST	District Clinical Specialist Team
DHMT	District Health Management Team
DIP	District Implementation Plan
DoH	Department of Health
DQI	Data Quality Index
DSD	Direct Service Delivery
DSP	District Support Partner
EID	Early Infant Diagnosis
ETR	Electronic TB Register
EWI	Early Warning Indicator
FBO	Faith-Based Organization
GBV	Gender Based Violence
GIS	Geographic Information Systems
GoSA	Government of South Africa
HAST	HIV/AIDS, STIs and TB
HIS	Health Information Systems
HIV	Human Immunodeficiency Virus
HR	Human Resources
HSS	Health Systems Strengthening
HTC	HIV Testing and Counselling
HTS	HIV Testing Services
IEC	Information, Education, and Communication material
IPT	Isoniazid Preventive Therapy
ISHP	Integrated School Health Program
LOE	Level Of Effort
LTFU	Lost To Follow-Up
M&E	Monitoring and Evaluation

MDO	Missed Diagnostic Opportunity
MEL	Monitoring, Evaluating and Learning
MSM	Men who have Sex with Men
NAS	National Adherence Strategy
NDoH	National Department of Health
NGO	Non-Governmental Organization
NHLS	National Health Laboratory Service
NIMART	Nurse Initiated Management of Antiretroviral Treatment
NSP	National Strategic Plan for HIV, TB, and Sexually Transmitted Infections (STI), 2017-2022
PEPFAR	The President's Emergency Fund for AIDS Relief
PHC	Primary Healthcare Clinic
PICT	Provider Initiated Counselling and Testing
PIP	Provincial Implementation Plan
PLHIV	People Living with HIV
PMTCT	Prevention of Mother to Child Transmission of HIV
PPL	PEPFAR Provincial Liaison
PrEP	Pre-Exposure Prophylaxis
QI/QA	Quality Improvement/Quality Assurance
QMEC	Quality Management for Epidemic Control
RTC	Regional Training Centre
RTQII	Rapid (HIV) Test Quality Improvement Initiative
SA	South Africa
SANAC	South African National AIDS Council
SFLA	Spaced Fast Lane Appointment
SI	Strategic Information
SID	Sustainability Index and Dashboard
SIMS	Site Improvement through Monitoring System
SOP	Standard Operating Procedure
SPI-RT	Stepwise Process for Improvement of Rapid (HIV) Testing
STI	Sexually Transmitted Infection
SVS	Stock Visibility Solutions
TA	Technical Assistance
TB	Tuberculosis
TIER.Net	Three Interlinked Electronic Registers (DoH HIV patient database)
ToC	Theory of Change
TRAP	Treatment Retention Acceleration Plan
TROA	Total Remaining On ART
UID	Unique Identifier
UNAIDS	Joint United Nations Program on HIV/AIDS
USAID	United States Agency for International Development
UTT	Universal Test and Treat
VL	Viral Load
WBOT	Ward Based Outreach Team
WHO	World Health Organization

Section 3: Executive Summary

In response to the Request for Applications No:72067418RFA00001 (RFA) *APACE - Accelerating Program Achievements to Control the Epidemic in South Africa*, the Anova Health Institute (Anova) proposes an ambitious, achievable, target-driven program aligned with PEPFAR's strategy to support South Africa's National Strategic Plan 2017-2022 goals and the UNAIDS 90-90-90 targets. The goals of Anova's program will accelerate and sustain epidemic control in three provinces of South Africa: **Gauteng, Limpopo and Western Cape**. Anova will reach saturation in these provinces by 2020 and sustain this success through 2023, striving to reach attainment. To achieve this, Anova will identify 580,000 PLHIV who are HIV-positive, and not-in-care, through HIV testing services and community mobilization, and initiate 520,000 on antiretroviral treatment (ART). In the six high-burden districts in these three provinces, with a combined population of 15.7million, we estimate that 1.6million are HIV positive and only 63% will be on ART at the beginning of the grant period. Our proposed program will **result in: 1.5 million PLHIV knowing their status, 1.4 million on ART and 1.3 million retained and virally suppressed by 2023.**

Anova is uniquely positioned to fulfill the goal of this grant. Our strategic visioning and leadership has enabled us to develop, coordinate and engage a world-class team of managers, technical specialists, and implementers. Our robust financial, grants and administrative systems are fine-tuned to support complex, multi-layered projects involving partnerships at a range of levels. Our data team has evolved and developed sophisticated systems to enable real-time analysis and reporting, which facilitates rapid operational adjustments. Building on our current expertise and proven track-record, the proposed program will be data-driven, focused and cost-efficient. All of these components make it possible for Anova to deliver outstanding results by rapidly scaling-up quality activities in targeted geographic areas, based on need.

Anova has an excellent track record in expanding and implementing quality programs, particularly at the primary care level and in the community, and has extensive networks at district and tertiary levels to fulfil the goals required by this grant. Over the past five years, Anova has managed large-scale comprehensive programs which tested 3.3million people for HIV, found 340,000 HIV-positive people and initiated 250,000 on ART. In support of the UNAIDS 90-90-90 targets, in rural Mopani, Anova moved the district from 51-47-40 to 74-80-76. Similarly, in the City of Johannesburg (regions CDEG) we moved the district from 21-21-18 to 53-59-58 through our data-driven, geographically focused strategy. Through real-time monitoring, these gains were made by aligning services, and programmatic course corrections, in partnership with the Departments of Health and community stakeholders.

The Anova's **goal** for the APACE proposal is to achieve epidemic control in all three provinces over the five years of the grant, employing an efficient, comprehensive, cost-effective intervention package to reduce morbidity and mortality associated with HIV and tuberculosis (TB). The interventions we propose build on Anova's strengths and experience as an established and successful PEPFAR partner, and capitalize on the success of the comprehensive HIV support that Anova staff has provided in South Africa since 2001.

Anova's **technical program** is patient-centered and data-driven and tailors our response to different rural and urban contexts. The targeted interventions fully address the four components outlined in the RFA **along the continuum of care across service sectors** at community, site (public and private) and above-site level to achieve epidemic control. Using robust diagnostic tools, we have identified priority groups missing from HIV treatment services at specific sites in each of our high-burden districts. These include men, adolescents and children.

Through our focused **community** mobilization strategy, we will identify 580,000 PLHIV with either undiagnosed infection (through HTS) or known HIV-positive status not-in-care,

and link them to ART initiation. We will support South Africa's combination prevention strategies including PrEP. Based on our program analytics we will select **evidence-informed interventions** from our intervention toolkits to rapidly improve and expand clinical and non-clinical differentiated, sustainable **HIV and TB care and treatment services**. These interventions will be delivered with fidelity, and through a combination of Technical Assistance and Direct Service Delivery. Analyzing progress through our Quality Management for Epidemic Control Program and M&E data management systems, we will track outputs and outcomes and redirect activities accordingly.

We will provide **above-site** health systems strengthening support at **District and Provincial** levels to overcome program barriers. Anova's specialist staff will contribute to **National** policies and guidelines through participation in expert Technical Working Groups, and advise on data analysis and utilization.

Anova has a well-established technical, financial, and operational infrastructure. The program will be centrally led by **Chief of Party, Dr Helen Struthers**, and who has 25 years' managerial experience, including large USAID-funded programs. The **Anova APACE Management Committee** will provide strategic direction and oversight to ensure the program achieves its goal. Chaired by the Chief of Party, this Committee comprises APACE Key Personnel and Provincial Managers, and Anova's CEO, Chief Finance Officer, and Human Resources Executive Manager. The Committee oversees program operations, reviews progress towards targets, diagnoses problems, and realigns interventions for maximum efficiency. Our **Technical Advisory Panel**, chaired by **Prof. James McIntyre**, comprising in-house and external subject specialists will advise on strategic and implementation challenges. Anova's **Data Analytics and Management Team** will provide real-time reporting, in-depth analyses, and progress reports to facilitate evidence-informed decision making. At **Provincial level**, Program Managers will liaise with Departments of Health to align our program to local needs. In **Districts**, our multi-disciplinary District Teams, comprising medical doctors, specialist nurses, and data quality advisors, will support DoH through technical assistance, direct service delivery, and focused surge interventions at site-level. Our Community Partners will mobilize and engage link to services those most-in-need and priority groups.

Partners have been strategically chosen to implement key program elements, enable rapid program scale-up and to fill niche areas. For **community services**, we will partner with HIVSA, Hospice Palliative Care Association and CHoiCe Trust, who are all well-respected and established in our proposed Provinces. Anova's APACE Community Services Lead will oversee Community Partner program delivery. These Partners will provide community-based HIV Testing Services and linkage to care, coordinate and support other CBOs to improve their yield and focus in HIV Testing Services, and train community health workers. Our niche marketing partner, [dot]GOOD, will continue to deliver Score4Life HIV services for our male priority group. Our **Implementing Partner**, Right to Care, is a well-established PEPFAR partner which will provide support in all Tshwane District facilities in collaboration with Anova and community Partners. Right to Care will also provide specialist technical support for Advanced Clinical Care and supply chain logistics across our program. Singizi Consulting Africa will undertake external evaluations and program impact assessments.

Anova's approach to sustainability involves government stakeholders from inception through planning, implementation and review to promote country ownership and local capacity building. This approach will be adopted throughout the APACE grant period to enable eventual program hand-over and sustainability.

To support, achieve and sustain epidemic control in these three provinces, Anova is requesting \$226 million over five years.

Section 4: Technical Understanding and Proposed Program

4.1. Anova's proposed program

Anova Health Institute (Anova) strives to attain HIV epidemic control, through an accelerated response, building on and expanding comprehensive sustainable **clinical and non-clinical differentiated** HIV and TB care and treatment services, aligned to PEPFAR strategy, UNAIDS 90-90-90 targets and Government of South Africa's (GoSA) National Strategic Plan for HIV, TB, and Sexually Transmitted Infections (STI), 2017-2022 (NSP). Anova's management science approach (Section 5) ensures the desired outputs, outcomes and results are achieved based on our Theory of Change (ToC).

We propose to achieve epidemic control in six high HIV and TB burden districts in three provinces of South Africa (SA): **Gauteng** (Johannesburg, Sedibeng, Tshwane), **Limpopo** (Capricorn, Mopani) and **Western Cape** (Cape Town), with a combined population of 15.7million of which 1.63million are PLHIV. By the end of COP17, an estimated 63% of PLHIV will be on antiretroviral treatment (ART) which means 437,000 individuals will need to be initiated to reach the 90-90-90 targets by 2020. Given the high TB and HIV co-infection rates in SA, all TB patients will be tested for HIV, and all HIV patients screened for TB.

Despite the considerable growth of South Africa's ART program, saturation or attainment has yet to be reached in many areas. Anova will scale-up activities to reach **saturation** ($\geq 81\%$ ART coverage for the PLHIV population overall) in all districts by 2020 (end of Year 2), consolidating gains and service improvement and then closing the remaining gaps to reach full **attainment** ($\geq 81\%$ coverage among both males and females in each age band <15 , $15-24$ and ≥ 25 years) by 2023 (Year 5). Our analysis of these three provinces has identified three groups to be prioritized to reach attainment: **men, adolescents and children**.

4.2. Anova's data-driven approach to achieve epidemic control

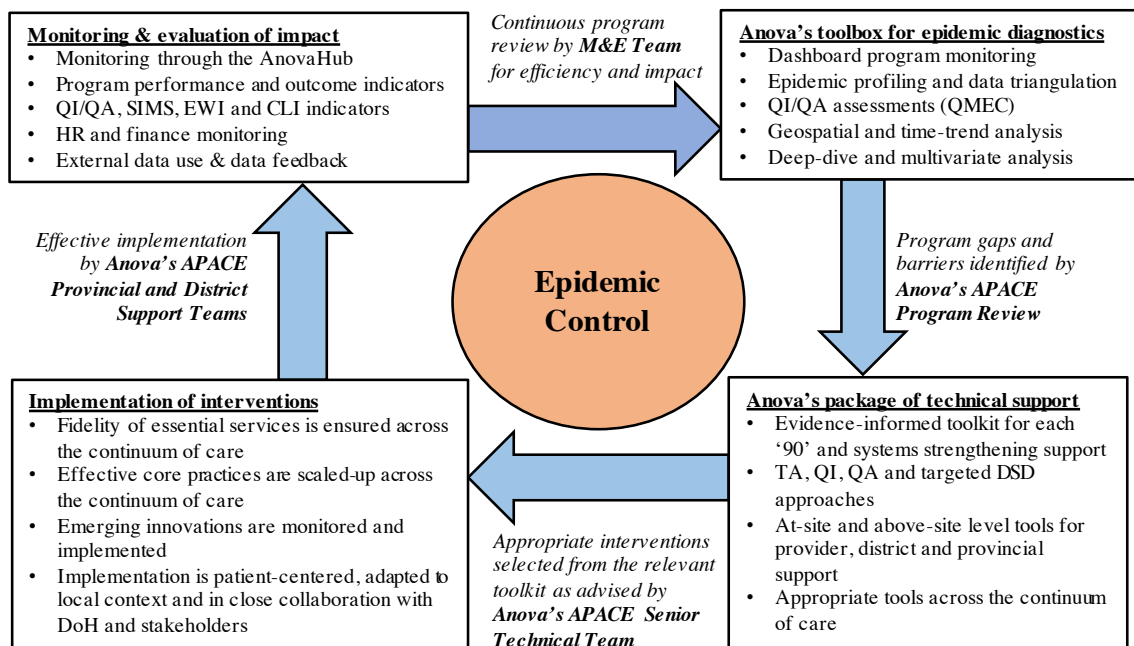
Anova will use a **data-driven, patient-centered approach**, using **evidence-informed interventions** along the continuum of care across service sectors i.e. community, public (PHC and hospitals) and private. Above-site level support at district, provincial and national levels will unblock system barriers to create an optimal enabling environment. As the lead provincial partner, Anova will work closely with the Department of Health (DoH), partners, civil society, faith-based organizations (FBO) and other stakeholders, coordinating and supporting USAID/SA and PEPFAR-funded activities.

Anova's **APACE Management Committee** (Section 5.1) will direct our epidemic control operations to do the right things, in the right places, in the most cost-effective way, ensuring that all program goals are met, in close collaboration with USAID's local Epidemic Control team, the DoH and other stakeholders. Anova's **quality management for epidemic control (QMEC)** program integrates root cause diagnostic information with Quality Improvement/Quality Assurance (QI/QA) approaches to achieve cost-effective program change. Anova uses **diagnostic tools** to target activities by identifying priority populations (e.g. age and gender), poorly performing facilities, geographic areas with a large program gap, QI/QA issues at site and above-site level and through deep-dive analysis of individual factors associated with specific program outcomes (Figure 4.1), these tools include Site Improvement through Monitoring System (SIMS), and Early Warning Indicators (EWI).

Based on our diagnostic assessment we will implement the most appropriate activities from our core package of **evidence-informed interventions** across service sectors at site-level and above-site level. Building on the foundation of existing structures and resources, and closely monitoring all aspects of program performance on a weekly basis, we will adjust operations based on real-time data and through rapid identification of newly emerging gaps and barriers. We will use specific intervention toolkits for each of the UNAIDS 90s as well as district and national health systems strengthening (HSS) support (Sections 4.3-4.5). We will balance targeted Direct Service Delivery (DSD) with technical assistance (TA), and QI/QA

approaches in the state sector; and use a roving team (part-time assistance), surge support (fix-and-go) or temporary human resources (HR) provision (full-time). File audits and site-assessments ensure that basic essential practices are scaled with fidelity in appropriate settings. Evidence-informed core practices will be refined, adapted to the local context, and taken to scale. Where specific gaps and barriers cannot be addressed with these approaches and in the absence of known optimal strategies, we will implement emerging innovations. We will work with our Partners and existing community and facility structures and leverage off existing private sector models to support private sector HIV treatment interventions.

Figure 4.1: Anova’s data-driven approach to achieve epidemic control



4.3. Component 1: Preventing new HIV infections and reducing HIV morbidity and mortality through an improved and sustained HIV and TB Continuum of Care

4.3.1. Result 1: Increase the proportion of PLHIV who know their status

We will focus on diagnosing HIV infection among PLHIV who are unaware of their status, and identifying PLHIV who know their status but are not-in-care, through intense community mobilization. Working with USAID-funded community projects (CaSIPO and CBCT), we will integrate these testing activities and lessons learnt into this grant to ensure continuity of service. With community partners, we will address four underlying barriers: lack of efficient community testing strategies, missed diagnostic opportunities (MDO) by providers across service sectors, poor access to HTS and limited availability of differentiated HTS. Anova’s HTS toolkit combines epidemic diagnostics with health system and community assessments to identify the most appropriate activities to close the gap. We will optimize with fidelity essential **high-quality testing services** (including TB screening) for the general population, and scale-up proven effective core services to reach priority populations detailed in Table 4.1.

Anova will scale-up implementation of HTS and pre-ART modules on Three Interlinked Electronic Registers (TIER.Net) across service sectors, especially to hospitals, communities and the private sector, to ensure linkage and in-depth understanding of testing patterns. Anova will ensure fidelity of HTS aligned to the national testing algorithm and strategy, including pre- and post-test counseling and linkage to rapid (same-day) ART initiation. We will expand use of the Stepwise Process for Improvement of Rapid Testing (SPI-RT) audit tool to cover all sites offering HTS, monitor site-specific Rapid (HIV) Test Quality

Improvement Initiative (RTQII) scores and address sub-optimal practices (<=level 3) with QI interventions. Guided by program and site assessments, we will address any emerging HIV testing and self-screening kit stock control issues, including investigating simple mobile phone-based reporting systems.

Table 4.1: Anova’s evidence-informed HTS toolkit for epidemic control

Target population	Barrier through health systems assessment	Toolkit of evidence-informed activities to close program gap	
Ensure fidelity of essential services across service sectors at scale			
General population including men, AGYW and children	Lack of efficient testing strategies in the community. (e.g. in CBOs and WBOTs)	Guide CBOs to redirect operational focus to HIV high prevalence populations and geographic areas; incorporate TB screening Institute quality HTS at non-traditional sites (e.g. FBO, traditional healers, sports events)	
	Missed diagnostic opportunity for people visiting PHC facilities	Entrench ‘PICT for all’ by triaging at all entry points followed by HTS. Specific emphasis on pregnant women and priority populations and including TB screening Identify targets for index-testing through (e.g. siblings, male partners)	
	Missed diagnostic opportunity for people visiting hospitals	Ensure full patient coverage of PICT at all priority entry points of the hospital, including medical outpatients, medical wards, TB services and Early Infant Diagnosis (EID)	
	Missed diagnostic opportunity for people in private healthcare	Enable contracting of private practitioners to conduct HTS and link to care Provide academic detailing to practitioners on the importance of HTS and self-screening	
Scale up effective core practices for priority groups			
Men	Limited access to HTS; at work during the day	Extend workplace testing (e.g. large factories, farms) Negotiate extended operating hours at facilities Support GoSA implementation of HIV self-screening	
		Limited availability of male differentiated HTS	Expand out-of-facility male HTS (Anova’s Score4Life model; male HIV services) Institutionalize male-friendly HTS at all sites Provide community-based HTS at male-specific venues (e.g. sports ground)
			Adolescent girls and young women (AGYW)
	Limited availability of adolescent differentiated HTS	Entrench AGYW HTS through capacity building at all sites Pilot HIV Self-screening for AGYW and their partners	
Missed diagnostic opportunity in existing programs	Strengthen HTS at GBV care centers, reproductive health services and school health programs		
Children	Limited availability of child differentiated HTS	Facilitate increased coverage of pediatric HTS through capacity building Mobilize children for HTS through index-testing (e.g. through siblings)	
	Missed diagnostic opportunity	Increase testing at EPI and IMCI (including nutrition programs)	

4.3.2. Result 2: Increase the proportion of PLHIV who are on treatment

Anova has an evidence-informed toolkit containing effective medical and non-medical interventions which we will tailor to local needs to increase ART initiation and retention in Provinces (Table 4.2). GoSA has adopted Universal Test and Treat (UTT) and rapid (same-day) ART initiation, but a considerable program gap of PLHIV not on ART remains (up to 45% in some provinces). Strong **linkage to care** is essential to bridge the gap between diagnosis or identification and treatment. Anova will use linkage officers and data systems to ensure >90% ART initiation. Through demand creation and age- and gender-differentiated services we will increase access to care and use **non-traditional modalities** for groups that struggle to access routine state services, e.g. ART provision in mobile units, out-of-facility settings and private sector. **Retention in care** is a priority to achieve epidemic control but is undermined by poor adherence, sub-standard care and weak systems to intervene with people at risk. Up to 25% of PLHIV are lost to the ART program at any point in time. We will concentrate on retention in the first year of ART, when 80% of total program loss occurs.

To improve the current **levels of adherence** (<70% of patients are fully adherent), Anova and our community partners will use a multidisciplinary team of counselors and social workers with active referral pathways to psychologists and psychiatrists. Intensive support will be provided to people who are at high risk of defaulting through Anova’s **‘First 100 days of ART’ program**. Anova will scale-up decanting and Central Chronic Medicine Distribution Dispensing (CCMDD) based on comprehensive assessments, as <50% of eligible patients have been decanted. We will ensure the most appropriate models are implemented in communities, facilities and in the private sector. These include adherence clubs, Spaced Fast Lane Appointment (SFLA) and external pick-up points, e.g. at pharmacies and GPs. **Demand creation** through Information, Education, and Communication (IEC) materials, media

campaigns, and age and gender-specific modalities (e.g. male adherence clubs) will be established as needed. Monitoring and Evaluation (M&E) and implementation of drug delivery systems, including TIER.Net, Pharmacy Direct and electronic scripting, will be strengthened as our QMEC assessments have identified gaps in these supporting structures.

Table 4.2: Anova’s toolkit to ensure that all PLHIV are on ART across service sectors

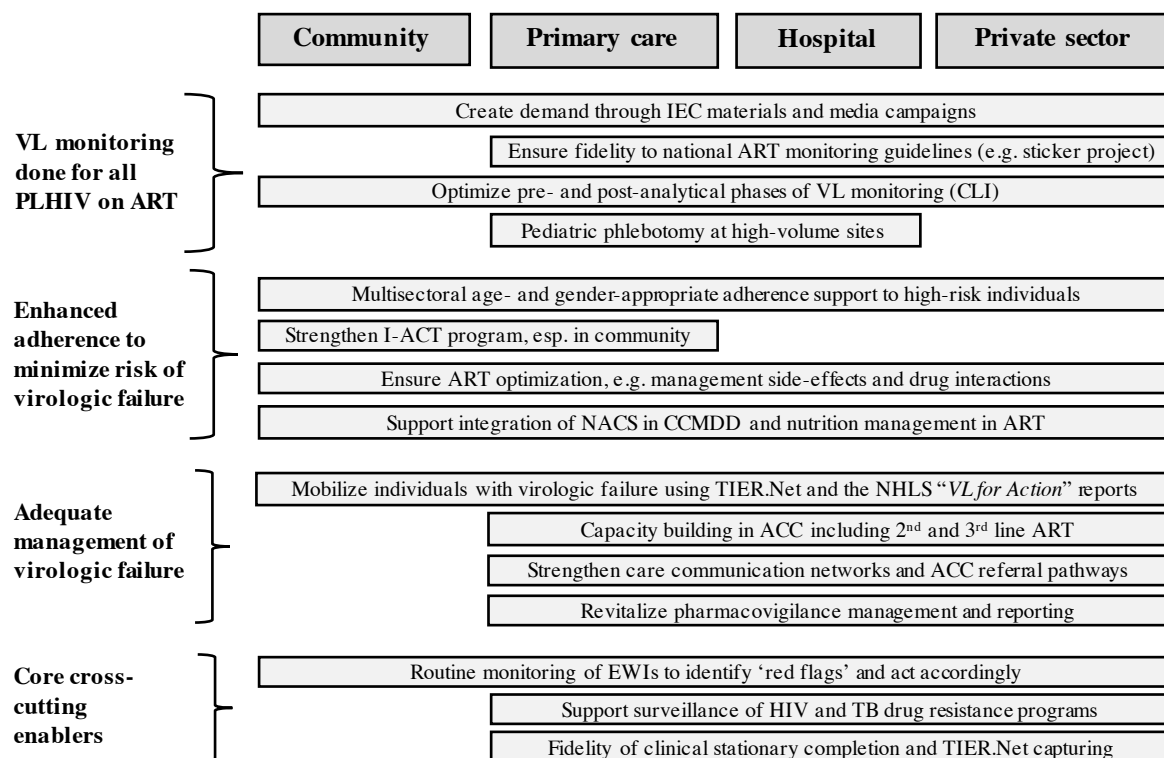
Objective	Intervention
All PLHIV are initiated on ART	
Ensure that all PLHIV are linked to care	<ul style="list-style-type: none"> Place linkage officers at selected high-volume facilities and within CBOs as patient navigators Scale-up TIER.Net HCT and pre-ART module implementation across service sectors Generate TIER.Net lists of PLHIV with ‘unconfirmed linkage’ and use linkage officers, CBOs and WBOTs to trace these patients
Ensure that all PLHIV can access HIV care	<ul style="list-style-type: none"> Mobilize demand for ART through CBOs, CSOs, FBOs and WBOTs Strengthen coverage of age- and gender-differentiated services Improve patient gateways to care through strong bidirectional referral systems Contract private sector providers for ART initiation Scale-up non-traditional ART delivery models
All PLHIV are retained in care	
Targeted enhanced adherence support to prevent treatment default	<ul style="list-style-type: none"> Provide adherence support to those at risk during the ‘First 100 days’ Promote age/gender-appropriate multi-disciplinary adherence Strengthen I-ACT program for ART initiators (esp. in community) Scale-up the National Adherence Strategy through CCMDD Support integration of NACS into adherence clubs and other modalities
Improved quality of care and optimized ART	<ul style="list-style-type: none"> Support fidelity of same-day ART initiation and universal uptake of ART Entrench high quality of services through general clinical care and ACC service package Ensure integrated clinical services to specific populations, e.g. pregnant women and newborns Strengthen referral and communication pathways within state and between state and private care
Utilize data for early interventions	<ul style="list-style-type: none"> Improve fidelity of use of clinical stationary to identify individuals failing ART & at risk of loss to program Ensure fidelity of TIER.Net ART capturing to identify individuals with early and late missed appointments Utilize data to direct linkage officers and WBOTs to trace PLHIV with missed appointments

Provision of high-quality HIV care, with fidelity, to **basic and Advanced Clinical Care (ACC) guidelines** is essential to reduce side-effects, morbidity and treatment failure. We will improve provision of TB, STI and cryptococcal screening, cotrimoxazole prophylaxis, Isoniazid Preventive Therapy (IPT), and appropriate clinical and laboratory monitoring of ART, followed by a switch to 2nd/3rd line if indicated. Anova’s roving technical teams will conduct file audits to identify quality gaps in service provision (found in 40% of patients) and address these through TA, QI and QA approaches. We will ensure that integrated services for specific populations are available (e.g. Antenatal Care (ANC), Maternal and Child Health, reproductive health and transitioning to adult care) and will support roll-out of novel treatment approaches as directed by DoH policy (e.g. dolutegravir). Data for early intervention is critical, as any missed or late appointment or pickup of medication is an important indicator of **risk of being lost to the program**. TIER.Net lists of early- and late-missed ART appointments and ART defaulters will be used for tracing by linkage officers, Community Based Organizations (CBO) and Ward Based Outreach Teams (WBOT).

4.3.3. Result 3: Increase the proportion of PLHIV who are virally suppressed.

Viral suppression is essential to maintain health and interrupt HIV transmission. Regular viral load (VL) monitoring identifies virologic failure early but is only done in line with the guidelines in 60% of patients; currently only 20% with virologic failure are switched to 2nd/3rd line. We will improve VL suppression by using locally appropriate interventions from our toolkit addressing patient- and provider-related factors (Figure 4.2). Anova’s technical teams will conduct **file audits and site assessments** to optimize implementation of the VL monitoring guidelines and to address specific issues, including strengthening the Clinic Lab Interface (CLI) to improve pre- and post-analytical phases (e.g. reduce specimen rejection rates) and VL documentation. Pediatric phlebotomy is a challenge (<70% of children on ART have blood drawn) that we will address through TA and targeted DSD at sites.

Figure 4.2: Anova’s toolkit to achieve viral suppression in all individuals on ART



Anova will **address the 80% backlog** in clinical management of patients with virologic failure (identified through National Health Laboratory System (NHLS) “VL for Action” reports and TIER.Net data) through targeted DSD and building capacity for management of complex HIV cases following ACC guidelines, especially the switch to 2nd/3rd line regimens. Our partner Right to Care is at the forefront of ACC and will address communication (e.g. 24-hour helpline), referral pathways along the continuum of care and across service sectors, and service provision infrastructure for 3rd line treatment using the National 3rd line advisory mechanism. **HIV drug-resistance** levels for the first-line ART regimen are relatively low, (currently <5% in South Africa), but emergence of resistance poses a serious threat to program success. We will expand the EWI program across service sectors to optimize prevention and link with the HIV-Drug Resistance testing strategies of the NHLS. Local surveillance of HIV and TB drug-resistance will be supported if and when required.

4.4. Component 2: Strengthening District Health Systems in support of the HIV and TB Continuum of Care

Anova will work with the DoH District Health Management Teams (DHMT) to remove system barriers and ensure an optimal enabling environment to achieve epidemic control. We will draw on our district health systems toolkit (Figure 4.3) to tailor support, guided by the NSP, WHO HSS building blocks and the SA COP18 above-site level activities. Anova will use existing diagnostic tools (e.g. facility SIMS, EWI, Ideal Clinic assessment) and develop a new district-level SIMS tool to identify and close program gaps.

CBO and private sector contracting by DoH is an important component of the HIV/TB continuum of care. Anova will assist in identifying providers, establishing performance management systems, target-based budgeting, and linking outputs into DoH data systems.

DoH’s health information systems are not interoperable. Anova’s M&E TA Team, through establishment of Technical Working Groups, will work with DoH HIV/AIDS, STI and TB (HAST) teams to implement essential data systems (e.g. all modules in TIER.Net) at all sites, link data systems across service sectors such as TIER.Net and eHealth (including Unique Identifier (UID)), and hone data quality initiatives. A seconded technical advisory

team (including a public health analyst) will ensure data availability, analysis and utilization for management, planning and budgeting.

Figure 4.3: Anova’s toolkit for district health systems support in each building block

Service delivery including QI support	<ul style="list-style-type: none"> • Implement QI/QA with the HAST directorate based on QMEC assessment • Optimize referral pathways within state health sector and between health sectors • Support NHI preparedness if and when requested
Health workforce management	<ul style="list-style-type: none"> • Improve WISN implementation and use for staff allocation and training planning • Assist in identification, target-based budgeting, contracting and management of CBOs and private sector providers
Health information systems	<ul style="list-style-type: none"> • Establish district technical working groups and implement data quality assurance initiatives • Second public health analyst to perform data analytics and increase utilization by HAST directorate • Link and integrate data systems across continuum of care, including use of unique identifier
Access to essential medication	<ul style="list-style-type: none"> • Ensure 100% functionality of SVS and RxSolutions use and reporting • Support implementation of (new) district supply management systems • Revitalize Pharmacy and Therapeutics committee
District planning and financing	<ul style="list-style-type: none"> • DSD and TA support to DIP and DHP planning, target setting and review meetings • Strengthen budgeting and budget execution (e.g. for Ideal clinic resources)
Leadership and governance	<ul style="list-style-type: none"> • Ad-hoc support to DHMO and HAST Management when required • Collaborative design and implement district SIMS • Provide targeted need-based support to Ideal Facility implementation

Uninterrupted **access to HIV tests and drugs** is essential for high quality program implementation. Anova will work with District pharmacists and supply chain directors to identify gaps in supply chain management, ensure that SVS and Rx Solutions are functional, address current connectivity issues (e.g. up to 20% Limpopo facilities are affected), and support the roll-out of new systems (e.g. Intenda Solution Suite, Visibility & Analytics Network Dashboards). District Pharmaceutical and Therapeutic committees and pharmacovigilance systems are weak and will be revitalized.

Anova is at the forefront of **supporting the District Health Plan and (multisectoral) District Implementation Plan (DIP)** planning, implementation and review. We will strengthen the review and feedback components as there continues to be limited accountability around actions. With CEGAA (Centre for Economic Governance and AIDS in Africa), we will assist with aligning budgets and workforce planning to activities.

4.5. Component 4: Strengthening National Health Systems in support of the HIV and TB Continuum of Care

Anova contributes to HIV epidemic control in SA by providing specialist advice and human resources **support to National Department of Health (NDoH)** to strengthen leadership, management structures and systems. Anova’s technical specialists will contribute to **policy and guideline development**, defining the delivery of HIV and TB standards of care. Anova and our partners have been central to clinical and non-clinical expert committees including TIER.Net implementation, Pre-Exposure Prophylaxis (PrEP), Prevention of Mother to Child Transmission of HIV (PMTCT), Pediatric ART, STI, and National Adherence Strategy (NAS). We will continue to drive key programs towards sustainable epidemic control. Anova has been very active in disseminating program successes in National ‘Best Practice’ meetings and sharing knowledge and experience on appropriate platforms and will ensure continued participation. Anova contributes to National implementation research agendas and will test innovations through **operational research** as guided by NDoH. Anova’s Data Management and Analytic Division will **support data analysis and data utilization** across the program, using our robust toolkit. We will raise emerging issues with the appropriate managers at NDoH and provide targeted support to the **Ideal Clinic roll-out**.

Section 5: Management Approach

5.1. Management and Administrative Structure

Anova's **APACE Program** will be led and managed by our administrative, technical and operational teams, based at Anova's head office in Johannesburg. It will be overseen by the CEO, Prof James McIntyre, and led by the Chief of Party, Dr. Helen Struthers. Anova has extensive experience working on large public health endeavors, and has developed an efficient and effective management structure for managing complex donor-funded projects (see Institutional Capability Statement (Section 6, Page 20) and Annex E).

Anova will adopt a **prime/sub-awardee structure** for this award. Anova has vast experience managing large grants with numerous partners, and has robust mechanisms to monitor progress and communicate with all stakeholders. Partners will be formally contracted with clear duties, budgets, targets, deliverables and timelines. Anova's Provincial and District Managers will be similarly contracted.

The **Anova APACE Management Committee** comprising the CEO, key personnel and senior management, will provide strategic direction and oversight of the full program. It will be chaired by the Chief of Party and meet monthly to review administrative, operational and technical reports. Representatives from our **administration division**, including our Chief Finance Officer, Executive Human Resources Manager and Senior Grants Manager, will report on effective allocation and management of all resources. The **M&E, Operational and Provincial Managers** will present progress against targets, highlight successes, gaps and challenges, present solutions and raise any risks that may need escalation. The Committee will review, strategize and realign program elements towards meeting targets. On request, district managers and partners will attend to discuss the progress of work plan implementation. If there is a shortfall, remedial plans will be invoked immediately to ensure shortfalls are made up in the next month. Provincial Managers will formally communicate action items to partners and district managers for implementation.

Anova's **APACE Senior Technical Team**, comprising key personnel, will meet weekly to review program reports from the **Data Analytics and Management Division**. The team will support program implementation, providing technical advice and guidance to district teams, and escalating concerns to the Management Committee and USAID/SA if required. The team will use site-level data to rank facilities and community activities, guiding district teams on allocating resources to high disease burden geographic areas and population groups.

All partners and District Managers will attend a quarterly **APACE Program Review Meeting** to review progress against all targets, discuss and resolve challenges, and ensure that Anova teams and partners align activities for maximum impact. The results of the review meeting will be reported to the quarterly USAID Joint Partner Planning Meeting (JPPM).

Both the management committee and the province based teams will be supported by a **Technical Advisory Panel**, chaired by Prof McIntyre, comprising a diverse range of well-respected internal and external technical experts, covering the full spectrum of program areas. Internal experts include Anova's experienced program leads in adult care & treatment, PMTCT, pediatric and adolescent care and treatment, strategic information (SI) and supply chain systems. External experts will be incorporated as needed. The role of the advisory team will be to provide high level TA and strategic direction in various program areas and guidance to Anova as required; including providing advice on new guidelines and policies.

At Provincial level, to facilitate engagement with DoH and other stakeholders, Anova liaison officers will work alongside provincial, district, sub-district Health Management Teams and the PEPFAR Provincial Liaison (PPL), building on our existing relationships with District and Provincial DoH management. **Quarterly Provincial Review meetings** will be held with Provincial and District DoH, Anova's Provincial and District Managers, Partners, other NGOs, and technical specialists. The meeting will review target progress reports, agree

DoH priorities and activities for the next quarter, and address alignment to government objectives, challenges, and ensuring complementary rather than duplicated services.

Escalation Plan: Escalation levels will be set and automated in the AnovaHub to alert program management if sites or activities are not reaching output and outcome targets. This early-warning system ensures that program managers can easily adjust implementation strategies. Should the corrective measures not be sufficient, further escalation to Executive Management and the funders will be invoked. Knowledge gaps will be explored through project evaluations, weekly meetings with multiple stakeholders, monthly project implementation review meetings, learning network meetings (Schools of Public Health, other District Support Partners (DSP), technical experts) and by using analytics from routine monitoring data.

5.2. Staffing Plan and Key Personnel

Anova staff allocated to this project have vast experience in leading and managing donor-funded HIV programs, including those supported by PEPFAR. The project will be led by the Chief of Party, and managed by the APACE Management Committee. Key and critical project personnel are briefly described below. (Annex F: **CVs and Letters of Commitment**)

The **Chief of Party**, Dr. Helen Struthers (MSc, MBA, PhD), is Anova's Chief Operating Officer with 25 years' management experience. She has 15 years' experience designing, implementing, leading and managing large USAID-funded HIV programs, giving her excellent knowledge of US Government's financial and procurement requirements. She has provided sound financial, administrative and operations strategic direction to projects of \$90million over 5 years, and has ultimate responsibility for over 700 staff. She has a nuanced understanding of the challenges and potentials involved in management and control of the epidemic, and the critical need to contribute to building evidence-based decision-making at every level of the health system. Dr Struthers has a robust, in-depth knowledge of the critical linkage points between communities, facilities, district, and provincial structures, for delivery of the 90-90-90 targets. Her successful engagement with relevant stakeholders, together with effective management of a large implementing team, resulted in Anova achieving their targets in a cost-efficient manner. She will provide 60% level of effort (LOE) to APACE.

The complex APACE program requires an executive Operations Manager who is a respected public health medical manager with excellent relationships with GoSA. The Operations Manager will be supported by highly experienced finance, business and administrative teams. Anova's Executive Program Manager: Public Health will act as the **Operations Manager** and be responsible for the day-to-day operations of APACE program. Dr. Moyahabo Mabitsi (MBChB, Dip HIV Man (SA), DTM&H) has a deep understanding of the public health system and the requirements for good clinical governance from her 8 years' experience covering capacity building for DoH clinicians, provision of TA to sub-district and District-level DoH management, as well as direct implementation of TB/HIV/PMTCT policies at PHC-level. Dr Mabitsi's experience over the last 5 years has also involved close oversight of the financial, operational, administrative and procurement aspects of the Johannesburg District portion of Anova's PEPFAR-funded project program (valued at \$6,2million annually). Dr Mabitsi will provide 80% LOE to the APACE program, ensuring implementation of Anova's work plans and required deliverables.

Professor Remco Peters (MD, PhD, DLSHTM, Dip HIV Man (SA)), Anova's **HIV Care and Treatment Services Lead**, is an expert clinician in HIV Medicine, epidemiologist and researcher in the field of HIV, STI and TB. For the last 15 years, he has worked in various resource-limited setting across Africa and has managed projects of up to 100 staff members. He currently heads Anova's core technical teams of experts in clinical governance, epidemic evaluation and research. Since 2008 he has designed, implemented and managed increasingly complex PEPFAR-funded HIV programs, expanding his responsibilities from a Provincial to

a National portfolio. He works with multiple partners including NDoH senior staff, a network of managers at Provincial, District and Local DoH levels, NGOs, FBOs, NHLs, NICD and academic institutions. He has experience working with private sector providers. This unique experience enables him to provide high-level technical leadership to this program as the **HIV Care and Treatment Services Lead**. Prof Peters will provide 80% LOE to APACE.

Dr Nelis Grobbelaar (MBcCH, MMed) has 15 years' experience in HIV Medicine, working first in the public sector, and from 2012, working as the District manager for Anova's PEPFAR program in the Cape Winelands. In this capacity, Dr Grobbelaar designed, implemented and led innovative District HIV programs involving a range of technical experts. His emphasis has been on strengthening community-based HIV services including adherence clubs and HTS, and using technology to monitor, refer and link patients at all levels. As **HIV Community Services Lead**, he will provide guidance and leadership to Anova's community partners, engage and advise DoH on community strengthening to ensure alignment, and support implementation of effective bi-directional referral services. Dr Grobbelaar will provide 100% LOE to the APACE program.

The **Monitoring and Evaluation Lead**, Mr Theunis Hurter (BSc, MPH) has over 8 years' experience in policy development and program implementation, HSS and M&E within the public health sector in South Africa. Mr Hurter successfully leads and manages Anova's **Data Analytics and Management Division** which comprises monitoring, data and public health experts. As a SI specialist on Anova's PEPFAR team over the past 5 years, he has worked on NDoH's TIER.Net data system implementation team, run the Gauteng Provincial Technical Working Group on SI and advised at National level. Mr Hurter is an expert on data quality and visualization, and is exceptional at translating data into usable forms for management information. He will provide 80% LOE to the APACE program.

Critical staff supporting the Key Personnel, provide further depth and experience, ensuring that Anova has outstanding strategic, technical and operational backstopping:

The **Chief Executive Officer**, Professor James McIntyre (MBCbB, FRCOG), has 30 years' experience in the HIV field and has led USAID grants for 20 years. He serves on national and international high-level bodies, including SANAC's Program Review Committee and was a member of a previous PEPFAR Scientific Advisory Board. He will provide scientific and technical oversight as part of the Management Committee. (LOE 20%)

The **Chief Financial Officer**, Ms. Linda McConnell (CA SA) is a chartered accountant with 18 years' financial management experience. **Senior Grants Manager**, Ms. Prudence Ramantswana (B.Com (Hons), MBA) has 10 years' experience working on USAID and other donor funds. The **Executive HR Manager**, Ms. Nomfuzo Sopam (BA Soc. Sci., Diploma in Management), has 20 years of experience in Human Resources, and 8 years in management, providing sound HR knowledge and expertise and best HR practice.

The **Provincial Managers** are all senior medical doctors, with in-depth HIV care and treatment knowledge and extensive experience in managing district teams. They will provide oversight of province-specific implementation strategies, liaise with the DoH, provide health systems technical guidance, and manage Partners and district teams.

Anova's **District Managers** will provide technical leadership on implementing HIV prevention, care & treatment programs. They will lead and manage multi-disciplinary TA and DSD teams to implement program activities at site level. District-level offices and sub-offices will be set-up for effective program implementation and staff management.

Partners: Anova will strategically partner with local South African organizations, with proven track records, to implement certain key program components. Anova has an existing relationship with all the proposed partners. While Anova bears full responsibility for the successful implementation of the program, partners have been chosen specifically to augment Anova's proposed activities.

Anova has a good relationship with Tshwane District DoH through the Health4Men capacity-building project. **Right to Care** is currently one of two DSPs providing TA in Tshwane. Anova intends to contract Right to Care to provide facility-level support in line with Anova's implementation and monitoring strategies for the district. This partnership will enable smooth transition and uninterrupted services, working closely with community partners. Anova will convene monthly district meetings and provide district-level support.

Anova will partner with three organizations to oversee and implement **community level program** activities; **HIVSA and HPCA** in Gauteng and **CHoiCe Trust** in Limpopo. These organizations have experience in providing capacity building and TA to local DoH-funded and other local CBOs and NGOs. The Community Services Lead will provide strategic direction to our community partners, while the HIV Care & Treatment Lead and the Operations Manager will provide strategic direction to Right to Care. **Singizi Consulting Africa** will provide **external evaluations** and reviews, managed by the Chief of Party.

Anova's APACE Senior Technical Team will guide Partners on efficient use of data to align program implementation and strategies for better patient outcomes. Anova will allocate program targets to Partners and continuously monitor performance via monthly performance reviews, SIMS site assessments and site-level visits. Partner organizations' contribution to the program is discussed in the Provincial and District Approach sections in Annex A. Management of Partner organizations is discussed in the next section.

5.3. Application of Management Science:

Anova applies management science using quantitative tools to plan, monitor and direct internal and external program activities, and inform decision making. Gathering and processing local epidemiological and program data are central to our patient-centered decision making, allowing for geographic and population-based prioritization of efforts and enabling a move from monitoring to management for change.

Program Management: Anova manages programs by coordinating and leading staff and partners responsible for implementation, and managing systems and processes to support effective implementation, and implementing strategies to collect and use accurate and relevant data (see Section 5.4). Critical support systems include finance (accurate and accessible accounting), human resources (right skills in right places), Partners (appropriate capacity and footprint), supplies (correct, sufficient and on time) and logistics (efficient and cost effective). Ongoing oversight of people and processes, with the insights provided by data, enable precise deployment of all resources to program points most in need.

Program Planning: Anova applies management science approaches in program planning to align work plans to the strategic directions and targets in the annual COP. Interventions are based on evidence-informed theories of change, and will be further refined through the use of mechanisms such as critical-path analyses, GANTT chart development and ongoing review. Planning extends to site-level strategies and targets, continuously monitored for outcomes and quality, with the intention to close program gaps and improve equity for all communities. Our primary goal is to ensure delivery of basic interventions with fidelity and scale, but where required new, evidence-informed core interventions, as described in COP18, will be introduced and taken to scale.

Human Resources and Staff Management: Anova's staff performance management system sets key performance areas and indicators for individuals, which are reviewed twice a year, and staff teams' quantitative goals and targets are assessed monthly. The Anova APACE Management Committee will agree on targets, and mechanisms to adapt and refine these, using real time program data to optimize performance, determine personnel allocation and assess costs.

Financial Management: Expenditure analysis and regular comprehensive expenditure reviews ensure that the program budget and implementation plans align with PEPFAR's

programmatic goals to optimize this investment. Triangulating cost and outcome data for site and above-site activities enables Anova to review, adjust, align and strategically allocate activity-based budgets for maximum impact. Cost effectiveness will be assessed to ensure impact as well as sustainability when handed over to local entities.

Partner organizations will be contracted according to program targets and managed and supported to ensure successful delivery. Anova will ensure that Partner work plans align with the APACE PEPFAR-approved work plans, targets and budgets. To achieve this, and to ensure ongoing improvements, Anova will structure frequent partner dialogues. Also, tools such as critical path analysis and goal programming will help to identify timely solutions for complex program issues. Partner performance will be reviewed against monthly targets, and feedback and remedial plans put in place as required.

Government partners: Anova will engage in collaborative planning with GoSA health departments and other stakeholders at all levels. Program data, modeling and cost comparisons will assist in informing the DIP and Provincial Implementation Plan (PIP) processes, the strategic focus for implementation and the type of activities supported by Anova's partnership. Review and use of documented outcomes from local and PEPFAR data sources, including the Sustainability Index and Dashboard 3.0 (SID) and SIMS, will inform above site delivery activities. Quarterly meetings with Provinces will ensure program alignment to government objectives.

5.4. Data Management and Utilization

General structure of data management and utilization: Anova's data-driven approach is operationalized through a strong, robust online repository, **AnovaHub**, an in-house cloud-based data collection, analysis, reporting and archiving system. Multiple sources of data are integrated in this system and used for operational, analytic and reporting purposes. AnovaHub provides real-time visualization of epidemic control status and site performance through time-trend graphs, dashboards and geospatial analysis to pinpoint locations for targeted interventions, and triangulation of programmatic and operational data for in-depth understanding of program effectiveness and efficiency. All Anova program and Partner data will flow into AnovaHub and be analyzed by the Team.

Data Management Team structure: Anova's **Data Analytics and Management Division**, led by Mr Theunis Hurter, comprises four specialist units. The **Data Management and Reporting Team**, led by an M&E manager, consists of database and reporting officers and a database manager responsible for managing AnovaHub, data quality assurance and reporting. The **Strategic Information and Learning Team**, led by a Public Health Specialist, employs public health analysts, epidemiologists, and a health economist, responsible for data analytics and use, evaluation and learning. The **Technical Support Team**, led by the Deputy Program Manager, comprises expert technical advisors providing TA to the Provincial and DHMT, HAST and Health Information Systems (HIS) teams on data quality assurance, analytics and use for decision making. The **District Operational Support Team**, led by an Operational Manager, consists of District-based M&E managers who oversee each District's M&E team.

Data collection, quality assurance, compilation and reporting: Anova's highest priority is managing data under rigorous, quality M&E standards within a world class system (Figure 5.1). In accordance with data use agreements, field teams will **collect** data weekly from all service sites and upload into AnovaHub for quality assurance and integration with other program data sets. The Data Management and Reporting Team will use weekly data reports to direct District M&E teams' actions, and perform monthly data quality assessments on USAID activity indicators in line with USAID's data quality assessment policy (MER 2.0). Full data quality reviews will be conducted at the end of Years 1 and 3. AnovaHub PEPFAR reports will be captured into DATIM quarterly and used for program review.

Figure 5.1. Anova data management and analytics for focused support

Operational M&E Teams	Data Management and Reporting Team	Strategic Information and Learning Team	District Teams	
Data sources <i>(From across the continuum of services)</i>	Data processing	Data outputs	Data use for program monitoring and epidemic control	
Routine data (weekly) <ul style="list-style-type: none"> TIER.Net, ETR.Net, webDHIS, Captured results from paper registers, NHLS dashboards Community data systems 	Data Quality Assurance	Data quality status reports Based on established indicative indicators	QA Operational direction Monitor and direct data quality improvement interventions	
Program implementation data (weekly) <ul style="list-style-type: none"> Facility audit results TA support data DSD support data Training data Process measurement data 		DATIM reporting indicators	Donor reporting Accurate and timeous reporting	
Program management data (live) <ul style="list-style-type: none"> Personnel data Financial and costing data 		AnovaHub Integration and triangulation of data sources	Program/Operational Dashboards <ul style="list-style-type: none"> Progress towards targets Escalation levels Top/bottom performing facilities QI/QA reports (QMEC, SIMS) Program implementation reports 	Direct operational interventions <ul style="list-style-type: none"> Direct operations to areas with the largest gap, worst performing facilities, priority groups and appropriate geographic areas Resolve complex barriers by using in-depth knowledge of the underlying factors Ensure cost-effective and highly efficient operations
QMEC assessments (monthly) <ul style="list-style-type: none"> SIMS, CLI, SP-IRT, EWI scores Anova's assessment tools results 			Real time epidemic control status visualization <ul style="list-style-type: none"> Support impact and cost-effectiveness Deep-dive analysis for in-depth diagnostics Time-trend analysis Geospatial analysis (GIS) 	
Population data (annually) <ul style="list-style-type: none"> Prevalence data, e.g. Thembisa Reports, e.g. Stats SA, HSRC Survey data, e.g. Drug Resistance GIS data Ad-hoc/research data Private sector aggregated data 				

Proactive utilization of PEPFAR data: Anova uses PEPFAR and program data to focus implementation strategies (see Table 5.1). The AnovaHub provides weekly real-time data, visualizations and reports to Provincial and District teams and the APACE Senior Technical Team, to plan, monitor and evaluate. Monthly reports, including deep-dive and multi-variate analyses and district performance scores, are reviewed by the APACE Management Committee. The quarterly APACE Review Meeting analyses PEPFAR DATIM reports and trends for reporting at the USAID JPPM. Table 5.1 shows how data will be utilized for program implementation.

Table 5.1: Use of PEPFAR data

	Weekly	Monthly	Quarterly	Annually
Using data for planning	Use program performance monitoring data to direct staff and resources to poor-performing areas and escalate poor performance to senior management	Utilize deep-dive analyses of data (age and gender breakdowns, and associated factors) to focus service delivery to high impact interventions	Conduct GIS mapping of progress and treatment gaps per ward to focus support in the right areas Assess QMEC measurements/ results to focus QI interventions	Utilize data for strategic planning and annual work planning
Monitoring performance	Program performance monitoring (Progress towards targets, linkage)	Utilize district performance scoring tool to focus support to poor performing districts	Compare trends & patterns; Indicator performance over time	Conduct outcome mapping- Statistical associations
Evaluating interventions	Feedback from implementation team on intervention acceptability and feasibility	Feedback from implementation team on intervention acceptability and feasibility	Conduct and utilize intervention success/monitoring tool results Use process and cost effectiveness evaluation results to understand best practices	Use impact evaluation results to inform program delivery
Learning	Identify problems before they reach crisis proportions Teams adjust activities accordingly	Use KPIs and make recommendations for improvement	Progress towards targets, trends and key challenge areas in implementation for program realignment and best practices	Program re-design based on successes and lessons learnt

Section 6: Institutional Capabilities

The **Anova Health Institute NPC** is a South African non-profit organization, established in 2009, headquartered in Johannesburg, with major offices in Soweto, Tzaneen, Cape Town and Paarl, and projects in all nine provinces. Led by CEO, James McIntyre, and COO, Helen Struthers, Anova strives to improve South African health outcomes, building relationships of trust with stakeholders and partners and working to reach the most vulnerable and the communities in which they live. Anova has extensive project management, financial and technical expertise, and its staff has worked for many years with international agencies and donors on HIV-related service implementation and research projects. Much of Anova's work continues to influence local and international policy

6.1. Core Capabilities:

Governance: Anova has an active and experienced Board of Directors, which provides oversight and advice to management. The Board, chaired by Mr Joel Dikgole, has five independent Non-Executive Directors and three Executive Directors, all South African citizens or permanent residents. Anova is committed to integrity, transparency and public accountability, publishing annual integrated reports as required by Global Reporting Initiative (GRI) G4 Guidelines. The October 2017 report is available at www.anovahealth.co.za. Governance is supported by audited financial policies and procedures; and encrypted electronic payment systems and oversight by auditors and the Board of Directors.

Financial administration: Anova is a major USAID PEPFAR partner. Its financial systems and controls comply with USAID's rigorous requirements and the organization has a successful track record in grant management, execution, governance and reporting. Anova provides full grant management services, including prime grant management, sub-grantee (or consultant) management, financial control, and governance, compliance, reporting and daily transactional management. Anova's capacity has been tested and audited by independent agencies for process, governance and compliance, consistently meeting or exceeding required standards. Its capacity includes in-house accounting and project management systems that interact seamlessly with Human Resource systems. Grant management includes deployment of dedicated senior management staff to oversee all project activities within Anova, sub-grantees and contractors. Anova has successfully implemented and managed major programs of service and research, totaling over \$90 million in the last 5 years, achieving or exceeding set milestones, on time and within budget.

Human resource management: Over 700 staff members comprising professional, lay health workers and administrative personnel support Anova's work. An experienced Human Resource department has efficient systems for recruitment, employee relations, performance management and staff development, guided by extensive policies and best practices.

Business infrastructure: Anova has extensive business infrastructure across our offices, including computer networks, connectivity and fleet management, backed up by stringent management policies, insurance and health and safety procedures. Technological infrastructure is in place to enable efficient communication between Anova and its Partners.

Clinical services and technical assistance: Anova has wide-ranging experience in providing direct HIV care and treatment services and TA to DOH. Anova has developed and adapted successful TA models in both urban and rural settings, and has supported over 900 chronic clubs with close to 30,000 clients collecting ART. In 2016, for example, more than 900,000 people tested for HIV in over 200 Anova-supported services, 500,000 people were retained on ART, and over 50,000 initiated. Mother-to-child transmission rates were below 2% in supported facilities.

Implementation experience: Anova has led implementation of several new services; these include piloting and rolling out TIER.Net and the Electronic TB register (ETR), and SVS pharmacy systems. Anova's technical support enabled rapid and successful rollout of

program innovations such as Option B+ PMTCT programming, UTT, adherence clubs and alternative drug distribution. Anova's long experience and deep understanding of the complex processes needed to work at primary care level in urban and rural settings enables us to adapt and structure our teams accordingly.

Data Management and Strategic Information: Anova has a unique combination of technical expertise, including data management, epidemiology, statistical analysis, data visualization and geographic information systems. Anova supports data collection and analysis, together with Geographic Information Systems (GIS) mapping capability, for all levels of the health service. This enables data utilization for program planning to focus and intensify technical support as needed. Anova's experience as an implementing partner in the PopART study team, and as a research partner for many other studies has expanded these skills. Anova's coordination of Gauteng's District Data Technical Working Group was instrumental in improving data quality. Anova formed part of the National DoH team that rolled out TIER.Net.

Research and Evaluation: Anova emphasizes research and evaluation of service delivery in all programs. Staff members have been at the forefront of men who have sex with men (MSM) research in South Africa for many years. Anova is South Africa's leading institution in Key Populations HIV surveillance. Collaboration with the University of California, San Francisco included eight integrated biological and behavioral Key Population surveys throughout South Africa. Anova researchers have published over 20 journal research articles per year over the past three years.

Training and Knowledge Dissemination: Anova has a long history of training health professionals. Courses include Nurse Initiated Management of Antiretroviral Treatment (NIMART), HIV treatment advances and Key Population health issues. Anova has been at the forefront of training activities for TIER.Net in several provinces, and has run a fully accredited management training program for facility and district-level managers in Gauteng and Limpopo. Anova has held knowledge dissemination seminars on a diverse range of topics since 2010, and has an extremely capable conference and travel department, with many years' experience in organizing these events.

Communications and Marketing: Anova has a unique resource in the Communications and Marketing Department, which merges high-level commercial marketing proficiency with public health expertise. This enables Anova to produce and run marketing and information campaigns on social media platforms, on radio and in print. Our in-house digital marketing expertise enables Anova to run many project-specific social media campaigns with appropriate language and imagery on many platforms such as Facebook, Twitter and Instagram. These initiatives reach thousands of people with targeted posts and information.

Collaborative partnerships: Anova has a long history of collaborative work, with a deep understanding of government structures and close working relationship with Departments of Health at all levels. Anova has worked in partnership with Right to Care on several projects, including the Voluntary Medical Male Circumcision contract, and as a founding partner of EQUIP. From its establishment, HIVSA has partnered with Anova, providing complementary community-level services. Anova has successfully coordinated work with other PEPFAR partners and the Gauteng Health Department, and participated in the Johannesburg and other AIDS Councils. Senior technical staff members have affiliations to academic institutions, including the University of Cape Town, University of Pretoria, University of Stellenbosch, the University of the Witwatersrand, Columbia University and Maastricht University.

Community linkages: Anova has excellent long-standing relationships with community partners, local NGOs and faith-based organizations, including our collaborative project with INERELA+ (International Network of Religious Leaders Living with or Personally Affected by HIV or AIDS). Anova understands approaches to community mobilization that consider

community needs, including producing appropriate IEC materials, the use of radio and other media and ways to utilize and work with WBOTs.

6.2. Specialized technical expertise

Men's health: Anova has an experienced and well-respected public health oriented senior technical team, with over ten years' experience in supporting primary-level HIV and TB care and treatment, HIV prevention, PMTCT, STI, adolescents and key population programs. In the Health4Men project, Anova developed expertise in dealing with MSM at facility and community levels, and built its knowledge about male sexual and reproductive health needs. Anova has applied this knowledge to other hard-to-reach populations, including older men and farm workers (an example is the Score4Life HIV testing project). Anova also undertook research on the use of HIV self-testing by MSM in Mpumalanga and on acceptability of a new self-testing device. Anova's **Yellow Dot Doctor** private-sector program is providing education and promoting PrEP and self-testing use in the private sector.

PrEP: Anova was one of the first institutions to develop and implement PrEP distribution projects in primary care settings, and contributed to South African guidelines, training materials and data collection instruments.

Surveillance and research: Anova built local expertise in surveillance while undertaking Integrated HIV bio-behavioral surveillance surveys in Key Populations. Anova's active research links and implementation science approach enable the application of new knowledge, moving from evidence to action.

6.3. Partnerships:

Anova will partner with several organizations which bring complementary capabilities:

CHoiCe Trust, established in Limpopo province in 1997, works with vulnerable communities and stakeholders in Mopani District. CHoiCe provides training, support, information and health services based on the needs identified by and for the people of vulnerable communities. CHoiCe trains and mentors community-based health workers as well as farm workers, men's groups, children's counselling groups and the elderly.

[dot]GOOD is a niche, below-the-line, marketing agency that specializes in creating socially responsible strategies. Together we designed and implemented the successful Score4Life model, marketing to and providing HIV testing and treatment for men.

HIVSA empowers individuals, community workers and organizations by developing their capacity and resilience to effectively address socio-economic and health issues in the context of high HIV and AIDS burden. Established in 2002, HIVSA has worked as a strategic partner of the Gauteng Provincial Departments of Health and Social Development, and has been a PEPFAR grant prime recipient.

Hospice Palliative Care Association of South Africa (HPCA) is a national organization specializing in palliative care. A grant from PEPFAR resulted in the establishment of the CaSIPO project to provide TA to community based organizations and other stakeholders. TA included capacity-building, support to integrate comprehensive care and support into Policies, Standard Operating Procedures and guidelines, and work on strengthening retention and referral systems to support retention in care and reduce lost to follow-up (LTFU).

Right to Care has supported and delivered HIV prevention, care and treatment services since its inception in 2001. The organization has worked as a major PEPFAR and Global Fund partner with annual budgets in excess of \$120million over 2,000 staff. It has extensive experience working with the DoH at a range of levels.

Singizi Consulting Africa specializes in studies that support learning about ways to realize change. Singizi has expertise in several best practice research and evaluative designs and methodologies – some based on more formalized logic model-related evaluation frameworks, others that are against less formal evaluative frameworks, to ones that focus on the generation of outcomes.

Section 7: Past Performance

Award Number:	USAID: AID-674-A12-00015
Performance Location:	City of Johannesburg, Mopani and Cape Winelands district
Award Dollar Value:	\$69,016,000
Period of Award:	10/01/2012 – 12/31/2018
<p>Brief Description of the work performed: Anova provides health systems strengthening support in three districts: City of Johannesburg (Gauteng) Regions C, D, E and G, Mopani (Limpopo) and Cape Winelands (Western Cape).</p> <p>The teams work at all levels of the health system:</p> <ul style="list-style-type: none"> • Provincial and District levels: Anova district teams liaise closely with the Department of Health, providing coordination with other partners, and assistance with planning and the District Implementation Plan process. • District and Sub-district levels: Anova provides technical support for supply chain management and pharmacy, facility and sub-district management training, and monitoring and evaluation support. • Facility level: Teams consist of clinical specialists and mentors (doctors and nurses), and technical specialists within pharmacy, supply chain, and data. The teams support facilities with data systems implementation, training and data monitoring, facility manager training, and HIV testing services and support. • Community level: Activities include adherence/treatment clubs to enable ongoing management of clients out of the clinics, community HIV testing, and support to community health-worker programs. 	
Past Performance Reference Point of Contact:	Dr. Allison Russell Contact number: Work: +2712 452 2219, Cell: +2783 259 3244 Email: arussell@usaid.gov
Award Number:	USAID: AID-674-A12-00028
Performance Location:	Gauteng (City of Johannesburg), Limpopo, Western Cape, North West and Mpumalanga
Award Dollar Value:	\$16,468,000
Period of Award:	10/01/2012 – 12/31/2018
<p>Brief Description of the work performed: Health4Men has developed innovative services and programs to address the gap in HIV prevention and care as it relates to MSM. Health4Men now works through this grant in 234 clinics across 5 provinces in South Africa. Under the Health4Men program model, three key objectives are addressed:</p> <ul style="list-style-type: none"> • MSM-specific expertise and models in prevention, care and treatment • Institutionalization of MSM competent services within the government sector • Health promotion and service utilization mobilization <p>In order to meet these objectives, the following program activities have been implemented:</p> <ul style="list-style-type: none"> • Offering high quality HIV and sexual health services at 2 MSM Centers of Excellence and 2 Regional Leadership Sites • Capacity building a network of DoH facilities to provide MSM-competent care • Range of MSM-targeted community outreach, prevention and testing activities • Range of traditional and social media campaigns to inform and mobilize MSM community 	
Past Performance Reference Point of Contact:	Dr. Allison Russell Contact number: Work: +2712 452 2219, Cell: +2783 259 3244 Email: arussell@usaid.gov

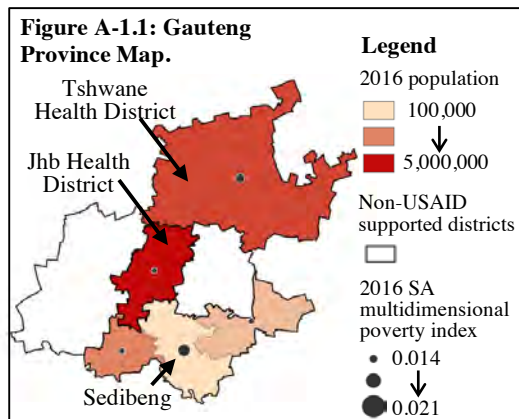
Award Number:	ELMA Foundation: Grant number: 15-F0014
Performance Location:	City of Johannesburg
Award Dollar Value:	\$1,632,000
Period of Award:	07/01/2015 – 09/30/2018
<p>Brief Description of the work performed: The project supports the improvement of pediatric and adolescent HIV testing, case finding, linkage to treatment and quality HIV treatment in the City of Johannesburg.</p> <p>The ELMA project complements the current USAID: AID-674-A12-00015 award for the activities implemented within the City of Johannesburg.</p>	
Past Performance Reference Point of Contact:	Ms. Anne Magege Contact number: Work: +2721 446 2940, Cell: +2776 906 0427 Email: AMagege@elmaphilanthropies.org
Award Number:	Elton John AIDS Foundation (EJAF): Health4Men Initiative - A Comprehensive National MSM Program – No Specific award number
Performance Location:	National – South Africa
Award Dollar Value:	\$6,000,000
Period of Award:	10/01/2014 – 09/30/2019
<p>Brief Description of the work performed: The Program contributes towards building a comprehensive national MSM program in South Africa in 5 key areas: National Communication Campaign, Community Outreach and Demand Creation, Extending Clinical Competence in MSM services, Building Sustainable MSM Community Organizations and Networks, and Coordination of MSM efforts across South Africa. Anova has made significant progress in all program areas described above. The WeTheBrave communication campaign has National reach with excellent social media engagement rates. The campaign has received a lot of goodwill in the community and continues attracting media attention, and increasing awareness. The National Department of Health has rolled out PrEP for MSM in three public sector clinics. All participants in the Anova PrEP demonstration project have been able to migrate to this new initiative. The EJAF project complements the current USAID: AID-674-A12-00028 award.</p>	
Past Performance Reference Point of Contact:	Mr. Friedrich Conrad Contact number: Work: +44 20 760 39996 Email: Friedrich.Conrad@ejaf.org
Award Number:	AID-OAA-A-15-00070 – EQUIP Consortium sub award
Performance Location:	Namibia, Zambia, Mozambique, Lesotho, Haiti
Award Dollar Value:	\$5,507,000
Period of Award:	10/01/2015 – 09/30/2019
<p>Brief Description of the work performed: Provide technical support and assistance to enable countries to develop and scale-up programs to impact on the HIV epidemic among Key Populations, with direct focus on HCT, linkage to care and adherence, or referral to combination prevention services, in particular PrEP.</p>	
Past Performance Reference Point of Contact:	Dr. Thembi Xulu Contact number: Work: +27 84 555 5788 Email: thembi.xulu@equiphealth.org

Award Number:	ZAF-C-RTC (Global Fund) – Anova sub-award with Right to Care
Performance Location:	Gauteng, Western Cape, Eastern Cape, KwaZulu Natal, Free State, Mpumalanga and Northern Cape
Award Dollar Value:	\$5,650,000
Period of Award:	06/01/2016 – 03/31/2019
<p>Brief Description of the work performed: Under Program area 2, Anova supports the implementation of programs to build staff capacity in selected government health facilities across 7 provinces in South Africa to promote MSM-competent services.</p> <p>The Anova model includes two interlinked elements: Sensitizing, training and mentoring DoH staff and; the development and coordinated dissemination of prevention-related materials to clinics and to other organizations undertaking outreach initiatives.</p> <p>The Global Fund project complements the current USAID: AID-674-A12-00028 award enabling additional facilities to provide competent MSM service in areas not serviced under the USAID grant.</p>	
Past Performance Reference Point of Contact:	Mr. Ian Ralph Contact number: Work: +2711 276 8850, Fax: +2711 276 8885 Email: ian.ralph@righttocare.org

Award Number:	ZAF-C-RTC (Global Fund)–Anova sub-award with Right to Care
Performance Location:	Gauteng and Ehlanzeni.
Award Dollar Value:	\$1,530,000
Period of Award:	06/01/2016 – 03/31/2019
<p>Brief Description of the work performed: Under Program area 1 – Anova supports the implementation of programs to increase coverage and uptake of HIV Counselling and Testing (HCT) and TB screening through comprehensive integrated HIV prevention services for MSM and Transgender people in two provinces in South Africa.</p> <p>All program staff are sensitized on Key Populations, trained on peer education and have undertaken a refresher on HCT. Peer educators will identify MSM individuals, discuss risk taking and reducing risky behavior and offer HCT, link clients to health care services and provide on-going support.</p> <p>The Global Fund project complements the current USAID: AID-674-A12-00028 award enabling additional outreach activities in areas not serviced under the USAID grant.</p>	
Past Performance Reference Point of Contact:	Mr. Ian Ralph Contact number: Work: +2711 276 8850, Fax: +2711 276 8885 Email: ian.ralph@righttocare.org

Section 8: Technical Annexes
Annex A-1: Gauteng Province Approach

Annex A-1a: HIV & TB epidemiology and service delivery context of Gauteng Province



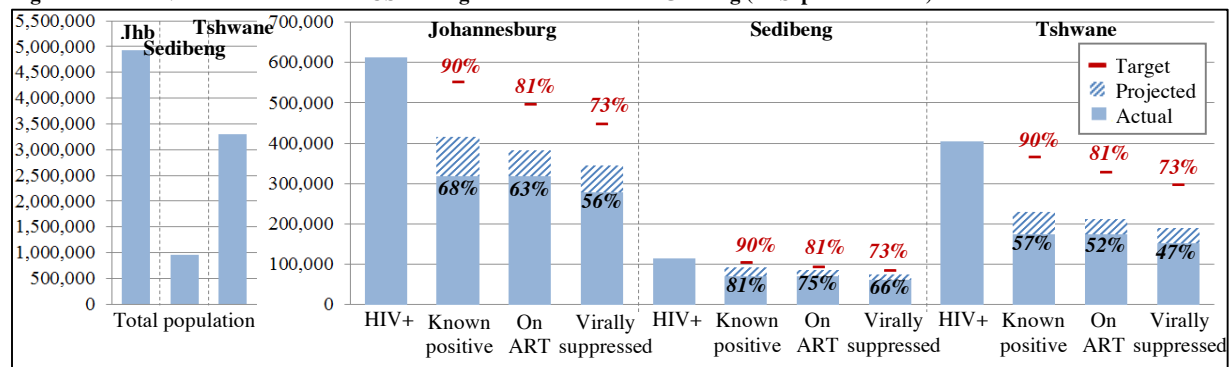
Gauteng is SA’s smallest, most populous province (14.2 million). It is urbanized (87%), contains the administrative capital (Tshwane) and the largest city (Johannesburg), and has vast industrial areas and mines (Figure A-1.1). There are 12.6 medical doctors per 10,000 people; 31% of the population have medical insurance while the rest rely on public health.

The province has five districts including three USAID-supported HIV and TB high-burden districts: Johannesburg, Sedibeng and Tshwane. Of the total population of 9.19 million in these three

districts, an estimated 1.1 million adults (16% prevalence) and 42,000 children (1.8% prevalence) live with HIV. HIV services, including ART, are provided at 235 primary care facilities and 26 public hospitals. The PMTCT program has been successful over the years, with a current transmission rate below 1%.

In July 2017, 565,500 PLHIV were on ART (51%) in these three districts. By end of COP17, projected ART coverage ranges from 75% in Sedibeng and 63% in Johannesburg to 52% in Tshwane (Figure A-1.2). Sedibeng will be near saturation (7,200 gap), but to reach saturation 113,000 PLHIV must be initiated in Johannesburg and 116,000 in Tshwane.

Figure A-1.2: HIV cascade in the three USAID high-burden districts in Gauteng (30 September 2018)



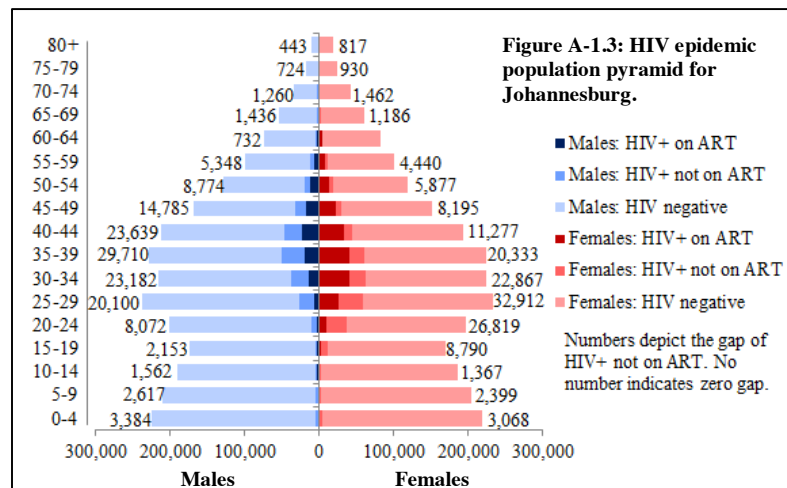
Except for adult women in Sedibeng (84%), none of the age or gender groups in the districts will reach 81% ART coverage by the end of COP17. Proportionally, the largest gap is among adolescents (26% coverage; 90,000 gap). The largest treatment gaps in absolute numbers are in men 25-40 years of age (139,000) and women 20-35 years (169,000). Overall, one-year retention in care is 80% and viral suppression 89%, but rates are especially low among adolescents (69% and 87%). EID coverage is high with >95% birth testing of exposed neonates, but 18 months HIV testing remains a challenge (69%).

An estimated 30,900 TB cases occur annually across the three districts, but only 79% of cases are diagnosed and treated. Most identified TB cases (>90%) have documented HIV status, the co-infection rate is 63% and ART coverage among co-infected patients is 98%.

In Gauteng, the DIP is in place for all districts and reviewed quarterly. Most facilities (93%) report on SVS; stock update completeness is 74% with availability of ARV stock scores 96% and TB medication at 95%. Approximately 250,000 patients receive ART through alternative distribution services. WBOTs are active at 77% of facilities and all (100%) facilities report through Phase 6 TIER.Net.

Annex A-1b: HIV & TB epidemiology and service delivery context of Johannesburg Health District

In Johannesburg, an estimated 592,000 adults and 22,000 children are living with HIV. The ART program is provided at 121 PHC facilities, 17 non-medical sites and 11 hospitals. Close to 400,000 PLHIV will be on ART by the end of COP17 (coverage 63%); the adult and pediatric care cascade shows similar trends (Annex B - Figure B1).



To reach saturation, an additional 113,000 PLHIV must start ART. Coverage among adult women (76%) is close to attainment, but around 66,400 adult men and 19,000 adolescent girls must initiate ART to reach attainment (Annex B-Table B1). This is evident in the epidemic pyramid: the age and gender groups missing from the program are mainly younger women (20-

35years), reflecting the youth bulge related to incidence, and middle-aged men (30-45 years) (Figure A-1.3). In the District, birth PCR is done in >98% of HIV-exposed neonates, but testing at 18 months remains a challenge (71% coverage). HTS uptake (92%) and ART coverage of HIV-infected pregnant women (96%) is high; 94% of TB patients are tested for HIV with a 61% co-infection rate and 84% TB/HIV co-infected patients are ART initiated.

Linkage to care is good with >90% of identified PLHIV initiating ART. However, only 55% of adult PLHIV are initiated within two weeks of diagnosis, and 38% have a CD4 count of <200 cells/mm³ at initiation (Annex B-Table B2). Quality of care requires attention: coverage of cotrimoxazole prophylaxis is 18% and of IPT is 11%; there is a backlog (78%) of PLHIV to be switched to 2nd line. The one-year LTFU rate is 19%, but is particularly high among adolescents (29%) and children <5 years of age (25%) (Annex B-Table B3). More than 60% of LTFU occurs in the first three months after ART initiation (Annex B-Table B4). By September 2017, 40,000 PLHIV (19% of total remaining on ART (TROA)) were receiving ART through decanting modalities including adherence clubs (72%), SFLA (7%) and external pick-up points (21%); medication is delivered through the CDU (59%), CCMDD (29%) and facility pre-packs (12%). VL completion and viral suppression rates are particularly low among children (especially <5 years) and adolescents (Annex B - Table B5).

In Johannesburg, there is a wide network of CBOs providing community HTS, including our Partner, HIVSA. Many private sector providers offer HTS, including pharmacies, private hospitals, and a network of seven nurse-run privately-owned Unjani Clinics.

Service delivery status is summarized in Annex B-Table B6. At present, 79% of facilities have functional WBOTs and 28% provide AYFS; 15% meet the Ideal Facility status requirements. Availability of SVS reporting is 96% and stock update completeness is 95%. Reported stock availability of ARV is 97% and of TB medication 98%; rollout of Rx Solutions is complete. At the CLI, 70% of facilities score level 3 on RTQII assessment; only one facility scored level 4 achieving national accreditation. Specimen rejection rate is 8%, and MDO is reported for 0.03% of cases. All facilities have the Phase 6 ART module of TIER.Net, but a unique identifier is recorded in only 18% of records. The District scores 6/10 on Anova's Data Quality Index (DQI). The DIP is in place and is reviewed on a quarterly basis.

Annex A-1c: Component 1 - Proposed Program for Johannesburg Health District

Anova has worked successfully in Regions C, D, E and G of Johannesburg for more than 10 years and has excellent partnerships with the District and Municipality. Using our experience of Region D, where saturation will be at 78% by the end of COP17, we will accelerate operations in Regions C, D and E and extend the data-driven approach to Regions A, B, and F to reach saturation in Johannesburg by 2020 (Year 2). We will continue to refine our approach to reach attainment by 2023 (Year 5).

We have performed rigorous diagnostics of the HIV epidemic and ART program in Johannesburg as summarized above. Comprehensive QMEC diagnostic assessments of service delivery status were done (Annex B-Table B6). Consultative meetings were held with key stakeholders. Based on these findings, Anova will address the following program gaps and priority areas across the continuum of care:

Male engagement in the ART program must increase by 66,000 to reach 81% coverage. Anova will use its core package of male-focused interventions to close this gap (Annex B-Figure B3), with specific emphasis in this district on workplace testing (large factories, mines), ‘PICT for all’ and community approaches. Geographic focus will be on areas with the largest gap in men of 30-45 years such as Bramfischerville and surrounding mining areas (Annex B-Figure B6). Private sector operations focus intensively on service provision to men (Annex B-Figure B4)

Adolescents are the worst-performing group in treatment coverage (36%), one-year retention in care (71%) and viral suppression rate (79%), 19,000 adolescent girls must initiate ART. Guided by our DREAMS experience, Anova will scale-up our core package of evidence-informed interventions for adolescents (Annex B-Figure B5) and particularly concentrate our efforts in geographic areas with the largest gaps (Annex B-Figure B6).

Late initiation of ART will be tackled by increasing the proportion of same-day initiations from 23% to 60% and ensuring that all PLHIV initiate ART within two weeks of diagnosis. Anova will connect all relevant service sector providers on TIER.Net, using an UID, and subsequently identify through this system PLHIV lost to initiation, ensuring that they (re)engage with care through telephone and WBOT tracing support.

Retention in care must improve, especially in the first year of ART. Anova’s comprehensive strategy (Annex B-Figure B7) will improve TROA from 81% to >95% in the first year by targeting facilities with the highest TROA and program loss such as Hillbrow Community Health Center (CHC) (Region F) (Annex B-Figure B8). We will reduce program loss through: improved clinical care (30%); early interventions (30%); scale-up of decanting services from 19% to 70% patient coverage (20%); and intensified adherence support (20%).

Viral suppression rate is low in children (81%) and adolescents (82%). There is a backlog in VL capturing (especially in Hillbrow CHC) (Annex B-Figure B9) and a backlog in clinical management of PLHIV with detectable VL (78%). We will provide surge clinical and M&E DSD with TA, including pediatric phlebotomy, ACC, CLI and tracing activities (‘Viral Load for Action’) to facilities with the largest backlogs. This should improve suppression rates to >90%.

Case identification of TB is low (78%), and initiation of ART in co-infected patients will be increased from 84% to 100%. We will work with public facilities to implement ‘PICT and TB screening for all’, and encourage community and private-sector implementation of TB screening. We will ensure fidelity to management guidelines for TB suspects and cases.

Data quality gaps are common, with >60% of facilities scoring less than 8/10 (minimum acceptable level) on Anova’s DQI. We will continue to address these gaps through comprehensive M&E TA as high quality data is central to our data-driven approach for epidemic control. Data quality initiatives will be extended across service sectors, with specific emphasis on CBOs and the private sector.

Annex A-1d: Component 2 - Proposed Program for Johannesburg Health District.

Anova will strengthen District Health Systems in support of HIV/TB continuum of care. Anova has a longstanding effective partnership with DoH management and other relevant District stakeholders through our local Program Manager, Government Liaison and Technical Advisory Team. DHMT are responsible (guided by the NSP) for providing a conducive environment for HIV program implementation and epidemic control. Anova will support District management with a core technical package of site and above-site level activities, aligned to all WHO HSS building blocks, to achieve epidemic control (Section 4-Figure 4.3). Based on our assessments (Sections A-1a and A-1b; Annex B–Tables B2 and B6), Anova has identified the following priority areas:

The DIP is in place, but must be of high quality and actively used to guide the District's HIV epidemic response. We will provide high-level support to the DIP planning and implementation process, and encourage multisectoral participation e.g. CBOs, FBOs, District Clinical Specialist Team (DCST) and Integrated Schools Health Program (ISHP) nurses. High-level data support including SI and GIS analysis and visualization will be provided for target setting and budgeting of DIP activities. We will work with management to organize (sub)district DIP reviews, stressing accountability through feedback on action items.

Data quality, analysis and utilization must be of high standard to provide the intelligence needed to achieve epidemic control. Anova will allocate an M&E technical advisor, under guidance of Anova's Public Health Specialist, seconded to the Province, to support DHMO, HAST and HIS to: a) establish district Technical Working Groups, b) initiate data quality interventions to increase the district DQI from 6 to 8/10, c) scale-up TIER.Net implementation across service sectors to cover all DoH-contracted service providers, and d) access Anova's data utilization training and mentoring for managers to ensure data-use for decision making.

Pharmacy and supply chain is functioning relatively well with high coverage of SVS reporting and Rx Solutions (>95% both). The electronic scripting rate in CCMDD is still low (<20%) and we will work with DoH to ensure that all facilities have nurses registered as CCMDD providers; this is combined with TA to the CDU for delivery optimization. The District Pharmacy and Therapeutics Committee will be revitalized.

Clinical governance and service delivery will be strengthened as guided by QMEC assessments including SIMS, EWI and SPI-RT scores. Emerging areas for support are the reduction of specimen rejection rate (from 8 to <2%) through QI intervention; targeted support to achieve national accreditation of HTS from 2% to 100% of facilities through RTQII QI support, registration of counsellors as HIV Testing and Counselling (HTC) providers, establishment of additional pathways for patient decanting to improve TROA, optimization of HIV clinical services through targeted Ideal Facility support (increase status coverage from 15% to 80%), and strengthening of referral networks along the continuum of care and across service sectors including ease of access to the 3rd line committee.

Implementation of new policies remains slow within DoH structures. Anova is a dynamic organization that can rapidly respond and support change management. We will work closely with relevant managers to strengthen communication channels and support implementation of new National and Provincial policies and guidelines at District level. We will support the anticipated dolutegravir roll-out through implementation planning, advice on stock management, and training of essential clinical skills.

Contracting of private providers and CBOs is imperative to reach epidemic control in Gauteng. We will advise District Management on the important aspects of contracting private providers. These include accountability for service quality (e.g. through RTQII in CBOs), linkage of provider's data into DoH systems (e.g. TIER.Net), mapping service need vs. services offered by the provider, and accountability for services in relation to budget.

Annex A-1e: Component 3 - Proposed Program for Gauteng Province

Anova has a longstanding good relationship with Gauteng Provincial DoH management through our Senior Managers, Government Liaison and Technical Advisory Team. The Provincial Directorate provides the leadership, management and policy environment for delivery of the HIV and TB program along the continuum of care and across service sectors in all districts of the province. In this structure, Anova will be an important link in dissemination and implementation of policies, communication campaigns, IEC materials and guidance documents from Provincial to District and Sub-district levels. Our Government Liaison, with the PPL, will coordinate PEPFAR-funded partner activities and reporting in the province through forum meetings and strong communication channels.

We will continue provincial-level diagnostic assessments to redirect, intensify or reduce support activities. To better monitor program progress and identify gaps systematically, we will collaboratively develop and implement a **Provincial- and District-level SIMS tool**. Anova diagnostics show four main barriers impeding Provincial HIV epidemic control:

The PIP is in place, but must be multisectoral, realistic and of high quality. Managers need to use the PIP to provide guidance to province and districts. Anova will provide high-level support to PIP development and implementation, ensuring: a) that a data-driven approach is used (targeting the right populations, sites and geographic areas), b) that all relevant sectors are involved, and c) alignment with the NSP. Our seconded Public Health Specialist will support accurate PIP target setting and budgeting, and facilitate the PIP review process emphasizing accountability through feedback on action items from prior meetings.

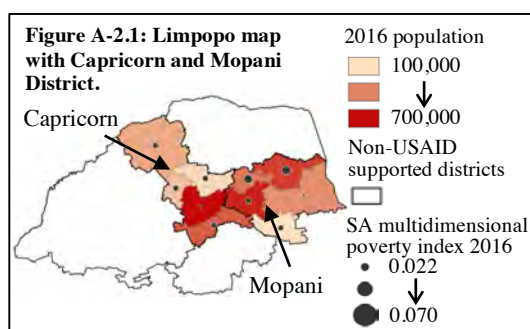
Data quality, analysis and utilization provide the backbone to PIP implementation, program management and monitoring and data-driven operations, but large data quality gaps exist in the Districts as illustrated by Johannesburg's DQI score (6/10). The seconded Public Health Specialist and M&E Technical Advisor will provide high-level expertise to provincial HAST and HIS Teams to address data management and utilization barriers by: a) establishing and facilitating the Provincial Data Quality Technical Working Group, b) providing QI guidance to implement the Treatment Retention Acceleration Plan (TRAP) Standard Operating Procedure (SOP), c) providing high-level data analysis, d) providing data use training and mentoring for management to improve data utilization in decision making.

Workforce planning and HR development is needed for optimal program delivery. Anova will advise Provincial Management on staff plans, and planning the Post-Basic Pharmacy Assistant training program. We will support the Regional Training Centre to assess skills levels in the province by implementing SkillsSmart. This TA will review Provincial training curricula including the NIMART program, and engage with nursing colleges to include quality HIV/TB training in their curricula. We will use the same approach outlined in the District support section to support private practitioner contracting by the Province Section (Annex A-1d).

Clinical governance will be strengthened as various challenges high-quality service delivery have been identified. We will work with Provincial Management to conduct QMEC assessments, identify barriers to successful program implementation, and design appropriate QI interventions to address these issues. We will support adaptation and implementation planning of new NDoH-approved policies and guidance documents (e.g. practical aspects of dolutegravir roll-out and its impact on stock-management of current ARVs, and purchase and positioning of HIV self-screening tests in the local health care system). We will provide targeted DSD with TA to improve components of the Ideal Facility program to ensure that 80% of facilities meet the status.

Annex A-2: Limpopo Province Approach

Annex A-2a: HIV and TB Epidemiology and service delivery context of Limpopo

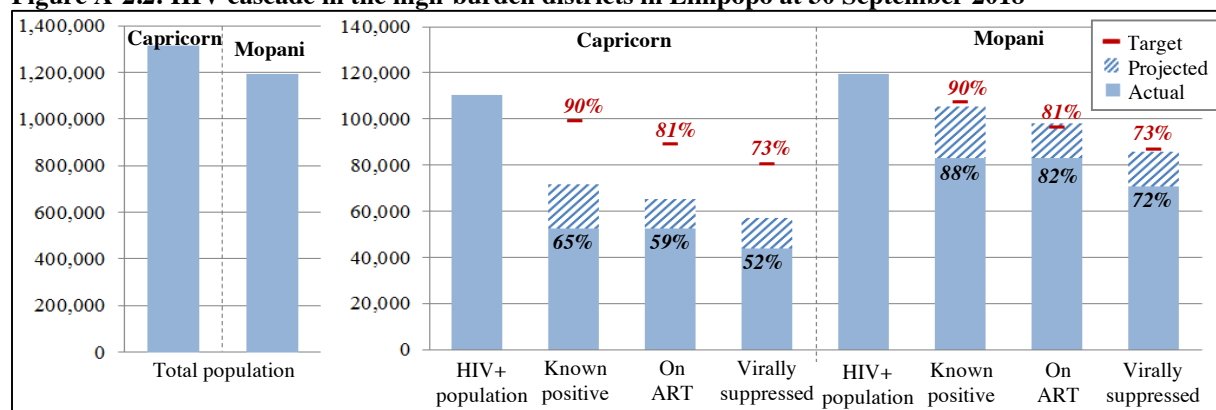


Limpopo is the northernmost province of South Africa with a population of 5.8 million (Figure A-2.1). It is a rural, traditional area with the highest level of poverty in the country. There are 1.8 doctors per 10,000 people, 7.7% of the population has medical insurance and the rest rely on public health. Agriculture and mining are the main contributors to the economy. The Province has five districts of which two are classified as HIV high-burden districts: Capricorn and Mopani. The

estimated HIV infected population in these two districts is 199,000 adults (12% prevalence) and 11,000 children (1.4% prevalence). The PMTCT program has been successful, with a current transmission rate of below 2%. HIV services are provided at 110 public facilities in Capricorn and 116 in Mopani.

As of July 2017, there were 129,000 PLHIV on ART (61%) in the two high-burden districts: 52,000 in Capricorn and 83,000 in Mopani. The ART program is more developed in Mopani where it is expected that by the end of COP17 saturation will be achieved (Figure A-2.2), whereas another 24,000 individuals need to be initiated in Capricorn.

Figure A-2.2: HIV cascade in the high-burden districts in Limpopo at 30 September 2018



ART coverage is highest among adult women (84%), but with considerable regional variation, and low among men, adolescents and children, for whom strong interventions are required to reach the 81% attainment threshold. Overall, one-year cohort retention in care is 75% and viral suppression 86%, but rates are lower among adolescents (65% and 83%) and children (75% and 59%). EID coverage is high, with >95% exposed neonates tested at birth, but 18 months HIV testing is a challenge (62%).

Capricorn is a high-burden TB District, with an estimated 4,300 cases annually; TB incidence in Mopani is 3,400 cases per year. There is a large gap in TB case detection with only 44% and 66% respectively of expected TB cases diagnosed. Most identified TB cases (>94%) have a documented HIV status. The recorded TB/HIV co-infection rate is lower in Capricorn (54%) than Mopani District (64%), but the ART initiation rate is similar (98%).

In Limpopo, 91% of facilities report on SVS, but stock update completeness is only 53%. Availability of ARV stock scores 83% and TB medication 78%. The DIP is in place for all districts; targets are met except for retention and viral suppression rates. At present, 98% of facilities in Capricorn have active CCMDD registration, 80% functional WBOTs and all (100%) facilities report through Phase 6 TIER.Net. In Mopani, these proportions are 43%, 98% and 100%, respectively.

Annex A-2c: Component 1- Proposed Program for Mopani District

Anova has worked very successfully in Mopani District for over 10 years. This district will be among the first in South Africa to reach saturation and is considered a good case study of successful HIV program implementation in rural South Africa. Anova aims to continue and improve on these achievements in Mopani.

Anova has rigorous epidemic, program and QMEC diagnostic data for Mopani (Sections A-2.1, A-2.2 and Annex B-Tables B2 and B6). Based on these findings, Anova will implement a comprehensive strategy for attainment in Year 3 (2021) followed by two-year support to sustain program efforts for epidemic control and address emerging issues that may undermine program success. In addition to maintaining support to essential services, Anova has identified the following priority areas for targeted interventions:

Adolescents are the worst-performing group in coverage (46%), retention (74%) and viral suppression (84% after one year). Anova will scale-up its core package of interventions (Annex B-Figure B5). in geographic areas with the largest program gap, such as Maake and Tickiline (Annex B-Figure B10). Here Anova will emphasize increased coverage of AYFS from 38% to 100% of facilities, and work with DoH to increase access to Thuthuzela centers (from 1 to at least 5 in the district), and entrench differentiated care models in all facilities across all service sectors, whilst ensuring adolescent appropriate communication.

Male engagement in the ART program must increase by 2,600. A package of interventions (Annex B-Figure B3) will address this with a focus on geographic areas with a large gap, e.g. Lenyenye (Annex B-Figure B10) We will scale-up workplace programs at farms and mines as these services are particularly effective in this district. Self-screening could be an important option to close the final gap.

Late initiation of ART needs to be addressed, as only 54% of PLHIV initiate ART within two weeks of diagnosis. Anova will connect all relevant service sector providers on TIER.Net, using an UID, subsequently identify through this system PLHIV lost to initiation, and ensure that all (100%) are initiated on ART through WBOT tracing support.

Retention in care is problematic, with only 76% retained on ART at one year. Using proven interventions (Annex B-Figure B7) Anova will target facilities with highest TROA and largest LTFU, including the four hospitals with data challenges around transfers, and Giyani CHC and Tzaneen Clinic which have decanting issues (Annex B-Figure B8). We will increase retention in care to >95% by reducing program loss through improved basic care and ACC provision (40%), expanding decanting services (20%), early re-engagement of patients with missed appointment (20%) and enhanced adherence support (20%). Decanting services will be increased from 29% to 100% of facilities through capacity building, increasing electronic scripting from 27% to 100% and by reducing electronic script rejection rates from 12% to <2%.

Viral suppression rate is low in children (60%) and adolescents (84%) and must be improved to >90%. There is a backlog in VL capturing (Annex B-Figure B9) and a backlog (82%) in clinical management of PLHIV with detectable VL. These urgent issues we will address through surge clinical and M&E DSD and TA, including pediatric phlebotomy, ACC, CLI and tracing ('Viral Load for Action') in facilities with the largest backlog.

Case identification of TB is 66% and will improve to >90%. Rates are good for patients with TB, HTS (94%) and ART initiation (98%). We will work with DoH to entrench 'PICT testing and TB screening for all' at all facilities, and increase CBOs operational focus to include TB screening and fidelity to clinical TB guidelines.

SVS reporting (86%) and completeness (54%) must increase to >90% to improve supply chain and reduce stock-outs. We will address existing connectivity issues and provide TA to improve system usage and implementation.

Annex A-2d: Component 2 - Proposed Program for Mopani District

Anova has an excellent, decade-long relationship with DHMO and HAST management and other stakeholders in the District through our local Program Manager, Government Liaison and Technical Advisory Team. Guided by the NSP, the District Directorate implements the HIV program and must create an environment within which epidemic control can be reached. Anova will provide the DHMT with a core technical package that promotes fidelity and impact of site and above-site level activities (Section 4–Figure 4.3). This package is fully aligned to WHO HSS building blocks, the NSP and the COP. Based on Anova’s comprehensive diagnostic assessment (Annex A-2.1 and A-2.2; Annex B–Tables B2 and B6), has identified the following priority areas for program support:

The DIP, linking to the District Health and Operational Plans, of high quality and used to guide the district’s HIV epidemic response. We will support the DIP planning and implementation process and ensure multisectoral stakeholder involvement and participation, e.g. CBOs, FBOs, DCST and ISHP nurses. Anova’s SI and GIS analysis and visualization will ensure appropriate target setting and budgeting. We will work with management to organize (sub)district DIP reviews, and accountability will be stressed through feedback on action items from prior meetings.

Data quality, analysis and utilization must be of high standard to provide intelligence data-driven necessary to support operations aimed at epidemic control. Anova will allocate an M&E Technical Advisor to support the DHMO, HAST and HIS Teams with a comprehensive package of services. Important interventions in this package are the establishment of District Technical Working Groups, data quality interventions to improve the district’s DQI score from 7 to 9/10, and the scale-up of TIER.Net implementation across service sectors to cover 100% of DoH-funded HTS. Anova’s rigorous data utilization training and mentoring for managers will ensure data-use for decision making at ground level.

Pharmacy and supply chain require CCMDD capacity-building support for scale-up of decanting services through: improved electronic scripting (27% to 100%), reduced rejection rate (from 12% to <2%) and medication delivery optimization through the CDU. SVS and Rx Solutions’ support are described in Annex A-2.3; Anova will provide TA to district pharmacists on stock management systems (e.g. Visibility & Analytics Network Dashboards), and will revitalize the District Pharmacy and Therapeutics Committee.

Clinical governance will continuously be strengthened with District Management using the QMEC assessments and subsequent QI initiative rollout. Emerging areas for support are at the CLI to reduce the specimen rejection rate from 8% to <2% and to address CCMDD scripting issues, all facilities need at least one nurse registered as a CCMDD prescriber. We will provide support to register counselors as HTC providers, enabling all facilities to achieve national accreditation status in the RTQII program. We will optimize HIV clinical services through targeted Ideal Facility support (increase status coverage from 15% to 80%), strengthening referral networks along the continuum of care and across service sectors and establishing a District 3rd line committee.

Implementation of new policies remains slow within DoH structures. Anova plans to help managers strengthen dissemination and implementation of new National and Provincial policies, guidelines and communication campaigns at District level. Support to implementation planning, stock management, and training of essential clinical skills, will facilitate, the anticipated dolutegravir roll-out.

Annex A-2e: Component 3 - Proposed Program for Limpopo Provincial support

Anova has built good relationships with Limpopo's Provincial DoH management over a long period. The Provincial Directorate provides the leadership, management and policy environment for delivery of the HIV and TB program along the continuum of care in the districts of the province. Anova is an important link in dissemination and subsequent implementation of (new) policies, communication campaigns, IEC materials and guidance documents from Provincial to District and Sub-district levels. Our Government Liaison will coordinate PEPFAR-funded partner activities and reporting with the PPL.

Anova will work with the provincial DoH to continuously monitor the state of the epidemic and program progress. Identified gaps will direct operations to areas of highest need. An important activity will be the collaborative development and implementation of a **Provincial- and District-level SIMS tool**. Our assessment, using Anova's QMEC tools, identified four program areas with barriers that impede HIV epidemic control:

The PIP is in place but quality must be improved in order to ensure the Province has multisectoral context-specific HIV epidemic response. Anova will provide high-level support to the PIP development and implementation process, ensuring: a) a data-driven approach (targeting the right populations, facilities and geographic areas), b) all relevant sectors are involved, and c) activities are aligned with the NSP. Our seconded Public Health Specialist will ensure accurate PIP target setting and budgeting, and facilitate the PIP review process with specific emphasis on accountability through feedback on action items from prior meetings.

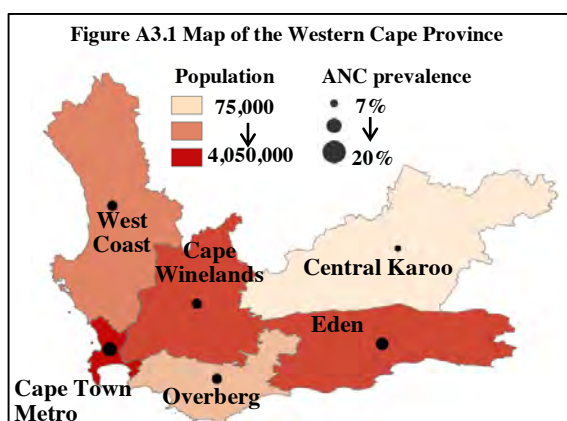
Data quality, analysis and utilization are the backbone of PIP implementation, program management and monitoring and data-driven operations. To achieve epidemic control, the large data quality gaps that exist in the districts, as illustrated by Mopani's DQI score (7/10), must be closed. The seconded Public Health Specialist and M&E Technical Advisor will provide high-level expertise to provincial HAST and HIS Teams to address data management and utilization barriers through: a) establishment and facilitation of the Provincial Data Quality Technical Working Group, b) QI guidance on implementation of the TRAP SOP, c) provision of high-level data analysis for SI, d) data use training and mentoring for managers to increase data utilization for decision making.

Workforce planning and HR development will be improved for optimal program delivery. Anova will provide advice to provincial management on staff plans and planning of the Post-Basic Pharmacy Assistant training program. We will support collection, analysis and use of WISN data and provide TA to the Regional Training Center to assess skills levels in the province through implementation of SkillSmart. Anova will review training curricula, including the NIMART program, and engage with the nursing colleges to include quality HIV/TB training in their curricula.

Clinical governance and service delivery needs to be strong to ensure high-quality service delivery. We will work with Provincial management to conduct QMEC assessments, identify barriers to successful program implementation, and design appropriate QI interventions. We will support adaptation and implementation planning of new NDoH-approved policies and guidance documents (e.g. dolutegravir roll-out and purchase and positioning of HIV self-screening test in the local healthcare system). We will provide targeted DSD with TA to improve the appropriate components of the Ideal Facility program to increase coverage of facilities meeting the status from 35% to 80%.

Annex A-3: Specific Province Approach – Western Cape

Annex A-3a: HIV and TB Epidemiology and service delivery context of Province

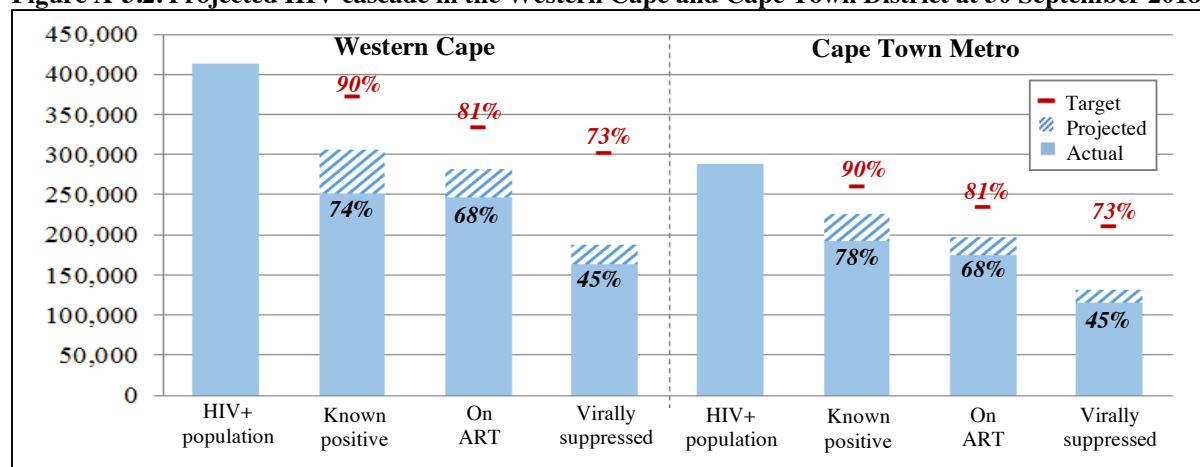


The Western Cape is South Africa’s southern-most province with a population of 6.2million, and 4.1million live in the City of Cape Town Metropolitan Municipality (Cape Town District); 24.2% have medical insurance and the rest rely on public health. The Province comprises the Cape Town Metro District and five rural health districts (Figure A-3.1). The Western Cape is the most affluent Province in the country but there remain large socio-economic and health disparities.

HIV prevalence has almost doubled from 3.8% in 2008 to 6.3% in 2016. The burden of disease, however, varies dramatically by geographic region, as illustrated by the ANC HIV prevalence which is 6.8% in the Central Karoo, 14% in Cape Winelands, 15% in Overberg, 15% in the West Coast, 17% in Eden and 20% in the Cape Metro. It is estimated that 19,000 people are infected with HIV annually and that 4,800 people die of HIV-related causes.

There are an estimated 413,000 PLHIV in the Western Cape, of whom 246,682 were in care at 295 health facilities at the end of October 2017. Although 64% of the province’s population live in the Cape Town District, 70% of the HIV burden is located there. Annually, 50,000 patients are initiated on ART. The ART coverage at the end of September 2018 is projected to be 68% (Figure A-3.2).

Figure A-3.2. Projected HIV cascade in the Western Cape and Cape Town District at 30 September 2018



ART coverage needs to expand rapidly by initiating 52,500 PLHIV to reach saturation in the Province. Coverage rates in mid 2016 were 50% for men, 53% for women and 58% among children. ART retention is poor, with 72% retained at 12 months and only 62% at two years. VL completion rates are below 50%, but suppression rate among those with VL done is high (>90%). Less than 20% of eligible patients are initiated on IPT.

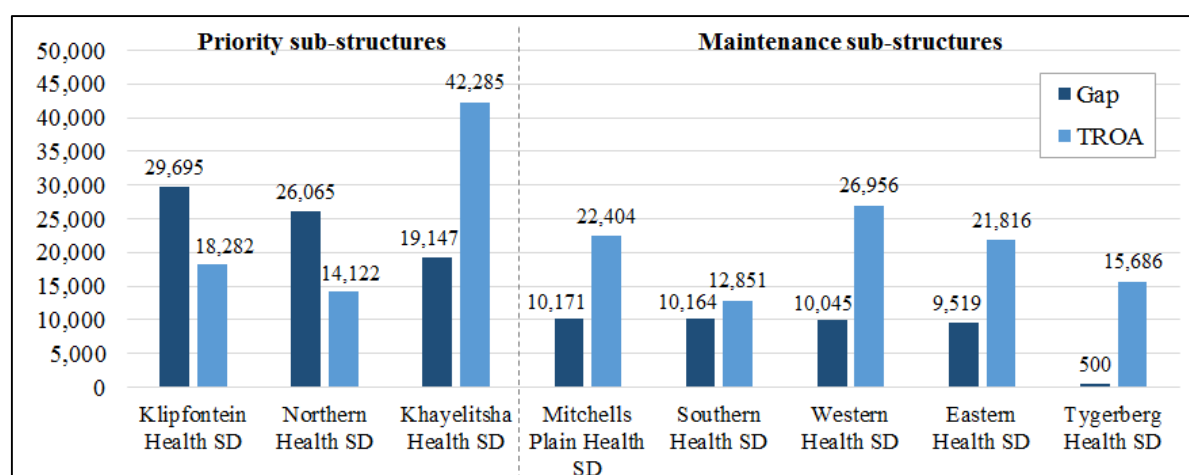
The TB epidemic in the Western Cape is complex with many driving factors, including HIV. There are an estimated 43,700 cases of TB annually across the Province, of which 87% are diagnosed and initiated on TB treatment. Most patients (>90%) have a documented HIV status and 95% of co-infected patients are initiated on ART. The TB/HIV co-infection rate (37%) is low compared to other provinces in South Africa. The TB program treatment success rate is 82%, with a death rate of 3.6 % and a LTFU rate of 9.6%.

Annex A-3.2 HIV & TB epidemiology and service delivery context of Cape Town District

The Cape Town District is the second biggest metropole in South Africa with a population of just over 4million. It is the economic hub of the region and has a large working class with a 76% employment rate, and a significant number of migrant laborers. The District consists of eight health governing sub-structures, each with a different character and burden of disease. For example, ANC prevalence in Cape Town District is 20% overall, but with large geographic variation: 35% in Khayelitsha, 27% in Klipfontein, and 9% in Tygerberg. ART is provided through 96 facilities in the Public Sector and an extensive network of private sector providers. The estimated mother-to-child transmission rate is 1.8% of exposed infants.

There are an estimated 289,000 adults living with HIV in the Cape Town District, of whom 197,000 are projected to be on ART at the end of COP17 (68% coverage) (Figure A-3.2). To reach saturation, 37,000 PLHIV need to start ART, another 12,000 men and women need to be initiated on ART to reach attainment. The HIV program gap is concentrated (65%) in three of the sub-structures (Figure A-3.3): the informal settlements of the Khayelitsha sub-structure, the Klipfontein sub-structure (including Gugulethu) and in the mixed industrial and farming parts of the Northern sub-structure. The ART program is relatively well-developed in the other five sub-structures; Eastern, Mitchells Plain, Southern, Tygerberg and Western, but clear hotspots with large program gaps are present (e.g. Crossroads, Delft, Hout Bay, Ikhwezi, and Langa).

Figure A-3.3: HIV program gap and TROA in Sub-structures in the Cape Town District



Linkage between positive HIV test and ART initiation is >90% across sub-structures, but with regional differences (81-100%). Program LTFU is more than 8,500 PLHIV per year, especially in the Mitchells Plain (2,100) and Khayelitsha (1,900) sub-structures.

By October 2017, 74,000 PLHIV (42%) were receiving ART through alternative distribution modalities, including adherence clubs, SFLA, and external pick-up points; all medication is delivered through the CDU close to Tygerberg Hospital.

In Cape Town District the adult VL completion rate is low, at 45% of eligible PLHIV, but among those with VL taken the suppression rate is above 85%.

There are an estimated 25,040 cases of TB annually, of which 94% are diagnosed and initiated on TB treatment; 16,000 (37%) are HIV co-infected, of whom 95% initiate ART.

There is a large network of FBOs and CBOs, NGOs (including MSF in Khayelitsha), as well as academic institutions across the Cape Town District. A well-established home and community-based care program provides psychosocial and treatment adherence support in specific areas of the District. The Healthcare 2030 Plan provides vision and guidance to the Cape Town District healthcare agenda, including HIV epidemic control.

Annex A-3c: Component 1 - Proposed Program for Cape Town District

The Cape Town District has well-established and resourced health service platforms. Anova's data-driven approach will identify and initiate ART in 37,000 PLHIV to reach saturation in the first two years. Anova will seek to achieve attainment in 2023 (Year 5) through close coordination and activities that complement the new and on-going programs addressing social determinants of HIV, including the USAID's OVC, Key Population and GBV programs, the DREAMS initiative, and the 'She Conquers' campaign.

The HIV epidemic program gap in the Cape Town District is concentrated in three 'priority' sub-structures with high disease burdens that require accelerated comprehensive program support. The other five 'maintenance' sub-structures generally perform well but require targeted support to address specific gaps and barriers in hotspot areas. Anova's extensive toolkit has been shown to work very effectively in urban areas and in hotspot settings. We will identify the most appropriate interventions from these toolkits to address the Cape Town District's program gaps. In the first three months, we will perform rigorous diagnostics of the HIV program, service delivery context and structure, (similar to those undertaken in other Provinces and illustrated in Annex B-Tables B1, B2 and B6), and determine the most appropriate package of interventions.

The three priority sub-structures have areas of high-density informal settlements, and high rates of poverty, unemployment and GBV. People-centeredness is at the heart of our operational approach. We will implement TA and targeted DSD to ensure that essential services are delivered with fidelity, enhanced by scale-up of effective core practices for priority groups. Anova and our Partner HPCA will implement a robust community program (Section 4-Figure 4.1) in these areas to connect the community effectively to health services. We will use community care workers (including focused door-to-door testing) to mobilize the community for HTS. CBOs will work on demand creation and facility staff will focus on index-testing. Particular emphasis will be placed on finding PLHIV who know their HIV-positive status but are not engaged in care for many reasons, including migration. To address mobility between sites, that undermines linkage and retention, we will implement electronic data systems (e.g. TIER.Net) across service sectors to facilitate tracking and tracing of PLHIV. We will implement out-of-facility ART initiation sites and community-based adherence clubs to reach priority groups. Using GIS mapping we will identify areas to focus interventions on men and adolescents left behind in the HIV epidemic response.

In the five 'maintenance' sub-structures, where the HIV program is closer to saturation, the focus will be on hotspots where marginalized groups are located in geographic pockets to close the final gap to achieve epidemic control. Anova will support maintenance of essential practices with fidelity in these areas whilst providing targeted core services and innovations to address specific barriers. Anova has successfully used this approach in the last three years to close gaps in high-burden settings following saturation in the Cape Winelands District, using Anova's "3x90 Hotspot Model".

High rates of program loss (>20%), low VL completion (<50%) and viral suppression rates are problematic across the Cape Town District. Anova will implement its comprehensive four-pronged strategy to improve retention in care (Annex B-Figure B7) targeting identified high-burden facilities. Anova's approach in this context is to promote people-centered services to facilitate PLHIV's engagement in care. We will increase decanting coverage from 47% to 80%, ensuring age- and gender-appropriate health care. Fidelity to clinical and ACC guidelines will be strengthened through TA, and we will actively support the anticipated rollout of dolutegravir leading to better viral control.

Annex A-3d: Component 2 - Proposed Program for the Cape Town District

The Cape Town District has a well-established dual health system with services provided by the District DoH in conjunction with the City of Cape Town's Health Department; both structures are guided by the NSP, HAST's DIP and the Healthcare 2030. Anova, through its Key Population program and the NIH/PEPFAR-funded PopART study, has excellent relationships with both directorates. Anova will provide the DHMT with a core package of technical services (Section 4–Figure 4.3) for efficient HIV program implementation and service delivery. We will balance site and above-site level activities at District and Sub-structure levels. This package is fully aligned to all the WHO HSS building blocks, the NSP and the COP.

The Western Cape Province's Health Impact Unit conducts high quality HIV epidemic diagnostics, however there is a large gap in service delivery diagnostics. Anova's extensive expertise and diagnostic toolkit will be tailored to address this in the Cape Town District. We will implement rigorous service delivery diagnostics in the first three months of the APACE program, where site-level data is triangulated with epidemic and program data reports.

The Province and Cape Town District have a strong top-down HIV program planning and budgeting structure, including the **DIP**. Anova will actively participate in this process, highlighting lack of alignment between the DIP and service delivery on the ground. Operationalization of the DIP at site level is suboptimal; to mitigate this Anova will integrate the DIP review into sub-structure health review meetings.

The District service delivery structure is well-defined with good coverage, including community and public health care components and clear referral pathways. However, it is not implemented with fidelity across the District, especially in informal settlements, where there are major challenges. Anova will work with the DHMT to improve differentiated services appropriate for all communities by: a) putting care systems in place that are adapted for mobile populations, b) training healthcare workers to address specific health needs in particular communities, c) providing out-of-facility services at community-based care points, and d) strengthening linkage to non-health care pathways such as GBV services, education and social development. Anova will scale-up drug supply chain and delivery models (CCMDD) ensuring that decanting services are implemented effectively.

Data quality, analysis and utilization needs to be of high quality and implemented at all levels to achieve epidemic control. Despite the presence of a strong provincial M&E and Health Impact Assessment units, there is limited capacity on-the-ground for data analysis and utilization for decision making. Anova's M&E TA team will employ a bi-directional approach to increase data ownership at site and community levels, as well as improved capacity at District and Sub-structure management levels. Data review meetings will ensure maximum impact of data strengthening support.

Building service delivery capacity for marginalized communities is essential to increase access and reach attainment in the District. To successfully reach these populations, specific expertise and specialized programs are required. Anova will use its expertise from other projects to work with the relevant District and Sub-structure management to address knowledge gaps, and design and plan specific interventions tailored for these communities.

Implementation of new policies remains slow within DoH structures. Anova will work closely with relevant managers to improve implementation of new policies, guidelines and communication campaigns. We will support the anticipated dolutegravir roll-out through implementation planning, provide advice on stock management, and train on essential clinical skills.

Annex A-3e Component 3 Proposed Program for the Western Cape Province

Anova has worked in the Western Cape Province for more than 10 years as a USAID-funded district support partner in the Cape Winelands and West Coast Districts, in USAID-supported health systems strengthening at Tertiary and District Hospital levels, and through our Key Population Health4Men program. We have a well-established relationship with the Provincial HAST Directorate and various NGOs, CBOs and academic institutions across the province. We will leverage these relationships to ensure efficient and high-impact implementation of our HIV epidemic control program.

The Western Cape Provincial DoH's Healthcare 2030 Policy guides health care provision and reform in the province; activities for HIV epidemic control are aligned with the APACE goals. Anova will continue to provide high-level technical input, assisting with implementation of the Healthcare 2030 strategy. Anova has a toolkit (Section 4–Figure 4.3) from which it will select the most appropriate elements for the province. We have identified four health system building blocks that require support to create a optimal enabling environment for epidemic control:

Improved leadership, governance and financial management would enable Province to decentralize responsibility to District and Community services. Anova's expert technical support, mentoring and training workshops will contribute to sustainable service provision and administrative leadership skills. Anova understands the legal and policy architecture that underpins service provision, and remains committed to support implementation of new policy frameworks such as the NHI and NSP. We will work with Provincial Health Management to strengthen clinical governance of contracted private sector providers (e.g. SPI-RT, CLI and supply chain).

Service delivery must be of high-quality and continuously assessed. Anova, together with Provincial Management, will regularly assess service delivery quality against core quality standards (including Anova's QMEC program) and design and implement QI interventions to address the emerging core issues. These initiatives will be implemented across service sectors, taking different health expenditure into account.

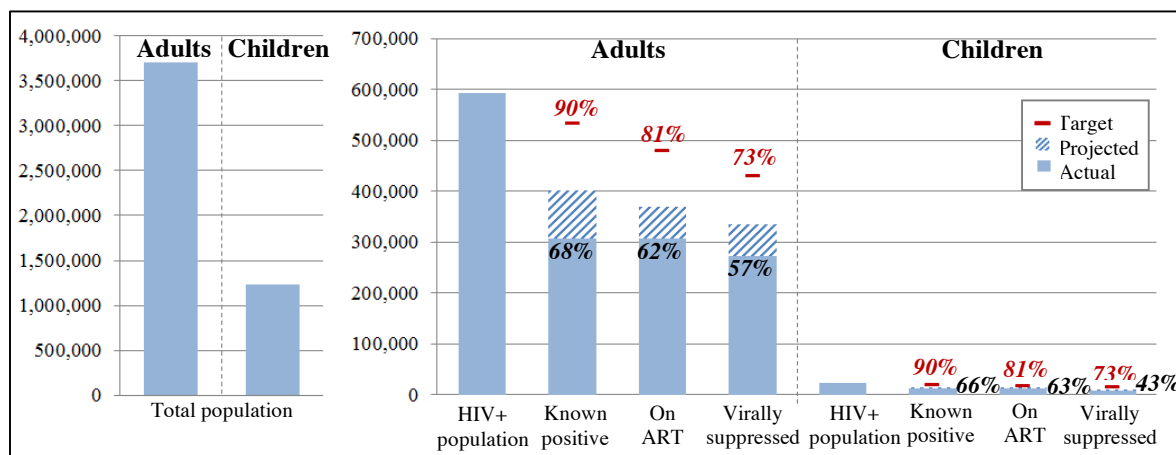
Health workforce planning is guided by the Approved Post List (APL). Anova will work with management to align the APL with implementation plans and site level activities. For example, lack of staff coverage for out-of-facility services remains a barrier to implementation. Anova will support Province to align workload with staff allocation through a process of diagnostics. We will support the Province in needs assessments, identification and contracting of private sector providers, especially for workplace programs.

Health information and strategic information is strictly controlled at Provincial level by the Health Information Management Directorate and the ICT unit. Anova will collaborate with both units and the Provincial and DHMT to optimize data use. Anova will contribute to inter-operability of the various health information systems (e.g. TIER.Net, PREMIS, eCAPA) by allocating a Technical Advisor at the interface of health and information management structures. Anova will offer our data-use training and mentoring to Province to enable data utilization for decision making.

The Provincial Department's eHealth strategy and the Center of e-Innovation plan to provide all people accessing fixed health facilities with high-speed broadband internet connectivity. Anova will assist the Province to identify innovative ways to utilize this initiative to improve healthcare monitoring and management, connect healthcare workers and patients for personalized care, provide an incentive for healthcare utilization, and provide people direct, free of charge access to health information.

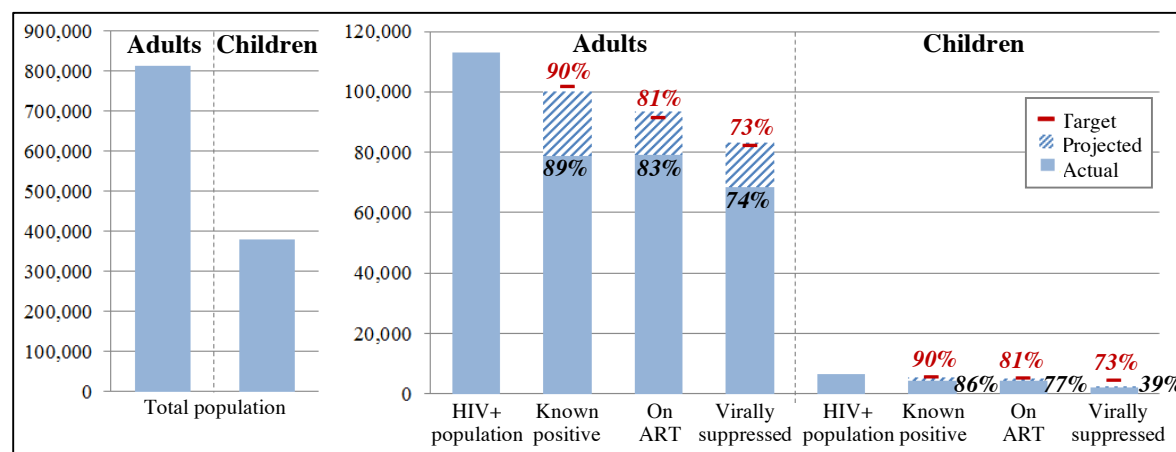
Annex B – Supporting Data

Figure B1. Adult and pediatric HIV care cascade for Johannesburg HD projected as at the end of COP17



Data sources: DHIS May 2017 pivots, StatsSA 2016 population data, Thembisa v3.2 (accessed Oct 2017), Tier.Net (Oct 2017 exports).

Figure B2. Adult and pediatric HIV cascade for Mopani District at the end of COP 17



Data sources: DHIS May 2017 pivots, StatsSA 2016 population data, Thembisa v3.2 (accessed Oct 2017), Tier.Net (Oct 2017 exports).

Figure B3. Anova’s core package of interventions to increase male engagement in care

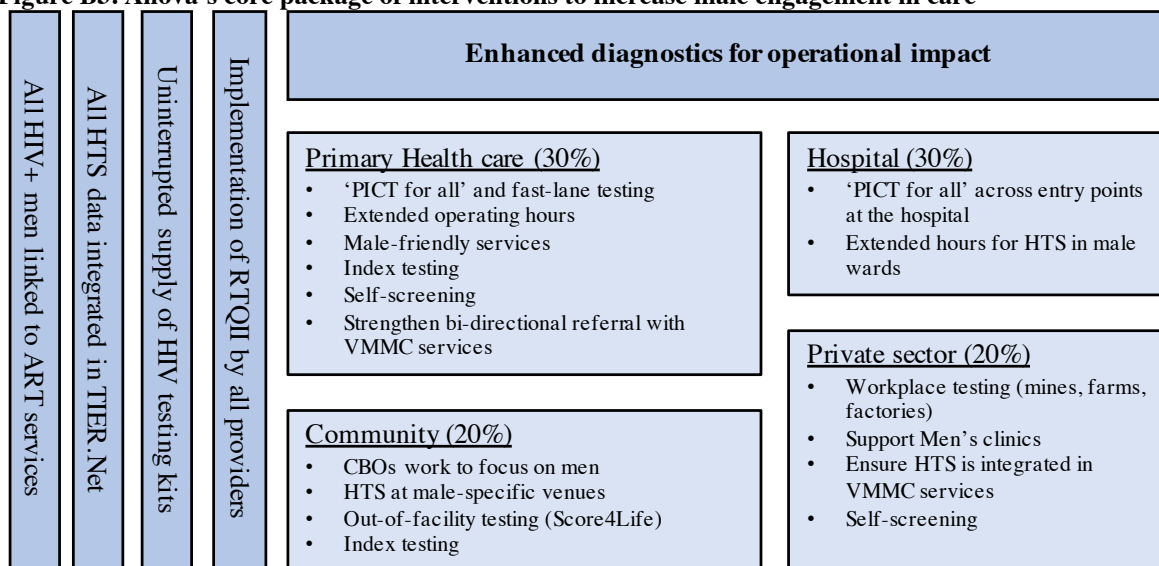


Figure B4. Anova’s comprehensive support model to private sector providers

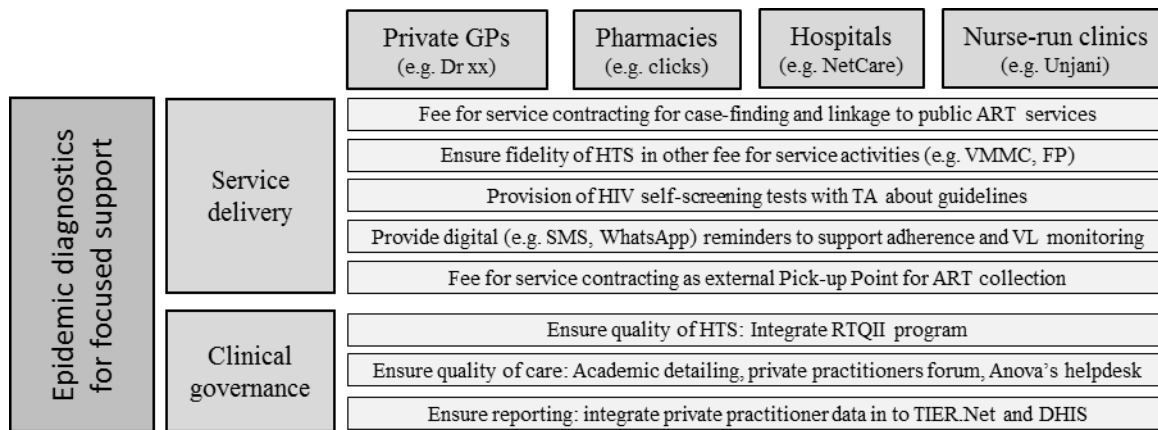


Figure B5. Anova’s core package of interventions to address adolescent program gaps across the continuum of care

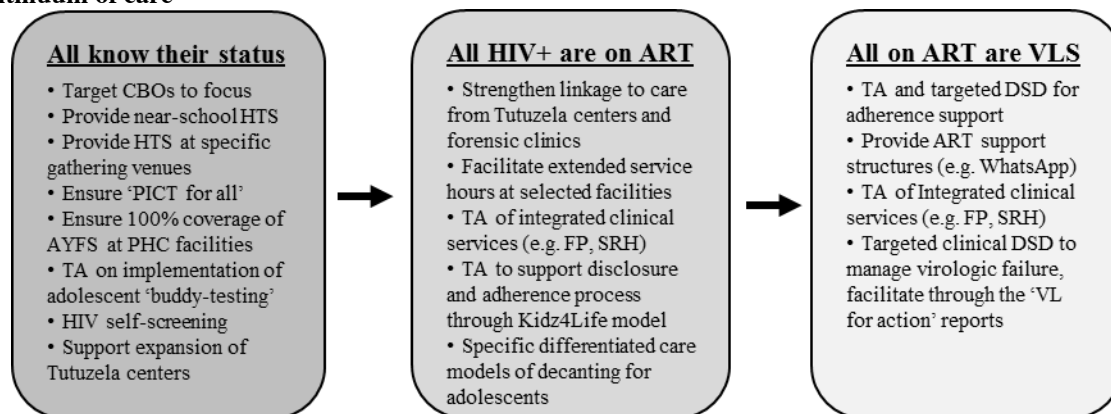
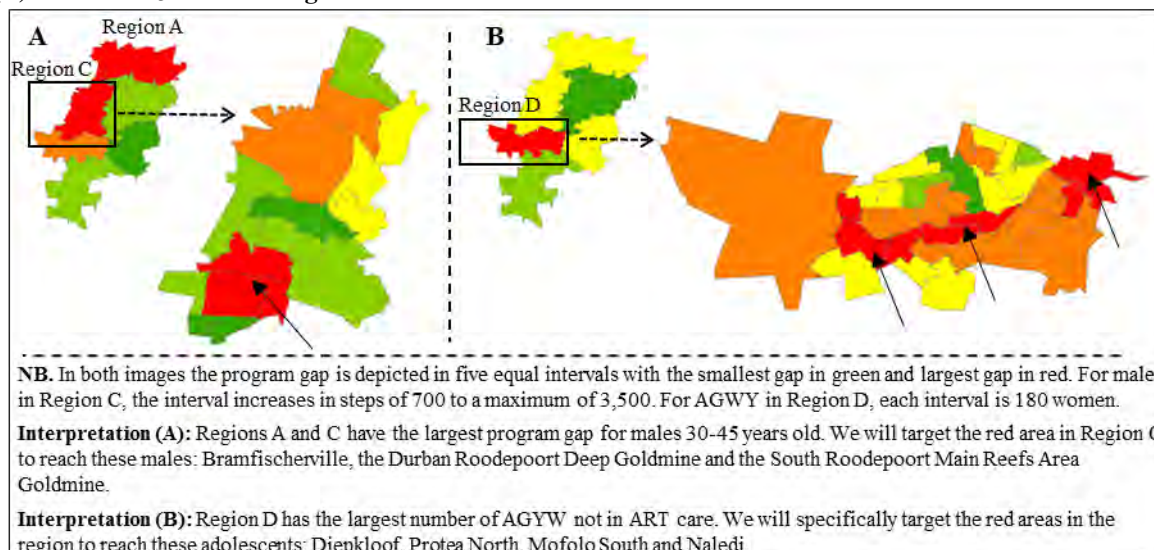


Figure B6. Example of GIS analysis to identify priority areas for targeting (A) males (30-45 years) and (B) AGYW in Johannesburg HD who are not in care



Data sources: StatsSA Census 2011 data, Thembeisa v3.2 (accessed Oct 2017), Tier.Net (Oct 2017 exports).

Figure B7. Anova's comprehensive strategy of TA and targeted DSD to strongly improve retention in care

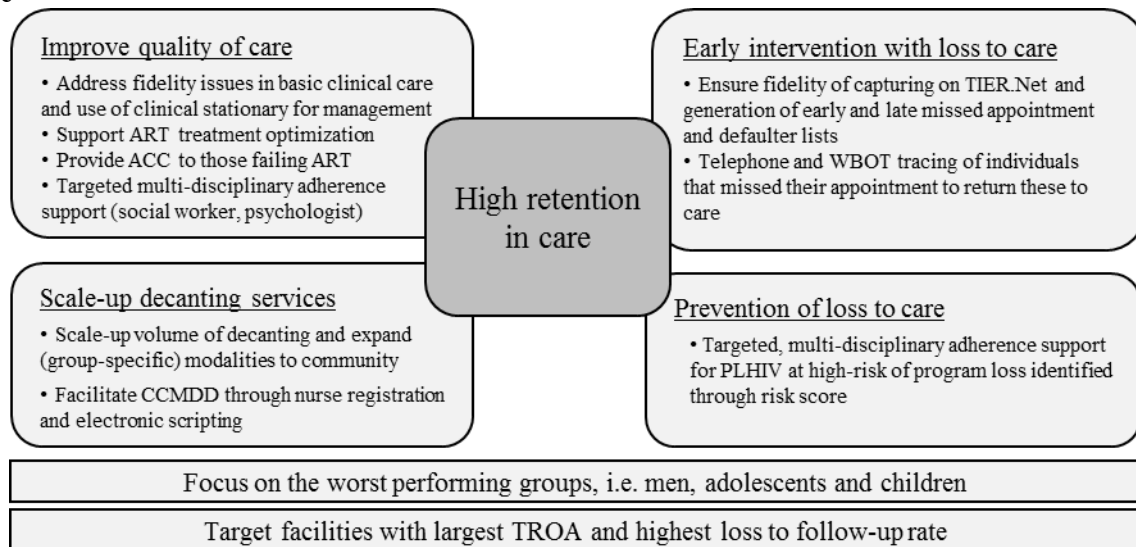
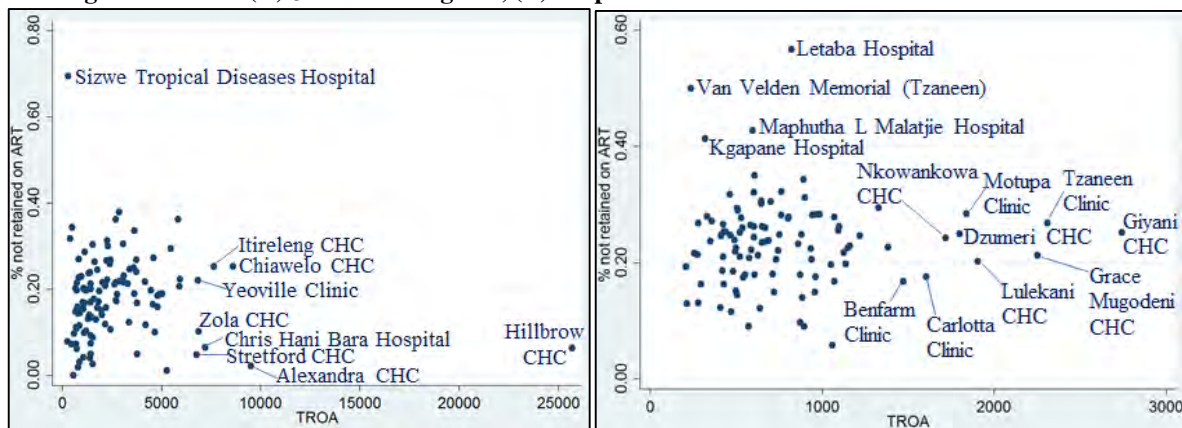
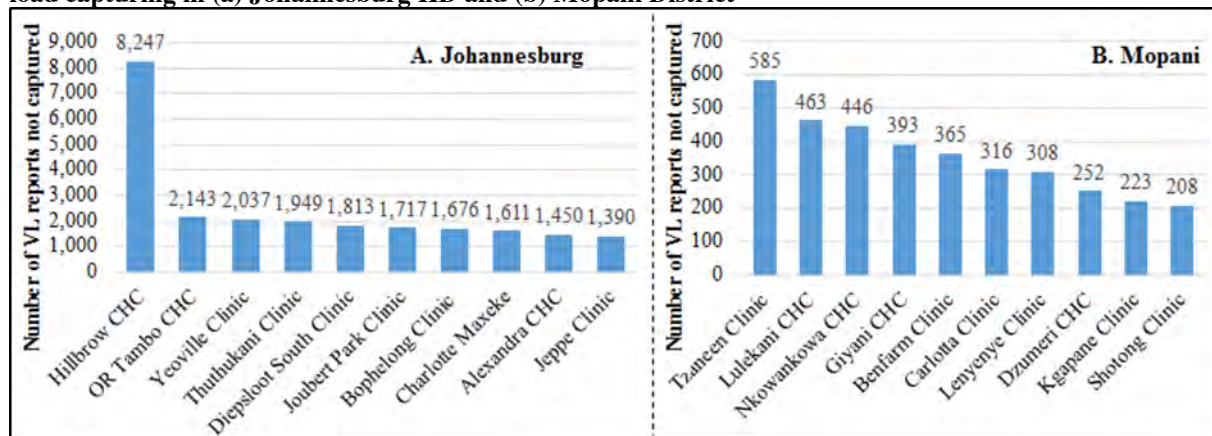


Figure B8. Example of dashboard analysis to identify priority facilities for decanting support based on the largest TROA in (A) Johannesburg HD, (B) Mopani District



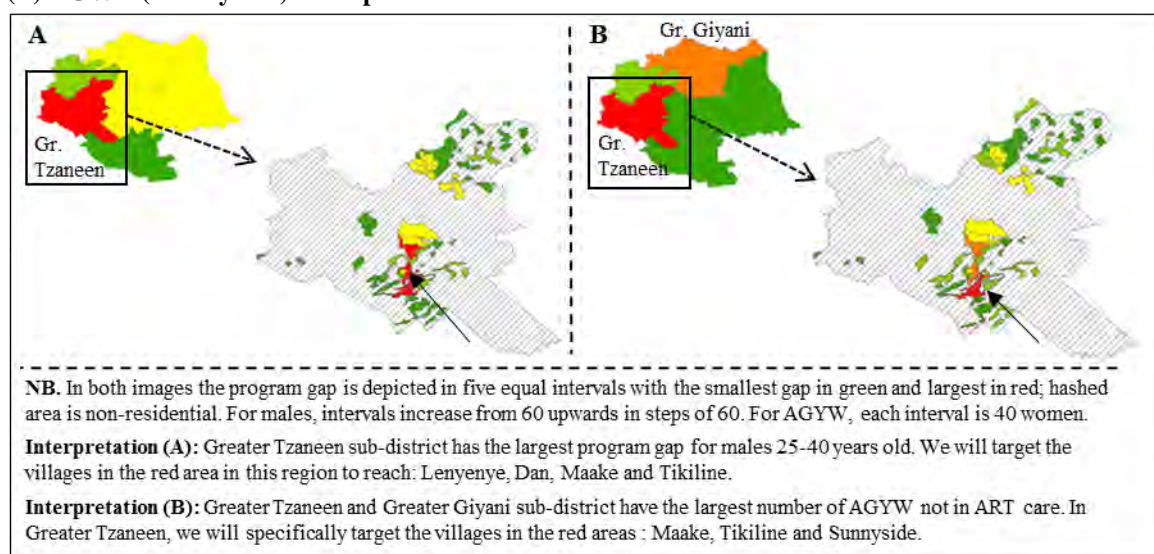
Data source: Tier.Net (Oct 2017 exports).

Figure B9. Example of dashboard analysis to identify the 10 facilities with the largest backlog in viral load capturing in (a) Johannesburg HD and (b) Mopani District



Data source: Tier.Net (Oct 2017 exports).

Figure B10. Example of GIS analysis to identify priority areas for targeting (A) males (25-40 years) and (B) AGYW (15-24 years) in Mopani District who are not on ART



Data sources: StatsSA Census 2011 data, Thembisa v3.2 (accessed Oct 2017), Tier.Net (Oct 2017 exports).

Table B1. Number of PLHIV to be initiated and retained in care to reach attainment status (ART coverage \geq 81%) in Johannesburg HD and Mopani District at October 2018

PLHIV	Johannesburg HD		Mopani District	
	Coverage at end of COP17	Number needed to achieve attainment status ^a	Coverage at end of COP17	Number needed to achieve attainment status ^a
Males <15 years	38%	4878	70%	345
Females <15 years	45%	3967	76%	159
Males 15-24 years	32%	6652	38%	1157
Females 15-24 years	42%	19263	53%	2784
Males \geq 25 years	52%	66433	73%	2561
Females \geq 25 years	76%	15998	93%	Attainment reached

Data sources: StatsSA 2016 population data, Thembisa v3.2 (accessed Oct 2017), Tier.Net (Oct 2017 exports).

Table B2. Indicators for quality of clinical care for adult PLHIV in Johannesburg HD and Mopani District, April – September 2017

Indicator	Johannesburg HD	Mopani District
Time to initiation:		
Same day initiation:	23%	12%
0-2 weeks	42%	42%
2-3 weeks	9%	8%
>3 weeks	26%	38%
Median baseline CD4 count (cells/mm ³)	275	290
Baseline count <200 cells/mm ³	38%	35%
Cotrimoxazole coverage in eligible patients	18%	19%
IPT coverage in eligible patients	11%	20%
TB/HIV co-infected clients on ART	84%	98%
VL failure at 12 months	10%	12%
On 2 nd line at 12 months	1.5%	0.8%
Backlog switch to 2nd line	78%	82%

Data sources: ETR.Net (Oct 2017 exports), Tier.Net (Oct 2017 exports).

Table B3. One-year ART retention rate by age and gender in Johannesburg HD and Mopani District, September 2017

Age-group (years)	Johannesburg HD		Mopani District	
	Male	Female	Male	Female
<5	75%	72%	56%	66%
5-14	86%	92%	87%	90%
15-24	81%	68%	81%	63%
25-49	84%	81%	73%	77%
50+	84%	89%	78%	86%
Total	84%	80%	74%	76%

Data source: Tier.Net (Oct 2017 exports).

Table B4. Time between ART initiation and program loss due to loss to follow-up and death in regions C, D, E, G of Johannesburg HD and Mopani District, September 2017

	<1 month	1-3 months	3-6 months	6-12 months
Johannesburg HD				
Loss to follow-up	42%	19%	21%	17%
Death	29%	24%	25%	22%
Mopani				
Loss to follow-up	39%	18%	20%	22%
Death	28%	30%	22%	20%

Data source: Tier.Net (Oct 2017 exports).

Table B5. One-year viral suppression rate by age and gender in Johannesburg HD and Mopani District, September 2017

Age-group (years)	Johannesburg HD		Mopani District	
	Male	Female	Male	Female
<5	80%	78%	60%	59%
5-15	81%	82%	61%	63%
15-20	73%	79%	48%	66%
20-25	77%	88%	67%	82%
25-30	90%	89%	89%	85%
30-35	88%	90%	85%	86%
35-40	88%	91%	84%	87%
40-45	89%	92%	83%	88%
45-50	90%	93%	84%	90%
50+	91%	94%	87%	91%

Data source: Tier.Net (Oct 2017 exports).

Table B6. Summary of QMEC diagnostic assessment key results for Johannesburg HD and Mopani District, 2017

WHO Block	Indicator	Johannesburg HD	Mopani
Service delivery	Decanting coverage (NAS)	19%	29%
	Specimen rejection rate (CLI)	8%	8%
	Missed diagnostic opportunities (CLI)	0.03%	0.02%
	Number of Thuthuzela centers for GBV care	8	1
	SIMS program priority areas	2A, 2B, 4A	1A, 2A, 2B, 4C
HIS and strategic information	Coverage TIER.Net ART in public sector	100%	100%
	Coverage TIER.Net pre-ART in public sector	100%	100%
	Coverage TIER.Net in private sector and in CBOs	0%	0%
	Records with UID recorded in TIER.Net	18%	74%
	Data quality index score	6/10	7/10
Access to essential medication	SVS reporting	96%	86%
	Completeness of reporting	95%	54%
	ARV stock availability	97%	80%
	Coverage of Rx Solutions in hospitals	100%	100%
	CCMDD scripting rejection rate	0.7%	12%
Leadership and Governance	Ideal Facility coverage	15%	35%
	Multisectoral DIP	In place and reviewed	In place and reviewed
	District therapeutic committee	Ill-functioning	Ill-functioning
	Registration of counsellors as HTC providers (RTQII)	2%	7%
	Nurses as 'Registered providers' for CCMDD	0%	20%
	EWI priority areas (low score)	EWI-1, EWI-2, EWI-5	EWI-1, EWI-2, EWI-3

Data sources: EWI, SIMS and CLI reports July – Dec 2017; NDoH SVS report, Ideal facility report, Anova's QMEC assessments.

Table B7. Anova's virologic failure score to identify at-risk individuals for enhanced, multi-disciplinary adherence support

Variable	Response	Score	<i>Based on multi-variate and time-trend analysis of a large TIER.Net dataset. PLHIV are score for 5 indicators associated with virologic failure. The potential scores range from 6 to 0 in this five-point risk score. We consider a score of 3 or more indicative of virologic failure; these individuals will receive intensified adherence counselling to prevent virologic failure. One in three individuals with a score ≥ 5 will not be virally suppressed at one year of ART targeted without intervention.</i>
Gender	Male	1	
	Female	0	
Age at ART start	<25 years	1	
	≥ 25 years	0	
Baseline CD4 count (cells/mm ³)	<200	2	
	200-350	1	
	≥ 350	0	
Prior ART	Yes	1	
	No	0	
On TB treatment	Yes	1	
	No	0	

Annex C – Draft Work Plan

Please see attached Excel Work Plan in required template.

Annex D – Monitoring, Evaluation and Learning (MEL) Plan

Anova’s MEL plan describes a process to identify and measure progress, performance and impact. Implementation of this plan will allow us to detect systemic changes in health systems functions, to understand system-wide effects, monitor patient clinical outcomes and explore the causal pathways and linkages between an intervention, its outcomes and impact.

Theory of change: Anova’s approach to achieve epidemic control is patient-centered and focused at site level with linkages to care from community to facility. Our approach can identify challenges, blockages and best practices to ensure that site-specific barriers to achieving targets are addressed and that quality care is delivered, through a combination of TA, DSD and working with Key Partners. To maximize impact, challenges at other levels of the health system (National, Provincial and District/Sub-district) must be addressed to create an enabling environment in which patient-centered differentiated care and treatment services are provided, and patient outcomes are improved. Our evidence-informed interventions have been tested and refined based on learning, enabling scale up and improved efficacy.

Figure D.1: Results framework

Goal: To achieve epidemic control in all districts			
Program Objective Prevention of new HIV infections and reduction in HIV morbidity and mortality through an improved and sustained HIV and TB Continuum of Care	Program Objective Strengthened District Health Systems in support of the HIV and TB Continuum of Care	Program Objective Strengthened Provincial Health Systems in support of the HIV and TB Continuum of Care	Program Objective Strengthened National Health Systems in support of the HIV and TB Continuum of Care
Outcome 90% of all people living with HIV know their status HTC services are increased, focused and targeted across service platforms with increased access and strengthened linkages and referrals	Outcome There is improved communication across service sectors	Outcome There is improved communication across service platforms	Outcome There is improved communication across service platforms
Outcome 90% of all people diagnosed with HIV receive ART Health workers understand and support a patient-centred approach, provide high quality differentiated care, and target priority groups, thereby increasing numbers of individuals initiated on ART and retained in care Sites have the supplies and stock to address increased demand for treatment and care	Outcome District Implementation Plans are compiled and implemented in a manner that enables sites to meet their mandates	Outcome Provincial Implementation Plans are compiled and implemented in a manner that enables districts to meet their mandates	Outcome Evidence based operational research and innovative practices are provided to inform National policies and guidelines
Outcome 90% of all people receiving ART are virally suppressed All sites provide ongoing viral load monitoring; adequate clinical intervention when needed; and streamlined service provision for multi-diagnosis clients; and are equipped to treat or refer complex cases	Outcome Districts demonstrate improved coordination and management	Outcome Provinces demonstrate improved leadership	Outcome Proven innovations are provided to inform evidence-based decision-making

Illustrative outcome and performance indicators: Table D.1 illustrates progression of proposed annual targets to achieve end-of-activity results.

Table D.1: Illustrative targets

Objective	Indicator	Y1 Target	Y2 Target Saturation	Y3 Target	Y4 Target	Y5 Target Attainment
90% of HIV-positive people will know their status	HTS_TST	1,844,135	2,028,949	717,451	585,682	411,771
	HTS_TST_POS	205,218	217,238	64,584	56,544	36,272
90% of people living with HIV are on ART	TX_NEW	184,696	195,514	58,126	50,889	32,645
	TX_NET_NEW	138,522	146,636	43,595	38,167	24,484
	TX_CURR	1,182,542	1,329,178	1,372,773	1,400,140	1,413,824
90% of people living with HIV virally suppressed	TX_PVLS	1,064,288	1,196,260	1,235,495	1,260,126	1,272,441

Data collection, quality assurance and reporting: Anova will utilize multiple sources of data (routine, programmatic, QMEC, population, survey, etc.) to identify and measure direct and indirect causal linkages among interventions, performance and impact. Triangulating data from all available sources enables Anova, at a granular level, to identify interventions, facilities or areas where the program is (over)achieving targets and where it is underperforming. This allows scale-up of successful interventions with fidelity and quality and to address underperformance. To achieve this, we will align our site-level QI/QA program with the QMEC program, based on a Continuous Quality Management plan (as mandated for COP 18). These data will enable a deeper understanding of what is being implemented, the scale, reasons for underperformance at facility and community sites, and remedial actions that can be taken. An overview of the district and provincial QMEC data allows Anova to plan, manage and make incremental real time changes to our supportive interventions at site, community and above-site levels to improve health outcomes. This continuous use of data to improve program knowledge and action will be reflected in reports to and joint assessment and refinement of work plans with USAID/SA. See Section 5.4 for a full description of the Anova data collection and quality assurance procedures.

Figure D.2: Logic Framework

Objectives	Indicators	Means of Verification	Assumptions
Program Goal: To achieve epidemic control in all districts	Illustrative Impact Indicator: ART coverage $\geq 81\%$ in 6 age/gender bands in all districts	HMIS (TIER.Net, ETR.Net, webDHIS) NHLS results Population data Prevalence data	PEPFAR Funding will be maintained Targets are based on accurate data, and are realistic/feasible
Program Objectives (Outcomes): Prevention of new HIV infections and reduction in HIV morbidity and mortality through an improved and sustained HIV and TB Continuum of Care Strengthen District Health Systems in support of the HIV and TB Continuum of Care. Strengthen Provincial Health Systems in support of the HIV and TB Continuum of Care. Strengthen National Health Systems in support of the HIV and TB Continuum of Care.	Illustrative Outcome indicators: Objective 1: Proportion reduction in new HIV infections Proportion reduction in morbidity & mortality Objective 2,3,4: Improved communication between levels of the continuum of care District and Provincial Implementation Plans (DIPs and PIPs) are developed and implemented in a manner that better enables facilities and districts to meet their mandates Improved coordination and management by District of HTC CBOs and WBOT teams. Improved % of patient outcomes through shared operational research that informs national policies and guidelines	Baseline Reports Midterm assessment reports EOP evaluation report DIP reports HMIS (TIER.Net, ETR.Net, webDHIS) NHLS results Audit results CBO reports SIMS results Pharmacovigilance reports	DOH Supportive of interventions CBO/Community Support Private Sector cooperation/Support Availability of trained Clinical & M&E Staff
System-wide changes Strengthen health system on the following aspects: Service delivery Health Workforce Health Information Systems Access to essential medicine Financing Leadership and Governance	Illustrative system-wide outcome indicators: Improvement in quality of care Reduction in staff absenteeism, retention rate, vacant vs allocated position Improved timeliness, completeness and accuracy of data and information use Decrease in drug stock outs and increased rational use of medicine Improved budgeting allocation process	Facility audits (SIMS) & surveys Evaluation results HMIS HRH assessments (WISN) Expenditure analyses DIP plans	Project implementation as planned Access to data
Intermediate Results (Outcome): 90% of people living with HIV will know their status. 90% of people living with HIV on ART 90% of people living with HIV virally suppressed	Illustrative Intermediate Outcome Indicators: % of PLHIV tested for HIV and received their results % of PLHIV initiated on ART % of PLHIV remaining in care % of PLHIV virally suppressed	HMIS (TIER.Net, ETR.Net, webDHIS) NHLS results Population data (STATSSA) Prevalence data (Thembisa model)	Good data quality Access to data Good quality of HIV testing, laboratory testing services Trained staff Fidelity to SOPs

<p>Illustrative outputs</p> <p><i>Community level:</i> Conduct HIV tests on partners and children of confirmed TB cases</p> <p><i>Facility level:</i> Increase PICT at all patient entry points</p> <p><i>District level:</i> Provide technical assistance to district management teams on implementation of CLI/PHC laboratory handbook activity implementation.</p> <p><i>Provincial level:</i> Provide technical assistance to Provinces and develop Provincial Implementation Plans (PIPs), using data-driven approach</p> <p><i>National level:</i> Form part of the national strategic information TWG to inform policy design and implementation of M&E systems</p>	<p>Illustrative Output indicators:</p> <p><i>Community level:</i> Number of HIV tests conducted on partners and children of confirmed TB cases</p> <p><i>Facility level:</i> Number of HIV tests conducted by providers per entry point</p> <p><i>District level:</i> Number of teams trained and mentored on implementation of CLI/PHC laboratory handbook activity implementation.</p> <p><i>Provincial level:</i> PIP developed through a data driven approach</p> <p><i>National level:</i> Number of TWG meetings attended</p>	<p>HMIS (TIER.Net, ETR.Net, webDHIS) NHLS results Meeting attendance registers and minutes Mentoring registers Training registers DIP PIP SIMS RDQA Reports</p>	<p>Data available Availability of staff to receive mentoring Good data quality Access to data Good quality of HIV testing, laboratory testing services Trained staff Fidelity to SOPs</p>
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Evaluation and Learning Plan: Monitoring data, and knowledge from internal and external evaluations reflecting systemic and contextual issues, will be used to revise the ToC and adapt implementation strategies. Anova will work with Partners and stakeholders to ensure that learning from all program review processes is consolidated and utilized for program efficiency. Anova teams will take every opportunity to facilitate collaborative and reflective learning amongst GoSA, USAID, Partners and community stakeholders.

Based our logic model, Anova will evaluate the program regularly to inform planning review, optimize activities to improve results, and manage necessary changes.

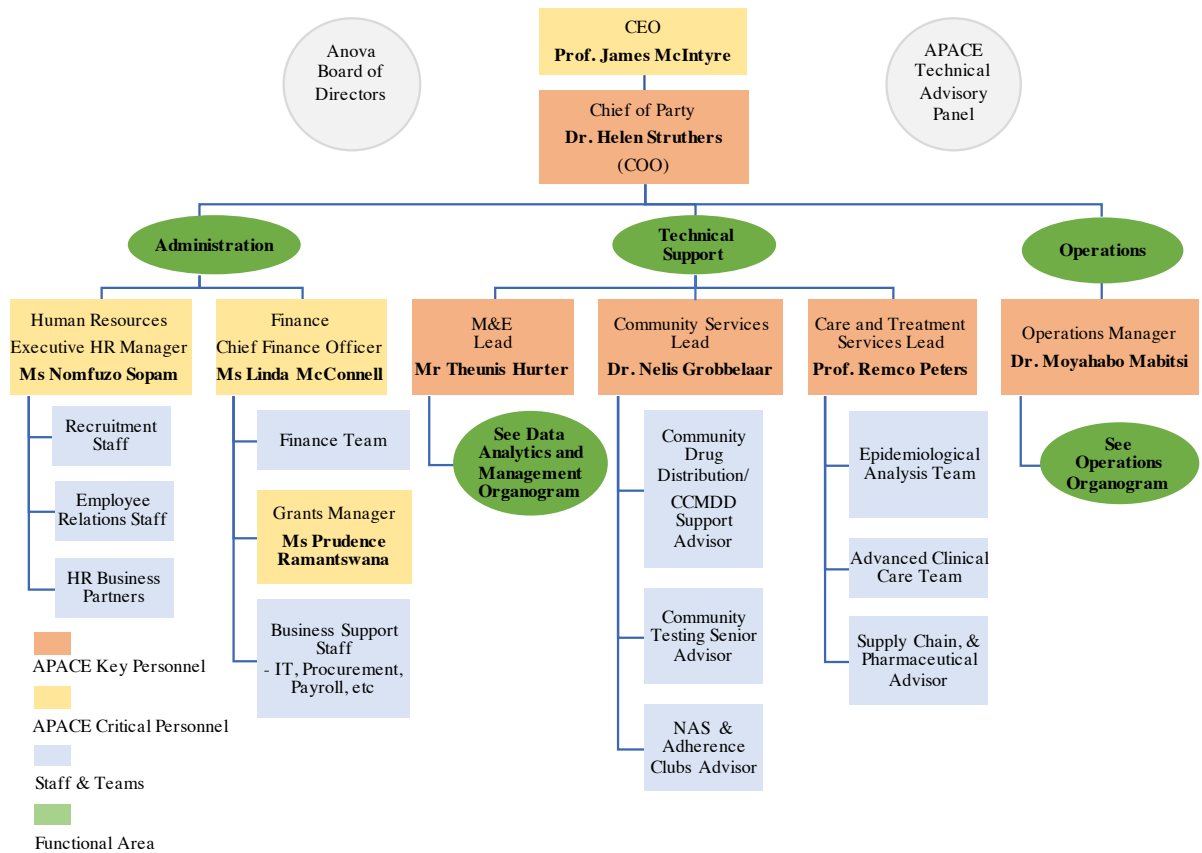
Table D.2: Evaluation Questions

Evaluation type and project use	Evaluation timing	Methodology	Main/priority evaluation questions (example questions)
Process	Quarterly Annually	QMEC reports GIS analyses Internal evaluation Case studies	Are the interventions being implemented with fidelity and as planned? What are the main drivers of facility performance towards reaching epidemic control? Are we targeting the right population for high impact? Which of Anova’s activities contribute to achieving objectives?
Outcome	Annually	External evaluations Routine monitoring data	Have the interventions improved the health system at district and provincial levels? Which interventions are the most effective at improving district and provincial health systems? What are the changes in morbidity and mortality profile of PLHIV in care?
Impact	Midway, final year	External evaluations Patient surveys	What has been Anova’s attribution to achieving epidemic control within Districts? Has Anova implemented a sustainable program? Patient perceptions on the extent to which a patient-centered approach has been adopted.
Cross cutting		Cost effectiveness analysis	Have the interventions implemented been cost effective?

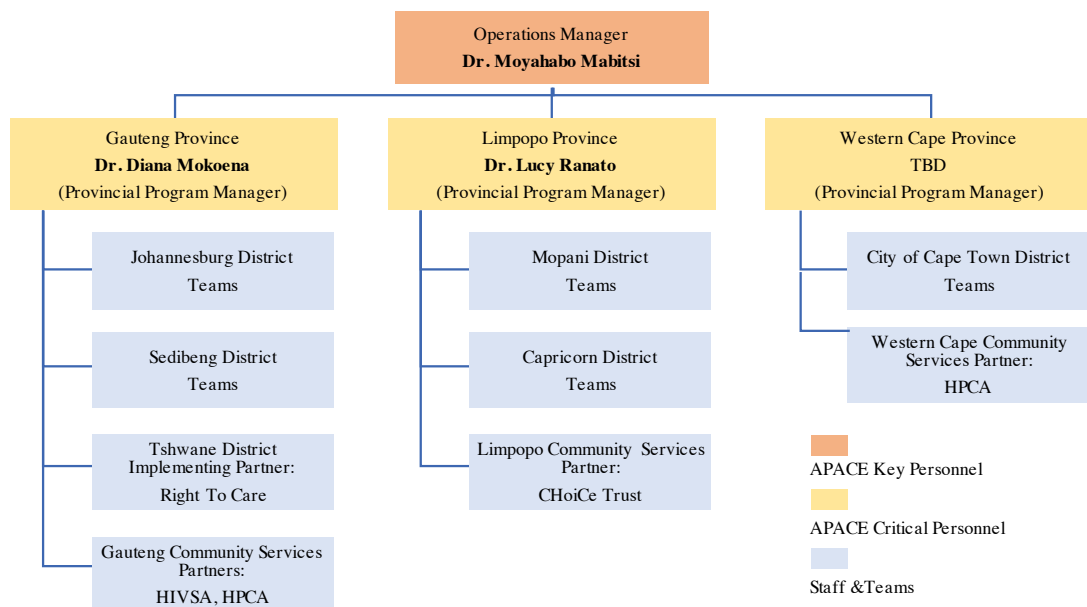
Measurement of sustainability of targeted results and outcomes: Singizi Consulting Africa, has evaluated Anova programs and other large projects, and will assess the impact of the program on the health system and patient outcomes, as well as sustainability of the program’s intended results and outcomes (the extent to which DoH priorities, capacities, and resources are being utilized in ways that put DoH actors in charge of solving health system challenges along the HIV and TB continuum of care).

Annex E – Organizational Charts

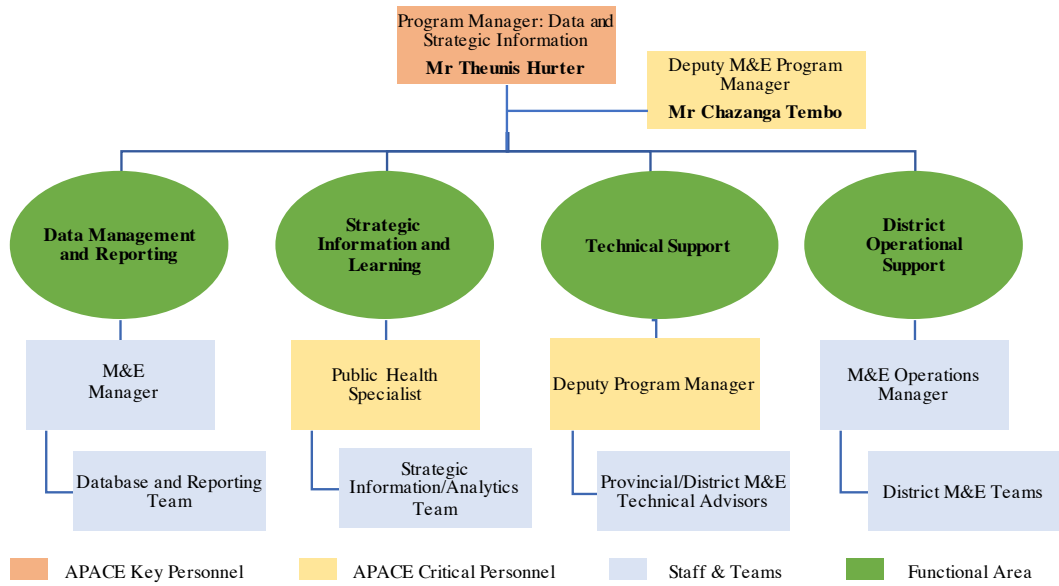
Anova APACE Organizational Organogram



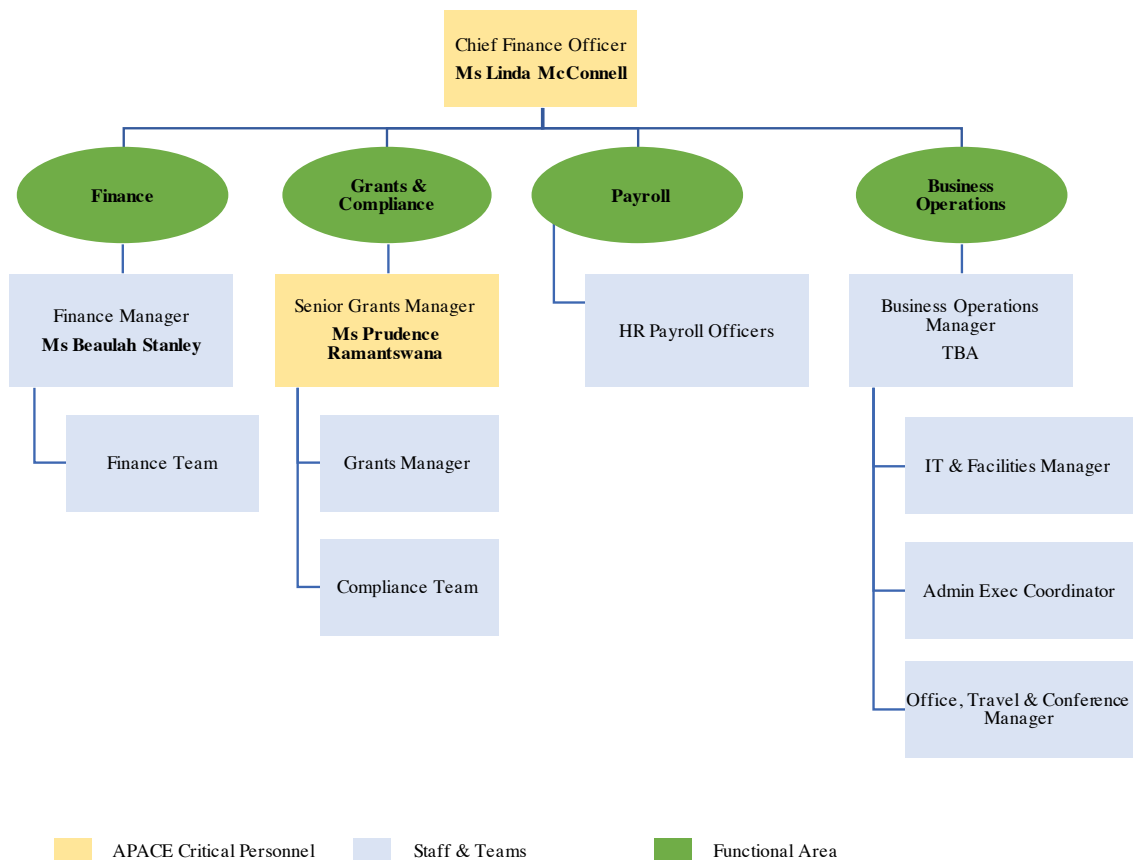
Anova APACE Operations Organogram



Anova APACE Data Analytics and Management Organogram



Anova APACE Finance Organogram



Annex F – Key Personnel CVs and Letters of Commitment

Annex F-1: Biosketches

Annex F-1a: Chief of Party: Dr Helen Struthers

NAME: Dr Helen Struthers	POSITION TITLE: Chief Operating Officer and Chief of Party
eRA COMMONS USER NAME:	

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of the Witwatersrand	BSc	1980	Applied Mathematics and Geography
University of Cape Town	BSc (Hons)	1981	Applied Mathematics
University of the Witwatersrand	MSc	1990	Applied Mathematic
University of the Witwatersrand	MBA	2001	Business Administration and Management
University of the Witwatersrand	PhD	2014	Health Sciences

A. Personal Statement

Dr Helen Struthers is the Chief Operating Officer of the Anova Health Institute (Anova), an independent, not-for-profit, research and TA organization, established to improve health through its focus on people infected with or infected by HIV, particularly in developing countries. She leads the Financial, Administrative and Operations Divisions of Anova and oversees Anova's operations to the value of \$20million annually and its 700 staff.

Dr Struthers has 25 years' management experience with 15 years' experience designing, implementing, leading and managing large USAID-funded HIV programs, giving her excellent knowledge of US Government's financial and procurement requirements. Dr Struthers' oversight of Anova's current USAID-supported program interventions, together with her broader Anova portfolio, enabled her to develop a nuanced understanding of the challenges and potentials involved in management and control of the epidemic, and the critical need to contribute to building evidence-based decision-making at every level of the health system.

Dr Struthers leads Anova's international work, as part of the USAID funded EQUIP Consortium, is expanding its HIV and key populations expertise into Africa. Anova staff contribute to international and national policy and guideline development, disseminate findings at international and local conferences, and support and transfer knowledge and skills to other development organizations in and outside of South Africa.

Dr Struthers has been instrumental in scaling up access to HIV services in the public sector since 2002. She has led teams and partners throughout South Africa in close partnership with the DoH and various development partners. Projects have included building and improving infrastructure, capacity building through training and mentoring, deploying staff for direct service delivery, and health and community systems strengthening. She has also initiated niche projects such as research on mental health and HIV, which led to the development of training materials and training of health care workers; and HIV and the Media, engaging mainstream media and journalists to improve media coverage of the HIV epidemic. This work resulted in numerous media articles and two books.

Dr Struthers has contributed substantially to many publications, giving her a robust, in depth knowledge of the critical linkage points between communities, facilities, district, and provincial structures, for delivery of the 90-90-90 targets. Her successful engagement with

stakeholders at all levels of the system, together with effective management of a large implementing team, resulted in Anova achieving their targets in a cost-efficient manner.

Dr Struthers has a particular interest in the intersection of men, including MSM, and HIV. Dr Struthers has researched extensively in this field, which is largely neglected in Africa. Dr Struthers, together with Professor James McIntyre, leads Anova's Key Populations program, which contributes to building a national comprehensive prevention and treatment program in South Africa. These activities are supported by USAID, the Elton John AIDS Foundation, MAC AIDS and the Global Fund. Dr Struthers collaborates with the University of California on surveillance activities in South Africa. She is also an Honorary Research Associate in the Division of Infectious Diseases & HIV Medicine, Department of Medicine at the University of Cape Town.

B. Positions and Honors

Positions and Employment

1979-1980	Research Assistant, University of the Witwatersrand, Johannesburg, South Africa
1981-1981	Graduate Teaching Assistant, University of Cape Town, Cape Town, South Africa
1982-1982	Programmer, Lindsay Data Systems, Johannesburg, South Africa
1983-1993	Consultant Project management, research and data processing, Anglo American Corporation, Johannesburg, South Africa
1990-1995	Senior Geophysics consultant, Geodass (Pty) Ltd, Johannesburg, South Africa
1995-1998	Survey Manager (Section Geophysicist) Anglo American Corporation, Johannesburg, South Africa
1999-1999	Senior Consultant, Abt Associates Inc., Johannesburg, South Africa
1999-2001	Independent Consultant, Helen Struthers cc, Johannesburg South Africa
2001-2009	Programme Director, Perinatal HIV Research Unit, Wits Health Consortium, University of the Witwatersrand, Johannesburg, South Africa.
2009 – Present	Chief Operating Officer and Director, Anova Health Institute, Johannesburg, South Africa.
2011 – Present	Honorary Research Associate, Department of Medicine, University of Cape Town, South Africa.

C. Selected peer-reviewed publications (in chronological order).

- Rees K, Radebe O, Arendse C, Modibedi C, Struthers HE, McIntyre JA, Peters RPH. *Utilization of Sexually Transmitted Infection Services at 2 Health Facilities Targeting Men Who Have Sex With Men in South Africa: A Retrospective Analysis of Operational Data.* Sex Transm Dis. 2017 Jul 21.
- Daniels J, Lane T, Struthers H, Maleke K, Moges W, McIntyre J, Coates T. *Assessing the Feasibility of Smartphone Apps for HIV-Care Research with MSM and Transgender Individuals in Mpumalanga, South Africa.* J Int Assoc Provid AIDS Care. 2017 Sep/Oct;16(5):433-439.
- Makhakhe NF, Lane T, McIntyre J, Struthers H. *Sexual transactions between long distance truck drivers and female sex workers in South Africa.* Glob Health Action. 2017;10(1)
- Hoogendoorn JC, Ranoto L, Muditambi N, Railton J, Maswanganyi M, Struthers HE, McIntyre JA, Peters RPH. *Reduction in extrapulmonary tuberculosis in context of antiretroviral therapy scale-up in rural South Africa.* Epidemiol Infect. 2017 Sep;145(12):2500-2509.
- Kufa T, Lane T, Manyuchi A, Singh B, Isdahl Z, Osmand T, Grasso M, Struthers H, McIntyre J, Chipeta Z, Puren A. *The accuracy of HIV rapid testing in integrated bio-*

- behavioral surveys of men who have sex with men across 5 Provinces in South Africa.* Medicine (Baltimore). 2017 Jul;96(28):e7391.
- Scheibe A, Grasso M, Raymond HF, Manyuchi A, Osmand T, Lane T, Struthers H. *Modelling the UNAIDS 90-90-90 treatment cascade for gay, bisexual and other men who have sex with men in South Africa: using the findings of a data triangulation process to map a way forward.* AIDS Behav. 2017 Apr 25. doi: 10.1007/s10461-017-1773-y. [Epub ahead of print]
- Maleke K, Makhakhe N, Peters RP, Jobson G, De Swardt G, Daniels J, Lane T, McIntyre JA, Imrie J, Struthers H. *HIV risk and prevention among men who have sex with men in rural South Africa.* Afr J AIDS Res. 2017 Mar;16(1):31-38.
- Daniels J, Maleke K, Lane T, Struthers H, McIntyre J, Kegeles S, Moore A, Coates T. *Learning to Live with HIV in the Rural Townships: A Photovoice Study of Men who have Sex with Men living with HIV in Mpumalanga, South Africa.* J Assoc Nurses AIDS Care. 2017 May - Jun;28(3):408-421. doi: 10.1016/j.jana.2017.02.003. Epub 2017 Feb 13.
- Jobson GA, Grobbelaar CJ, Mabitsi M, Railton, J, Peters RPH, McIntyre JA, Struthers HE. *Delivering HIV services in partnership: factors affecting collaborative working in a South African HIV programme.* Globalization and Health. 2017. 13:3.
- Vermund SH, Mallalieu EC, Van Lith LM, Struthers HE. *Health Communication and the HIV Continuum of Care.* J Acquir Immune Defic Syndr. 2017 Jan 1;74 Suppl 1:S1-S4.
- Lane T, Osmand T, Marr A, Struthers H, McIntyre JA, Shade SB. *Brief Report: High HIV Incidence in a South African Community of Men Who Have Sex With Men: Results From the Mpumalanga Men's Study, 2012-2015.* J Acquir Immune Defic Syndr. 2016 Dec 15;73(5):609-611.
- Tucker A, Liht J, de Swardt G, Arendse C, McIntyre J, Struthers H. *Efficacy of Tailored Clinic Trainings to Improve Knowledge of Men Who Have Sex with Men Health Needs and Reduce Homoprejudicial Attitudes in South Africa.* LGBT Health. 2016 Dec;3(6):443-450. Epub 2016 Nov 11
- Hugo JM, Stall RD, Rebe K, Egan JE, De Swardt G, Struthers H, McIntyre JA. *Anti-retroviral Therapy Based HIV Prevention Among a Sample of Men Who Have Sex with Men in Cape Town, South Africa: Use of Post-exposure Prophylaxis and Knowledge on Pre-exposure Prophylaxis.* AIDS Behav. 2016 Sep 8
- Lilian RR, Mutasa B, Railton J, Mongwe W, McIntyre JA, Struthers HE, Peters RP. *A 10-year cohort analysis of routine paediatric ART data in a rural South African setting.* Epidemiol Infect. 2016 Sep 9:1-11.

Books

- Meyer M and Struthers H (eds) (Un)covering Men: Rewriting Masculinity and Health in South Africa. 2012. Jacana.
- Palitza K, Ridgard N, Struthers H & Harber A (eds). *What is left unsaid: Reporting the South African HIV Epidemic.* Jacana Media. Johannesburg, South Africa. 2010.

Book Chapters

- Lazarus R, Struthers H and Violari A. *Growing Confidence? Family Planning by HIV-Positive Mothers in a South African Urban Setting.* Women, Motherhood and Living with HIV/AIDS - A Cross-Cultural Perspective. 2013. Springer.
- Mfecane S, Struthers H, Gray G, McIntyre J. *The practice of masculinity in Soweto Sheneens: Implications for safer sex.* In D. Gibson & A. Hardon (eds) Rethinking masculinities, violence and AIDS. 2005. Amsterdam: Het Spinhuis

Annex F-1b: Operations Manager: Dr. Moyahabo Mabitsi

NAME: Dr Moyahabo Mabitsi	POSITION TITLE: Executive Manager: Public Health
eRA COMMONS USER NAME:	

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Pretoria	MBcHB	2005	Medicine
University of Pretoria	Diploma Tropical Medicine	2008	Medicine
College of Medicine SA	Diploma HIV Management	2011	HIV Medicine
Wits University	MSc Epidemiology & Biostatistics (completed course work, currently at Dissertation stage)	Current	Public Health

A. Personal Statement

Dr Moyahabo Mabitsi has worked in Public Health Programmes in different positions within Anova for seven years. She has a sound knowledge of the public health system in South Africa, particularly primary health care. She was involved in implementation of TB/HIV/PMTCT policies/guidelines at Primary Health Care level – this included the rollout of NIMART from 2011. In her roles as TB Technical Advisor and manager of Anova’s Johannesburg District PEPFAR programme, she has provided capacity building for DoH clinicians, and facilitated the provision of TA to sub-district and District level DoH management. Her management responsibilities included oversight of program progress and quality, all financial, administration and procurement, and coordination with Anova teams and stakeholders to address identified gaps as well as good practice. Dr Mabitsi’s clinical experience together with her management role in Anova give her a comprehensive understanding of the interplay between policy implementation and practical realities within the South African health system, particularly in high density areas.

In the APACE program Dr Mabitsi’s role will expand to oversight of implementation of program operations. In this she will support, and be supported by, Anova Program Managers in Limpopo and Gauteng provinces and districts. She will ensure appropriate engagement with National, Provincial, and District DoH management as well as community-based stakeholders, ensuring alignment of Anova work plans with DoH priorities. She will also contribute to the development of strategies to strengthen community and health facility engagement, and work with all stakeholders to ensure effective implementation and monitoring of program progress against agreed targets. Her oversight role will also include monitoring of program performance and quality, implementation of quality improvement measures to address identified gaps, analyzing data from services provided, and compiling reports for USAID.

B. Positions and Employment

Date	Organization and Position
September 2017 - present	Anova Health Institute Executive Manager: Public Health
July 2014 - August 2017	Anova Health Institute Program Manager, Johannesburg District
March 2012 - June 2014	Anova Health Institute TB Technical Advisor, Johannesburg District
May 2011 - February 2012	Witkoppen Community Health Centre Medical Officer
April 2010 - April 2011	Anova Health Institute Medical Officer,
June 2008 - March 2010	NHLS Cytology Medical officer
January 2007 - May 2008	Voortrekker Hospital Community Service Medical officer (12 months) then Medical Officer
January 2006 - December 2006	Far East Rand Hospital Intern Medical Officer

C. Selected peer-reviewed publications

- Jobson, G.A., Grobbelaar, C.J., Mabitsi, M., Railton, J. & Peters, R.P., McIntyre, J.A. & Struthers, H.E. (2017). *Delivering HIV services in partnership: factors affecting collaborative working in a South African HIV programme*. *Globalization and Health* 13(1), 3. PMID: 28086914.

Annex F-1c: HIV Care and Treatment Services Lead – Prof. Remco Peters

NAME: Professor Remco P.H. Peters	POSITION TITLE: Clinical Program Specialist, Extraordinary Professor
eRA COMMONS USER NAME: Anova004	

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Erasmus University Medical Center, Rotterdam, The Netherlands	MSc	2000	Medicine
VU University Medical Center, Amsterdam, The Netherlands	MD (cum laude)	2006	Medicine
VU University Medical Center, Amsterdam, The Netherlands	PhD	2007	Clinical Microbiology & Infectious Diseases
London School of Hygiene & Tropical Medicine, University of London, United Kingdom	DLSHTM	2012	Epidemiology
Colleges of Medicine of South Africa	Dip HIV Man	2016	HIV management

A. Personal Statement

Prof R.P.H. Peters (MD, PhD, DLSHTM, Dip HIV Man (SA)) is an expert clinician, epidemiologist and researcher in the field of HIV, Sexually Transmitted Infections (STIs) and TB. He currently heads Anova Health Institute's clinical, epidemic analysis and research units as Clinical Program Specialist. He is affiliated as Extraordinary Professor at the Department of Medical Microbiology at the University of Pretoria, South Africa, and with the Department of Medical Microbiology at the Maastricht University Medical Centre in Maastricht, The Netherlands. Prof Peters has worked in various resource-constrained settings in clinical care, epidemiological research, program implementation and management roles across Africa.

Following his work at the Outpatient Clinic for Sexually Transmitted Diseases & HIV in The Hague, Prof Peters moved to South Africa where he ran various high-quality health development programs. Since 2008, he has designed, implemented and managed increasingly complex HIV programs for Anova, most under PEPFAR funding, in various settings in South Africa; he headed Anova's USAID-funded District support project in Mopani District, Limpopo Province, for 3 years. Prof Peters has good relationships with many senior DoH (executive) managers and core technical staff at National, Provincial and District level, academic researchers across the country and internationally, and links to NICD, NHLS and relevant CBOs, FBOs and NGOs in the provinces where Anova works. Prof Peters has experience in clinical capacity building within the private sector. He is an examiner for the Higher Diploma of Sexual Health & HIV Medicine for the Colleges of Medicine of South Africa and provides training for the Southern African HIV Clinicians Society. Prof Peters has secured a variety of public health implementation and research funding, including from the ELMA Foundation, AIDS Fonds, Dutch Chamber of Commerce, Orange Babies, NHLS and a sub-award on EU/FP7 program.

Prof Peters' has a vast research interest and has (co)authored more than 65 publications with focus on four priority areas in resource-constrained settings: a) Innovative ways to strengthen HIV service delivery and care in Africa, b) The impact of HIV infection on ocular disease and its pathogenesis, c) Public health impact of novel diagnostics for tuberculosis,

and d) Improving STI care in resource-constrained settings at the intersection of high-level epidemiological, microbiological and public health knowledge. His research has contributed substantially to local, national and international guideline development and policy design.

For the APACE program, Prof Peters will provide laboratory leadership, expertise and supervision of molecular epidemiological analyses of the specimen biobank he oversees as part of his responsibilities at the Department of Medical Microbiology at the University of Pretoria. He will also contribute to the use of geographic information system analysis and improvement of data management within the program.

B. Positions and Honors

Positions and Employment

2007-2008	Post-doctoral researcher, Department of Medical Microbiology & Infection Control, VU University Medical Center, Amsterdam, The Netherlands
2007-2008	Physician, Outpatient clinic for Sexually Transmitted Diseases & HIV, Municipal Health Services, The Hague, The Netherlands
2008-2009	Senior Medical Officer, Perinatal HIV Research Unit, Khutso Kurhula Project, Tzaneen, South Africa
2008-2010	Clinical Manager, Anova Health Institute, Khutso Kurhula Project, Tzaneen, South Africa
2010-2013	Programme Manager, Khutso Kurhula and Family Free projects, Anova Health Institute, Tzaneen, South Africa
2013-2014	Resident and Researcher, Department of Medical Microbiology, Maastricht University Medical Centre, Maastricht, The Netherlands
2014-Present	Clinical Program Specialist, Head of the Clinical, Epidemic analysis and Research units, Anova Health Institute, Johannesburg, South Africa
2015-Present	Extraordinary Professor, Department of Microbiology, University of Pretoria, South Africa
2017-Present	Department of Medical Microbiology, Maastricht University Medical Centre, Maastricht, The Netherlands

Other Experience and Professional Memberships

2002	Certificate of Good Clinical Practice (latest refresher course valid to 2018)
2004	Regular reviewer for various scientific journals including Clinical Infectious Diseases, Sexually Transmitted Infections, Sexually Transmitted Diseases, BMC Infectious Diseases, Tropical Medicine & International Health, and the South African Medical Journal
2008	Successfully supervised 5 PhD, 17 MSc and 3 BSc students that completed their thesis. Currently supervising 6 PhD students and 2 MSc students.
2014	Member of the Limpopo Health Research Committee, South Africa
2014	Examiner of the Higher Diploma of Sexual Health & HIV Medicine for the Colleges of Medicine of South Africa
2016	Consultancy for the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

C. List of Key Publications

The publications most relevant to APACE program are listed below and are selected from 65+ scientific articles published in peer-reviewed journals.

- Peters, R.P., van Ramshorst, M.S., Struthers, H.E. & McIntyre, J.A. (2014). Clinical assessment of peripheral neuropathy in HIV-infected children on antiretroviral therapy in rural South Africa. *European Journal of Paediatrics* 173(9), 1245–8. PMID: 24691679.

- Van Ramshorst, M.S., Struthers, H.E., McIntyre, J.A. & Peters, R.P. (2014). Blood lactate in HIV-infected children on antiretroviral therapy in rural South Africa. *Pediatric Infectious Diseases Journal* 33(4), 393–5. PMID: 23995586.
- Lilian, R.R., Mutasa, B., Railton, J., Mongwe, W., McIntyre, J.A., Struthers, H.E. & Peters, R.P. (2017). A 10-year cohort analysis of routine paediatric ART data in a rural South African setting. *Epidemiology & Infection* 145(1), 170–80. PMID: 27609130.
- Jobson, G.A., Grobbelaar, C.J., Mabitsi, M., Railton, J. & Peters, R.P., McIntyre, J.A. & Struthers, H.E. (2017). Delivering HIV services in partnership: factors affecting collaborative working in a South African HIV programme. *Globalization and Health* 13(1), 3. PMID: 28086914.
- Lilian, R.R., Grobbelaar, C.J., Hurter, T., McIntyre, J.A., Struthers, H.E. & Peters, R.P. (2017). Application opportunities for Geographic Information Systems analysis to support achievement of the UNAIDS 90-90-90 targets in South Africa. *South African Medical Journal* 107(12); 1065-71. PMID: 29262957.
- Myburgh, H., Murphy, J.P., van Huyssteen, M., Foster, N., Grobbelaar, C.J., Struthers, H.E., McIntyre, J.A., Hurter, T. & Peters, R.P. (2015). Implementation of an electronic monitoring and evaluation system for the antiretroviral treatment programme in the Cape Winelands district, South Africa: a qualitative evaluation. *PLoS One* 10(5), e0127223. PMID: 25966294.
- Mnyani, C.N., Tait, C.L., Armstrong, J., Blaauw, D., Chersich, M.F., Buchmann, E.J., Peters, R.P. & McIntyre, J.A. (2017). Infant feeding knowledge, perceptions and practices among women with and without HIV in Johannesburg, South Africa: a survey in healthcare facilities. *International Breastfeeding Journal* 12, 17. PMID: 28405213.
- Rees, K., Grobbelaar, C.J., Hartnick, A., van Staden, S., Raphaely, N., Liebenberg, H., Struthers, H.E., McIntyre, J.A. & Peters, R.P. (2017). An innovative model of implementation support to achieve the UNAIDS 90-90-90 goals at facility level: a mixed methods evaluation. Submitted for publication.
- Van der Eem, L., Dubbink, J.H., Struthers, H.E., McIntyre, J.A., Ouburg, S., Morre, S.A., Kock, M.M. & Peters, R.P. (2016). Evaluation of syndromic management guidelines for treatment of sexually transmitted infections in South African women. *Tropical Medicine & International Health* 21, 1138-46. PMID: 27350659.
- Peters, R.P., Doyle, R., Redelinghuys, M.J., McIntyre, J.A., Verjans, G.M., Breuer, J. & Kock, M.M. (2017). Genital Chlamydia trachomatis biovar L2 infection in South African women. *Emerging Infectious Disease*, 23(11); 1913-5. PMID: 29048296.
- Schaftenaar, E., Khosa, N.S., Baarsma, G.S., Meenken, C., McIntyre, J.A., Osterhaus, A.D., Verjans, G.M. & Peters, R.P. (2017). HIV-infected individuals on long-term antiretroviral therapy are at higher risk for ocular disease. *Epidemiology & Infection* 145, 2520-5.
- Schaftenaar, E., Meenken, C., Baarsma, G.S., Khosa, N.S., Luijendijk, A., McIntyre, J.A., Osterhaus, A.D., Verjans, G.M. & Peters, R.P. (2016). Uveitis is predominantly of infectious origin in a high HIV and TB prevalence setting in rural South Africa. *British Journal of Ophthalmology* 100, 1312-6. PMID: 27107174.
- Schaftenaar, E., Meenken, C., Baarsma, G.S., McIntyre, J.A., Verjans, G.M. & Peters, R.P. (2016). Early- and late-stage ocular complications of herpes zoster ophthalmicus in rural South Africa. *Tropical Medicine & International Health* 21, 334-9. PMID: 26663773.
- Hoogendoorn, J.C., Ranoto, L., Muditambi, N., Railton, J., Maswanganyi, M., Struthers, H.E., McIntyre, J.A. & Peters, R.P. (2017). Reduction in extrapulmonary tuberculosis in context of antiretroviral therapy scale-up in rural South Africa. *Epidemiology & Infection* 145(12), 2500–9. PMID: 28748775.

Annex F-1d: HIV Community Services Lead – Dr. Cornelis Grobbelaar

NAME: Dr. Cornelis Johannes Grobbelaar	POSITION TITLE: Provincial Program Manager: Western Cape
eRA COMMONS USER NAME: Nelis	

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Stellenbosch	MB. CHB	1990	General practitioner
College of Medicine	Diploma	1996	Child Health
College of Medicine	Diploma	1996	Obstetrics
College of Medicine	Diploma	2007	HIV Management
University of Stellenbosch	M Med	2012	Family Medicine

A. Personal Statement

For the past 24 years Dr Grobbelaar worked as a medical doctor and program manager in the public health care system in the rural districts of the Western Cape, South Africa. After ten years of general medicine, he started focusing on improving health care at Primary Health Care level, and from 2003 he began to concentrate on the problem of providing ART to HIV infected patients. In February 2004, he opened the first service point providing ART in a rural district in the Western Cape. From 2009, after joining Anova as a Program Manager Dr Grobbelaar worked extensively on community-based HIV support services, looking at ways to ensure local-level support for patients, and tackling the perennial problems of referrals and adherence.

Dr Grobbelaar specialized in family medicine (M Med) and focused on health system reform and establishing health care services in the communities - linking the community with healthcare. Working in the rural Cape Winelands District, he developed an in-depth understanding of community engagement and the multitude of stakeholders that must be consulted to build trust before any intervention is embraced by the community.

He has played an important leadership role at different levels in establishing and developing ART services in rural districts of the Western Cape. Implementation science, operational research and evaluating the outcomes of the ART program are an important ongoing aspect of his work. Dr Grobbelaar's Anova work has also included an increasing amount of health system strengthening activity in the Western Cape, and engaging with a range of government and community stakeholders in this regard. Dr Grobbelaar has a particular interest in the nature of partnerships between health services and communities.

In the APACE program, Dr Grobbelaar will act as the HIV Community Services Lead, providing guidance to Anova's community partners, and engaging and advising the DoH about the most effective and sustainable ways to link communities to services. He will also be central to monitoring program progress and quality.

B. Positions

1991	Intern; Windhoek State Hospital and Katatura Hospital, Windhoek, Namibia
1992	South African Medical Services; 1 Year of Compulsory Military Service
1993	Junior Medical Officer; Tygerberg Hospital (Internal Medicine; Cardiology and Oncology)

1994-2003	Medical Officer; Paarl Hospital (Internal Medicine; Paediatrics; Obstetrics and Gynaecology; Surgery; Orthopaedics; Anaesthetics and Family Medicine; Health Management; Trauma and Emergency)
1999	Acting Medical Superintendent of Paarl Hospital
2000	Sabbatical
2003-2004	Principle Medical Officer; HIV/AIDS program – Department of Health
2005-2009	Chief Medical Officer; HIV/AIDS Program – Department of Health
2009-Present	Program manager; Anova Health Institute

C. Research and development

HIV/AIDS Involvement: Between January 2003 and December 2009, Dr Grobbelaar was the Principle Medical Officer and then the Chief Medical Officer: HIV/AIDS program for the West Coast/ Wine lands region (a region of 500 000 people with a 10% HIV incidence). Initially, Dr Grobbelaar focused on starting a service to treat opportunistic infections in patients with HIV/AIDS in the absence of an ARV treatment program. Once local clinics were accredited to initiate patients onto ARVs, he oversaw the enrollment of over 3000 patients into the public health program. In 2009, Dr Grobbelaar joined Anova as a Program Manager and in this capacity provided technical support to HAST programs. His main focus areas have been identifying barriers to testing and treatment at community level, and providing and supporting skills development for DoH staff.

D. Research

- Molecular genetic analysis of varied clinical responses to antiretroviral drug compounds in South Africa populations – a pharmacogenetics study. Co-worker; Department of Genetics; University of Stellenbosch and TC Newman Hospital; 2004/ongoing.
- A study of the application of 4-hydroxynonenal as a marker for the progression of HIV/AIDS. Co-Investigator; Department of Analytical Chemistry; University of Stellenbosch; 2005/ongoing.
- A study to Understand Community Response to the availability of Antiretroviral Therapy in South Africa. Collaborator; University of Western Cape; 2005/awaiting results.
- Health system burden of HIV/AIDS in the Western Cape. Collaborator; Health economics Unit / Infectious Diseases Epidemiology Unit; School of Public Health & Family Medicine; Faculty of Medicine; University of Cape Town. 2004/5.
- A study to determine the levels of depression, substance abuse and trauma-related problems in persons living with HIV and AIDS. Collaborator; The MRC Research Unit on anxiety and Stress disorders and the Department of Psychiatry; University of Stellenbosch; 2004/5.

Publications

- Gray, D.M, Workman, L, Lombard, C. J., Jennings, T., Innes, S., Grobbelaar, C. J., Cotton, M. F., Zar, H. J. *Isoniazid preventive therapy in HIV-infected children on antiretroviral therapy: a pilot study*. The International Journal of Tuberculosis and Lung Disease Volume 18, Number 3, 1 March 2014, pp. 322-327(6)
- Myburgh, H., Murphy, J., Van Huyssteen, M., Foster, N., Grobbelaar, C.J., Struthers, H., McIntyre, J., Hurter, T. & Peters, R.P. (2015). *Implementation of an electronic monitoring and evaluation system for the antiretroviral treatment programme in the Cape Winelands district, South Africa: A qualitative evaluation*. PLOS ONE, 10(5):e0127223.

- G A Jobson, C J Grobbelaar, M Mabitsi, J Railton, R P H Peters, J A McIntyre, H E Struthers. *Delivering HIV services in partnership: factors affecting collaborative working in a South African HIV programme*. *Globalization and Health* (2017) 13:3

Annex F-1e: Monitoring and Evaluation Lead – Mr. Theunis Hurter

NAME: Theunis Hurter	POSITION TITLE: Program Manager: Data and Strategic Information
eRA COMMONS USER NAME:	

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Stellenbosch	BSc	2007	Biological Human Life Sciences
University of Stellenbosch	BSc(Hons)	2008	Physiological Sciences
University of Cape Town	MPH	2015	Master of Public Health

A. Personal Statement

Mr Hurter has over eight years’ experience in policy development, M&E program design, implementation, health system strengthening and monitoring and evaluation within the public health sector in South Africa. In his current role as a Program Manager at Anova Health Institute, Mr Hurter leads the Data Analytics and Management Division, ensuring world class data management, analytics and monitoring practises are implemented across projects. He implemented Anova’s current monitoring, evaluation and learning system, introducing improved data gathering and management tools as well as streamlined analytics, directly impacting Anova’s performance through improved diagnostics, planning, monitoring, evaluations and accurate reporting. The process also created a strong internal team with M&E, data analytic and public health expertise. Mr Hurter has advised on Technical Working Groups for the South African National Department of Health and the South African National AIDS Council and is a member of the TB/HIV Information Systems Integration Technical Working Group.

In the APACE program, Mr Hurter will act as the Monitoring and Evaluation Lead, providing strategic oversight and practical implementation guidance to the monitoring, evaluation and reporting functions. He will be responsible for strategic information production based on rigorous performance monitoring systems, as well as the provision of technical support for relevant DoH technical health information systems and personnel.

B. Positions

Positions and Employment

2015 – Current	Program Manager: Data and Strategic Information – Anova Health Institute
2010 – 2015	Technical Advisor: Monitoring and Evaluation (M&E) – Anova Health Institute
2010 - 2012	Contract (Part time) Lecturer, infectious disease module, Clinical Applied Physiology 324 – University of Stellenbosch
2009 - 2010	Case Study Manager – Perinatal HIV Research Unit, WITS Health Consortium

C. Selected peer-reviewed publications (in chronological order).

- Innes, S., Lazarus, E., Otwombe, K., Liberty, A., Germanus, R., Janse Van Rensburg, A., Grobbelaar, C.J., Hurter, T., Eley, B., Violari, A. & Cotton, M.F (2014). *Early severe HIV disease precedes early antiretroviral therapy in infants: Are we too late?* Journal of the International AIDS Society 17:18914.
- Myburgh, H., Murphy, J., Van Huyssteen, M., Foster, N., Grobbelaar, C.J., Struthers, H., McIntyre, J., Hurter, T. & Peters, R.P. (2015). *Implementation of an electronic monitoring and evaluation system for the antiretroviral treatment programme in the Cape Winelands district, South Africa: A qualitative evaluation.* PLOS ONE, 10(5):e0127223.
- Lilian, R., Grobbelaar, C.J., Hurter, T., McIntyre, J., Struthers, H. & Peters, R.P (2017) *Application opportunities of Geographic Information Systems analysis to support achievement of the UNAIDS 90-90-90 targets in South Africa.* South African Medical Journal 07(12):1065-1071.

Annex F-2: Letters of Commitment
Annex F-2a: Chief of Party: Dr Helen Struthers



January 3, 2018

Prof James McIntyre
Chief Executive Officer
Anova Health Institute NPC
Johannesburg

Key personnel letter of commitment to participate in *Accelerating Program Achievements to Control the Epidemic (APACE) in South Africa*
RFA#72067418RFA00001

Dear Prof. McIntyre,

With reference to the above request for applications, I have pleasure in confirming my availability and commitment to serve as the Chief of Party on this grant, if awarded to Anova Health Institute.

I confirm that I am available from 1 October, 2018 to begin working on the program.

I certify that I am duly authorised to sign this letter of commitment.

Yours sincerely,

DR HELEN STRUTHERS
CHIEF OPERATING OFFICER

Anova Health Institute NPC

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Registration number: 2009/014103/08

Directors: T.J. Dikgole (Chairman), J.A. McIntyre (CEO), H.E. Struthers (COO), S.K. Kekana, N. Theron, L.M. Molefi, M.F. Venter

Annex F-2b: Operations Manager: Dr. Moyahabo Mabitsi



January 3, 2018

Prof James McIntyre
Chief Executive Officer
Anova Health Institute NPC
Johannesburg

**Key personnel letter of commitment to participate in *Accelerating Program Achievements to Control the Epidemic (APACE) in South Africa*
RFA#72067418RFA00001**

Dear Prof. McIntyre,

With reference to the above request for applications, I have pleasure in confirming my availability and commitment to serve as the Operations Manager on this grant, if awarded to Anova Health Institute.

I confirm that I am available from 1 October, 2018 to begin working on the program.

I certify that I am duly authorised to sign this letter of commitment.

Yours sincerely,

DR MOYAHABO MABITSI
EXECUTIVE MANAGER: PUBLIC HEALTH

Anova Health Institute NPC

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Registration number: 2009/014103/08

Directors: T.J. Dikgole (Chairman), J.A. McIntyre (CEO), H.E. Struthers (COO), S.K. Kekana, N. Theron, L.M. Molefi, M.F. Venter

Annex F-2c: HIV Care and Treatment Services Lead – Prof. Remco Peters



January 3, 2018

Prof James McIntyre
Chief Executive Officer
Anova Health Institute NPC
Johannesburg

**Key personnel letter of commitment to participate in *Accelerating Program Achievements to Control the Epidemic (APACE) in South Africa*
RFA#72067418RFA00001**

Dear Prof. McIntyre,

With reference to the above request for applications, I have pleasure in confirming my availability and commitment to serve as the HIV Care and Treatment Services Lead on this grant, if awarded to Anova Health Institute.

I confirm that I am available from 1 October, 2018 to begin working on the program.

I certify that I am duly authorised to sign this letter of commitment.

Yours sincerely,

A handwritten signature in black ink, appearing to be "R. Peters", written over a light grey circular watermark.

PROF REMCO PETERS
CLINICAL PROGRAMME SPECIALIST

Anova Health Institute NPC

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Registration number: 2009/014103/08
Directors: T.J. Dikgole (Chairman), J.A. McIntyre (CEO), H.E. Struthers (COO), S.K. Kekana, N. Theron, L.M. Molefi, M.F. Venter

Annex F-2d: HIV Community Services Lead – Dr. Cornelis Grobbelaar



January 3, 2018

Prof James McIntyre
Chief Executive Officer
Anova Health Institute NPC
Johannesburg

**Key personnel letter of commitment to participate in *Accelerating Program Achievements to Control the Epidemic (APACE) in South Africa*
RFA#72067418RFA00001**

Dear Prof. McIntyre,

With reference to the above request for applications, I have pleasure in confirming my availability and commitment to serve as the HIV Community Services Lead on this grant, if awarded to Anova Health Institute.

I confirm that I am available from 1 October, 2018 to begin working on the program.

I certify that I am duly authorised to sign this letter of commitment.

Yours sincerely,

DR NELIS GROBBELAAR
PROVINCIAL PROGRAMME MANAGER: WESTERN CAPE

Anova Health Institute NPC

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Annex F-2e: Monitoring and Evaluation Lead – Mr. Theunis Hurter



January 3, 2018

Prof James McIntyre
Chief Executive Officer
Anova Health Institute NPC
Johannesburg

**Key personnel letter of commitment to participate in *Accelerating Program Achievements to Control the Epidemic (APACE) in South Africa*
RFA#72067418RFA00001**

Dear Prof. McIntyre,

With reference to the above request for applications, I have pleasure in confirming my availability and commitment to serve as the Monitoring and Evaluation Technical Lead on this grant, if awarded to Anova Health Institute.

I confirm that I am available from 1 October, 2018 to begin working on the program.

I certify that I am duly authorised to sign this letter of commitment.

Yours sincerely,

THEUNIS HURTER
PROGRAMME MANAGER: DATA & STRATEGIC INFORMATION

Anova Health Institute NPC

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Registration number: 2009/014103/08
Directors: T.J. Dikgole (Chairman), J.A. McIntyre (CEO), H.E. Struthers (COO), S.K. Kekana, N. Theron, L.M. Molefi, M.F. Venter

Annex G – Mobilization Plan

Anova has developed and maintained excellent partnerships with Gauteng, Western Cape and Limpopo Provincial DoH through our longstanding work in these Provinces. This will **facilitate rapid mobilization and initiation** of the APACE grant. Anova's Provincial Program Managers and Liaison Officers are currently responsible for maintaining relationships with senior DoH management at all levels, working closely with PPL, and will oversee transition into new districts.

Anova has an in-depth understanding of the specific strengths, needs and gaps in each of the Provinces (see Annex A) and understands the dynamics of working within Provinces and Districts as two distinct but interdependent levels of government. This understanding will enable Anova respond sensitively to the needs of both management structures.

In Gauteng, Anova is the current DSP coordinating partner in the **Johannesburg Health District**, and has established good relationships with all PEPFAR-funded organizations, the District and City administrations. In addition to this current work in Johannesburg, Anova successfully supported HIV care and treatment programs, including NIMART implementation, in the Midvaal Sub-district from 2006 to 2012, this will expedite engagement with the **Sedibeng District Health Management**. Right to Care, Anova's proposed implementing Partner for **Tshwane District** in this proposal, is currently the DSP in three Sub-districts of Tshwane and has good working relationships with District Management. **In Limpopo**, Anova's decade long presence in Mopani District has also facilitated excellent links at a Provincial level. **In the Western Cape**, Anova has well-established connections with the Provincial, District and City Health Departments through work in the Winelands District, previous hospital support, and the Health4Men program in Cape Town.

Our community partners, HIVSA, HPCA, and CHoiCe Trust have worked in Gauteng, Limpopo and Western Cape for over 8 years and have a deep understanding of communities in these Districts. They have built good relationships with all community structures including the ward counsellors and traditional health practitioners, as well as CBOs, FBOs and NGOs. Anova will use these existing relationships with DoH, other organizations and communities to facilitate entry into new Districts and Sub-districts, and to expand support services in current districts.

Prior to submitting of this proposal, Anova discussed proposed approaches with the NDoH Chief Director HAST, and Gauteng, Limpopo and Western Cape Provincial, District and Local Government structures. We have received letters of support for the application from Provincial and District Health leadership in all three Provinces, and the City of Johannesburg Health Department. These strongly express their confidence in Anova's ability to lead this work, and their commitment to work with Anova if the grant is awarded. (Letters of support are available on request).

APACE Program Mobilization and Initiation Plans: Anova's structured initiation plan for July to December 2018 will ensure efficient and timely implementation of the APACE grant in October 2018. This includes post-award and pre-initiation planning, stakeholder engagement, and staffing and operations planning, as detailed in Table 9.1. Plans will be tailored to review and refine District work plans where Anova is the current DSP, and to engage and ensure smooth transition of activities from outgoing partners in new Districts.

Post Award Planning: Upon award of the APACE grant, Anova will revise and update Provincial and District assessment to align with the grant, and our experienced financial and HR teams will begin to plan and implement grant administration systems.

Pre-Initiation Planning: Prior to grant initiation, the Anova APACE Management Committee will work closely with PPLs and engage with the NDoH HAST Directorate, Provincial (Office of Head of Department and HAST Directorate) and District DoH to make them aware of Anova’s role in the Provinces and Districts under the APACE grant. This will be followed by engagement with the current PEPFAR-funded partners working in new areas allocated to Anova for development of joint transition plans. Transition plans will include agreements about absorption of some implementation staff (from current DSP), to avoid gaps in service delivery, and for sustainability, as some current partner staff may be more familiar with district-specific issues.

Table 9.1: Anova APACE Mobilization and Initiation Plan July to December 2018

			2018					
			Jul	Aug	Sep	Oct	Nov	Dec
POST AWARD PLANNING	ANOVA APACE TECHNICAL & ADMINISTRATION TEAMS	Revise and update Provincial Baseline Assessments						
		Revise and update District Baseline Assessments						
		Plan and implement Grant Finance and Admin systems						
PRE-INITIATION PLANNING	ANOVA APACE MANAGEMENT COMMITTEE	Review and align work plan to award						
		Develop stakeholder engagement plan						
		Develop provincial and district initiation, staffing and operations plans						
STAKEHOLDER ENGAGEMENT	USAID/PEPFAR	Grant award & certification requirements						
		Branding and Marking Plan						
		Work plan finalization & approval						
		Contract finalization and award						
	ANOVA APACE IMPLEMENTING PARTNERS	PEPFAR certification requirements						
		Partner work plan finalization & approval						
		Sub award contract finalization and issue						
		Project initiation workshops						
	OTHER PEPFAR PARTNERS	Engagement with outgoing District Support Partners						
		Negotiation on any staff and equipment transfers						
		Handover from outgoing District Support Partners						
		Engagement with other PEPFAR project partners - OVC, HTS, GBV, KP						
	SOUTH AFRICAN GOVERNMENT	Engagement with National DOH						
		Engagement and joint planning with Provincial DOH						
		Engagement and joint planning with District DOH						
Engagement and joint planning with Local Authority DOH								
COMMUNITY	Engagement with CBO's in districts							
	Engagement with ward committees in districts							
PRIVATE HEALTH SECTOR	Identify and consult with key private sector practitioners							
	Map private sector facilities in district							
STAFFING	ANOVA APACE HEAD OFFICE TEAM	Confirm and contract key & critical personnel						
		Finalize staffing plan for APACE Head Office Team						
		Recruit and hire additional staff as required						
	CURRENT DISTRICTS	Assessment of APACE staffing needs in District						
		Recruit and employ additional staff as required						
	NEW DISTRICTS	Assessment of APACE staffing needs in District						
		Finalize staffing plan for Province and District						
		Negotiate and action transfer of staff from outgoing partner as required						
		Recruit new program staff						
		Employ new program staff						
OPERATIONS	ANOVA APACE HEAD OFFICE, CURRENT & NEW DISTRICTS	Assess communications, equipment and IT needs						
		Assess fleet and transport needs						
		Procure additional equipment/vehicles as required						
		Assess office requirements, including rental space						
		Identify and lease additional office space as required						

Anova will then engage with the **current Partners funded for CBCT**: Foundation for Professional Development (FPD) and CaSIPO (HPCA), to align activities and strengthen bi-directional linkages between communities and facilities in Sub-districts currently supported by the two organizations in Limpopo and Gauteng. Anova will develop a transition and sustainability plan to be implemented over the first year of APACE which is the last year of the two community grants

District level mobilization and initiation plans: District level deep-dive 90-90-90 gap analysis with age and gender disaggregation (Annex A), allocated annual PEPFAR targets, SIMS, EWI, Ideal Clinic and other program assessment findings, including DoH Human Resources for Health data will be used to inform District recruitment (in new districts) and allocation of staff, both in terms of number and expertise (in new and currently supported districts), to geographic and program areas with high HIV disease burden and 90-90-90 gaps. Anova's HR team will work with technical leads and managers to determine recruitment needs. The team will implement a recruitment strategy to rapidly fill key positions with competent staff, enabling program implementation and scale up early in the grant period.

Currently, Anova's main office is located in Parktown, Johannesburg, with **district offices** in Aeroton (Johannesburg South), Tzaneen (Mopani) and Greenpoint, Cape Town. Anova has experience working in both urban and rural districts and we are able to structure the staff complement and day-to-day operations to fit the district context. For better program operations and efficient use of resources, Anova proposes to rent new office spaces in Capricorn, Sedibeng and Johannesburg Districts; with sub-offices in each of the Capricorn sub-districts (as is the case currently in Mopani), to minimize travel time between the main office and facilities. Each district-level office will be managed by the District Program Manager, supported by the Office Manager. Sub-district level offices will be small and managed by the sub-district manager overseeing the TA team working there.

In new Districts, **Capricorn, Sedibeng and Cape Town**, Anova will deploy mobilization task teams comprising an HR recruitment specialist and District Operations Manager in the pre-initiation period and over the first grant quarter. These staff will focus on recruiting of program teams, finding and establishing new offices, and identifying potential service providers. The Provincial Program Manager will oversee start-up of the program teams. At District level, Anova will plan and implement additional priority transition activities as required.

In **Johannesburg District**, Anova will work with the District and Witkoppen CHC and agree strategies to strengthen the down-referral process of clients from Witkoppen to local DoH facilities, a process which is currently underway. Witkoppen CHC has a total headcount of 3,634 on ART (End October 2017), accounting for 15% of the headcount in Johannesburg Sub-district A. Anova's key focus will be creating successful linkages to care at referral sites by simplifying access for down-referred clients, and tracing and tracking of referrals through TIER.Net data and telephonic and community tracing. Anova will also support Witkoppen CHC, as is done with other CHCs in the District, with TA support informed by 90-90-90 gap analysis and other quality assessment findings from SIMS and Ideal Clinic assessments. In the **Cape Town Metro**, Anova will liaise with MSF as the current support partner in some facilities to align activities and avoid duplication of support services.

Anova's approach is based on involving DOH from planning, implementation and review of the program to facilitate program ownership, local capacity building among DoH management, and sustainability. This approach will be adopted throughout the APACE grant to enable eventual program hand-over and sustainability.