PROGRESS BRIEF

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VOLUNTARY MEDICAL MALE CIRCUMCISION FOR HIV PREVENTION

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World Health Organization
REGIONAL OFFICE FOR Africa

KEY HIGHLIGHTS ON THE PROGRESS OF VOLUNTARY MEDICAL MALE CIRCUMCISION (VMMC) FOR HIV PREVENTION

Men making a difference for HIV prevention

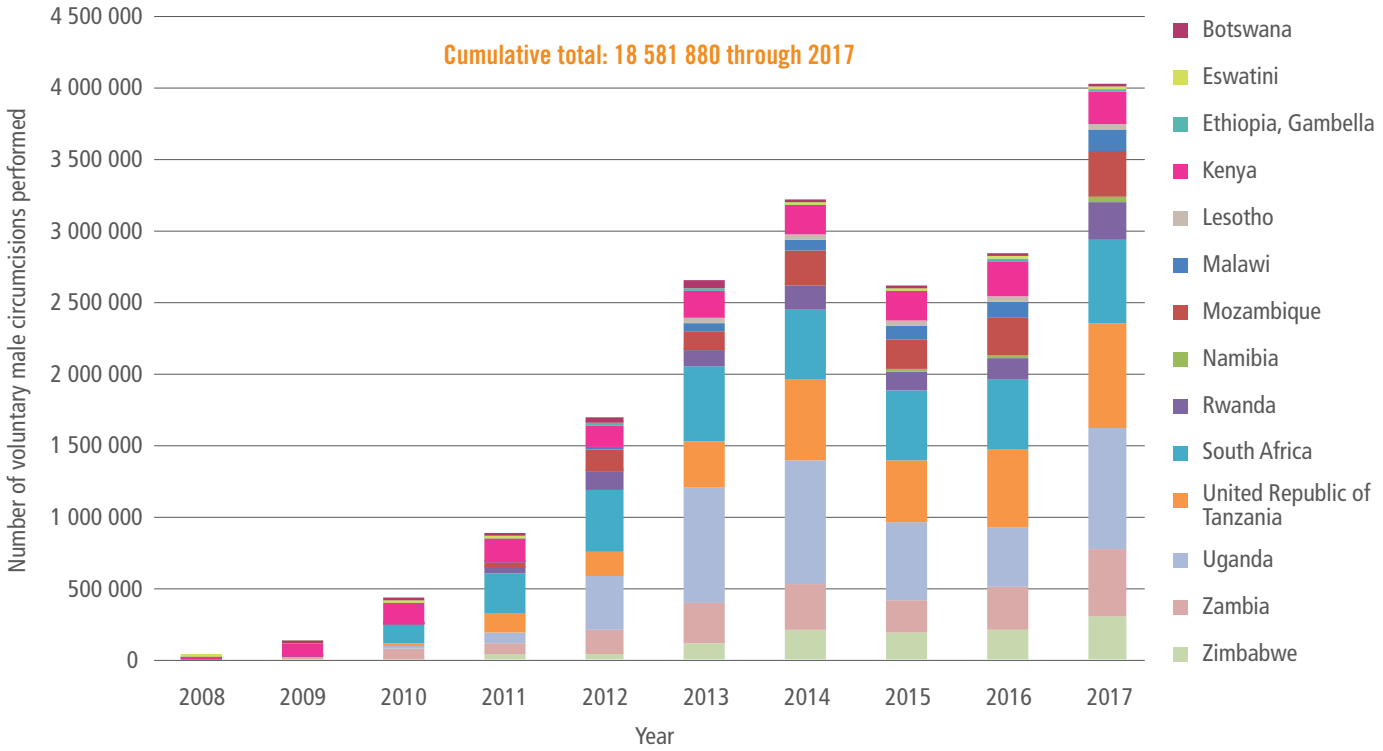
- **Nearly 18.6 million cumulative male circumcisions** for HIV prevention were performed between 2008 and 2017 in the 14 priority countries of East and Southern Africa (Fig. 1).
- WHO and UNAIDS based their 2007 recommendation for male circumcision as an additional HIV prevention intervention on consistent and compelling evidence from African studies. But in 2007 the actual acceptability of circumcision and feasibility of scaling up were unknown.
- By 2017, many obstacles were overcome. The annual number of VMMCs reached 4.04 million. When services were offered, **men accepted and acted** to benefit from a package of male circumcision services that also includes safer sex education, condom promotion and HIV testing.

Important preventive impact

- The 18.6 million VMMCs had **already averted an estimated 230 000 new HIV infections** by 2017.[1] The number of infections averted by these circumcisions is projected to grow to 1.1 million (600 000–1.5 million) by 2030 even if no more MCs had been

[1] Unpublished modelling estimates for WHO by Avenir Health; modelling method per McGillen JB. The emerging health impact of voluntary medical male circumcision in Zimbabwe: an evaluation using three epidemiological models. PLoS ONE. 2018; in press.

Figure 1. Annual* number of voluntary medical male circumcisions performed for HIV prevention in 14 countries in East and Southern Africa, 2008–2017



*Calendar year.

Source: Global AIDS Response Progress Reporting from national programmes, UNAIDS/UNICEF/WHO.

performed since 2017. These estimates take into account increasing ART coverage.

- It is estimated that one HIV infection was averted for every 80 circumcisions performed during the 2008–2017 scale-up phase. Continuing impact through 2030 will mean one HIV infection averted for every 12.5 of these circumcisions. Benefits will continue to grow beyond 2030.
- HIV incidence in a demographic surveillance cohort in Siaya County, Western Kenya, dropped from 11.1 per 1000 person-years in the period 2011–2012 to 5.7 per 1000 person-years in the period 2012–2016 as both VMMC and ART were scaled up.[2] Researchers attribute the drop primarily to a direct protective impact of VMMC. Continued monitoring will gauge whether and how much incidence continues to fall.
- VMMC programmes are cost-saving in almost all priority VMMC countries when HIV treatment costs averted are considered.[3]

Targets and population focus for further impact

- The global target of 20.8 million VMMCs by 2016 was nearly attained in 2017 (90% of target). Of the 14 countries, **seven reached country-specific targets**: Ethiopia (Gambella Region), Kenya, Mozambique, South Africa, Uganda, the United Republic of Tanzania and Zambia. **Another four countries were close to targets**: Botswana, Eswatini (previously Swaziland), Rwanda and Zimbabwe (Table 1).
- UNAIDS has identified male circumcision as an intervention that is crucial to achieving the 2020 global target of fewer than 500 000 new HIV infections annually (a 75% reduction from 2010).
- Reaching HIV-negative adult men and those males at higher risk of HIV and STI infection with combination prevention and testing remains a challenge. Countries, with technical and donor support, are identifying approaches to enhance uptake among these groups.

[2] Borgdorff MW, Kwaro D, Obor D, Otieno G, Kamire V, Odongo F et al. HIV incidence in western Kenya during scale up of antiretroviral therapy and voluntary medical male circumcision: a population based cohort analysis. Lancet. May 2018; 5(5):e241-e249.

[3] Models to Inform Fast Tracking Voluntary Medical Male Circumcision in HIV Combination Prevention: report from World Health Organization and UNAIDS meeting, 23–24 March 2016. Geneva, Switzerland: World Health Organization; 2017.

Table 1. Annual numbers of voluntary medical male circumcisions in East and Southern Africa by country, 2010–2017

Country	2010	2011	2012	2013	2014	2015	2016	2017	Total (2008–2017)*
Botswana	5 773	14 661	38 005	46 793	30 033	15 722	24 042	19 756	200 209
Eswatini	18 869	13 791	9 977	10 105	12 289	12 952	17 374	18 138	118 941
Ethiopia (Gambella)	2 689	7 542	11 961	16 393	11 831	9 744	10 306	15 789	87 024
Kenya	139 905	159 196	151 517	190 580	193 576	207 014	243 447	233 879	1 611 496
Lesotho	0	0	10 835	37 655	36 245	25 966	34 157	25 150	170 008
Malawi	1 296	11 881	21 250	40 835	80 419	108 672	129 975	166 350	562 501
Mozambique	7 633	29 592	135 000	146 046	240 507	198 340	253 079	315 380	1 325 677
Namibia	1 763	6 123	4 863	1 182	4 165	18 459	27 340	30 134	94 253
Rwanda	1 694	25 000	138 711	116 029	173 191	138 216	137 218	264 973	995 032
South Africa	131 117	296 726	422 009	514 991	482 474	485 552	497 186	591 941	3 436 354
Tanzania, United Republic of	18 026	120 261	183 480	329 729	573 845	435 302	548 390	730 435	2 940 501
Uganda	21 072	77 756	368 490	801 678	878 109	556 546	411 459	847 633	3 962 743
Zambia	61 911	85 151	173 992	294 466	315 168	222 481	311 792	483 816	1 968 715
Zimbabwe	11 176	36 603	40 755	112 084	209 125	188 732	205 784	301 366	1 108 426
Total	**422 924**	**884 283**	**1 710 845**	**2 658 566**	**3 240 977**	**2 623 698**	**2 851 549**	**4 044 740**	**18 581 880**

*Calendar years 2008 and 2009 are included in total numbers, as these represent the timeframe since the 2007 recommendation was issued.

Source: Global AIDS Monitoring, national programmes, UNAIDS/UNICEF/WHO.

For more information, contact:

World Health Organization
Regional Office for Africa
Cité du Djoué
PO Box 06
Brazzaville
Republic of Congo

E-mail: hiv-aids@who.int
www.who.int/hiv

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