

# Global Health

## Switch From Trivalent to Bivalent Oral Polio Vaccine

While 3 wild poliovirus strains—types 1, 2, and 3—have caused worldwide disease, type 2 has not been detected since 1999, and with its elimination confirmed in September 2015, the need to vaccinate against it has abated. In April more than 150 countries and territories switched from using the trivalent oral poliovirus vaccine (OPV), which protects against the 3 strains of wild poliovirus, to the bivalent OPV, which lacks the type 2 strain (<http://bit.ly/1SIFoua>). These oral vaccines are made with live attenuated polioviruses.

The switch from the trivalent to bivalent vaccine is a part of the Global Polio Eradication Initiative's Polio Eradication and Endgame Strategic Plan 2013-2018, which requires that all OPVs be replaced with the injectable inactivated polio vaccine by 2020. This strategic plan was adopted because the oral vaccine can in rare cases give rise to vaccine-associated paralytic polio and circulating vaccine-derived polioviruses (cVDPVs)—most cases of which are caused by the type 2 poliovirus.

A swift and coordinated withdrawal of the trivalent vaccine in all countries using oral vaccines is necessary because its use could reintroduce the eradicated type 2 poliovirus. Although the trivalent OPV will not be used anywhere in the world after the switch, a global stockpile of monovalent OPV containing type 2 is ready to be dispatched if an outbreak of cVDPV type 2 occurs in the future.

## Reducing Malaria Parasite Load in Donated Blood

In areas where the *Plasmodium* parasite is endemic, it can be transmitted through blood donated from asymptomatic people. Treating donated whole blood with a pathogen reduction technology that uses a combination of UV radiation and riboflavin (vitamin B<sub>2</sub>) to inactivate malaria parasites in blood reduces the incidence of transfusion-transmitted malaria, according to a report from investigators from the United Kingdom and Ghana (Allain J-P et al. *Lancet*. 2016;387:1753-1761).

All study participants were adult patients from the Komfo Anokye Teaching Hospital in Kumasi, Ghana, with blood group O, Rh positive, requiring transfusions. Researchers randomly assigned 226 of these patients to receive transfusion with either whole blood treated with a pathogen reduction system or whole blood prepared and transfused by local standard practice (untreated). Pretransfusion and posttransfusion blood samples were tested for presence and amount of *Plasmodium* genes.

Of 65 patients who were not carrying the malaria parasite before the transfusion, 28 received blood treated with the parasite reduction technology and 37 received untreated blood. The incidence of transfusion-transmitted malaria was only 4% (1/28) in patients who received treated parasitemic blood compared with 22% (8/27) in those who received untreated parasitemic blood.

## Focus on HIV in West and Central African Countries

More than a quarter of all global deaths attributable to HIV occur in the 25 countries within West and Central Africa (WCA), an area in which antiretroviral therapy (ART) coverage rates lag behind those of high-burden countries. A new report from Médecins Sans Frontières highlights the treatment gaps in the WCA countries and describes pilot projects aimed at overcoming some of the obstacles to ART access (<http://bit.ly/1qQFYcS>).

Most WCA countries have small populations, and average prevalence rates are relatively low compared with those in southern Africa, but they also have weak health systems and other health needs that compete with HIV treatment. Antiretroviral therapy in WCA countries reaches less than a third of the population in need.

Three case studies detailed from countries in the region—Democratic Republic of Congo, Central African Republic, and Guinea—demonstrate some of the obstacles to obtaining HIV treatment, such as stigma and inadequate supplies of drugs, and outline opportunities for expanding and accelerating ART coverage.



Countries across the world have switched from trivalent to bivalent oral polio vaccine as part of a plan to eradicate polio.

## Female Genital Mutilation Continues in Guinea

Although national and international law prohibits the practice, female genital mutilation and excision (FGM/E) continues to be carried out in every region of Guinea. With the second highest prevalence of FGM/E worldwide after Somalia, 97% of women and girls aged 15 to 49 years in Guinea have undergone excision, according to a new report from the United Nations (<http://bit.ly/1pCCTfk>).

The report notes that relative to years past, FGM/E is being carried out on much younger girls, with 69% of women aged 20 to 24 years having undergone excision before 10 years of age. Traditionally groups of girls were excised together, but there has been an increase in private practices, such as individual excision and excision in infants, which may result from awareness campaigns and an increase in legal sanctions.

Lack of action by judicial authorities, support from political and religious leaders, and impunity for traditional practitioners and medical personnel who carry out the practice contribute to the persistence of FGM/E. The report recommends that the government, nongovernmental organizations, and the international community urge Guinean authorities to enforce relevant legislation, investigate suspected cases of excision impartially, and prosecute all perpetrators. — M. J. Friedrich