Africa MCV 5-dose

This document provides a landscape of 5-dose vial measles (M) and measles-rubella (MR) vaccine use in Africa.

- In 2020, Africa's Regional Immunization Technical Advisory Group (RITAG) recommended the use of measles-containing vaccine (MCV) 5-dose vials as part of a broad recovery strategy to raise coverage, reduce wastage, and avoid healthcare worker (HCW) reluctance to open 10-dose vials, especially where session sizes are small
- As of September 2022, there are ten countries in Africa using M/MR 5-dose vials for routine immunization (RI): Botswana, Cabo Verde, Comoros, DRC, Equatorial Guinea, Eritrea, Eswatini, Lesotho, Niger, and Sao Tome. Sudan is planning to transition to 5-dose in 2023.
- Research in Zambia assessed the 5-dose opportunity and its impact on wastage and coverage. Research is also being conducted in Ethiopia, with results expected in 2022

NIGER

Niger transitioned to 5-dose vials for RI in 2018 with two primary goals in mind: 1) to lower the vaccine wastage rate; and 2) to reduce missed opportunities for vaccination. The switch produced the following impacts:

- MCV1 coverage increased from 77% in 2018 to 80% in 2021
- MCV2 coverage increased from 48% in 2018 to 66% in 2021
- The vaccine wastage rate fell from 9.5% in 2018 to 7.3% in 2021
- HCWs have reported being satisfied with the ease of opening 5-dose vials

DRC

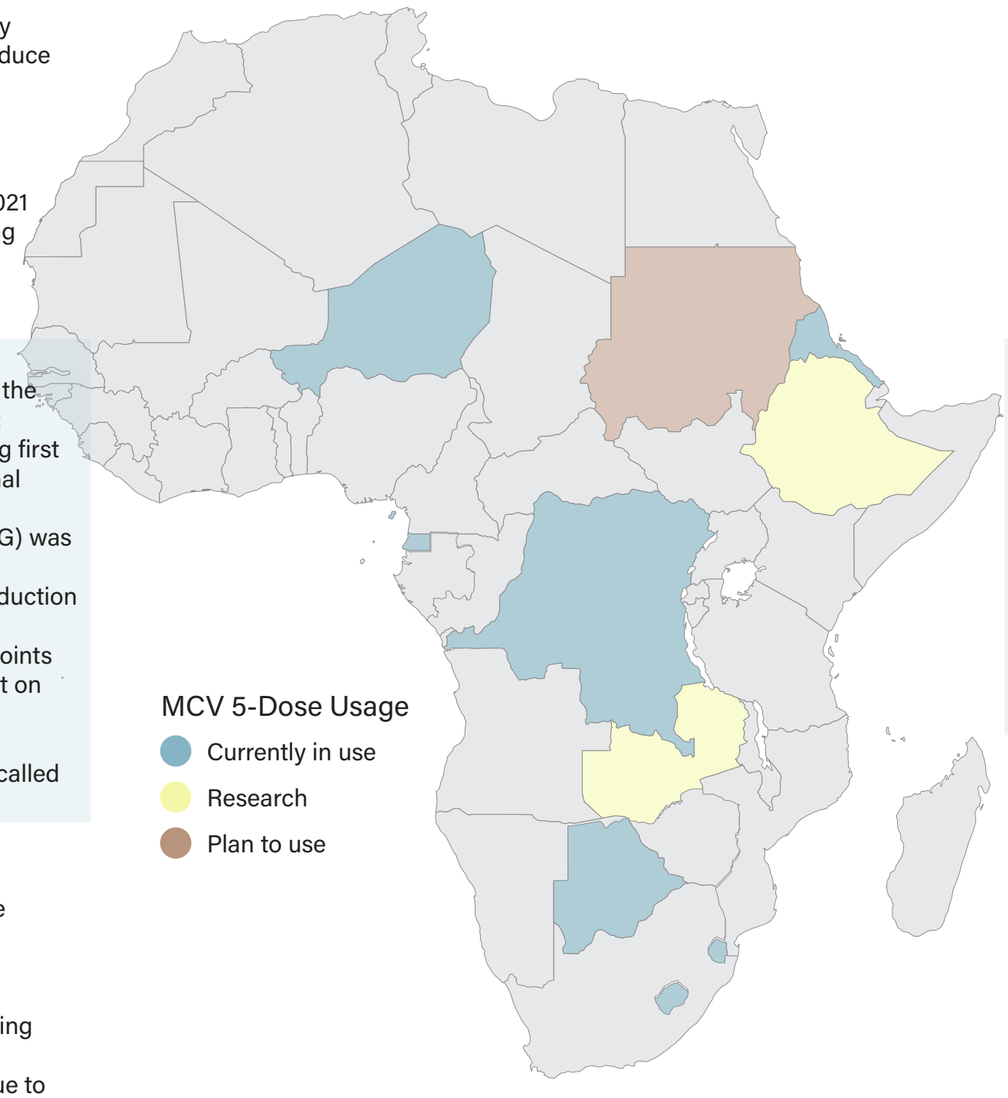
DRC transitioned to using 5-dose vials in September 2022 with the introduction of MCV2. EPI managers have shared the following:

- The country will introduce MR 5-dose in two phases, starting first with 12 provinces, then rolling out 5-dose vials in 13 additional provinces, with a scheduled end date of October 2022
- The National Immunization Technical Advisory Group (NITAG) was involved in the decision-making process
- HCWs were trained to use 5-dose as part of the MCV2 introduction training
- Wastage has gone down by an estimated 5-10 percentage points and UNICEF plans to conduct a study to evaluate the impact on coverage and wastage in the coming months
- DRC does not anticipate cold chain space challenges
- EPI managers and the Gavi senior country manager (SCM) called it an "easy introduction"

ESWATINI

Eswatini transitioned to 5-dose vials for RI in 2019, primarily due to high wastage rates that caused HCWs to only offer measles vaccination on scheduled days or once per week. Prior to the transition, coverage was below target (<80%), and the country was experiencing high dropout rates. The switch had the following impacts:

- MR coverage rose to 82% in 2019 (but fell to 80% in 2020 due to Covid-19-related programmatic disruptions)
- HCWs appreciated the ability to provide daily measles vaccination
- The country had adequate cold chain capacity and did not need to invest in expanding cold chain space for 5-dose vials
- Implementing the transition required half-day orientations for HCWs, store managers, and Central Medical Store (CMS) staff



SUDAN

Sudan plans to transition to 5-dose vials for RI with the introduction of the MR vaccine in 2023. Reports have highlighted the following problems with the current MCV vaccination program:

- HCWs were hesitant to open vials due to fear of wastage, and parents were reluctant to vaccinate their children due to fear of adverse events

ETHIOPIA

Ethiopia is currently considering a transition to measles 5-dose vials. A study on measles 5-dose from 2019-2022 has recently concluded in Ethiopia, with results expected by end-of-year from the Ministry of Health of Ethiopia and engaged partners (CDC, JSI, WHO, and others). Initial baseline findings from Dec. 2019 identified the following:

- 23% of parents were turned away for measles vaccination; the primary reported reason was that not enough children were present for HCWs to decide to open a 10-dose vial
- 68% of HCWs had to turn away children for measles vaccination because they came on a non-scheduled measles vaccination day
- 59% of providers reported they would prefer a 5-dose vial if available

ZAMBIA

Research conducted by JSI and the Zambian health ministry (2019) found these impacts with the 5-dose vial intervention:

- MCV1 coverage increased by 4.9 percentage points and MCV2 coverage increased by 3.5 percentage points
- The wastage rate was approximately 47% lower in facilities using 5-dose vials versus 10-dose vials
- HCWs were less hesitant to open 5-dose vials and were more likely to vaccinate children for measles outside of scheduled vaccination days
- The wastage-adjusted vaccine price per MR dose was only $0.03 higher for 5-dose vials than for the 10-dose vials
- The impact on cold chain storage was marginal

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