

Trends in Tetanus Immunization and VMMC Uptake in 12 Districts in Rwanda

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Background

- Voluntary medical male circumcision (VMMC) for HIV prevention in 14 sub-Saharan African countries had reached more than 10,000,000 males through 2015.
- By 2015, 13 cases of tetanus from five countries were reported to the World Health Organization (WHO):
 - Eight patients died
- Two patients who died from tetanus in Rwanda had known tetanus toxoid-containing vaccine (TTCV) history (TTCV1 on PrePex™ placement day).

Tetanus Cases in Rwanda

| Age | 47 | 39 | 34 | 18 |
|----------------------------------|---------------------------------------|---|--|---------------------------------------|
| Placement Date | May 22, 2014 | September 16, 2015 | March 23, 2016 | May 10, 2016 |
| Removal Date | May 29, 2014 | September 16, 2015 | March 30, 2016 | May 17, 2016 |
| Tetanus Symptoms Initiative Date | June 3, 2014: 13 days after placement | September 28, 2015: 13 days after placement | April 2, 2016: 11 days after placement | May 21, 2016: 12 days after placement |
| Survival State | Survived | Survived | Deceased | Deceased |
| Additional Possible Entry Point | Visible cracks patient's feet | Wound on right foot | Non identified | Necrotic wounds on both feet |
| Occupation | Farmer | Motorcycle Driver | Farmer | Farmer |
| TTCV Immunization | No | Vaccination on PrePex placement day | Vaccination on PrePex placement day | Vaccination on PrePex placement day |

WHO Advice for Risk Mitigation

In September 2016, WHO issued a report on the risk of tetanus associated with different male circumcision methods and specific mitigation measures according to circumcision method.

Advice on Immunization against Tetanus in Rwanda

Based upon the WHO 2016 advice, Rwanda adopted a policy of two TTCV doses, 6 weeks and 2 weeks prior to circumcision, whether by surgery or PrePex device (placement).

Objective

We evaluated:

- The trend of VMMC uptake before and after implementation of the new WHO advice regarding immunization against tetanus in VMMC programs, and
- The time points of loss to follow-up (LTFU) among VMMC clients following TTCV implementation.

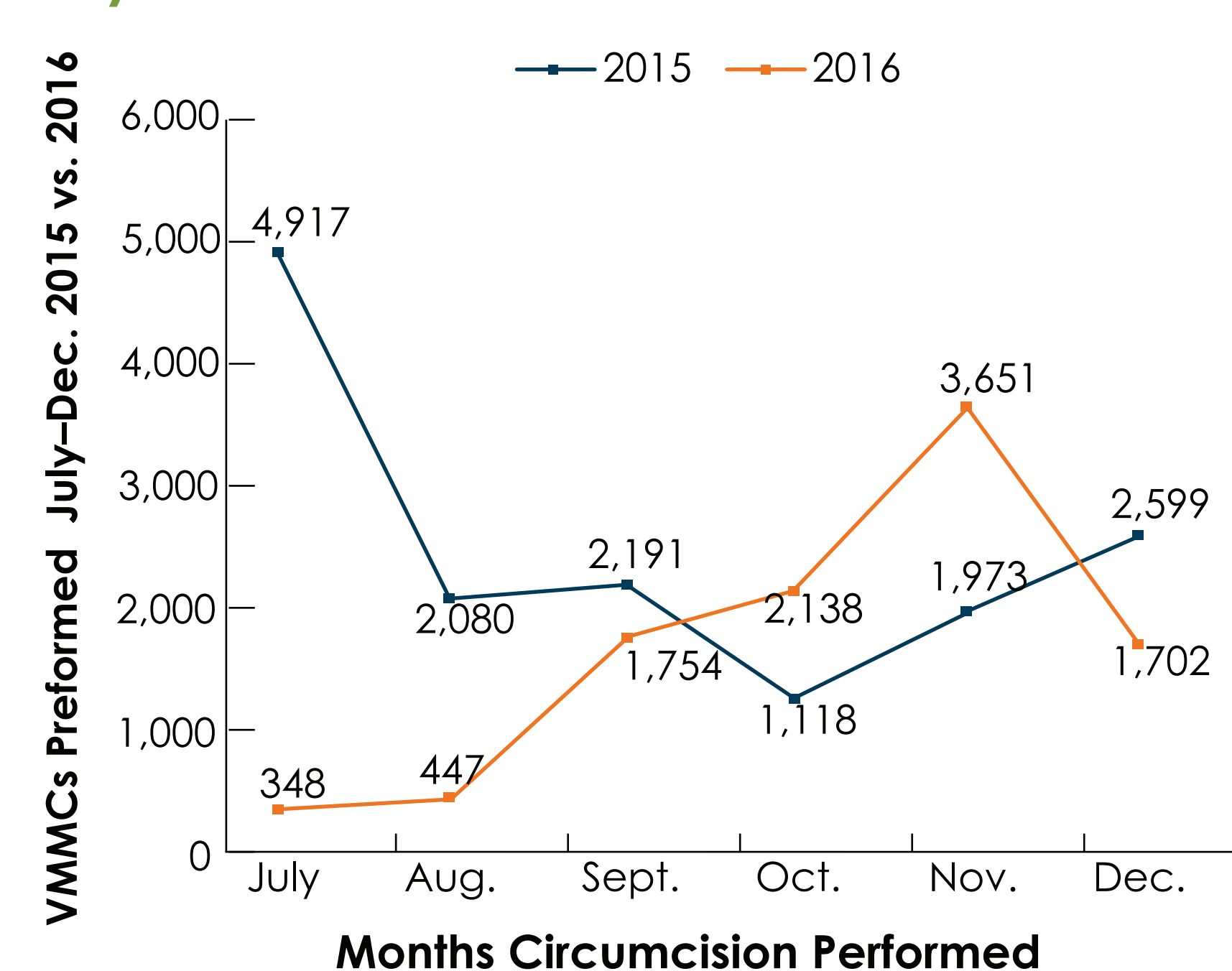
Methods

- Data were collected from registers, client forms, and monthly reports.
- All males screened for VMMC in seven Rwanda Defence Force sites and 13 public health facilities located in priority districts were included.
- There were no reported stock-outs of vaccines or VMMC commodities during the assessment.
- Vaccines were provided by the Ministry of Health and providers were oriented on the new WHO advice.
- The population was sensitized on TTCV through public media and counseling.
- Data were included from the same months in 2015 and 2016:
 - July–December 2015 vs. July–December 2016

Results

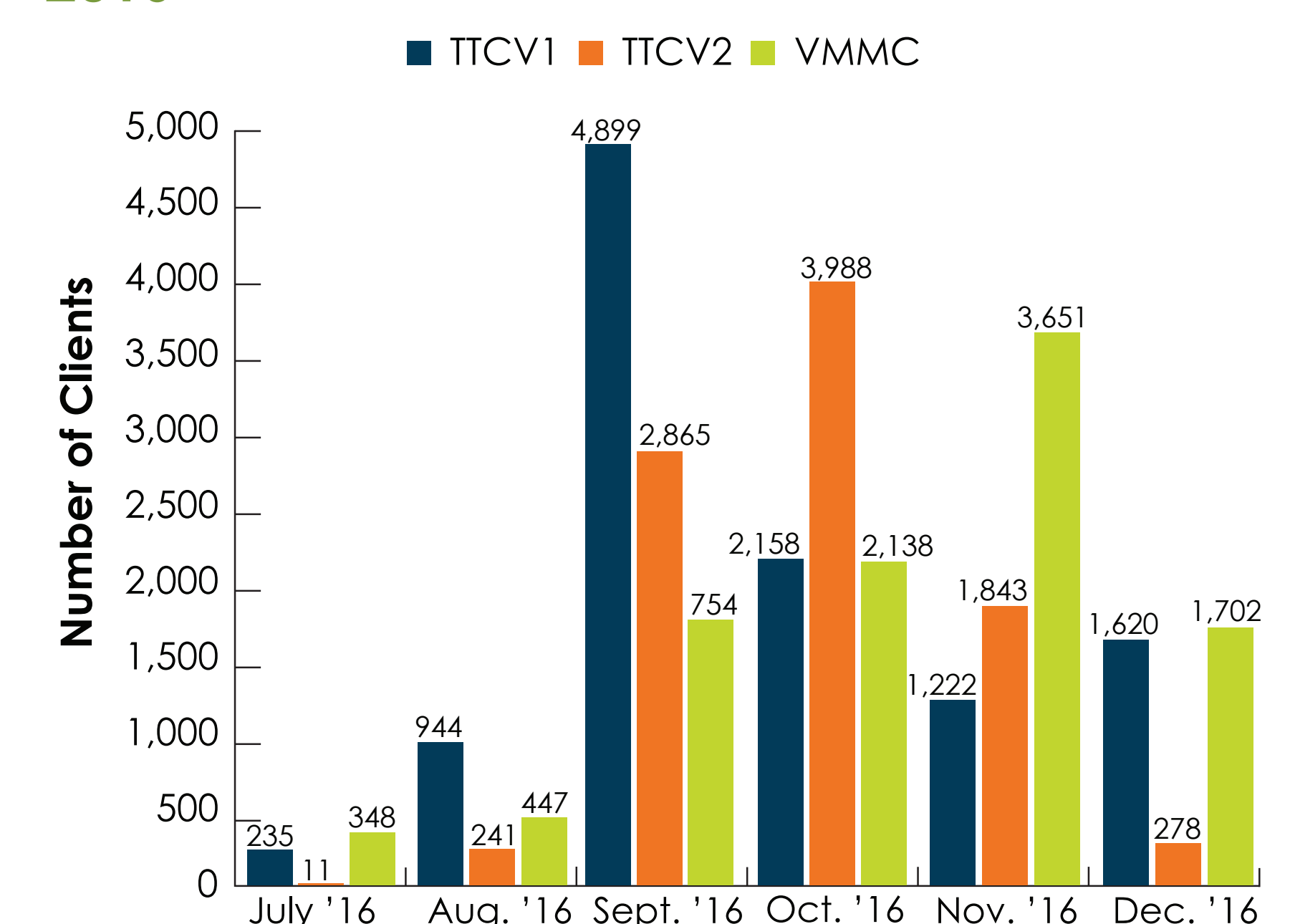
- Fewer VMMC procedures were performed during July–September 2016 (2,549) vs. July–September 2015 (9,188).
- Following an initial steep decline, 2016 monthly numbers generally increased to meet or exceed 2015 monthly numbers:
 - Immunizations (and VMMC procedures) decreased approximately 3 months after the initial peak in client vaccination; the decrease was attributed to holidays.

Male Circumcisions Performed July–December: 2015 vs. 2016

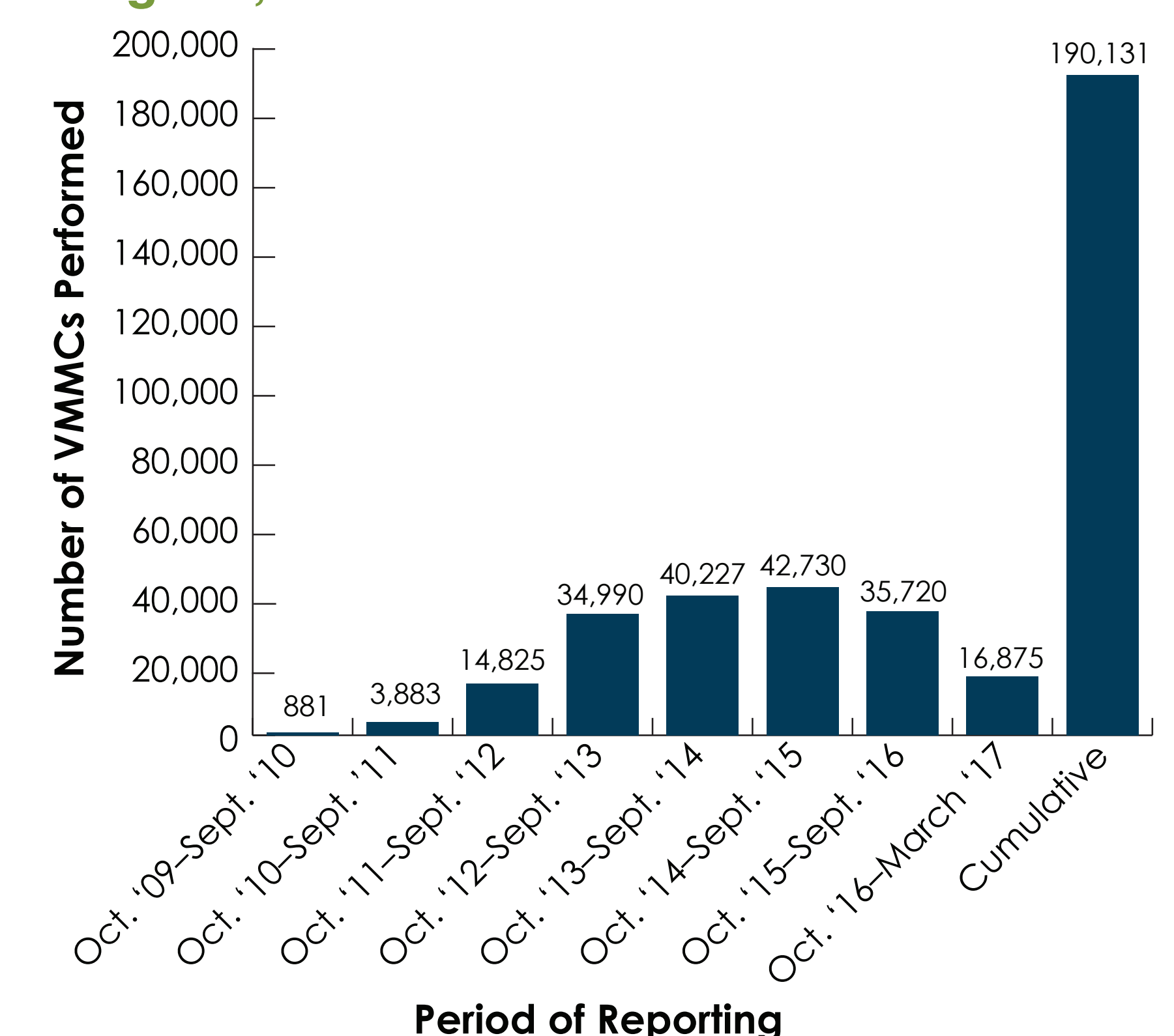


Results, continued

TTCV and VMMC Cascade, July–December 2016



VMMCs per Year in Jhpiego Rwanda VMMC Program, October 2009–March 2017



Conclusions

- Programs should expect a decline in VMMC procedures immediately following initiation of the pre-VMMC tetanus immunization.
- The numbers of clients receiving TTCV2 and VMMC were lower than initially screened, implying a need for close monitoring to minimize LTFU.
 - The sharp LTFU in November and December is probably due to the holiday season in the country.
- There were more VMMC procedures performed compared to clients completing TTCV2, indicating the potential contribution from partners.