

Sustainability implications for different voluntary medical male circumcision plans

Rachel Sanders
Katharine Kripke

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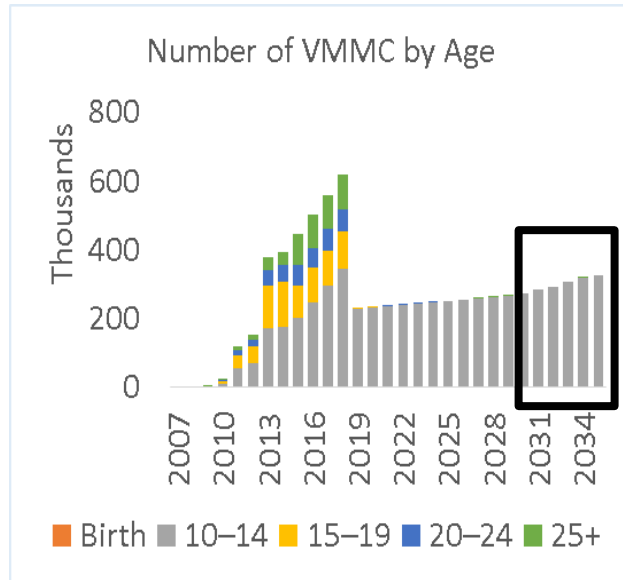


Methods

- 3 scenarios
 - Estimates of quantity of each type of voluntary medical male circumcision (VMMC) performed
- Human and commodity resource requirements drawn from various cost studies
- Extrapolated to scale using the OneHealth Tool
- Estimated health system requirements

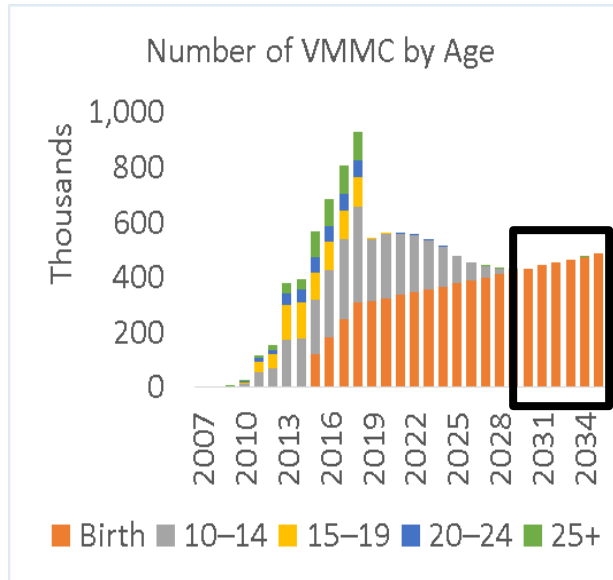
Three Scenarios: Tanzania

Adolescent sustainability



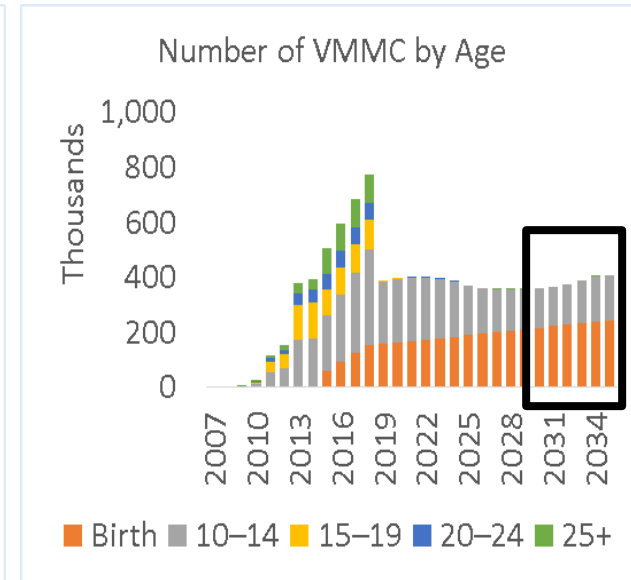
Scale up to 80% coverage among 10-34-year-olds

Infant sustainability



Scale up to 80% coverage among 10-34-year-olds + 80%EIMC

Mixed adolescent/infant sustainability



Scale up to 80% coverage among 10-34-year-olds + 40%EIMC

Human resource assumptions

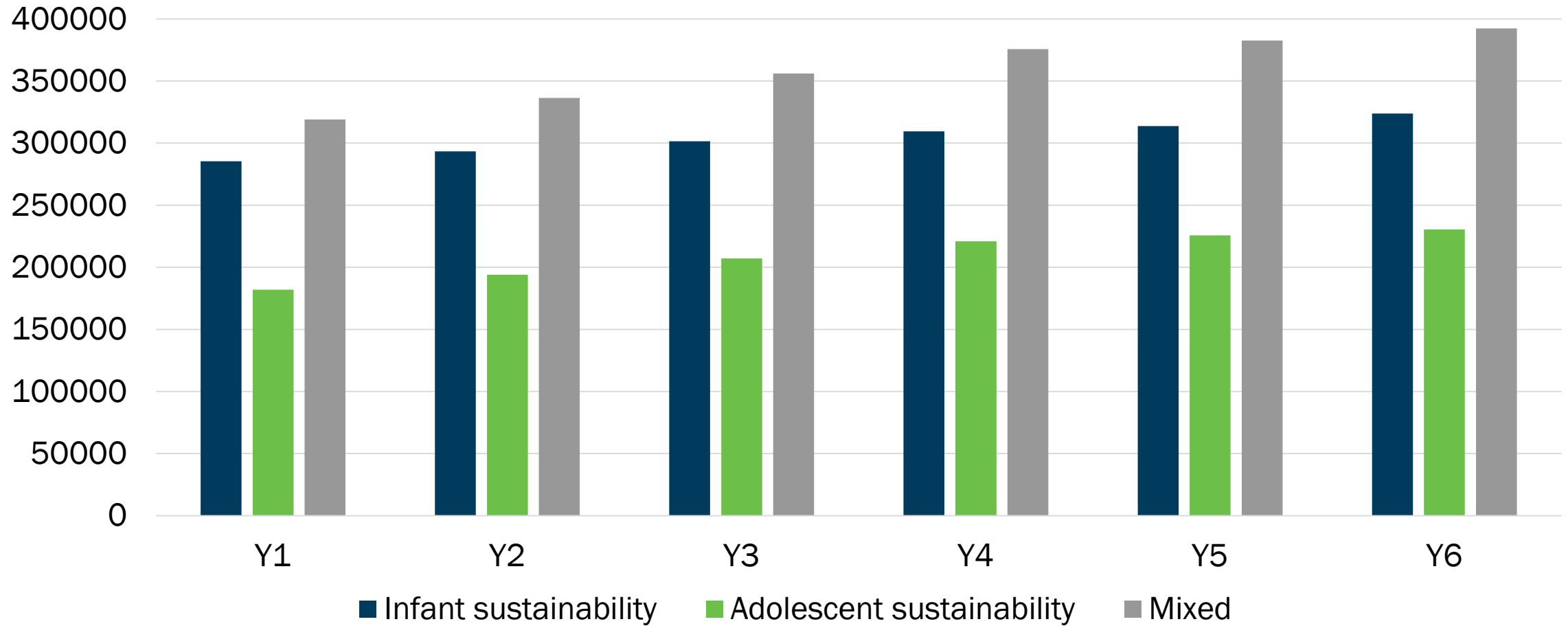
Staff Type	Total time per procedure (minutes)
EIMC*	
Medical doctor	20
Nurse or midwife	65
Adolescent/adult VMMC^	
Doctor	38
Nurses	53
Assistant nurses and midwives	41
Laboratory technicians/assistants	10
Counselor	20
Hemorrhage (2.2% of adolescent/adult clients)	
Nurses	20
Generalists/primary care doctors	10
Sepsis (6.3% of adolescent/adult clients)	
Nurses	20

Source: *CeSHHAR Zimbabwe Costing study, ^Menon V, Gold E, Godbole R, Castor D, Mahler H, Forsythe S, Ally M, Njeuhmeli. Costs and impacts of scaling up voluntary medical male circumcision in Tanzania. *PLoS One*. 2014 May 6; 9(5):e83925. doi: 10.1371/journal.pone.0083925. eCollection 2014.

Drug and supply assumptions

- EIMC
 - AccuCirc kit: \$10 per infant
 - Non-kit consumables: \$13.62 per infant
- Adolescent/adult VMMC
 - \$25.31 per person
 - Mix of disposable (60%) and reusable kits (40%)

Number of procedures



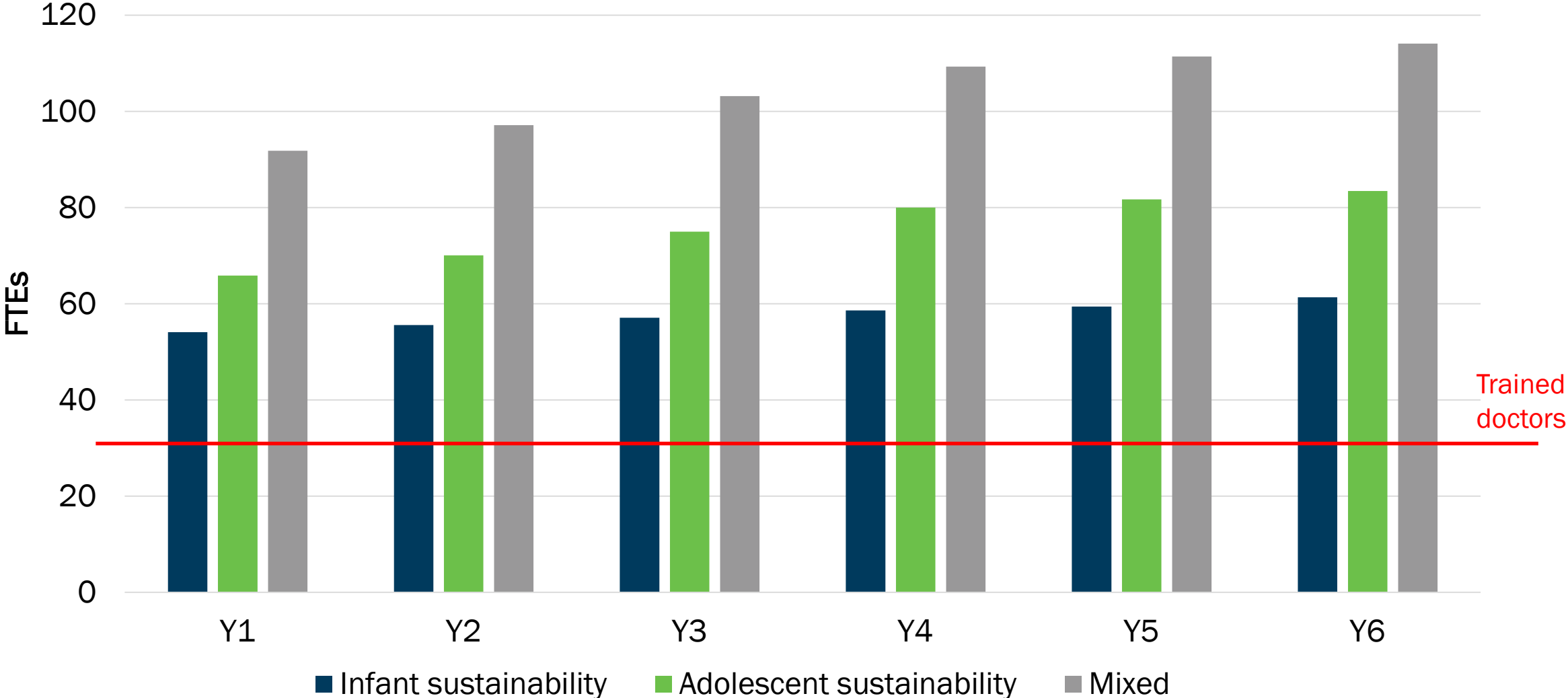
Human resources availability in VMMC focus regions (2013)

Doctors	Assistant medical officers	Clinical officers	Nurses	Total
Available personnel				
148	460	1,897	5,602	8,107
Trained personnel				
36	88	184	853	1,161*

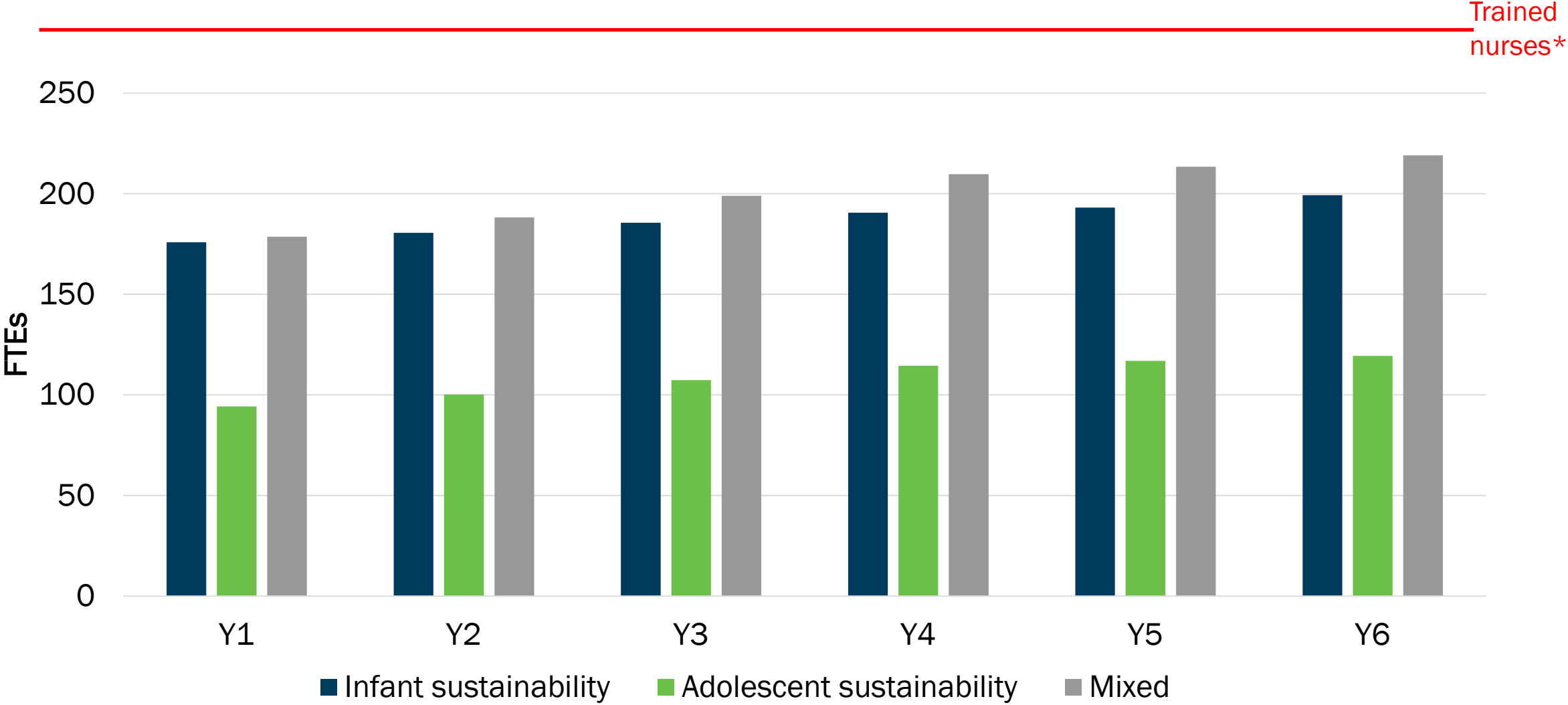
Source: Tanzania VMMC 2014-2017 Country Operational Plan

*Note: 33 staff trained from “other” cadres not included in this total

Human resource requirements: Doctors

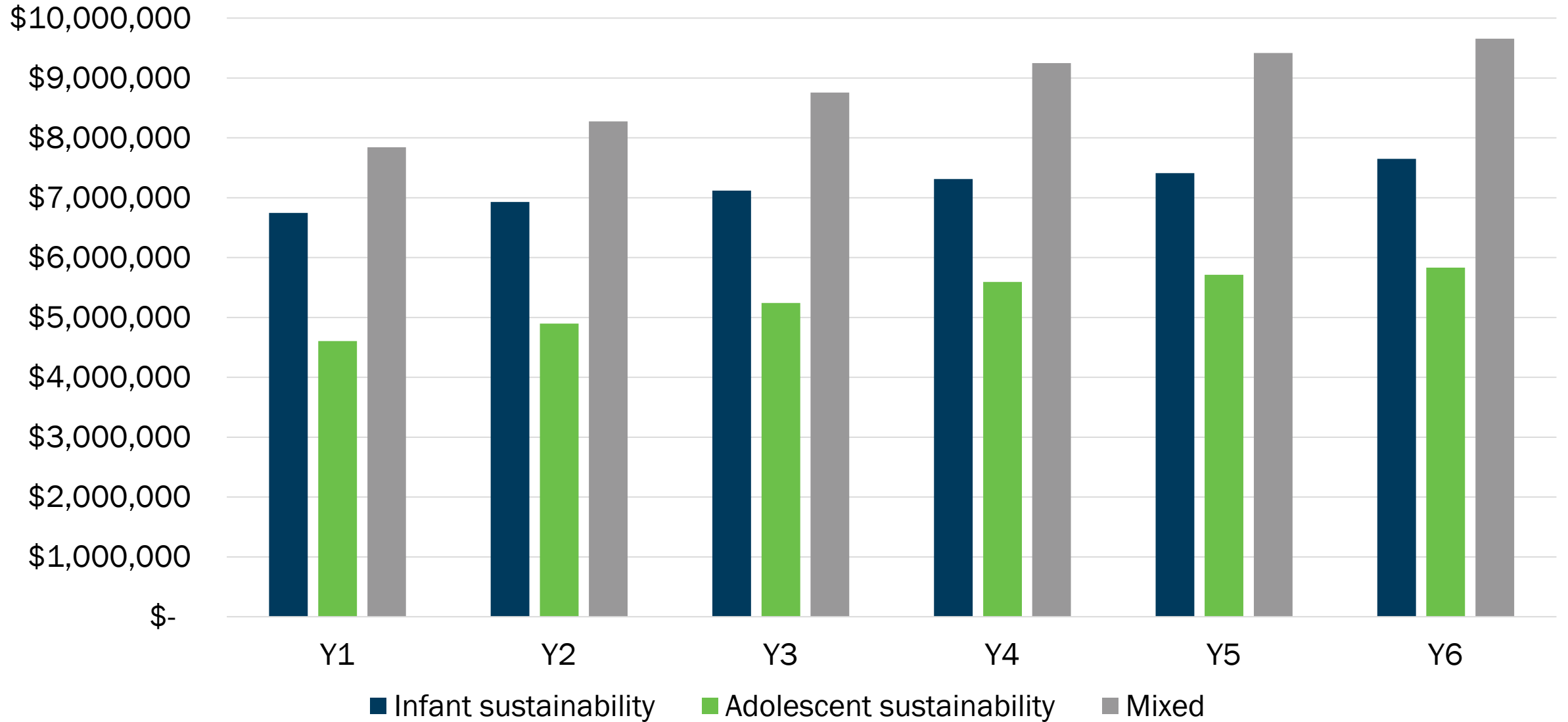


Human resource requirements: nurses and midwives



*Not to scale

Drug and supply costs



Limitations of analysis

- Different studies used for HR time for EIMC vs. adolescent and adult VMMC, so potential for lack of consistency.
 - In particular, the adolescent/adult study included specific time for complications.
- Unclear how much informal task shifting happens in practice.
- Limited data available for specialized staff like anesthetists, so not analyzed here. Potentially a larger constraint than recognized.
- This analysis focused on HR need and availability. This assumes adequate supply chain and infrastructure, which may not always be the case.

Data wish list and research agenda

- Analysis of funding streams for different options
 - MCH
 - HIV
- Future HR availability, based on training and hiring
 - Consideration of alternative options, particularly for higher level cadres like doctors
- Analysis of preparedness of other health systems areas like infrastructure (surgical theatres), equipment, and supply chain (especially if relying on kits)

Summary

- Sustainability of VMMC programs can present a challenge to countries, but in the case we considered, most resources are sufficient for the maintenance phase, if used wisely.
- Careful consideration of health system implications is needed, particularly for higher level or very specialized staff types.
- Additional analysis is needed, particularly around other health system issues like supply chain and funding streams.

Thank You

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Through operations research, Project SOAR will determine how best to address challenges and gaps that remain in the delivery of HIV and AIDS care and support, treatment, and prevention services. Project SOAR will produce a large, multifaceted body of high-quality evidence to guide the planning and implementation of HIV and AIDS programs and policies. Led by the Population Council, Project SOAR is implemented in collaboration with Avenir Health, Elizabeth Glaser Pediatric AIDS Foundation, Futures Group, Johns Hopkins University, and The University of North Carolina.

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