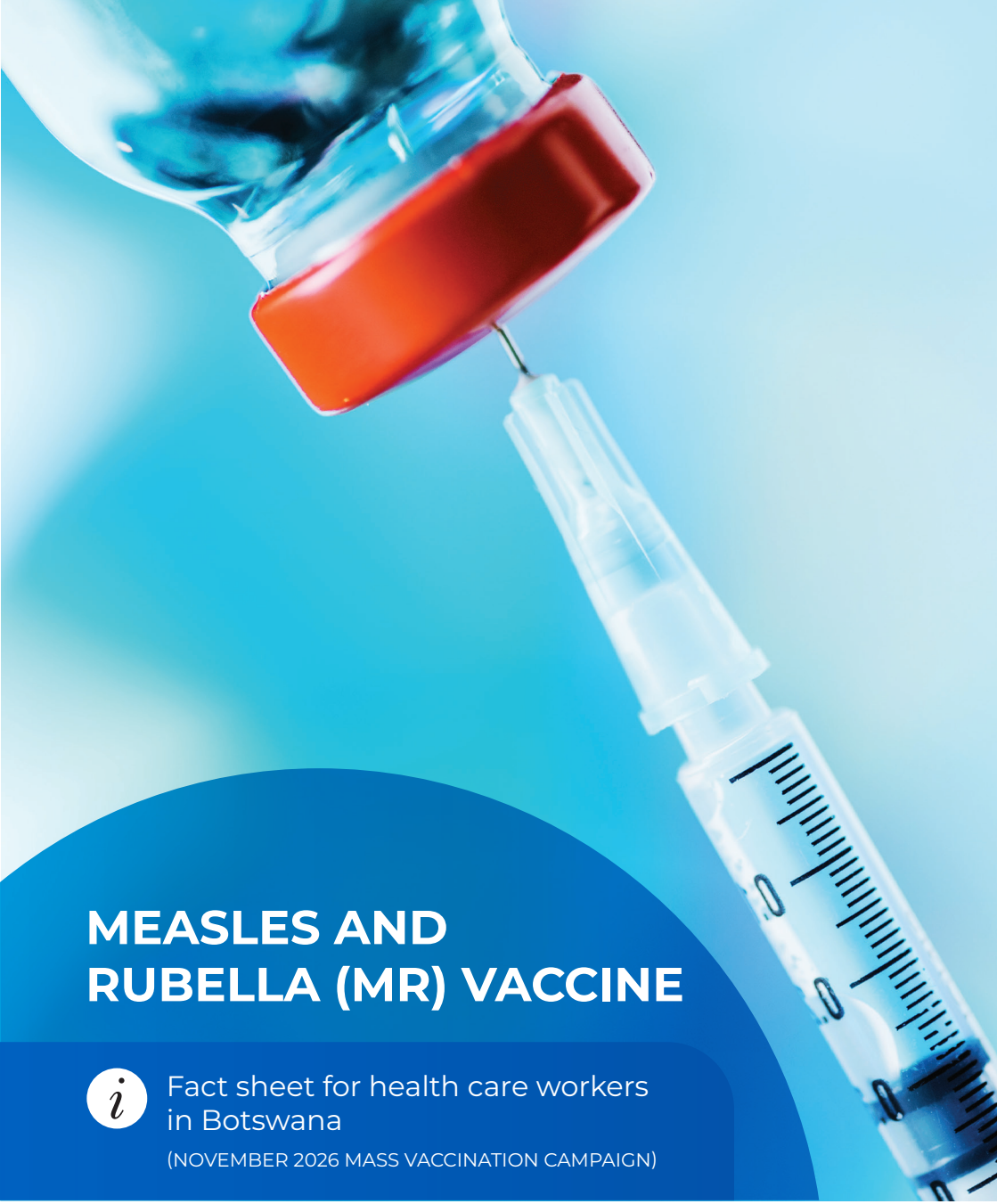


MEASLES AND RUBELLA (MR) VACCINE

Fact sheet for health care workers in Botswana

(NOVEMBER 2026 MASS VACCINATION CAMPAIGN)

bsi ISO 9001 Quality Management Systems CERTIFIED
FS 739935

BMRA MEDICINES REGULATORY AUTHORITY

What are Measles and Rubella?

MR vaccine is prepared from the live, attenuated strains of Measles virus (CAM-70 Tanabe strain) and rubella virus (Wistar RA 27/3 strain). Measles virus is propagated in chicken embryo fibroblast (CEF) cells and rubella virus is propagated in MRC 5 cells. The vaccine is lyophilized preparation with physical appearance of a white to light yellow compact cake. The vaccine is provided with diluent. The vaccine meets requirements of IP and WHO.

Each reconstituted dose of 0.5 mL contains: Measles virus (CAM-70 strain), propagated in chicken embryo fibroblast cells ≥1000 $CCID_{50}$; Rubella virus (Wistar RA 27/3 strain), propagated in MRC 5 cells ≥1000 $CCID_{50}$. Reconstitute vaccine vial with the diluent (0.9% w/v Sodium Chloride Injection I.P.) supplied.

Indication

For active immunization against measles and rubella in children aged 9–59 months, regardless of previous vaccination status, during the Botswana Measles-Rubella Mass Vaccination Campaign in November 2026.

Contraindications

- A previous allergic reaction to measles or MR vaccine is a contraindication. Persons with a history of an anaphylactic reaction to any components of the vaccine should not be vaccinated.
- The vaccine is contraindicated in persons who are severely immunocompromised as a result of congenital disease, HIV infection, advanced leukaemia or lymphoma, serious malignant disease, or treatment with high-dose steroids, alkylating agents or anti-metabolites, or in persons who are receiving immunosuppressive therapeutic radiation.

Warnings and safety precautions

- Low grade fever, mild respiratory infections or diarrhoea, and other minor illness should not be considered as contraindications.
- It is particularly important to immunize children with malnutrition.
- Children with known or suspected HIV infection are at increased risk of severe measles and should be offered measles vaccine as early as possible. Please ensure that the vaccine is administered by the subcutaneous route only.
- In the event of suspected anaphylaxis, administer adrenaline as per the current Botswana guidelines.

Interactions and co-administration

- Due to the risk of inactivation, the MR vaccine should not be given within the 6 weeks, and if it is possible the 3 months, after an injection of immunoglobulins or blood product containing immunoglobulins (blood, plasma).
- For the same reason, immunoglobulins should not be administered within the two weeks after the vaccination.
- The vaccine can be safely and effectively given simultaneously with DTP, DT, TT, Td, BCG, Polio vaccine (OPV and IPV), Haemophilus influenzae type b, Hepatitis B, Yellow fever vaccine and vitamin A supplementation.

- Tuberculin positive individuals may transitionally become tuberculin negative after vaccination.

Storage and cold chain

- IT IS IMPORTANT TO PROTECT BOTH THE LYOPHILIZED AND RECONSTITUTED VACCINE FROM THE LIGHT. The vaccine should be stored in the dark at a temperature between 2-8°C.
- The diluent should not be frozen, but should be kept cool.
- VVM is a label containing a heat-sensitive material which is placed on a vaccine vial to register cumulative heat exposure over time. The colour dot appears on the VVM label in square element is a time-temperature sensitive dot that provides an indication of the cumulative heat to which the vial has been exposed. It warns the end user when exposure to heat is likely to have degraded the vaccine beyond an acceptable level.

Vaccine Vial Monitor (VVM): inner square darkens with cumulative heat exposure



Stage 1
USE

Stage 2
USE

Stage 3
DISCARD

Stage 4
DISCARD

The interpretation of the VVM is simple. Focus on the central square. Its colour will change progressively. As long as the colour of this square is lighter than the colour of the outer ring, then the vaccine can be used. As soon as the colour of the central square is the same colour as the ring or of a darker colour than the ring, then the vial should be discarded.

Dose, reconstitution and administration

- The vaccine is supplied along with the diluent (0.9% w/v Sodium Chloride Injection I.P.). Only the diluent supplied along with the vaccine should be used to reconstitute the vaccine. Using an incorrect diluent will result in damage to the vaccine and/or serious reactions to those receiving the vaccine.
- A sterile needle and sterile syringe must be used for the reconstitution of the vaccine and aseptic techniques should be followed. Draw the diluent into Syringe, pierce the bung of the vial with the needle and gently inject the diluent into the vial. Detach the syringe, leaving the needle in vial bung, after 15 seconds remove the needle. Rotate the vial gently between your palms till the material dissolves. Avoid shaking the vial as this would cause frothing.
- Following reconstitution, the vaccine should be used immediately.
- The reconstituted vaccine should be inspected visually for any foreign particulate matter prior to administration. If observed, the vaccine must be discarded.
- Inject a single dose of 0.5 mL MR vaccine subcutaneously. The preferred site of injection is the upper arm (fatty tissue over triceps) or in front of thigh (fatty tissue over antero-lateral thigh muscle).

- As with the use of all vaccines the vaccinee should remain under observation for not less than 30 minutes for possibility of occurrence of rapid allergic reactions.
- The reconstituted vaccine should be used within six (6) hours. Any opened vials remaining at the end of an immunization session or six hours after reconstitution should be discarded.

Adverse Events Following Immunisation (AEFI)

Expected/common reactions

- The most frequently reported local adverse events were injection site pain, erythema and swelling.
- About 7-12 days after vaccination up to 5% of measles vaccine recipients may experience fever >39.4°C for 1-2 days.
- A transient rash may occur in approximately 2% of vaccinees, usually starting 7-10 days following vaccination and lasting 2 days.
- Low-grade fever and rash, lymphadenopathy, myalgia and paraesthesia are commonly reported. Joint symptoms tend to be rare in children (0%-3%) and in men, but are common among vaccinated adolescents and adult females; they include arthralgias (25%) and arthritis (10%) that usually last from a few days to two (2) weeks.

Rare or serious reactions

- Thrombocytopenia is rare and has been reported in less than 1 case per 30,000 doses administered.
- Anaphylactic reactions are also rare but have the potential to be fatal.
- Encephalitis has been reported following measles vaccination at a frequency of approximately one (1) case per one (1) million doses administered although a causal link is not proven.
- Adverse events following MR vaccination are mostly mild and transient, and are similar in frequency and severity to those following administration of each of the single antigen products.

AEFI Reporting in Botswana

Health care workers are encouraged to report any suspected adverse events following immunisation (AEFI) to BoMRA. Reporting helps monitor vaccine safety and protect public health. Even if you are uncertain whether the vaccine caused the reaction, reporting ensures potential concerns are identified early.

Steps to report an AEFI:

1. Scan the QR code provided

2. Accept the terms and conditions
3. Complete the reporting form with all available information
4. Submit the form

Or Email: lmakwana@bomra.co.bw/aefi@bomra.co.bw
Telephone: 3730788/ 3730769

Plot 112, International Finance Park, Gaborone
Private Bag 2, Gaborone Station, Botswana
+267 373 1727/20
Toll Free : 0800 600 216
info@bomra.co.bw
Botswana Medicines Regulatory Authority
www.bomra.co.bw

bsi ISO 9001 Quality Management Systems CERTIFIED
FS 739935

BOMRA MEDICINES REGULATORY AUTHORITY
Promoting access to safe medicines