A Global Framework for Sustainable VMMC services.

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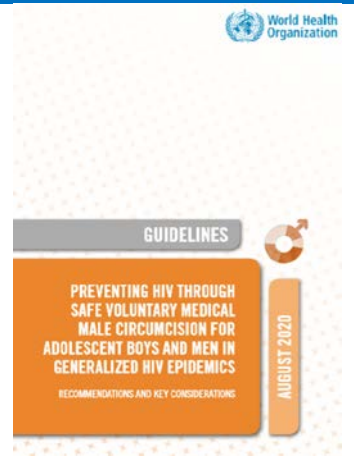
Global HIV, Hepatitis and Sexually Transmitted Infections Programmes
World Health Organization, Geneva, Switzerland

World Health Organization

The VMMC ship has already sailed!

Evidence of effectiveness	Check	**Quality of evidence from the GRADE evidence HIGH for all five types of study populations and reinforced by the consistency of results from the different study types. RCTs, Extended follow-up, High risk cohort, community-based cohorts, combined observational studies.**
Evidence of safety	Check	Rare severe adverse events. Average of 0.3 per 100 (0.3%) based on a 2019 systematic review that identified 31 relevant publications
Evidence of acceptability and feasibility	Check	Wide acceptability in published studies. **Over 30 million by the end of 2022 circumcised indicates the acceptability of VMMC to men and parents**
Evidence of cost effectiveness	Check	Cost effective and cost saving, even more so in comparison with other HIV prevention interventions



WHO recommendation

VMMC should **continue to be promoted as an additional efficacious HIV prevention intervention in combination prevention for adolescents 15 years and older and for adult men** in generalized epidemics to reduce the risk of heterosexually acquired HIV infection. (Strong *recommendation, High quality evidence*

The question has shifted from questioning the fidelity of VMMC to how VMMC could be leveraged for efficiency, to catalyze other prevention programs and to reach boys and men

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Enter Sustainability! It is more about themes than definitions

No universally agreed definition; meaning depends on context, setting and situation. But rigid definitions are less important than key themes that drive its meaning

Capacity to deliver as long as necessary and relevant with an understanding that programs may change in the advent of new global evidence and guidelines

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Sustainability – key principles

1 **Widely Accessible Services**	In alignment with UHC principles, all people should have **access to necessary, affordable, and effective health services** (including prevention)
2 **High quality and people-centered**	Services should put **people and communities**, not diseases, at the **center of health systems**, empowering people to take charge of their health, supported with education and support
3 **Adolescent-focused**	Programmes may focus on adolescents as a sustainable, effective, and acceptable approach towards wellbeing that maximizes **near-term impact on the epidemic**
4 **Embedded within routine systems**	VMMC integration has the potential to enable efficiencies and **spur relationships** with HIV and health programs

Scale up and sustainability are two separate but interlocking elements. Sustainability is about efficiencies, synergies, impact, ending AIDS

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A Global Framework for Sustainable VMMC services – six building blocks and critical enablers

Planning for sustainable VMMC services requires attention to each of the six WHO building blocks of health systems and critical enablers.

Building block	Component
Finance	• Resource allocation and mobilization • Purchasing of services • Financial risk protection
Health workforce	• Health workforce planning • Pre-service and continuing education • Management, support and supervision
Strategic information	• Data collection and management • Data quality • Data analysis and use • Safety monitoring
Supplies and equipment	• Norms and standards • Procurement, supply and distribution • Quality of VMMC supplies and equipment
Leadership and governance	• Programme leadership and coordination • Accountability, oversight and regulation • Inter-sectoral coordination • Health sector plans and policies
Service delivery	• Access (strategic planning of health services) • Reorienting service delivery models • Empowering and engaging people • Safety and quality
Critical enablers	
• Adolescent leadership, co-produced health services, local ownership and participation • Community engagement and empowerment • Multisectoral partnerships • Enabling laws and policies	

The health systems building blocks are the foundation of sustainable services

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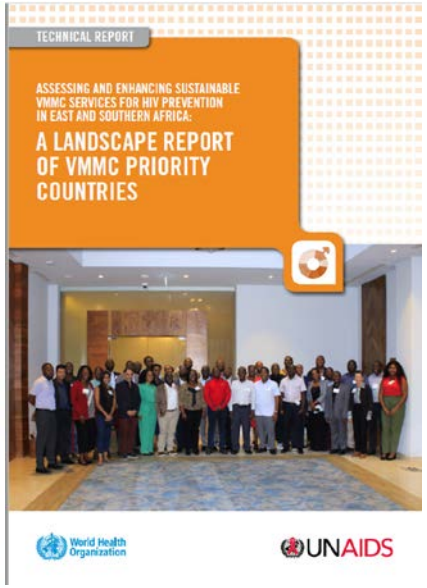
A baseline for sustainable VMMC - From the upcoming WHO landscape analysis

- BB breakdown: (89 scored)
  - 16 “advanced”
  - 61 “intermediate”
  - 12 “early”
- Patterns by BB:
  - More countries “advanced” in Supplies
  - More countries “early” in Finance

Country	Finance	Leadership	Service Delivery	Strategic Information	Supplies	Workforce
Botswana						
Ethiopia						
Eswatini						
Kenya						
Lesotho						
Malawi						
Mozambique						
Namibia						
Rwanda						
South Africa						
South Sudan						
Uganda						
United Republic of Tanzania						
Zambia						
Zimbabwe						

Advanced Intermediate Early



- Early = essentially no sustainable features
- Intermediate = some sustainable features, but much to do
- Advanced = all key sustainable features in place; the work needed is to sustain them

“The need to scale up VMMC services is crucial. The drive towards sustainability should not take anything away from that need. Sustainability rather should reinvigorate, enhance scale up, align with other health interventions, support health systems, plug wastage, and help improve on our current messaging on VMMC”

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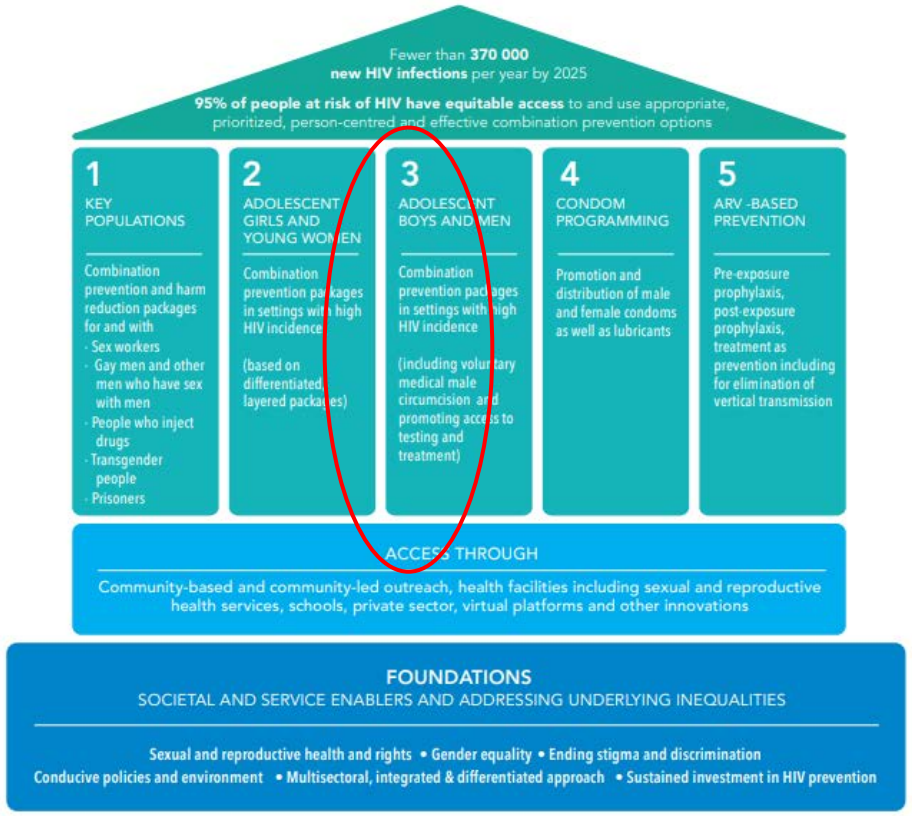
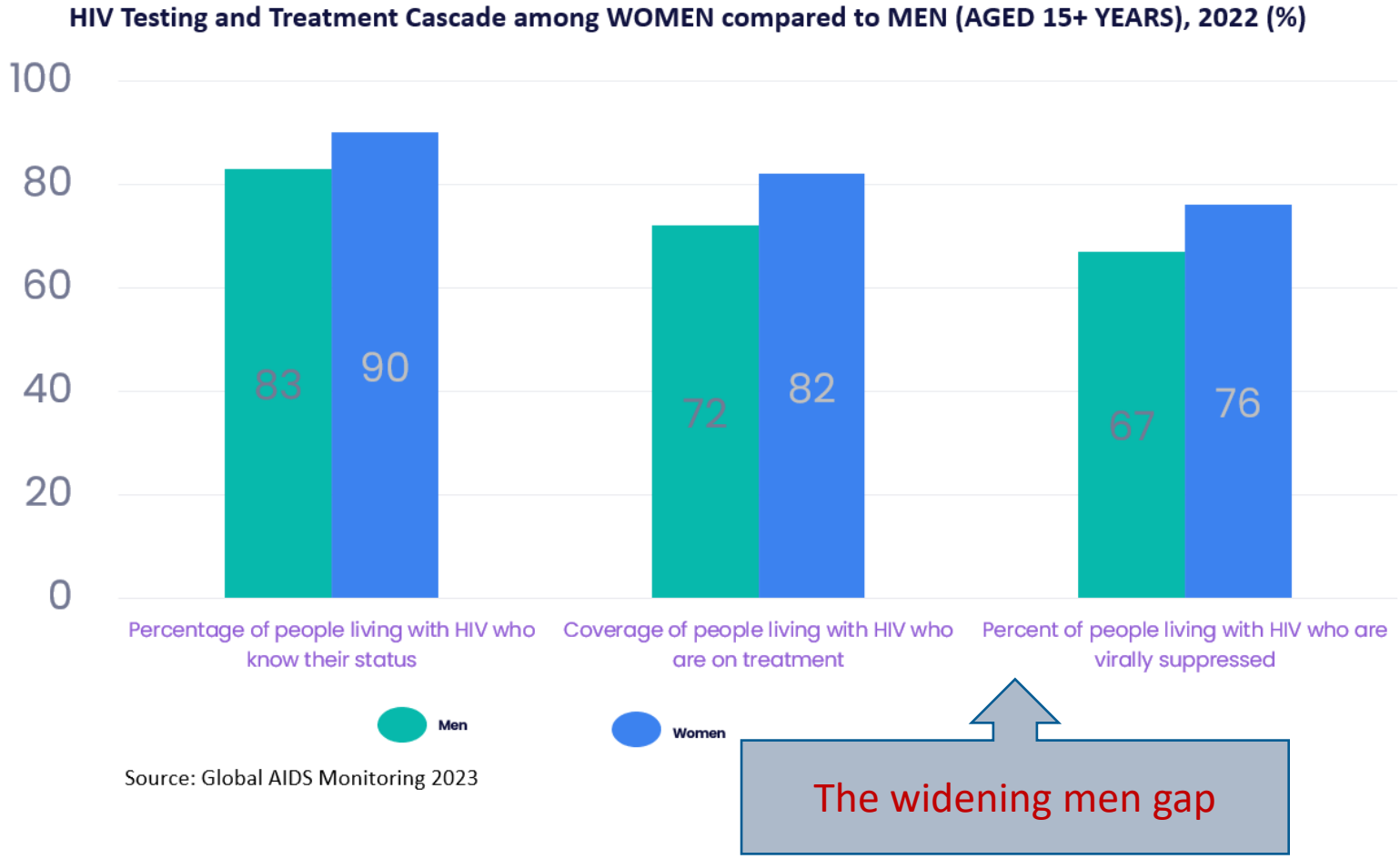
VMMC sustainability enhances that strategic shift to a broader boys' and men's agenda



HIV Prevention 2025 Road Map



Source: Global AIDS Monitoring 2023

The widening men gap

Key shifts

Strategic shift from VMMC as stand-alone pillar towards combination prevention packages for boys and men.
Comprehensive package for men and boys including community-based HIV testing, self-testing, ART, condoms, PrEP, PEP, CSE other SRHR, and harm reduction.

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@ a few best practice examples – VMMC as a launchpad for men's health

Male wellness clinics, Eswatini

Integrated services provided at most sites

Male-focused service provided at some sites

South African National Integrated Men's Health Strategy

Cross cutting

Demand	Supply	Environment
Increasing demand for health services among men	Increasing the supply, quality and accessibility of health services	Ensuring laws, policies and strategies include the engagement of men

Target groups

Adolescents (10-19)	Young men (20-34)	Older men (35+)

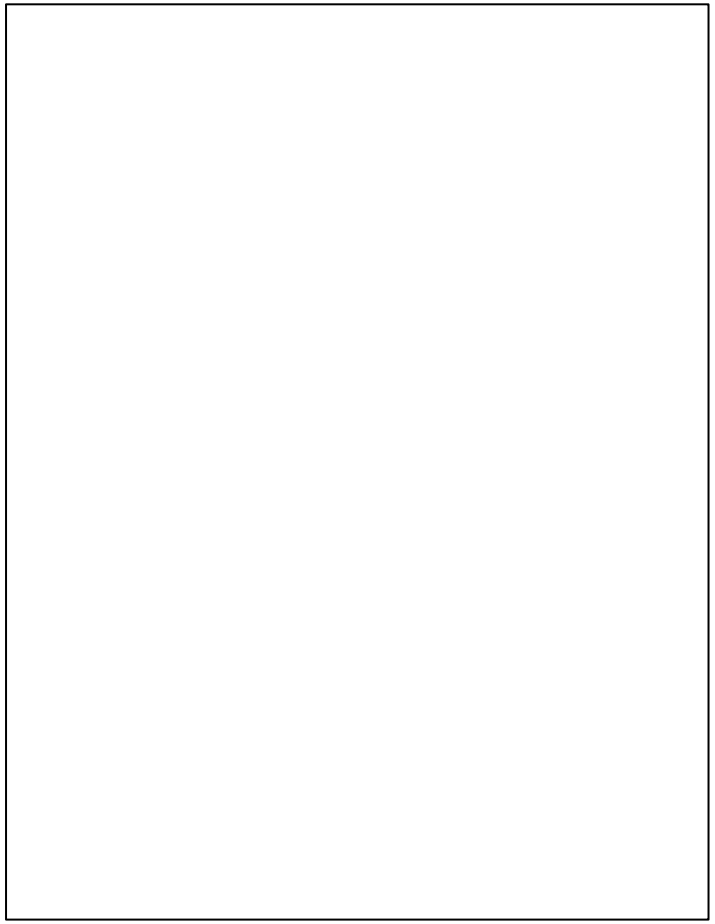
Key Components (service package)

Adolescents (10-19)	Young men (20-34)	Older men (35+)
HIV Testing	HIV Testing	HIV Testing
TB screening	TB screening	TB screening
HPV vaccination	STI screening	STI screening
Diabetes	Hepatitis B and C	Hepatitis B and C
Behavioral interventions	Diabetes	Diabetes
Hearing , sight and oral screening	Hypertension	Hypertension
Body image	High cholesterol	High cholesterol
	Mental health	Mental health
	Sexual disorders	Sexual disorders
	Behavioral interventions	Behavioral interventions
		Prostate and testicular cancer

ILO and WHO promote workplace HIV self-testing

Youth line up for HIV Testing at a Grassroot Soccer tournament in South Africa.

Learnings from @ a few best practice examples – sustainability in VMMC programs



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WHO VMMC App

All VMMC resources incl. on sustainability

VMMC App iOS; VMMC App Android

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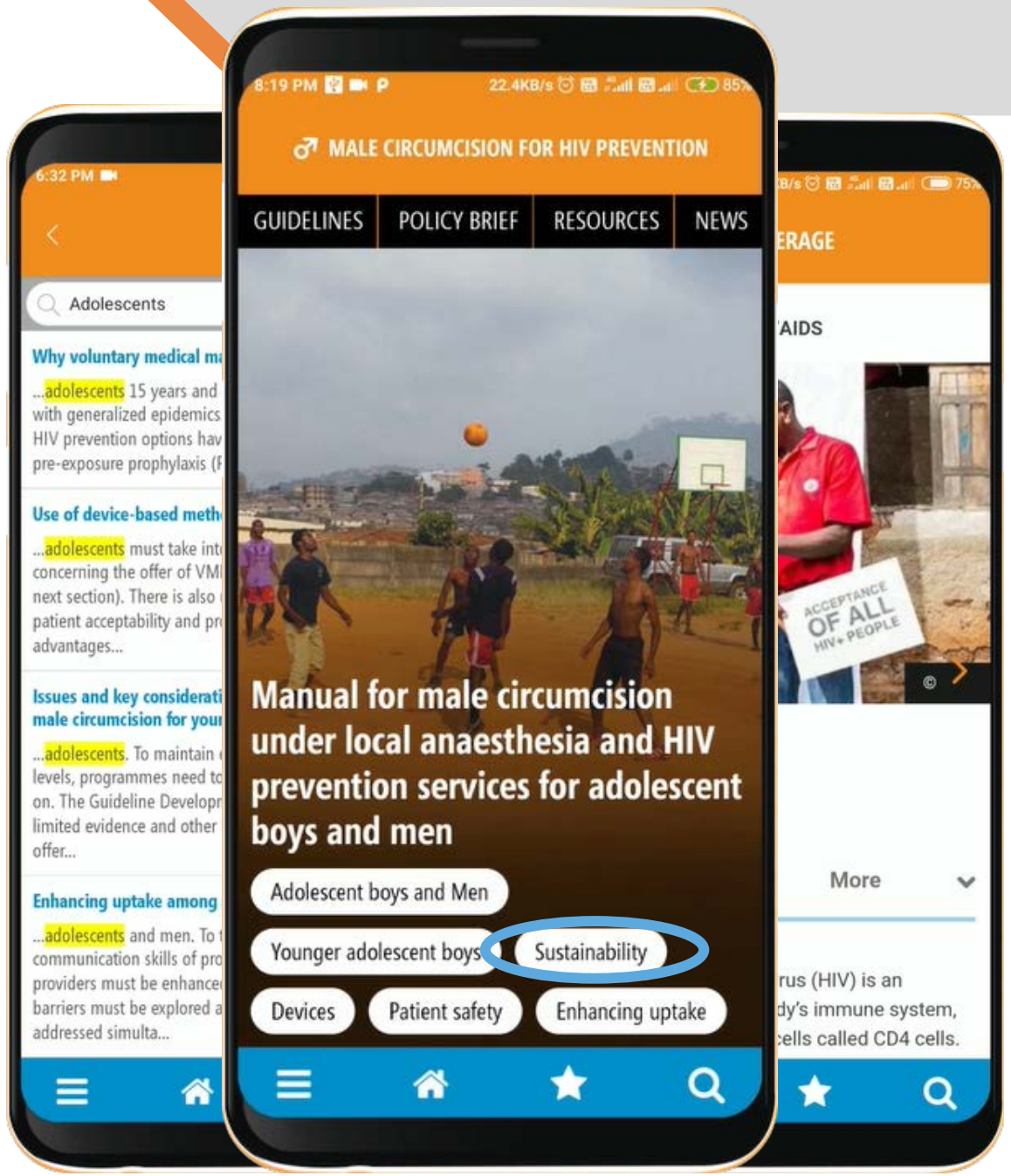

Parting thoughts

01 Countries need to lead from the front. Country ownership and effective collaboration with partners are essential at all levels – national, district and local

02 **Countries should take a prominent role in the mobilization, allocation and administration of resources.**

03 **It is now beyond VMMC, support for a broader boys and men's agenda is critical. VMMC serves as a veritable entry point.**

04 **Adaptable, not prescriptive. The path to a sustainable VMMC and men's programme will differ from country to country.**

05 **VMMC sustainability is NOT about 'eternal VMMC'. Rather it is about doing things differently, spurring efficiency, deleting waste and capitalizing on the renowned successes of VMMC programmes for the greater good of adolescent boys and men.**

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Cost-Effectiveness of Sustaining Support for VMMC Programs

John Stover, Yu Teng, Robert Glaubius

Innovations for sustainable integrated biomedical prevention programming in sub-Saharan Africa

SAT037

24 July 2023

Avenir Health

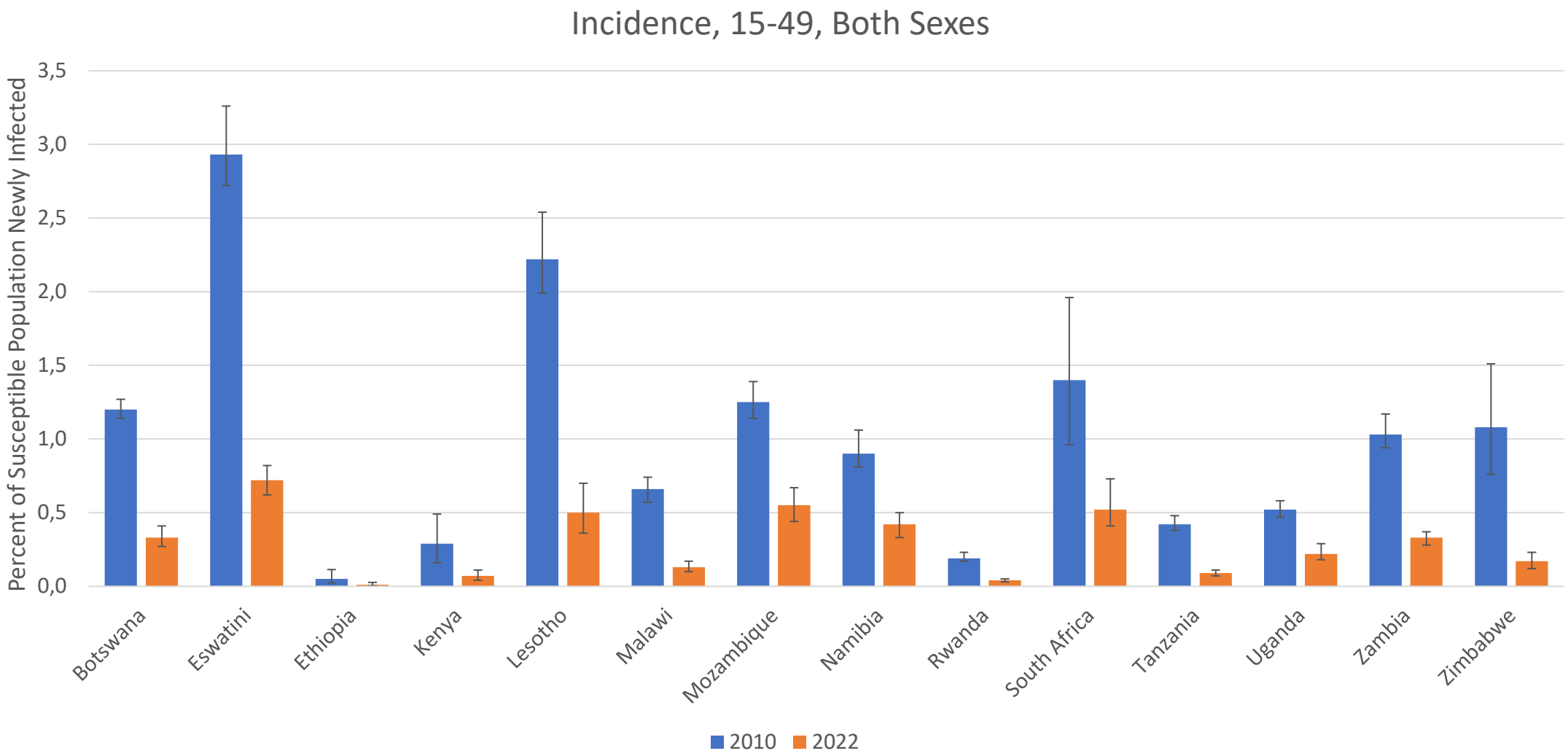
Background

- When VMMC programs started in 2008 several studies estimated that they would be highly cost-effective and even cost-saving.
  - Uthman et al. Economic Evaluations of Adult Male Circumcision for Prevention in Heterosexual Acquisition of HIV in Men in Sub-Saharan Africa: A Systematic Review *PLoS One* March 10, 2010. https://doi.org/10.1371/journal.pone.0009628

- Recent modeling analysis has shown that VMMC continues to be cost-effective in most settings in the short-term
  - Bansu-Matharu et al. Cost-effectiveness of voluntary medical male circumcision for HIV prevention across Sub-Saharan Africa: results from five independent models *Lancet Global Health* 2023;11:e244-55

- However, the HIV epidemic is much different today than in 2008

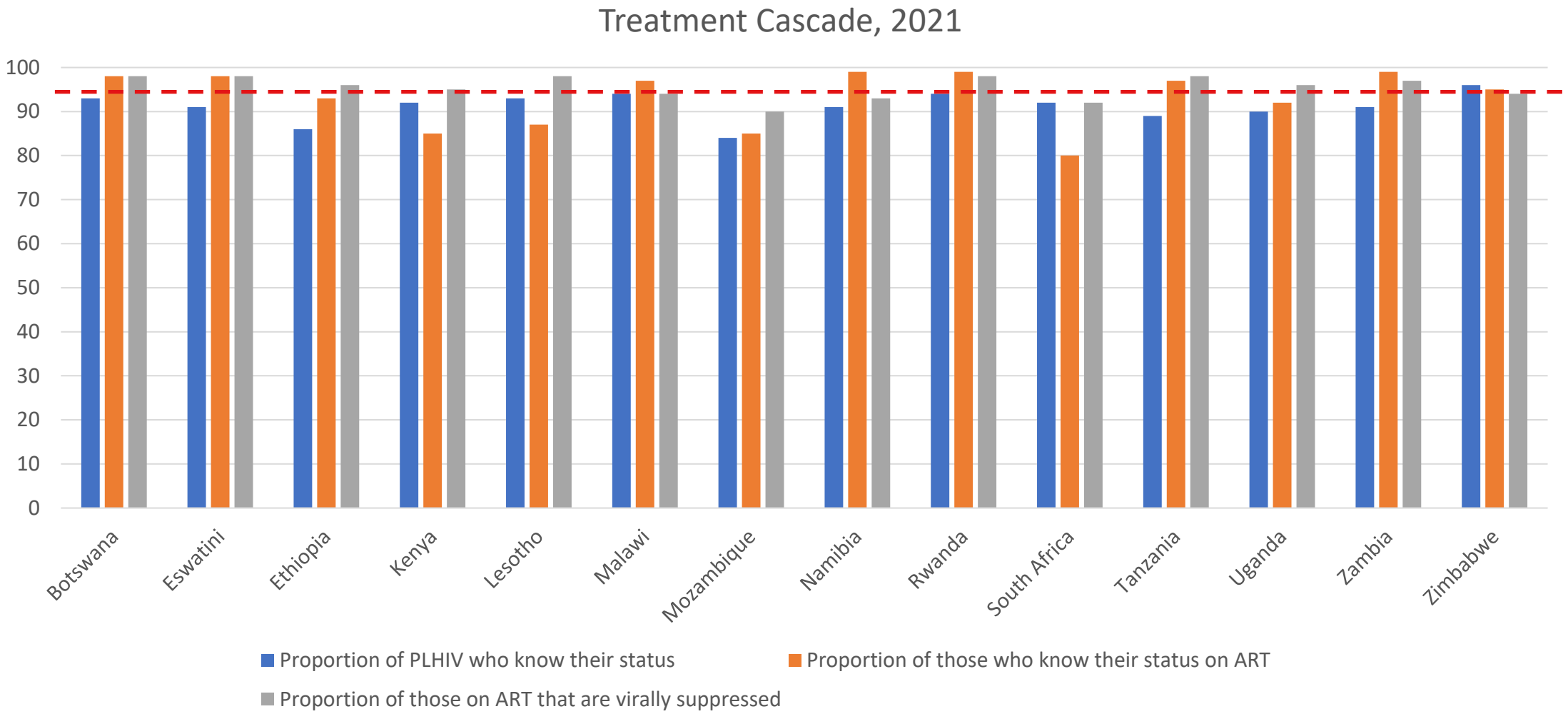
Incidence is much lower today compared to 2010, with an average decline of 71% from 2010-2022



Source: UNAIDS aidsinfo online

Many countries are close to global treatment targets

On average, 81% of PLHIV are virally suppressed

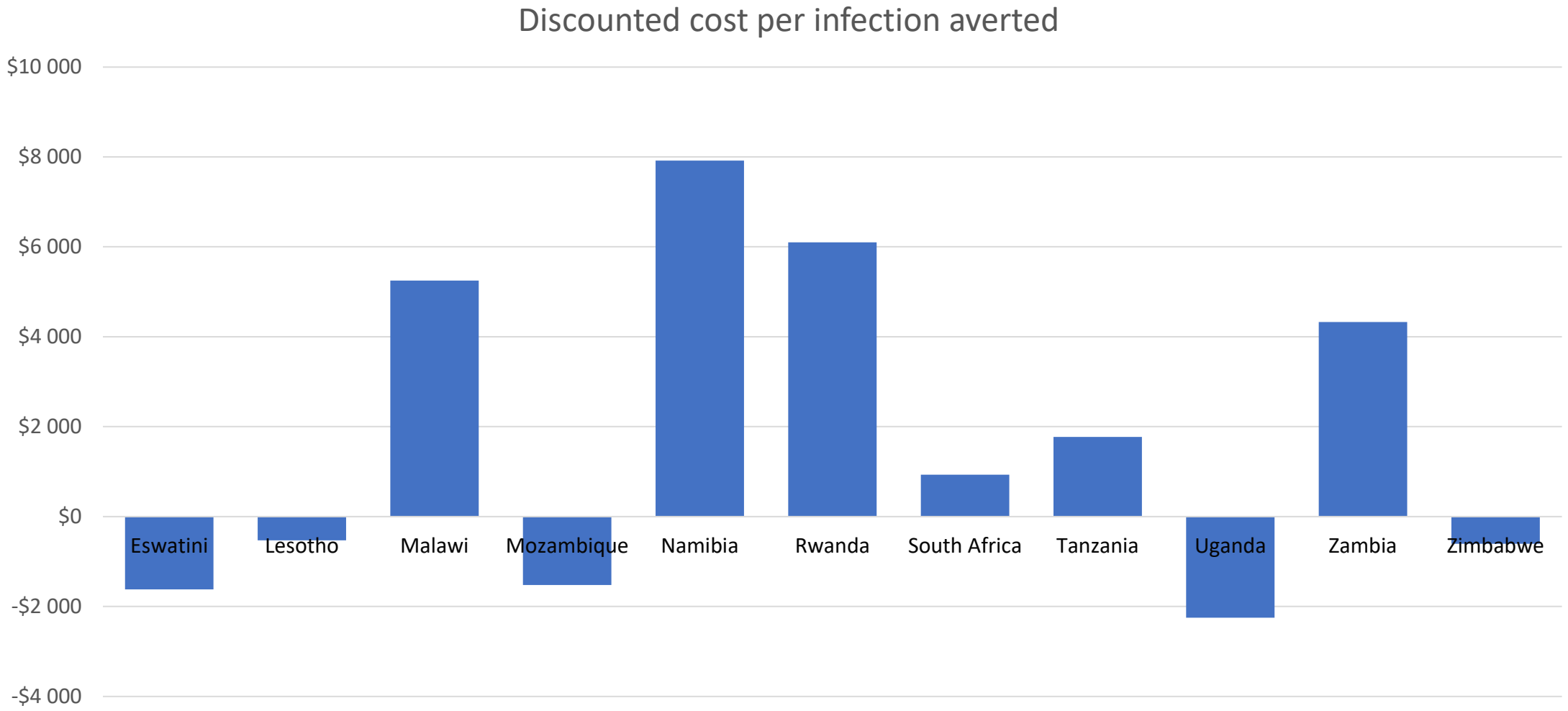


Source: UNAIDS aidsinfo online

Will VMMC programs be cost-effective in the future? For how long?

- The cost-effectiveness of VMMC depends on incidence. That determines how many boys and men need to be circumcised to avert one HIV infection.
- If incidence continues to decline, at some point VMMC will no longer be cost-effective.
- High levels of treatment coverage and viral suppression, if sustained, may lead to continued incidence decline.
- *Is it still cost-effective to scale up VMMC to reach global targets? If so, how long should VMMC programs be sustained?*

Scaling Up VMMC to meet Global Targets by 2030 is cost-effective in most settings

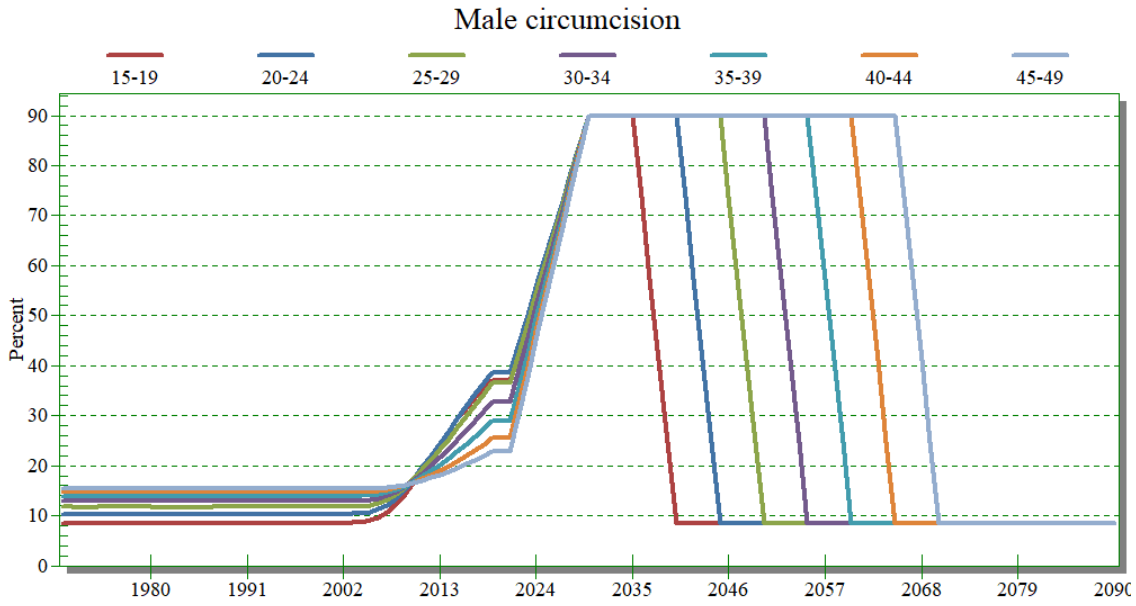


Discounted (at 3%) net cost per infection averted from 2022-2090 of scaling up male circumcision coverage from 2021 levels to 90% of all men 15-49 by 2030 compared to no further VMMC program. All other interventions are held constant. Net costs include the cost of the VMMC program minus any savings in treatment costs. Projections based on the Goals ASM model.

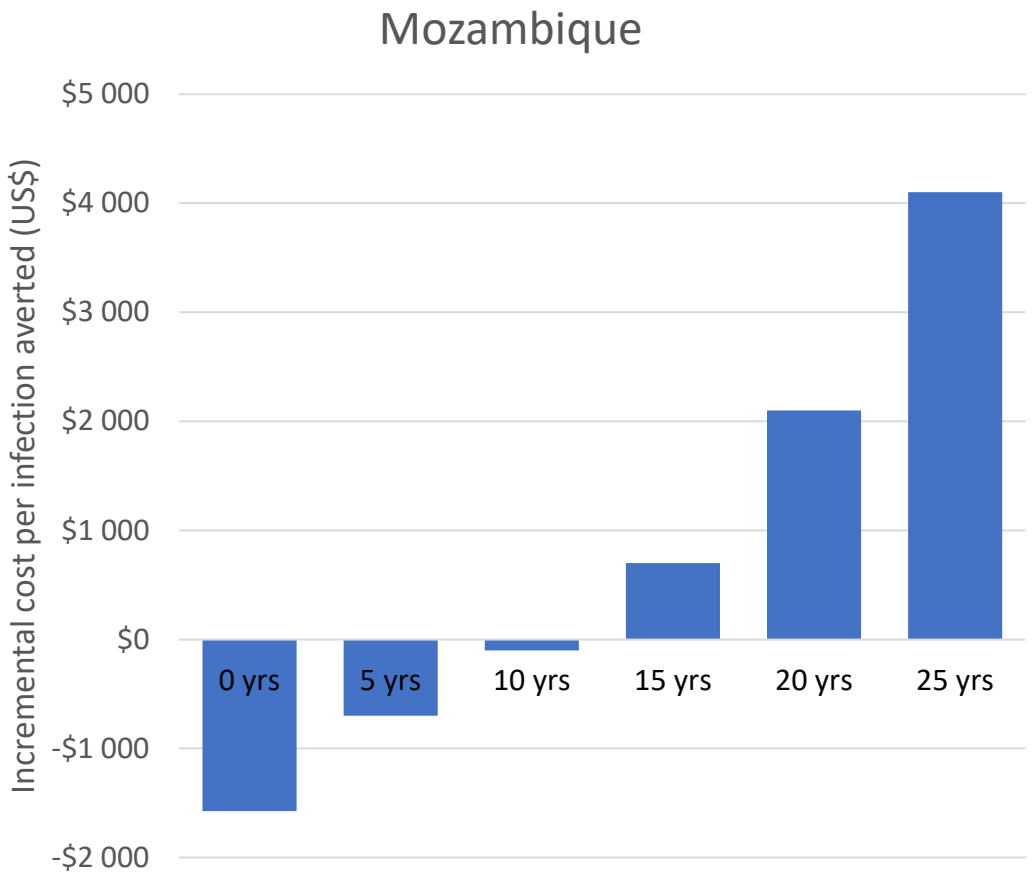
Should VMMC support continue after 2030?

Sustainability analysis assumptions

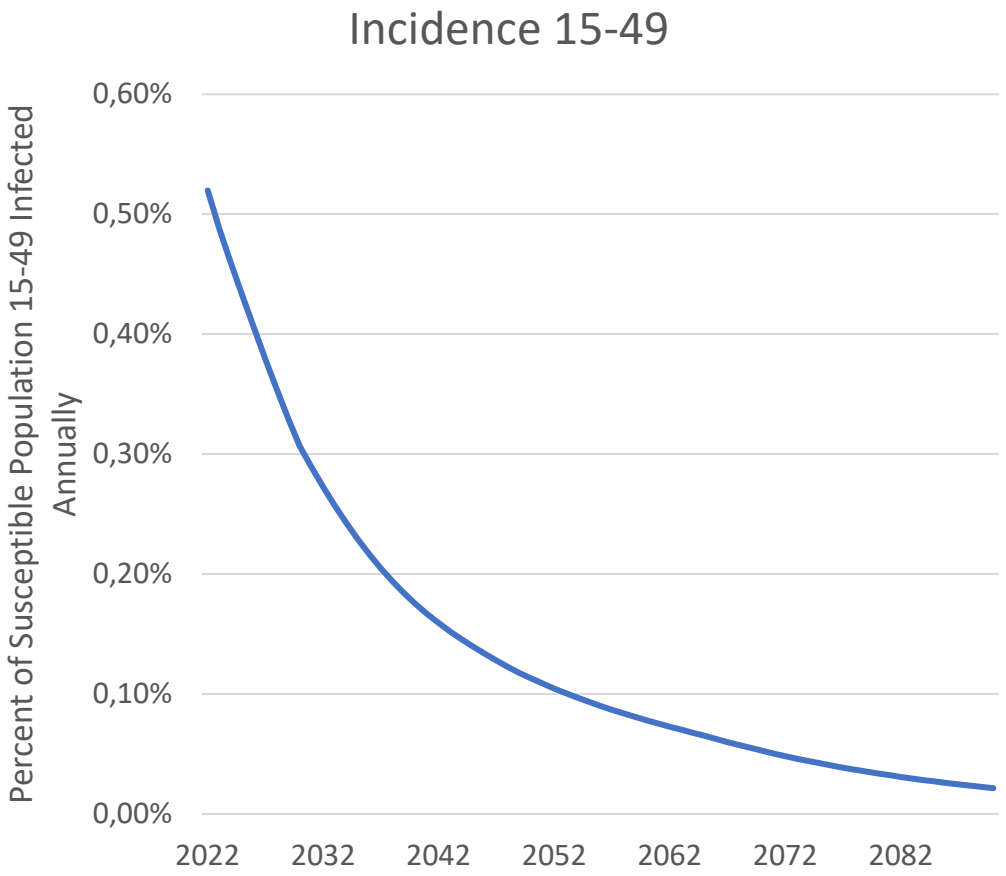
- After 2030 support for the VMMC program continues for 0, 5, 10, 15, 20 or 25 years
- Circumcision rates for 15-year-olds return to 2008 levels once the VMMC program stops
- Coverage for all other interventions is constant at 2021 levels
- Discounting at 3% per year
- Evaluation period: 2022 – 2090



Incremental cost per infection averted increases with longer duration of support due to declining incidence

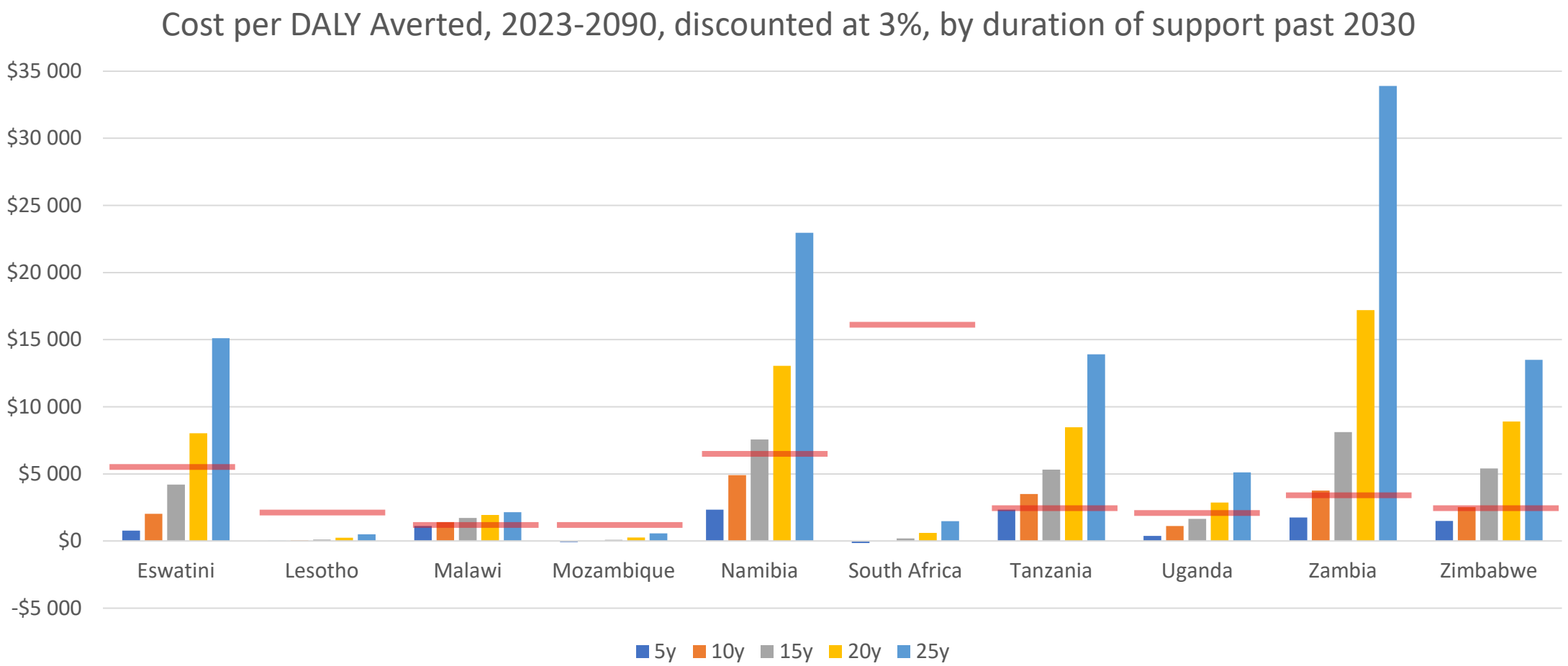


Incremental cost per infection averted by duration of support after target coverage is reached in 2030. Costs and infections are cumulative from 2022-2090 discounted at 3% per year. Costs include VMMC and ART.



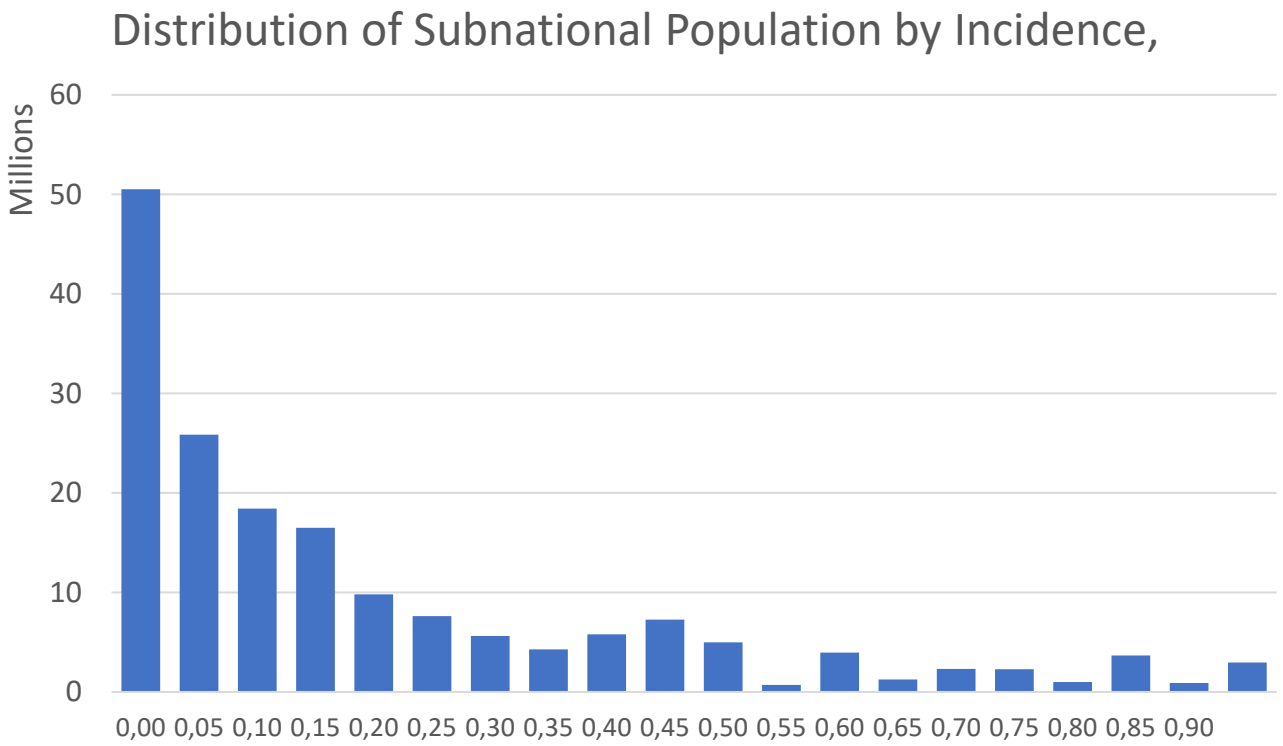
Incidence among 15–49-year-old adults projected by the Goals ASM model under the assumption of constant coverage of all interventions. As incidence drops due to high viral suppression the PLHIV population ages and average (age-weighted) risk drops.

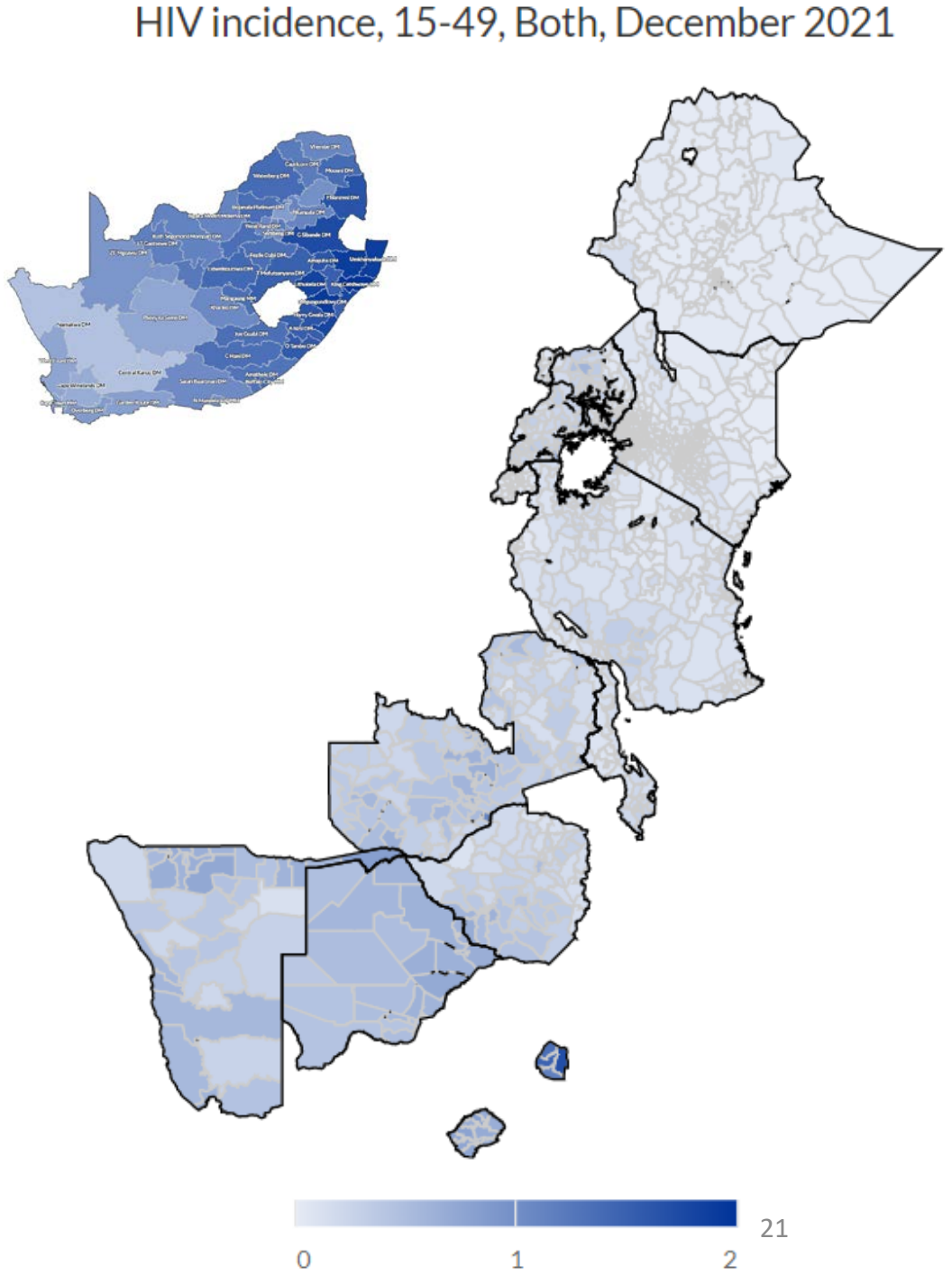
In many settings VMMC costs are likely to exceed cost-effectiveness thresholds at some point in the next 25 years



DALY thresholds are based on health spending 2000-2016 per DALY gained as estimated by Daroudi et al. (*Cost Eff Resour Alloc* (2021) 19:7) based on GBD estimates of DALYS and health expenditures. They are only used to illustrate the concept that VMMC programs will need to compete with other health priorities as HIV incidence declines in the future.

Incidence varies significantly across the region. Areas of high incidence still remain.





For 29% of population, incidence < 0.05%, for 25% it is 0.05%-0.10%, for 23% it is 0.10% - 0.35%, for 23% it is >0.35%

UNAIDS 2022 estimates from Naomi Model

Summary

- The HIV epidemic is very different today from 2008 when VMMC programs were just getting started. Incidence is lower and ART coverage is higher.
- VMMC programs remain cost-effective in most settings and will remain cost-effective for the next 10 years. There are important differences across countries and sub-national regions.
- Cost-effectiveness will decline as incidence drops.
- Programs and donors need to develop plans to address these changes. For example, responses might include accelerates short-term response, sub-national focus and integration with routine health services.

Dr Brian Abel Maponga, Population Solutions for Health

Innovations for Sustainable Integrated Biomedical Prevention Programming In Sub-Saharan Africa

Innovations for sustainable VMMC service delivery

INTEGRATE
Catalyzing Integrated Sustainable Subnational Biomedical Prevention in Zimbabwe

Introduction

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Support improved GoZ-led subnational health system performance to sustain improved access, coverage, quality, and safety of integrated HIV biomedical prevention through:

1) *Integration of VMMC into the health system and,*
2) *Integration of broader biomedical prevention with an already robust VMMC program.*

Bill & Melinda Gates foundation

Funder, $19.7M, 3-year 7-month program ending May 2024

psi

Prime technical assistance, system strengthening and adaptive implementation and learning partner.

Population Solutions for Health

1st tier subrecipient and lead Zimbabwean implementing partner

SAFAIDS
Knowledge for action: The power to make a difference!

2nd tier subrecipient testing models for sustainable community-led demand

Primary Health Care · Healthy Nation · Ministry of Health and Child Care · Zimbabwe

2nd tier subrecipient of service/demand input financing through 8 provincial, 27 district subgrants

Ipsos
G:ENESIS
25 YEARS OF UNLOCKING VALUE

Shang Ring acceptability, costing, cost effectiveness, RBF evaluation research partners

INTEGRATE Project Primary Outcomes

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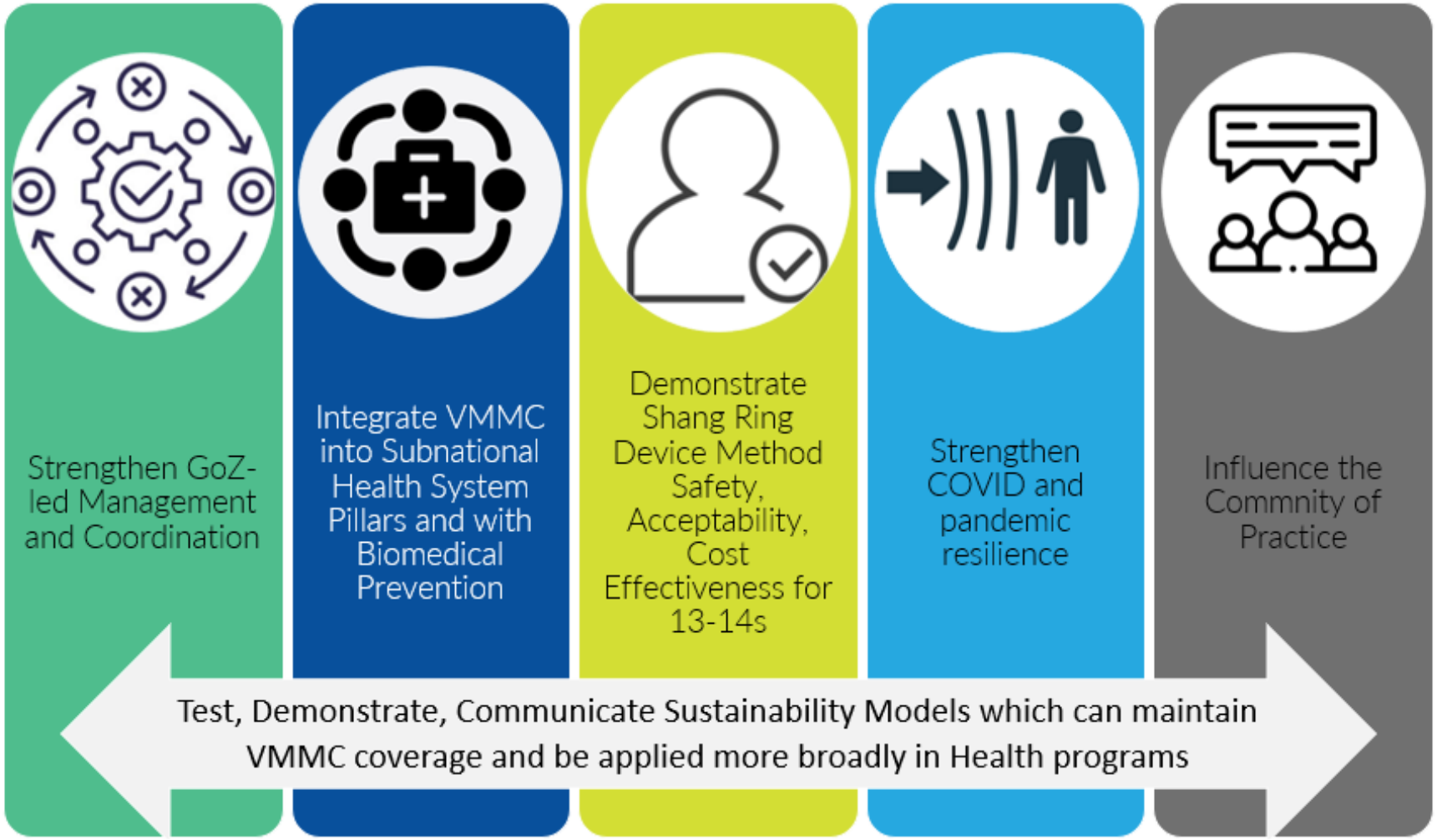


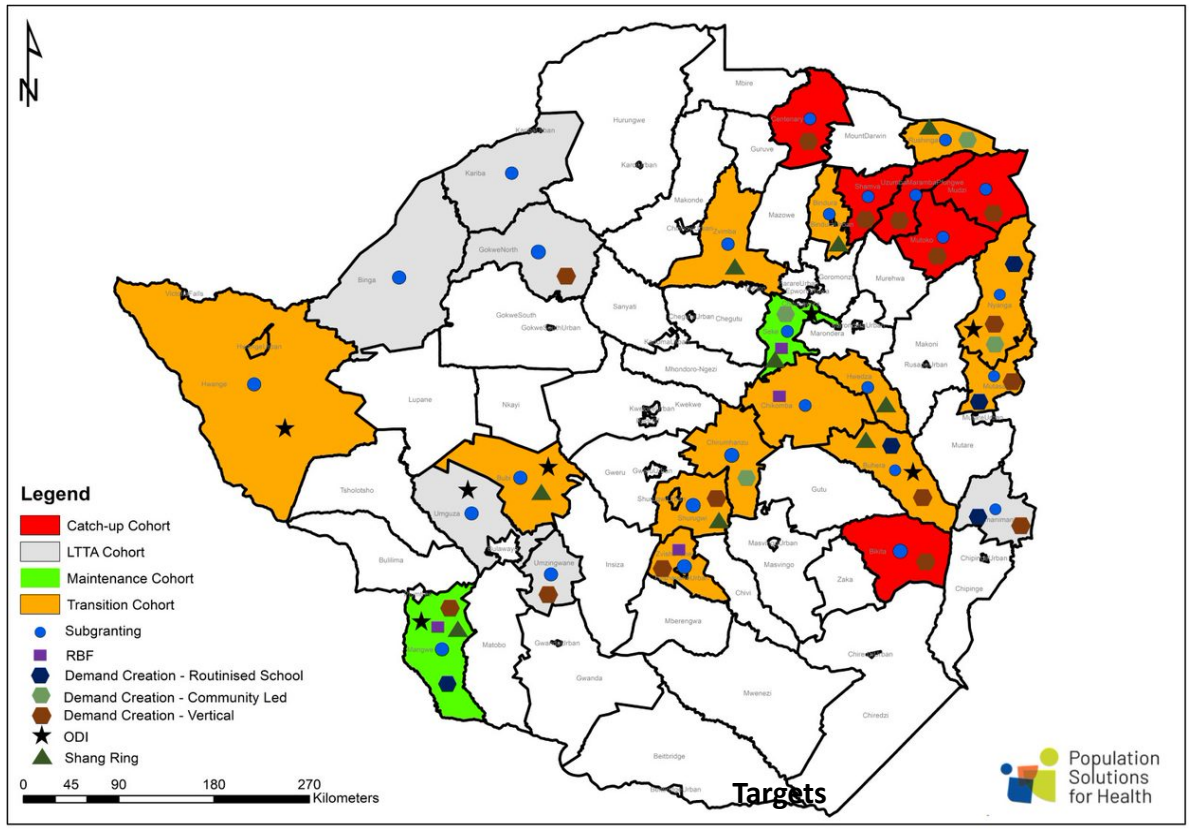
Support to 27 districts differentiated based on potential impact and need

Catch Up = High HIV incidence, low VMMC Coverage. Support 6 districts to reach 80% 15-29 VMMC coverage with vertical partner-led support May not transition to sustainability

Transition = Medium HIV incidence, medium VMMC coverage (40-60%). Support 13 districts to reach 80% 15-29 coverage, and initiate transition to MoH-led maintenance models for 15-16's and 13-14's (where there is Shang Ring)

Maintenance = Support 2 districts to maintain 80% VMMC Coverage (15-29) through routinized and integrated demand and services that are planned, managed by the MOH.

Light Touch TA Support for 4 districts with low HIV incidence and 2 GFATM districts to target, reach males at higher risk of contracting HIV.



Cohort.	Nov `20 – Dec ,21	Jan`22 - Dec ,22	Jan`22 – Dec ,23
Catch Up	15,819	18,668	17,311
Transition	21,544	25,424	23,577
Maintenance	1,666	1,967	1,824
LTTA	4,056	4,787	4,439

Service Delivery Capacity Building Eroded by Provider Attrition

MoHCC targets 80% provider coverage

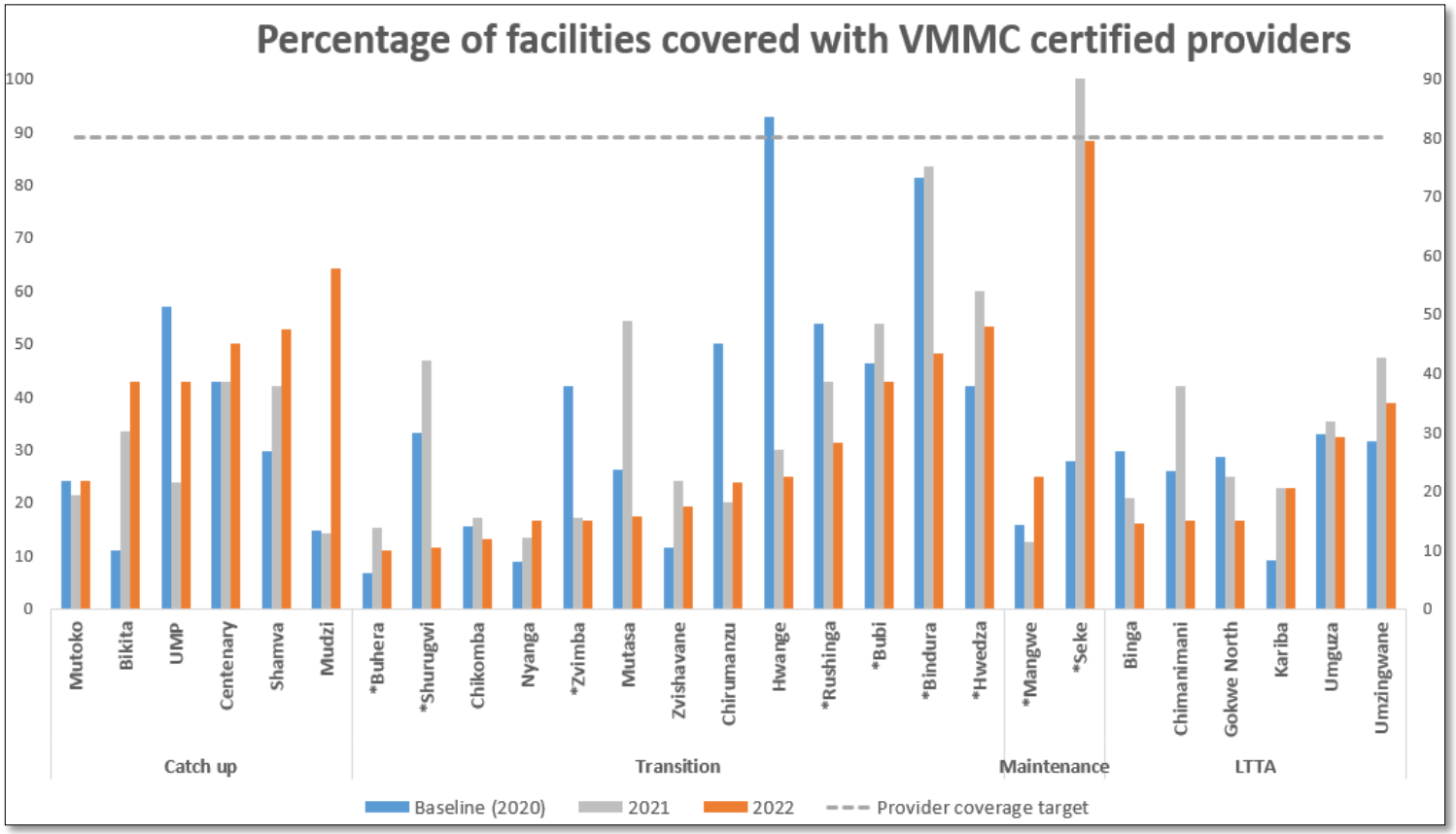
Intensive VMMC training 2018-2020

Targeted Surgical, Shang Ring provider certification 2021-22

Reduced VMMC provider coverage in 2022

- *Nurses leaving the country*
- *Movement of trained providers from MOH to private/partners*
- *Nurses being shifted internally to cover more critical essential health services*

Solution: Harvesting digital solutions to train/mentor more providers and for virtual client follow-ups



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Shifting from top-down refresher training and mentorship…

Traditional VMMC Mentorship Model

SYSTEM LEVEL

Central Master Trainers

2 National Master Trainers (Medical Doctors)

- 2 central master trainers with provincial assignments
- Travel 2 days out of station to provincial training hub for one day refresher program

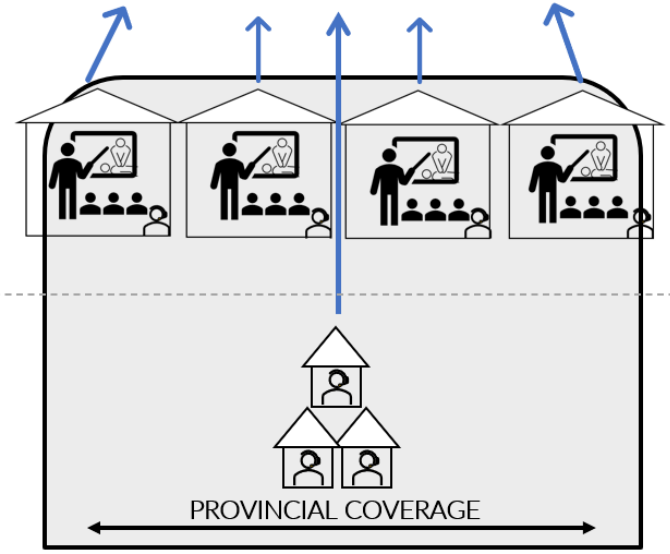
Provincial Training Hub and Trainers

Hotel (in person training)

Provincial hospital (mentorship)

- 2-hours in-person theoretical refresher training at hotel venue
- 6-hours of practical clinical mentorship
- Ideal group size 12, maximum of 16
- All mobilization done at single site
- Coverage requires repeat delivery to achieve coverage

District Hospitals



Rural Hospitals and Primary Clinics with circumcising providers

- Training capacity limits the refresher to providers showing signs of deskilling
- PVO- and Provincial trainer select providers to travel two days out of station for a one-day provincial refresher
- Decentralized sites neglected in favor of high-volume hospitals and clinics

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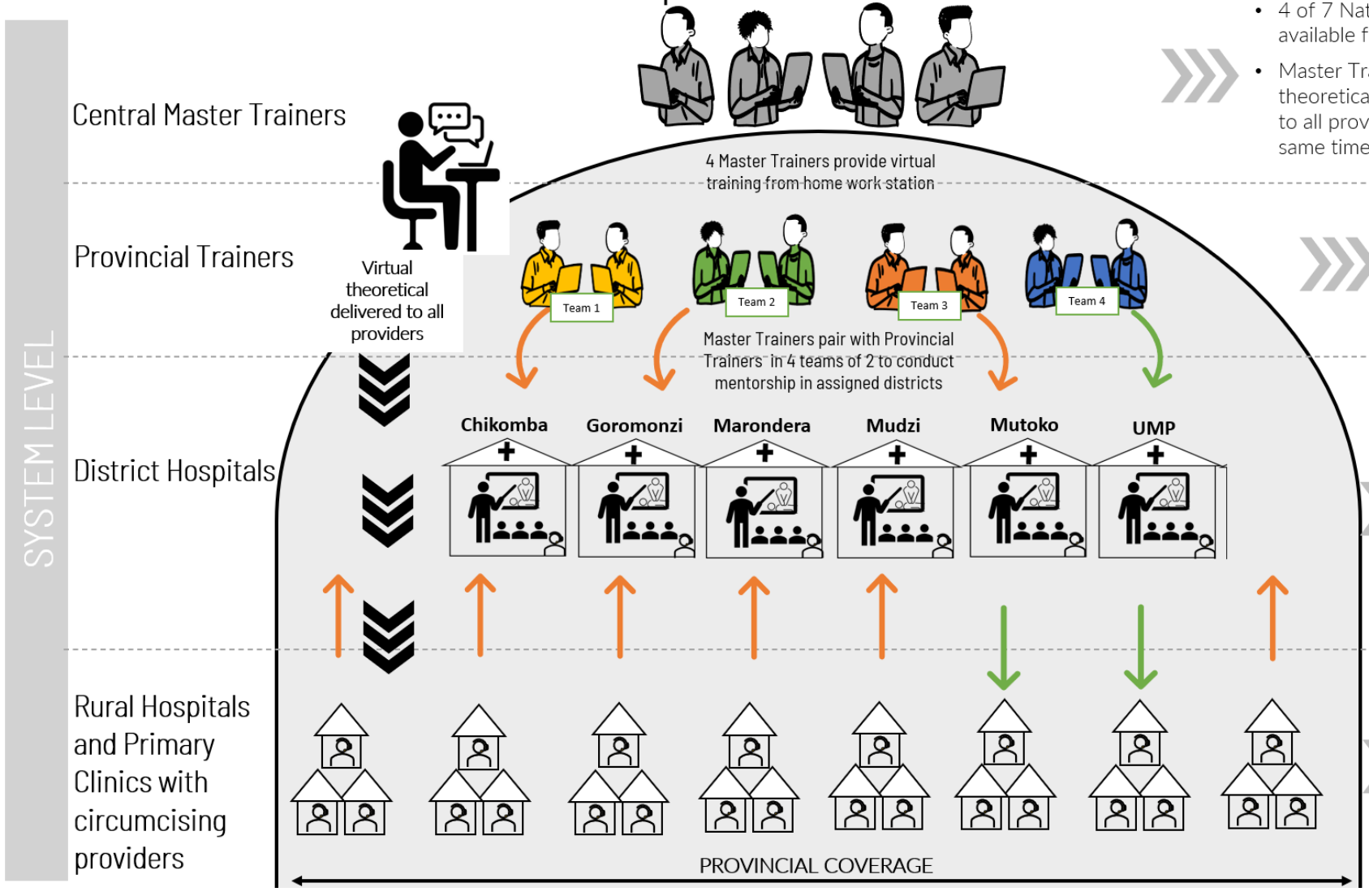
…To a Blended, Decentralized Mentorship Model to Expand Coverage

Blended, Decentralized VMMC Mentorship Model



- 4 of 7 National Master Trainers available for program.
- Master Trainers deliver virtual theoretical training from home station to all providers in all districts at the same time

Master Trainers pair with Provincial Trainers in 4 teams of 2, travel 4 days out of station for 3 days to cover all districts

- District providers mentored in station
- Clients mobilized onsite at district hubs
- 6 Districts, 89 providers mentored in 3 days

- Mentorship can be decentralized to high volume rural sites
- Traveling providers move 2 days out of station for 1-day program

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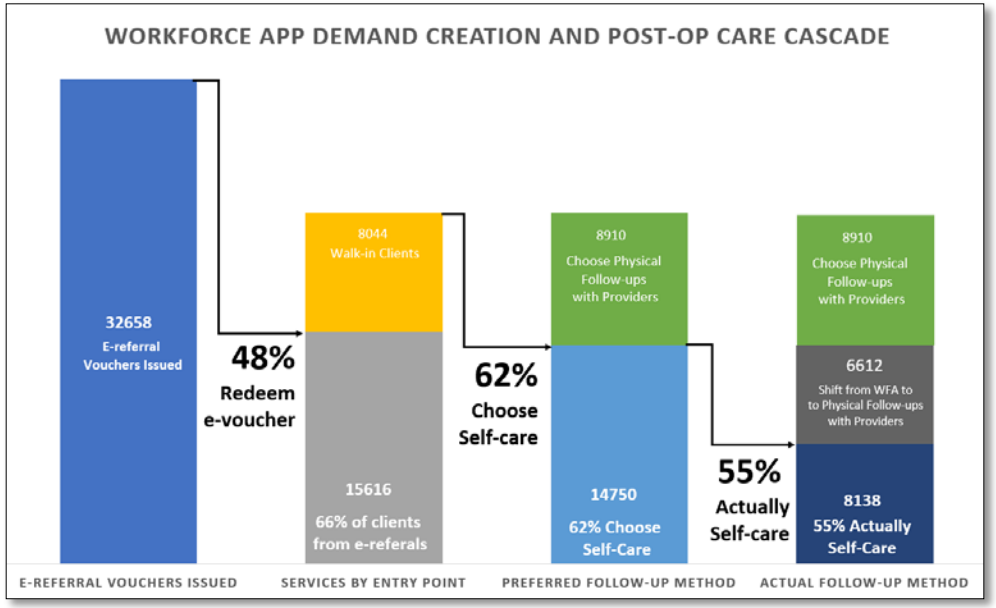
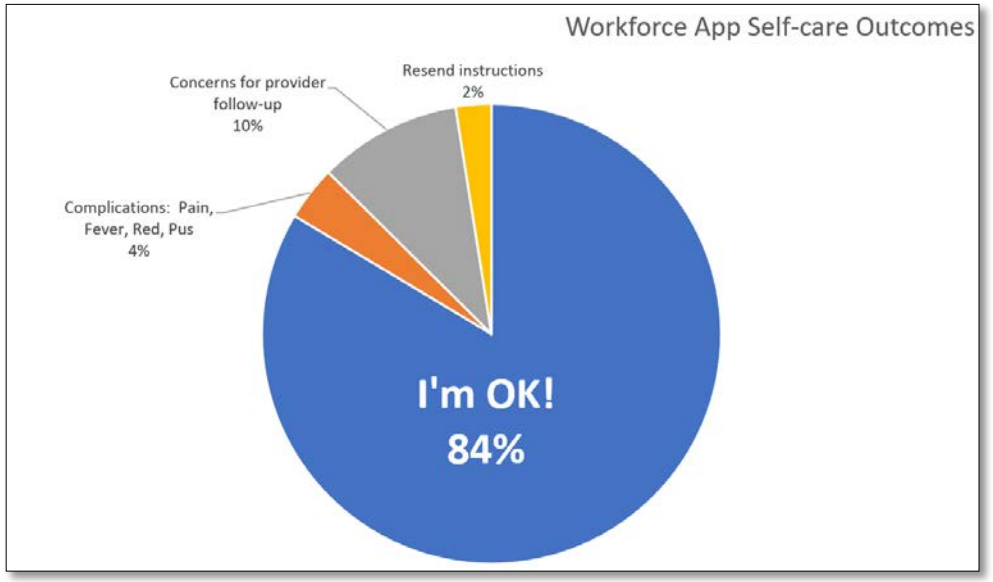
Workforce App to ease provider burden, enable post-surgical self-care





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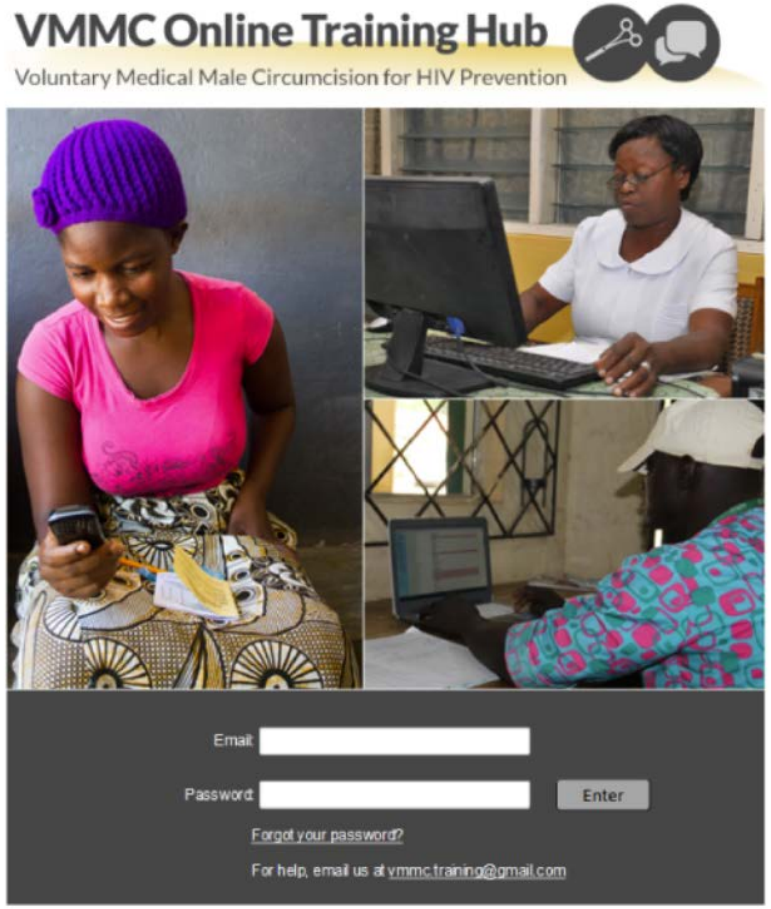
South-to-South learning, sharing of VMMC theoretical e-learning linked to practical mentorship



South-South learning between Zimbabwe MoH and South Africa NDOH to share content, approach

Developing Moodle-based MoHCC e-learning platform for expansion to any service/function/continuum

Developing e-learning Surgical and Shang Ring modules for basic training, linked to practical mentorship for proficiency

Work in progress:

- User acceptance testing of South Africa content, platform
- Development of e-learning content
- Engaging for zero rating of training website to manage costs

Integrating VMMC, HIV Biomedical Prevention into the Nursing Preservice Training Curriculum

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2021-2022

Negotiation

Engagements with AIDs and TB unit and Director Nursing

Co-creation

- Co creation of the Nursing Preservice training curriculum review design
- Formation of technical working group
- Engagement of consultants

Jan – Apr 2023

May – July 2023

Curriculum review

- Stakeholder sensitisation meetings
- Needs assessments for the Registered Nurse, Midwifery, PCN curriculum
- Content review and editing

Expected outputs

- Abridged curriculum version for current enrolment
- Full convectional 3-year course
- Development of statutory instruments and gazeting of the new curriculum

August - December 2023

2024

Provider Pipeline

- RGN Graduates May, Sept, Dec ‘24
- Midwifery graduates May ’24
- PCN 1st graduantes May ‘24

These engagements “crowded in” other health areas for a comprehensive review, including RMNCH

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Accelerated demonstration of Shang Ring device for use in younger age groups of males realizes a viable, cost-effective, and efficient approach to VMMC in Zimbabwe, supporting the MoHCC to achieve a more sustainable phase, and informing broader WHO recommendations

AIM 1	AIM 2		AIM 3
Is Shang Ring Procedure in adolescents 13/14 years as safe as VMMC procedure (Surgical/Shang Ring) among older age groups 15-16 years old. .	Do younger adolescents have capacity to understand the procedure and give informed assent?	What are the drivers and barriers to VMMC for adolescents, their parents, and providers; and how can demand creation efforts be created?	What are the costs of delivering Shang Ring and what is the relative cost-effectiveness at scale?

Early Learnings Shang Ring Safety study

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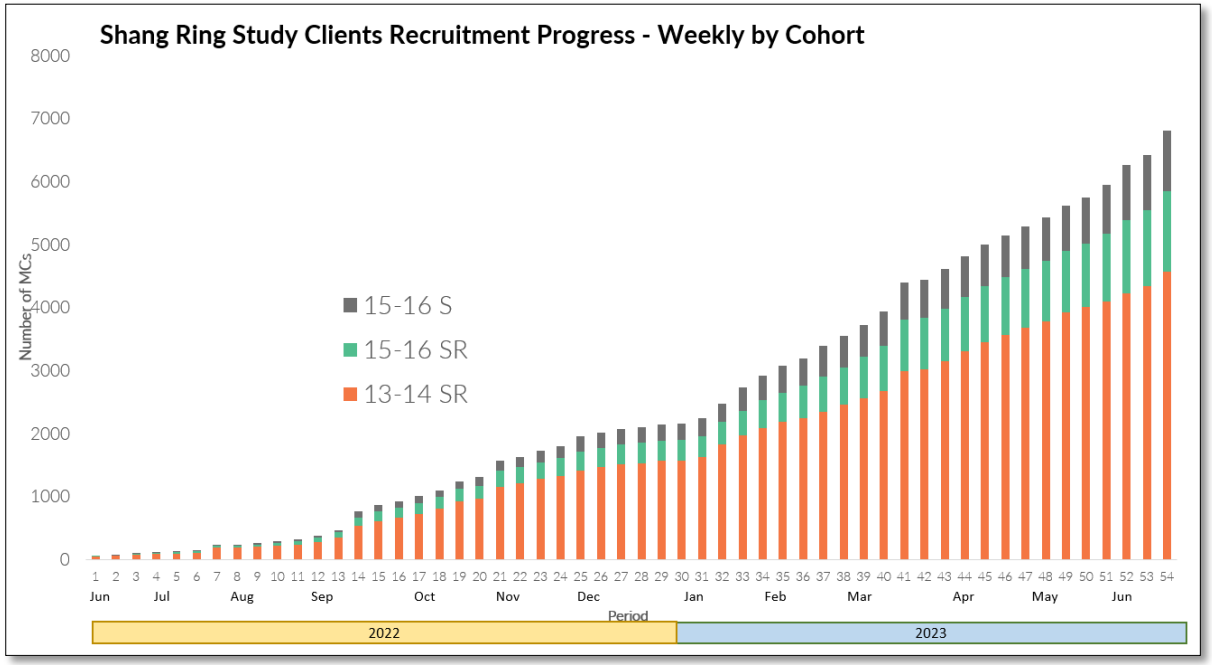

- ***Residual demand for "the ring":*** SR uptake >50% among 15–29-year-old males in 9 pilot districts since Feb 2022.
- ***Client Satisfaction:*** 98% reported being satisfied or very satisfied; 96% said they would recommend SR to someone.
- ***Reduced time to Provider Proficiency:*** Providers who received no prior VMMC training needed fewer clients (<5) and less time to proficiency compared to surgical proficiency (10-15 clients).

Shang Ring device supply chain, sizing

- Consumption rates of different devices sizes depends on daily service uptake by different age bands which is unpredictable.
- Device utilization variations forced movement of devices across sites and caused.
- Need to continuously stock all adult and adolescent device sizes

Shang Ring Pain Management

- Topical anaesthetic cream (EMLA) provides sufficient anaesthesia for the SR procedure.
- Pain experienced post procedure is manageable with prophylactic oral analgesia (Paracetamol).
- Shifted to flexible higher dosing of paracetamol for satisfactory pain control.
- Providers and counsellors need to be prepared to counsel clients on how to manage post-procedure pain.

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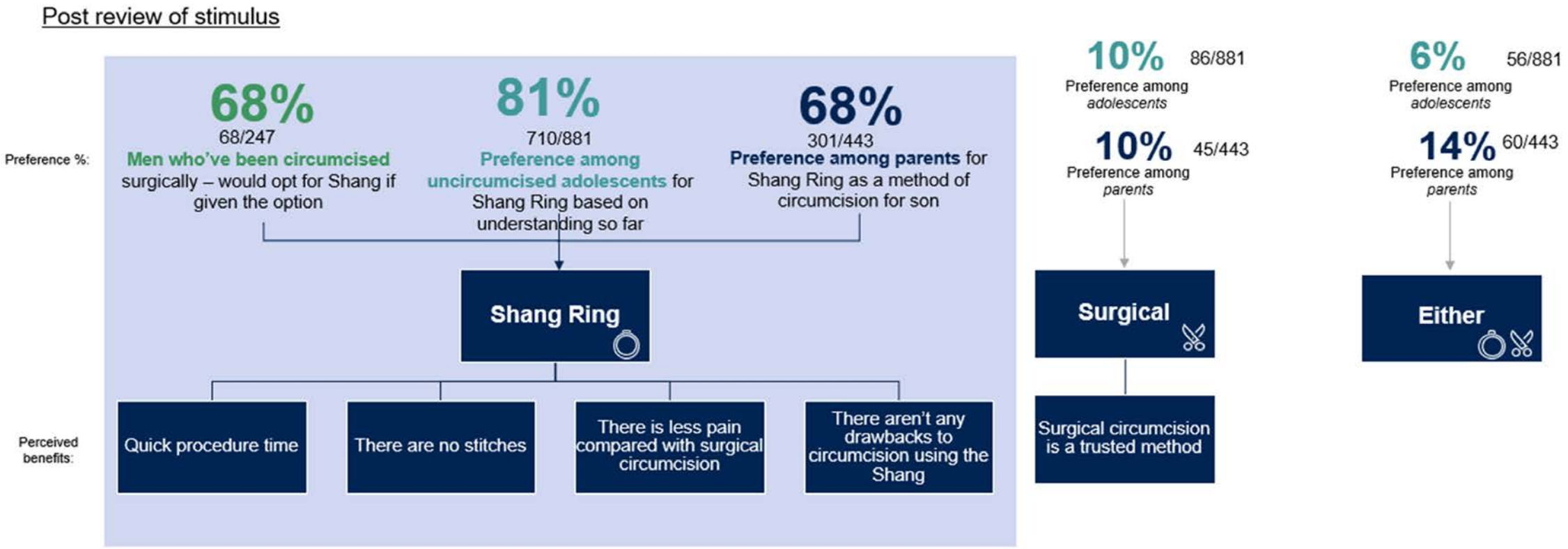
Preferences for Shang Ring and surgical VMMC among adolescents and their parents in Zimbabwe: Findings from a cross-sectional study



Strong preference for Shang Ring over surgery indicates that VMMC devices could play an important role to increase VMMC demand and uptake for the long-term sustainability of Zimbabwe's VMMC programme

Rebecca West[1,2], Sehlulekile Gumede-Moyo[1,3], Sunny Sharma[1], Nisa Hurst[1], Will Bench[1], Brian Maponga[4], Nehemiah Nhando[4], Lucy Bullock[1], Sinokuthemba Xaba[5], Karin Hatzold[6]

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Conclusions, Recommendations

1. VMMC and broader HIV biomedical prevention programs are threatened by system challenges and external shocks.
2. Differentiated VMMC service delivery support for geographies should be guided by the anticipated epidemiological impact.
3. The need for robust and predictable financing to sustain biomedical prevention service delivery.
4. Technology and digital innovation can improve efficiency, expand consumer agency and choice.
5. Post surgical virtual self-care improves quality of care, client satisfaction and relieves provider burden.
6. New technologies such as male circumcision devices could increase demand and uptake, increase safety and efficiency and reduce costs for VMMC.
7. The innovations deployed in VMMC service delivery can be used to deploy new biomedical prevention interventions, whilst consolidating existing interventions.


Q & A

Sinokuthemba Xaba – Ministry of Health and Child Care, Zimbabwe

Innovations for sustainable integrated biomedical prevention programming in Sub-Saharan Africa

Leadership, Management and Coordination of sustainable VMMC and Broader HIV Biomedical Prevention Programming

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Challenges, Solutions for Strengthening Subnational MoHCC Management, Coordination

Challenge 1: MoHCC needs visibility and ownership of input financing budgets

Subgrant input financing through Fixed-Price, Output-Based Milestone agreements which motivate efficient translation of input decisions into outputs

Challenge 2: Output financing incentivizes individuals and volumes over structures and quality

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Integrated support to transition from vertical partner-led to horizontal MoH-led and planning, management and coordination of integrated HIV biomedical prevention

Outputs

RBF Output Financing

Improved DHE-led planning, coordination, problem solving to optimize inputs to outputs

Subgranted Input Financing Decisions

District Medical Officer leads DHE through **UCSF, INTEGRATE supported Organizational Development (ODI)** for improved management, planning and coordination

- Nursing
- Health Promotions
- Supply Chain
- Strategic Information
- Accountant
- Pharmacist
- Admin
- Environment Health

Seconded District Biomedical Prevention Officers support DHE members to take up their integration roles

Seconded Provincial VMMC Officers support DHE members to take up their integration roles

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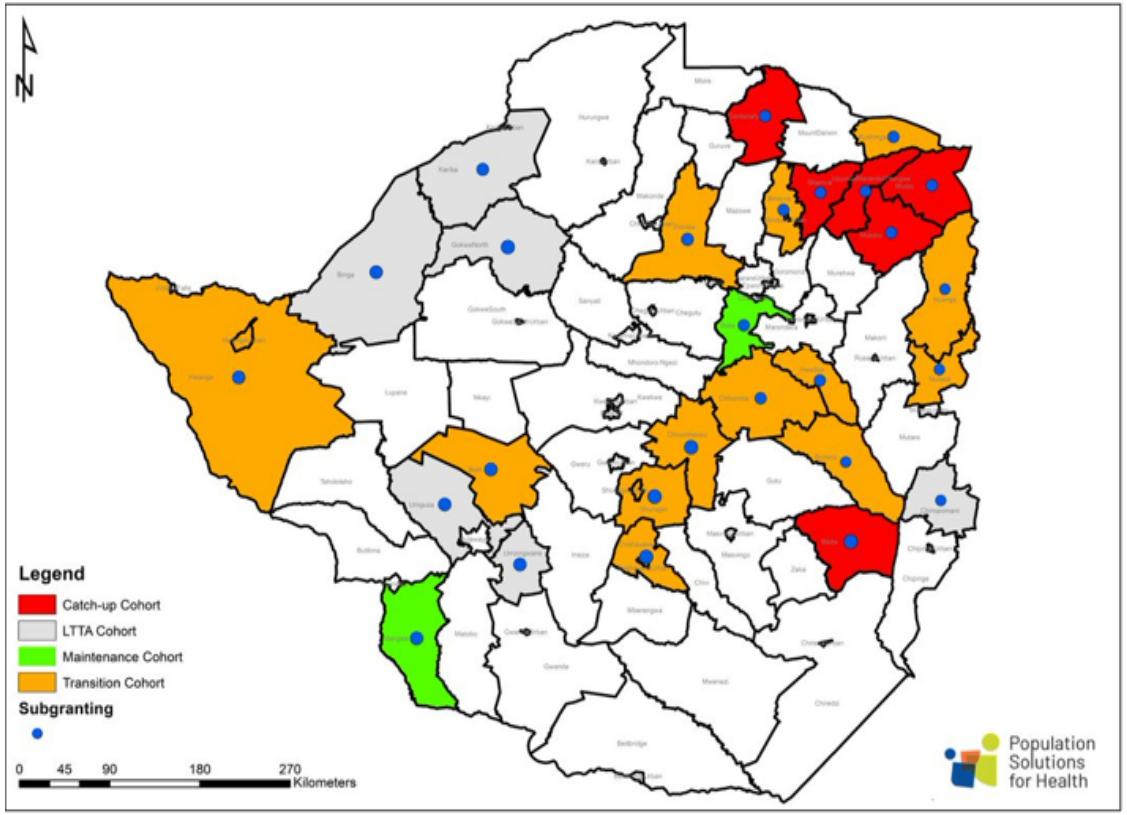
PHE Subgranting - Overview

Challenge: MoHCC needs visibility and ownership of input financing budgets

Solution: Subgrant input financing through Fixed-Price, Output-Based Milestone agreements which motivate efficient translation of input decisions into outputs in all the 27 BMGF supported districts



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Sub granting $2.7M in input financing through fixed-price, outcome-based milestone agreements to 8 provinces, 27 districts over 2 years

#	Milestones	Program Activities
1	Sub agreement developed between PSH and Manicaland PHE	
2	Male Circumcisions conducted in all the health facilities	Outreach campaigns to lower -level facilities
		Service delivery fuel
		Vehicle servicing
		Mid media demand creation events
		Mop-up outreach campaign mobilization
		IPC agents' mobilization incentives
3	Planning and review meetings with DHE, clinics and stakeholders	Quarterly review and planning meeting
		Shangring stakeholder sensitization meeting
		PHT planning meetings
4	Capacity building for Demand creation providers	Refresher training for demand creation cadres
		Bi-annual Continuous Quality Improvement
		IPC Agents training
5	Capacity building traning for Service	Provider trainings Biomedical prevention messaging
		Service provider Annual Refresher training
		Service provider Dorsal slit conversion training
		Certification process training
		Conduct TOT Shangring training
		Service provider Shangring training
		Refresher training for Service provider
6	Administrative support of VMMC programme	Administrative support
		Fuel for meetings and trainings
		Bank charges
7	AE management	Moderate AE management

Fixed Price Milestones are tied to outputs. If input decisions do not translate to VMMC outputs, districts earn less.

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Lessons learned from twelve months of subgranting input financing through MoHCC structures for ownership.

Going direct to 27 Districts would be faster,

but channeling through 8 Provinces builds ownership, accountability

PHE, DHE have taken up bottom-up planning and programme implementation previously led by partners.

PHE, DHE have taken up coordination of service delivery, including translating inputs to outputs, but a learning curve exists.

DHE-familiar service indicators moved faster than less familiar demand and training partner led inputs which required hand-holding.

Aligning agreement management to PHE, DHE accounting, program structures is key.

Low outputs lead to low earnings which resulted in unsustainable programme implementation. Demand creation is key.

High outputs and revenue led to savings that can be ploughed back into system strengthening activities.

Early indications of increased district ownership and accountability of program service and demand planning and decision-making.

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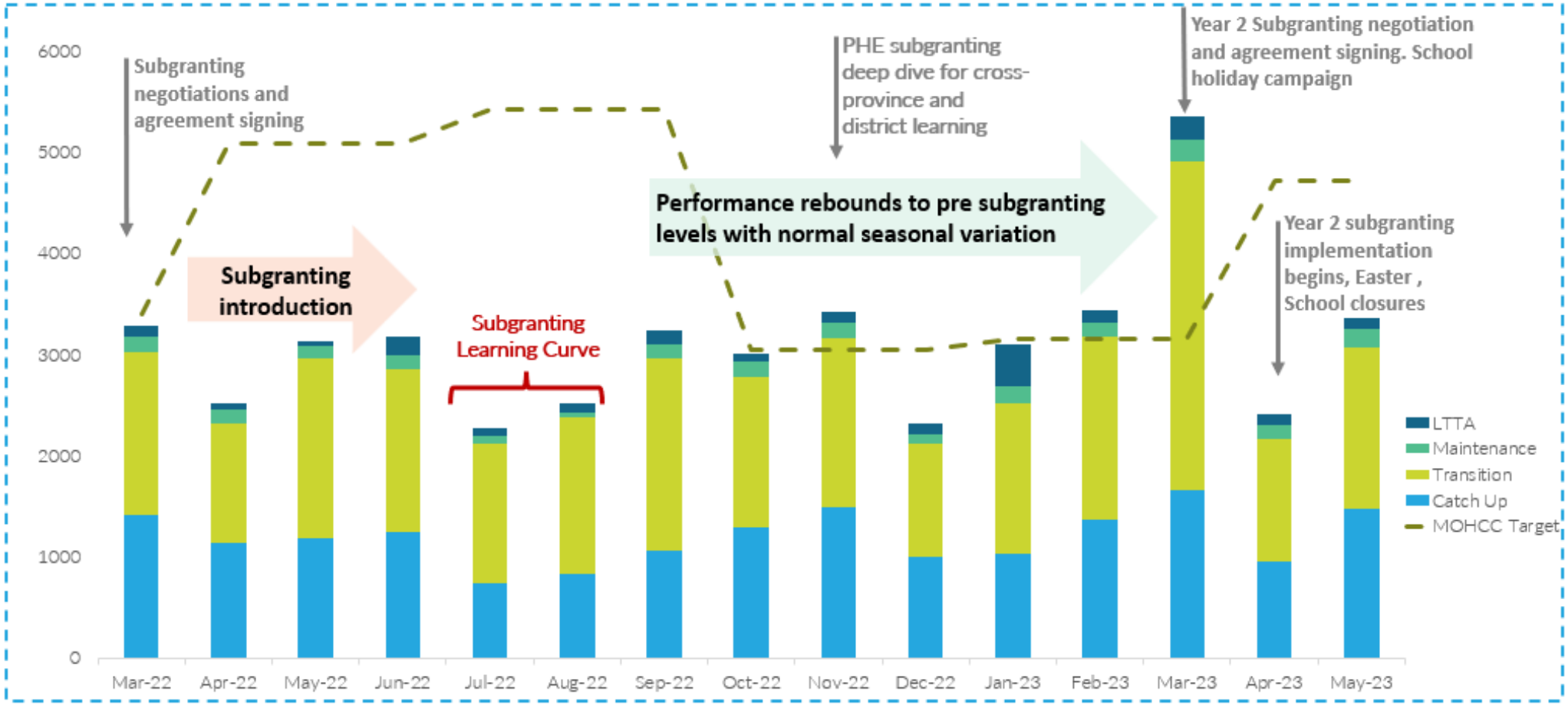
The VMMC Program Performance quickly recovered from shift in partner led to MOHCC led input financing, with partner hand holding which waned over time



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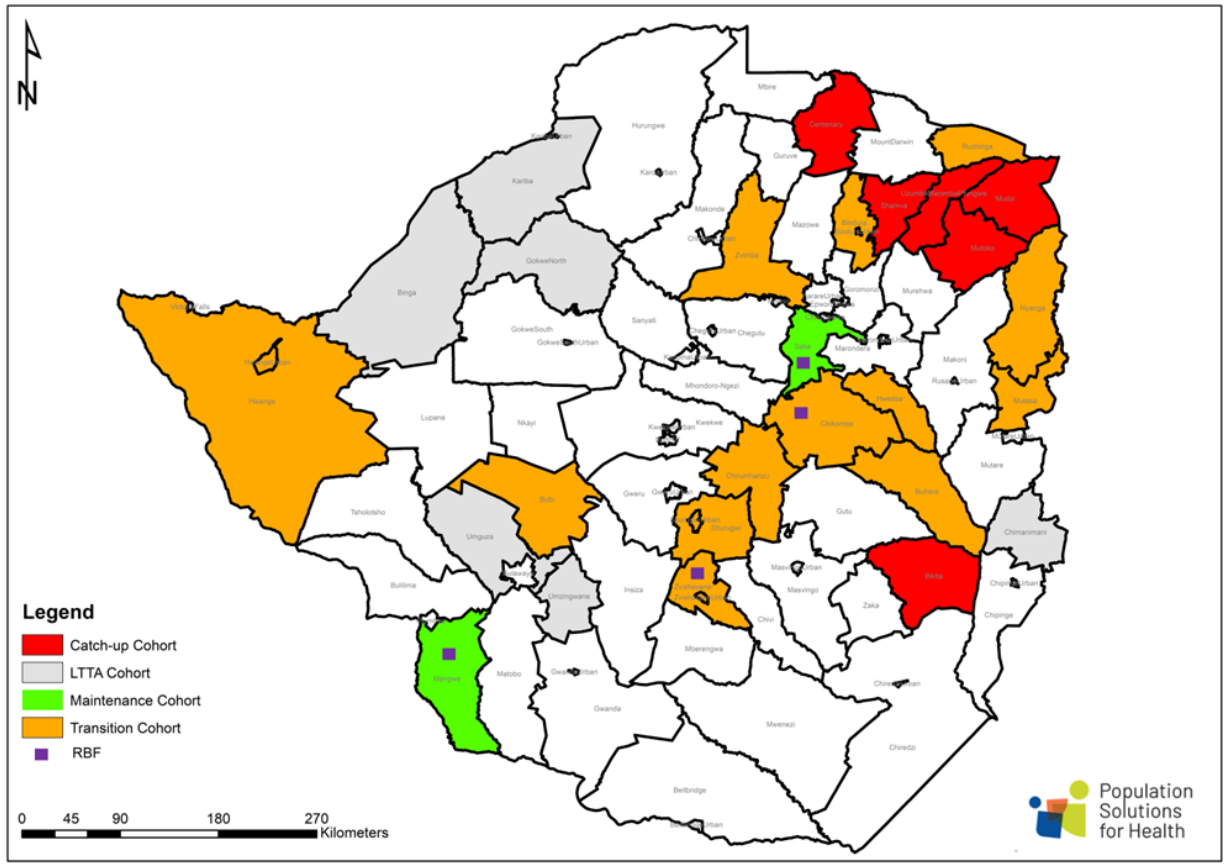
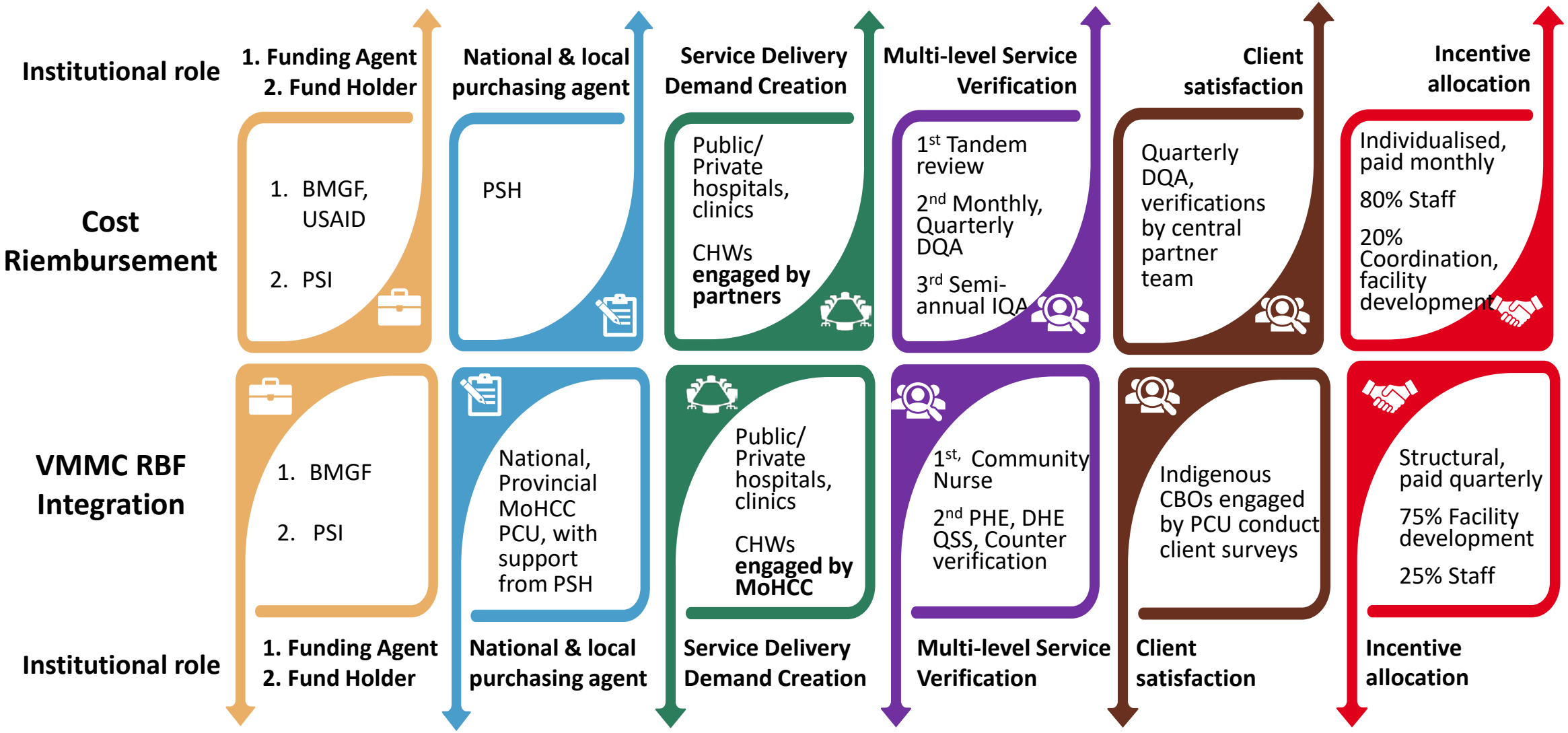
VMMC Output financing approach – Results based Financing (RBF)

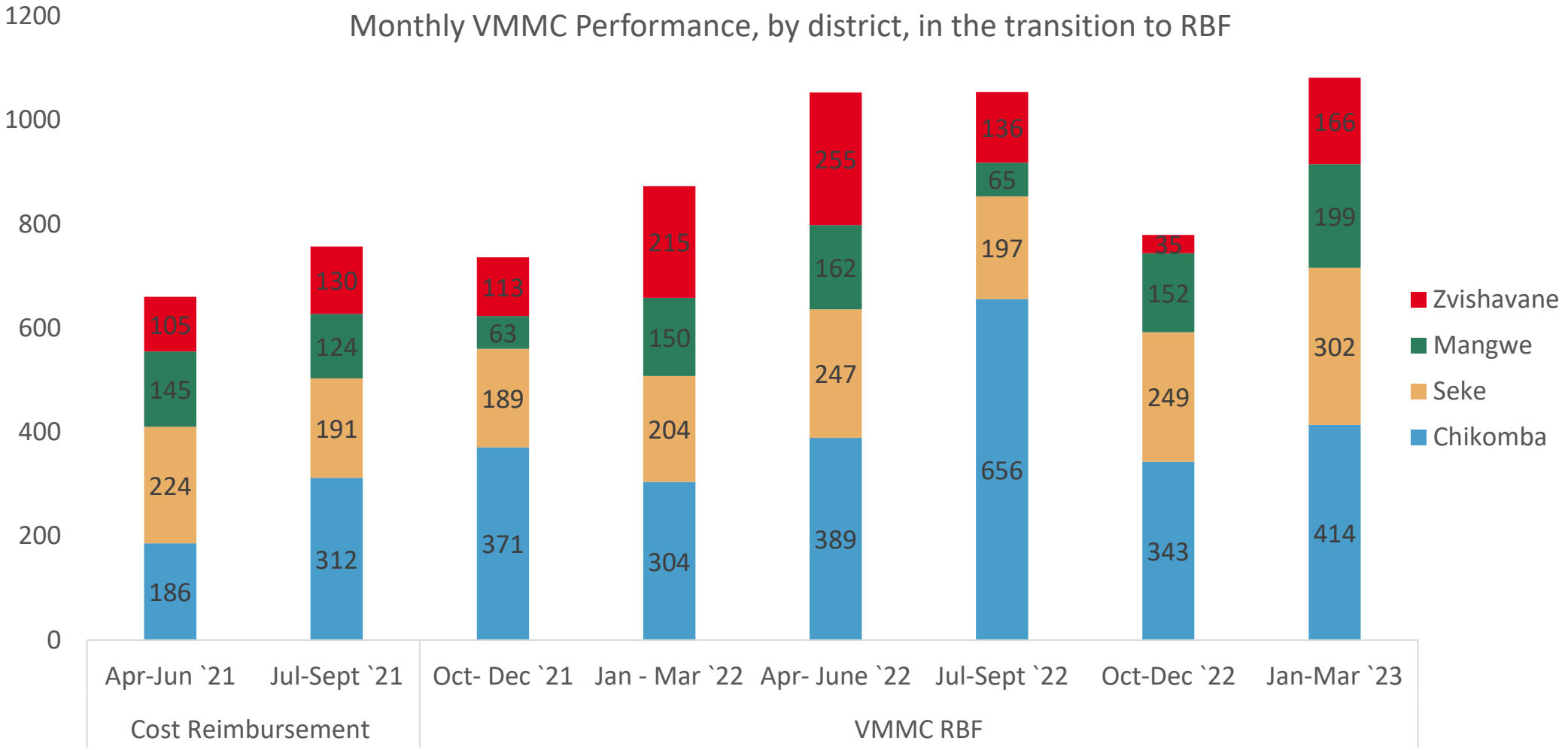


- ***Zimbabwe's existing RBF mechanism is a health system reform which substitutes individualized incentives for system strengthening incentives based on a pay-for-performance framework that balances quality and volumes.***
- Integrating VMMC output financing into existing MOHCC-led Results-Based Financing (RBF) structures and systems for Maternal Neonatal and Child Health (MNCH) in four pilot districts
- Piloted six quarterly rounds of verification and invoicing for VMMC services delivered through public sector sites since October 1, 2021
- Pilots informed roll-out to other funders USAID (Going the Last Mile for HIV Control) and CDC (ZAZIC)

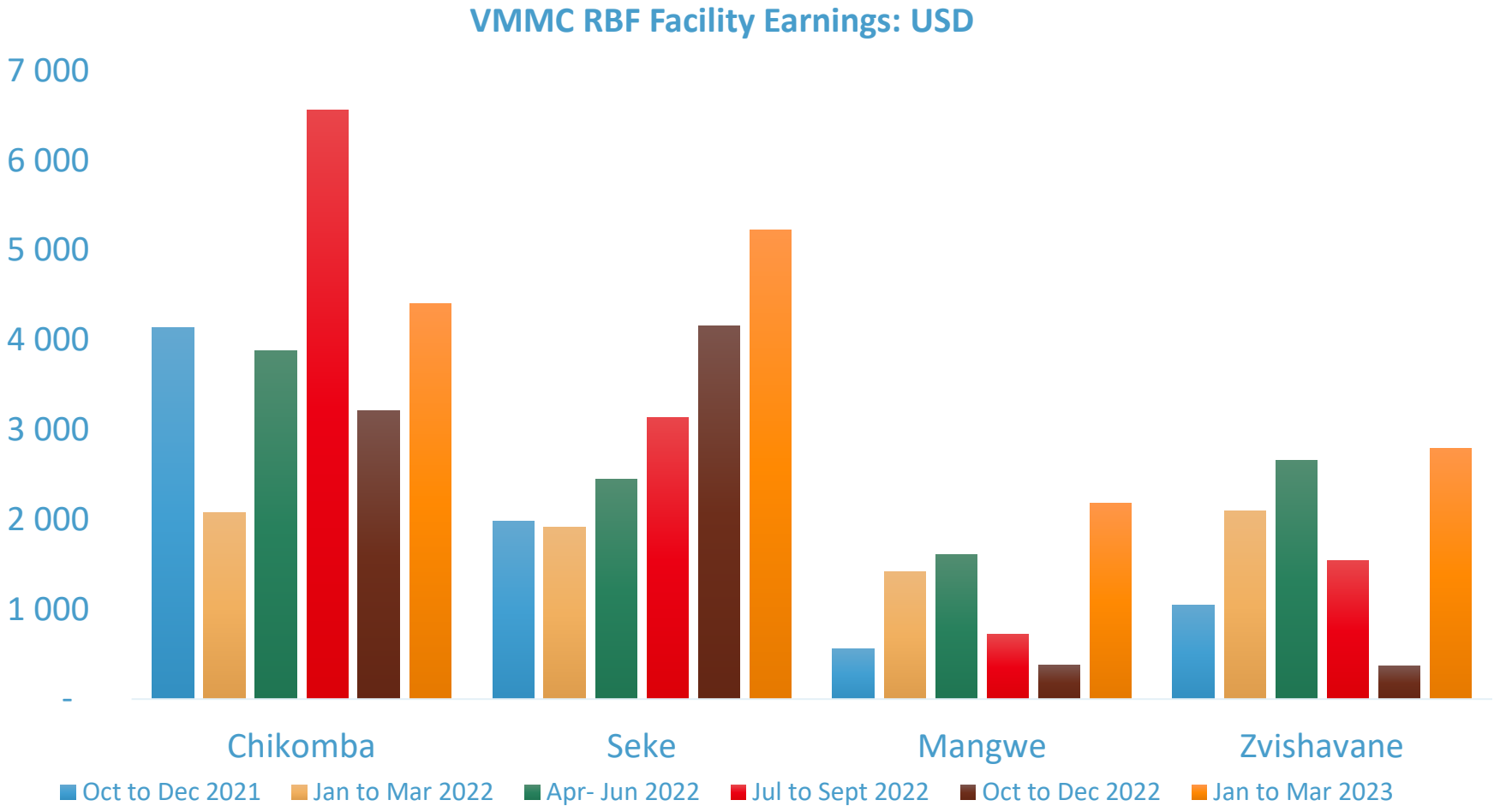
Shifting Output Financing - From Cost Reimbursement to Results Based Financing (RBF)



Learning 1: Quarterly performance remained steady in the transition and grew over time. Volumes drive earnings, so demand creation support and alignment of service delivery and demand are critical.



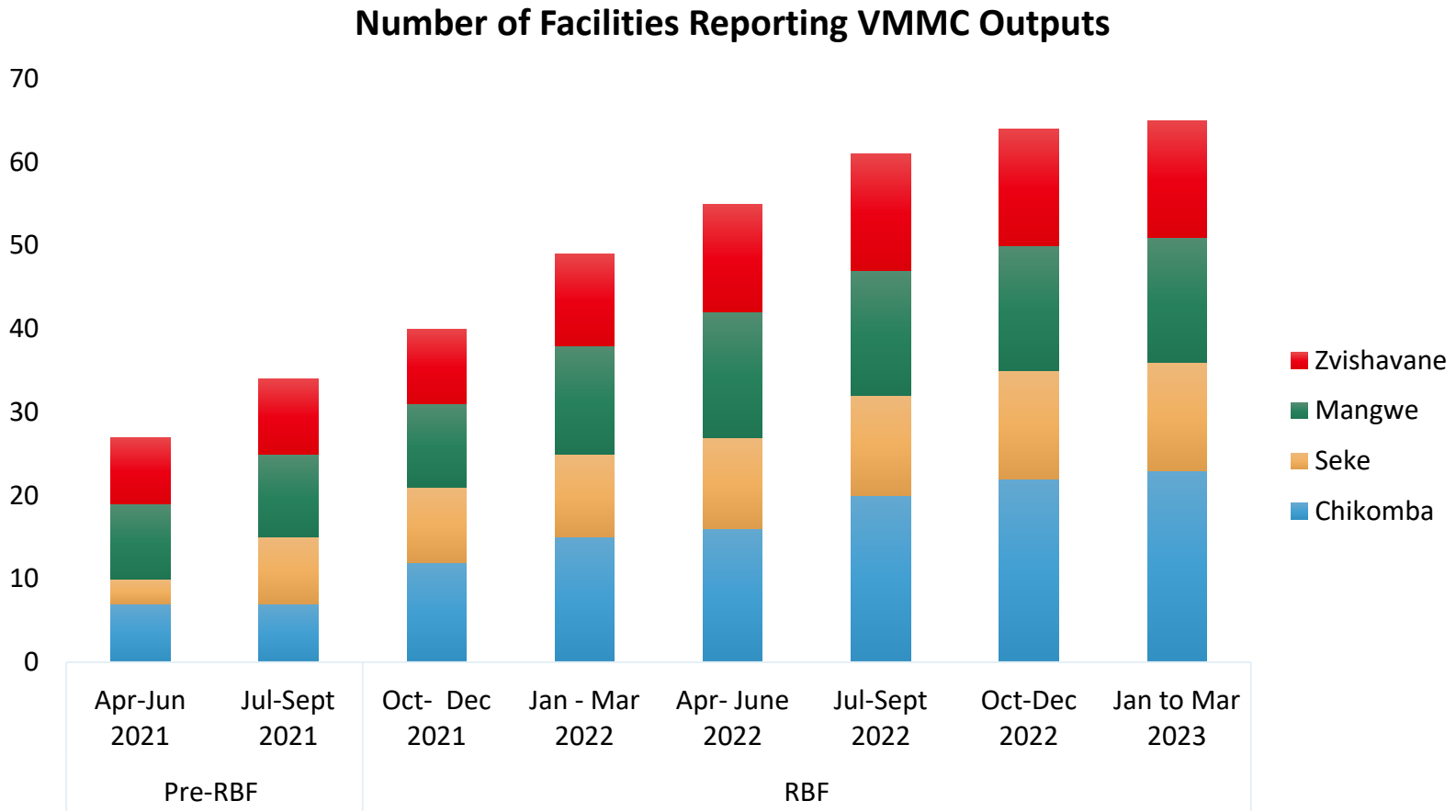
Learning 2: VMMC RBF Earnings generally grew, shifted away from individual incentives to benefit the facility, and motivated other facilities to activate VMMC demand



Clinic furniture

Clinic waste management construction materials

Learning 3: RBF incentives and payments motivated additional facilities to activate their demand structures and “pull down” teams from circumcising hubs, steadily increasing the number of facilities reporting outputs.



Decentralized facilities which can’t circumcise on their own activated their demand structure and pulled down teams from circumcising “hubs”

They were motivated by direct RBF payments to the sites where the MCs occurred, and by collective rather than individualized incentives

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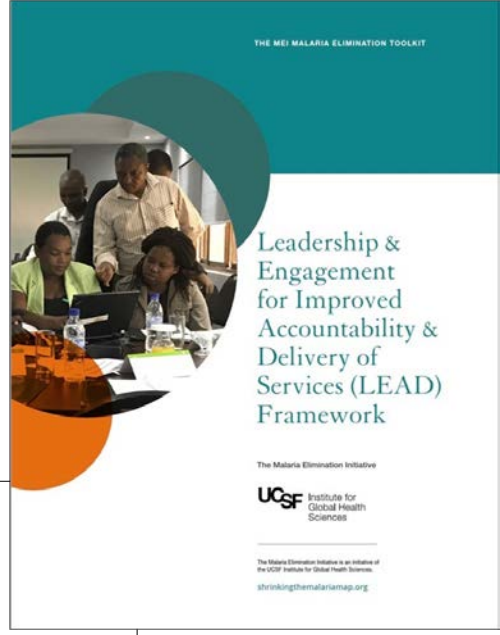
Learning 4: VMMC Service and Data Quality Scores improved, with DHEs leading the QA process

	VMMC RBF QA Scores						
Districts	Oct - Dec `21	Jan - Mar `22	Apr - Jun `22	Jul - Sept `	Oct - Dec `22	Jan - Mar `23	Sparklines
Chikomba	72.9%	77.3%	83.5%	85.5%	87.9%	86.9%	
Seke	68.3%	75.0%	79.9%	82.2%	79.4%	84.4%	
Mangwe	75.0%	81.5%	88.3%	89.8%	91.1%	92.9%	
Zvishavane	56.5%	85.3%	79.4%	90.2%	95.0%	94.1%	

- District-led assessments of VMMC service and data quality has improved, from being partner-led and inconsistent, to being led by the Districts and consistent.
- District-led QA is integrating biomedical prevention interventions (HTS, PrEP, STI, Condoms, KP, AGYW).
- Third level CBO led client satisfaction and verification presents an opportunity to improve program and data integrity with a high verification factor in the community at optimum cost.

Organizational Development Intervention



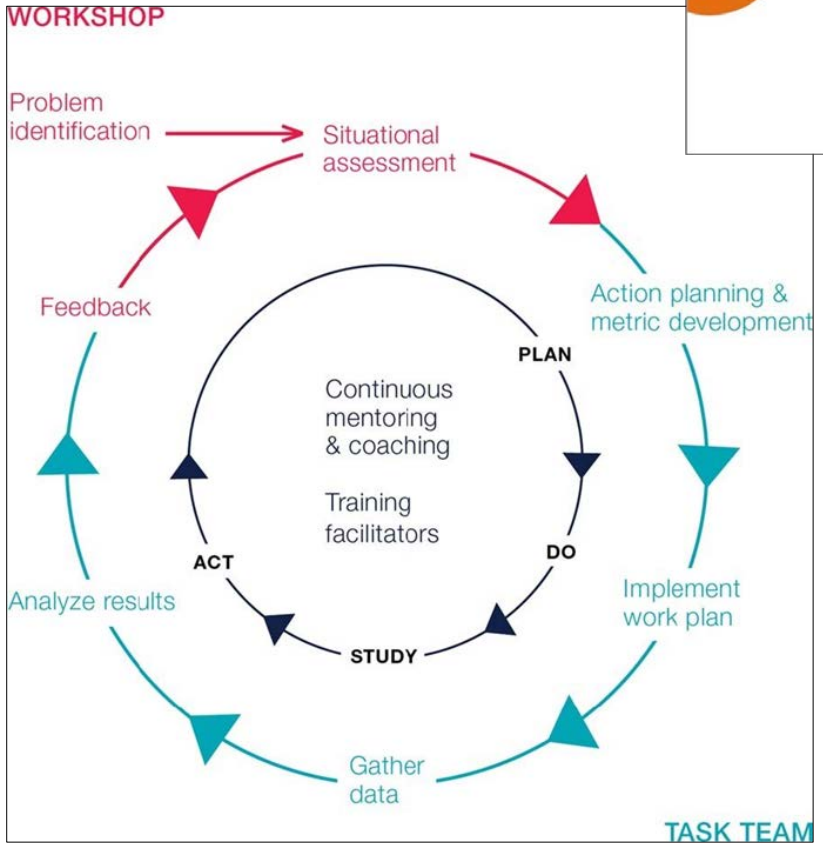
Challenge: DHE members often poorly resourced and overwhelmed by competing priorities for time management, coordination.

Proposed solution:

Participate in, expand UCSF OPTIMISE Organizational Development Intervention (ODI) approach developed with University of Western England.

ODI implementation facilitates District Health Executive problem identification and resolution, management and coordination through systematic and cyclical capacity building.

It applies the Lead Model (grounded in behavioural science and insights) through capacity building, coaching, mentoring, and support in a co-creation approach.



Take Home Messages

- Subnational MoHCC ownership of HIV Biomedical Prevention management and coordination is key to sustainability.
- Channelling input financing budgets and decisions through MoHCC structures builds subnational ownership of the transition of input financing decisions into high quality outputs.
- Integration of VMMC output financing with institutionalized results-based financing “crowds in” more decentralized facility and shows signs of improving quality and accountability.
- Time-bound secondments embedded within MoHCC structures facilitates district health executive team members to take up their role, and are critical for supporting Subgranted input financing.
- Channelling input and output financing through existing MoHCC financing systems tends to ‘’crowd in’’ more system managers and players in the transition from partner-led to GoZ-led programming.

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INTEGRATE
Catalyzing Integrated Sustainable Subnational Biomedical Prevention in Zimbabwe

Thank you

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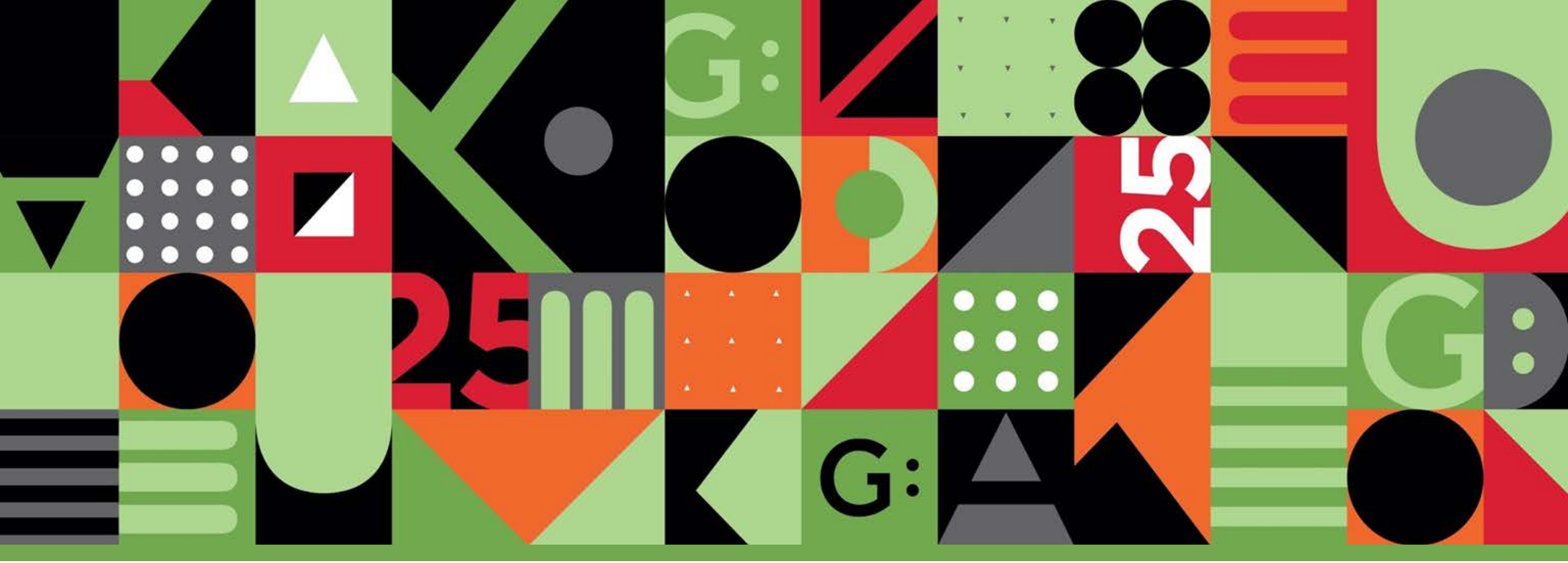
Ipsos
G:ENESIS 25 YEARS OF UNLOCKING VALUE
SAFAIDS Knowledge for action: The power to make a difference!
Population Solutions for Health
PRIMARY HEALTH CARE HEALTHY NATION ZIMBABWE



Financing: Results and lessons learned from research on sustainable financing and costing

VMMC Sustainability Satellite Session: IAS 2023

24 July 2023

G:ENESIS
25 YEARS OF UNLOCKING VALUE

VMMC service delivery in Zimbabwe

Results-based Financing and Sustainability

G:ENESIS
25 YEARS OF UNLOCKING VALUE

Overview of VMMC Service Delivery in Zimbabwe

Since 2019, Zimbabwe's VMMC programme has been underpinned by a shift towards sustainability through the **Sustainability Transition Implementation Plan (STIP)**

- Shifts to a government-led phase offering VMMC as a routine service to OABYM for long-term HIV prevention results.
- Shift to the integration of VMMC service delivery into MoHCC's Results-Based Financing (RBF) programme for Primary Health Care.
- Introduction of Shang Ring in selected districts in 2021.
- Coverage of VMMC in Zimbabwe has almost doubled from 82 060 MMCs performed in 2020 (COVID-19) to 151 037 MMCs performed in 2021 (UNAIDS, 2023)
- Grounded in six strategic pillars which can be aligned to the WHO's (2010) building blocks framework
    - Aims to strengthen the VMMC-related building blocks to address supply and demand side determinants of the VMMC programme

VMMC Programme Sustainability
"Managerial, financial and operational ability to deliver and maintain 80% VMMC coverage to ensure long-term health benefits and reduction in new HIV infections." - STIP 2019-2021

WHO Health System Building Blocks & STIP Pillars

VMMC SERVICES

Equivalent WHO HS Building Block
SERVICE DELIVERY
SUPPLIES & EQUIPMENTS
HEALTH WORKFORCE

DEMAND GENERATION

Equivalent WHO HS Building Block
SERVICE DELIVERY

STRATEGIC INFORMATION

Equivalent WHO HS Building Block
HEALTH INFORMATION SYSTEMS

PROGRAMME FINANCING

Equivalent WHO HS Building Block
HEALTH SYSTEMS FINANCING

PROGRAMME LEADERSHIP, MANAGEMENT & COORDINATION

Equivalent WHO HS Building Block
LEADERSHIP & GOVERNANCE

VMMC PROGRAMME QUALITY

Equivalent WHO HS Building Block
N/A

The INTEGRATE Programme

The INTEGRATE Programme's Key Interventions

Results-based financing mechanism	*PHE subgranting*
Demand generation	*DHE secondments*
Shang ring	*+ODI DHE Management/capacity building*

- Designed to support the MoHCC to implement the STIP to **achieve the 'maintenance' phase of sustainable VMMC programming**
- Aims to **integrate VMMC service delivery into the RBF mechanism in Zimbabwe**,
- AIms to **generate evidence** and **develop strategies** to successfully integrate VMMC service delivery into the RBF framework
- Focused on **strengthening the supply and demand** sides of the health system
  - **Demand side**: To strengthen community systems and create latent demand for VMMC among OABYM
  - **Supply-side:** To strengthen the health system to improve coverage, access, quality and safety of VMMC services

End-of-Pilot Evaluation of the INTEGRATE Programme for Improved VMMC Outcomes in Zimbabwe

EVALUATION DESIGN

End-of-pilot, mixed-methods quasi-experimental evaluation design

- **Secondary quantitative methods:** 2 data collection points (baseline pre-intervention and post-intervention), and 2 treatment/intervention districts and 2 control districts
- **Primary qualitative methods:** 1 data collection point (end-of-pilot only) and focus on all treatment/intervention districts
- **Costing, cost-effectiveness and relative efficiency components**

EVALUATION APPROACH

Grounded in the Most Significant Change (MSC) approach

- Dialogical, story-based evaluation approach which involves collecting programme stakeholders' narratives of perceived significant change
- Participatory in nature and frequently used to evaluate complex programmes that may have results that are challenging to measure or predict

End-of-Pilot Evaluation of the INTEGRATE Programme for Improved VMMC Outcomes in Zimbabwe

Evaluation Question	Qualitative Methods	Quantitative Methods	Financing & Costing Methods	Desktop Review
1. To what extent and how did INTEGRATE strengthen the health system for the VMMC programme in RBF pilot districts?				
2. To what extent did the INTEGRATE programme improve VMMC outcomes at facilities in the RBF districts?				
3. How did the programme influence the achievement of results at community, facility, district, provincial, and national levels?				
4. How does integrating VMMC service delivery into the RBF mechanism influence its costs, relative efficiency, cost-effectiveness and affordability?				
5. Did the integration of VMMC into the RBF programme result in sufficient resources being mobilised and allocated to service providers?				

What can we learn from other regional programmes aiming to support the sustainability of VMMC country programmes in Southern Africa?

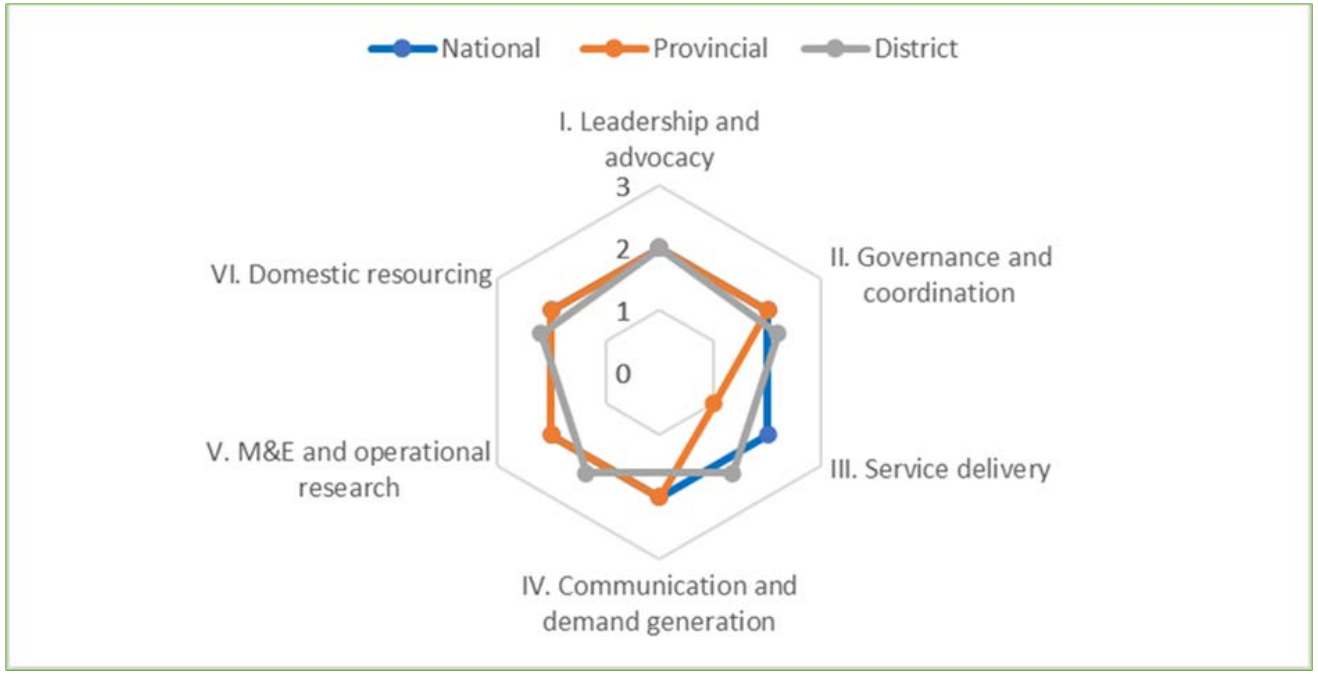
Areas of Strength:

- ➔ Leadership and Advocacy (⅔)
- ➔ Governance and Coordination (⅔)
- ➔ Communication and Demand Generation (⅔)
- ➔ M&E and Operational Research (⅔)
- ➔ Domestic Resourcing (⅔)

Areas for Development:

- ➔ Service Delivery (⅓)

VMMC Sustainability Assessment Findings (2022/23)



Sustainability Assessments: Key Findings and Recommendations (2021)

SERVICE DELIVERY

★★☆☆☆

Partial Progress

Sub-optimal targeting of population groups

Unable to achieve long-term goals

Sub-optimal integration

Verticalized partner driven interventions

HEALTH WORKFORCE

★☆☆☆☆

Limited progress

Understaffing

Lack of dedicated VMMC FPs sub-nationally

High turnover

Training gaps and downsized training organizations

SUPPLIES & EQUIPMENT

★★☆☆☆

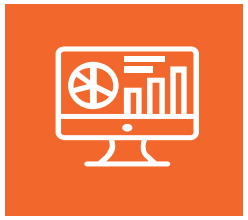
Partial Progress

Substantive integration of procurement into gov systems

Stockouts

Suboptimal forecasting and quantification of commodities

Strengthen sub-national systems



HEALTH INFORMATION SYSTEMS

★★☆☆☆

Partial Progress

Parallel reporting systems with data variances

Missing AE indicator

Sub-optimal data viz and use

Inadequate training & capacity strengthening of sub-national staff

HEALTH SYSTEM FINANCING

★★☆☆☆

Partial Progress

Resource needs analysis completed

Costed national operational plan

Costed sub-national operational plans not available

Largely donor funded (~70%)

Funding gap analysis to be completed

LEADERSHIP & GOVERNANCE

★★☆☆☆

Partial Progress

Costed national VMMC Strategy & Implementation Plan

Sub-optimal government leadership capacity

Inadequate sub-national staff capacity, incl. sub-optimal ownership and motivation

Cost and sustainability consideration for the delivery of VMMC in Zimbabwe

G:ENESIS
25 YEARS OF UNLOCKING VALUE

Overview of Shang Ring costing study

Shang Ring *was introduced in selected districts in October 2021. These districts continued to offer surgical VMMC as a choice to the client.* ***VMMC RBF pilot*** *was also launched in selected districts in October 2021.*

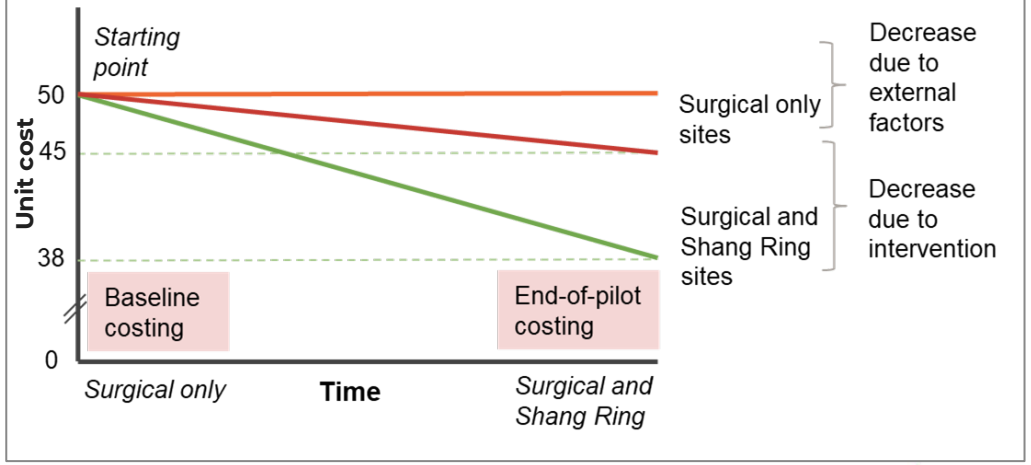
STUDY AIM

To determine the **total and unit costs** of introducing Shang Ring device circumcision into VMMC service delivery in Zimbabwe.

METHODS

- **Difference-in-difference** estimation isolates the changes in unit costs to the introduction of Shang Ring VMMC (baseline vs endline).
- **Mixed methods** (ingredients-based and top-down costing).
- Retrospective, financial and economic cost.
- Cost estimates exclude the economic cost of existing capital items and utilities.
- Costs are presented in **2022 USD**, based on an exchange rate of **1 USD = 97.50 ZWL$** *(average: 1 Jul 21 – 31 January 2022, RBZ Monthly Economic Reviews).*

Figure 1: Difference-in-difference approach (hypothetical illustration)



Overview of Shang Ring costing study

STUDY CONDUCTED IN TWO PERIODS

Baseline: 1 July 2021 – 31 January 2022 (pre-Shang Ring)

Endline: 1 July 2022 – 31 January 2023 (post-Shang Ring)

PURPOSIVE SAMPLE

Baseline: 8 districts and 35 facilities (all surgical)

Endline: 4 districts and 16 facilities (surgical)
4 districts and 12 facilities (surgical & SR)

Baseline & endline: 4 RBF districts; 4 non-RBF districts

INTERPRETATION OF RESULTS

Baseline results: all districts show the cost of surgical VMMC

Endline results: results in **surgical-only** districts show the cost of surgical VMMC; results in **mixed (surgical + SR)** districts show the cost of Shang Ring VMMC

District total cost: total for study period incurred at the district level

Facility total cost: total for study period incurred at the facility level

A **Facility unit cost** = $\frac{total\ facility\ cost}{total\ facility\ output}$

B **District unit cost** = $\frac{total\ district\ cost}{total\ district\ output}$

Average unit costs calculated using volume-weights

C **Total average unit cost per district** = A + B

(average in each district)

Average surgical and SR unit costs calculated as volume-weighted average of all C in respective districts

KEY RESULTS FROM THE SHANG RING COSTING STUDY

On average, the direct cost of SR is more than that of surgical VMMC

On average between **25% - 30%** of total unit cost is comprised of

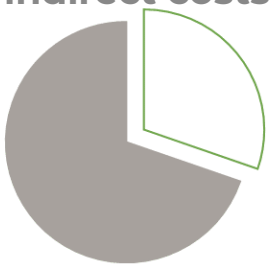
	BASELINE COSTS			ENDLINE COSTS			DIFFERENCE
	Average district unit cost	Average facility unit cost	**Average total unit cost**	Average district unit cost	Average facility unit cost	**Average total unit cost**	**Change in average total unit cost**
Surgical-only districts	$ 4.54	$ 25.54	**$ 30.08**	$ 4.25	$ 30.42	**$ 34.67**	**$ 4.59**
Mixed districts	$ 5.95	$ 24.49	**$ 30.44**	$ 3.08	$ 43.69	**$ 46.77**	**$ 16.33**

- Incremental cost of SR = $ 12.10
- **Not adjusting** for the $ 4.59 increase in surgical cost, which is largely due to **change** from reusable instruments to **disposable kits (also used for SR)**

- **Direct delivery costs** = direct staff time, incentives, medical & non-medical supplies
- Higher SR cost due to cost of **SR device** and higher cost of **pharmaceuticals** (EMLA cream vs injectable anesthetics)
- **On average, no significant difference** in **direct staff time cost** between surgical and SR (when including time for SR removals on day 7)

Indirect costs are highly variable between facilities and between districts and are highly volume-dependent

On average between **65% - 70%** of total unit cost is comprised of **indirect costs**



	BASELINE			ENDLINE			DIFFERENCE
	Average district unit cost	Average facility unit cost	**Average total unit cost**	Average district unit cost	Average facility unit cost	**Average total unit cost**	**Change in average total unit cost**
Surgical-only districts	$ 46.48	$ 17.83	**$ 64.30**	$ 56.77	$ 29.29	**$ 86.06**	**$ 21.76**
Mixed districts	$ 58.93	$ 33.55	**$ 92.48**	$ 69.03	$ 12.49	**$ 81.51**	**$ (10.97)**

- **Indirect costs =** indirect staff time, travel costs for outreach, demand creation and client mobilisation (fuel & per diems), demand creation materials
- Indirect unit costs are largely **dependent on volumes** obtained in districts / facilities
- Average indirect HR costs are driven up by **relatively higher cost of PSH staff** in some districts

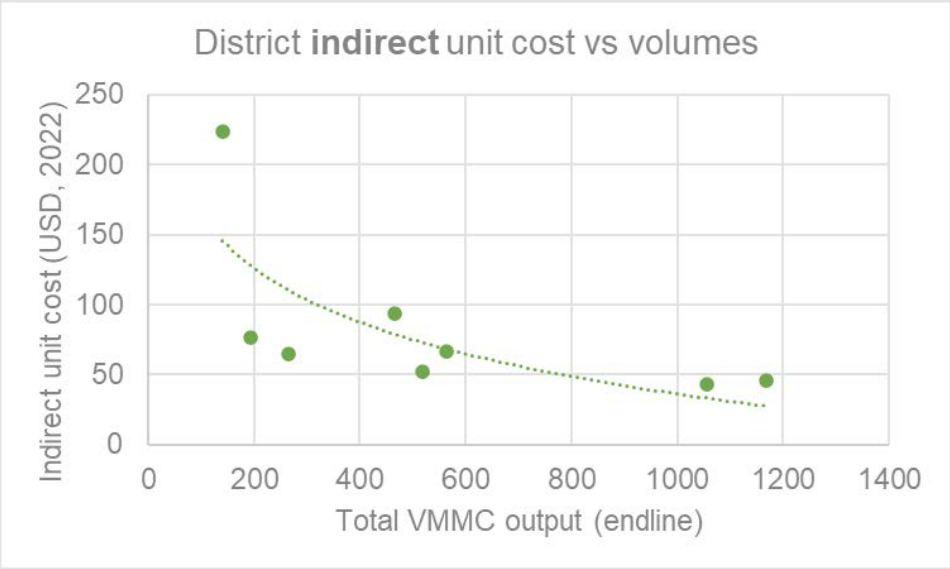
HR component (largely fixed)

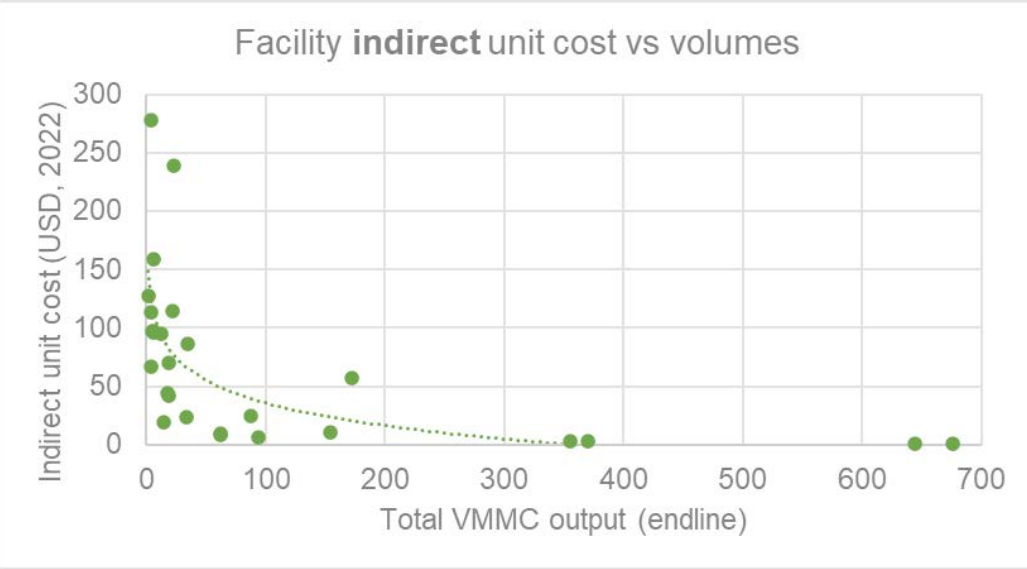
- Surgical: $ 54 (64%)
- Mixed: $ 47 (58%)

Transport and demand creation costs (varied)

- Surgical: $ 31 (36%)
- Mixed: $ 34 (42%)

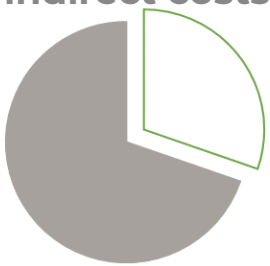
Indirect costs are highly variable between facilities and between districts and are highly volume-dependent





Indirect costs are highly variable between facilities and between districts and are highly volume-dependent

On average between **65% - 70%** of total unit cost is comprised of **indirect costs**



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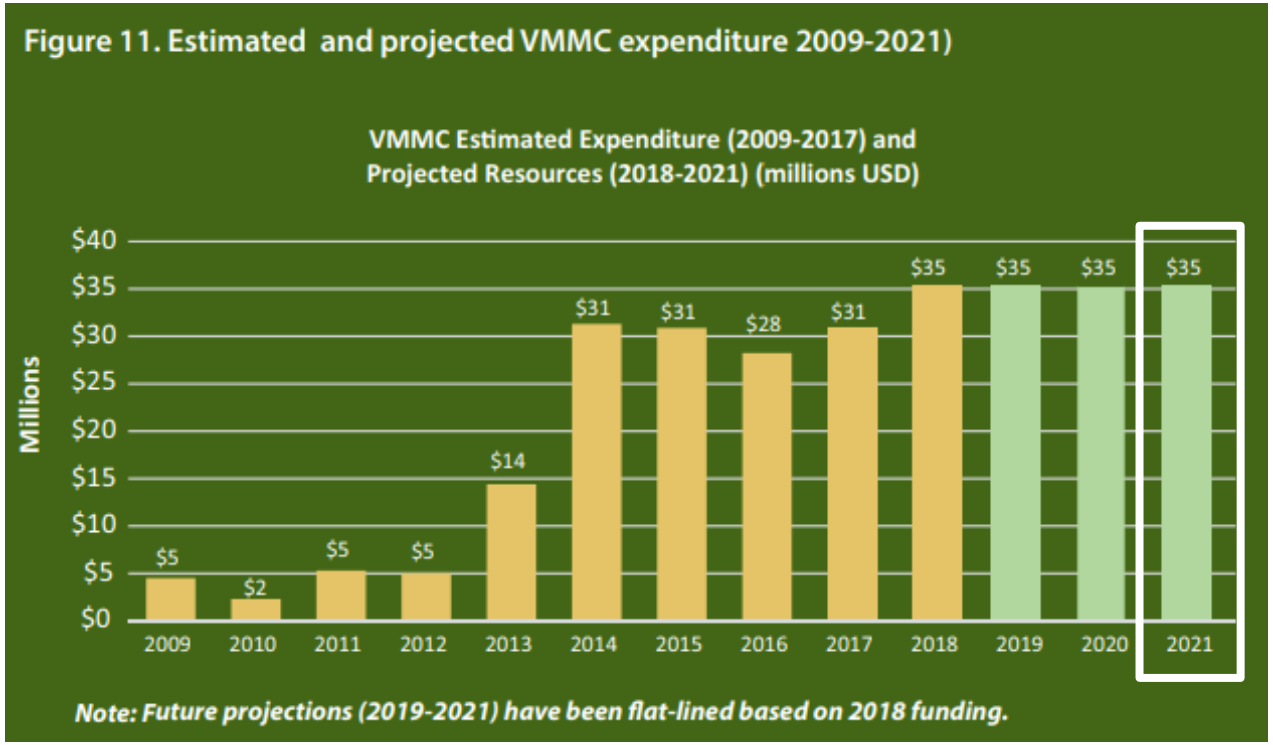
- Mixed: $ 34 (42%)

Budget considerations of a transition to domestic funding



Source: Zimbabwe STIPP 2019-2021, VMMC

VMMC expenditure by selected partners (PEPFAR & BMGF):

- **2021: $ 16.6 million**
- 2022: $ 3.6 million

(Source: data provided by PSH)

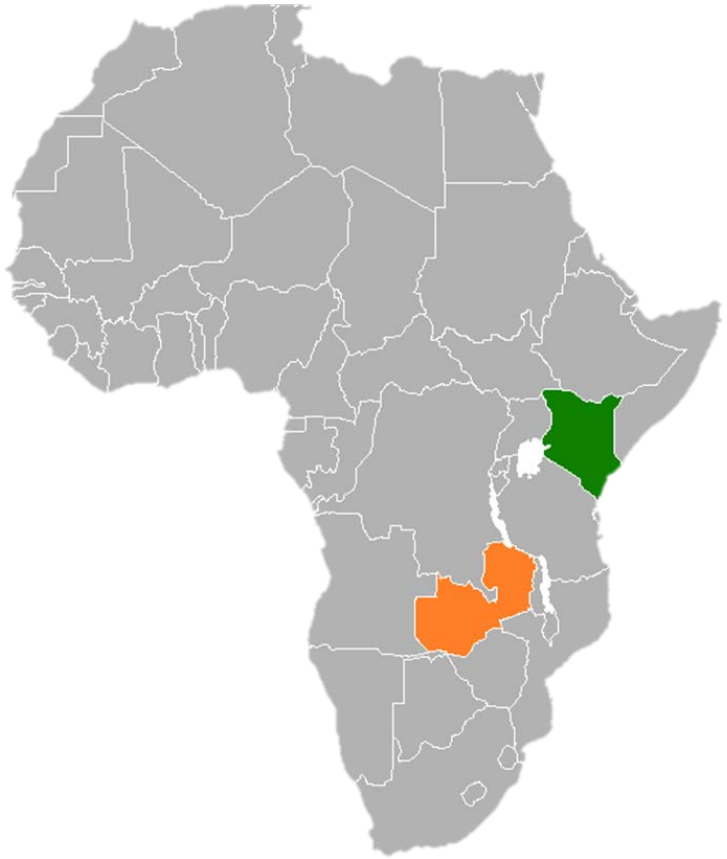
Key budget considerations

- MOH already funding a big component (HR [approx. 30% of cost]) but can **explore efficiencies** to reduce the high cost of indirect staff time.
- Should consider major cost drivers currently mainly funded by external partners including **commodities and supplies**, **incentives / RBF payments** and **transport costs** for demand creation and client mobilisations.
  - $ 61 per surgical MC and $ 75 per SR MC based on study results.
  - In 27 BMGF districts 2022 target was 50,000 VMMCs = approx. **$ 3.4 million.**
- Mix between surgical & SR: incremental cost of $ 12 per MC for introducing SR.
  - **$ 300,000** if 50% of VMMCs in the 27 BMGF districts are switched to SR.
- The **indirect unit cost** used for planning / budgeting purposes should reflect expected volumes since indirect unit cost decrease with an increase in volume (or vice versa).

Key cost and budget considerations to support transition to a more sustainable programme: evidence from the region

Quantify resource need required and fiscal space required for transition

Zambia have recommended a **fiscal space analysis** for health and HIV be conducted to assess the viability of future increases in the government budget for HIV and VMMC specifically.



In the Zimbabwean case, there is evidence and recommendations for **efficiencies** e.g. around the use of reusable kits. Previous research has shown that the introduction and scale-up of re-usable kits will lead to further cost reduction on the procurement of commodities.

Consider evidence around programmatic efficiencies to reduce costs

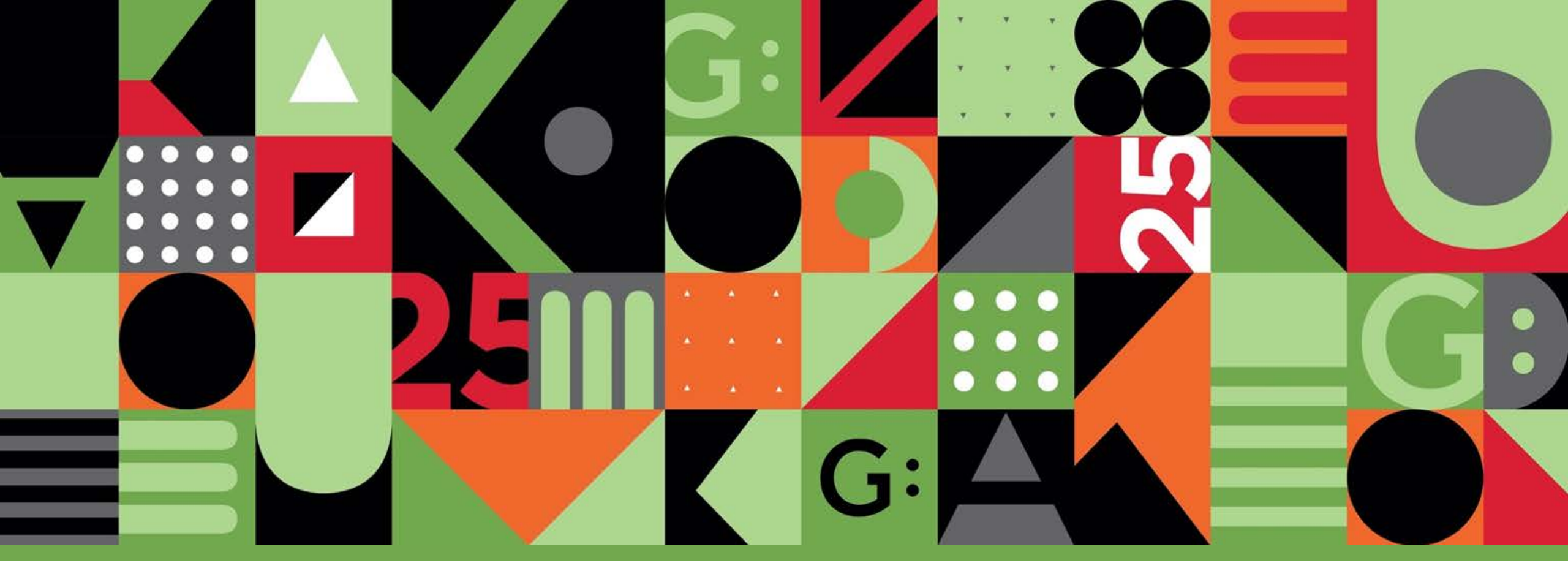
In Kenya, implementers and subnational MoHs identified and executed opportunities for efficiencies including **implementing risk-based HIV testing for 10-14-year-old clients; aligning service delivery with school holidays** for 10-14 year olds; and **strengthening the national MoH's restocking sites** where instrument stockouts were an obstacle to maintaining services with VMMC reusable kits.

Ensure sufficient budget planning and resource mobilisation to implement the transition plan.

In Kenya the lack of a **dedicated budget** to support the transition and sufficient **domestic resource mobilisation** was identified as a key barrier to implementation.

WHO recommends exploring **different funding mechanisms** for VMMC, like national health budgets, taxation and voluntary contributions, to ensure diverse and sustainable support.

Source: Davis, Stephanie M., et al. "Making voluntary medical male circumcision services sustainable: Findings from Kenya's pilot models, baseline and year 1." PloS one 16.6 (2021): e0252725. ; Zimbabwe STIPP 2019-2021, VMMC; Fagan, T., and W. Zeng. "Sustainable HIV financing in Zambia: baseline analysis and prospects for new domestic resource mobilization. Washington, DC: Palladium." Health Policy Project (2015).



Thank You

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