Funding Request Form

Allocation Period 2020-2022

Summary Information

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Country(s)	Mozambique
Component(s)	HIV/AIDS, Tuberculosis
Planned grant(s) start date(s)	January 2021
Planned grant(s) end date(s)	December 2023
Principal Recipient(s)	Ministry of Health / Ministério da Saúde (MISAU) Fundação para o Desenvolvimento da Comunidade (FDC) Collaborating Centre for Health (CCS) One additional Principal Recipient (PR) (not yet appointed)
Currency	USD
Allocation Funding Request Amount	\$551,511,971
Prioritized Above Allocation Request (PAAR) Amount	\$162,013,433
Matching Funds Request Amount (if applicable)	\$22,400,000



Section 1: Context Related to the Funding Request

1.1 Key References on Country Context

Below is a list of key reference documents referred to in this funding request. They provide the country's contextual cross-cutting and disease-specific information.

Reference document	Link	Relevant pages
A Time and Motion Study on Primary Health Care in Mozambique 2018	https://bit.ly/34Kwh5d	Entire Document
Accelerated Plan for Elimination of Vertical Transmission of HIV and Syphilis 2018-2020 (Portuguese)	https://bit.ly/3bxhsW0	Page 4-5
Acceptability and performance of a directly assisted oral HIV self-testing intervention in adolescents in rural Mozambique 2018	https://bit.ly/2KbBfP3	Page 1-2
Action Plan for the National HIV and AIDS Response Communication Strategy 2017 (Portuguese)	https://bit.ly/3aigNGU	Entire Document
Analysis of the National Strategy on Illicit Drugs and Other Psychoactive Substances	https://bit.ly/3etk7lv	Entire Document
2014-2023		
Annual Health Statistics Mozambique 2018 (Portuguese)	https://bit.ly/34KlfNn	Entire Document
Annual Report 2019 - Annual Activity Report Related to HIV/AIDS (Published March 2020) (Portuguese)	https://bit.ly/3enwDSG	Page 22-23
Assessment of the Situation of HIV, STIs and TB and Health Needs in Prisons in Mozambique 2013	https://bit.ly/2zazBef	Page 67 & 72
Assessment of Needs and Possibilities for an MSF Intervention Targeting People Who Use Drugs in Maputo 2016	https://bit.ly/2ymQWjt	Page 9
Audit Report Global Fund Grants to the Republic of Mozambique 2017	https://bit.ly/2Xv1PJ3	Page 7-9
Barriers to Access and Adherence to Tuberculosis Services, as Perceived by Patients - A Qualitative Study in Mozambique 2019	https://bit.ly/2wTzLWE	Page 1
Baseline Assessment Mozambique - Scaling Up Programs to Reduce Human Rights Related Barriers to HIV and TB Services 2018	https://bit.ly/2XKefyE	Page 46, 57-58
Being a Man in Maputo - Masculinities, Poverty and Violence in Mozambique Results from the International Men and Gender Equality Survey (IMAGES) 2017	https://bit.ly/3cw45FZ	Page 55
Characterizing Male Sexual Partners of Adolescent Girls and Young Women in Mozambique - An Intervention to Promote Data Use 2019	https://bit.ly/2VuqoVE	Entire Document
Concept Note - Harm Reduction Expansion Strategy in Mozambique Under Global Fund 2021-2023 Grant	https://bit.ly/2ZOwOCw	Entire Document
Concept Note for the National Strategic Plan for HIV and AIDS 2021-2025 (PEN V) (Draft) (Portuguese)	https://bit.ly/3c67VoF	Entire Document
COP 2020 Vision Mozambique 2020	https://bit.ly/2K9B0UE	Slide 7, 10 & 13
Decree 59/2017, of November 3 (Portuguese)	https://bit.ly/3bdCcll	Entire Document
Descriptive Analysis of the National Legal Framework for Injecting Drug Users (IDUs)	https://bit.ly/2wLAqJw	Entire Document
Effect of Community ART Groups on Retention-in-Care Among Patients on ART in Tete Province, Mozambique - A Cohort Study	https://bit.ly/2YZZvvW	Page 6
Evaluation of the Plan to Accelerate the Response to HIV and AIDS in Mozambique (2013-2017) 2020	https://bit.ly/2yruXb9	Slide 17, 18, 20, 32, 33 & 38
Estimating the Size of Key Populations 2019 (Portuguese)	https://bit.ly/3blxMcm	Slide 15, 17 & 19
Estimating the Size of Key Populations 2020 (Portuguese)	https://bit.ly/3eP1b10	Slide 4, 5 & 6
Factors Influencing Risky Sexual Behaviour Among Mozambican Miners - A Socio- epidemiological Contribution for HIV Prevention Framework in Mozambique 2017	https://bit.ly/2xquKoO	Page 1
General Census of Population and Housing 2017 Final Results Mozambique 2019 (Portuguese)	https://bit.ly/3eGriHo	Page 17 & 103
Gendered Relationship Between HIV Stigma and HIV Testing Among Men and Women in		
Mozambique - A Cross-sectional Study to Inform a Stigma Reduction and Male-targeted HIV Testing Intervention 2019	https://bit.ly/3cm42MJ	Page 9
Geographic Accessibility to Primary Healthcare Centers in Mozambique 2016	https://bit.ly/2VBXtib	Page 6, 8, 10 & 11
Global Fund Thematic Review on Community Health Mozambique Report 2020	https://bit.ly/3eqHkos	Page 6 & 19
Global Funding Mechanism In Support of All Women and Children - Investing Case Proposal Version IV 2017	https://bit.ly/2RKFk0R	Page 16
Goals Age-Sex Model (Goals-ASM) for Analyzing HIV Programs for Adolescent Girls and Young Women in Mozambique 2020	https://bit.ly/3bjY1Af	Page 11, 24 & 31-34
Good Communication Guidance Manual 2013 (Portuguese)	https://bit.ly/2VdOuoK	Entire Document

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Guidelines for the Integration of Prevention, Care and Treatment Services for HIV and	https://bit.ly/3bHCMbC	Page 18-20
AIDS for Key Populations in the Health Sector 2016	https://bit.ly/2XWe6In	Entire Document
Guide for Monitoring Challenges at Health Facilities 2017 (Portuguese) Guidelines on Differentiated Models of Services in Mozambique 2018	https://bit.ly/2Kn7eMk	Page 53
Guidelines for Mobile Brigades 2005	https://bit.ly/2VyPB16	Entire Document
Guide for HIV Self-Testing in Mozambique 2019	https://bit.ly/2ze4crr	Page 12
Harm Reduction in Mozambique - Briefing Paper 2020	https://bit.ly/2z7MUMP	Page 8-9
Health and Menstrual Hygiene In Mozambique - Evidence of Interventions That Improve		l age e
Complete and Equitable Participation of Girls in Society Learning Study 2020 (Portuguese)	https://bit.ly/3c57dl5	Page 16
Health Sector Strategic Plan PESS 2014-2019 (English)	https://bit.ly/2LnbYSi	Page xvi, 118-120 &
Health Sector Strategic Plan PESS 2014-2019 (Portuguese)	https://bit.ly/3adMHUE	127
High Burden of HIV Infection and Risk Behaviors Among Female Sex Workers in Three Main Urban Areas of Mozambique 2017	https://bit.ly/2XMfiOe	Page 1
HIV Epidemic in Portuguese-Speaking Countries 2018	https://bit.ly/2XDXOUv	For reference
HIV in Mozambique - Starting, and Staying on, Treatment 2016	https://bit.ly/34J51Ee	Page 420
HIV Prevalence and TB in Migrant Miners Communities of Origin in Gaza Province,		
Mozambique - The Need for Increasing Awareness and Knowledge 2020	https://bit.ly/3cmfY18	Page 1, 2 & 9
HIV Prevention and Care Interventions For The Adolescent Girls and Young Women (AGYW) Aged 10-24 Years in Mozambique - Summary of Programmatic Interventions (No date)	https://bit.ly/2Z0B5Cv	Page 4 & 7-8
Impact and Cost of the HIV/AIDS National Strategic Plan for Mozambique, 2015-2019— Projections with the Spectrum/Goals Model 2015	https://bit.ly/2yWqM7w	Page 13 & 15
Indicator Survey of Immunization, Malaria and HIV/AIDS 2018 (Portuguese)	https://bit.ly/2RLPo9U	Entire Document
Informing Efforts to Reach UNAIDS' 90-90-90 Targets - A Comparison of Characteristics of People Diagnosed with HIV in Health Facilities to the General Population of People Living with HIV in Mozambique 2017	https://bit.ly/3cxd1uJ	Page 1
Investments in HIV Self-Testing in Mozambique - STAR Initiative & Global Fund-CIFF Matching Funds 2020	https://bit.ly/3cx6lfR	Slide 5-7
Is An Unassisted Pharmacy-Based HIV Self-Testing Strategy in Mozambique Sufficient 2020	https://bit.ly/34ICHSo	Slide 13-14
JAM – Together for Access to Medicines. Empowering Patients, Communities and Health Facilities to Improve Access to Medicines. Lessons Learned from the Juntos Pelo Acesso aos Medicamentos (JAM) Programme 2020	https://bit.ly/2Tfudxt	Page 2 & 12
Joint Assessment of the NTP Strategic Plan 2014-2018, HIV-AIDS 2016-2020 and the establishment of the Baseline of Viral Hepatitis in Mozambique in November 2018	https://bit.ly/2RCD8rR	Page 120 & 122
Joint Review of Programs TB, HIV, and Viral Hepatitis in Mozambique 2018	https://bit.ly/34G16bm	Slide 62
Know Your Epidemic - Know Your Response Mozambique 2020	https://bit.ly/2KbWOis	Page 22, 28, 43-46, 64-65, 67-68, 75, 81-82
Knowledge, Attitudes and Practices Regarding Tuberculosis Care Among Health Workers in Southern Mozambique 2017	https://bit.ly/3cjld1s	Page 3-4
Law 19/2014 - Law for the Protection of Persons, Workers and Jobseekers Living with HIV and AIDS (Portuguese)	https://bit.ly/3bd9AZS	Entire Document
Law 3/97 - Trafficking and Drug Abuse (Portuguese)	https://bit.ly/3csSp6V	Entire Document
Legal Environment Assessment (Draft) 2020	https://bit.ly/3bcJaXX	Page 8, 10, 20 & 68
Lessons Learned Reaching Key and Vulnerable Populations from Médecins sans Frontières' Experience providing HIV and Sexual and Reproductive Healthcare to Sex Workers, Men Who Have Sex with Men, and Adolescents at Risk in Mozambique 2019	https://bit.ly/2LBFDaQ	Page 9
Map of Global Fund, PEPFAR and UNFPA-supported AGYW Programs in Mozambique (Projected 2021-2023)	https://bit.ly/2X6TU5X	Page 1
Mapping Exercise of Mine Workers in Mozambique 2015	https://bit.ly/2KnkakY	Page 16
Mapping of Community Partners Supported by Global Fund, USAID and CDC 2020	https://bit.ly/2RGeQNM	Entire Document
Mapping of Laboratory Needs and PEPFAR Support in COP20	https://bit.ly/2T6OrcS	Entire Document
Mapping of Community-Based Organizations Working on HIV in Mozambique (Portuguese) (No Date)	https://bit.ly/3eozMmi	Entire Document
Menstrual Health and Hygiene In Mozambique – Study 2019	https://bit.ly/2M5uS0l	Page 8
Mobile Clinics for Antiretroviral Therapy in Rural Mozambique - Lessons From the Field 2014	https://bit.ly/3adhwZN	Page 682
Modes of HIV Transmission, Mozambique 2018	https://bit.ly/2xwsYCF	Page 6
Monitoring and Evaluation Plan of PEN IV 2016-2020	https://bit.ly/2RMvWtg	For Reference
Mozambique-WHO Country Cooperation Strategy 2018	https://bit.ly/2xvHGtD	For Reference

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Mozambique Assessment of Technical Support Needs For Implementation of Human Rights Programmes and Technical Assistance Plan 2020	https://bit.ly/3cVEJSs	Page 8-14
Mozambique Baseline Report on Young Key Populations and Sexual and Reproductive Health and Rights 2018	https://bit.ly/2wLzfdc	Page 19-20 & 26
Mozambique Country Operational Plan COP 2020 Strategic Direction Summary March 16, 2020	https://bit.ly/2Kwgqh8	Page 6, 9, 12, 38, 53
Mozambique Country TB Report 2018	https://bit.ly/34KtSYc	For Reference
Mozambique Country TB Report 2019	https://bit.ly/3elbtFM	Slide 5 & 8-10
Mozambique DREAMS Overview FY 2016-2019	https://bit.ly/3be6k07	Page 1
Mozambique Gender Profile 2016 (Portuguese)	https://bit.ly/2wPjRwr	For Reference
Mozambique HIV Self-Testing Concept Note 2020	https://bit.ly/2MPvSWO	Entire Document
Mozambique Human Rights Report 2018	https://bit.ly/3cknRE7	For Reference
Mozambique Mid Term Program National Strategic Plan (2015 2019) Review - Epidemiological Analysis and HIV Data System Review 2018	https://bit.ly/2RHTlqm	Page 17
Mozambique National Health Accounts 2012	https://bit.ly/2LoyH0D	Page x & 35
Mozambique RSSH Situation Analysis 2020	https://bit.ly/3aALG9E	Slide 9-12
Mozambique Test and Start Cost Analysis 2017	https://bit.ly/2xnttij	Slide 21 & 25
Mozambique WHO Tuberculosis Profile 2018	https://bit.ly/3emjeex	Page 1
N'weti's Experience in Implementing Community Scorecards	https://bit.ly/2YaT5tJ	Slide 12
National AIDS Spending Assessment (NASA) for the Period 2014 in Mozambique 2016	https://bit.ly/2K6FRWx	Page 38 & 94-95
National AIDS Spending Assessment (NASA) for the Period 2018 in Mozambique	IIIIps.//DIL.Iy/ZNOFNVX	1 ago 00 a 04 00
(Provisional Data as of May 2020)	https://bit.ly/3cPPqWB	Entire Document
National Condom Strategy Mozambique 2019	https://bit.ly/2VA6ZT2	Page 3, 13 & 25
National Human Resources for Health Development Plan 2016-2025 (Portuguese)	https://bit.ly/2Y8gKLg	Entire Document
National Policy for Mobile Brigades (Draft) 2020	https://bit.ly/2RVUoZF	Entire Document
National Response Plan for the Expansion of Viral Load Testing and Early Infant Diagnosis 2019-2021 (Portuguese)	https://bit.ly/3690yvi	Entire Document
National School Health Strategy for Adolescents and Youth 2019-2029 (Portuguese)	https://bit.ly/2VPsQr1	Page 39-44
National School Health Strategy for Adolescents and Youth, Operational Plan 2019-2024	https://bit.ly/2VOT8tj	Entire Document
National Strategic HIV and AIDS Response Plan (PEN IV) 2016-2020	https://bit.ly/34KvuRJ	Page 21-22 & 51
National Strategic HIV and AIDS Response Plan (PEN IV) 2016-2020 (Portuguese)	https://bit.ly/2RILled	1 agc 21 22 a 51
National Strategy for Clinical Laboratories 2020-2024	https://bit.ly/3668BJa	Page 16 & 51
National Strategy on Illicit Drugs and Other Psychoactive Substances 2014-2023	https://bit.ly/2WJrLlb	Page 61
National Tuberculosis Control Programme Strategic and Operational Plan 2014-2018	https://bit.ly/2xBZHpZ	Page 92
Oral Pre-Exposure Prophylaxis Modeling Results - Mozambique 2018	https://bit.ly/3enidTy	Page 2
Outsourcing of Non-Clinical Services in Mozambique 2019	https://bit.ly/2KdsunG	Entire Document
Overview of Private Actors In The Mozambican Health System And Rapid Assessment of the Supply Chain - Technical Report 2019	https://bit.ly/3er0M4t	Page 20-21
Package of Services for People Living with HIV and Flow of Chronic Patients Under COVID-19	https://bit.ly/2WZjjwT	Entire Document
Pediatric HIV in Mozambique Results from an Application of the Pediatric HIV Transition Model 2018	https://bit.ly/2VcdoFi	Entire Document
Performance-based Financing Kick-Starts Motivational "Feedback Loop" - Findings From a Process Evaluation in Mozambique 2018	https://bit.ly/2LMtMqe	Page 1
People Living With HIV Stigma Index Mozambique 2013	https://bit.ly/2KdkEdE	Page 2
Pharmacy and Logistics Management Plan (PELF) 2013 (Portuguese)	https://bit.ly/3cn1Mop	Page 16 & 27
Plan to Accelerate the Response to HIV and AIDS 2013-2015 (Portuguese)	https://bit.ly/3cm0Rok	Entire Document
Planning Guide for Integrated Supply of Vaccination, SMI and Nutrition Services 2015	https://bit.ly/3bmDueb	Entire Document
Preliminary Draft Revision of Law no. 3/97 of 13 March 1997 (Portuguese)	https://bit.ly/2xqKzvH	Entire Document
Programmatic Mapping and Prevalence of HIV among Key Populations in 5 Provinces of Mozambique - PLACE Study 2017 (Portuguese)	https://bit.ly/3cpTCfb	Page 90
Project Last Mile Mozambique Strategic Marketing and Route-to-Market Support to Strengthen Demand and Supply of Condoms in Mozambique 2020	https://bit.ly/2wHkWX3	Page 4-5
Promoting Reproductive, Maternal, Neonatal, Child, and Adolescent Health in		
Mozambique An Investment Case for the Global Financing Facility 2017	https://bit.ly/34C5zeS	Page 4
Reach, Test and Linkage Targets for Key Populations in Mozambique over 2021-2023,	https://bit.ly/2zPhuuK	Entire Document
Disaggregated by Province and by Funding Partner (Global Fund & PEPFAR)	· , —	
Recommendations from a Review of Public Financial Management Trainings in Mozambique 2019	https://bit.ly/3elbSbg	Page 1-3

Reducing Community Level Stigma and Improving HIV Testing Service Uptake Among Men in Sofala Province, Mozambique 2018.pdf	https://bit.ly/2VuDeDf	Page 4-6
Refugee and Internally Displaced Persons Inclusion in Global Fund Applications - 2002-2019 Mozambique 2020	https://bit.ly/3et7lxU	Page 1
Revenue-Raising Potential for Universal Health Coverage in Benin, Mali, Mozambique and Togo	https://bit.ly/35WwRxu	Page 621, 622, 626 & 627
Risk Factors Associated with HIV Among Men Who Have Sex Only with Men and Men Who Have Sex with Both Men and Women in Three Urban Areas in Mozambique 2016	https://bit.ly/2VHFfMB	Page 1
Role of Male Sex Partners in HIV Risk of Adolescent Girls and Young Women in Mozambique 2019	https://bit.ly/2XEGnTy	Page 435
Self-reported non-receipt of HIV test results - A silent barrier to HIV epidemic control in Mozambique 2019	https://bit.ly/2XDZldd	Page 1
Service Availability and Readiness Assessment 2018	https://bit.ly/3eqluAw	Page 12, 24-27, 59, 64, 69, 71, 74, 78, 110, 164-165, 167, 120
Sexual and Reproductive Health, HIV, TB and Human Rights in Southern Africa 2018- 2019	https://bit.ly/2XDfwY7	For Reference
Sexual Rights Activism in Mozambique - A Qualitative Case Study of Civil Society Organizations and Experiences of Lesbian, Bisexual and Transgender Persons 2018	https://bit.ly/3coQCQi	For Reference
Standard Operating Procedures for Key Populations 2019 (Portuguese)	https://bit.ly/3g1NzjB	Page 40 & 50
Stage of the Law Review Process 3/97 of 13 March, 2019	https://bit.ly/3esPxsr	For Reference
State of HIV in Mozambique 2019	https://bit.ly/2Vmy5OJ	Slide 5, 6, 8, 10-12, 22, 32, 36-38, 41 & 43
Strategic Action Plan for Prevention and Control of Sexually Transmitted Infections 2018- 2021	https://bit.ly/2YolvyK	Page 19
Strategic Vision of the National Tuberculosis Control Program Until 2029	https://bit.ly/2XCDgLW	Slide 6
Strategy for Attracting and Retaining Human Resources for Health 2018-2022	https://bit.ly/2KFAr51	Entire Document
Study to Explore the Impact of the Legal Environment, and Gender Relations Towards	11ttpo://bit.ity/21ti / 1101	
Access to Health and Tuberculosis Treatment Among Vulnerable Groups in Gaza and Maputo Provinces, Mozambique 2020	https://bit.ly/2X5ENbG	Entire Document
Survey of Indicators on Immunization, Malaria and HIV/AIDS Supplemental Report Incorporating Antiretroviral Biomarker Results 2019	https://bit.ly/2RD8Qpe	Page 12
The Effect of a Performance-based Financing Program on HIV and Maternal/child Health Services in Mozambique - an Impact Evaluation 2017	https://bit.ly/3dVTUeu	Page 1386
The Engagement of Private Healthcare Providers Contributed in Reaching the Missing TB Cases in Kampfumo District of Maputo City, Mozambique 2019	https://bit.ly/2zioccm	Page 1
The Integrated Biological and Behavioral Survey among Female Sex Workers, Mozambique 2011 - 2012 Final Report 2013	https://bit.ly/3es5tej	Page 11
The Integrated Biological and Behavioral Survey among Long Distance Truck Drivers, Mozambique, 2012 Final Report 2013	https://bit.ly/2RC44lo	Page 11 & 33
The Integrated Biological and Behavioral Survey among Men Who Have Sex with Men, Mozambique, 2011 Final Report 2013	https://bit.ly/34BEOY8	Page 11-12
The Integrated Biological and Behavioral Survey among Mozambican Workers in South African Mines, Mozambique, 2012 Final Report 2013	https://bit.ly/2Vb87h7	Page 11 & 31
The Integrated Biological and Behavioral Survey Among People Who Inject Drugs, Mozambique, 2014 Final Report 2017	https://bit.ly/2Valvln	Page 2 & 23
The Mafalala Pilot - A Comprehensive Package* of Harm Reduction and Integrated Services for People Who Use Drugs 2020	https://bit.ly/2S2aYqu	Slide 7, 10, 12 & 13
The State of HIV Prevention in Mozambique 2019	https://bit.ly/3blUSjb	Page 1-2
The Strategic Collaboration Between NTP Mozambique and Civil Society Partners Through USAID-Supported Project to Enhance TB Case Finding in Nampula and	https://bit.ly/3ajMgIL	Slide 5
Zambézia Provinces, Mozambique 2017 Tipping the balance towards long-term retention in the HIV care cascade - A mixed methods study in southern Mozambique 2019	https://bit.ly/2ykXm2x	Page 1, 2 & 7
Tuberculosis in Mozambique - Where Do We Stand 2018	https://bit.ly/3agw5LZ	Page 267
Unseen, Unheard and Unprotected - Prevalence and Correlates of Violence Among	https://bit.ly/2VBTTF4	Page 2
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Female Sex Workers in Mozambique 2018 Usability and Feasibility of an Innovative mLearning Approach for Nurses Providing Option B+ Services in Manica & Sofala, Mozambique 2020	https://bit.ly/3baFKVK	Page 1

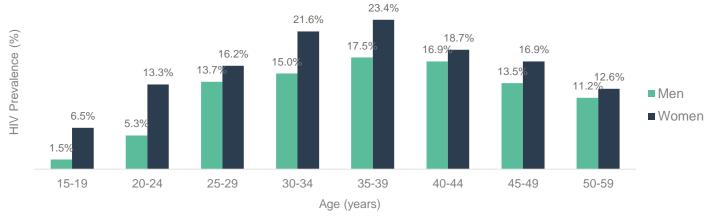
1.2 Summary of Country Context

This section explains critical elements of the **country context** that informed the development of this request.

Overview of the HIV Epidemic in Mozambique

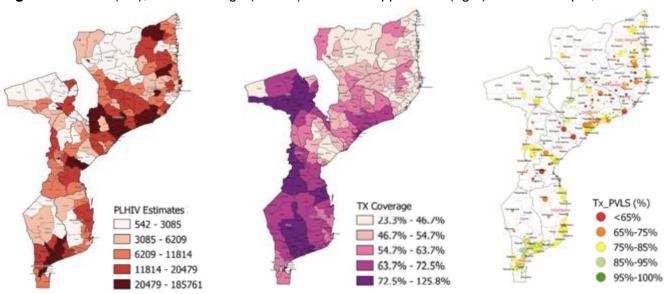
In 2019, Mozambique had 2.2 million [1.8 million - 2.8 million] people living with HIV (PLHIV), including 2.1 million adults [1.7 million - 2.6 million] and 150,000 children [110,000 - 210,000]. HIV prevalence is 13.2% among adults aged 15-49 years (15.4% in women and 10.1% in men). Women face a disproportionate HIV burden throughout the life cycle, but the disparity is most pronounced among adolescent girls aged 15-19 years, whose HIV prevalence is 4.3 times greater than their male peers (6.5% vs. 1.5%) (Figure 1). Demographic and economic inequities drive the epidemic and create barriers to access. Of Mozambique's 27.9 million people, 54.7% live below the poverty line, 67.7% live in rural areas with poor infrastructure, and two-thirds are below the age of 25 years with high rates of unemployment. The HIV response is guided by the extended National Strategic Plan (NSP) (PEN IV) 2016-2020 and informed by the Joint Assessment of the TB NSP 2014-2018, PEN IV 2016-2020, and Viral Hepatitis Baseline.

Figure 1. HIV prevalence in Mozambique, disaggregated by age and sex (2015 data, published in 2019)7



There is significant geographic variance in Mozambique's HIV epidemic (Figure 2). At the provincial level, adult HIV prevalence is highest in Gaza (23.7%) and lowest in Tete (5.2%).8 At the district level, prevalence is highest in Chokwe (31.5%) and lowest in Angonia (3.4%).9 Coverage of antiretroviral therapy (ART), viral load testing and viral suppression are notably better in the southern parts of the country.10 Recently, there have been disproportionately high increases in the number of PLHIV in provinces left behind (Cabo Delgado, Inhambane, Niassa and Sofala).11 There is an ongoing conflict in Cabo Delgado between a violent Islamic insurgency and Mozambican security forces, creating significant barriers to health services for people living there. To help address geographic inequities, and to provide services in humanitarian settings, some partners are supporting "mobile brigades". The National AIDS Control Program is considering incorporating these as policy.12

Figure 2. PLHIV (left), ART coverage (middle) and viral suppression (right) in Mozambique, 2019_{13,14}



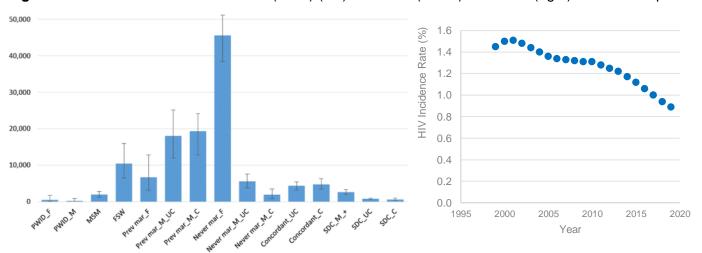
While Mozambique has a generalized HIV epidemic, it is characterized by distinct sub-epidemics that require targeted responses. PEN IV defines key populations as female sex workers (FSW), men who have sex with men (MSM), people who inject drugs (PWID) and prisoners. 15 The plan also considers adolescent girls and young women (AGYW) aged 15-24 years, mobile and migrant workers (mine workers and truck drivers) and sero-discordant couples as vulnerable populations. 16 Size estimates and prevalence data is below in Table 1.

Table 1. Population size estimates and HIV prevalence for key and vulnerable populations in Mozambique

Population	Size Estimate	HIV Prevalence	Coverage of HIV prevention programs
Female sex workers	86,000 (2020)17	22.4% (2012)18	28.9% (2019)19
Men who have sex with men	38,000 (2020)20	8.3% (2011)21	31.8% (2019)22
People who inject drugs	12,000 (2020)23	45.8% (2014)24	7.8% (2019)25
Prisoners	18,551 (2020)26	24% (2013)27	15.0% (2013)28
AGYW (aged 15-24 years)	2,765,964 (2017)29	7.3% (2018) ₃₀	20.2% (2019) 31
Mine workers	174,906 (2015)32	22.3% (2012)33	19.5% (2012)34
Long distance truck drivers	No data	15.4% (2012)35	26.1% (2012)36

Adult HIV incidence has fallen from 1.5% in 2000 to 0.9% in 2019, as a result of effective treatment and prevention programs implemented by government and partners (Figure 3).37 Yet, the total number of new infections remains persistently high, at 130,000 in 2019. Mozambique is unlikely to meet its Fast-Track target of 32,500 new infections in 2020.38 The largest number of new infections—about 45,000/year—occurs among young women (never married females, median age 18 years) (Figure 3).39 This is followed by older men (previously married males, median age 32), FSWs, and previously married females (median age 38). These four populations account for about 81% of all new infections. FSWs and MSM make up a very small proportion of Mozambique's population (1.08% of the adult female population, and 0.56% of the adult male population, respectively) yet these two groups are estimated to account for 11% of new infections.40

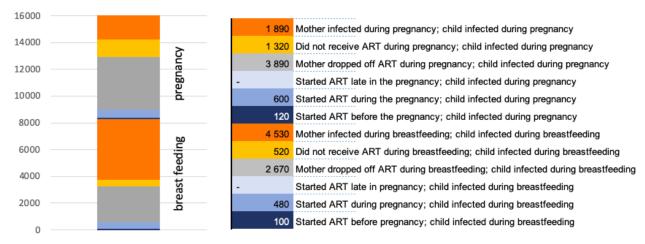
Figure 3. Number of new HIV infections (2018) (left) and adult (15-49) incidence (right) in Mozambique41



Low condom use is a major driver of new infections, with just 42% of women and 47% of men using one the last time they had sex with a non-regular partner. 42 In 2019, Mozambique developed a National Condom Strategy which aims to increase condom use to 61% (up from 46%), 51% (up from 31%) and 49% (up from 24%) among men who have sex with non-regular, paid, and multiple partners, respectively.43 To achieve this, the plan suggests that procurement costs will top \$4 million by 2023.44 Last mile distribution to remote, rural areas is needed. As of 2018, 311,891 male circumcisions (prevalence of 47.4%) have been performed—just 28% of the 2020 target.45,46 Coverage is higher among young men aged 15-24, at 66%.47

Mozambique has an accelerated plan to eliminate mother-to-child transmission (MTCT) of HIV and syphilis 2018-2020, aiming for HIV transmission of less than 5% and less than 750 hepatitis transmissions per 100,000 live births.48 The plan is currently being updated to integrate hepatitis. Though the MTCT rate has declined from 28% in 2010, it has remained stubbornly high at 14% in 2019.49 Coverage of ART among HIV-positive pregnant women is high, at 97% in 2019. However, retention at 12 months is only 65%.50 A stack-bar analysis shows MTCTs occur most commonly when mothers are infected during breastfeeding, followed by dropping out of ART during pregnancy. These two modes of transmission account for 28.3% and 24.3% of all new infections in children, respectively (Figure 4).51 Ten other modes make up the remaining 47.5% of vertical transmissions.

Figure 4. Number of new infections in children, by mode of mother-to-child transmission, 201852



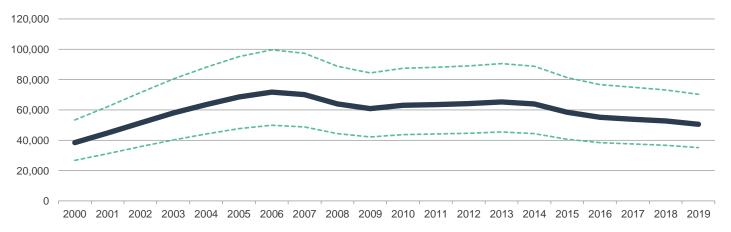
For adolescent girls (aged 15-19 years) the greatest source of risk is men aged 25-29 years (34%) followed by men aged 20-24 years (32%).53 For young women (YW) (aged 20-24 years) the greatest source of risk is also from men aged 25-29 (38%), followed by men aged 30-34 years (25%).54 New infections among AGYW are fueled by low HIV knowledge (30.8%)55, early sexual debut (25.4%), high rates of teenage pregnancy (44% of 17-year-olds have been pregnant)56, early and child marriage (23.3% for adolescent girls aged 15-19 years and 47.2% for young women age 20-24 years), low secondary school education (24.7% for adolescent girls aged 15-19 years and 18.9% for young women aged 20-24 years),57 transactional sex (10.3%, all ages)58 and high intimate partner violence (15.2% for young women aged 20-24 years).59 Responses to violence for AGYW are inadequate60 due to lack of sensitization of law enforcers and poor linkage to health services.

Among key populations, incidence is fueled by stigma, discrimination, violence, harassment and extortion, including from law enforcers who are inadequately sensitized.61 For instance, 8.3% of MSM and 18.5% of PWID avoid healthcare due to stigma and discrimination.62 In Maputo 16% of PWID and 31.5% of MSM experienced physical violence in the past year.63 Between 10.0-25.6% of FSW experienced physical or sexual violence in the past 6 months, and 65.9% and 87.0% of survivors did not seek medical care and police assistance, respectively.64 Juvenile detainees are included in adult facilities65 and 12.3% of prisoners aged 21-25 years report forced sex.66 Prisoners report reluctance to disclose their HIV or TB status for fear of mistreatment.67

Behavioral factors also drive new infections among key populations. Survey data show that 62.5% of PWID used sterile injecting equipment the last time they injected68, but programmatic experience suggests it may be much lower. Condom use is 74.5% among sex workers with their last client.69 In the last year, 40.9% of MSM in Maputo, 24.3% in Beira and 43.8% in Nampula had contact with a peer educator.70

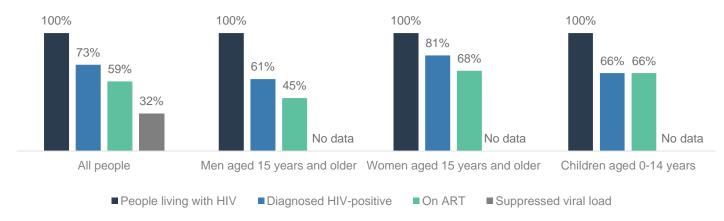
Mozambique has implemented rapid scale-up of ART, guided by a National Acceleration Plan₇₁ and with robust collaboration among the Ministry of Health, PEPFAR and the Global Fund. The number of people on ART rose from 308,000 in 2012 to 1,338,000 in 2019._{72,73} Test-and-treat has been policy since 2016. Successful treatment scale-up has led to a reduction in the number of AIDS-related deaths, from a peak of 71,756 in 2006, to 50,587 in 2019 (Figure 5). However, more must be done to achieve national targets.

Figure 5. Number of AIDS-related Deaths in Mozambique, 2000-2019₇₄



Yet, Mozambique remains below the 2020 Fast-Track treatment targets, which out of all PLHIV, require 90% to know their status, 81% to be on ART, and 73% to be virally suppressed. In 2019, 73% knew their status, 59% were on ART, and 32% were virally suppressed. In the first quarter of 2020, routine Ministry of Health data from SIS-MA (Mozambique's DHIS2 Platform) shows just 53.2% of adult PLHIV are on ART. Disaggregated cascades reveal age and gender inequities (Figure 6). Men fare worse than women along the entire cascade, which is addressed through a comprehensive male engagement strategy in this funding request. PEPFAR program data suggest viral suppression is just 20% among adolescent boys and young men aged 15-29 years₇₆, which is particularly concerning given the abovementioned sources of risk for AGYW. PEPFAR data also show that knowledge of HIV status is lower for adolescent girls and young women aged 20-24 years, at 70%, indicating a need for more targeted testing approaches.





Poor retention is a major cause of treatment cascade 'leaks'. Economic migration/mobility, and poor relationships between the health system and patients, lead to repeated cycles of patient disengagement and re-engagement in HIV care. 78 As a result, 33% of PLHIV initiated on ART are lost to follow up (LTFU) within 12 months. Community adherence support groups (GAACs) have been active in Mozambique since 2008. Other differentiated service models are being rolled out to improve quality of care and retention, including one-stop and family visits, multi-month dispensing, and rapid flow (e.g. Fast-Track lanes).79

Among key populations, there are stark gaps in testing and treatment. Among FSW, MSM and PWID living with HIV, just 22.3%, 8.8%, and 62.3% (respectively) are aware of their status.80 ART coverage also requires urgent attention. Only 42.2% of FSW, 3.5% of MSM81, and 10% of PWID are on ART. In Nampula, just over half (51%) of FSW have access to viral load monitoring, and 78% are virally suppressed. Among HIV-positive long-distance truck drivers, 83.7% do not know their status, and one-third have never tested for HIV.82.83

Fear of stigma—including self-stigma, discrimination and violence—and disclosure are the major barriers to access for services for PLHIV.84 Individual stigma correlates negatively with recent HIV testing among men, underscoring gendered dimensions to stigma.85 In 2015, 20.7% of people held discriminatory attitudes towards PLHIV.86 Over 50% of respondents in the 2013 PLHIV Stigma Index Survey reported discrimination in the past year and 10% avoided seeking necessary healthcare.87 Delays in seeking care have resulted in 50% of HIV patients presenting to health facilitates with advanced disease (CD4 <200).

Limitations in the legal and policy frameworks create further barriers to access. Mozambique has a revised HIV protective Law 19/2014, which upholds the rights of PLHIV, including in the workplace, but it is yet to be regulated and requires updating to respond to current challenges. Mozambican law also has protection from domestic and sexual violence, and the Penal Code 2015 decriminalizes same-sex sex and selling sex in terms of the revised Penal Code 2015, but these protective laws are not adequately implemented and enforced.88 The HIV law provides inadequate anti-discrimination protection for key populations89 and for the sexual and reproductive health (SRH) and rights of AGYW.90 Some MSM organizations have awaited registration since 2008, and transgender organizations are only now being formed.91 Aspects of sex work remain criminalized (e.g. living off earnings), exacerbating rights violations and gender-based violence (GBV), including by law enforcers.

Law No 3/97 on drug use fails to provide an enabling, gender-responsive environment for needle and syringe programs, opioid substitution therapy (OST), voluntary treatment and young people's access to services (and is under review) and law enforcers create barriers to access to services.92 However, the National Strategy on Illicit Drugs and Other Psychoactive Substances 2014-2023 mentions the implementation of harm reduction based

on evidence, creating room for policy change.93 As such, harm reduction is currently being implemented under a pilot framework, accepted by key stakeholders (MOH, CNCS, Office for the Prevention and Combat of Drugs).

The recent child marriage law needs to be disseminated, prison laws and policies require review,94 and workplace anti-discrimination measures and compensation for occupational infection need strengthening.95 Regulations to Law 19/2014 have yet to be enacted and health strategies and policies have yet to be aligned to the law to strengthen access to services for key populations and AGYW. Further, PLHIV and TB, key populations and service providers lack knowledge of the laws and have limited access to legal support services to enforce their rights and hold duty-bearers (law enforcers and health workers) to account for rights violations.96

The use of private sector HIV services is low in Mozambique compared to other countries in the region.97 Just 1% of women visit a private healthcare provider for an antenatal care (ANC) check-up. 98 However, the private sector is an important partner for access to contraception, including condoms. Ten percent of women obtain a modern family planning method through the private sector, and a further 14.5% from other non-public outlets.99 Project Last Mile (PLM) is currently supporting the National AIDS Council (CNCS) to adapt and apply private sector best practices to strengthen the access, availability and adoption of condoms.100 PLM brings together Mozambique's Central Medical Stores (CMAM), The Global Fund, Village Reach, Frontline Research, Coca-Cola Beverages Africa and the USAID (Global Health Supply Chain – Procurement and Supply Management) to design and pilot supply chain solutions. These solutions are used to build the capacity of CMAM in routing optimization, outsourced distribution, logistics capability development, and visibility and integrated management of medicine supply.

Overview of the TB Epidemic in Mozambique

Mozambique is on all three of the World Health Organization (WHO) high burden lists for TB, HIV/TB co-infection, and multi-drug resistant-TB (MDR-TB). The National TB Program (NTP) recently completed the field work for the first ever national TB prevalence survey. The results of the survey are anticipated to be available in mid-2020. These will give a more accurate picture of the TB burden in the country. Until then, and for this application, Mozambique will utilize the estimates from the Global TB Report.

In 2018, Mozambique had an estimated TB incidence of 551 per 100,000 people, for a total of 162,000 incident cases annually.101 Of these, around 36% are estimated to be co-infected with HIV. The estimated proportion of MDR/RR-TB is 3.7% in new and 20% in previously treated cases and a total of 8,300 annually. The estimated death rate is 72 per 100,000 people in HIV-negative TB patients.102

According to the Global TB Reports of the last 10 years, Mozambique showed a rather stagnant TB incidence and mortality rate (Figure 7). There is an urgent need to rapidly scale up curative and preventive treatment of TB through innovative methodologies, and to accelerate impact on incidence and TB-related deaths.

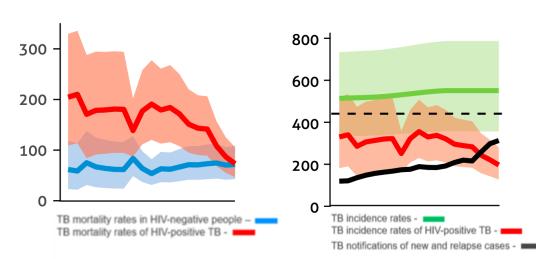
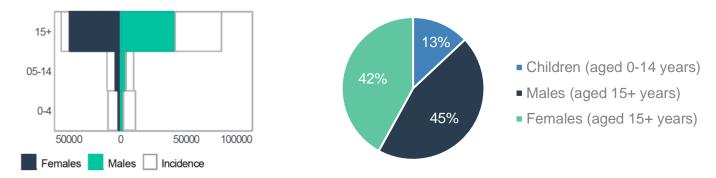


Figure 7. Trend in TB incidence and TB mortality in Mozambique, 2000-2018₁₀₃

Men are slightly more likely to be notified TB patients (Figure 8). Inter- and intra-country migration, especially to high TB and HIV burden mining areas of South Africa, is the key reason for this. Co-association with smoking may also be a risk factor in men. Around 13% of notified TB patients are children aged 0-14 years.

Figure 8. Distribution of notified TB cases in Mozambique, disaggregated by age and sex, 2018₁₀₄

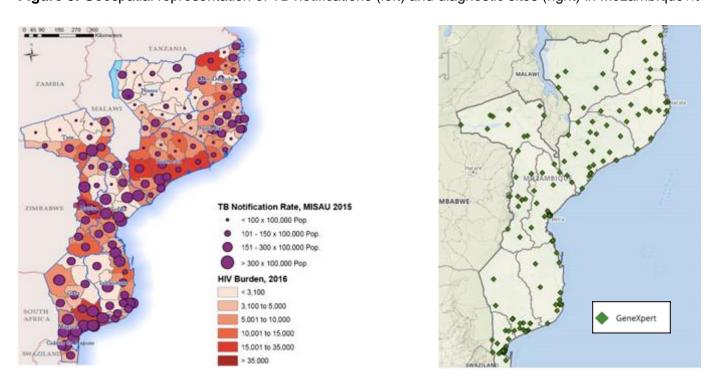


TB notification rates have steadily increased, from 197 (per 100,000 population) in 2010, to 228 in 2015, and 320 per 100,000 people in 2019. This success is attributable to activists/community health workers (CHWs) who referred a growing proportion of cases from the communities to the local health facilities (see lessons learned section), cough officers who intensify screening in waiting areas of health facilities, and the expansion of diagnostic capacity through fluorescent LED microscopies in 359 (out of 447) microscopy labs, and Xpert machines (184). While RR/MDR-TB notifications have steadily increased in all provinces, gaps remain. Just 41% of the notified new and relapse cases were tested with Xpert MTB/RIF at the time of diagnosis in 2018.

The TB response is currently guided by the (draft) Strategic Vision of the National Tuberculosis Control Program 2020-2029₁₀₅ and informed by the Joint NSP Assessment.₁₀₆

There is spatial variation in Mozambique's TB burden as well as geographic inequities in service access (Figure 9). In 2019, the highest number of TB notifications was in Zambézia province (18,025) and the lowest number was in Cabo Delgado (4,572).107 The Southern provinces (Maputo City, Maputo Province and Gaza) have high TB/HIV co-infection rates, at around 55%, while co-infection is less prevalent (40%) in the central provinces (Inhambane and Sofala), and ranges from 20-33% in the Northern provinces.108 Around 98% of health facilities in Zambézia are equipped with TB services and 48% of them have Xpert MTB/Rif for diagnosis. By contrast, just 52% of health facilities in Nampula are equipped with TB services and just 7% can diagnose TB using Xpert MTB/Rif.109

Figure 9. Geospatial representation of TB notifications (left) and diagnostic sites (right) in Mozambigue 110



TB notifications are high among healthcare workers, mine workers and prisoners (Figure 10). TB key populations are a significant number of people (about 10.5 million), and have unique risk factors and barriers to access (Table 2).

Figure 10. Annual TB notification rate in Mozambique, disaggregated by TB key population, 2019₁₁₁

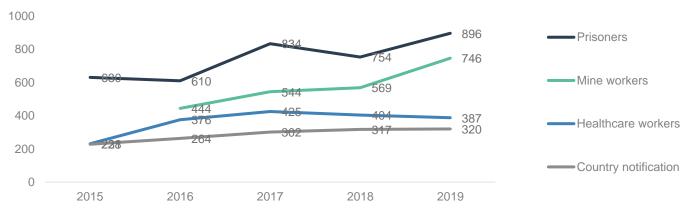


Table 2. Population size estimates and risk factors among TB key populations in Mozambique

Population	Size Estimate	Risk Factors
People living with HIV	2,243,966112	Weak immunity, low routine screening and low TB preventive therapy initiation/completion
FSW, PWID and MSM	136,000113	Congregate settings in drug dens/brothels, poor access to health and TB services, weak immunity from drug use
Healthcare workers	17,553114	Occupational risk without adequate workplace protection
Mine workers and ex-mine workers	174,906 115	Rapid movement/migration, silicosis, low TB knowledge
Prisoners	18,551116	Congregate settings and overcrowding
Refugees	24,811117	Crowded living conditions, coexistent illness (particularly
Internally displaced persons (IDPs)	14,000118	HIV and poor nutritional status)
Hard to reach groups (30% of the population has no access to healthcare)	7,907,316119	No access to TB information and services due to long distances from facilities and geographic isolation

Low levels of adherence to workplace health and safety standards put healthcare workers at risk. 120 Infection control measures are implemented in just 238 (of 1,643) public facilities, 60 of which have been externally evaluated and 40 of which achieved standard. Continuity of TB care is a challenge in displaced and mobile populations. Refugee populations have spiked in Mozambique, from 5,000 in 2018 to 25,000 in 2019.121 Crowded living quarters exacerbate TB risk. A third (33%) of prisoners are in pre-trial detention 122 and Maputo Provincial Penitentiary is at 300% capacity. 123 Mine workers face information barriers, with just 2.8% having knowledge of basic transmission principles. 124 Routine TB screening of all PLHIV, and TB preventive therapy (TPT) initiation and completion rates in newly enrolled PLHIV are below 50%. The TB and HIV programs are working on a joint strategy to increase TB screening and TPT uptake, based on recent WHO guidelines.

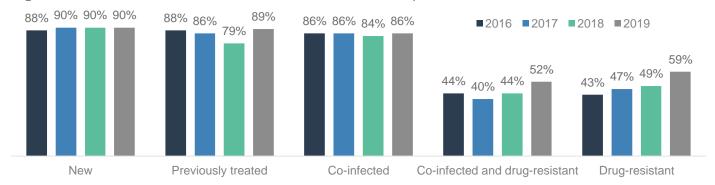
In spite of increased TB notifications, the proportion of bacteriologically confirmed pulmonary TB cases declined from 38% of total presumptive cases in 2018 to 30% in 2019. Contributing factors include poor quality of samples, the condition of conservation and transport of the samples to testing laboratories, and the fact that about half of presumptive TB cases are still tested using sputum microscopy instead of Xpert MTB/Rif.

The country also faces challenges of sputum and other samples collection and transportation from remote and geographically isolated regions due to the long distances from the health facilities. Sample collection from non-lab health facilities to health facilities fitted with labs, and from non-Xpert to Xpert diagnostic sites, is not fully established due to inadequate logistic supplies and human resources.

About 63,889 people with TB were missed by the health system in 2019, due to diagnostic and infrastructure challenges. 125 Finding missing people with TB is a high priority. Low case detection is more prominent among PLHIV (26,136 missing people per year), and people with drug-resistant TB (DR-TB) (6,600 missing people/year). TB diagnosis in children under 5 years of age is a challenge, linked to shortages of proper sample collection tools (e.g. gastric lavage, sputum induction) and knowledge gaps among healthcare workers. 126

The successful treatment completion rate of drug-sensitive TB has reached 90% in Mozambique, with treatment completion rates for previously treated and co-infected patients approaching the same. However, treatment success rates for drug-resistant TB are low, at 59%, presenting a significant challenge (Figure 11). Integrated care has been a success factor, with 590 health facilities implementing the one-stop TB/HIV model. Mozambique achieved 98% coverage of HIV screening for its newly diagnosed TB patients while ART coverage of the co-infected patients was around 98%. The country also achieved 100% coverage of TPT among children less than five years of age who are the household contacts of bacteriologically confirmed TB patients.

Figure 11. Trends in TB treatment success rates in Mozambique, 2016-2019



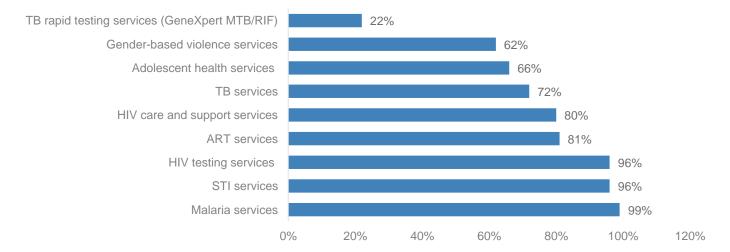
The private sector plays an important role in Mozambique's national TB response. For instance, 19% of total notified TB cases in 2018 in Kamfumo district of Maputo City were contributed by the local private doctors. 127 There are currently 1,118 private health facilities in Mozambique including 728 private pharmacies, 243 private clinics and 34 private laboratories. 128 There is an urgent need to create suitable strategies and approaches to engage the private sector in TB in Mozambique. Traditional healers and pharmacists are often the first point of contact for TB patients, which can delay diagnosis. For example, a study in Beira found that 25% of TB patients first sought help from a traditional healer and 6% first visited a local pharmacist, which were found to be reasons for delayed TB diagnosis. 129 Mozambique also has more than 75,000 traditional healers (but only 1,500 physicians), who play a crucial role in the health of a community in Mozambique. 130

Mozambique's 2018 Baseline Assessment identified human rights- and gender-related barriers to access for TB, including delays in diagnosis, stigma related with diagnosis and treatment, long waits at health facilities, the absence of nutritional support for patients with TB, the absence of a comprehensive psychosocial support program, and the lack of overall knowledge about TB or MDR-TB in the community.131 Limited availability of TB services is a key barrier; just 72% of the public health facilities provide TB services, and only 22% have rapid TB testing facilities.132 TB-related stigma was acknowledged by 70% of health workers in a 2017 study in Southern Mozambique; 44% also acknowledged barriers to TB treatment.133 Poverty and gender-related inequalities may also be a strong factor in the significant under-diagnosis and enrolment in care of young, TB-infected and TB-affected children.134 Mozambique recently concluded conducting a baseline community, rights and gender TB assessment, to better-understand these dimensions of the epidemic.135

Overview of the Systems for Health in Mozambique

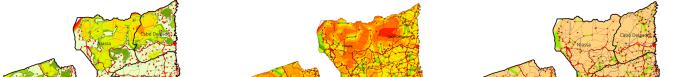
Mozambique has 1,886 health facilities in 11 provinces, 53 municipalities and 157 districts. 136 Of these, 1,643 (88%) are public and 243 (12%) are private. Most (96%) public facilities provide primary healthcare. Private facilities are concentrated in Level I (194), but with 25 clinics and 5 hospitals, the private sector covers 37% of Level II. Mozambique is very reliant on the limited and under-resourced public sector, with 96% of the population accessing services there. Inequities exist, with the richest quintile being four times more likely to access private care than the poorest quintile. 137 Some services are more readily available than others; 99% of facilities offer malaria services, but just 66% offer adolescent healthcare (Figure 12).

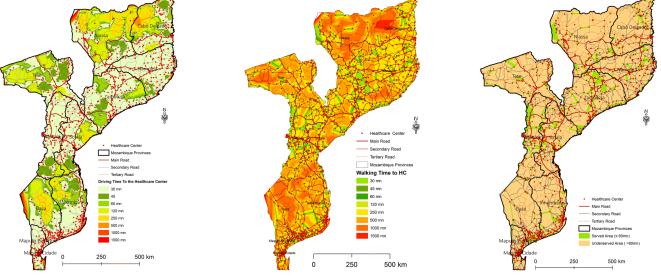
Figure 12. Proportion of health facilities in Mozambique that provide specific services, 2018₁₃₈



Mozambique's vast geography coupled with low density of health centers creates major barriers to access and inequities for rural populations. The country has 1 health facility per 10,000 population, which is half the global benchmark.139 Maputo City, Maputo, and Zambézia are the provinces with the greatest coverage of health facilities, while Niassa, Gaza, and Cabo Delgado are the most underserved. 140 Only 66.9% of the country is within a one-hour drive to a health facility, and just 9.8% is within a one-hour walk (Figure 13).141 About 30% of the population is not able to access health services at all. There is a clear correlation between availability of services and their utilization.142 Bringing health services closer to communities through differentiated models is a key strategic thrust in this funding request.

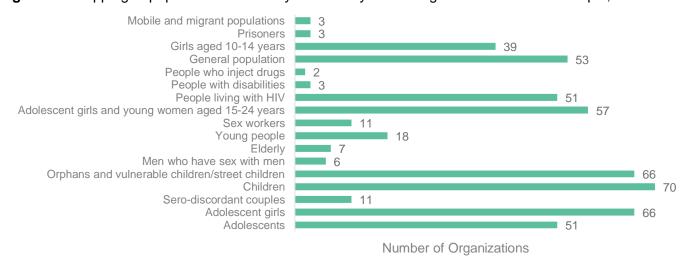
Figure 13. Health facility access by driving time (left), walking time (middle) and served areas (right), 2016₁₄₃





Civil society organizations (CSOs) and community-based organizations (CBOs) are also important HIV and TB services providers. CNCS maintains an online mapping of CSOs and CBOs, which is updated on an annual basis. In 2019, the mapping included 222 organizations and their target geographies and populations (Figure 14). There are high numbers of organizations reaching out to children and adolescents, and comparably far fewer providing critical services to key populations such as sex workers, MSM, PWID, mobile and migrant populations, and prisoners. Strengthening these community systems is critical.

Figure 14. Mapping of populations served by community-based organizations in Mozambique, 2019₁₄₄



In 2018, there was an average of 6 health workers per 10,000 population in Mozambique, reflecting large gaps in establishments.₁₄₅ The city of Maputo is a significant outlier (at 22.52 per 10,000) (Figure 15). The human resources for health (HRH) deficits are far greater at primary healthcare level than at secondary and tertiary, and vary greatly by cadre. Maternal and child health nurses are the most available in health facilities (87%), with far fewer pharmacists (39%), lab technicians (22%) and general practitioners (14%).146 Gaps have been alleviated somewhat by an "HRH surge" that PEPFAR completed in January 2020, increasing lay and clinical staff by 26% and 247%, respectively, from the year before .147 This translates to 2,477 new health workers supported by PEPFAR, for a total of 9,690 PEPFAR-supported HRH.

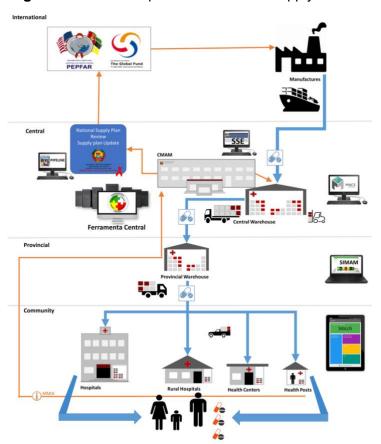
Figure 15. Ratio of health workforce per 10,000 population (benchmark = 23) in Mozambique, 2018₁₄₈



Given the abovementioned facility access challenges, community cadres are a critical HRH in Mozambique. The country's formal community health workers are called *Agentes Polivalentes Elementares* (APEs). There are 6,857 APEs at present, concentrated in the northern, more rural provinces where health facility access is lower. There are 1,674 APEs in Zambézia and 1,568 in Nampula, compared to 282 in Gaza and 222 in Maputo province. The Ministry of Health projects the number of APEs will increase to 7,100 by 2020 and 8,100 by 2021, according to the Investment Case on reproductive, maternal, newborn and child health (RMNCH).149

In addition to APEs, there are several lay community cadres providing HIV and TB services and support. There are 150 lay workers involved in directly observed treatment (DOT) of TB, 158 TB household contact tracers, 689 male engagement "champions", 174 health advocacy workers, 2,853 lay HIV testing counselors (1,788 facility-based and 1,065 community-based), 2,992 mentor mothers, 3,800 HIV treatment adherence supporters (409 facility-based and 3,391 community-based), 622 lay TB activists, 62 health advocates, and 117 others. A detailed mapping exists, which demarks these cadres by number, type, location, and partner (Global Fund, USAID and CDC).150 Others not yet mapped include key population peer educators (399), and human rights paralegals (1,300 in 64 districts), supported by the Global Fund grant.

Figure 16. Mozambique's national ARV supply chain



Mozambique's geography creates a challenging terrain for the country's health product management system. There are more than 3,000 kilometers of coastline, with a mountainous interior and limited road links—some of which are impassable during the rainy season. There are three main ports to bring medicines and commodities into the country: Maputo for the South, Beira for the Center and Nacala in the North. The Ministry of Health's investment program (supported by partners) includes extension to the warehouse in Zimpeto, in Maputo, and the construction of new warehouses in Beira (started, but severely hampered by cyclone Idai) and Nampula (completed). These investments have increased the storage space owned by the Ministry to 78% (remaining 22% is rented). They also increased regional warehouse inventory accuracy from 52% in 2016, to 83% in 2017, to 91% in 2018. Despite improvement, the supply chain capacity is very limited in relation to the increased volumes of health commodities.151 This is being addressed by the Pharmacy and Logistics Management Plan (PELF).152 The PELF vision of introducing 30 intermediate warehouses is underway, with one in Vilanculo (the pilot site), one in Manica and three in Zambézia. Increasing storage space remains a priority (see lessons learned section).

Mozambique's health product management system remains fragmented by central level and provincial level (Figure 16)₁₅₃, not permitting the Central Medical Stores (CMAM) to have clear visibility of the whole supply chain. The supporting information system (SIMAM), cannot provide a comprehensive view of product information and needs to be replaced by the new system called SIGLUS. There are also limited in-country mechanisms to routinely monitor quality of medicines.₁₅₄

The country does annual quantification and a monthly revision of supply chain management. For the past two years, extra attention has been paid to this during the optimization of ART regimens, pediatric regimen introductions and changes, and new TB regimens and changes. While the country (including other donors) uses the Global Fund's Pooled Procurement Mechanism and the Stop TB Partnership's Global Drug Facility, donor dependency has sometimes affected the regular supply of products. 155 Challenges with the availability of new regimens have also resulted in delays in the introduction and implementation of these medicines in country, and reduced Mozambique's forecast accuracy. Despite this, the country has managed to maintain low stock-out rates for ARVs (Figure 17), as well as for other medicines, commodities, and health products.

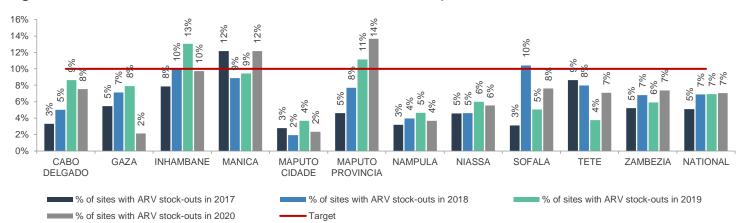


Figure 17. Stock-out rates for antiretroviral medicines in Mozambique, 2017-2020₁₅₆

Health management information systems (HMIS) are fragmented and lack interoperability. This situation negatively affects routine reporting and the quality of programs data. The public information system is paper based at the health facility level, creating further quality issues. Routine reports are generated semi-manually, are of low quality and feedback is provided irregularly on them. While the HIV information systems have improved over the past years, routine monitoring of community-level activities is still not harmonized or complete. Partners maintain parallel systems and quality issues also persist. 157 Reviews and performance assessments are infrequently carried out. The monitoring and evaluation (M&E) mechanism is also not integrated, including those of sector partners. The technological infrastructure is inadequate in relation to its quantity (scope) and quality (maturity) and the architecture of the current system is under-developed. This seriously affects the timely production of reliable data and limits the use of real time data for decision-making. 158 The absence of a national HMIS strategy or plan is a root cause of many of these challenges.

There are also huge constraints on the laboratory system in Mozambique, including poor maintenance of infrastructure and limited human resources. Of the country's 448 laboratories, 62 operate with only one technician and often over capacity. For instance, in 2019, Mozambique's 15 viral load/early infant diagnosis labs had capacity to perform 904,000 tests, but did 1,038,610.159 The burden is heavily concentrated, given that only about a quarter of Mozambique's health facilities have laboratories.160 While time from sample collection to registration has reduced from 11 to 8 days in the past year, the testing time has increased from 8 to 11 days over the same period. This is largely due to increased demand, above lab capacity thresholds.161 Only 30% of TB diagnosed cases are informed by laboratory results and approximately 25% of laboratories are able to perform critical investigation needed for HIV case management (viral load, liver and renal function tests as well as full blood counts).162 The country has a toolkit for strengthening laboratory management toward accreditation (called "FOGELA"), but only 10% of health facilities are applying it. The country has a National Strategy for Clinical Laboratories 2020-2024, requiring a \$371 million investment over the period.163

In an effort to address these and other governance challenges, Mozambique has commenced a comprehensive health sector reform strategy, with functional analyses and national policy reviews. Given the expiry of the Health Sector Strategic Plan PESS 2014-2019, a new strategic direction is needed. In the midst of this new national planning cycle, this request harnesses the positive momentum in some areas and course corrects in others. It aims to build on existing investments, foster sustainability, and enhance integration.

1.3 Lessons Learned from Global Fund and Other Partner Investments

This section describes how Global Fund and domestic investments, as well as those of other partners. supported national health targets during the current allocation period. It includes the main lessons learned that are relevant to this funding request (e.g. innovations or bottlenecks in service delivery).

Lessons Learned in the HIV Response in Mozambique

(1) Greater coverage of HIV prevention programs among key and vulnerable populations is needed

Low service coverage has hampered the HIV response among key and vulnerable populations. Global Fundsupported programs reach about 7,626 FSW and 614 MSM per quarter. 164 PEPFAR partners currently reach about 5,972 FSW, 2,494 MSM, 2,690 prisoners, and 159 PWID each quarter. 165 In 2019, the Global Fund reached 456,792 AGYW, PEPFAR reached 93,073, and Rapariga Biz reached 466,535,166 As presented in Table 1, this equates to a national coverage of HIV prevention programs of 28.9% for FSW, 31.8% for MSM, 7.8% for PWID, 15% for prisoners, and 20.2% for AGYW. Given that global guidance suggests countries should aim for at least 80% coverage among key populations, and 75% among AGYW, current coverage of HIV prevention among key and vulnerable populations is therefore inadequate to achieve the desired impact especially given the need for services across many districts, including more rural areas (Figure 18). In close collaboration with PEPFAR, this funding request aims to scale-up key and vulnerable population programs to increase scale, quality and coverage in priority high-burden locations.

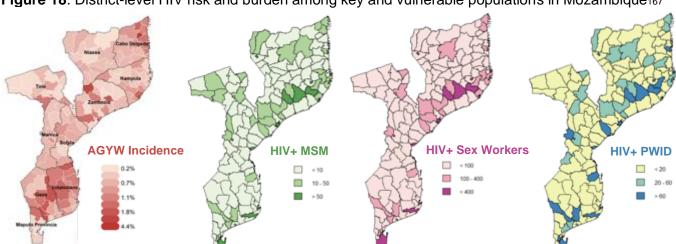


Figure 18. District-level HIV risk and burden among key and vulnerable populations in Mozambique 167

(2) Layered packages, youth leadership, and male engagement are key to reduce AGYW HIV incidence

Lessons from PEPFAR's DREAMS program show that layered interventions are working to reduce AGYW HIV incidence. In Beira, Chokwe, Quelimane and Xai-Xai, new infections have declined more than 50% from 2015 to 2017 (Figure 19).168 From 2016-2017, DREAMS is credited with reducing pregnancy rates at some schools from 0.6% to 0%, and increasing AGYW who sought health services by 40%.169 Leadership from DREAMS Ambassador was a catalyst for results. The AGYW Technical Working Group has been an important forum to share such lessons and ensure program coordination. This request aims to reach more AGYW with the evidence-based package, saturate priority districts, and enhance partner coordination.

Lessons learned in AGYW programming are also drawn from Geração Biz ("busy generation"), which is implemented by the Government of Mozambique, and Rapariga Biz ("busy girl"), which is implemented by the United Nations Population Fund (UNPFA), funded by Sweden, with support of other UN agencies, and which reach a million girls in 19 districts in Nampula and Zambézia. These programs expand information, education and communication (IEC), strengthen the capacity of local youth groups, promote the utilization of health services, and sensitize healthcare workers and teachers. The programs link to local institutions on health, education and youth and sports, which is important for sustainability. Lessons show that this local linkage approach works. In 2018, 48% of girls that went for Servicos Amigos dos Adolescentes e Jovens (SAAJ) (youthfriendly services in facilities) started using contraception and 435,437 were tested for HIV. Lessons show the importance of schools as entry points: 463,377 girls contacted school health centers to obtain contraceptive advice and services. In this new grant, there is an intention to foster greater synergies and collaboration between Ministry of Health and Ministry of Education, to bring the SAAJ model into schools and make on-site services available. As with DREAMS, the use of 2,500 community activists and 1,800 adolescent girl mentors

has been critical for success. The digital platform SMS BIZZ had more than 84,000 users in 2018, which informs this request's use of social media and WhatsApp as a linkage to care strategy for AGYW.

Finally, lessons from current Global Fund grant implementation for AGYW inform this request. The Global Fund-supported AGYW program is called Viva + or 'Viva Mais' ("Live more") and is currently implemented by FDC (Fundação para o Desenvolvimento da Comunidade). Implementers suggest there is limited male engagement in the program, which hampers its delivery. Lessons from FDC's implementation show that men remain a key element in decisions about child marriage with girls from female-headed households having significantly lower probability of getting married before 18 than girls in male-headed households. Lessons show it is critical to engage men on these factors of increased vulnerability of young women. 170 New tools exist to characterize the male sexual partners of AGYW in Mozambique. 171 In this request, funding supports the implementation of a male engagement strategy, a specific HIV prevention for men, and an intention to work directly with men's groups (or SRs who work with men) to be able to better deliver.

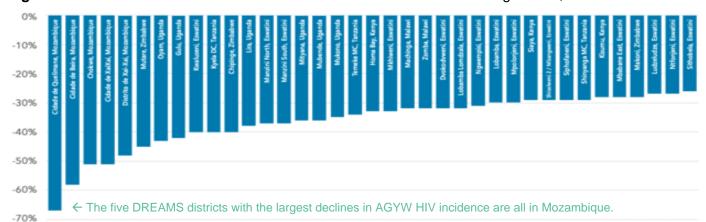


Figure 19. DREAMS districts with >25% decline in new HIV infections among AGYW, 2015-2017₁₇₂

(3) Low condom use is linked to poor information and poor supply in remote rural areas

Mozambique's National Condom Strategy has three main priorities: program stewardship, increased demand and improved supply.173 Consultations with a wide range of stakeholders point to four main challenges that need to be addressed in order to achieve the strategy's goals: (1) Limited awareness and uptake of condoms across general and key populations; (2) Lack of data visibility at the last mile; (3) Challenges in distribution and storage of condoms to last mile and (4) Lack of access outside public health facilities.174

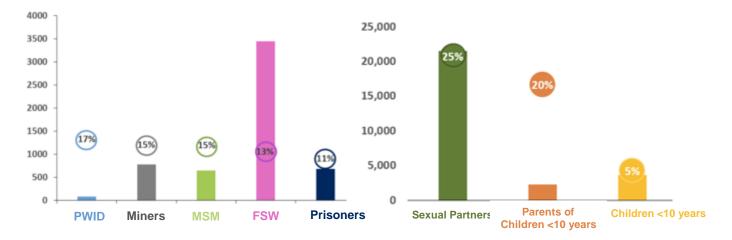
(4) Sex workers are being reached, but differentiated approaches are needed to link them to care

June 2019 performance reviews suggest the Global Fund-supported sex worker program has improved significantly. Reach targets were surpassed (120%), indicating capacity to scale-up further and meet more of the national need (recall Lesson 1). However, there is an identified challenge with linkage and referrals; just 65% of FSW who tested positive were linked to care. 175 Lessons from Médecins Sans Frontières (MSF) programs suggest linkage to care for AGYW who engage in risky behavior such as transactional sex is similarly difficult—their linkage data for this group is 39.5%. 176 Lessons learned from the LINKAGES program in Mozambique suggest the use of HIV-positive FSWs as "peer navigators" may improve linkage and retention in care. 177 Lessons from PEPFAR's COP19 implementation confirm the positive effects of expanding the role of peer educators to provide accompanied linkage of FSWs into care and treatment services. With this approach, 99% (1,196/1,207) of HIV-positive FSWs were linked to treatment in the fourth quarter of 2019. 178

(5) More targeted HIV testing services are needed to reduce over-testing and increase yield

In 2019, Mozambique performed 8,842,002 HIV tests with a yield of 4.4%.₁₇₉ This inefficiency is particularly glaring for adolescents, among whom about 400,000 tests were performed with a yield of 1-3%.₁₈₀ Further, 10% of those tested were people that had previously been diagnosed HIV-positive.₁₈₁ This signals the need to reduce over-testing and retesting through a more targeted approach. Lessons have been learned from experiences with key populations as well as index testing. In 2019, Mozambique tested 42,047 key populations with very high yields among FSW (13%), MSM (15%), PWID (17% national data, 41% program data in Mafalala₁₈₂), mine workers (15%), and truck drivers (11%) (Figure 20). Index testing to sexual partners was the most efficient modality, with an HIV positivity rate of 25%. This funding request prioritizes targeted testing to these populations, using index and self-test modalities (see self-test lesson below).

Figure 20. HTS positivity among key populations (left) and index clients (right) in Mozambique, 2019₁₈₃



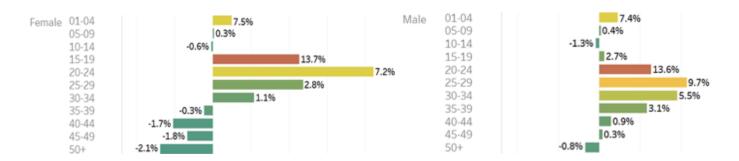
(6) HIV self-testing is a viable strategy to reach men and young people, but counselling is needed

Evidence suggests that young men aged 18-24 years as well as women with lower economic and educational status are being missed by facility-based HIV testing services (HTS).184 A pilot was done in Zambézia province from May-December 2019 to determine the acceptability and feasibility of HIV self-testing through 14 public and private pharmacies (8 urban, 6 rural). During the pilot, 1,153 people bought 1,356 self-test kits; 70% of them were men and 66% were younger than 35 years.185 Confidentiality was one of the main reported advantages of self-testing. Cost and lack of counsellors were cited as barriers, and linkage to health facilities was sub-optimal.186 Another study among adolescents aged 16-20 years in Mozambique confirmed acceptability of HIV self-testing, with 70% of the 299 participants being first-time testers and 80% preferring self-testing to the finger prick.187 Most (76%) preferred to do self-testing at a health center rather than at home, due to increased security, privacy, and the presence of a counsellor.188 These lessons suggest that HIV self-testing is a viable strategy to increase demand for HTS and reach men and young people in Mozambique, but investments in counsellors and linkage support are also needed.

(7) Expansion of differentiated service models is needed to improve retention and reduce LTFU

The dramatic increase in ART coverage during PEN IV 2016-2020 was the result of rapid expansion in the number of health facilities providing HIV care. This rose from 65% of health facilities in 2015, to 81% in 2017, to 95% (1,582 facilities) in 2019.189 Mobile brigades have also contributed, though adequate planning and collaboration with districts and communities is crucial.190 While ART access has increased, a recent evaluation points to major retention challenges.191 In 2019, retention on ART at 12 months was 67%, with the lowest rates in Nampula (55%) and the highest in Gaza (76%).192 LTFU is highest for AGYW aged 15-24 years and men aged 20-29 years (Figure 21). Differentiated service delivery (DSD) models exist193, but scale-up has been slow and remains below the national target of 50% of facilities. Facilities implementing GAACs was stagnant in 2019, at around 10%.194 The proportion of facilities with 3-month dispensing rose from 14% in January to 29% by December 2019. A 2017 audit identified quality of services as a major reason for poor retention.195 Provincial dialogues for the development of this funding request confirmed that travel distance, wait times, limited privacy, and stigma from health workers were reasons for disengagement. 196 Other lessons include the need to simplify patient flows, monitor DSD models, and focus on priority subgroups.197 This funding request scales up DSD based on these lessons.

Figure 21. Loss to follow-up (as % of total on treatment), disaggregated by age and sex, July-Dec 2019₁₉₈



(8) Human rights programs benefit from a "whole community" approach but require scale-up

Human rights programs are of limited scale and duration, and require ongoing expansion. 199 The improved participation of key populations and community stakeholders is critical. 200 Layered, combination community-based interventions that include stigma and discrimination reduction campaigns and dialogues are showing success. 201 Similarly, implementers of PEPFAR's investment in health and human rights advocates, as well as current grant implementers report success with combining dialogues, legal literacy and paralegal support services through community and health committees, and working in partnership with government health sectors, such as the Humanization Department in the Ministry of Health, and with law enforcement sectors. In the current grant, paralegal implementers have identified around 5,000 cases, resolving 1,600, but paralegals note the need for strengthened sensitization of linkages to experienced lawyers and possible strategic litigation to address ongoing harmful practices (e.g. child marriages, sexual abuse) that are difficult to redress at community level. 202

Ongoing challenges, including in current grant implementation cited during the human rights consultative workshop (part of country dialogue) include the need to improve data for decision-making (see Lesson 14),203 improving CSO capacity and training key population paralegals, overcoming barriers to justice and improving linkage to sensitized and experienced lawyers able to take on cases, as well as sensitization of the National Human Rights Commission and training of judicial officers. The current grant wasn't able to integrate materials into pre-service police training curricula, given the polices' fixed timetable for curriculum review. This requires ongoing advocacy for curricula changes alongside expanded 'extra-curricular' in-service training and district-level sensitization and involving community committees, paralegals, health committees and the police to strengthen referrals and responses to discrimination and violence, including GBV, against key populations and AGYW.204 There is need to increase availability of appropriate IEC materials and speed up healthcare worker training (including issues for PWID, people with TB, people with disabilities, IDP and refugees, and to address GBV, and occupational health and safety205). The Baseline Assessment also noted a critical need to improve prisoners' rights in the context of HIV and TB. Ongoing advocacy for law and policy review and reform is required, including for people who use drugs, people in prisons and other closed settings, and the workplace.206

(9) Engagement with law enforcement and local structures is needed to scale harm reduction

Since September 2017, MSF and local civil society (UNIDOS) (supported by FHI360/PEPFAR) have worked alongside the Ministry of Health, CNCS and Cabinet for Drug Prevention, to implement a successful harm reduction pilot for people who use drugs (PWUD) in Mafalala neighborhood in Maputo. The pilot informs this request, including the pathway to scale up.207 MSF and UNIDOS opened a drop-in center for PWUD, implementing a comprehensive harm reduction package, including needle and syringe programming and opioid substitution treatment (OST) with methadone, and TB screening and HIV, HBV, HCV testing.208 Among the 1,472 drug users tested, a 17% HIV positivity rate was found among non-injectors, and 41% among injectors. The pilot found 26% positivity for Hepatitis C (HCV) among PWID.209 Linkage to care for both HIV and HCV was a challenge, but is expected to improve with OST.210 Local sensitization was key to the program's success, as was working with the city's drug commission to get buy-in and support for needle exchange. Community committees created in Mafalala were key for community acceptance. These committees included police and PWUD, as well as a strong link with law enforcement. Identifying police allies at national and local levels has helped. ID cards for PWUD and peer educators who are registered in the program sometimes lessened harsh policing. Fixed needle disposal boxes in places of drug use were useful. Women-only days have helped to reach women who inject drugs, but, women's-only quarters at DICs may increase reach. Advocacy to improve the legal environment is underway (to reform law 3/97 in particular211), and a nascent network of people who use drugs has been formed. Ongoing community empowerment is needed.

Lessons Learned in the TB Response in Mozambique

(10) Community-based approaches and CSO collaboration helps to find missing people with TB

Strategic engagement, capacitation and mobilization of cured TB patients, their family members, other members of vulnerable communities, traditional healers and community activists can help find missing people with TB, reduce stigma and myths on TB, promote gender equity in health-seeking, and establish rights of the TB patients. The collaborative approach of the National Tuberculosis Program (NTP), CSOs and community members and networks to implement the Community TB Service Package₂₁₂ has proven highly effective to create demands for TB services and improve TB case notifications, especially in Zambézia and Nampula.₂₁₃ Similar collaboration is ongoing in the Matola district of Maputo province. A "CSO consortium approach" has been particularly effective. A key lesson is the importance of regular project review meetings and ensuring coordination of CSO players and division of their implementation areas.

Community case detection rose from 5,383 (9% of all TB cases) in 2015, to 26,038 (27% of cases) in 2019 (Figure 22). In 2018 and 2019, this community-based collaborative approach did symptomatic screening of 70,007 contacts (household and close community) of bacteriologically confirmed TB index patients, finding more missing people. It also helped 20,853 children under 5 who are TB contacts to start TPT at the local health-facilities. A key lesson is that performance-based rewards and incentives can be utilized as an effective tool of motivation in the TB programs, both for communities and care-givers.



Figure 22. Contribution of communities in finding missing people with TB in Mozambique, 2015-2019₂₁₄

(11) Rapid molecular diagnostics increases DR-TB notifications, but machine maintenance is needed

The phase-wise scale-up of rapid molecular diagnostic services (Xpert RIF/MTB) in the current Global Fund grant helped to dramatically improve the notification rate RR/MDR-TB, from 940 cases notified in 2017 to 1,388 in 2019—a 48% increase. The access to rapid molecular diagnostics further increased by regular sputum collection and transportation from non-Xpert to Xpert sites. However, the installation of the new GeneXpert machines has not yet facilitated finding people with MDR-TB as much as expected. There is a need to accelerate the installment of the GeneXpert machines and ensure continuous maintenance of those in service. As of June 2019, 56 GeneXpert machines were yet to be distributed and installed, and 34 (of 184) were not fully functioning.215 Frequent machine breakdown and limited maintenance were cited as key issues during the national dialogue to develop this request.216 This funding request prioritizes additional Xperts to increase diagnostic capacity, while ensuring use and functionality of existing machines.

(12) Patient-centered adherence support can improve the low treatment success rate of MDR-TB

There has been a 10% increase in the DR-TB treatment success rate from 2018 (49%) to 2019 (59%), and an 8% increase for HIV-positive DR-TB patients over the same period (44% to 52%). This remains well below treatment success for drug-susceptible TB (Figure 23), which has achieved the national target of 90% since 2017. Mozambique aims to increase MDR-TB treatment success to 65% in 2020, and 85% by 2023.217 Lessons from Global Fund grant implementation indicate a need for research to identify DR-TB patients' adherence barriers, improve training and supervision, implement patient-centered adherence models, and ensure the availability of medicines at facilities.218 Experience shows that regular follow-up and home visits to DR-TB patients improves their treatment adherence and notification of other TB patients in the community. Based on lessons, this request prioritizes social support for DR-TB patients, patient-centered adherence (mobile SMS, missed calls, and video observed therapy), establishing gender-sensitive approaches for women and children, and recruiting and training specialist DR-TB counselors for high-volume health facilities.

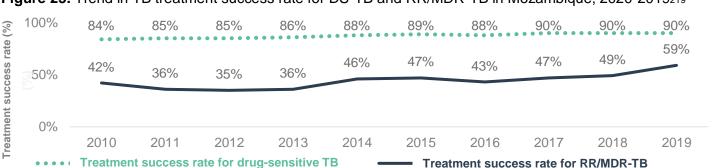


Figure 23. Trend in TB treatment success rate for DS-TB and RR/MDR-TB in Mozambique, 2020-2019219

(13) Integrated approaches are effective to address TB, HIV and occupational lung diseases in miners

The Southern Africa Tuberculosis and Health Systems Support Project for Africa is a five-year (2017-2022) \$122-million-dollar multi-country investment from the Word Bank. In Mozambique, about \$40 million is being invested to enhance TB case detection and treatment success (including occupational lung diseases) in mining communities of Gaza, Inhambane and Maputo. A standardized package of occupational health services and mining safety standards is being rolled out, along with systems strengthening aspects focusing on HRH, surveillance, research and project management. Through this project, the country learned that Mozambican mine workers who work in South African mines generally live with a high burden of TB, HIV and occupational lung diseases.²²⁰ The project further revealed the importance of addressing all co-morbidities in an integrated and holistic manner. This is possible through well-equipped occupational health centers and health safety regulations for the mine workers. This request prioritizes specific strategies for mine workers, including door-to-door TB education, stigma reduction, active case finding through symptomatic TB screening and sputum collection and transportation to Xpert sites and/or occupational health centers. Chest X-ray will be also utilized to screen the mining community for other occupational lung diseases as well as TB.

Lessons Learned from Strengthening Systems for Health in Mozambique

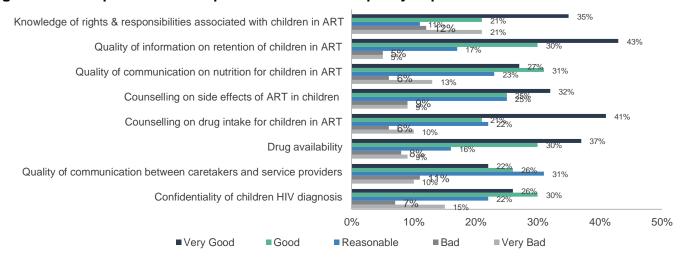
(14) Updated data and other strategic information is needed to guide program implementation

Updated studies of specific populations (e.g. key populations, people with TB including young people with TB, people with disabilities, PWID) and settings (e.g. healthcare, workplace, justice, community) are required to inform responses. The current Global Fund grant is supporting a biological and behavioral surveillance (BBS) study among FSW (with additional technical support from PEPFAR), but there is a need to update data for MSM, PWID and prisoners, all of which are more than five years old.221 The current grant planned to do a BBS for MSM, but due to COVID, this has now been put on hold and is unlikely to be completed in 2020. Updated stigma data is needed, especially for key populations.222 Tools from PEPFAR-support programs exist, which may be adapted for this grant, to monitoring stigma in healthcare settings.223 This would help address the 2017 Office of the Inspector General (OIG) audit finding that there are limited tools available to identify quality of service issues.224 There is also a need to do an end-line community, rights and gender (CRG) TB assessment study (baseline recently completed225); to understand TB and diabetes as co-morbidities; update the knowledge, attitudes and practices survey among healthcare workers; and evaluate the NTP's implementation of the innovative psychosocial package and mental health. This request prioritizes such surveys, analysis, evaluations and reviews to strengthen HIV and TB program implementation.

(15) Community-led monitoring provides key insight into service quality and barriers to access

Experience from community-led monitoring initiatives inform this funding request. A community scorecard project from N'weti provides critical insights into barriers to accessing services and quality of care issues. These should be complemented by health facility assessments. The scorecard revealed that the confidentiality of childhood HIV diagnosis is a key human rights barrier to access, with 22% of respondents saying this is either 'bad' or 'very bad' (Figure 24). Knowledge of rights was also poor, with 21% of respondents grading this as 'very bad'. The importance of involving community leaders at all stages was a key lesson, as it helped create greater ownership. Having community dialogues before the scoring also helped cultivate more informed participation.

Figure 24. Perceptions from recipients of care on the quality of pediatric ART services₂₂₆



Community-led monitoring lessons are also drawn from implementation of MSF's *Juntos pelo Acesso aos Medicamentos* (JAM) project, a community-led monitoring initiative which supports the Ministry of Health to identify patients that were unable to access treatment and where stock-outs of medicines occurred, through monitoring and communicating about shortages and stock-outs.²²⁷ This project's main contribution was to improve communication along the supply chain. As with the N'weti lesson above, MSF found that empowering patients and communities required an open dialogue about patients' responsibilities, rights and current access to healthcare. Training and health talks served to empower individuals, resulting in more calls to the hotline to report stock-outs or lack of access to treatment.²²⁸ This funding request expands community-led monitoring, including scorecards, with a focus on monitoring the quality of services in health facilities, and strengthening feedback and accountability mechanisms.

(16) Increased warehouse and distribution capacity is required to support program scale-up

Increasing storage space for drugs and consumables is a strategic priority of PEN IV.229 However, as noted in the country context, product storage is limited, both in terms of space and in terms of conditions (infrastructure, equipment and utilities). A 2017 audit of Global Fund grants to Mozambique found insufficient space and inadequate measures to monitor and control the temperature of storage rooms across the three regional, three provincial, and three district warehouses, as well as the 10 health facility pharmacies that the auditors visited. For example, a regional warehouse in Zimpeto with a capacity of 3,816 pallet spaces was overfilled to twice its capacity. The audit concluded that the country's current storage capacity cannot support national treatment scale-up ambitions, which requires an estimated 76% increase in storage space. More recently, the November 2018 Joint Assessment affirmed that conditions (especially space) for storage in warehouses and pharmacies in most provinces, districts and health facilities are inadequate, and there is no equipment for monitoring temperature or humidity.230 This request aims to rehabilitate nine provincial medicine warehouses and construct additional intermediate ones.

(17) Tailored training and results-mechanisms may strengthen financial management systems

Mozambique's 2017 OIG audit found weak financial management.²³¹ Experience in the past and current grant indicates that arrangements to build the financial management capacity of the provinces have not been effectively implemented by the Ministry of Health. A 2019 review of financial management challenges in Mozambique revealed a key lesson: there is a need to match the training level to the performance level.²³² To improve efficiency and effectiveness, this review recommends doing initial capacity assessments and then implementing tailored training for beginner (staff scoring less than 50%), intermediate (staff scoring 50-85%) and advanced (staff scoring more than 85%) participants. ²³³ Another lesson captured in the country's Investment Case on RMNCH is for the country to explore results-based financial management mechanisms.²³⁴ In light of these lessons, this funding request includes tailored financial management training for senior managers of the three disease programs, on the updated financial management procedures manual. It also explores performance-based financing options.

(18) Long-term capacity building and technical assistance is required to improve grant implementation

As part of the process to develop this funding request, a capacity assessment of 11 current and prospective Global Fund implementers was conducted, largely focusing on human rights and key populations.²³⁵ The assessment found limited previous experience with specific human rights programs for HIV and TB, citing a need for capacity strengthening on PWUD and transgender people in particular.²³⁶ It also found that the M&E system is not adequately developed to measure the impact of human rights programs, noting the absence of human rights indicators in the Global Fund performance framework. It recommends technical assistance (TA) for community-led monitoring systems for human rights violations. A costed TA plan (\$245,438 over three years) was developed. Based on lessons, this request has included funding for the TA plan, four human rights outcome indicators, built-in capacity strengthening for communities (key populations, TB activists, cured TB patients, PLHIV, members of NGOs and CBOs), and the establishment of a key populations Technical Support Unit.

(19) Performance-based financing may be a viable option to improve retention and service quality

In 2011, a clinical NGO partner, funded by the United States Centres for Disease Control and Prevention (CDC), piloted a performance-based financing (PBF) program in Gaza and Nampula provinces. By 2014, the program provided approximately \$11 million in incentives. The pilot produced large, sustained increases in the provision of PMTCT, pediatric HIV, and RMNCH services, suggesting that PBF is effective.237 Further healthcare workers reported that PBF, overall, positively influenced their motivation.238 This request proposes to implement PBF in three areas, and scale-up based on new landscape analysis and lessons.

Section 2: Funding Request and Prioritization

2.1 Overview of Funding Priorities

This section summarizes the **approach used for prioritization** in this funding request, including: (1) How these prioritized modules ensure the highest possible impact with a view to ending the epidemics of HIV, TB and malaria; and (2) How challenges, barriers and inequities, including those related to human rights and gender, are being addressed through the modules prioritized within this funding request.

Mozambique's prioritization approach was derived from a widely consultative process. This includes provincial-level dialogues in early January 2020₂₃₉ and a national-level dialogue on 21-22 January 2020_{.240} Two thematic workshops on human rights₂₄₁ and RSSH₂₄₂ were held in early March. Developing PEPFAR's COP20 was also part of country dialogue, as stakeholder engagement occurred to align priorities.₂₄₃ Regular meetings of the CCM, the Proposals Working Group, and the thematic technical groups (11 groups for TB and 8 for HIV) were mechanisms for ongoing constituency engagement. In all these spaces, stakeholders included government, development partners, the private sector, civil society, PLHIV, people affected by TB, key populations and AGYW. Consultation resulted in the following strategic investment approach and allocation optimization (Figure 25). To help demonstrate the areas that have been prioritized for investment increases, Table 3 provides a summary budget for the new grant, by module, and compares this to the current grant.

Figure 25. Mozambique's strategic investment approach (left) and allocation optimization (right) 2021-2023

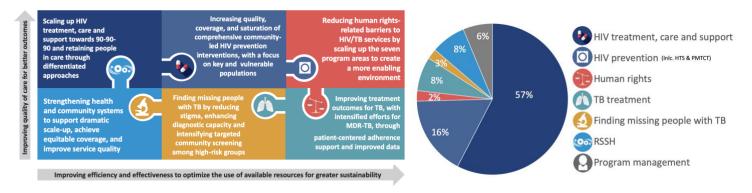


Table 3. Summary budget for new TB/HIV grant (2021-2023) and comparison with current grant (2018-2020)

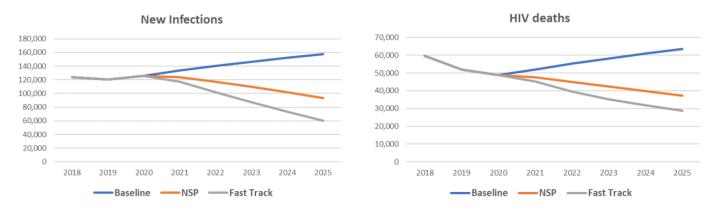
Module	New Grant 2021-2023	New % 2021-2023	Current Grant 2018-2020	Current % 2018-2020
Treatment, care and support	\$326,748,162	57%	\$223,741,334	63%
Prevention	\$60,396,912	11%	\$20,710,728	6%
Adolescent girls and young women	\$20,244,344	34%	\$13,912,214	4%
Sex workers and their clients	\$11,339,527	2%	\$4,466,478	1%
Men who have sex with men	\$5,392,690	1%	\$1,226,414	0%
People who inject drugs	\$4,840,739	1%	\$31,222	0%
Prisoners	\$3,839,210	1%	\$0	0%
Other vulnerable populations (truckers, miners, OVC)	\$3,857,815	1%	\$0	0%
Men in high-prevalence settings	\$1,559,036	0%	\$0	0%
Condoms	\$9,326,107	2%	\$1,074,400	0%
PMTCT	\$5,177,823	1%	\$195,612	0%
HIV Testing Services	\$24,617,369	4%	\$9,405,749	3%
Human Rights	\$12,611,535	2%	\$7,448,733	2%
TB/HIV	\$3,410,172	1%	\$335,130	0%
TB Care and prevention	\$45,008,534	8%	\$46,031,118	13%
MDR-TB	\$16,457,095	3%	\$395,659	0%
RSSH: Human Resources for Health	\$4,395,896	1%	\$1,887,140	1%
RSSH: HMIS & M&E	\$17,777,583	3%	\$7,372,386	2%
RSSH: Laboratory systems	In malaria request	0%	\$0	0%
RSSH: Health products management systems	\$14,969,166	3%	\$ 14,094,268	4%
RSSH: Integrated service delivery and QI	\$0	0%	\$3,442,978	1%
RSSH: Financial management systems	\$2,409,325	0%	\$770,450	0%
RSSH: Health sector governance and planning	\$449,838	0%	\$164,326	0%
RSSH: Community systems strengthening	\$4,146,975	1%	\$509,868	0%
Program Management	\$35,335,586.18	6%	\$18,196,249	5%
GRAND TOTAL	\$573,911,971	100%	\$354,701,728	100%

Prioritization of HIV Modules

Given that PEN V 2021-2025 is still an evolving draft₂₄₄, the strategic direction of the HIV modules in this funding request is also informed by the PEN IV Mid-term review₂₄₅, and the Joint Assessment of the TB NSP 2014-2018, PEN IV 2016-2020, and Viral Hepatitis Baseline,₂₄₆ as well as the latest scientific data.

To make strategic investment decisions, the prioritization of modules and interventions in this funding request was guided by scenario modelling. The "NSP" scenario is included in the allocation request, which is aligned to the draft PEN V 2021-2025. Then, the "Fast-Track" scenario is expressed in the prioritized above allocation request (PAAR), which articulates a more aggressive approach. Both scenarios are modelled to significantly reduce new HIV infections and HIV deaths (Figure 26). If NSP targets are achieved during grant implementation, it is the country's intention to pursue the Fast-Track scenario, either through savings or portfolio optimization.

Figure 26. New HIV infections (left) and HIV-related deaths (right) in 3 scenarios in Mozambique, 2020₂₄₇



The investment levels for each module were guided by resource optimization modelling, which shows that the NSP scenario requires significantly scaled-up investments in ART, program support, mitigation (which includes HIV-related human rights and gender programs), condom promotion and distribution, community mobilization, and HIV testing services.²⁴⁸ These are the areas of this funding request where the largest increases in resources have been prioritized. The modelling also shows the need to more than double investments in young people, sex workers, MSM and PWID, which this request has also done.²⁴⁹ A cost-effectiveness ranking²⁵⁰ also informed prioritization, however, this was carefully balanced with equity considerations (see value for money section).

Prioritization of TB Modules

The strategic direction of the TB modules in this request is guided by the evolving National Strategic Plan for TB Elimination 2021-2024₂₅₁ and the Joint Assessment. ₂₅₂ The Global Strategy to end TB, and the country's commitments as a part of the 2018 United Nation's High-Level Meeting on TB were also considered. The latest country-level scientific studies were used to inform investment decisions.

Mozambique aims to reach and serve the TB patients of the country with integrated, people-centered care and prevention, to maximize their detection and ensure their cure by standard treatment. The people-centered care will cover the following groups of priority patients: (1) People with TB not accessing the healthcare system; (2) People with active TB who seek healthcare but are either not diagnosed or not notified to the NTP; and (3) People with TB who are notified, but still not successfully treated. To make this possible, the country has prioritized the following three core strategies to maximize impact: (1) Improve access to TB services; (2) Improve TB diagnosis, and notification to NTP and (3) Improve successful treatment completion.

As with HIV, two scenarios were developed and costed for TB. These scenarios were largely differentiated by the number of people to be treated with new short-course MDR-TB regimens. A scenario which meets NSP targets is included in the allocation, and a more ambitious scenario (with greater coverage of MDR-TB treatment as the main cost-driver) is in the PAAR. This is adopted to push the country to achieve a larger proportion of the End TB Strategy targets and United Nations High-Level Meeting on TB targets by 2025, with the currently available resources.

Additionality to other partner investments was also considered in prioritization. The investments in the NTP from the United States Government, World Bank and Stop TB Partnership will focus mostly on community engagement and key populations in select provinces. The Global Fund investments will be prioritized in overall system strengthening and community mobilization in the rest of the provinces.

Prioritization of Resilient and Sustainable Systems for Health (RSSH) Modules

A prioritization exercise during the RSSH workshop (mentioned above, as part of country dialogue) led to the prioritization of four primary areas for investment: (1) Laboratory systems; (2) Health management information systems and M&E; (3) Health product management systems, and (4) Community systems strengthening. To maximize the utility of the country's sizable malaria allocation, all the lab strengthening needs are contained in that funding request.

A health sector readiness assessment (Figure 27)—which points to gaps in lab capacity, availability of medicines, and policy—also informed these investment decisions.

The proportion of Mozambique's HIV and TB allocations that is directed to RSSH modules was a CCM decision. In line with the prioritization described above, the CCM decided to increase RSSH investments (from 5.3% in the current grant to a ceiling of 7.5% in this funding request). To make investment decisions within the modules, three prioritization principles were employed: (1) Scale-up initiatives that are underway in the current grant to achieve necessary impact; (2) Shift systems from a "start up" to a "sustainability" phase, and (3) Invest in service integration across multiple disease programs, towards improved effectiveness and efficiency.

Malaria - Readiness HIV - Readiness TB - Readiness Guidelines for Guidelines for Guidelines for diagnosis and diagnosis and 60% antiretroviral treatment of TB treatment of therapy malaria Guidelines for management of HIV & TB co-infection Guidelines for Full blood count Guidelines related to MDR-TB treatment Malaria 98% 26% diagnostic CD4 or Viral load Guidelines for TB capacity infection control First-line Renal function test TB microscopy antimalarial in 90% (serum creatinine 23% testing or other) stock HTV diagnostic 99% capacity Liver function test IPT drug 76% (ALT or other) System for diagnosis of HIV among TB 83% clients Three first-line ITN 76% First-line TB antiretrovirals 85% medications

Figure 27. Mozambique's health sector readiness to provide malaria, HIV and TB services253

Ensuring complementarity with PEPFAR's systems investments was another important factor. For instance, a mapping of laboratory needs was done, to determine what was funded through PEPFAR's COP20 investments and what remained to be funded through Global Fund.₂₅₄ Close planning between the PEPFAR team and the RSSH technical group was part of the country dialogue process to develop this request.

2.2 Funding Priorities

The tables below detail **each prioritized module** proposed for Global Fund investment.

COMPONENT: HIV

Module #1

Treatment, care and support

The top priority in this funding request is to support the scale up of adult ART coverage in Mozambique. This is the most critical priority to achieve epidemic control. To do this, two scenarios have been quantified. The first scenario, which is included in the allocation request, is to increase adult treatment coverage from 53.2% in 2020 to 77% by 2023. This is aligned to the NSP target of 81% ART coverage by 2025. The second scenario, which is contained in the prioritized above allocation request (PAAR), represents the more ambitious Fast-Track target of 81% ART coverage by 2023.

Funding will support procurement of antiretroviral medicines as well as treatment monitoring commodities such as reagents for blood count, urea, creatinine and blood glucose. PEPFAR is covering the country's full viral load testing need. The ARVs procured will support treatment optimization, as Mozambique is expected to complete its transition to WHO-recommended regimens by the first quarter of 2021 (see rationale below). The treatment scale-up will be done collaboratively with Global Fund support, government investments in ART (\$5 million/year) and PEPFAR ART investments (\$24.0 million in COP20). PEPFAR also has significant treatment investments beyond ARV drugs (\$195 million). A table showing the number of patients to be covered by each partner is presented below.

Table 4. Number of adults on ART (drugs only) in Mozambigue, by partner and by year

Partner	2021	2022	2023
Global Fund	1,169,180	1,246,767	1,324,353
PEPFAR	373,055	373,055	373,055
Government of Mozambique	77,399	77,399	77,399

Intervention(s) & Key Activities

Funding will also support **procurement of pediatric ART formulations**. Treatment optimization is an important investment priority here, including removing nevirapine from shelves and switching to new child-friendly Dolutegravir- and Lopinavir-based formulations. Children will be included in the DSD models mentioned in Table 4. Investment levels and quantifications cater for adequate supply of pediatric medicines to enable multi-month pediatric dispensing.

Coordination of partners bears mentioning upfront. In 2018/2019, PEPFAR pivoted to focus on 628 high-volume facilities that serve 85% of PLHIV on ART ("AJUDA sites"). Previously, it supported 1,328 facilities. Going forward, the bulk of ART procurement (70%) will be supported by Global Fund (for all sites), with the remaining 30% covered by PEPFAR and the Government. To harmonize investments, the Global Fund program will support the Ministry of Health to focus programmatic activities on non-AJUDA sites. These are mostly smaller, more rural facilities, requiring strong community approaches to find, link and retain PLHIV. Close collaboration with AJUDA sites is envisioned to share lessons, particularly to reach AGYW, men, young men, and key populations.

Alongside treatment scale-up, commensurate priority is given to investing in activities that **improve retention and reduce LFTU** (recall Lesson 7). The main strategy to reduce LTFU will be to reduce the amount of time that patients spend at health facilities. Recent evidence suggests that for each hour a patient spent in the health facility, the probability of being retained at six months decreased by 7%.255

As such, funding will be invested in Mozambique's six main **DSD models** (Table 5), particularly community-based models (given the needs of non-AJUDA sites). Funding will support DSD in 127 facilities that have been identified based on their size (those right below the large AJUDA sites). Guidelines for local implementation have been issued in 2018. As part of DSD, pre-booking of consults will also be scaled up, as recommended in the Evaluation of the Plan to Accelerate the Response to HIV/AIDS.256

Community treatment and support led by networks of PLHIV and other CBOs is being done but needs to be scaled up and strengthened, especially to reach key populations.

Table 5. Types and objectives of the different DSD models in Mozambique₂₅₇

Type of DSD model	Objective of DSD model
Rapid flow	Reducing the length of time patients spend at facilities
Community adherence clubs (GAAC)	Reducing the frequency of patient visits to facilities
3-month dispensing	Reducing the frequency of patient visits to facilities
One-stop visits at ANC, SAAJ and TB	Integrated provision of care to a patient and their family
Family visits	Integrated provision of care to a patient and their family
Membership clubs	Integrated provision of care to a patient and their family

A strategic pivot in this funding request to scale-up DSD and reduce LTFU is to enhance the current mechanisms for identification of patients defaulting on medicine pick-up (based on pharmacy records). The proposed program will ensure these mechanisms are properly used by the expanded network of lay workers, peer educators, mentor mothers, and mobile teams, for whom support is requested in this request. A stronger framework for their activities among the community shall be created by the investments sought in the community systems strengthening and human resources for health RSSH modules.

Worth mentioning, Mozambique has developed a package of services for PLHIV, and a model for the flow of chronic patients, under COVID-19.258 This package accelerates the scale-up of DSD models, including multi-month dispensing and GAACs. Since the COVID pandemic is likely to persist during the implementation period of this grant, funding will support the delivery of this package, including the specified DSD models.

Given high rates of LTFU among AGYW and young men (recall Lesson 7), emphasis will be placed on **improving access and quality of one-stop visits at SAAJ.** Funding will also support the establishment of other DSD models at SAAJ, to expand youth-friendly DSD options. Circulation of the transition package from pediatric to adolescents services will also be done.

The country also requests funding to implement a **male engagement package** in health facilities. This will be done by engaging the private and public sector (including municipalities). Funding will support technical assistance (TA) on male engagement, including data review, visits to provinces, interviews with recipients of care, and development of new tools. In particular, efforts will be made to ensure treatment initiation and adherence among men aged 25-29 years, and men aged 30-34 years, since they are the greatest sources of new infections for AGYW (recall section 1.2).259

Other evidence-based strategies to reduce LTFU include the use of **automated SMS** health promotions and reminders₂₆₀, fostering community support groups₂₆₁, and ensuring high patient satisfaction with the information received_{.262} These approaches will also be supported in the new grant. Additional interventions to prevent LTFU will be implemented based on the findings of an ongoing Global Fund-supported research study to determine client and healthcare worker perspectives on client-related reasons for poor retention among adult ART clients in selected districts in Mozambique in 2019.

To assess the effectiveness of these approaches, funding will support a **qualitative assessment of DSD** implementation in Mozambique. This assessment may inform the viability of introducing new models, including 6-month dispensing of ART, and models aimed at reaching and retaining men (particularly those aged 20-29 years) in care.

Finally, given the high proportion of HIV patients (50%) who present to health facilitates with a CD4 count of less than 200, investments are prioritized to **diagnose and care for people with advanced disease**. This includes funding for CD4 reagents (for clinical screening for new ART patients, and for the introduction of prophylaxis like Cotrimoxazole and Fluconazole), as well as a minimum testing package for TB (CrAg, TB LAM, GeneXpert). Funding is requested to procure Fluconazole (for prophylaxis of meningitis)

and Cotrimoxazole to treat opportunistic infections among these patients. The Global Fund's investments in medicines for opportunistic infections, as well as STI medicines, is complementing significant investments (\$13.3 million over the grant period) by the Government of Mozambique through its Central Medical Stores (CMAM). The country's need will be filled between these two partners, 54% by Global Fund and 46% by Government. All PLHIV, but with particular emphasis on reaching AGYW aged 15-24 and young men aged 15-29 years, who have lower treatment coverage, viral suppression, and retention. **Priority** Key populations (FSW, MSM, PWID and Prisoners) are also a priority for treatment scale-Population(s) up. People at risk of co-infection (including TB and other co-morbidities) are prioritized. especially PLHIV with advanced disease. Recall from Lesson 7 in Section 1.3 that barriers to effective treatment include poor quality of care, long travel distances and wait times, limited privacy, and stigma from health workers. The OIG noted stock-outs and expiries of medicines (particularly at lower-level health facilities)₂₆₃, and stakeholders consulted for this request confirm treatment availability challenges, especially for second- and third-line medicines, those seeking multi-month dispensation, and people in prisons.264 Slow scale-up, and lack of measurement of retention in DSD models, create additional barriers. There are inequities in DSD, with no specific models for key populations. AGYW aged 15-24 years and young men aged 15-29 years have the highest rates of LTFU, requiring tailored models. While SAAJ's are meant to cater for all youth, stakeholders suggest young men are reluctant to go there as they are perceived to be for women and family planning. There has also been weak implementation of the male engagement strategy. Children aged 0-14 years also face unique barriers, including limited access to optimized child-friendly formulations. Limited access to viral load testing for children **Barriers** and creates additional barriers for defining DSD options for them. **Inequities** Commonly cited barriers to retention and adherence for youth living with HIV include slow acceptance of HIV serostatus; teenage independence and testing of boundaries; lack of family support; communication and disclosure challenges; shame and discrimination; fatalism; side effects of ART medication; changes in ART regimen; lack of food; cultural and religious reasons (e.g. fasting); having inaccurate information (i.e. that people living with HIV only need to take medication when they are feeling sick); and health systems barriers (e.g. requiring a caregiver to be present during consultations and ART pick-up).265 Funding gaps have disproportionally affected patients with advanced diseases, creating inequities in quality of care for these people. For instance, shortages of reagents have meant that CD4 testing for new patients has not been done since 2019, which has delayed access to prophylaxis like Cotrimoxazole and Fluconazole. Similarly, there have been shortages of funding for CrAG, TB LAM and Fluconazole, and procurement challenges for INH and Cotrimoxazole. Compared to projected 2020 estimates, new infections and HIV deaths can be reduced by 52% and 42% respectively by 2025 in an optimized investment scenario.266 The impact is heavily driven by ART scale-up and increased viral suppression₂₆₇, justifying the significant investment in this module. Treatment optimization is another important rationale. Investments in Dolutegravir-based formulations is prioritized. With a better genetic barrier, dosage and palatability, availability of these medicines will be critical in reaching viral suppression in both adults and children. Rationale Mozambique began its transition to tenofovir/lamivudine/dolutegravir (TLD in 2019, in two phases (in March and in November). This transition is expected to be complete by the first guarter of 2021, when this new grant starts. Investments to expanding DSD are justified by evidence which shows their efficacy to improve retention. A retrospective analysis of 5,729 adults who joined GAACs between February 2008 and December 2012 in Tete showed rates of retention on ART of 98% at 12 months, 96% at 24 months, 93% at 36 months, and 92% at 48 months.268

Expected Outcome	Increased coverage of ART among all PLHIV from 53.2% in 2020 to 77% by 2023 Increased retention rates at 12 months from 67% in 2019 to 90% by 2023
Expected Investment	\$326,748,162 allocation request \$16,178,337 prioritized above allocation request

Module #2 Differentiated HIV Testing As the entry point to treatment, the second priority in this funding request is to scale up differentiated HIV testing services through four main strategies. First, funding is requested to scale up HIV self-testing, in line with the 2019 National Guide for HIV Self-Testing in Mozambique₂₆₉, the 2018 Guidelines on Differentiated Models of Services in Mozambique270, and based on lessons learned from recent and ongoing pilots (recall Lesson 6). The country opts for an implementation exclusively focused on community-based testing, including the public-private pharmacy and the workplace approaches, which have successfully reached key and vulnerable populations (such as men and adolescents). More information on the approach to HIV self-testing in Mozambique can be seen in the concept note that is attached to this request.271 These investments will be synergistic within the country's HIV prevention and testing programs, and to those from the International Labor Organization (self-testing in workplaces), PEPFAR (TA, demand creation and policy roll-out) and Unitaid (adoption of WHO-recommended regulations and registration for all sectors, development and dissemination of SOPs and IEC materials, training, TA, and pilot distribution of 160,000 kits [around 64,000 kits in 2021] through the STAR project implemented by PSI).272 Global Fund investments of \$6.0 million (including \$2.9 million matching funds and \$3.1 million within allocation) will then support national scale-up as follows: Funding will support the training of trainers by lay activists and pharmacists, and integration of self-test kit distribution within community-level activities (recall CBO and community cadre mapping in Section 1.2). Intervention(s) & Key At least one demand creation campaign for self-testing will then be done, including routine **Activities** awareness activities, targeted to key and priority populations in geographic areas defined by the HIV prevention and testing programs (priority districts). Demand will be met with a gradual expansion of self-test kits (procuring 606,008 kits in year one, 649,389 in year two and 71,652 in year three with the intention to resource mobilize in year 3 from other donors) in defined geographies and strategic designated distribution points (e.g. key population drop-in centers, companies, secondary schools, universities, key population hotspots, workplaces, pharmacies). HIV self-testing demand creation, kit distribution and linkage efforts will rely on the existing community HTS counselors, partners who are PLHIV (index cases), peer educators, peer navigators, and social networks. The social networks approach – which currently only focuses on sensitization to HIV prevention, testing, and treatment – will integrate the HIV self-test kits distribution. An additional investment of \$5,679,595 will be requested for this implementation and included in the PAAR. This amount includes \$3,641,020 costs for further 1,368,805 selftest kits, and \$2,038,574 costs of programmatic activities. The PAAR includes most of the intervention needs for 2023, including 1,106,320 kits (\$2,942,812) and \$1,310,769 for

programmatic activities.

Second, funding will support facility- and community-based HIV testing with rapid test kits, including for confirmatory tests for positive self-testers. Demand creation will focus on mobile outreach in hotspots to reach low-coverage groups (e.g. men, key populations). A "know your status" campaign will be supported. Demand will be met by expanding places within facilities where testing can be done, and scaling up training of counsellors and peer educators. To reduce over-testing and re-testing (recall Lesson 5), this grant will design and disseminate screening algorithms (including pediatrics), and train counsellors on their

	use. To increase yield, index testing to sexual partners will be intensified. Limited active screening (at triage and emergency services) to youth will also be done.
	Third, linkage with care and treatment services is prioritized. This will be done by training lay counsellors, peers, and CBOs to track positive clients, including using WhatsApp groups and other social media platforms—ensuring safeguards such as end-to-end encryption to avoid breaches of privacy (for key and vulnerable populations in particular, including AGYW—recall Lesson 2 and the use of SMS BIZ). Funding is requested to design and disseminate referral models and SOPs for tracking missing PLHIV and reengaging them in care. A best practices evaluation will then be done.
	Fourth, prevention , referrals , and linkages for people who test negative will be done. This includes invitations for testing among sexual partners, and intensified prevention counselling and IEC materials. Funding will help systematize three-month re-testing for pregnant and lactating women and their partners, PrEP users, key and vulnerable populations, index cases, and patients with suspected clinical presentations.
Priority Population(s)	For facility- and community-based HIV testing with rapid test kits targeted populations include: key populations (FSW, MSM, PWID, prisoners), men aged 25-49 in high prevalence settings, youth and adolescents (especially AGYW), other vulnerable populations (long-distance drivers, miners, OVC), pregnant and lactating women, and sero-discordant couples.
T opulation(o)	The targeted populations the HIV self-testing scale-up include: FSW, MSM, transgender people and PWUD, prisoners, men in high prevalence settings, mine workers, long-distance truck drivers, adolescents and young people aged 15–24 years and partners of PLHIV (sero-discordant couples).
Barriers and Inequities	For young people, lack of confidentiality is a major barrier to HIV testing (recall Lesson 6). Preliminary pilots show that cost and lack of counsellors are barriers to self-testing among young people.273 Stigma and discrimination in healthcare settings create barriers to accessing facility-based standard testing for key and vulnerable populations.
Rationale	Although there have been considerable attempts to bridge the gap between the current situation (77%) and the goal of having 90% of PLHIV know their sero-status, there is a need to invest in innovative HIV testing approaches such as HIV self-testing, to increase the access to hard-to-reach populations. There are still about 29% of men, 70% of AGYW aged 20-24 years, 77.7%, 91%, and 37.7% among FSW, MSM, and PWID (respectively), and 83.7% of long-distance truck drivers, all living with HIV and who do not know their status. This suggests that more focus needs to be placed on strategies for engaging these groups in differentiated HTS.274,275,276 Nonetheless, investing in testing is not enough, as data shows that the linkage between HTS activities and care and treatment services is still suboptimal. While there has been an increase from 2018 (67%) to 2019, only 72% of all people tested were linked.277 This is why the module also prioritizes linkage activities. The rationale for prioritizing community-based HTS options is also guided by evidence of
Expected	impact. In Mozambique's 2019 Annual Activity Report on HIV/AIDS, it is reported that 48% of all the index case tests at national level were contributed by the community sector. ₂₇₈ Percentage of people living with HIV who know their HIV status increases from 76% in
Outcome	2019 to 90% by 2023
Expected	\$24,617,369 allocation request
Investment	\$14,923,610.84 prioritized above allocation request
	4 · 1,020,0 · 0.0 · prioritized above anotation request

Module #3	Prevention
Intervention(s) & Key Activities	The country acknowledges the need to balance treatment scale-up with intensified investments in comprehensive HIV prevention. This request triples (291%) investments in HIV prevention compared to the current grant (from \$20.7 million to \$60.3 million)—a disproportionately high increase given the country's Global Fund allocation increased by 42%. This demonstrates Mozambique's commitment to scale up HIV prevention, and to reversing worrying trends of declining prevention spending.279

The aim of this module is to increase coverage, quality, and scale of high-impact HIV prevention programs for locations and populations with the greatest need. Strategies include community-led delivery of tailored service packages (including commodities).

Package for adolescent girls and young women in high prevalence settings

The top priority within prevention is to invest funding (including \$7 million matching funds) in a layered and holistic package of care for vulnerable AGYW aged 10-24 years, in and out of school. This will be done in 78 high-burden districts (up from 50 in the current grant). A further 8 districts are included in the PAAR. For context, there are 154 districts in total in the country. Districts were prioritized based on: AGYW HIV incidence, population density, geographic location (neighboring target districts, cross-district mobility), transportation corridor (e.g. N1, Beira Corridor, Manica/Tete road) and security issues (e.g. insurgency in Cabo Delgado, political instability in Sofala). Mozambique has rank-ordered AGYW districts based on these factors using estimate tools (Hive and Naomi), classifying 33 districts as "extremely high" priority, 64 districts as "very high" priority, and 53 districts as "high" priority.280. Using these district categorizations, the package delivery will be differentiated by location, based on the guidance in the UNAIDS decision-making aide for investments into HIV prevention programs among AGYW.281

The **in-school core package** is defined as part of Mozambique's National School Health Strategy for Adolescents and Youth 2019-2029.282 There is also an age-differentiated **core package of in- and out-of-school interventions** that has been defined as part of the current Global Fund grant, called Viva+ ("Live more").283

The majority of the prioritized interventions in this request are already being implemented as part of the current Global Fund grant, with plans to scale up reach, saturation, and program quality in this new request. One important strategic shift from the current grant is the **change from referrals for health services, to direct provision** of comprehensive youth-friendly services though mobile clinical services in this new one. This is to help address long distances to health facilities as a key barrier to access.

The behavior change component of the package will be to both in- and out-of-school AGYW, but through different modalities. It will be primarily delivered through outreach by 2,616 (provisional) trained AGYW peer educators (up from 1,308 in the current grant). Funding will support training of facilitators and peer educators for **out-of-school community dialogues**, and preparation and circulation of IEC materials on safer sex and correct and consistent condom use. For in-school girls, the proposed investments are in support of Mozambique's National School Health Strategy for Adolescents and Youth 2019-2029.284 Implementation is guided by the Strategy's Operational Plan 2019-2024.285

Funding will support the expansion of the **in-school comprehensive sexuality education (CSE) package**, including teacher training (including on how to integrate CSE into lecturing schedules), training of peer educators, and support to youth clubs and the use of social networking media (including messages to include increasing utilization of health services). The use of peer educators as behavior change agents builds on lessons learned from PEPFAR's DREAMS program, which suggests "DREAMS Ambassadors" helped achieve impact (recall Lesson 2).

The behavior change messaging will be paired with increased access to comprehensive SRHR and HIV prevention services and commodities, through fixed and mobile strategies. The primary service delivery modality will be through **expansion of SAAJ (adolescent-and youth-friendly health services)**, by training healthcare workers and setting-up one-stop services for SRH and sexually transmitted infections (STIs) (including HIV), TB and other youth health needs. In the current grant, about 57 facilities were equipped as full SAAJ. Increased availability of HTS at SAAJ services is prioritized, and the availability of HIV self-testing at the community level will boost demand for HTS and SAAJ services. This will be offered primarily in the SAAJ centers with assisted counselling (recall from Lesson 6 that young people prefer to do self-testing at a health center).286 The testing algorithm will be reviewed to ensure more targeted and higher-yield testing among youth. Improved

access to treatment for those who test positive is catered for in the treatment module, where the country plans to expand DSD models at the SAAJ services. The second strategy will be to complement SAAJ with **mobile health service teams**, who will be supported through the Global Fund grant with human resources and fuel, to be able to search and link vulnerable children and adolescent orphans with testing and services.

To ensure access to key prevention commodities and new technologies, funding will support demand creation and condom and lubricant availability in health facilities and gathering places for youth and adolescents (see sub-section on condoms below). Funding is also requested to support the phased expansion of pre-exposure prophylaxis (PrEP), by training healthcare workers and peer educators on its use, and producing and circulating IEC materials. This will complement PEFAR's planned expansion of PrEP to 55,000 individuals in COP20 (in AJUDA sites).

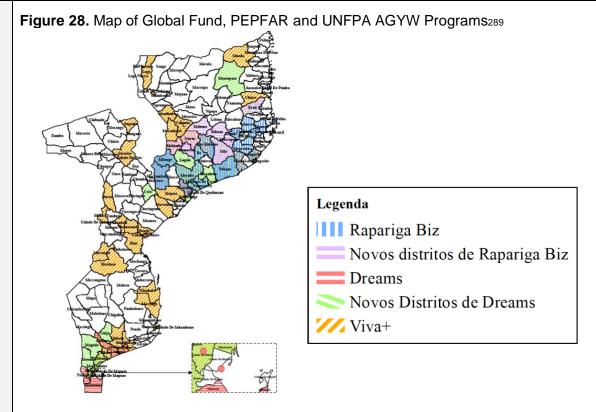
Based on lessons from DREAMS about the importance of layering interventions, funding is requested to complement the health services above with a **social protection package**. To keep girls in school, support will be directed to CBO programs that are showing promise, and to the supply of menstrual hygiene products and school materials. For out-of-school girls, economic empowerment is prioritized through vocational and income-generation training, with linkage to job fellowships.

The proposed investment will reach 518,255 AGYW in 2021, 544,168 in 2022 and 571,376 in 2023—covering 29% of all AGYW in the country and about 47% of AGYW in the districts where the grant will be implemented.₂₈₇ This is expected to be complemented by PEPFAR's DREAMS investments, to reach another 530,656 over the three-year period (based on COP 20 investment), as well as Sweden's investments in *Rapariga Biz* (implemented by UNFPA and partners), to reach a further 1,494,805 AGYW over the three years. This equates to a total national coverage of HIV prevention programs among AGYW (across the three partners) of 64% by year 3. With the additional 8 districts prioritized in the PAAR, 75% national coverage for AGYW is proposed in this request. A breakdown of the estimated reach by partner and program type is presented in Table 6.

Table 6. Estimated (provisional) coverage of AGYW programs in Mozambique, 2021-2023

Partner / Program	2021 518,255	2022 544,168	2023 571,376
Global Fund (Viva+) Total			
In-school	160,260	168,273	176,687
Out-of-school	357,995	375,894	394,689
PEPFAR (DREAMS) Total	170,852	176,744	183,060
In-school	60,320	62,400	64,630
Out-of-school	110,533	114,344	118,430
UNFPA (Rapariga Biz) Total	481,274	497,870	515,661
In-school	385,019	398,296	103,132
Out-of-school	96,255	99,574	515,661

The **coordination of national AGYW programs** is critical, as 25 districts have at least 2 of the AGYW partners present, and 18 districts have all 3 partners (Figure 28). In the current grant, the Global Fund and PEPFAR are both present in 4 districts. With DREAMS expanding to 23 new districts in COP20, it is expected that PEPFAR and Global Fund will share 14 districts as of 2021. Here, PEPFAR and Global Fund will continue to ensure that efforts are carefully coordinated to cover discrete geographic areas (e.g. schools and health facilities and their catchment areas) to maximize AGYW coverage. The two programs will also harness past positive experience coordinating well in Zambézia. The M&E system and indicators for DREAMS account for service referrals that came from the Global Funds-supported partners, reducing double counting. This practice has been ongoing in the 4 districts where both Global Fund and PEPFAR programs are currently both implemented. Finally, as mentioned in Lesson 2, the AGYW Technical Working Group will be supported to continue functioning as a critical coordination mechanism.



Packages for key populations

The next priority within the prevention module is to invest in key populations. In this request, this includes **FSW**, **MSM**, **PWID** and **prisoners**. An **exploratory assessment on transgender people** is planned, which may inform future programming.

Funding is requested to **roll-out the National Guidelines on Key Populations**₂₉₀ to all health facilities providing ART services. This will be done by training healthcare workers in districts with larger concentrations of key populations (recall Figure 18). Regular supervision will ensure fidelity of implementation in accordance with the Guidelines.

Funding will support the development of a **communications strategy**, along with messages and materials, emphasizing the importance of key populations in the national HIV response. The strategy will be aimed at healthcare providers, policy-makers, and other service providers in healthcare, schools, the workplace, the family, justice systems and emergency and humanitarian settings. The process to develop the strategy will be inclusive and participatory, with engagement of communities and key populations. Consultations for the strategy will be used as an opportunity to link people to health services. Social media platforms will be supported as part of the development of the communications strategy. This will complement the work of peer educators and strengthened CBOs. The existing experience with the utilization of social media platforms (recall discussion of SMS BIZZ in Lesson 2) will be intensified for AGYW /youth and extended to key populations.

For each of the packages described below, a strategic shift has been made in this funding request to **move from a minimum service delivery model to a more comprehensive one**. This decision is based on the country's new Standard Operating Procedures for Key Populations, which states community centers should be part of the model.²⁹¹ It is also guided by the new UNAIDS tools for planning and budgeting for key population platforms to deliver scaled quality HIV prevention and treatment services.²⁹² For MSM and FSW, this request pivots from the minimum model (peer outreach + referral for services) to a basic model (peer outreach + drop-in center + referral for services at health facilities near key population hot spots which offer specific community interventions for key populations, as per National Key Population Guidelines²⁹³). For PWUD, the shift is from the minimum model to the full model (peer outreach + drop-in center + basic clinic + host ART clinician

part time at drop-in center). The reason for prioritizing the full model for PWID is due to the unique linkage to care challenges that this population faces, and the existing experience with clinical services at the Mafalala drop-in center mentioned in the lessons learned section.

Package for sex workers and their clients

Funding is requested to deliver a **defined comprehensive package**²⁹⁴ **of HIV prevention, treatment and support services to FSW and their clients**, in 43 high-burden districts²⁹⁵, through a community-led and peer-driven model. As per the referenced national guidelines, the defined package includes: (1) Offering HIV counseling and testing; (2) Counselling for safe sex practices; (3) Screening, diagnosis and treatment of STIs; (4) Screening for TB; (5) Screening for cervical cancer for female sex workers and prostate cancer for male sex workers; (6) Offering a method of family planning; (7) Offering post-exposure prophylaxis according to national standards; (8) GBV package offer; (9) Offering condoms and lubricants; (10) Invitation to partners; and (11) ART according to the standards for general population.²⁹⁶ In addition to the defined package referenced here, funding will also support access to new prevention technologies such as **PrEP and self-testing.**

The program will be delivered through community outreach by 550 trained peer educators (up from 357 in the current grant) (ratio 1:70). Of these, 100 will be HIV-positive sex workers who will be given an expanded scope of work to act as "peer navigators", linking sex workers who test positive into care and treatment (recall Lesson 4). Some of the peer educators will be purposefully recruited as young sex workers, given that evidence shows HIV among FSW is associated with age of first sex for money.²⁹⁷ Importantly, some of these sex worker peer educations will be trained as paralegals, which was identified as a key gap in the current grant (see human rights module).

The peer educators will operate out of **four new safe-space drop-in centers** for FSWs, constructed as part of this grant: one in Maputo, one in Matola, one in Beira and one in Nacala. Sex workers will be able to access key prevention commodities at these centers, such as condoms, lubricants and HIV self-test kits. Service at the centers will include social and psychological support, counselling, family re-integration and linkage to health services. These centers will be community-led, with funding to prepare, support and build capacity of CBOs and/or NGOs to operate and run each center.

The proposed investment will reach 32,870 FSW in 2021, 36,141 in 2022 and 39,411 in 2023—covering 46% of all FSW in the country. This is expected to be complemented by PEPFAR's investment to reach another 18,484 FSW (based on COP 20 investment), for a total national coverage of 67% in 2023. Funding to reach an additional 10,905 FSW (to achieve the recommended 80% national coverage²⁹⁸) is contained in the PAAR. A detailed province-level breakdown of the targeted numbers of FSW to be reached, tested, and linked to care—disaggregated by Global Fund and PEPFAR support over 2021-2023—is attached to this request.²⁹⁹

Package for men who have sex with men

Funding is requested to deliver a **defined comprehensive package**₃₀₀ **of HIV prevention, treatment and support services to MSM**, in 20 high-burden districts₃₀₁, through a community-led and peer-driven model. As per the referenced national guidelines, the defined package includes: (1) Offering HIV counseling and testing; (2) Counselling for safe sex practices; (3) Screening, diagnosis and treatment of STIs; (4) Screening for TB; (5) Screening for prostate cancer; (6) Offering a method of family planning for men who have sex with both men and women; (7) Offering post-exposure prophylaxis according to national standards; (8) GBV package offer; (9) Offering condoms and lubricants; (10) Invitation to partners; and (11) ART according to the standards for general population.₃₀₂ In addition to the defined package referenced here, funding will also support access to new prevention technologies such as **PrEP and self-testing.**

The package will be tailored to risk. For instance, in Mozambique, there are distinct risk factors for MSM only, and men who have sex with both men and women.³⁰³ The program will be delivered through outreach done by 125 trained peer educators (up from 42 in the current grant) (ratio 1:65). Of these, 25 will be HIV-positive MSM peer-navigators, who will support linkage to care for MSM (recall Lesson 4).

Funding will support the establishment of **three new safe-space drop-in centers** for MSM, located in priority hotspots (to be determined during grant-making). At these centers, MSM will be able to access key prevention commodities such as condoms, lubricants and HIV self-test kits. Service at the drop-in centers will include social and psychological support, counselling, family re-integration and linkage to health services. Community empowerment meetings are also planned, for both MSM and for transgender communities. These centers will be community-led, with funding to prepare, support and build capacity of CBOs and/or NGOs to operate and run each center.

To remove the specific human rights and gender-related barriers that MSM face, funding is requested to **train 25 police officers on gender and sexual diversity**. The training will be complementary and additional to the police training in the human rights module, which is a TOT and focuses on human rights more broadly. Funding will also support monthly **human rights literacy workshops**, focusing on MSM and transgender rights in all districts implementing the project.

The proposed investment will reach 4,793 MSM in 2021, 6,556 in 2022 and 8,320 in 2023—covering 22% of all MSM in the country. This is expected to be complemented by PEPFAR's investment to reach another 8,241 MSM (based on COP 20 investment), for a total national coverage of 44% in 2023. Funding to reach an additional 13,839 MSM (to achieve the recommended 80% national coverage₃₀₄) is contained in the PAAR. A detailed province-level breakdown of the targeted numbers of MSM to be reached, tested, and linked to care—disaggregated by Global Fund and PEPFAR support over 2021-2023—is attached to this request.₃₀₅

While the implementation of a **biological and behavioral survey among MSM** was budgeted and planned in the current Global Fund grant, the COVID-19 situation has halted this work in 2020. For this reason, additional funding is requested to be able to complete this study in 2021, in the new grant.

Harm reduction package for people who use and inject drugs

Harm reduction interventions are currently very limited in Mozambique. In the current Global Fund grant, there was a very small investment (about \$30,000) to train and mobilize PWID peer educators. The MSF and UNIDOS pilot in Malafala (presented in Lesson 9) is the only other program, but this is ending in September 2021.

This funding request proposes to invest nearly \$3 million in harm reduction over 2021-2023 to deliver a **defined comprehensive package**₃₀₆ **of harm reduction for PWUD**, through a person-centred and non-judgmental approach, with strong community strengthening and human rights components. The defined package for PWUD contains the same 11 items listed above in the sex worker package, plus additional harm reduction elements described below.

Funding will expand harm reduction to three **new safe-space drop-in centers** in Maputo Province, Sofala and Nampula. The program will also cover Maputo City by **taking over the existing Mafalala pilot site** from MSF/UNIDOS. The Mafalala pilot site will serve as a training centre for both the community and clinical interventions, and technical assistance will be provided to accompany the gradual expansion of activities in Maputo Province, Sofala and Nampula.

The proposed investment will increase coverage from 940 PWID in 2019, to 1,243 in 2021, 3,483 in 2022, and 6,635 by 2023—covering about 55% of all PWID in the country. This is expected to be complemented by PEPFAR's investment to reach another 155 PWUD (with outreach only, not harm reduction) (based on COP 20 investment), for a total national coverage of 57% in 2023. Funding to reach an additional 2,810 PWUD (to achieve the recommended 80% national coverage₃₀₇) is contained in the PAAR. A detailed province-level breakdown of the targeted numbers of PWUD to be reached, tested, and linked to care—disaggregated by Global Fund and PEPFAR support over 2021-2023—is attached to this request.₃₀₈

Implementation will be guided by the (draft) National Harm Reduction Plan. In the meantime, a detailed expansion strategy is attached to this request.309

Following the model of the Mafalala pilot there will be strong peer-led outreach teams, a drop-in center in each province located close to the drug using hotspots, and an identified health center for referral for clinical services, such as HIV, HCV and TB and STI treatment and OST. 133 peer educators (ratio 1:50) will be recruited and trained by year three of the grant. Peer educators will follow a regular route, stopping at hotspots to distribute condoms, harm reduction kits (including needles and syringes—300 per PWID/year), naloxone, and health information, as stated in the Standard Operating Procedures for Key Populations 2019.310 PWID will also distribute the kits in their networks. To ensure safe disposal of used equipment, safe collection boxes will be made available in hotspot areas, collected by peer educators. Self-testing will be gradually introduced in 2021, starting in Maputo (where the program is well-established), and expanding to Sofala and Nampula in 2023 based on lessons learned.

Drop-in centers will be safe space entry points for needle and syringe programs, HTS, HCV screening (and HCV treatment for 2,000 PWUD), screening for TB and STIs, vaccination of HBV, wound care, psychosocial services and default tracing activities. OST provision began in Mozambique in late February 2020, with enrolment of 4-7 PWID per week and a total cohort of about 30 PWUD currently on OST. In the new grant, this will be expanded to reach 300 by 2021, 996 by 2022 and 2,956 by 2023, and delivered through a low threshold model, accessible to those who meet the criteria for inclusion, whether or not they inject. Negotiations are underway with the Ministry of Health to allow take-home doses as part of COVID-19 mitigation efforts. Pending MOH approval, take home doses will be offered in this grant to stable clients and for whom daily supervision would impede work, study, childcare, financial capacity or emergency situations.

The outreach team will ensure continuity of care for harm reduction, OST, HIV, TB and HCV in closed settings, working in close partnership with the Mozambican National Prisons Service (SERNAP), local police stations, and hospitals in these specific districts.

To manage opioid overdoses and prevent deaths, naloxone will be made available in community settings, directly to non-medical people including peer outreach workers and others who are most likely to witness an overdose.

To overcome the challenges of linkage to care and treatment adherence, peer educators will follow a microplanning strategy, services will be managed through one-stop shops at primary healthcare level and decentralised to the community through health staff consultations at the DIC once the program is consolidated, and through mobile OST vans that are included in the PAAR. This will not only improve adherence and retention in care, but will also improve access, and decongest the health system in order to allow expansion of OST.

Tailored services will be offered at the drop-in centers for women who use drugs, including separate opening hours and SRH services with specific attention to family planning, OST for pregnant women, access to termination of pregnancy, and clinical care for GBV.

Funding will support the development and implementation of a package of interventions to enhance community empowerment among PWUD and key community actors, including creation of PWUD networks, harm reduction legal literacy, right to health and access to justice with the introduction of paralegal programs along with monitoring and reporting mechanisms for violence. Integrated with the activities presented in the human rights module, a Police Sensitization Manual on Harm Reduction and Rights of PWUD will be developed and police will be trained and sensitized. Funding will support legal and policy advocacy to allow needle and syringe programs, ban compulsory treatment for PWUD, and allow police discretion to refer people voluntarily to harm reduction and health services (rather than arresting them), including the support of the 3/97 law revision and approval.311

To ensure that implementation is guided by the most recent data, funding is requested to conduct an updated **biological and behavioral survey among PWID**, as the most recent survey has data from 2014.₃₁₂

Package for people in prisons and other closed settings

Funding is requested to deliver a **defined comprehensive package**³¹³ **of HIV prevention**, **treatment and support services to prisoners**, through a community-led and peer-driven model.

The funding will support delivery of the package in 14 prisons. **Training of lay activists** among prison personnel will be done, coupled with ongoing **dialogues and information sessions** with prisoners and wardens on HIV prevention in closed settings. The service delivery modality will be through **outreach from health facilities.** The visiting healthcare workers will ensure prisoners are **tested**, **initiated on ART**, **and followed-up**. They will also do **STI and TB screening** and provide **TB treatment** services (see TB modules).

The proposed investment will reach 7,015 prisoners in 2021, 7,694 in 2022, and 8,372 in 2023—covering about 45% of all prisoners in the country. This is expected to be complemented by PEPFAR's investment to reach another 7,588 prisoners (based on COP 20 investment), for a total national coverage of 86% in 2023. Given that Global Fund and PEPFAR investments will achieve the recommended national coverage of at least 80%314 there is no PAAR for prisoners. A detailed province-level breakdown of the targeted numbers of PWUD to be reached, tested, and linked to care—disaggregated by Global Fund and PEPFAR support over 2021-2023—is attached to this request.315

To ensure that implementation is guided by the most recent data, funding is requested to conduct an updated **biological and behavioral survey among prisoners**, as the most recent survey has data from 2013.316

Cross-cutting (service delivery modalities and monitoring systems for key populations).

A **programmatic mapping of key populations** will guide implementation of the above interventions.

For all four key populations mentioned above, service delivery by peer educators and in drop-in centers will be augmented by **mobile key population clinics**, which will be attached to a local clinic but rove around the major key population hotspots. The mobile clinics help respond to an identified need to make key population services available outside of major cities, to improve service equity. CBOs and NGOs will be sub-contracted to manage distribution of prevention commodities in gathering places and key population hotspots, such as bars, clubs, lodges and drug dens. Funding will support training of health teams and logistics of the mobile units (human resources, commodities, mapping of hotspots, circuits and stops). Lessons from Mozambique's experience with mobile brigades will be employed here.317

To improve monitoring and evaluation of all key population programs, funding is requested to define a standardized system for assigning unique identifier codes (UICs), with a

focus on highly mobile and hard-to-reach key populations. Technical support will be mobilized to define a standard procedure for ID number assignment, and to create a database to be used by community partners and peer educators, and to define data flow.

Package for other vulnerable populations (mine workers and long-distance truck drivers)

It is expected that the focus of interventions for mine workers and long-distance truck drivers will be in Cabo Delgado, Gaza, Manica and Tete. However, for these populations, location-specific micro-targeting is required. As such, funding is first required to **conduct a mapping** of long-distance companies, populations, routes, main parking and loading/unloading spots, as well as gathering spaces of mine workers (at work and in transit).

Based on the mapping, funding is requested to **identify, mobilize**, **and train peer educators** among the long-distance truck driver and mining communities (and peri-mining communities). The peer educator training will include content on the complexity of social and contextual factors that may influence sexual behaviors among mine workers and truck drivers, as evidence shows HIV prevention strategies for these groups need to transcend individual factors to consider the broader social and contextual phenomena influencing HIV risk.₃₁₈ These peer educators will share **HIV prevention information** with their peers through IEC materials and community dialogues, targeting specific dates for migratory movements of miners (around festivities/holidays e.g. Easter and Christmas).

For both populations, **mobile teams**, including counsellors from nearby health facilities, will provide prevention services. HIV testing services for these groups (including self-testing) will be made available for truck drivers at the main road and loading stops, interurban bus stops, and at transport companies. They will also be made available for mine workers during health fairs at mining-recruiting companies. Condoms will be made available at gathering spots, including through fixed dispensers.

To reach these groups, **engaging the private sector** is critical. Interventions will involve transport and mining companies to support the creation of spaces for IEC, prevention, dispensing of condoms and work for mobile teams. Implementers will work with these companies to identify convenient times and schedules for health promotion activities, without disrupting working hours or delivery timetables. Implementers will work with trade unions, associations of drivers and miners associations to identify the peer educators.

Package for other vulnerable populations (orphans and vulnerable adolescents)

In close coordination with the family support programs and projects of the Ministry of Gender, Children and Social Protection, families with orphaned children will be identified and targeted with a tailored HIV prevention package. Funding will support preparation and dissemination of information to healthcare workers on the specific needs of OVC and orphaned adolescents, to support health professionals stationed in the urban areas to do targeted HIV testing services. Funding is requested to provide psycho-social support to children and their caretakers, to ensure testing and to strengthen retention in care. Finally, to reduce vulnerability, social protection is prioritized, including a food basket, clothing, dairy products (for children 0-2 years) and a monthly subsidy of 540 MZM. Additional household support will be provided on a needs basis. Orphaned adolescents will be prioritized for the social protection package described above for AGYW.

Package for men in high prevalence settings

To improve services provision that is tailored to the needs of high-risk men, funding is requested to train 300 healthcare workers in 30 priority male engagement districts (recall male engagement package, mentioned in the treatment module). Then 150 Champion Men for all male engagement will be trained. 250 health committees will then be trained and supported to facilitate access to HIV services through workplace interventions. This includes engaging employers to enable flexible working-absence

arrangements to facilitate visits to health facilities, combined with sharing information on differentiated service models and flexible hours of attendance.

Efforts will be made to reach a diversity of high-risk men, since studies that have tried to characterize the male sexual partners of AGYW suggest they vary greatly in age, education level, and socioeconomic status.319 In particular, efforts will be made to reach men aged 25-29 years, and men aged 30-34 years, since these are the greatest sources of new infection risk for AGYW (recall section 1.2).320 Older men (previously married males, median age 32) will also be purposefully targeted, as they are among those with the highest numbers of new infections (recall section 1.2).321

Funding is also requested to expand demand for and access to **voluntary medical male circumcision (VMMC) among high-risk men**. This will be done through sensitization campaigns with community and religious leaders, and through limited training of 50 healthcare workers on how to do the procedure, as well as how to communicate key messaging to target men. The training will complement existing initiatives that have been ongoing since 2010, with 391 clinical officers and nurses trained on small surgery techniques between 2010 and 2017.322 This is a small investment, to fill national VMMC gaps in non-AJUDA sites. PEPFAR is investing \$14.5 million in VMMC in COP20 in the AJUDA sites.

Enhancing condom stewardship, demand and supply for abovementioned populations

Funding is requested (including \$2.5 million matching funds) to invest in the three main priorities of the National Condom Strategy: (1) Program stewardship; (2) Increased demand and (3) Improved supply.323 These investments will complement \$1.9 million for condoms from PEPFAR during COP20 (from a central fund, not expressed in the strategic direction summary).

For stewardship, a core group (technical and managerial support) shall be created within CNCS. This group will have five main responsibilities, including (1) Resource mobilization for research and social marketing; (2) Using strategic information to tailor messaging and approaches; (3) Coordinating supply-side actors (including negotiating and monitoring outsourcing contracts); (4) Fiscal advocacy and market regulation (e.g. reducing import taxes, subsidies for social sector products); and (5) Establishing a "market observatory" that monitors supply and demand, market sustainability, and perception and use among key and vulnerable populations. Funding will support TA to this core group, assisting them with resource mobilization, evidence use, market analysis, monitoring impact, and negotiating and monitoring outsourcing contracts.

To increase demand, funding is requested to **conduct research on risk perceptions**, **norms**, **and barriers**. Evidence from ongoing field work will be collected, and compared with research results. The collection of both types of evidence will prioritize key and vulnerable populations (specific populations listed below). Funding will also support **an inventory of capacities and needs** of CBOs, community leaders, social networks and media, and peer educators. This will enable these groups to undertake the tasks of adapting messages and expanding circulation.

To improve supply, funding is requested to **procure about 100 million male condoms**, and just over 5 million female condoms (to ensure access to female-controlled HIV prevention options) as well as lubricants. This will cover about 40% of the national condom and lubricant gap, with the remaining 60% of the commodity needs contained in the PAAR. It is also requested to achieve complementarity of public, commercial, and social marketing sectors. This includes creating a data system that will enable collecting statistics on item circulation and types of customers for each sector. Scenario modelling will be supported to project the growth of each sector according to different costing and fiscal protection measures, ensuring none is crowded out. Funding will support advocacy for commercial and subsidized sectors, to drive sustainability. In addition, funding will strengthen the transportation and warehousing capacity of the public sector by

replicating public-private partnerships from Project Last-Mile to cover the whole country.324 Additional peripheral warehouses (e.g. containers) will be placed in strategic locations according to disease burden, population density (including key and vulnerable populations) and the local transportation network. Zambézia is the top priority, followed by Nampula. An online information system will link the various warehouses. Lastly, funding is requested to engage CBOs and peer educators to help distribute public sector condoms in hotspots and other unconventional places to reach target populations. CBOs will be supported to develop social marketing and IEC messages according to market sector preferences, and to share these messages in an ongoing manner. For comprehensive prevention packages, priority populations include AGYW in high prevalence settings, FSW, PWID (and people who use drugs), MSM, prisoners, longdistance truck and bus drivers, mine workers (local and migrant), orphans and vulnerable children and adolescents. Other prevention interventions are targeted at **Priority** men in high prevalence settings. For condom demand creation, target groups include: Population(s) key and vulnerable populations (with focus on those with frequent mobility such as truck drivers, migrant workers), young people (new infections, demographic growth and risk behaviours) and men (due to their decision and purchasing power, frequency of paid sex, and high frequency of multiple partnerships). There are significant age and gender-related inequities for AGYW. In 2019, 34,053 new HIV infections occurred among AGYW aged 15-24 years, representing 26.4% of all new infections in Mozambique and twice the number of their male peers (17,223).325 Barriers for this group include low HIV knowledge (30.8%).326 For key populations, stigma, discrimination, violence, harassment and extortion create Barriers and barriers to accessing services. For instance, 8.3% of MSM and 18.5% of PWID avoid healthcare due to stigma and discrimination.327 Prisoners report reluctance to disclose **Inequities** their HIV or TB status for fear of mistreatment.328 Identified barriers for condom use include: (1) Limited awareness and uptake of condoms across general and key populations; (2) Lack of data visibility at the last mile; (3) Challenges in distribution and storage of condoms to last mile and (4) Lack of access outside public health facilities.329 The rationale for this module is driven by epidemiological data (presented in Table 1). All the populations prioritized have heightened HIV risk and face disproportionate barriers to access. The emphasis on sharing HIV prevention information as part of the package for truck drivers and mine workers is linked to the country context presented in Section 1.2; recall that mine workers face information barriers, with just 2.8% having knowledge of basic transmission principles.330 Condom promotion and provision to adults aged 25 years and older, and to adolescents and young people, are the two most cost-effective interventions in Mozambique's HIV response, costing just \$80 per infection averted for adults and \$930 for young people.331 These interventions are projected to avert 122,900 new infections among adults and 95,000 among young people from 2018-2025. This modelling strongly supports the prioritization of this intervention. Rationale Some key populations have frequent mobility (e.g. FSWs, truckers). The UIC system will support continuity of ART at different health facilities. Investments in menstrual health and hygiene programs for girls is also evidence-based. In a 2019 study of the "Be Girl" program in Mozambique (funded by UNFPA and implemented by Global Fund PR, FDC), those who received the menstrual hygiene product and participated in a workshop were more likely to agree that there is a link between the menstrual cycle and having babies (15% initially vs. 65% two months later).332 Similarly, those who participated in the program were more likely to say yes to the question: "When you grow up, will you feel comfortable discussing whether you want to have a baby or not?" (42% initially vs. 68% two months later).333 This may have important effects on preventing unwanted, early, or teenage pregnancy—a key aim of

this proposed program. In addition, the study showed that girls who received the

	complete intervention were 39% less likely to miss school during their last period. ₃₃₄ Keeping girls in school is another key aim of this proposed grant. Evidence from the region shows that each additional year of secondary schooling can lead to an absolute reduction in the cumulative risk of HIV infection by 11.6% among AGYW. ₃₃₅
Expected Outcome	 Percentage of men reporting the use of a condom the last time they had anal sex with a non-regular partner increases from 69% at baseline to 85% by 2023 Percentage of AGYW who report the use of a condom at last sexual intercourse increases from 56% at baseline to 70% by 2023 Percentage of sex workers reporting the use of a condom with their most recent client increases from 77% at baseline to 85% by 2023 Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected increases from 64% at baseline to 72% by 2022 Percentage of PWID newly enrolled in an Opioid Substitution Treatment Program in the last 12 months increases from 30 at baseline to 3,390 by 2023
Expected Investment	\$60,396,912 allocation request \$59,290,358 prioritized above allocation request

Module #4 **PMTCT** This module is prioritized in support of Mozambique's plan to eliminate MTCT of HIV and syphilis (and hepatitis).336 With PEPFAR's pivot from 1,328 to 628 facilities, there is a need to reinforce PMTCT in non-AJUDA sites. This is the reason for the large (20fold) increase in PMTCT funding in this request, compared to the current grant. Prongs 1 and 2 for prevention of mother-to-child transmission (PMTCT) are covered in the prevention module. For this reason, Prongs 3 and 4 are prioritized here. For Prong 3, funding is requested for the procurement of tests for HIV, syphilis and hepatitis B, for pregnant women and exposed infants. This includes dual tests for HIV and syphilis (for first ANC visit), HIV tests for re-testing six months into pregnancy, rapid tests for syphilis (for pregnant women and exposed children), hepatitis B tests for pregnant women (as part of the new plan for elimination of vertical transmission of the three diseases), rapid plasma regain (RPR) tests (to test for syphilis in pregnancy), and polymerase chain reaction (PCR) tests for HIV-exposed infants and re-testing at nine months. Re-testing lactating women is heavily prioritized, given that the most common MTCT mode (nationally) in Mozambique occurs when mothers are infected during breastfeeding (recall Figure 4).337 Rapid pregnancy tests will also be procured for early pregnancy detection and early initiation of ANC visits. Intervention(s) & Kev For Prong 4, funding is requested to support the treatment of pregnant women with **Activities syphilis** with Penicillin Benzathine. This will also be done for their partners, and their exposed children. To increase access to viral load testing among HIV-positive pregnant and breastfeeding women (Prong 3) and to improve early infant diagnosis (Prong 4), funding is requested to pilot M-Pima/GeneXpert multiplexing for TB testing, viral load testing and early infant diagnosis in the three provinces with the highest rates of MTCT, and which account for 37% of all HIV-positive pregnant women in the country (Zambézia, Nampula and Cabo Delgado). This will be done in a phased manner, from 30% in 2021 to 40% in year 2022 to 50% in year 2023. This translates to 146,707 viral load tests for pregnant and lactating women, and 78,158 PCR tests for early infant diagnosis over the three-year grant. Funding will support the procurement of cartridges, as well a rapid assessment to capture lessons learned. Funding will also support the expansion of Mozambique's mentor mother program, including through recruiting and supporting additional young mentor mothers in particular. Mentor mothers are HIV-positive women who serve as peer counselors to PMTCT clients to promote antiretroviral adherence and retention-in-care. This will be done in 112 facilities, selected based on their high rates of young pregnant women and overall volume of services. Supervision will be integrated with that of other lay activists working either at facility level (by MCH Nurses) or in the community (mobile teams). Greater integration and

	cross-information (e.g. on mothers facing obstacles to regular visits) between MCH Nurses and mentor mothers will be promoted through training and supervision. The target will be disrupting habits of visiting the facility at longer intervals (for ANC or child care/vaccination visits), and making the case for the opportunity and benefits of visiting a facility during the first weeks after birth – a challenge for rural families located in remote areas. Programmatic approaches to PMTCT will be tailored to the specific transmission trends in each province. For instance, provincial disaggregation of the stack-bar analysis shows that the greatest number of new infections among children in Maputo province occur when mothers do not receive ART during pregnancy. In Maputo City, it is when mothers drop out of ART during pregnancy. In Cabo Delgado, Inhambane, Niassa and Nampula, it is when mothers are infected during breastfeeding.338
Priority Population(s)	Pregnant and lactating women and exposed infants, particularly those exposed to syphilis and/or HIV; pregnant women, lactating women and children under five years of age on ART; pregnant women in the first trimester (early detection and initiation of ANC visits).
Barriers and Inequities	Poor commodity supply of key diagnostics for pregnant and lactating women and exposed infants creates barriers to access to services. The multiplexing pilot—which will increase one-stop service access for PMTCT—is expected to help address barriers to access particularly in Cabo Delgado, where the security situation has limited the ability of people to travel to facilities for service.
Rationale	Though the MTCT rate has declined from 28% in 2010, it has remained stubbornly high since 2014 at around 14%.339 Given PEPFAR's transition out of 700 health facilities, Global Fund resources are required to support those non-AJUDA sites. Prioritization of improved diagnostic capacity as well as retention strategies for HIV-positive mothers (e.g. mentor mothers) is rationalized by Mozambique's stack-bar analysis. The stack-bar shows that MTCT occurs most commonly when mothers are infected during breastfeeding, followed by dropping out of ART during pregnancy.340 The rationale for including syphilis in this package is ground in evidence. Prevalence for Syphilis has decreased during the last decade, but remains higher than the global average (1%): 12.7% in 2001, 7.9% in 2002, 7.0% in 2003, 5,5% in 2009 e 2,2% in 2011.341 While testing for HIV reaches >95% of pregnant women, testing for Syphilis remains far lower, at 72%.342 The rate of vertical transmission of Syphilis is also high, at 10% for 3ry. Syphilis and 50% for 1ry Syphilis. 343 Multiplexing GeneXpert machines for viral load and early infant diagnosis is expected to improve treatment initiation and retention on ART among pregnant and lactating women, since results will be available on the same day. Evidence from the region shows Xpert multiplexing is feasible and will increase access to viral load testing and early infant diagnosis to priority populations.344 Further, the learning from this pilot (and its assessment) may inform further opportunities for integration, including multiplexing of GeneXpert machines to diagnose COVID-19 (as is currently being done with more than half of South Africa's machines).
Expected Outcome	 Estimated percentage of children newly infected with HIV from mother-to-child transmission among women living with HIV delivering in the past 12 months decreases from 14% at baseline to 4.9% by 2023 Percentage of HIV-positive women who received ART during pregnancy and/or labour and delivery increases from 96.53% at baseline to 98% by 2023. Percentage of HIV-exposed infants receiving a virological test for HIV within 2 months of birth increases from 66.23% at baseline to 82% by 2023.
Expected Investment	\$5,177,823 allocation request No prioritized above allocation request for this module

COMPONENT: TB

The first core strategy—improve access to TB services—will target people with TB who are missed because they do not have access to health facilities, or those who delay seeking care. These TB patients belong mostly to key populations (defined below). The second core strategy—improve TB diagnosis, and notification to NTP—will focus on both facility- and community-based approaches, and include public and private sectors.

In support of the first and second core strategies, funding is requested (including \$6 million matching funds) for **five priority approaches** aimed at finding the estimated 63,889 people with TB who are missed by the health system in Mozambique each year:

Finding missing people approach 1: Facility-based screening and diagnosis

Funding is requested to support intensified TB symptomatic screening through recruitment of **200 cough officers in the high-volume health facilities of the country**. The cough officers will be trained and engaged in symptomatic TB screening among the regular attendees of the health facilities, with a focus on childhood TB, adolescents and pregnant woman, and given job aides to scale up TB screening in pregnant woman in ANC. All presumptive cases will be linked to the TB testing services of the health facilities.

A specific focus will be placed on **scaling up childhood TB diagnosis**, by procuring materials and consumables to be able to do induced sputum, naso-pharyngeal and gastric aspiration, and stool collection and link those samples to rapid molecular testing for the diagnosis of TB in small children. Over the next three years (2021-2023), Mozambique aims to detect and cure at least 51,162 children below the age of 15 years with TB.

Intervention(s) & Key Activities Around 600 Lab and Medical Technicians of the public health facilities will be trained on diagnostic procedures of TB including rapid molecular testing, interpretation of its results, collecting samples including pediatric samples for Xpert testing, and will be also provided with job aides to support sample collection and TB diagnosis with special focus on children. Around 200 physicians of the public health-facilities will be trained on programmatic and clinical management of TB including clinical diagnosis of pediatric TB and extra-pulmonary TB. This is needed because in young children, the sensitivity of bacteriological testing is low, and therefore a negative result on stool or induced sputum does not rule out TB. Around 600 maternal and child health nurses of the public health facilities will be trained on comprehensive TB management, especially for women, pregnant women, young girls and children.

Once collected, funding is requested to **strengthen collection and transportation of sputum samples** for diagnosis and treatment follow-up of TB and co-morbidities. This includes: (1) From the community to health facilities (labs) by community health workers (activists); (2) From microscopy labs to Xpert MTB/Rif labs by hired motorbike services; (3) From Xpert MTB/Rif labs to provincial reference labs; and (4) Provincial reference labs to national reference labs by local courier services. Additionally, "cough days" in strategic locations such as non-lab health facilities and key population hot spots will be organized by CSO partners and activists for sputum collection and transportation to public health facilities (labs).

Funding will support the **scale-up of the molecular and TB diagnostics network**. First, a mapping of existing capacity will be done, with a plan to reach and assess the functionality of all current 184 Xpert MTB/Rif sites' readiness. Then, funding will support the procurement of 10 new Xpert Rif/TB machines (Gx 16-module), 22 new Truenat MTB machines, 50 new fluorescent LED microscopes and 22 new digital X-ray machines. These new tools, especially Truenat MTB and digital X-ray will be utilized in strategic public health-facilities and also with the mobile TB services to help scaling up of TB screening and diagnosis in addition to the existing Xpert MTB/Rif, in KP and remotely-placed populations. The overall aim will be to enhance screening by X-ray, facilitate diagnostic yield in case of sputum microscopy and improve the proportion of bacteriologically confirmed TB patients and DR-TB. Cartridges, additional spare modules for prompt replacement in case of breakage and faulty modules will also be procured.

Importantly, **service contracts** for the maintenance (planned preventive maintenance, calibration etc.) of equipment and diagnostic aids will be entered into, learning from past challenges in this area (recall Lesson 11).

New regional labs will be set up to standard in Zambézia and Gaza provinces anticipating detection of more RR/MDR-TB cases in those provinces due to intensified case-finding interventions. The country also believes these places will need further LPA and LC testing. In the present scenario, the existing reference labs are located too far away from these provinces. In the existing National Reference Lab of Maputo, funding will support genome sequencing of MTB directly from sputum to identify genetic diversity, especially in co-infected RR/MDR TB cases and RR/MDR cases with FQ resistance. External quality assurance will be done for all TB labs in the network.

To close the notification loop, funding will support the rollout of a **digital TB notification system** across the country, closely linked with activities in RSSH modules.

Finding missing people approach 2: Community-based awareness and referrals

Funding will support **TB literacy programs** (priority populations defined below) by the CSO partners and activists to enhance demand for TB services and create referral linkages between community and health systems. Local radio will be engaged to do **TB campaigns**, and TB messages will be shared through audio-visual clips (including messages from child-to-child) mobile SMS and social media groups. **IEC materials** will be developed and printed in local dialects with messages about human rights and gender equity in TB care, and disseminated in the community through different community-based activities.

Finding missing people approach 3: Systematic screening among TB key populations

For mining communities, door-to-door TB education, stigma reduction, active case finding through symptomatic TB screening and sputum collection and transportation to Xpert Rif/MTB sites at the health-facilities and/or occupational health centers will be done. Chest X-ray will be also utilized to screen the mining community for occupational lung diseases and TB.

Prisoners in the 14 priority prisons (mentioned in the Prevention module) will be screened symptomatically and with portable digital X-ray. All presumptive cases (those with symptoms and abnormal X-ray findings) will be tested with Xpert Rif/MTB for confirmation of TB. Along with TB screening, the prisoners will be educated on TB, stigma reduction, cough hygiene and early reporting of suspected symptoms.

Healthcare workers in 152 targeted health facilities will be screened symptomatically and through X-ray and all presumptive cases will be tested with Xpert for confirmation of TB. Self-reporting of suspected symptoms and stigma reduction will be encouraged among healthcare workers along with repeated education on TB and other airborne infections (e.g. COVID-19). Procurement of 342,000 N95 masks for the health workers will also be done, for dual protection against TB and COVID-19.

Surgical masks for TB patients, which they will use while visiting the health facilities for treatment initiation and follow-up, will be procured using domestic funding. These masks will serve as protection from COVID-19 and re-transmission of TB. The TB literacy programs will also educate the community and the TB patients on the transmission risk of COVID-19 and precautionary measures they may take.

Funding will support tracking and screening of **household and close community contacts** of index TB cases (all types) at the households. The program will collect sputum samples and transport to the health facilities from the household and close community contacts of index TB cases (**both bacteriologically confirmed and clinically diagnosed TB index patients**). Childhood household contacts under the age of 15 years will be linked to TPT services, if without active TB disease. This grant will procure TPT medicines

such as 3HP and Isoniazid for household contacts and scale up its coverage. Funding will also support improved M&E systems for management of household contacts to enhance reporting of TPT completion.

Suitable CSO partners will be contracted for active TB screening of key populations and remotely placed population and TB contacts. A total of five vans will be utilized to cover the targeted population in 11 provinces through a monthly visit route plan. The grant will utilize and maintain the three existing mobile health vans and their portable Xpert MTB/Rif machines and digital X-ray machines which were previously utilized for the TB prevalence survey. The PNCT will add two more mobile vans from other funding sources, such as the World Bank, to this mobile TB screening initiative, fitting them with Truenat MTB and digital X-ray which will be procured in this grant. The Lab Technicians of the public health facilities will join the mobile TB screening team to help them in TB testing at the community level. PNCT will directly supervise the mobile TB screening services and the performance of its CSO partners.

Finding missing people approach 4: Engaging all care providers

The grant will **train and follow-up with traditional healers and pharmacists** during the regular course of community health workers training to enhance their referrals of the presumptive TB cases to the NTP. The Department of Alternative Medicine in the Ministry of Health had already shown and documented promising results in terms of providing health training to the traditional healers and their engagement in referral of TB presumptive cases to the local public health facilities. The program will sensitize and follow-up with the qualified allopathic doctors, hospitals, diagnostic labs of Maputo City, Beira and Nampula on comprehensive and standard TB care and case notification to NTP during its regular course of TB training of the physicians of the public health-facilities. The health ministry of Mozambique will complement these investments by supporting sputum collection and transportation from private health facilities to public health facilities for testing by rapid molecular test (Xpert MTB/Rif).

Finding missing people approach 5: Collaborative activities w/ other programs and sectors

Funding is requested to conduct inter-sectoral coordination meetings to create inter-sectoral accountability for TB care at central, provincial level, and follow-up to mobilize beneficiaries of other public and private sectors to the screening, testing and treatment services of the NTP. Priority sectors to be involved include education, agriculture, justice, labor, mining, finance, social services, and health (HIV, RMNCH, NCDs, private sector).

Specialized **advocacy meetings with private companies** will be held, to mobilize their funding support for TB care in the country.

For the third core strategy—improve successful treatment completion—both facility-based and community-based approaches will be employed.

Facility-based TB treatment approaches

Funding will support the **procurement of drug-sensitive (DS) TB medicines** for adults and children. **Healthcare workers will be trained** on general clinical and programmatic management of TB (childhood TB, DS- and DR-TB, psychosocial support and TB drugs management). A cascade of training for TB and mental health service providers is also prioritized, on management of TB patients with mental illness.

To ensure healthcare workers deliver services in accordance with their training, provincial mentors will be trained and then supported to implement **TB mentoring visits** to program (childhood TB, DS- and DR-TB) and health staff at the health facility. **Regular meetings with pediatricians** will be held to discuss bottlenecks and solutions on clinical and programmatic management of pediatric TB. **Social support** (transportation incentives) will

be provided for childhood TB patients. Funding will support **improved M&E systems** for enhanced reporting of treatment outcomes in adults and children.

Community-based TB treatment approaches

Funding will **build capacities of community actors like TB activists, local NGOs and CBOs, and cured TB patients.** Through the grant, 1,244 TB activists will be recruited to function in 109 districts of the country. At least 200 cured TB patients and their family members will be engaged and mobilized through the CBO of TB patients' networks named MCT/*Movemento contra Tuberculose* of Mozambique on the delivery of the community TB package of the National TB Program, including how to provide community directly-observed treatment (DOT), adverse drug reaction reporting and management, and psychosocial care of TB patients.

TB patients and community DOT providers will be equally **sensitized on COVID-19**. The health department will give special attention to ensure continuation of TB treatment and TB diagnosis amid COVID-19 by engaging CSO partners, cured TB patients and community leadership with all the necessary precautionary measures.

Once they are mobilized and capacitated, these community organizations and actors will be supported to provide community DOT and psychological support to TB patients (all types). They will create TB-patients' groups and retrieve those LTFU using community networks. Community actors will be further mobilized to sensitize and mobilize male family members of women TB patients and local community and women's groups to help those patients to access services and adhere to treatment. Funding is asked to support community advocacy meetings to promote TB screening, referral of presumptive patients, support TB patients for treatment adherence, usage of OneImpact community-led monitoring applications, and strengthen community support groups and networks for TB (such as cured TB patients and their family members). Based on lessons learned (recall Lesson 10) incentives will be provided to cured TB patients to help in detecting new TB cases in the community. Community groups will link TB patients to the existing social support (nutritional supplementation programs and social welfare schemes), and facilitate interactive meetings among TB patients, service providers and NTP program managers. Finally, funding is requested to monitor and supervise community-based activities of the activists, CBOs and NGOs.

To help the country adopt advanced policies in TB care and prevention, and to improve the delivery of the abovementioned program, funding is requested for several strategic **research studies on TB**. This includes: (1) An assessment of the quality of TB services in terms of service delivery as per standards and patient satisfaction; (2) An assessment of the impact of community engagement interventions and the performance of CSO partners in achieving results; (3) An assessment of barriers that lead to the disruption of treatment adherence and linkage to care, focusing on DR-TB patients This will be conducted in 2021 and the findings of the study will be utilized to improve the quality and outcomes of DR-TB care; (4) A TB-diabetes prevalence study; and 5) BPAL regimen feasibility studies in XDR TB patients.

Additionally, as previous knowledge, attitudes and practices (KAP) studies have provided key insights into challenges with TB diagnosis in children under 5 (recall Section 1.2) funding is also requested to conduct a follow-up KAP study among healthcare workers to continue learning about barriers to finding missing people with TB in health facilities.

Funding to conduct an end-line community, rights and gender TB study (the country has just completed the baseline CRG study₃₄₅) is contained in the human rights module.

Funding is also asked to pursue initiatives for making low-transmission zones like two islands close to Maputo "TB-free" in the next 5 years, as **demonstration of TB elimination in Mozambique.**

TB key populations include: PLHIV, prisoners, mining communities, healthcare workers, refugees, children, close contacts of index TB patients and people in remote isolated geographies. For TB literacy campaigns priority populations include: key populations, TB patients and **Priority** their family members, women and young girls, men's groups, adolescents, community Population(s) leaders and school children. For collaborative activities to find missing people with TB (Approach 4), priority sectors include: education, agriculture, justice, labor, mining, finance, social services, and health (HIV, RMNCH, NCDs, and private care). (1) Poor access to TB and other health services; (2) Stigma, myths and misconceptions further impede access; (3) Health system inadequacies like logistics, infrastructure, human **Barriers** and resources and their capacities which lead to suboptimal diagnosis and treatment outcome; **Inequities** (4) The capacities of the community players to provide optimum TB care to the affected communities are limited. The interventions and activities will improve screening in key populations and household contacts, expand diagnostic networks for TB, facilitate referrals from community to labs, consolidate treatment adherence support by mobilizing community groups and community DOT and engage community players, CSO partners and various public services and private sector to expand TB services and TB case notification. These would lead to an increase in access to TB services, an increase in TB testing and increased adherence to TB treatment. The activities prioritized will create additionality to increasing notified TB cases. The request is strongly geared towards community-based approaches and collaboration with activists and CSOs. The additionality of investing in these approaches is clearly presented in Lesson 10. Recall Figure 22, which shows the growing contribution of the community to finding missing people with TB, from 5,383 (9% of all notifications) in 2015 to 26,038 (27% of all notifications) in 2019. Investments in the Truenat MTB technology is in line with the programmatic condition for the TB matching funds (finding missing people) and its field-level usage through Rationale mobile TB screening services in the key population community and among remote populations, to be innovative. Truenat is on the cutting edge of new TB diagnostics, with WHO rapid communication on Truenat released in January 2020. This new technology helps address critical service gaps for underserved populations. Recall from Table 2 that close to 8 million people (30% of Mozambique's population) have no access to health services. This is mostly due to long distances to facilities. The benefit of Truenat in this regard is that it can be placed at or near point-of-care, since it does not require air conditioning (like Xpert does) and runs on a battery. This improves linkage to treatment, and makes Truenat more cost-effective than other models.346 This helps fulfill the stated aim of this funding request, to bring health services closer to communities through differentiated models. Overall, through these investments the country aims to test at least 1,434,449 presumptive TB cases and put at least 354,197 out of 393,552 notified TB patients (all types) under the treatment of NTP between 2021 and 2023 with the help of the Global Fund grant. Further, through this grant Mozambique will be able to screen at least 971,100 household contacts (aged 0-14 years) of index TB patients and put at least 795,894 of them on TB prophylactic treatment. Case notification rate of all forms of TB per 100,000 population—bacteriologically confirmed plus clinically diagnosed, new and relapse cases—increases from 340 at **Expected** baseline to 402 by 2023. **Outcome** Proportion of bacteriologically confirmed cases increases from 30% at baseline to 70% by 2023 Treatment success rate of drug-sensitive TB is maintained above 90% till 2023

	At least 233,671 out of 795,894 household contacts (aged 0-14 years) complete the TB preventive treatment
Expected	\$45,008,534 allocation request
Investment	\$9,378,343 prioritized above allocation request

and direct linkage to rapid molecular tests The activities are elaborated in the TB care and prevention module. Facility-based MDR-TB treatment approaches For people with DR-TB, funding is requested to procure medicines for treating DR-TB, including pediatric combinations and patient-wise pill boxes and the management of adverse drug reactions, and support scale up of optimized treatment coverage. The National TB Program (NTP) of Mozambique is presently treating DR-TB patients with long-term regimens. The country stopped injectable treatment as of December 2019. With the new Global Fund grant, the NTP aims to initiate short-term oral regimens for DR-TB patients in step-wise manner, transitioning all DR-TB patients to short-term regimens by 2023 (Table 7). An operational research project has been already planned by the NTP under the current Global Fund grant to test the efficacy and adherence of this regimen in 2020. Table 7. Transition plan to short-term oral regimens for DR-TB treatment optimization Treatment Regimen Number of DR-TB patients on treatment through Global Fund grant Year 1 (2021) Year 2 (2022) Year 3 (2023) Long-term oral regimen 1233 patients 729 patients 0 patients Short-term oral regimens 1233 patients 1698 patients 2605 patients		, , ,		•	
Section 2.1—improve successful treatment completion. Recall from Section 1.2 that the treatment success rate for drug-resistant TB is low, at 59%, presenting a significant challenge for the country's national response. The module will equally emphasize the improvement in detection of missing DR. TB cases by linking it to the overall interventions related to finding missing people with TB, described in the TB care and prevention module. As with drug-sensitive TB, the response to MDR-TB will involve both facility- and community-based approaches. Approaches to improve detection of DR-TB The NTP will adopt the following approaches to improve detection of DR-TB: 1) Enhance upfront testing of presumptive TB cases by rapid molecular tests. The country aims to reach 100% testing coverage by 2023 2) Strengthen sample transportation network from non-Xpert health-facilities to Xpert health-facilities and from Xpert health facilities to reference labs to enhance DR-TB testing at different levels 3) Establish mobile TB screening services fitted with Truenat MTB to screen and test upfront the KP and remotely-located communities 4) Community awareness to create demand for TB and DR-TB testing 5) Enhance pediatric sample collection like stool, gastric and naso-pharyngeal aspirates and direct linkage to rapid molecular tests The activities are elaborated in the TB care and prevention module. Eacility-based MDR-TB treatment approaches For people with DR-TB, funding is requested to procure medicines for treating DR-TB, including pediatric combinations and patient-wise pill boxes and the management of adverse drug reactions, and support scale up of optimized treatment coverage. The National TB program (NTP) of Mozambique is presently treating DR-TB patients with long-term regimens. The country stopped injectable treatment as of December 2019. With the new Global Fund grant, the NTP aims to initiate short-term oral regimens for DR-TB patients in step-wise manner, transitioning all DR-TB patients to short-term regimens by	Module #6	MDR-TB			
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TB, including pediatric combinations and patient-wise pill boxes and the management of adverse drug reactions, and support scale up of optimized treatment coverage. The National TB Program (NTP) of Mozambique is presently treating DR-TB patients with long-term regimens. The country stopped injectable treatment as of December 2019. With the new Global Fund grant, the NTP aims to initiate short-term oral regimens for DR-TB patients in step-wise manner, transitioning all DR-TB patients to short-term regimens by 2023 (Table 7). An operational research project has been already planned by the NTP under the current Global Fund grant to test the efficacy and adherence of this regimen in 2020. Table 7. Transition plan to short-term oral regimens for DR-TB treatment optimization Treatment Regimen Number of DR-TB patients on treatment through Global Fund grant Year 1 (2021) Year 2 (2022) Year 3 (2023) Long-term oral regimen Short-term oral 822 patients 1698 patients 2605 patients		Facility-based MDR-1	B treatment appro	<u>oaches</u>	
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Short-term oral regimen 822 patients 1698 patients 2605 patients		:			
		Short-term oral	822 patients	1698 patients	2605 patients
l otal 2055 patients 2427 patients 2605 patients		Total	2055 patients	2427 patients	2605 patients

There will be meticulous **supervision and monitoring** of all TB patients put on treatment through better communication and interactions with the patients and community-based support systems (see below). Patient-centered adherence support will be done (recall Lesson 12) by utilizing mobile SMS, missed calls and video-DOT, with funding support from other sources like the World Bank.

TPT medicines with currently recommended regimens will be procured, with scaled-up coverage to household contacts (aged 0-15 years) of index DR-TB patients. Funding will support monitoring to ensure TPT completion and reporting.

To improve quality of care, healthcare workers will be trained on clinical and programmatic management of DR-TB. The program will recruit 200 counselors for high-volume health facilities and train them in TB and DR-TB counselling techniques. The trained personnel will then provide facility-based and home-based counselling services to the TB, DR-TB and co-infected cases to improve treatment adherence. Part of the training will also build capacity of healthcare workers to report and manage adverse drug reactions. Funding will support health facilities to conduct sputum and other biological sample collection and transport those samples to health facilities and higher facilities for follow-up examination and adverse drug reaction management. Funding will also support sputum sample collections from key populations, children, and TB patients in the private sector, with transportation to GeneXpert sites, and from there, to the Reference labs. Finally, social support (transportation and nutrition incentives) will be provided to more than 7,000 DR-TB patients during the course of the grant, to help them attend their clinical visits, and to lesson catastrophic costs and ensure treatment adherence.

The support of the grant is also asked to arrange **interactive and direct patient-providers' sessions** at the health-facilities for stressing upon TB treatment literacy, patient-wise problem solving, and motivating the patients to remain treatment-adherent and to attend their regular follow-up visits.

Community-based MDR-TB treatment approaches

In communities, funding will build capacities of activists, cured TB patients, PLHIV, members of NGOs and CBOs (including those working with PWUD and other key populations) on MDR-TB management and latest developments. Once trained, these organizations will be supported to do MDR-TB literacy programs (human rights and gender literacy) and promote rapid molecular testing in the key populations, women and their groups, young boys and girls, schools and community leaders. For MDR-TB patients, they will also receive community-level care. The trained CBOs will provide expanded community-DOT psychosocial support and legal aid to the DR-TB patients, and create community support groups. Based on lessons learned (recall Lesson 12), home visits will be done (TBC) which is a gender-sensitive approach for women and children with TB, and will facilitate retrieval of LTFU cases, and link DR-TB patients to social benefits and nutritional supplementation. Funding will also support the program to monitor and supervise community-based MDR-TB activities. Saving groups of the 5-10 DR-TB patients of the same community will be facilitated for collective contribution of money in such groups for bearing treatment-related costs.

Funding is also requested to support the remaining aspects of the **Drug Resistance Study**, as it is unlikely to be finished in 2020 and will need an allocation in 2021 from the new grant budget for remaining activities.

Priority Population(s)

DR-TB patients diagnosed and enrolled for treatment in NTP; household contacts of DR-TB patients; TB key populations, women and young girls; cured TB patients; activists and community health workers; healthcare workers in health facilities. DR-TB patients from high-risk and vulnerable groups will be the primary targets for the community-based care.

Lessons from current Global Fund grant implementation (recall Lesson 12) indicate a

Barriers and Inequities

Lessons from current Global Fund grant implementation (recall Lesson 12) indicate a need for research to identify DR-TB patients' adherence barriers, improve training and

	supervision, implement patient-centered adherence models, and ensure the availability of medicines at facilities.347 Activities in this module respond to these lessons. The focus on improving MDR-TB treatment success is a major priority for the program. As mentioned, treatment success rates for DR-TB are low, at 59%, and remain far below the treatment success rate for DS-TB (which has been at the 90% target for several years). Mozambique aims to increase MDR-TB treatment success to 65% in 2020, and 85% by 2023.348 To achieve this ambitious target, significant investments are required in the activities described above. The proposed investment will support Mozambique to optimize MDR-TB treatment. since 2019, the country has been phasing out injectables, moving to short-course Bedaquiline-based regimens. Experience shows that regular follow-up and home visits to DR-TB patients improves
Rationale	their treatment adherence and notification of other TB patients in the community. Demand generation for DR-TB diagnosis and treatment by community mobilization and strengthening service delivery side-by-side with the NTP has been a proven strategy, which the country aims to scale up (especially for DR-TB). The proposed activities aim to strengthen collaboration between government and community actors for management of DR-TB, adverse drug reactions and TPT, bringing synergy between community and health system responses.
	The focus on adverse drug reactions in this module is further rationalized based on findings in the 2018 Joint Assessment of the NTP Strategic Plan 2014-2018, HIV-AIDS 2016-2020 and the establishment of the Baseline of Viral Hepatitis in Mozambique. The Joint Assessment found that the management and active monitoring of drug safety is still inadequate because there is an irregular reporting rate of adverse drug reactions. It notes that trainings on pharmacovigilance were done, and registrations forms are available, but not in all health facilities. This funding request aims to improve coverage to more facilities and more healthcare workers to be able to report and manage adverse drug reactions.
Expected Outcome	 The country aims to detect at least 7,383 RR/MDR-TB patients and put on treatment at least 7,087 of them between 2021 and 2023 Percentage of cases with RR and/or MDR-TB successfully treated increases from 58% at baseline to 85% by 2023
Expected Investment	\$16,457,095 allocation request \$7,000,000 prioritized above allocation request

Module #7	TB/HIV
Intervention(s) & Key Activities	The link between HIV infection and TB disease in Mozambique is clear (recall Figure 9), requiring an integrated and collaborative response. Indeed, 36% of Mozambique's 162,000 annual incident TB cases are estimated to be co-infected with HIV, with much higher co-infection rates (55%) in the Southern provinces where HIV is more prevalent. First, funding is requested to intensify screening of TB among all patients with HIV. This will be done at every contact with a health facility (with clinicians, and lay workers e.g. cough officers). Funding will also intensify the screening of TB all patients with HIV at every contact in the community (with APEs, lay workers and community activists). Improving the quality of TB screening in PLHIV at health facilities and in communities will be done through in-service training, mentorship, and quality improvement cycles). Identification of TB in patients with HIV will also be strengthened, through training on the algorithm on TB screening and diagnosis, and increasing the use of GeneXpert and TB-LAM in patients with CD4 <100. Importantly, some of the new Xpert Rif/MTB machines procured under the TB care and prevention module will be prioritized for high-volume HIV settings. Then, TB screening and testing of PLHIV at HIV care settings will be done by upfront Xpert testing. Second, given that PLHIV have a 15% greater chance of acquiring TB compared to the general population—mainly when they are not virally suppressed—funding will support TB preventive therapies among this group through: (1) Provision of INH to all eligible

patients; (2) Provision of 3HP; (3) Strengthening the integration of TPT into DSD (e.g. as part of three-month dispensing); and (4) Developing and printing literacy material on TPT. Systems will be put in place to strengthen reporting on TPT completion among PLHIV. It is important to note that the TB and HIV programs are currently working on a joint strategy to increase TB screening and TPT update among all PLHIV based on recent WHO guidelines. This strategy will guide implementation of this activity in the new grant.

Funding is also requested to strengthen screening, testing and diagnosis, including HIV testing of newly diagnosed TB patients to diagnose co-infected cases. To ensure integrated case finding and service provision among key populations, funding will support the program to conduct HIV screening of key populations during all the TB active case-finding activities; all TB presumptive cases detected during active case-finding will be tested for HIV. Funding will also support a training on TB, self-risk assessment, and TB services, targeted at PLHIV groups at district level.

For people with identified co-infection, this grant aims to scale up treatment coverage by initiating all newly diagnosed co-infected patients onto ART. Healthcare workers will be trained on co-infection management with updated training modules and follow-up mentoring. As part of this training, healthcare workers (including community health workers) will also have their counselling capacities strengthened.

At the community level, funding is requested to support **TB/HIV literacy programs** among key populations, women and their groups, young boys and girls, schools, community leaders. Funding will also be invested in **capacity building of activists**, **cured TB patients**, **PLHIV**, **members of NGOs and CBOs** on TB/HIV co-infection management and latest developments through a unique community training package for TB/HIV co-infection management.

Funding is also requested to organize **TB/HIV training** for around 66 healthcare providers at the central level, and 360 healthcare providers at the provincial level. This activity will be implemented by the NTP.

Lastly, funding is requested to support TB/HIV collaborative interventions, including linking TB symptomatic screening and testing to the HIV index-case testing programs. Funding will enable the program to conduct HIV testing of all household contacts of the index TB cases. It will also support capacity building of CSO partners who are implementing the HIV program (including those implementing the HIV key population prevention modules) on TB, and TB/HIV co-infection care.

Priority Population(s)

Recently diagnosed co-infected patients; household contacts of the co-infected patients; PLHIV seeking care at the HIV care settings; high-risk groups of HIV programs (e.g. HIV key populations); TB presumptive cases detected during community screening; activists and community health workers; and healthcare workers and other staff at health facilities.

Missing co-infected cases due to access issues and diagnostic inadequacies are a significant challenge. So, too, is high mortality of co-infected cases due to poor case-management of co-infected cases, follow-up and counselling. Pervasive stigma is also a barrier to access.

Barriers and Inequities

Other challenges for integrated TB/HIV service delivery include policy barriers, such as delays in the approval of the use of 3HP, indecision on the use of GeneXpert for viral load (see multiplexing pilot planned in PMTCT module), and slow integration of TPT into DSD.

Quality of TB/HIV services, lack of training on the use of new algorithms, and the costs of 3HP are also prohibitive. There is also weak knowledge on existing health services by patients and demand for this service (hence the prioritization of literacy materials in this module).

Rationale

The interventions and activities under this module would improve detection of coinfected cases by the synergistic effect of community mobilization and diagnostic capacities of the health system. Strengthening TB/HIV services with better logistics and

human resources will improve treatment coverage and successful outcome of the coinfected cases and increase in the TPT coverage of PLHIV. The screening of TB has been performed since the introduction of collaborative activities. While 93% of patients are screened in consultation, the quality of this screening is still a challenge and TB detection among PLHIV is below what would be expected based on the country's epidemic. Since TB is preventable, it is necessary to increase the number of beneficiaries to prevent TB since only 74% of eligible patients receive INH in country. But the completion of TPT is still a challenge so the quality of the interventions needs a big improvement. • Percentage of people on ART who were screened for TB at each clinical consultation during the reporting period increases from 93% at baseline to 94% by 2023 **Expected** Percentage of people newly enrolled in HIV care and treatment who initiated TB **Outcome** preventive therapy among those eligible during the reporting period increases from 74% at baseline to 90% by 2023 **Expected** \$3,410,172 allocation request Investment No prioritized above allocation request for this module

COMPONENT: HIV and TB

Module #8

Mozambique prioritizes dramatically scaled-up investments in the seven key programs that reduce human rights-related barriers to HIV/TB services. Worth noting, Mozambique has gone from having no dedicated human rights programming in its Global Fund grants in the 2014-2016 cycle, to investing \$7,448,733 in the current grant, to requesting \$12,611,535 in this request. This is a 69% increase compared to the current grant, exceeding the proportional increase of the country's HIV and TB allocation (which is 42%). This level of investment will support a (near) comprehensive national program from 2021-2023.

Reducing human rights-related barriers to HIV/TB services

according to the costing in Mozambique's baseline assessment.

Intervention(s) & Key Activities

For the first program area—stigma and discrimination reduction—funding is requested to scale up and focus eight priority activities, including: (1) Disseminating the findings of the 2020 PLHIV Stigma Index Study and undertaking follow up PLHIV Stigma Index study and focused studies, including for people with disabilities; conducting a Stop TB Stigma Assessment; conducting an end-line TB CRG Assessment (baseline currently ongoing), and related research; (2) Developing a consultative five-year National HIV, TB and Malaria Human Rights Plan, based on research, community mapping and evaluations and guided by the Global Partnership for Action to Eliminate All Forms of HIV Related Stigma and Discrimination in six settings (healthcare, schools, the workplace, the family, justice systems and emergency and humanitarian settings); (3) Adapting and scaling up targeted community-led stigma and discrimination reduction campaigns that include communitylevel dialogues and meetings and working with "champions", based on the findings of HIVand TB-related stigma; (4) Increased strengthening of organizations and networks of PLHIV, people with TB, key populations, AGYW, IDPs and refugees, including training of champions (e.g. cured TB patients) as peer educators; (5) Undertaking workplace stigma and discrimination reduction campaigns; (6) Integrating stigma and discrimination reduction into comprehensive sexuality education campaigns in schools; (7) Developing relevant IEC materials to support campaigns; and (8) Developing an ongoing national database of stigma, discrimination and human rights violations affecting people living with HIV, TB, key populations, AGYW and malaria-affected populations across six settings, to strengthen evidence-informed interventions, taking into account differences in age, gender, population and location.

Second, funding is requested for human rights and medical ethics related to HIV and HIV/TB for healthcare providers and educators, including at community level, through: (1) Updating and disseminating the Patients' Charter to include rights of people with HIV, TB and key populations; (2) Continuing pre-service training of health providers based on

updated materials, including on rights of all patients and workplace health and safety, including for TB; (3) Continuing in-service train the trainer of five healthcare providers from each of an additional 300 health facilities; (4) Training of community-level health organizations; (5) Training of 300 healthcare workers in sign language; (6) Facilitating collaboration and dialogues between HIV, TB and malaria healthcare points and community organizations; (7) Training of 60 educators from 30 private institutions; and (8) Ensuring ongoing M&E of training of health workers and other service providers.

Third, **legal literacy** programs will strengthen "Know Your Rights" campaigns on HIV and TB-related human rights, including (1) Reviewing and harmonizing and updating legal literacy training and IEC materials, including information on law and policy reform, to support ongoing train-the-trainer and legal literacy training; and (2) Building capacity of CSOs, networks of PLHIV, people with TB, key populations, people with disabilities, AGYW to scale-up community-based legal literacy interventions and dialogues to populations, broader community, including committees, and religious and traditional leaders.

Fourth, investments are prioritized for **HIV and HIV/TB-related legal support services**, to expand access to legal support services, to address rights violations and GBV, particularly for key populations, AGYW, IDP and refugees, including: (1) Scale-up of training of paralegals, including within PLHIV, TB survivors, key population networks, linked to community committees and health services; (2) Provision for trained paralegals to conduct mobile legal clinics to IDP and refugees; (3) Ongoing training of lawyers, including with The Institute for Legal Assistance and Representation (IPAJ), legal professionals and Human Rights Commission on the rights of people with HIV, key populations, TB- and malaria-affected individuals; (4) Strengthening linkages between paralegals and sensitized legal professionals to support *pro bono* legal redress; (5) Funding for a specific number of strategic litigation cases; and (6) Support for community dispute resolution through engagement of traditional leaders and community courts.

Fifth, **community mobilization and advocacy** is prioritized, linked to legal literacy and legal support services, to scale up training of organizations, networks and community committees to undertake ongoing community-led monitoring, documenting, analysis, reporting and advocacy to respond to stigma, discrimination and human rights violations against people living with HIV, people with TB, key populations, AGYW, IDP and refugees, in terms of existing assessment methodologies and tools adapted to differing community needs.

Sixth, the proposed investments will adapt and expand efforts at sensitization of lawmakers and law enforcement agents to strengthen coordinated efforts reduce GBV and promote redress for violations for affected populations, including through: (1) Integrating findings of public sector evaluation into the five-year National HIV, TB and Malaria Human Rights Plan and providing for ongoing evaluation; (2) Developing and printing SOPs, guidance and updated training materials to include rights of PWUD and transgender people for police on rights-based responses to violence against AGYW and key populations; (3) Continued advocacy for integration of material into pre-service training of police; (4) Refresher train the trainer for 40 trainers and scale-up of in-service training and sensitization of police, including through community-led dialogues with community committees, paralegals, health committees and police, based on standardized materials; (5) Integration of HIV, TB, human rights and gender equality in pre-service training of prison officials; (6) Integration of training into pre-service training of magistrates and judicial officers; (7) Scale-up of community-led dialogues and in-service sensitization of the judiciary, including community courts, magistrates and judicial officers; (8) Ongoing advocacy with parliamentarians and executive to review and adopt protective laws and policies, including for prisoners and people who use drugs; and (9) Sensitizing leaders at all levels and all relevant sectors, including provincial and municipal assemblies, district councils, community and religious leaders and community courts.

Seventh, funding will be invested in **improving laws**, **regulations** and **policies relating to HIV and HIV/TB** including: (1) Ongoing advocacy for the review of the HIV Law 19/2014 and enactment of regulations to support the implementation of the HIV Law; (2) Review and approval of laws and policies relating to people who use drugs; (3) Development of anti-discrimination laws to protect key populations; (4) Review of workplace policy on HIV and TB; (5) Dissemination of Legal Environment Assessment and CRG TB Assessment findings and integration into HIV, TB and Human Rights Plan; and (6) Ongoing community-led monitoring, advocacy and review of the provisions, implementation and enforcement of existing laws, policies and procedures, including child marriage law and healthcare guidelines.

Eighth, reducing HIV-related gender discrimination, harmful gender norms and violence against women and girls in all their diversity is prioritized, including: (1) Ensuring integration of gender-based responses throughout the five-year National HIV. TB and Malaria Human Rights Plan and across sectors; (2) Strengthening and expanding Integrated Service Centers for responses to GBV in all provinces; (3) Strengthening capacity of multi-sectoral committees (e.g. police, justice, health, schools) to integrate HIV. TB and gender issues into sectoral responses; (4) Strengthening community-based gender equality campaigns, including with religious and traditional leaders, to combat harmful gender norms; (5) Strengthening legal literacy for AGYW organizations within community-based campaigns; (6) Strengthening training of AGYW paralegals and access to redress mechanisms for GBV, including within communities, community courts, and health centers; (7) Strengthening AGYW organizations to undertake community-led monitoring and responses to GBV; (8) Sensitizing police officers and health workers on rights-based responses to GBV; and (9) Advocacy for review of laws, policies, guidelines and programmatic responses, based on outcomes of gender assessments and Legal Environment Assessment.

A cross-cutting human rights activity was developed in synergy with the malaria funding request. The Ministry of Health will collaborate with the International Organization on Migration and other humanitarian partners to conduct a participatory, integrated HIV, TB and malaria needs assessment in Cabo Delgado Province. The assessment will help the country to understand the unique human rights and gender-related barriers to prevention, diagnosis, and treatment services for the three diseases as they are experienced by IDPs and refugees, and to integrate these findings into the five-year National HIV, TB and Malaria Human Rights Plan (funded by this application). This activity is linked with the legal clinics among IDPs and refugees, which will aim to address the barriers it identifies This is particularly important given that refugees are a TB key population, and there has been a surge in the number of refugees in Mozambique—from 5,000 in 2018 to 24,811 in 2019—and there remains a high number of IDPs (14,000).350

Finally, a capacity assessment and technical assistance (TA) plan, conducted during the country dialogue process, has guided the request for funding to strengthen the capacity and engagement of CSOs and community organizations to participate in the design, implementation and monitoring and evaluation of human rights programs to respond to HIV, TB and malaria. This was done in accordance with new human rights implementation guidance from Frontline AIDS, GIZ and Global Fund, which recommends conducting a capacity assessment and then identifying any available technical assistance needed and where it can be procured and at what cost.351 Funding is requested to support the costed activities in the human rights TA plan, which is attached to this funding request.352 The country plans to make continued use of the new Frontline AIDS human rights implementers guide during grant implementation.

Priority Population(s)

PLHIV, people with TB and their family members, MSM, FSW, PWUD, prisoners, AGYW, adolescent boys and young men, people with disabilities, IDPs, refugees and migrants.

Barriers and Inequities

Stigma, discrimination, harassment and violence against people living with HIV, people with TB, AGYW and key populations in communities, health sector, from law enforcers in the justice sector and in the workplace creates barriers to access to services as well as access to justice to remedy rights violations. Harmful gender norms and gender-

Rationale	based violence place AGYW at risk. Despite protections in law, people lack knowledge of their rights and access to enforcement mechanisms; laws and policies are inadequately implemented and enforced and fail to provide specific protection for key populations; drug laws create barriers to harm reduction programs. Stigma, discrimination and violence remains a barrier to access to healthcare. For instance, HIV stigmatizing attitudes contribute to non-receipt of HIV test results, which poses a barrier to linkage to care for PLHIV and linkage to prevention services for those who are negative.353 There is a need to expand stigma and discrimination reduction based on improved evidence. Community-based legal literacy, legal support and monitoring programs, linked to community structures and healthcare facilities, are showing progress in documenting violations, increasing knowledge of rights and access to redress for rights violations, thus increasing access to healthcare. Evidence from these programs should inform sustaining and expanding interventions to train and target all affected populations, including those not adequately reached (e.g. prisoners, people who use drugs), linked with urgent scale-up of training of healthcare providers and police to ensure sensitized service providers alongside empowered communities. Ongoing advocacy and sensitization of law-makers is critical to ensure problematic laws and policies are reviewed to support an enabling framework for the work.
Expected Outcome	 Proportion of young women aged 18-24 years who report experiencing intimate partner violence in the past 12 months decreases from 12.30% at baseline to 9.23% by 2023. Percentage of men who have sex with men who avoid health care because of stigma and discrimination decreases from 8.3% at baseline to 7.05% by 2023. Percentage of sex workers who avoid health care because of stigma and discrimination decreases from 9.0% at baseline to 7.65% by 2023. Percentage of women and men aged 15–49 years who report discriminatory attitudes towards PLHIV decreases from 20.7% at baseline to 17.6% by 2023. Percentage of people diagnosed with TB who experienced self-stigma that inhibited them from seeking and accessing TB services (new indicator: target TBD)
Expected Investment	\$12,611,535 allocation request \$6,000,000 prioritized above allocation request (PAAR)

COMPONENT: RSSH

Module #9	RSSH: Health Management Information Systems and M&E
	The top priority in this module is to strengthen routine reporting. First, funding will support the completion and implementation of the health information systems strategy and policy (and the ongoing development of the strategic information systems strategy with support from WHO). This is a critical first step to guide the national response, as well as investments from the Global Fund and other partners, including PEPFAR. The National M&E Plan is being developed, with support from the WHO. Preparation and implementation of SOPs for strategic information and M&E will be required.
Intervention(s) & Key Activities	Guided by the anticipated strategy, investments will be directed to improve and expand the current facility-based electronic patient tracking system to include, overtime the integration of new and existing patient tracking systems. This is a new hospital-based system, started in Quelimane Central Hospital, which the Ministry would like to expand to other central and provincial hospitals. This expansion does not have any foreseen implications for PEPFAR's electronic patient tracking system (EPTS).
	Funding is requested to strengthen community information systems , through developing a standardized electronic community information system and ensuring its interoperability with SIS-MA, and establishing the Community Surveillance System in Health and Vital Events (SIS-COVE) as a continuation and expansion of the national system of vital events and causes of death.
	Funding is requested to expand SIS-MA to additional facilities, and develop interoperability between the different information systems in the sector (SIS-MA, SIS-

	COVE, e-RCEV, SIL, e-SIP, SIMAM, SIGLUS, etc.). A mapping will be done, which includes an interoperability analysis that will inform the design of the new platform. A SIS-MA evaluation will be done to inform future investment. Importantly, the digital TB notification system mentioned in the TB care and prevention module relies on the consolidation and improvement of SIS-MA implementation, including age- and sex-disaggregated data. It also relies on the linking of a community information system with SIS-MA. To ensure basic functionality of these systems, funding is requested to support existing internet connectivity and expansion to new SISMA sites, IT equipment, and MoH data center. To ensure quality, funding will support training of personnel in M&E and data quality management.
	The expansion of SIS-MA in this funding request has a cross-cutting benefit and will be leveraged by the malaria grant. The malaria funding request proposes to invest in improving and maintaining the integrated Malaria Information Storage System (iMISS). For this intervention, the malaria request states its reliance on core infrastructure and staff capacity in SIS-MA/DHIS2 to be able to execute the planned iMISS activities.
	Long-term technical assistance is requested to ensure effective implementation of these activities, including two Senior Monitoring and Evaluation Advisors (one for the M&E department and one for the HIV program specifically) and three data managers to support SIS-MA and M&E management.
	To improve program and data quality , SIGLUS will be expanded to additional health facilities, and updated to include unique, integrated information and communication systems. Integrated data quality assessments and improvement approaches will be done.
	A survey of HIV, tuberculosis and malaria service indicators will be done, given the most recent data from such a demographic and health survey is from 2015.354
Priority Population(s)	n/a
Barriers and Inequities	n/a
Rationale	Ensuring integration, interoperability and standardization of information technology, processes and procedures is important. This will enable the timely availability of accurate and reliable data for analysis, interpretation and use in effective decision making that supports improvements in program performance monitoring and implementation.
Expected	More timely and accurate reporting
Outcome Expected	Increased availability and use of data for decision-making \$17,777,583 allocation request
Investment	\$2,122,000 prioritized above allocation request

Module #10	RSSH: Health products management systems
Intervention(s) & Key Activities	A key investment required to support the treatment scale-up envisioned in the HIV, TB and Malaria modules is to increase storage and distribution capacity . Increasing storage space for drugs and consumables is a strategic priority of PEN IV and PELF,355 but current storage space and conditions are not adequate (recall Lesson 16). Funding is requested to rehabilitate nine provincial medicine warehouses and construct additional intermediate ones. Investments to be made under the HMIS, will in include the creation of an electronic order tracking system for the supply chain and product management. To strengthen distribution, funding is requested to expand and outsource transportation services to all provinces, and to expand the Beira central warehouse. These investments will support integration and streamlining of the system for managing health products and improve upon sustainability and cost-effectiveness over the long term.
	Funding is also requested to strengthen quality assurance mechanisms , including the program to combat counterfeit and low-quality medicines. The proposed investment will build, equip and accredit a drug quality control laboratory, and support the analytical

	testing of drugs in labs accredited outside the country, while this new lab is being built. Funding will also expand the mechanisms for testing drugs in the field, including through acquisition of mini-labs and fast authentication devices. Supervision of the distribution chain will verify compliance with good practices, and post-market surveillance studies (on quality and safety) will be done. For waste management, funding is requested to construct two drug incinerators in the South and North regions of the country. However, a wider system assessment of the policies, systems and infra-structure in place for health care waste management will be carried out to inform future investments in this area.
	To ensure rational use of medicines , funding is requested to support the institutionalization of the national regulatory agency (ANARME), established in 2017. Funding is prioritized to review the National List of Essential Medicines, review the National Form of Medicines, monitor the National List of Essential Diagnostic Tests, and conduct drugs use studies. These investments will complement TA from UNFPA, UEM (<i>Universidade Eduardo Mondlane</i>) and the World Bank, which is supporting the country to review existing disposal manuals.
Priority Population(s)	n/a
Barriers and Inequities	n/a
Rationale	To achieve the desired treatment and care outcomes by ensuring the availability and accessibility of quality medical products in a timely manner to all respective populations. Investments in quality assurance are justified in response to 2017 OIG audit findings that there are limited in-country mechanisms to routinely monitor quality of medicines (recall Section 1.2).356 Similarly, the prioritization of increased storage space responds to OIG findings as well as findings of Mozambique's 2018 Joint Assessment.
Expected	More efficient and effective storage and distribution systems
Outcome	Reduced frequency of stock-outs and increased access to essential medicines
Expected	\$14,969,166 allocation request
Investment	\$18,744,184 prioritized above allocation request

Module #11	RSSH: Community systems strengthening
Intervention(s) & Key Activities	For institutional capacity building, planning and leadership development, funding is requested for the mentoring of the Civil Society Platform for Health in Mozambique (PLASOC-M) as well as seven networks at national level: (1) Network of people living with HIV; (2) Network of AIDS service organizations; (3) Network led by MSM; (4) Network led by FSW; (5) Network of PWUD; (6) Network of youth-led organizations, and (7) Network of tuberculosis survivors. The type of mentorship provided will be informed by the existing capacity needs assessment and costed TA plan for human rights (which includes organizations delivering prevention services to key populations).357 As needed, additional capacity assessments may be done to precede the mentorship envisaged here. The strengthening of PLASOC-M will involve institutional support with the hiring of technical staff, equipment and site of the network operation. Depending on their specific needs, support to the networks will focus on governance, leadership, networking and coordination through technical assistance to ensure that these networks and their members fulfil their mandates to strengthen and support community action in response to these three diseases. This activity will also include reorientation of the community towards current critical and innovative approaches to service delivery, which will ensure the achievement of the 90-90-90 targets and the End TB Strategy (e.g. reaching key and vulnerable populations, addressing social and legal barriers, promoting and protecting human rights and gender equality). These investments will be synergistic to other capacity strengthening investments including the Partnership to Inspire, Transform and Connect the HIV response (PITCH) program, supported by the Dutch.

Community-led monitoring is also prioritized. Taking into account lessons learned (recall Lesson 15) on critical perceptions of quality of care issues and barriers to access, funding is requested to improve the quality of services provided in health facilities through community-led interventions. Funding will support minor adaptations of existing tools so that they can be used to monitor HIV, TB, malaria and human rights activities, which are the priorities of this request. Training of trainers at provincial level will then take place for CSOs and CBOs on how to conduct eCommunty Based monitoring using more simplified approaches to the community (community scorecards, performance cards and health, comanagement and community health committees) and taking into account key indicators. This will be followed by outreach by 300 CSO and CBO representatives in 20 priority districts, giving priority to members of key population networks, TB activists, human rights defenders, AGYW-focused organizations, the informal sector, and PLHIV networks. Training and outreach by another 600 CSOs is prioritized in the PAAR. Feedback and accountability mechanisms will be put in place so that the perspectives of recipients of care are shared with health service staff and collective problem solving takes place. These investments will complement community monitoring initiatives funded by the PEPFAR and the Global Financing Facility for monitoring the quality of services taking into account concrete indicators such as: new infections, viral suppression, retention, LTFU, humanized care and other indicators that can support evidence-based decision making.

Funding is also requested for **strengthening the competencies of community actors in** policy analysis and operational research. This will enable CBOs, people living with and affected by the diseases, and key populations, to participate significantly in the design, delivery and monitoring of services and issues affecting their lives.

Strengthening community-led service delivery is also a priority. First, a landscape analysis of community-based strengthening systems will be undertaken, which will then guide the development of a package of integrated and harmonized services for health professionals and CBOs working at community level. The funding will support the expansion of CSO activities to increase access to—and quality of—services, including support for links with the health facility service delivery system. Priority will be given to certain types of CSOs and CBOs for capacity building (see priority populations below). To ensure coordination of services at community level, this grant will establish an entity within the Ministry of Health that will coordinate the implementation of activities in the community (including development of mandates, training packages, registration tools, etc.).

As part of community-led service delivery, priority is given to training **traditional practitioners** (including 440 community actors and 102 provincial and district health professionals), with an emphasis on HIV, TB and malaria, to eliminate or reduce the taboos or beliefs surrounding these diseases. These trainings will provide accurate information to them on the three diseases and empowering them. Training for an additional 880 traditional healers at the community level and 204 provincial and district health professionals is prioritized in the PAAR. Traditional healers are often a point of entry into care and require a collaborative involvement with the formal health system (see more rationale below). Through their influence, community members will be supported to adhere to best treatment and care practices recommended by the three programs

Support in social mobilization, building community links and coordination is also prioritized. To **create demand for services** prioritized in the HIV and TB modules, as well as broader health services in Mozambique, funding is requested to increase community literacy in relation to health services and programs (patients, family, community structures). This will be done through the development and dissemination of a **simplified guide to community HIV**, **TB and malaria service delivery** (including key information from the Standard Operating Procedures for Key Populations 2019, the 358 NTPs Community TB Service Package 359, the National School Health Strategy for Adolescents and Youth 2019-2029, 360 and other relevant documents with community defined service packages). This will reinforce the community literacy activities prioritized in the HIV and TB modules. The activity will require regular involvement of community leaders to share messages on prevention, adherence to diagnosis and treatment of

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	HIV, TB, malaria and other diseases. Priority is given to training existing coordination and liaison structures such as health, co-management and community and health committees. Funding will also support the dissemination of this information using existing community frameworks, platforms and support groups in 20 target districts.
	Monitoring & Evaluation of the national response as part of the national dialogue, the funding will specifically support the establishment of a DHIS2 database housed in PLASOC / CNCS covering programmatic areas, funding, service quality, evidence production, documentation improvement, advocacy among other thematic areas and also serve as a basis for strengthening forums for consultation and coordination.
Priority Population(s)	CSOs and CBOs, in particular: networks of people living with HIV, groups of TB survivors, women's groups, youth groups, key population networks, associations of truck drivers, and mine workers.
	Capacity strengthening of CBOs will focus on organizations of key populations such as sex workers, MSM, PWID, mobile and migrant populations, and prisoners.
Barriers and Inequities	Community-based organizations often face information and capacity barriers to be able to meaningfully engage in HIV, TB and malaria responses.
Rationale	Strengthening the Capacity of CSOs necessarily involves building PLASOC-M capacity in advocacy, resource mobilization, monitoring & evaluation of different health initiatives. The establishment of a strong secretariat to ensure the continuous training of civil society as actors in the response and the necessary advocacy for resources mobilization at different national and international levels is urgent for better coordination of CSO's actions and to guarantee the training of its members in the various thematic areas after prior assessment of their institutional capacity. Building capacity of CSOs and CBOs—particularly those that are led by and reach key populations—is a prerequisite for scaling up access to services. Recall from Section 1.2 (Figure 14) that a national mapping shows comparably higher numbers of organizations reaching out to children and adolescents, and far fewer providing critical services to key populations such as sex workers, MSM, PWID, mobile and migrant populations, and prisoners—all of which are priority populations for HIV and TB services in this funding request. Strengthening community systems to provide services to these groups is prioritized here, in response to these identified gaps.
	The priority to train traditional healers responds to the country context. Recall from Section 1.2 that Mozambique also has more than 75,000 traditional healers (but only 1,500 physicians), who play a crucial role in the health of a community in Mozambique. ₃₆₁ It is critical that they are engaged as partners in the response, and adequately trained to help diagnose, refer, support and follow up people in need of HIV and TB services. For instance, in Beira, 25% of TB patients first sought help from a traditional healer, which was later found to be a key reason for their delayed TB diagnosis. ₃₆₂
Expected	300 community-based organizations will receive a pre-defined package of training (in
Outcome	community-led monitoring) by 2023 \$4,146,976 allocation request
Expected Investment	\$4,146,976 allocation request \$8,293,951 prioritized above allocation request
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Module #12	RSSH: Human resources for health, including community health workers			
Intervention(s) & Key Activities	The activities in this module are prioritized in line with the National Human Resources for Health Development Plan 2016-2025 ₃₆₃ and the Strategy for Attracting and Retaining Human Resources for Health 2018-2022 _{.364} The main priority in this module is to strengthen education and training. Other directorates from the Ministry of Health will coordinate with the National Directorate of Training of Health Professionals (DNFPS) in the development of integrated training packages across the three diseases and beyond and monitoring of training activities			

through supportive supervision. Annual meetings between DNFPS and programs will be held to update training packages. This integrated and holistic approach ensures comprehensiveness and economy of scale. Funding is also requested to train around 600 new frontline HCW (30 classes) such as technicians, nurses, Lab personnel, etc., within grant period.

Funding is also requested to train health facilities and district personnel in the use of information systems and data analysis. The e-health platform will be expanded to additional districts and training institutions. This is the existing Telessaude platform capable and used for distance learning (tele-learning) and remote technical support to health care workers (telemedicine).

This grant also aims to **train informal community health workers** (non-APEs), with an emphasis on TB, HIV and malaria in order to eliminate or reduce taboos or beliefs around these diseases. In order to ensure standardized skills and competences of CHWs that better enable them to complement the efforts of the public health system, the funding will also support the development of policies and procedures to guide the designation and utilization of community health workers.

To improve productivity, quality of care, and retention of human resources for health, funding is requested to support the Ministry of Health's exploration of options to design and implement a performance-based financing (PBF) system. These investments are in line with the retention chapter of the Ministry of Health's Strategy for Attracting and Retaining Human Resources for Health 2018-2022.365 It is expected to achieve this through 3 interdependent mechanisms. Directly by recognizing and rewarding individual performance through financial reward; by improving working conditions through rewarding institutional performance, and, more indirectly, by acting as a powerful catalyst for health system strengthening. Following a CDC-funded PBF pilot in Gaza and Nampula provinces in 2011-2014, there is renewed intention in the Ministry of Health to institutionalize PBF. Evaluation reports on the pilots revealed that comprehensively/ holistically implemented PBF projects resulted in both planned and spontaneous improvements. These included such things as improved definition of objectives and targets, improved intra-institutional communication and team cohesion, rigorous supervision, increased use of data in decision making and greater autonomy. improved health information. However, given the time lapse between the initial pilots and now (10 years) there is a need to review feasibility. First, the landscape will be documented. Then, a model will be (re)designed, building on past lessons (recall Lesson 19). The new PBF model will be piloted in three provinces, and scaled up based on lessons. Past experience suggests it will take about 18 months for PBF to show results, so it is expected that scale-up will begin towards the end of 2022/early 2023.366

Support for APEs (trainings, stipends) is fully funded by other partners (e.g. UNICEF) and is therefore not prioritized in this funding request.

Priority Population(s) Barriers and Inequities

n/a

n/a

Mozambique. A 2020 study found that an innovative tablet-based mobile learning approach for nurses providing PMTCT services in Manica and Sofala Provinces found that skill and knowledge of nurses at intervention clinics improved threefold compared with control clinics, and that nurse managers at intervention clinics demonstrated a 9- to 10-fold improvement.367

The prioritization of e-health learning platforms is grounded in data from recent studies in

Rationale

Recall from Lesson 19 that a PBF pilot produced large, sustained increases in the provision of PMTCT, pediatric HIV, and RMNCH services, suggesting PBF is an effective strategy.368 Further healthcare workers reported that PBF, overall, positively influenced their motivation.369

Expected Outcome	Improved retention of healthcare workers; improved quality of health service provision	
Expected \$4,395,896 allocation request		
Investment	\$10,912,077 prioritized above allocation request	

Module #13	RSSH: Financial management systems
Intervention(s) & Key Activities	Responding to lessons learned (recall lesson 17), funding is requested to train senior managers (Provincial Director of Health, Provincial Chief Medical Officer and Managers of the three programs) at the provincial level in financial management, including on the updated financial management procedures manual. Funding will also support financial training of technicians at the provincial and district levels, and training of the UGEA (Procurement Unit) and Central and Provincial Asset Management department staff in contract and asset management. In line with Lesson 17 mentioned in Section 1.3, trainings will be tailored to individual staff needs. This request prioritizes developing and disseminating a procedures manual and checklist for the acquisition of goods and services for internal use (Treasury plan, Contracting plan, etc.). The country also aims to review and improve the entire procurement process, including updating the electronic monitoring system of contracting processes to a procurement management system. Indeed, this has been a source of delays during implementation of the current grant. Specific to the Global Fund grant, funding will strengthen communication between the various stakeholders about scheduled activities, availability of funds and procedures for using funds. Training will be done for Department of Finance Global Fund focal points at central and provincial levels, on the Global Fund's financial management requirements. Health Inspection and Department of Finance staff at central and provincial levels will also be trained on Global Fund procedures, activities and financial management requirements. Finally, funding will support inspection and audit activities with an emphasis on provincial level.
Priority Population(s)	n/a
Barriers and Inequities	
Rationale	These investments are specifically geared towards ongoing management actions to respond to OIG findings. They are also geared towards improving the absorption rate of RSSH investments as part of Global Fund grants to Mozambique.
Expected Outcome	More efficient exchange controls to maximize impact from available external resources Percentage of grant budget execution (i.e. in-country financial absorption) increases from 52% at baseline to 95% by 2023
Expected Investment	\$2,409,325 allocation request No prioritized above allocation request for this module

Module #14	RSSH: Health sector governance and planning
Intervention(s) & Key Activities	Funding will support Mozambique to define a planning system for the health sector to facilitate alignment between different levels. The process will be participative, inclusive and results-oriented. Funding will establish a costing system for health services, with a focus on the Essential Package of Health Care. Funding is also requested to support the finalization and dissemination of PEN V 2021-2025 . Given the strong community thrust of this funding request, investments are also prioritized for the development of a community systems strengthening policy .
Priority Population(s)	n/a
Barriers and Inequities	n/a
Rationale	TBC

Expected	The PEN V is a key document that guides the national response. Its popularization is			
Outcome	ey to ensure effective program delivery			
Expected	\$449,838 allocation request			
Investment	No prioritized above allocation request for this module			

COMPONENT: HIV, TB and RSSH

Module #15	Program management				
	The Program Management Unit (PMU) is embedded within the Ministry of Health, leveraging government-funded human and capital resources. This makes the management of Global Fund grants more sustainable, and reduces costs. However, there is a recognition of the need to improve grant execution and improve program quality and oversight. This request maintains a cost-effective PMU structure, while introducing new mechanisms (including built in TA) to strengthen implementation.				
	For all grants, the program management funds will support PR grant management costs, as well as SR management (both on a needs basis). Funding in this area will also support SR capacity building under the PR's grant management budget.				
	Program management for HIV grant(s)				
	For HIV, the CCM intends to change the implementation arrangements in the new grant (see Section 3). As such, program management budgets will be clarified at the grant-making stage. For now, a lump-sum allocation has been ring-fenced in this request. Technical assistance for procurement and supply chain management, as well as for care and treatment, will be included as part of this module, to support the accelerated push for 77% ART coverage by year three of the grant.				
Intervention(s) & Key Activities	To improve program quality, funding is requested to establish a key populations technical support unit (TSU) , modelled after those in Kenya, South Africa and Zimbabwe. The TSU will be made up of a roving team of 12 flexi-time local technical experts, including 2 AGYW, 1 FSW, 1 PWID, 1 MSM, 1 prisoners, 1 vulnerable populations (e.g. truck drivers, mine workers, IDPs), 1 human rights, 1 strategic information, 1 M&E, 1 finance, and 1 community systems. These experts will be led and coordinated by a full-time TSU Lead and supported by a Communications Officer and an Administrator. The TSU will work closely with the relevant Technical Working Groups, CNCS and the Ministry of Health. The TSU will work closely with the PRs to perform data synthesis and analysis, ensuring harmony between design and delivery, standardization of SOPs, quality improvement and value-for-money. The TSU will be responsible for documenting good practice so that quality of interventions can improve. The TSU will be embedded within CNCS, much like those in other African countries.				
	Program management for TB grant(s)				
	For TB, the implementation arrangements will remain the same in 2021-2023 with additional strategic activities. As such, there is more clarity on the specific program management activities to be funded. These include formation and management of PMU at NTP level, the SR partner of NTP-PMU responsible for managing mobile TB screening services, and at the CSO PR (CCS) and its SR level. Funding will enable the program to develop project operational manuals (SOPs), an implementation plan, M&E manual and plan and financial guidelines.				
	The NTP will further strengthen technical and operational assistance to provinces and districts by appointing 11 Technical TB Advisors at the 11 provincial health offices. These positions will be filled from the local medical professionals with experience and qualifications in public health and retired government medical officers on a competitive basis. Their capacities will be built up by the National Program for Tuberculosis Control (PNCT) within the Ministry of Health by training and on-the-job mentoring on programmatic				

management of TB. These advisers will subsequently provide technical and operational assistance at their respective provinces in the implementation and monitoring of the NTP, including planning, coordination, capacity building of health staff, data management and reporting to the NTP Manager at the Ministry of Health. The provincial health offices will appoint 22 data-entry operators for digital and backlog entry of notification data who will work under the supervision and guidance of the Technical TB Advisors. They will function as part of the NTP PMU. The PNCT considers that decentralization of technical resources at the provincial level through such an initiative will improve the quality and yield of the NTP across the country with better coordination with the public, private and CSO partners. Funding is requested to conduct all Ministry of Health-level TB training and training of trainers, central-level advocacy and coordination meetings, mass media campaigns, audits and hiring technical assistance for specific assignments related to TB research, programmatic assessment and reviews and training.

Funding is requested to strengthen programmatic and financial monitoring by conducting regular **project review meetings with SRs**, including data quality management and programmatic decision-making. Supervisory **field visits** on behalf of PNCT and PMU to the provinces will be conducted, supported by a visit plan and a standard monitoring check-list. Onsite training and feedback after the visits will take place. Funding is requested to support programmatic and financial reporting, as well as publishing annual performance reports of the NTP and printing central-level technical documents like updated guidelines, job-aids and communication materials. The funding will support annual maintenance of all lab equipment including Xpert, Truenat and digital X-ray. Lastly, the program management budget will support **scientific learning**, **exchange**, **and capacity building through** participation at The Union World Lung Conference, International AIDS Conference, Union-supported international TB courses and the International Child TB Training Course.

Program management for RSSH modules

For RSSH, funding will support intermittent and continuous **technical assistance to the Program Management Unit (PMU)**. This support will improve the linkage of RSSH interventions to programmatic gaps and opportunities, as well as ensure that RSSH interventions are well-defined and able to be completed under the Global Fund funding cycle (improving the absorption rate of RSSH funding). Funding is requested to **improve the monitoring** of RSSH interventions. Efforts will be made to clarify roles and responsibilities and **establish coordination mechanisms**, including senior officials/decision-makers in the Ministry of Health. Lastly, funding is requested to hire competent **human resources for implementation of the VAT regularization** tax

	mechanism.
Priority Population(s)	n/a
Barriers and Inequities	n/a
Rationale	The establishment of the key populations TSU helps mitigate one of the key implementation risks presented in Section 3 (program quality for key populations).
Expected Outcome	Percentage of grant budget execution (i.e. in-country financial absorption) increases from 52% at baseline to 95% by 2023 Improved program quality, especially for key populations
Expected	\$35 335 586 allocation request
Investment	\$9,110,572 prioritized above allocation request

a)	Does any aspect of this	funding request use a	Payment for	Results modality?
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□ Yes ⊠ No

- b) Opportunities for integration: Explain how the proposed investments take into consideration:
 - Needs across the three diseases and other related health programs;
 - Links with the broader health systems to improve disease outcomes, efficiency and program sustainability.

This funding request harnesses several integration opportunities to improve program efficiency and enhance program quality. A few (non-exhaustive) examples are provided here to highlight this effort.

An integrated approach to **removing human rights-related barriers to HIV, TB and malaria** is prioritized, particularly for TB and HIV in this request. The integration of human rights principles and programs into different settings and sectors has also been done, including in healthcare, schools, the workplace, the family, justice systems and emergency and humanitarian settings. In the latter, the formative integrated assessment on human rights and gender-related barriers to HIV, TB and malaria services faced by refugees and IDPs (in the malaria funding request) provides an opportunity to scale up interventions for populations that are vulnerable to all three diseases and face unique barriers to access.

For the first time with this funding request, Mozambique will operationalize **GeneXpert multiplexing** for viral load testing, TB testing, and early infant diagnosis (recall activities in PMTCT module). Currently, GeneXpert machines are only used for TB diagnosis. Evidence from the region shows Xpert multiplexing is feasible and will increase access to viral load testing and early infant diagnosis to priority populations.³⁷⁰ Moreover, the learning from the multiplexing pilot (and its assessment) may inform further opportunities for integration, including multiplexing of GeneXpert machines to diagnose COVID-19 (as is currently being done with more than half of South Africa's machines).

In line with the WHO consolidated guidelines, this request provides for **integrated service delivery for key populations**.₃₇₁ The same approach is used for AGYW. Packages of services for sex workers, MSM, PWID and prisoners include integrated HIV and SRH services (condoms, lubricants, HTS, PrEP, dual HIV/syphilis testing, STI screening) and structural intervention (social protection to keep girls in school, responding to gender-based violence [in the human rights module]). For PWID, the mobile vans are prioritized to ensure access to OST and integrated care (TB/HIV/HCV) and NSP if needed. The approach for mine workers and prisoners in particular—as these are both HIV and TB key populations—harnesses opportunities for integrated HIV and TB services. For mine workers, occupational lung diseases are also integrated into the package.

The investments proposed in **scaling up SIS-MA will strengthen TB and malaria information systems**. The malaria funding request states its reliance on core infrastructure and staff capacity in SIS-MA/DHIS2 to be able to execute its proposed investments of \$15 million to improve and maintain iMISS. Similarly, the digital TB notification system mentioned in the TB care and prevention module relies on the consolidation and improvement of SIS-MA implementation, including age- and sex-disaggregated data. To be sure, enhanced SIS-MA capacity will enhance the efficiency and sustainability of a range of health responses in Mozambique, including HIV and reproductive, maternal, neonatal, child, and adolescent health.

c) This section summarizes how the funding request complies with the **application focus requirements** specified in the allocation letter.

As Mozambique is classified as a low-income country, there are no restrictions on the programmatic scope of allocation funding. However, a few aspects of the application focus are worth highlighting.

In the allocation letter, the country was **strongly encouraged to include RSSH interventions**. The country has prioritized a 46% increase in funding for RSSH, from \$28,241,416 in the current grants to \$41.3 million in the new ones. This is about in-step with the overall increase in Mozambique's HIV and TB allocation (+42%). The increased RSSH investments are largely prioritized to reinforce the country's capacity for dramatic ART scale-up (from 59% in 2019 to 77% by 2023) and finding the 63,889 missing people with TB. This includes critical infrastructure upgrades to laboratories (for diagnostic capacity and patient monitoring) and the procurement and supply chain (for warehousing and distribution of medicines).

The allocation letter also notes that Mozambique must include, as appropriate, interventions that respond to key and vulnerable populations, human rights and gender-related barriers, inequities and vulnerabilities in access to services. Mozambique has prioritized a doubling of investments in HIV prevention programming for key and vulnerable populations (including AGYW, sex workers, MSM, PWID, prisoners, truck drivers, mine workers, men in high prevalence settings, and orphans and vulnerable adolescents), from \$19,636,328 in the current grants to \$41.4 million in the new ones. Intensified investments are also prioritized for TB key populations, including mine workers, prisoners, children and healthcare workers. The country has also planned a 69% increase in funding for programs to remove human rights and gender-related barriers to HIV and TB services, from \$7,448,733 in the current grants to \$12,611,535 in the new ones. Importantly, the funding for human rights is now approaching a comprehensive national program (which requires \$12.8 million over the next three years, according to the baseline assessment).372

d) Explain how this funding request reflects **value for money**, including examples of improvement in value for money compared to the current allocation period. To respond, refer to the *Instructions* for the aspects of value for money that should be considered.

Economy: Mozambique uses the Global Fund's Pooled Procurement Mechanism and the Stop TB Partnership's Global Drug Facility to obtain the lowest costs possible for quality medicines. Globally, the use of the Global Fund's Pooled Procurement Mechanism has led to a 25% fall in ART costs.₃₇₃ Mozambique was also among the first three countries (alongside Zambia and Bangladesh) to place orders on wambo.org, a Global Fund initiative that allows countries to benchmark prices and procure medical supplies efficiently. In 2016, it was conservatively estimated that wambo.org would save \$250 million for implementers of Global Fund grants by 2021.₃₇₄ The efforts to identify the lowest possible cost for OST, needles and syringes for this request are also worth noting, as existing prices and quantities from MSF were not deemed economical.₃₇₅

Effectiveness: Efforts to invest in the most impactful interventions that generate intended effects have been articulated in the prioritization section of this funding request (Section 2.1). For HIV, the mix of modules, interventions and activities is aligned to the "NSP scenario", modelled to avert 185,017 new infections (a 23% reduction) and 77,948 deaths (a 21.6% reduction) over 2020-2025.376 For TB, investments are intensified in community-based and CSO-led activities, shown to be effective in finding missing people with TB (recall Figure 22, showing the additional 20,655 missing people identified by the community since 2015). More effective diagnostic capacity is also prioritized, including the use of rapid molecular diagnostic services instead of smear microscopy. For both HIV and TB, this funding request is invested in optimized treatment regimens for maximum effectiveness, including Dolutegravir-based ART (transition started in 2019, in two phases—in March and in November—and is expected to be complete by Q1 of 2021), the phasing out of Nevirapine as a monotherapy (ongoing), and moving to short-course TB medicines such as Bedaquiline and 3HP (for TPT).

Efficiency: Efforts to pursue efficiencies to ensure sufficient support for key interventions are detailed below in section 4.2. These include utilizing cost-effectiveness analyses to make investment decisions for HIV (and AGYW in particular), prioritizing new technologies for TB that are shown to be more cost-effective (Xpert and Truenat), and harnessing efficiencies for integration (mentioned above). The country believes these efforts will maximize outputs, outcomes and impact for a given level of resources.

Equity: While cost-effectiveness is an important factor in this request, it was carefully balanced with considerations of equity. A good example of this is PrEP provision. While the projected cost of PrEP per HIV infection averted was lowest (i.e. most cost-effective) for sero-discordant couples, at US\$22,000, this funding request prioritizes PrEP for AGYW, sex workers and MSM due to the additional barriers they face in accessing services, and the greater impact the intervention would have among these populations.377 Another good example is the strong focus on mobile services in this funding request. While more expensive than static sites, these are prioritized for HIV key populations, AGYW, TB key populations (plus people living in slums and remote areas) and even for human rights (mobile legal clinics in IDP and refugee camps). These mobile services are to ensure everyone has a fair opportunity to attain the full potential for health and wellbeing, with no person disadvantaged due to social, economic, demographic or geographic differences.

Sustainability: As Mozambique is a low-income country with a high disease burden—and therefore not facing donor transition at the moment—sustainability considerations are more focused on epidemiological and programmatic sustainability. To enable Mozambique to scale up coverage to a level that will provide for epidemic control, critical systems investments are intensified. In particular, capacity for warehousing and distribution of medicines and commodities is expanded, as is a fortified lab system for effective diagnostics and treatment monitoring.

2.3 Matching Funds (if applicable)

This section describes how the **programmatic and financial conditions**, as outlined in the allocation letter, have been met.

Table 8. Overview of available matching funds, financial conditions, and their satisfaction in this request

Priority area	Amount	Financial Condition(s)	Satisfaction of Condition(s)
Adolescent Girls and Young Women in High Prevalence Settings	\$7,000,000	Condition: An increase in the allocation amount designated to adolescent girls and young women in high prevalence settings, compared to the budget levels in Global Fund grants from the 2017-2019 allocation period.	Amount in current grant: \$13,912,214 Amount in this request: \$20,244,344
Condom programming	\$2,500,000	Condition: Invest a portion of the HIV allocation that is greater than or equal to the amount of available matching funds in condom programming.	Allocation amount in this request: \$6,826,107 Matching funds amount in this request: \$2,500,000 Total amount in this request: \$9,326,107
Differentiated HIV Service Delivery (Self- Testing)	\$2,900,000	Condition: Invest a portion of the HIV allocation that is greater than or equal to the amount of available matching funds in HIV-self testing programming. The applicant is also encouraged to submit additional needs for HIV self-testing in the PAAR.	Allocation amount in this request: \$3,114,739 Matching funds amount in this request: \$2,900,000 Total amount in this request: \$6,014,739 Amount contained in the PAAR: \$5,679,595
Finding Missing People with TB	\$6,000,000	Condition: An increase in the allocation amount designated to find additional missing people with TB, compared to the budget levels in Global Fund grants from the 2017-2019 allocation period. Condition: Invest a portion of its TB allocation that is greater than or equal to the amount of available matching funds in programming for Finding Missing People with TB.	Amount in current grant: \$17,156,704 ₃₇₈ Allocation amount in this request: \$17,981,820 ₃₇₉ Matching funds amount in this request: \$6,000,000 ₃₈₀ Total amount in this request: \$23,981,820
Human Rights	\$4,000,000	Condition: An increase in the allocation amount designated to Human Rights programming, compared to the budget levels in Global Fund grants from the 2017-2019 allocation period.	Amount in current grant: \$7,448,733 Amount in this request: \$12,611,535

Table 8 demonstrates that Mozambique has satisfied the financial conditions for accessing matching funds. In addition to these financial conditions, the country wishes to elaborate on how several of the programmatic considerations have also been met.

Programmatic considerations that justify Mozambique's access to AGYW matching funds

For AGYW, the programmatic considerations to access matching funds is "to demonstrate that investments are oriented towards **ambitious targets** for reducing HIV incidence amongst AGYW and their male partners and feature a multi-sectoral response and a **core package** of high-impact HIV prevention interventions." 381

This request prioritizes AGYW investments in support of ambitious targets for coverage scenarios that have been modelled, and are being defined in the evolving draft PEN V 2021-2025. It is relevant to mention that the country has undertaken a dedicated study on the Goals Age-Sex Model for Analyzing HIV Programs for AGYW, to guide investment decisions. In all scenarios the following behavioral interventions for AGYW are scaled-up: Condom promotion to 90% of AGYW and adolescent boys and young men, HTS to 30% in all age groups, school-based sexuality education to 90% and out-of-school programs to 30% by 2025.382

In terms of a core package for AGYW, the in-school package is defined as part of Mozambique's National School Health Strategy for Adolescents and Youth 2019-2029.383 There is also an age-differentiated core package of in- and out-of-school interventions that has been defined as part of current Global Fund grant implementation.384 Important to note, the Goals study provides a clear district-level categorization based on population size and epidemic trends, classifying 33 districts as "extremely high" priority, 64 districts as "very high priority", and 53 districts as "high" priority.385 The defined package for AGYW as part of Global Fund-supported programs will be tailored to be location-specific based on these categorizations, as guided by the UNAIDS decision-making aide for investments into HIV prevention programs among AGYW.386

Programmatic considerations that justify Mozambique's access to condom matching funds

For condoms, the programmatic considerations to access matching funds note that "countries can create strategic or **operational plans** for improved condom programs. Plans should identify condom stewardship, demand creation, improved supply chains and/or improved data systems/program analytics as priority areas for investment." 387 In 2019, Mozambique developed a National Condom Strategy388, which this funding request proposes to invest in. The strategy has three main priorities: program stewardship, increased demand and improved supply. The activities in this request are clearly laid out along those priorities.

Programmatic considerations that justify Mozambique's access to HIV self-testing matching funds

For HIV self-testing, the programmatic considerations note that "the new World Health Organization (WHO) guidance on self-testing and the Global Fund HIV Information Note outline differentiated strategies for HIV testing, including scaling up HIV self-testing and countries thus have **differentiated strategies** based on the WHO guidance."₃₈₉ Indeed, Mozambique has developed a National Guide for HIV Self-Testing₃₉₀, complemented by Guidelines on Differentiated Models of Services in Mozambique₃₉₁, which follow the WHO guidance on testing and regulate the strategic implementation of HIV testing across the country. The country's HIV self-testing guide aims to (1) Increase testing coverage in those population groups with low testing reach; (2) Increase demand for HIV prevention services, confirmatory testing, and linkage to care and treatment among key and vulnerable populations; and (3) Improve the dynamics of the public-private partnership through interventions in both sectors.₃₉₂ This funding request is invested in these priorities, building on important contributions from other partners including the STAR project, PEPFAR and the ILO.

Programmatic considerations that justify Mozambique's access to TB matching funds

For finding missing people with TB, Mozambique's allocation letter spells out three additional programmatic conditions: (1) There must be a clear demonstration in the funding request of the additionality to the **number of cases notified** and reducing the gap of missing cases both for drug-susceptible and drug-resistant TB; (2) Matching funds should be earmarked for scale-up of **innovative approaches** to find missing people with TB through targeted interventions based on the epidemiological profile, country context and lessons learned and not simply top-up the allocation; and (3) There must be a **comprehensive approach** to finding missing people with TB including improving quality of care and provision of TB preventive treatment for high risk groups.

In terms of the first condition, this funding demonstrates clear intention to increase the number of TB cases notified (all types), from 97,111 in 2019 to 115,043 by 2023. To achieve this target, the funding request is strongly geared towards community-based approaches and collaboration with activists and CSOs. The additionality of investing matching funds in these approaches is clearly presented in Lesson 10. Recall Figure 22, which shows the growing contribution of the community in finding missing people with TB, from 5,383 (9% of all notifications) in 2015 to 26,038 (27% of all notifications) in 2019.

Regarding innovative approaches, the prioritized investment to start using Truenat MTB/RIF is on the cutting edge of new TB diagnostics. In January 2020, the WHO issued a rapid communication about this new molecular diagnostic system as an initial test to diagnose pulmonary TB. It has comparable accuracy to Xpert, and studies show it may have greater cost-effectiveness.393 Truenat has been shown to improve linkage to treatment by its potential for point-of-care positioning (not requiring air conditioning and running on a battery). It will help the country expand mobile TB diagnostic services to the near 8 million Mozambicans who have no access to health care as a result of geographic isolation, as well as to underserved key and vulnerable populations.

For a comprehensive approach, this funding request states its intention to implement a people-centered continuum of care (CoC). This includes several quality improvement strategies such as training of healthcare workers, implementing a digital TB notification system, appointing Technical TB Advisors, assessing the implementation of the innovative psychosocial and mental health package offered by the NTP, and conducting a follow up KAP study among healthcare workers to understand barriers to finding missing people with TB in health facilities. This request also prioritizes TPT among household contacts as well as PLHIV.

Programmatic considerations that justify Mozambique's access to human rights matching funds

For human rights, programmatic considerations include the existences of a **national strategy**, an **accountability mechanism** (e.g. M&E plan), a national stakeholder **coordination mechanism** for oversight, and **tracking of domestic investments** in human rights or social enablers.

Mozambique does not currently have a national strategy for human rights. While this consideration is not met at the time of application, this funding request has prioritized investment in the development of a consultative National HIV, TB and Human Rights Plan based on research, community mapping and evaluations (recall this activity in the human rights module). An M&E framework will be included in the plan. This demonstrates a timebound and concrete strategic action to complete this plan in year one of the new grant (2021).

A Human Rights Reference Group exists to coordinate national stakeholders in human rights in Mozambique. This reference group has led the development of the human rights sections of this funding request, and will guide and oversee its implementation. This group has facilitated information sharing and lessons learned between PEPFAR-supported human rights programs and the Global Fund-supported program.

In the 2014 National AIDS Spending Assessment (NASA), Mozambique tracked and reported domestic investments in human rights programs (\$56,808).394 The 2014 NASA also tracked and reported domestic investments in community mobilization (\$118,199 in domestic public funds and \$15,093 in domestic private funds) and advocacy (\$1,790,024)— two social enablers.395 Preliminary data from the new NASA shows that \$641,057 was spent on human rights in 2018, though all these resources came from external sources.396

In addition, the country wishes to emphasize that the programming to address human rights-related barriers in this funding request is based on the findings of baseline assessment, which is referenced several times in the narrative. The detailed costing in the baseline assessment has also been used to guide the resource allocation in this request (providing insight into what a comprehensive national program will look like and cost) as well as the specific activity costing in this request. Further, the performance framework for this grant includes several outcome indicators related to human rights, including key populations' avoidance of healthcare due to stigma as well as people with TB who report stigma in community settings. The latter indicator is a new addition to the performance framework, demonstrating the intensified focus on TB stigma reduction.

Section 3: Operationalization and Implementation Arrangements

For the new grants, the Mozambique CCM has decided to maintain the **three current Principal Recipients**: Ministry of Health, Fundação para o Desenvolvimento da Comunidade (FDC), and Collaborating Centre for Health (CCS). In addition, the CCM has opted to appoint **one new PR for HIV**, likely focusing on key populations. The process to appoint the new PR is underway at the time of writing, but not yet complete. Given that the PRs are changing, and the implementation arrangements are yet to be finalized, the county intends to submit its implementation arrangements maps at the grant-making stage.

a) Describe how the proposed **implementation arrangements** will ensure efficient program delivery.

The Ministry of Health will **continue to sub-grant to Mozambique's 11 provinces**, to enable smooth implementation at that level. It is difficult to manage funds from a central level for activities happening in the provinces in Mozambique. Lessons learned from current grant implementation show there is a need for **intensified training and monitoring** of these partners, to ensure they are able to use the guidelines that The Ministry has prepared on the use of grant funds, understanding performance-based funding, financial reporting tools, and how to do a Treasury plan. The decentralization of the government—which is currently underway—may present additional challenges for these implementation arrangements in the new grant.

The Ministry may also explore options of selecting new/different **experienced sub-recipients for human rights**, especially for the training of lawyers and magistrates, to minimize implementation delays.

In the new grant, The Ministry of Health will focus programmatically on non-AJUDA sites, complementing the work of PEPFAR in the 628 AJUDA sites. Global Fund medicines and commodities will support all sites, including AJUDA. Given that non-AJUDA sites are mostly smaller, more rural facilities, **strong community approaches** to find, link and retain PLHIV are prioritized as part of the implementation arrangements. Similarly, for TB, an increasing community focus characterizes the proposed program, including implementation of the Community TB Service Package, working with TB activists and other community-based organizations to deliver the program.³⁹⁷ These approaches are then reinforced by **quality of care improvements at facilities**, with a focus on training, technical assistance, and accountability (community-led monitoring of service provision).

For non-governmental PRs, **working closely with government ministries** has proven a critical success factor for effective program implementing in the past. These close partnerships are envisaged to continue in the new grant. For instance, implementers responsible for AGYW programs will benefit significantly from a close working partnership with the Ministry of Education, to implement teacher training for CSE. This relationship also allows for personnel to be placed in the schools, doing monitoring and evaluation directly. Further, a close partnership with the Ministry of Health is envisaged, to expand and equip the SAAJ facility network. Similarly, working with the national authorities (e.g. police) is important for the successful implementation of key populations programs.

Another strategy that has worked well in the current implementation arrangements that is expected to continue is the model whereby non-governmental PRs do not implement programs directly, but rather, **sub-grant to locally-based civil society SRs**, who know the context and the community in which they work. This is key to program success in Mozambique. For TB in particular, the new approach of a "CSO consortium" has worked well (recall Lesson 10) and is planned to continue according to selected PRs.

There is also an intention to make strategic modifications to the current implementation arrangements, to achieve program objectives. To boost male engagement and reach the male sexual partners of AGYW, the PRs intend to **work directly with men's groups** (or SRs who work with men) to be able to better deliver. They also intend to foster greater synergies and **collaboration between Ministry of Health and Ministry of Education**, in order to bring the SAAJ model into schools, making onsite services available to learners.

b) Describe the role that **community-based organizations** will play under the implementation arrangements.

As described in the modules above, community-based organizations will play a central role in the delivery of the proposed program. In the current grant, the PR responsible for finding missing people with TB in the community has worked with networks of people living with HIV, including two networks of women living with HIV, as well as faith-based communities. These organizations do home visits, contact tracing and collection of samples for TB diagnosis. Experience has shown this approach reduces stigma in the community. For the new grant, the PR

has the intention of working with TB patients, key populations, TB survivors and their family members, as a strategic shift, expanding the role of CBOs in implementation. A network of TB survivors exists, and a partnership is being forged.

For key and vulnerable populations, the idea is for these programs to be community-led. For AGYW, the package is delivered by **community activists who are young women themselves**—a model which will continue. These activists share health information, create linkage to services, and distribute condoms to AGYW and advocate for their use. Another clear intention in the new grant is to **work more closely with key population-led organizations**. In the current grant, there is one MSM-led organization implementing MSM programs, and about five other non-MSM-led CSOs. A promising initiative was to have this MSM-led organization build capacity of the other implementers. There is a similar intention for the sex worker program and the drug user program, going forward. In particular, there is intent to work closely with the nascent network of people who inject drugs in Mozambique, as well as four known sex worker-led organizations in Maputo, Matola and Manica.

ivia	apato, matola ana mamoa.				
c)	Does the fund	ling request envisage a joint investment platform with other institutions?			
	□ Yes	⊠ No			

d) This section describes the key, anticipated implementation risks that might negatively affect (i) the delivery of the program objectives supported by the Global Fund, and/or (ii) the broader health system. It also describes the mitigation measures that address these risks, and which entity is responsible.

Key Implementation Risks	Corresponding Mitigation Measures	Entity Responsible
Not achieving grant output, program outcome and impact targets: If the COVID-19 pandemic persists, it may create barriers to accessing HIV and TB services, in turn making it more difficult to reach targets and potentially increasing loss-to-follow up. The country has already begun to see the effects of the pandemic on slowing ART scale-up. Further, due to COVID-19, some activities that were planned for 2020 will not be completed in the current grant (e.g. MSM BBS, Stigma Index), and now need to be partially included in the new grant. COVID-19 also poses a risk for reaching targets for OST among PWUD. While OST began implementation in February 2020 (initiating about 5 PWUD/week) with MSF support, in March it has been stalled by the Ministry of Health (related to COVID-19 and other implementation uncertainties), and there is no indication when it will start up again. Due to COVID-19, take home doses for methadone have been requested as a mitigation measure, but this has not yet been approved by government.	(1) Mozambique has developed a package of services for PLHIV, and a model for the flow of chronic patients, under COVID-19.398 This package accelerates the scale-up of DSD models, including multi-month dispensing and GAACs. Since the COVID pandemic is likely to persist during the implementation period of this grant, funding will support the delivery of this package, including the specified DSD models; (2) Some implementers have already made the switch to digital reporting using cell phones and tablets that are linked to DHIS2, which has allowed them to continue tracking program results during lockdown; (3) Discussions are ongoing with Ministry of Health, CNCS and implementing partners on OST continuation and take- home doses.	MISAU/FDC/CCS (develop mitigation plans) LFA (verify results)
Not achieving grant output targets: Violent insurgency in the North of the country, particularly Cabo Delgado province, has severely limited implementers' ability to provide services there. In addition, natural disasters like Hurricane Idai and Kenneth have done the same, in Sofala, Manica, Tete and Cabo Delgado.	These risks are out of the control of program implementers. However, to mitigate their impact on grant performance, two measures are proposed: (1) If the insurgency persists, the program has shown it can be nimble and agile in shifting resources and targets to other sub-recipients and other geographic areas, to ensure the program still reaches its targets. This, of course, does not address the inequity issue of the populations in the North, who still require services and which must also be responded to; (2) Implementers are developing and implementing acceleration plans, to catch up in areas affected by natural disasters.	MISAU/FDC/CCS (develop mitigation plans) LFA (verify results)
Poor quality of health services: Lack of guidelines and tools to analyze the quality of services and mechanisms for linking patients to services. This leads to poor links between health units and community stakeholders, limited quality assurance and inadequate recommendations for	(1) Development of Memoranda of Understanding between PRs; (2) Training of HIV testing and counselling healthcare workers, and monitoring of training activities; (3) Developing SOPs for activists who implement packages at community level; reviewing communication plans and making them	MISAU (guidelines and leadership)

improvement by the Ministry of Health to implementers regarding HIV testing. Gaps remain in operational matters related to the defined community component approaches to HIV and TB. Problems in diagnostic ability, follow-up, compliance and success rates of patients with multidrugresistant TB persist.	culturally sensitive; joint supervision; and (4) The Ministry of Health grant for TB includes several interventions to enhance the quality of services and MDR patient follow-up; and (5) The Inspection of the Ministry of Health will be assessing the quality of the clinical services for the Programs.	FDC/CCS (developing MOUs and SOPs for their activities)
Program quality: Insufficient capacity of the implementers to develop the appropriate systems, including packages at the community level, particularly for AGYW, key populations, human rights, and retention at community level.	(1) Support from TA partners (e.g. UNICEF) to develop SOPs; (2) TA for M&E System, Quality Assurance, Information Systems Development; (3) International or regional TA for constraints in the human rights component; (4) Hiring the Namati expert for human rights training; (5) Qualitative study to understand the factors that contribute to low retention; (6) Leveraging skills and capacities of key population-led subrecipients (e.g. LAMBDA) to build capacity of other subrecipients in key population program delivery; (7) Working closely with key population-led organizations as SSRs or as technical assistance providers to build capacity implementers; (8) Establishing a key populations TSU as a new activity in this funding request; (9) Appointing new key populations PR (CCM role); (10) Exploring options for PRs to appoint new/different SRs for certain program areas, especially human rights (healthcare worker training).	CCM (to appoint new key populations PR) TA Partners (to support development of SOPs) MISAU/FDC/CCS (to appoint experienced and capable SRs to deliver in certain program areas)
Storage and Distribution: Poor planning, lack of adequate facilities and lack of trained inventory management staff, leading to (1) Inadequate distribution systems and poor fleet management; (2) Poor storage capacity for Global Fund products at central and peripheral levels; and (3) CMAM's limited management capacity to conduct supervision of storage operations, considering that volumes have increased 200-fold, while infrastructure capacity has remained obsolete.	(1) Maintain coordination with partners involved in the implementation of the Pharmacy and Logistics Management Plan (PELF); (2) TA of the Project Last Mile initiative to help CMAM identify short- and long-term distribution solutions; (3) Carry out adequate supervision of country stock levels, pipeline and purchase orders, and provide regular updates on the list of available and required health products; (4) By the end of 2020, with the current grant, the Ministry of Health will have increased storage capacity by financing: (a) the construction of the Manica warehouse; (b) the upgrading of the provincial/interim warehouses; and (c) the enlargement of the Zimpeto central warehouse. In the new grant, further support is requested to rehabilitate provincial medicine warehouses and construct additional intermediate ones. Funding will also be invested in creating an electronic order tracking system for the supply chain and product management. To strengthen distribution, funding is requested	CMAM (supervision of country stock levels) MISAU PSM Unit (coordination, implementation of grant activities that mitigate this risk) Last Mile Project (For TA)

	to expand and outsource transportation services to all provinces, and to expand the Beira central warehouse.	
Inadequate M&E and poor data quality: Quality of data and data use.	The PR has contracted staff for programmatic and data quality assurance with a one-year full-time contract, starting on 1 February 2019. The PR will submit a workplan for Global Fund's review, for the Quality Assurance Advisor which includes clear timelines and deliverables. This is crucial for successful implementation of the grant and to ensure there is no duplication of functions with the M&E staff as regards to data quality monitoring. In the new grant, data quality will be enhanced by additional investments in training of personnel in M&E and data quality management. Further, the expansion of SIGLUS (the Information System and Logistics Management for Health Facilities) and the integrated data quality assessments and improvement approaches are expected to mitigate this risk.	MISAU (submission of workplan, implementation of grant activities that mitigate this risk)
Inadequate M&E and poor data quality: Weakness of HMIS and CHMIS. Issues include lack of leadership in the department for this area and the lack of national policy or strategy for information systems.	(1) Ensure the person appointed in the Department of Health Information (DIS) has decision-making power within the Ministry; (2) Finalize national policy and strategy on information systems; (3) Continue rolling out the technology for a CHMIS that has been developed by FDC in the current grant and is starting to be used now; (4) Ensure specialized TA in HMIS to train and mentor people (especially for how to use quality data for decision making).	MISAU, Department of Health Information (DIS) (to appoint leadership, finalize policy/strategy, secure TA) FDC (to continue rolling out CMHIS)
Poor financial efficiency: Lack of "fit" between Global Fund and Government financial systems in terms of cost categories (MISAU PMU has to use excel-based sheets as a result), inefficient contracting system (takes 9 months) leads to low grant execution and heavy payment burden in the last year of the grant, and difficulties in operationalization of the planned fund flows to the provinces.	(1) MISAU PMU intends to implement a new accounting system in the new grant to better allow them to control a move from excel to a digitized system; (2) Continue to centralize the purchase of certain items for efficiencies (as has been done in the current grant with air tickets); (3) Additional training and supervisory visits to provinces to ensure that these implementers understand reporting requirements, as well as how to use the new module in the government financial management system that has been added to deal with contracts; (4) Hire dedicated human resources to deal with contracting issues (a Global Fund Country Team recommendation); (5) Have audits performed by a supreme audit institution, instead of an external auditor.	MISAU PMU (additional training in new financial management modules especially to the provinces, hiring contracting human resources)

General capacity of the system and lack of access (human resource and infrastructure capacity): Overall there is a discrepancy between number of health staff and adequacy of available infrastructure and other system capacity with the increasing volume of activities proposed in this request (and supported by other partners) in the three disease programs. There is a significant gap of human resources for health in the country and the little capacity to address it in the medium-term.	(1) With adequate efforts to strengthen the linkages between health facilities and communities, as well as additional TA to develop appropriate tools or implement supervision plans, this risk could be reduced, particularly for CSO PRs; (2) The pilot of the performance-based financing model in this new grant may also support improved retention and output of human resources for health.	MISAU/FDC/CCS/New key populations PR
Lack of data on key population sizes, including the weak capacity of the INS to implement activities that it has funds for.	Mapping exercises have been included in the funding request. The Key Populations Technical Support Unit is also expected to support the implementation of these surveys, to ensure they are completed and can inform programs.	MISAU/INS
Poor coordination: Programs supported by the Global Fund and programs supported by other external partners are not always well coordinated. Similarly, there is reported to be poor coordination between national and provincial Ministries of Health, sometimes creating confusion about implementation protocols, standards and procedures.	(1) Early and ongoing engagement of the provinces in the design of the grants. This has already begun with the process to hold provincial dialogues in early January, as part of the process to develop this funding request. MISAU intends to engage provinces meaningfully during the grant-making stage, too, to ensure ownership over the program and to enhance collaboration between national and provincial departments of health; (2) Ensure a unified methodology for preparing the detailed budgets during grant-making (lessons learned from last time show that different methods were used in each province and this made coordination and systematic monitoring more challenging than it needed to be); (3) Intensified oversight, monitoring supervision from national to provincial level, including more regular site visits and clarification on the roles and responsibilities of stakeholders in the existing memos; (4) Have early discussions about coordination, staffing needs, and TA, to manage the increase in resources that will likely flow to the provinces in this new grant; (5) Organize at least two meetings per year at the national level where MISAU will bring together the provincial focal points for each program area to discuss the programs, the implementation, the coordination, etc. similar to a Country Portfolio Review (CPR).	MISAU (to clarify roles and responsivities, convene coordination meetings, provide oversight and monitoring) 11 provincial SRs (to ensure they implement the grant with fidelity)

Section 4: Co-Financing, Sustainability and Transition

4.1 Co-Financing

a) Have co-financing commitments for the current allocation period been realized?

In May 2017, as part of the country's last funding request to the Global Fund, the Government of Mozambique committed to invest \$25,144,085.00 each year in HIV, TB, malaria, and RSSH, from 2018-2020. Over this period, **the Government invested \$1.1 billion** in the health sector (Table 9). As Mozambique is classified as a low-income country, it has the flexibility to invest 100% of the additional cofinancing investments required to access the co-financing incentive either in RSSH interventions or disease programs. A letter from the Ministry of Economy and Finance is attached to this funding request to confirm that these past co-financing commitments have been met.₃₉₉

It should be noted that from 2019-2020 there was a recession, reducing the overall government treasury revenues due to various factors. This projected to impact health spending in 2020, as shown in Table 9.

Table 9: Domestic health spending by the Government of Mozambique, 2018-2020400

Year	Amount (USD)
2018	\$374,779,650 (executed)
2019	\$379,036,050 (executed)
2020	\$363,077,000 (projected)
TOTAL	\$1.116.892.700

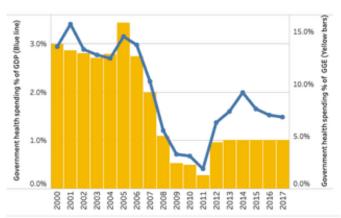
Additional evidence for the realization of past co-financing commitments can be seen in preliminary data from Mozambique's ongoing National AIDS Spending Assessment (NASA). The preliminary data from the new NASA demonstrates that there was \$18,870,606.61 in domestic public spending on HIV in 2018.401 This is a lot higher than Mozambique committed to spend on HIV in 2018, which is stated as \$10.15 million in the allocation letter. Then, in 2019, the Government of Mozambique made available *an additional* \$10 million to fill the gap in the procurement of HIV medicines and reagents. A trend analysis shows that domestic spending on HIV has steadily increased since 2007 (Figure 29). Indeed, domestic HIV spending was 2.8 times greater in 2018 than it was in 2007—a disproportionately high increase compared to GDP per capita, which has increased by just 1.6 (from 310 in 2007 to 499 in 2018).

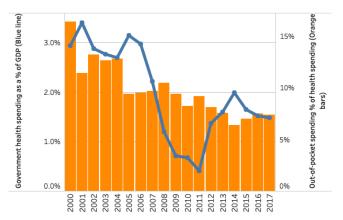
Figure 29. Domestic HIV investments in Mozambique, 2007-2018 (preliminary data from 2018 NASA)402



More generally, domestic government health expenditure in Mozambique has recovered from a low of 0.4% of GDP in 2011 to 1.5% in 2017. Importantly, out-of-pocket spending in the country has steadily declined over the last two decades, from 16% (of all health spending) in 2000 to 7% in 2017. Both these trends suggest improved sustainability for health in Mozambique (Figure 30).

Figure 30. Domestic government health expenditure (left) & out-of-pocket spending (right), 2000-2017₄₀₃





b) Do **co-financing commitments** for the **next** allocation period meet minimum requirements to fully access the co-financing incentive?

For the period 2021-2023, the Government of Mozambique is committed to investing more resources in HIV, tuberculosis, malaria and health systems strengthening programs. Estimates indicate a shift towards an increase in domestic financing of the health sector, from 10.5% in 2021 to 12% in 2023. Specifically, **the Government commits to invest \$1,292,307,000** over the new grant period (Table 10). A letter from the Ministry of Economy and Finance is attached to this funding request to confirm these commitments.

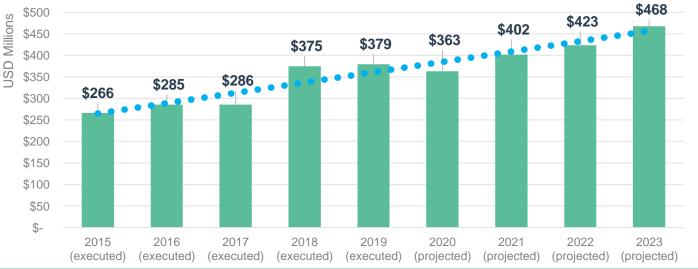
To access its full co-financing incentive, Mozambique had to show a minimum additional co-financing investment of \$56,363,489 compared to the 2018-2020 period. The commitments presented below (\$1,292,307,000) are \$175,414,300 greater than the government's spending on health over 2018-2020 (\$1,116,892,700). The commitments in this request more than satisfy the co-financing requirement.

Table 10: Projected domestic health spending by the Government of Mozambique, 2021-2023404

Year	Amount (USD)
2021	\$401,538,000
2022	\$423,077,000
2023	\$467,692,000
TOTAL	\$1,292,307,000

The realization of past co-financing commitments, coupled with these projections for the future, paint a picture of increasing shared responsibility for health in Mozambique (Figure 31).

Figure 31. Trends in domestic government health expenditure in Mozambique (USD million) 2015-2023405



- **c)** This section summarizes the **programmatic areas** to be supported by domestic co-financing in the next allocation period. In particular:
 - i. The financing of key program costs of national disease plans and/or health systems;
 - ii. The planned uptake of interventions currently funded by the Global Fund.

In 2018, according to the preliminary NASA data, Mozambique's domestic investments went predominantly to support wages (\$18.1 million) with smaller investments in reagents and other drugs (\$12,000) and other expenditures (\$685,000). The wages that the Ministry supported were mostly in support of the HIV care and treatment program (\$15 million), but also supported HIV testing (\$2 million) and prevention (\$799,529). Then, for the first time in 2019, the Government of Mozambique contributed an additional \$10 million in domestic resources to the HIV response. This funding went to ART procurement (50%) and HIV testing services (50%). The government's domestic contribution is expected to continue in the same manner for the 2021-2023 period, prioritizing the country's ambitious treatment scale-up targets by investing in testing and treatment.

d) This section specifies how co-financing commitments will be tracked and reported.

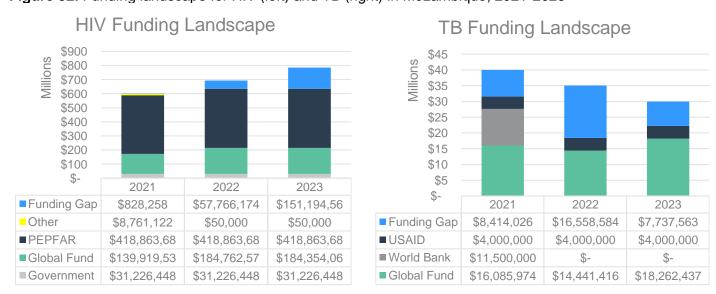
The government of Mozambique conducts **National AIDS Spending Assessments (NASAs)**, with the most recent report published in 2016 (covering 2010, 2011 and 2014 data).406 Another NASA has been conducted, with preliminary data available for 2018.407 The NASA is a key tool for specifying the contributions to the HIV response from government. Mozambique also conducts **National Health Accounts (NHAs)**, with the most recent report published in 2015 (covering 2012 data).408

4.2 Sustainability and Transition

a) This section describes the funding need and anticipated funding, highlighting gaps for major program areas in the next allocation period. It also describes how national authorities will work to secure additional funding or new sources of funding, and pursue efficiencies to ensure sufficient support for key interventions, particularly those funded by the Global Fund.

Mozambique's health response is highly dependent on external funding. According to the Health Sector Strategic Plan, about one third (36%) of health resources comes from the Government of Mozambique, and two thirds (64%) come from development partners. There are significant gaps between available resources and required levels of investment (Figure 32). The overview funding gap analysis is attached to this request in the Funding Landscape Table. The country intends to complete the detailed funding gap analysis during the grant-making stage, once PEN V and the new TB NSP are completed and costed.

Figure 32. Funding landscape for HIV (left) and TB (right) in Mozambique, 2021-2023



In 2019, there was an estimated deficit in the health sector of \$182 million.410 To achieve the HIV targets in the (draft) PEN V 2021-2025411, annual program costs will need to increase by roughly 60%, to about \$770 million per year by 2025.412 This will require an average annual increase of \$78 million over the period 2020-2025. For TB, the total program costs were about \$20 million per year for the last TB NSP 2014-2018.413 To

achieve the targets set in the (draft) Strategic Vision of the National Tuberculosis Control Program Until 2029₄₁₄ the country estimates the total resource needs for TB will increase to about \$25 million per year.

Efforts to secure additional funding or new sources of funding

The Government has developed a **health financing strategy** (subject to approval) which aims to define various mechanisms to raise financial resources to enhance fiscal space.415 The strategy builds on several other initiatives, including a situation analysis, insurance landscape study, a National Health Accounts (NHA) exercise, and the three health financing scenarios in the Health Sector Strategic Plan PESS 2014-2019.416

An opportunity to increase domestic spending on health may be to **improve domestic budget execution**. From 2015-2019, there was \$1,744,469,140 allocated to health, with \$1,591,089.77 of this executed, representing a 91% execution rate over the five years. Hough the execution rates varied by year. It was highest in 2015, at 98%, and lowest in 2017, at 80%. In 2019, health budget execution was 89%. Efforts to increase budget execution may include strengthening the quality of quantification exercises, making swift reallocations if a given priority is covered by donors, and increasing health budget advocacy by civil society.

The Ministry of Health is committed to universal health coverage (UHC) and there is an intention to remove financial barriers for the poor and reduce catastrophic expenditure on health through exploring alternative financing mechanisms, including **earmarked taxes**. In a multi-stakeholder consultation (including representatives from ministries of health, finance, tourism services and infrastructure; civil society organizations; development partners; and the private sector), participants identified a number of health revenue-raising options through taxes on alcoholic drinks, tourism services, vehicles, extractive industries, private clinics, forestry and wildlife activities.418 If fully implemented, these taxes could raise an additional \$60,981,700 in domestic revenue for health each year.419 Overall, new taxes on alcoholic drinks and on tourism services were deemed most promising. A detailed analysis of the feasibility considerations (sustainability, progressivity and potential trade-offs) for these taxes is available.420

Contributions from **corporate social responsibility** and private companies may also be utilized to secure additional funding for the health sector.

The government is expanding the tax base through private sector investment and developing its extractive industries. The country has undergone major tax reform. The main contributors to domestic revenue are taxes on goods and services, taxes on income and profits, and other revenue (contributing 9.0%, 7.3% and 7.3% of GDP, respectively).₄₂₁ There are existing taxes on beverages (including beer), tobacco and sugar.

Efforts to pursue efficiencies to ensure sufficient support for key interventions

Allocative efficiencies in Mozambique's national response (and in this funding request) are pursued using sophisticated modelling exercises. In early 2020, Mozambique undertook two important studies to model the cost-effectiveness of interventions in the HIV response. These are currently being used to guide the strategic direction of the new PEN V 2021-2025, and in turn, this funding request. The "Know Your Epidemic – Know Your Response" study demonstrates the cost-benefit of various strategic scenarios, making suggestions for more efficient allocation of resources.422 The "Goals Age-Sex Model for Analyzing HIV Programs for AGYW" study does the same, specifically focusing on AGYW. The most cost-effective interventions were found to be condom promotion, ART in men, community mobilization of key and vulnerable populations including out-of-school programs for AGYW, VMMC, HTS, and key population outreach including PrEP.423 Other modelling shows that to reach NSP targets there is also a need to significantly scale up investments in program support and mitigation, including human rights and gender programs.424

Technical efficiencies include the use of new technologies as well as innovative service delivery models. For example, the shift towards rapid molecular diagnostics creates efficiencies in the national TB response. A study in Mozambique showed that the MTB/RIF protocol is both cost-saving and cost-effective compared to the standard protocol, with an incremental cost-effectiveness ratio (ICER) of \$56.54 per disability-adjusted life year (DALY) saved.₄₂₅ It is therefore inefficient that about half of presumptive TB cases are currently tested using sputum microscopy instead of GeneXpert. To harness the efficiency of improved diagnostics, this request prioritizes the procurement of 10 new Xpert MTB/RIF machines, and 22 new Truenat MTB/RIF machines, while also funding machine maintenance and repairs for the existing 184 Xpert machines.

The investments prioritized in this request to roll-out differentiated service delivery for ART are also expected to yield cost-savings. Increased efficiency gains through multi-month scripting from standard to 3-month and 6-month regimens could yield a human resources cost reduction of \$2 million over 5 years.426 This is mainly related to the reduced time that health workers will spend interfacing with the patients and packaging medicines. The intention to expand DSD in this grant will also create efficiencies for patients, saving them time and money as they take fewer trips to health facilities to collect medicines.427

Challenges related to sustainability and how these will be addressed

The **increasing resource needs** for HIV and TB pose a threat to sustainability. As noted, resource needs will increase by 60% for HIV (to achieve PEN V 2021-2025) and by 25% for TB (to achieve the strategic vision to 2029). To be sure, the 42% increase in Mozambique's Global Fund allocation for HIV and TB will help achieve targets, but gaps remain. The Government of Mozambique's contribution of \$10 million to ART and HIV testing in 2019 (for the first time) is a sign of the country's efforts to address this challenge.

The sustainability of domestic resource mobilization is challenged by the government's **difficulties with tax collection**. There is considerable tax evasion, which may threaten the viability of efforts to secure additional funding through personal income tax and company tax. The stated preference of stakeholders for earmarked taxes (sin tax) is a way of addressing this challenge.

Currency fluctuations and exchange rate loss due to the depreciation of the local currency is another potential challenge, affecting the sustainability of both domestic and foreign contributions to the health response. Recall from Section 1.3 (Lesson 17) that the OIG has previously found a potential exchange loss of \$4 million to the grant due to the depreciation of the local currency. The \$10 million/year for ART and HIV testing from the government may also be negatively affected by a weaker Metical, as these contributions will mostly go to overseas procurements of medicines and commodities. This sustainability challenge is partly addressed through the financial management activities prioritized in this request, including the tailored training for senior managers and the new procedures manual and checklist.

Low absorption of donor funds is another sustainability challenge, affecting the country's ability to deliver on programs as well as its ability to attract future investment. This challenge affects some program areas more than others. For instance, at the time of writing, the country's absorption of Global Fund resources for RSSH stands at 35%. To address this challenge, this funding request intensifies program management support compared to the current grant, strengthening the program management unit (PMU) in the Ministry of Health and budgeting for built-in technical assistance within the grant. An indicator on grant absorption has also been added to the performance framework, aiming for 95% by year 3. The country anticipates that these measures will significantly improve grant absorption in the future.

Annex 1: Documents Checklist

Use the list below to verify the completeness of your application package.

\boxtimes	Funding Request Form
\boxtimes	Programmatic Gap Table(s)
\boxtimes	Funding Landscape Table(s)
\boxtimes	Performance Framework
\boxtimes	Budget
\boxtimes	Prioritized above allocation request (PAAR)
	Implementation Arrangement Map(s) (As PRs are changing, the county intends to submit its implementation arrangements maps at the grant-making stage)
\boxtimes	Essential Data Table(s) (updated)
\boxtimes	CCM Endorsement of Funding Request
\boxtimes	CCM Statement of Compliance
\boxtimes	Supporting documentation to confirm meeting co-financing requirements for current allocation period
\boxtimes	Supporting documentation for co-financing commitments for next allocation period
	Transition Readiness Assessment (if available)
\boxtimes	National Strategic Plans (Health Sector and Disease specific)
\boxtimes	All supporting documentation referenced in the funding request
\boxtimes	Health Product Management Tool (if applicable)
\boxtimes	List of Abbreviations and Annexes

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