

The Impact of the Suspension of Voluntary Medical Male Circumcision Services in South Africa during the COVID-19 Pandemic

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Background

- While facing the COVID-19 pandemic, South Africa continues to face the dual epidemics of HIV and TB.
- Although governments, healthcare services, public health organisations and community organisations are working towards sustaining HIV services during the COVID-19 pandemic, there have been several barriers to the continuation of such services.⁽¹⁾
- The COVID-19 pandemic has **substantially disrupted health services**, through the overburdening of the healthcare system and the restriction of usual programmatic activities.^(2, 3)
- Diseases, such as HIV, TB and malaria, are reliant of large-scale prevention and treatment programmes.
- With interventions currently focused on reducing the spread of COVID-19, the **management of HIV and TB in South Africa has been negatively impacted**.
- The SA National Department of Health has stated that increasing numbers of patients have **defaulted on their TB and HIV medication and there has been a dramatic decrease in TB testing numbers**.⁽⁴⁾
- This has been corroborated by a survey, done by the Human Sciences Research Council (HSRC) in South Africa, of people living with HIV stating that 13% of people did not have access to their chronic medication during lockdown.⁽⁵⁾
- Findings from Right to Care and the Africa Health Research Institute (AHRI) demonstrated that **only 30% to 50%** of HIV patients were collecting their chronic medication.⁽⁶⁾ There have been similar findings in Zimbabwe, Kenya and Nigeria where people living with HIV were not able to get a refill, or only a partial refill, of an antiretroviral drug.^(7, 8)
- Disruptions to HIV care has a profound impact for both people currently living with HIV and people who are at risk of acquiring HIV, with an increase in HIV-related mortality and a rising number of new infections.⁽²⁾
- South Africa has ~7.7 million people living with HIV and ~ **300 000 new infections each year**.⁽⁹⁾
- Voluntary Medical Male Circumcision (VMMC) services, which has demonstrated to reduce female to male transmission of HIV by up to 60%.⁽¹⁰⁻¹²⁾ The COVID-19 pandemic has substantially disrupted health services through the overburdening of the healthcare system and the restriction of usual programmatic activities.
- VMMC services were suspended from 24 March to September 2020**.
- After resumption of VMMC services until March 2021, facilities were restricted to a **maximum of 15 clients per day across 3 facilities per district across South Africa**. Restrictions of 15 VMMC clients per day have now been phased out.
- As of **June 2021**, some districts are still not allowing VMMCs to be done in facilities which requires VMMC implementors to rely on mobile surgical services which cannot accommodate high volumes of clients.
- Due to the seasonal nature of VMMC uptake in SA, the period of service suspension (April to July) often yields high rates of MMC, contributing to about 60% of the annual MMCs conducted.
- Currently, South Africa has circumcised **4.3 million men** and modelling suggests averted ~1.2 million new HIV infections.
- Along with HIV reduction, circumcision results in economic gains as well. A study estimated that if 80% of men between the ages of **15-49 are circumcised, around R225 billion in HIV treatment costs would be saved**.⁽¹³⁾ The suspension of VMMC services also impact combined services, such as TB & STI screening and organization relationships with the communities in which they are undertaking HIV prevention work.



Study Aim

We aimed to assess the impact of the nationwide VMMC suspension between April and September 2020 on number of HIV infections averted for 2020 by this biomedical prevention method.

Method

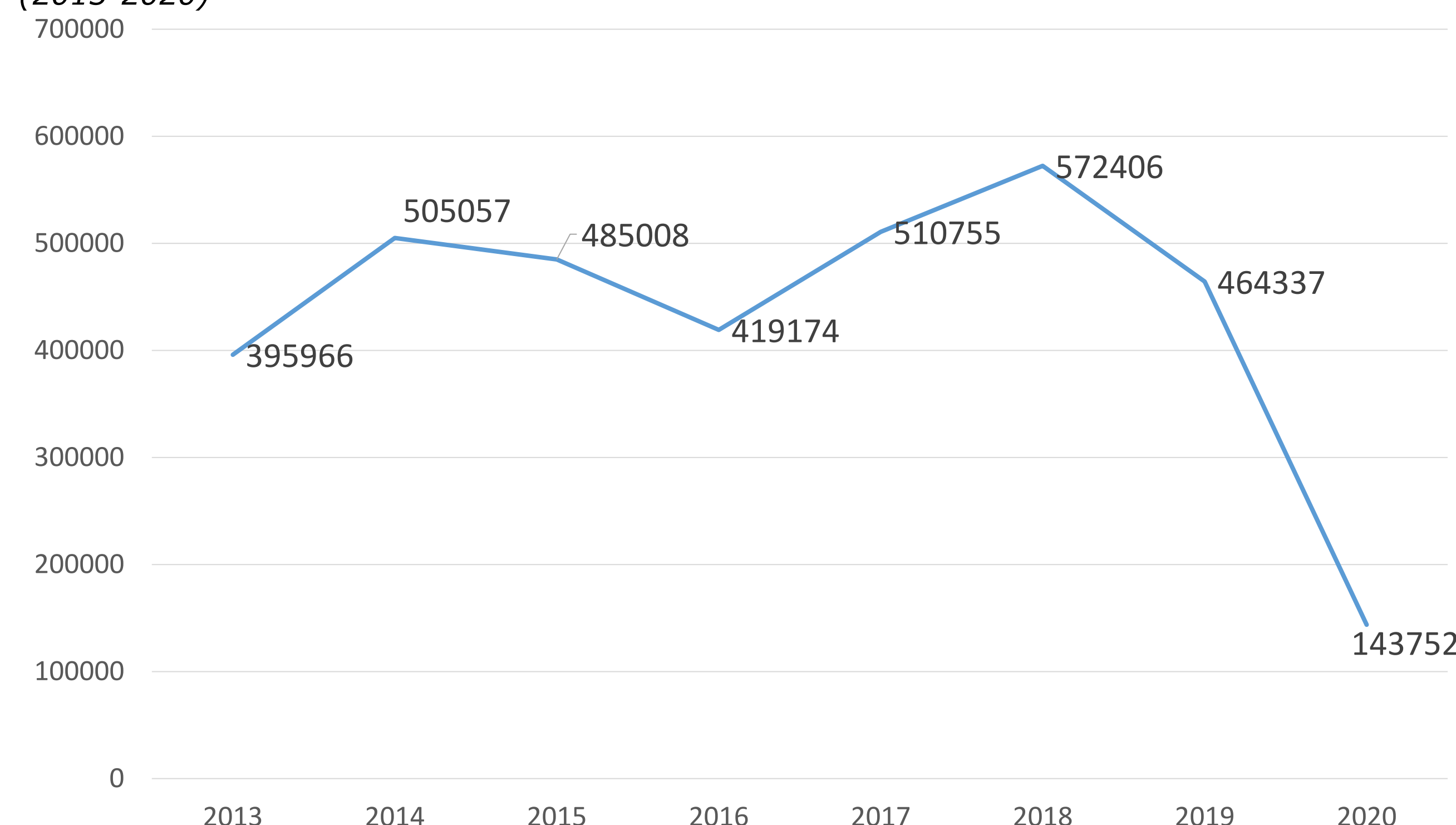
Data was collected from the National VMMC program database from 2013-2020. Using SPSS 22.0 we determined the loss of VMMC coverage due to the COVID-19 related suspension, and the consequent loss of prevention impact by province. Using time-series design and modelling of HIV transmission dynamics, we determined the potential loss of number of HIV infections averted through the loss of VMMC for the suspension period.

Results

Data drawn from the National VMMC programme database (2013-2020) indicate a sharp decline in VMMCs done in South Africa during 2020 as compared to other years. The below is the total number of VMMCs nationally done per year:

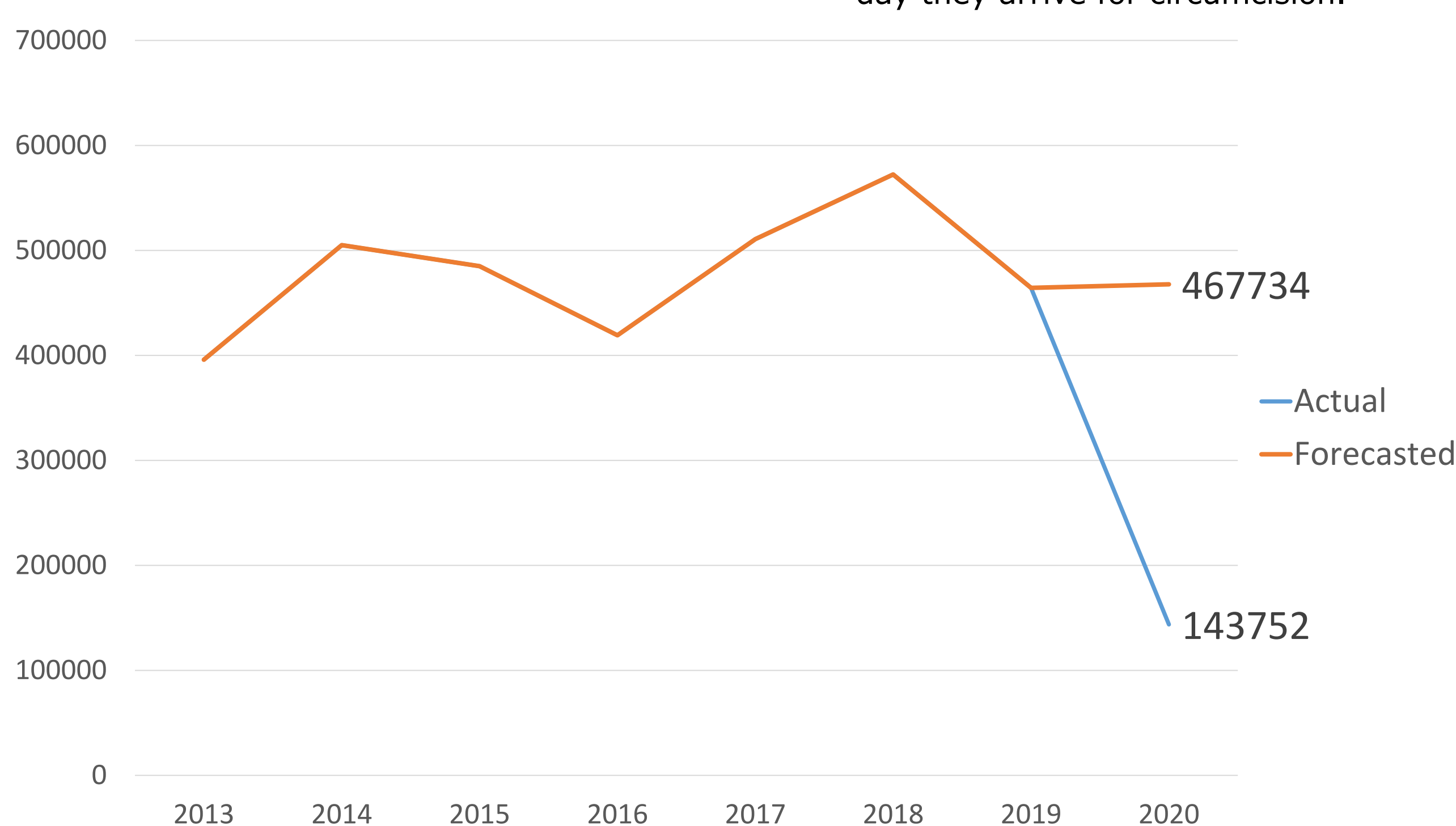
- 2013:** 395 966
- 2014:** 505 057
- 2015:** 485 008
- 2016:** 419 174
- 2017:** 510 755
- 2018:** 572 406
- 2019:** 464 337
- 2020:** 143 752

Graph 1. Number of VMMCs done per Year (2013-2020)



A time series analysis forecast the number of circumcisions expected in 2020 prior to the COVID-19 pandemic utilizing data from 2013-2019. These estimates indicated that the number of circumcisions for 2020 could have been **467 734 (LCI 317 676 and UCI 617 792)**.

Graph 2. Actual VS Forecasted Number of VMMCs done per Year (2013-2020)



The actual number of VMMCs done in 2020 was 143 752. Using the forecasted number, this is a loss of **323 982 (a 56% reduction)** VMMCs in 2020.

Modelling suggests that for every five to fifteen circumcisions, one HIV infection is averted.⁽¹⁴⁾

Due to the suspension of VMMC in 2020, **21 598 to 64 796 new HIV infections were not averted**.

Discussion

VMMC as a Combined Service

VMMC is part of a combined service, including HTS, TB& STI screening, community-engagement activities, sexual and reproductive counselling and men's health promotion. Interruption to VMMC has a substantial impact on communities' health generally. Furthermore, pulling out of community settings during times of public health crises, such as the COVID-19 pandemic, **erodes community trust** implementing organisations.

Infrastructure Investment

The suspension of VMMC has also impacted the infrastructure investment associated with integrating VMMC services into healthcare facilities. Many districts are no longer allowing VMMCs to be conducted within healthcare facilities, which means that implementing partners are reliant on mobile services. Mobile services do not allow for a high demand and subsequently limits the number of VMMCs done per day and **destabilizes the integration of services** in public health care.

Demand Creation

The suspension of VMMC has also impacted the substantial investment into demand creation for VMMC that has been made in prior years, both through mass media and community-based demand creation campaigns.

VMMC is reliant on critical mass for social normalization for VMMC. Some of this critical mass has been lost during the hiatus period.

Limited VMMC Numbers

As VMMC has had limited numbers per day since service resumption, clients are less likely to show up as they are concerned that they will not receive a VMMC on the day they arrive for circumcision.

Cost Efficiencies

Resultantly, the suspension and restriction of VMMC services during the COVID-19 pandemic has impacted on cost efficiencies. That is, **more financial and demand creation investment is required to return VMMC demand back to pre-pandemic levels**.

Human Resources

One benefit of the suspension of VMMC services is that human resources could be pivoted to support care and treatment programmes during the COVID-19 pandemic.

Conclusion

The interruption of services related to COVID-19 mitigation erodes the momentum and gains achieved through decades of program implementation. It is imperative that the **syndemics of COVID-19 and HIV be addressed in a manner that does not detract from the collective objectives** of curbing transmission and elimination of infections.

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