

**DRAFT POLICY OF THE  
EXPANDED PROGRAMME ON IMMUNISATION  
REPUBLIC OF THE GAMBIA**

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## **FOREWARD**

The Expanded programme on Immunisation (EPI) policy document is an outcome of the collaboration efforts of several partners involved in revitalizing health care delivery system of The Gambia. To attain sustainable improvements in the health and well being of The Gambians population, important partnership have been developed in mobilizing resources and systemically and rationally utilizing these resources to attain this objective. However, such partnership must be backed by sound health policy.

This EPI policy aims to provide a frame work to all the players in the health sector providing EPI services, setting out programme goals, objectives and guidelines reflecting the latest EPI policies as adapted from the WHO reports of the WHO immunisation policy guidelines, subsequent EPI updates and many other recent publication referring to specific situations affecting The Gambia today.

Several organizations and agencies participated in preparing this document, reflecting the opinion and experience of a wide range of Gambia's health sector players.

It is my sincere belief that this policy will go a long way in streamlining EPI activities while setting standards for its further revitalization, expansion and ultimately its sustainability in The Gambia. I urge all to co-operate in adhering to its use, which above all will contribute to the realization of a healthy Gambian population particularly its women and children.

Finally, I thank all those who committed their time as individuals and/or representative of the organizations in reviewing this document to make it what it is today.

Invaluable thanks go to UNICEF/The Gambia, WHO/The Gambia, the WHO EPI epidemiologist, the Inter –Agency Co-ordinating Committee (ICC), the Chief pharmacist, the EPI Technical Staff and many others not mentioned here. The financial assistance provided by CATR, technical guidance, materials and moral support provided to the EPI programme and more specifically in the preparation of this document has been invaluable

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Dr Yankuba Kassama  
Secretary of State Department of State For Health

This document is the official reference for all EPI activities in The Gambia. Authorized revisions to this document will be undertaken as and when situations permit and/or dictate and such written changes, shall be inserted into this document by DOSH & SW.

It is the responsibility of all health professionals involved in obtaining, managing and administering vaccines to follow this EPI Policy.

## ACRONYMS

AD	Auto-disabled syringes
AEFI	Adverse Effect Following Immunisation
AIDS	Auto-immune Deficiency Syndrome
BCG	Bacillus Calmette-Guerin
CATR	Cellule d'appui Technique Regional
CCM	Cold Chain Monitor
DHO	Divisional Health Officer
DHT	Divisional Health Team
DPT	Diphtheria, Pertussis, Tetanus
DOSH	Department of State for Health and Social Welfare
EPI	Expanded Programme on Immunisation
ESU	Epidemiology and Surveillance Unit
Hep B	Hepatitis B
Hib	Haemophilus Influenzae
HIS/RRS	Health Information System/Routine Reporting System
HIV	Human immune Virus
IWC	Infant Welfare Card
MDVP	Multi-dose Vial Policy
MCH	Maternal and Child Health
ICC	Inter-agency Co-ordination Committee
NGO	Non-governmental Agency
NIDs	National Immunisation Days
NVC	National Vaccination Campaigns
OPV	Oral Polio Vaccine
PHC	Primary Health Care
TT	Tetanus Toxoid
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
VVM	Vaccine Vial Monitor
WHO	World Health Organization

## **1 BACKGROUND**

The Gambian health system is based on the Primary Health care concept. It is decentralised and organised on 3 levels: primary, secondary and tertiary. Access has improved with 90% of the population living within 7.5km of a health facility. However, there are divisional disparities with respect to access, health inputs and outcome indicators. Although the introduction of the PHC has led to notable successes such as the reduction in infant and child mortality rates, quality of service provision, equity and under-funding of the health sector persist at all levels. Successive health reforms since the late 1980s have been undertaken focussing on administrative reforms mainly at central level, decentralisation of health care with the establishment of 6 divisional health teams and the introduction of mechanisms to improve health sector financing, namely, the cost recovery programme and the Bamako Initiative.

An immunisation programme is not a new concept in The Gambia. Many will recall the nation-wide activities of the World Health Organization (WHO) against smallpox in late 1970's when the disease was claimed globally eradicated and measles controlled.

In 1970, a report submitted by the Epidemiology and Statistics Unit (ESU) of the Ministry of Health division, revealed high rates of childhood morbidity and mortality. Further analysis of this report indicated that a large proportion of these conditions were attributable to communicable diseases, many of which were vaccine-preventable. Among these were measles, tetanus, polio, tuberculosis, whooping cough and diphtheria. The government of The Gambia requested assistance from USAID, WHO and other appropriate agencies to contain outbreaks caused by diseases such as measles and yellow fever. Consequently, in 1979 the Expanded Programme of Immunisation (EPI) was established.

Since 1979 The Gambia has been augmenting its EPI activities by increasing access to routine vaccination, strengthening of the cold chain through solarization, decentralisation of storage facilities through the creation of divisional stores, and the conduction of National Vaccination Campaigns (NVC). The duration of the NVCs ranges from a week to two of special emphasis on vaccinations. These activities are aimed at creating higher levels of public awareness and commitment towards the EPI while at the same time mobilising the public to receive the target vaccines. During this week when various sectors of the public including other Government Ministries, the Media, Religious organizations, NGO, community organizations and Donor Agencies join efforts to promote both the EPI and mass vaccinations throughout the country

## **II GENERAL POLICY STATEMENT**

1. The Government of The Gambia shall ensure equal access to quality EPI services to its children and women of child bearing age within the borders of the country. This

being non-negotiable, the Department of State for Health and Social Welfare shall ensure that adequate and potent EPI antigens are available in the country at all times.

2. All/any agencies designated to procure antigens intended for use in The Gambia must be channeled through the UNICEF procurement Division with approval from the Permanent Secretary, DOSH.
3. The Government of The Gambia shall ensure equal access to quality EPI services to it's children and women of child bearing age within the borders of the country. This being non-negotiable, the Department of State for Health and Social Welfare shall ensure that adequate and potent EPI antigens are available in the country at all times.
4. All/any agencies designated to procure antigens intended for use in The Gambia must be channeled through the UNICEF procurement Division with approval from the Permanent Secretary, DOSH.
5. Vaccines must be managed appropriately, with special care and as a special tool in the prevention of the EPI Target diseases.
6. The term health worker in this document shall refer to those who have undergone training in formal health training institutions. These include Doctors, Senior Health Superintendent, Assistant Public Health Officer, State Nurse Midwife, State Registered Nurse, State Enrolled Nurse Midwife, State Enrolled Nurse, Community Health Nurse Midwife, and Community Health Nurse.
7. Only Department of state for Health and Social Welfare institutions and/or organizations designated as MCH clinics shall provide EPI services in order to guarantee accessibility, equitable, quality immunisation to the children within the borders of The Gambia.

### **III PROGRAM GOALS AND OBJECTIVES**

The EPI Programme was established in 1979 with the aim of combating communicable diseases through immunisation against seven childhood diseases (the traditional six EPI diseases - measles, tuberculosis, polio, diphtheria, tetanus, pertussis; and Yellow Fever). However, in recent years, two new vaccines, *Hepatitis B* and *Hemophilus Influenzae type b* were added to the routine EPI. Initially, a mobile strategy was adopted to deliver the vaccines. This was later modified to include a fixed strategy that was integrated into the MCH services.

The main goal of the program is to reduce childhood morbidity and mortality attributed to the EPI target diseases.

The target age group for immunisation services is children under 2 years of age and women of childbearing age. The EPI does not emphasize other age groups, diseases, or high-risk populations and therefore vaccines provided by the EPI are not intended for use

for other groups. In out break situations at-risk population groups of the particular disease are vaccinated.

The target objectives are annually reviewed and revised based on coverage levels achieved, anticipated resources, available manpower and WHO recommendations.

#### **IV PROGRAMME OPERATIONS**

Health services have been decentralized into six Health Divisions which are co-terminous with the administrative divisions, except for the North Bank Division which by virtue of Miniminyang Bolong has been sub-divided into 2 health divisions. Each health division is managed by a Divisional Health Team (DHT). The DHT is responsible for the overall supervision and management of the delivery of health services including immunisation services within the division. Within the DHTs, the Divisional Public Health Officer is responsible for EPI activities (see organogram, Annex 1).

From its inception, the EPI has adopted several operational strategies based on prevailing circumstances. Beginning with mobile operations in 1979, EPI now employs a combination of fixed (static) and outreach (mobile) activities. With this combination of strategies, all health facilities have a MCH team, which provides services at the health facility and at a number of permanent outreach sites strategically located to serve a large population, that are known to the communities. Vaccination teams from a permanent base regularly conduct immunisation activities to these outreach sites. The present day reality shows that fixed immunisation strategy is more cost-effective and sustainable than mobile strategy. Despite this, these two strategies will be maintained into the foreseeable future.

For polio eradication, the National Immunisation Days (NIDS), uses an additional strategy, that is, “the house-to-house strategy” which is aimed at achieving a blanket coverage of all households.

#### **V EPI TARGET DISEASES**

The vaccine-preventable diseases covered by the Gambian EPI include the following:

1. Tuberculosis
2. Diphtheria
3. Pertussis (whooping cough)
4. Tetanus
5. Poliomyelitis
6. Measles
7. Yellow fever
8. Hepatitis B
9. *Haemophilus Influenzae type b*

## VI PROCUREMENT OF VACCINES AND PROVISION OF EPI SERVICES

All EPI antigens intended for use in The Gambia must be procured through UNICEF.

The Department of State for Health shall manage the central EPI store/warehouse under the direct management of the National Logistician supervised by the EPI Programme Manager. All vaccines and cold chain equipment shall be stored at the central EPI Warehouse or at a place authorized by the EPI DOSH, prior to transfer to Divisional storage points under the control of the Divisional Health Team (DHT).

## VII IMMUNISATION SCHEDULES: AGES, DOSES AND INTERVALS.

The immunisation schedule currently used in The Gambia is shown below in Table 1. It outlines a minimum number of contacts with children for full vaccination at the earliest ages and provides significant response to the vaccines. Several antigens such as BCG, DPT, HIB, HEP.B, and Polio vaccines can be given simultaneously. Measles and Yellow Fever vaccines are given at the age of 9 months or later. Administering more than one vaccine at a time does not in any way compromise safety or efficacy as it is important not to lose any opportunity to vaccinate a child (WHO Policy). This is the schedule that should be taught in schools, prenatal clinics, on the radio and television, and at any other opportunity, to afford the earliest protection to children and women of child bearing age.

**Table 1:** Number of doses, the age at which a dose is given and the minimum interval between doses

AGE	ANTIGEN	AGE/INTERVALS
At birth	BCG, OPV0, & Hep B1	28 days between each dose
2 months	OPV 1, DPT1/Hib1, & Hep B2	
3 months	OPV2, DPT2/Hib2	
4 months	OPV3, DPT3/Hib3, & Hep B3	
9 Months	Measles**, Yellow Fever, & OPV4	
Female age 14-49 or pregnant ( any age)	TT***	28 days between doses 1 & 2 6 months between dosed 2 & 3 12 months between subsequent doses Total of 5 doses gives life long immunity

\* At birth = under one week old.

\*\*In case of measles outbreaks, children at 6 months and above must be vaccinated. If a first dose is given before 9 months of age, then a second dose must be given at 9 months or later.

\*\*\*In case of puncture wounds or lacerations Tetanus Anti-Toxoid (TAT) and not TT must be administered.

The decision to administer measles vaccine before the age of 9 months shall be authorized by the National EPI Manger who will subsequently inform the DOSH of the measles outbreak and other control measures instituted to contain that outbreak after receiving confirmation from the DHTs/ESU.

#### **A INTERVALS**

**To provide maximum protection for the child and/or the woman, the minimum intervals between doses must be adhered to. There is no maximum interval**

#### **B. INTERRUPTED IMMUNISATION.**

**All interrupted immunisations shall continue unabated.**

WHO policy states that for all practical purposes, there is no maximum interval between doses of DPT, Hib, HEP B, OPV, or TT. Therefore, it is not necessary to restart a series because of elapsed time. For TT, when the total series has been completed, close to lifetime immunity would have been provided and additional doses are not needed.

Any woman pregnant who has never been vaccinated needs at least two doses of Tetanus Toxoid completed properly (with at least one month between doses) before the ninth month of her pregnancy in order to fully protect herself and the baby from tetanus. If she has had the first two doses previously, boosters given after the intervals indicated in Table 2 will increase the duration and magnitude of the protection. Once five doses have been given, additional TT vaccination is unnecessary.

#### **C. BOOSTERS**

**Booster immunisations are provided for vaccines such as DPT and POLIO.**

### **VIII IMMUNISATION TECHNIQUES AND BODY SITES**

The following procedures for administration of vaccines must be adhered to at all time including preparing for vaccination sessions.

1. Health Workers shall set a good example by washing their hands with soap and water before beginning a Vaccination session.
2. An area shall be located out of direct sunlight that preferably allows control of patient entrance and has another means of exit.

3. Waiting patient shall be screened so that (a) sick person(s) can be given vaccines first and reduce possibility of spreading the infection; and (b) persons not within the target age groups can be sent home without unnecessary delays
4. Only one vial of each antigen shall be removed from the vaccine carrier at a time. These should be placed in the foam/in the neck of the vaccine carrier ice or pack placed on a workable table.
5. The expiry dates on each vial shall be rechecked to ensure viability.
6. Reconstituted vaccines such as measles, Yellow Fever, Hib and BCG vaccines shall be discarded at the end of the day
7. Open vials of TT, DPT and Polio can be re-used in subsequent sessions as long as they are stored under the appropriate cold chain conditions (0 to + 8°C) and (+) 8°C and/or not contaminated
8. The sites of administration of the antigens are outlined in Table 2

**Table 2:** Antigen Administration: Route, Dosage & Techniques

<b>ANTIGEN</b>	<b>BODY SITE</b>	<b>DOSAGE</b>	<b>TECHNIQUE/ROUTE</b>
BCG	Upper right arm	0.05 ml (< 3 month) 0.1ml (≥3months )	Intra-dermal
OPV	Mouth	2-3drops*	Oral Ingestion
DPT/Hib	Upper arm	0.5ml	Intra-muscular
HEP B	Upper arm	0.5ml	Subcutaneous
Measles	Upper arm	0.5ml	Subcutaneous
TT	Upper arm	0.5ml	Intra-muscular
YF	Upper arm	0.5ml	Subcutaneous

\*As prescribed on the vial label

<b>ALL INJECTIONS MUST BE GIVEN IN THE SITES USING THE APPROPRIATE TECHNIQUE/ROUTE.</b>
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## IX VITAMIN A SUPPLEMENTATION \*\* ( TO BE LOOKED AT)

**ALL HEALTH FACILITIES PROVIDING IMMUNISATION SERVICES SHALL ADMINISTER VITAMIN A DURING NIDS AND ROUTINE IMMUNISATION ACTIVITIES.**

**Table 3:** Target Group & Vitamin A Distribution

TARGET GROUP	IMMUNISATION CONTACT	VITAMIN A DOSE	ROUTE OF ADMINISTRATION	INTERVAL
<b>Infant 6-11 months</b>	Measles vaccines contact	100,000 I.U.	Oral	Every 6 months
<b>Children 1-6 years</b>	Booster doses, Special Campaigns . Delayed primary Immunisation doses	200,000 I.U.	Oral	Every 6 months
<b>All mothers</b> irrespective of their mode of infant feeding, up to eight weeks postpartum if they have not received vitamin A supplementation after delivery	BCG, OPV-0 or DPT1, contact up to six weeks	200,000 I.U.	Oral	Single dose

## X CONTRA-INDICATION TO IMMUNISATION

### A TRUE CONTRA-INDICATIONS

All vaccines currently used for immunisation services have been proven to be absolutely safe. Therefore, there are few true contra-indications. The true contra-indications include the following:

1. An individual or child who suffers from a non-febrile convulsion or an anaphylactic shock immediately following immunisation should never be given that antigen (s)

2. Infants with history of definite sensitivity to egg should not receive vaccines such as yellow fever and influenza, which contain traces of egg.
3. Un-immunized children with signs and symptoms of AIDS in The Gambia should not receive BCG and Yellow Fever, but should receive the other EPI vaccines.

## B FALSE CONTRA-INDICATION

Below are some contra-indications that should not be used to deny a child or woman of immunisation.

1. Minor illnesses such as upper respiratory tract infections, fever  $<38.5^{\circ}\text{C}$ ,
2. Allergy, asthma or other atopic manifestations,
3. Diarrhea
4. Prematurity or small for dates infants
5. Malnutrition
6. Family history of convulsions
7. Dermatoses, eczema or localized skin infections
8. History of jaundice after birth

A useful general rule is to give routine vaccination unless the infant is felt to be sick enough to warrant hospitalization. Measles vaccine should not be withheld from an unimmunized child between the ages of nine months and under five years even if hospitalized.

**CHILDREN WITH DIARRHEA SHOULD BE GIVEN ALL VACCINES FOR WHICH THEY ARE ELIGIBLE, INCLUDING OPV. HOWEVER, THE DOSE FOR OPV SHOULD NOT BE RECORDED ON THE CHILD'S CLINIC CARD. THEREFORE, THE DOSE MUST BE REPEATED. THE MOTHER MUST BE ASKED TO RETURN FOR ANOTHER DOSE.**

## XI MISSED OPPORTUNITIES

A missed opportunity for immunisation is when a child or woman of child bearing age comes to a health facility or outreach site and does not receive any or all of the vaccine doses for which he or she is eligible.

Some important reasons for missed opportunities:

1. The failure to administer simultaneously all vaccines that a child is Eligible.

2. False contra indications to immunisations, especially when a child attends a health facility for treatment.
3. Health workers trying to avoid vaccine wastage, so do not open a vial for a few clients.
4. Lack of information on the multi-dose vial policy (MDVP).
5. Logistical problems such as vaccine shortage, poor clinic organization and inefficient clinic scheduling.

## **XII INJECTION SAFETY**

**EVERY CHILD SHALL BE IMMUNIZED USING A SINGLE STERILE NEEDLE AND SYRINGE FOR EACH INJECTION. EPI PROGRAMME SHALL GUARANTEE AND MAINTAIN THE HIGHEST POSSIBLE, ATTAINABLE AND SUSTAINABLE LEVEL OF STERILITY OF EQUIPMENT FOR IMMUNISATION INJECTION**

The use of unsterile needles and syringes pose significant dangers of transmitting several infections including the HIV virus that causes AIDS, Hepatitis B Virus and other bacteria with various consequences. The immediate manifestations may include injection abscesses, and septicemia serving as a major disincentive to the immunisation programme. Furthermore, the longer-term manifestations of HIV/AIDS and hepatitis can be very devastating. In view of the above:

1. Only Auto-disable syringes (AD) are authorized for all immunisation injections in The Gambia
2. A single sterile needle and a sterile syringe from a double cap and seal packet shall be used for each injection. If this is not possible, the session must be ended.
3. In all settings, responsibility should be given to a specific person to ensure the destruction and disposal of these items after a single use. This may be by disposal into a deep latrine or by incineration without recapping of needles or any other appropriate disposal method.
4. Regular monitoring of EPI practices by those responsible for their administration must take place using the above procedures as definitive EPI standards.

## **XIII ADVERSE EFFECTS FOLLOWING IMMUNISATION (AEFI)**

An Adverse Event Following Immunisation is a medical incident that *takes place after* an immunisation and is *believed to be caused by* the immunisation.

All health workers are obliged to monitor AEFI, investigate and report it to the appropriate authorities at all times

Health workers have a responsibility to inform caretakers of common side effects of specific vaccines and the recommended treatments, shown in Table 6. Such explanations shall be conveyed in simple terms, indicating that side effects reflect that the body is responding by preparing to fight of the disease. Poor explanations scare away mothers and may deter bringing back the child for subsequent doses and other future children. They may also discourage other parents from having their children vaccinated.

The following AEFI will be monitored:

- All injection site abscesses.
- All cases of BCG lymphadenitis
- Vaccine Associated Paralytic poliomyelitis
- \*All deaths that are thought by health workers, or the public, to be related to immunisation.
- \*All cases requiring hospitalisation that are thought by health workers, or the public, to be related to immunisation.

All health workers are to investigate serious AEFIs or AEFIs that occur in unusual frequency as soon as possible and forward reports to the Divisional level. Other AEFIs are to be included in regular EPI reports to the Divisional level. DHTs are to further investigate AEFIs and take corrective action and also report to the national level

**Table 4:** Common potential side effects of EPI antigens and recommended treatments

ANTIGEN	COMMON SIDE EFFECTS	RECOMMENDED TREATMENT
BCG	Ulcer or sore at site sometimes lasting several months	Do not cover or apply ointments, etc. just keep site clean with water
DPT	Fever for 12 – 24 hours the same day or next day	Sponge bath, paracetamol according to age
Measles	Fever for 1 – 3 days. Small rash occurs 7 – 12 days post vaccination	Sponge bath, paracetamol according to age
Yellow Fever	Heaviness in arm	Reassurance
TT	Heaviness in arm	Reassurance

#### XIV COLD CHAIN REQUIEMENTS AND MANAGEMENT

1. Vaccines shall be provided only to established institutions, agencies and organization that can guarantee its proper transport, storage and handling through to the point of administration to the beneficiary.
2. Persons picking up vaccines from the EPI Store or any other storage location shall bring a vaccine carrier/Cold Box capable of maintaining vaccines at an acceptable temperature (0-8°C) adequately, preventing loss of potency during transportation, including an allowance for vehicle problems.
3. Every facility maintaining vaccines on site shall have a current contingency plan, providing an alternative storage site in case of critical power failure. If a refrigerator has a good supply of frozen cold packs and is not opened in the event of a power failure, it can maintain an adequately cold temperature for 24 hours or more. When the box is opened, the temperature should be checked and even if the temperatures have increased but there is still some ice present in the freezing compartment, the vaccines should still be potent. Use of temperature monitoring cards is mandatory to indicate critical temperature fluctuations when temperatures have not been charted or the thermometer has failed.
4. Every facility maintaining vaccines shall keep a daily log of refrigerator or cold box temperatures and a log on maintenance(s) performed. The lower compartment should have a temperature between 0°C and 8°C Centigrade. At the end of the day and there is evidence of ice melting in the freezing section, serious consideration should be given to moving vaccines to another functioning refrigeration until it has been checked and its good function re-established.
5. Recommended storage temperatures for the maintenance of maximum potency of EPI antigens for the longest possible time are shown below.
6. Unopened vials returned to the refrigeration shall be used during subsequent sessions provide cold chain has been maintained, expiry date has not reached and VVM has not reached discard stage.
7. Clinics should maintain only one month's supply of vaccines on site because of the unreliability of power sources, or 3-4 days supply if using cold-box.
8. Only vaccines, diluents, and frozen cold packs or ice packs used during vaccinations sessions shall be kept in the refrigerator or cold box provided for that purpose.
9. Whose door shall be opened only for checking temperatures and removing or replacing vaccines.
10. No foods and drinks (including water) shall be stored in the refrigerator or cold box.

**Table 5.** Temperatures recommended for regional and central facilities

EPI ANTIGEN	STORAGE TEMPERATURE
BCG OPV Measles HIB Yellow Fever	Freeze (-25oC to 0oC) Freeze (-25oC to 0oC) Freeze (-25oC to 0oC Freeze(-25oC to 0oC Freeze (-25oC to 0oC)
DPT HEP B TT	0oC to 8oC 0oC to 8oC 0oC to 8oC
Diluent	At room temperature

**Table 6:** Antigen and recommended storage temperatures for peripheral facilities using antigens in less than one month.

EPI ANTIGEN	STORAGE TEMPERATURE
BCG OPV Measles Yellow Fever	Freeze (-25oC to 0oC) Freeze (-25oC to 0oC) Freeze (-25oC to 0oC Freeze (-25oC to 0oC)
DPT HIB HEP B TT	0oC to 8oC 0oC to 8oC 0oC to 8oC 0oC to 8oC
Diluent	At room temperature

## XV MULTI-DOSE VIAL POLICY

This policy applies to OPV, DPT, TT, hepatitis B and the liquid formulations of Hib vaccines. According to this policy mult-dose vials of OPV, DPT, TT, hepatitis B and the liquid formulations of Hib vaccines from which one or more doses of vaccines have been removed during an immunisation session may be used in subsequent immunisation sessions for up to maximum of 4 weeks, provided that all of the following conditions are met:

- The expiry date has not passed
- The vaccines are stored under appropriate cold chain conditions
- The vaccine vial septum has not been submerged in water
- Aseptic technique has been used to withdraw all doses
- The vaccine vial monitor (VVM), if attached, has not reached the discard point

This policy does not change recommended procedures for handling vaccines that must be reconstituted that are BCG, Measles, yellow fever and some formulations of Hib vaccines. Once they are reconstituted, vials of these vaccines **must** be discarded at the end of each session or at the end of six hours, whichever comes first.

## XVI VACCINE MONITORS

**VVMs do not change the sensitivity of vaccines to heat.** Therefore, vaccines must be stored and transported in the cold chain as long as possible. Vaccine vial monitors were designed for use at the periphery of the cold chain but may be helpful earlier as well. For example, if a CCM indicates a problem with the temperature history of a shipment and all of the vials in that shipment have VVMs, the VVMs can be used to distinguish between the vials that have been exposed to excessive amounts of heat and those that have not.

### A VVM (Vaccine Vial Monitor)



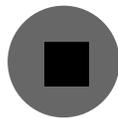
Inner square is lighter than outer circle  
**If the expiry date is not passed, USE the vaccine**



As time passes: Inner square is still lighter than outer circle. **If the expiry date is not passed, USE the vaccine as soon as possible**



**Discard Point:** Inner square matches the colour of outer circle.  
**DO NOT use the vaccine**

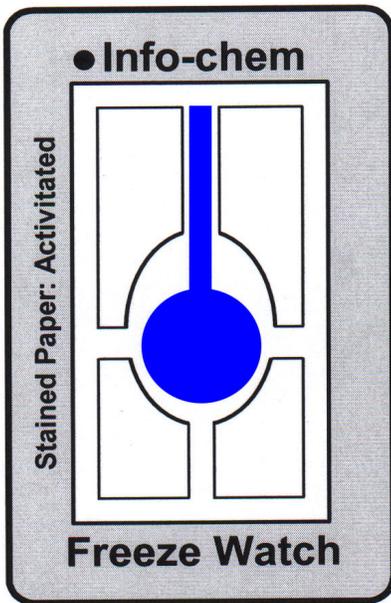


**Beyond the discard point:** Inner square is darker than outer circle.  
**DO NOT use the vaccine**

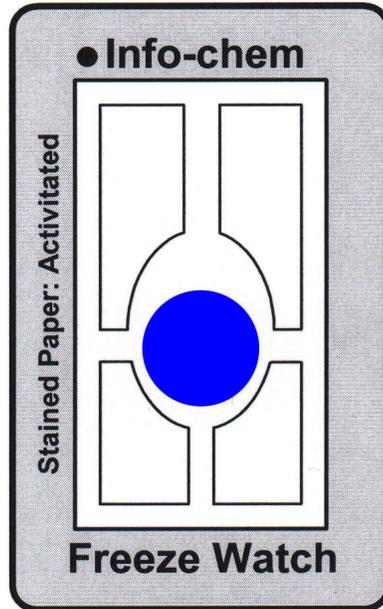
### B FREEZE INDICATORS

VVMs do not change the importance of freeze indicators, such as Freeze Watch™ indicators and thermometers. Freezing damages some vaccines, including DPT, TT, Hepatitis B, some diluents and some formulations of HIB. Freeze Watch™ indicators and temperature logs show whether these vaccines have been exposed to freezing temperatures. A VVM does not change color or reverse a color change if vaccine is

frozen.



Before Freezing



After Freezing

### C. THE COLD CHAIN MONITOR

Cold chain monitors (CCMs) are used to monitor temperature in the components of the cold chain (cold rooms, freezers, refrigerators, and vaccine carriers). A cold chain monitor is included in every international shipment of vaccines to indicate when temperature limits for the vaccines in that shipment have been exceeded



### Vaccine Cold Chain Monitor

Date in	Index	Location	Date out	Index

 <b>MonitorMark™</b> Ind 22201	INDEX/INDICE 10°C 34°C			
	A	B	C	D
	If A all blue	If B all blue	If C all blue	If A & B & C & D all blue
Polio	Use within 3 months	<b>TEST VACCINE BEFORE USE</b>		
Measles & Yellow Fever	Use within 3 months			
DTP & BCG	Use within 3 months			
TT & D1 & Hepatitis B	These vaccines may be used			

Name: \_\_\_\_\_  
 Non: \_\_\_\_\_  
 Date of dispatch: \_\_\_\_\_  
 Date of receipt: \_\_\_\_\_  
 Vaccine: \_\_\_\_\_  
 Vaccin: \_\_\_\_\_

**SUPPLIER**  
**FOURNISSEUR**

Keep the Cold Chain Monitor with your vaccine

When the Monitor arrives . . . . .  
 complete the top part of the card  
 - fill in the date  
 - fill in the index (-, A, B, C and/or D)  
 - fill in the location

When the Monitor leaves . . . . .  
 complete the top part of the card  
 - fill in the date  
 - fill in the index (-, A, B, C and/or D)

If windows A, B, C & D are all white use vaccines normally.

If the windows A to C are completely blue, but window D is still white it means that the vaccine has been exposed to a temperature above 10°C but below 34°C for the following number of days:

	INDEX		
	A	AB	ABC
At a temperature of 12°C	3 days	8 days	14 days
At a temperature of 21°C	2 days	6 days	11 days

If window D is blue it means that there has been a break in the cold chain of a temperature higher than 34°C for a period of at least two hours. Check the cold chain.

The instruction "use within three months" should not be followed if either the expiry date or any local cold chain policy require a shorter period before use or disposal of the vaccine.

Assembled & distributed by Berlinger Ganterschwil Switzerland

## XVI VACCINE WASTAGE

**CHILDREN IN THE TARGET AGE GROUP AND WOMEN OF CHILDBEARING AGE SHALL NOT BE DENIED IMMUNISATIONS ON THE BASIS OF VACCINE WASTAGE.**

The Gambia EPI has adopted the WHO EPI policy that, "Immunisation should not be refused on the basis of vaccine wastage i.e. opening a 10 dose vial of measles vaccine to immunize a single child is reasonable because: (1) the cost of the vaccine is a small fraction of the total expense of providing vaccine and (2) the social and medical cost of a case of measles outweighs any potential savings in vaccine."

Consideration should be given to local conditions especially with regards to maintaining cold chain. In most areas, it is necessary to establish periodic vaccination days, and potent vaccines may not be available at other times. In such cases, vaccination days should be widely publicized and special care must be taken to observe the posted schedule. If a child comes in at other times and you do not feel certain that he/she will return at the next session, you should use that contact to provide appropriate vaccines, regardless of wastage. In areas where the cold chain can be reasonably assured, vaccines should be provided at all times. Particular days may be established to handle the majority of children, with mothers encouraged to attend on those days, but no child already present shall be sent home without needed immunisations if supplies are available.

All contacts with qualified health workers shall provide an opportunity to review immunisation records of children and women and provide the needed protection with the appropriate vaccines.

## **XVII REPORTING SYSTEMS IN EPI**

### **A. VACCINATIONS GIVEN**

**DHT/Divisional Public Health Officers shall submit monthly EPI reports and report any incidence of outbreaks promptly to the Department of State for Health & Social Welfare through the ESU/EPI Unit.**

1. On a weekly basis, or at intervals decided by the supervisory team, all EPI service providers shall complete and supply the relevant information to the person responsible for completing the EPI section of the Health Information System/Routine Reporting System (HIS/RRS) form. If the HIS/RRS is not use, then within 7 days after the close of the month, all service providers shall make available to the area supervisor, a summary of the number of doses provided of each antigen during that month in the required format.
2. Supervisors shall complete a divisional or district summary report monthly, and submit this report to the DOSH and SW/ESU statistician before the end of the within the first days of the next month. A copy of the report shall be furnished to the EPI Manager.
3. A copy of all reports sent to the next level shall be retained at the level it was generated.

### **B. INCIDENCE OF TARGET DISEASES**

1. Each Health Facility shall complete the EPI/DOSH&SW report form at the end of each reporting period indication on these, all the requested data including new cases of EPI target diseases (measles, polio, whooping cough, tuberculosis, diphtheria or neonatal tetanus and yellow fever). The reports must then be submitted to the EPI management.
2. Reports of communicable diseases outbreaks shall immediately be brought to the immediate attention of the Director of Heath Service who will lead/other wise instruct investigations determining the validity of the report and quickly institute appropriate interventions. Representatives of the press must be referred to the appropriate health authority for accurate information.

### **C. SUPPLIES USED**

1. At the end of each month, each clinic shall complete an inventory of the EPI supplies on hand and furnish this to the supervisory team who should verify it before approving any new requests. This report will be compared to the previous month's inventory form and any supplies added during the month. Health personnel shall be

required to explain any significant variations between supplies used and vaccinations provided.

2. If it has been necessary to delete supplies during the month for any reason e.g. because vaccines have expired, cold chain breakdown, details of actions taken shall be provided to the supervisors.

## **XVIII EPI SUPPLIES: RESPONSIBILITIES, DISBURSEMENT**

**All Health workers receiving EPI equipment and supplies shall be fully responsible for their proper management and utilization.**

1. EPI vaccines shall be provided free of charges to all health service providers, public or private that have agreed to abide by the policies set forth herein and who have demonstrated competence in properly storing, managing/handling and administering vaccines. The Ministry of Health & Social Welfare reserves the right to undertake supervisory visits to providers as and when deemed fit.
2. Requests for vaccines shall be made through the EPI Unit or Divisional Public Health Officer responsible for monitoring all vaccination activities in a particular area. Decisions on the amounts of vaccines to be provided will take into consideration the previous month's activities, plans for the next month, cold chain guarantees, and vaccines availability.
3. Other supplies, such as needles, syringes, tally sheets, refrigerator charts, thermometers, will be apportioned to clinics and hospitals, again based on a request approved by the EPI Supervisor. As the Revolving Drug Fund and Fee For Service programme are becoming more widely implemented, most of these supplies will be purchased at the lowest possible cost.

## **XIX FEES FOR SERVICE**

The current policy of the Department of State for Health and Social Welfare on fees for service shall not apply to EPI activities throughout Gambia.

In the public sector, no fees shall be charged for vaccinations within the EPI Program. A fee determined by the Ministry of Health and Social Welfare may be charged for vaccination cards and the plastic envelopes outside of emergency situations.

During National Vaccination Campaigns, health workers and/or volunteers assigned to any clinic (public or private) or outreach site shall not collect any fees for vaccinations.

Any violation of this mandate and/or other unprofessional conduct shall be reported to the Director of Health Service, and disciplinary action shall be taken. The integrity and reputation of the program cannot be compromised.

## **XIX AGREEMENT TO ABIDE BY POLICIES**

To ensure consistent implementation of the above policy in the Republic of The Gambia, all groups providing EPI services and vaccines will have on file at DOSH&SW a signed agreement committing it to the application of these EPI policies and its subsequent revisions. The Director of Health Service /any authorized will bear responsibility for all government clinics and hospital(s) under his/her jurisdiction. Administrators or representatives of the Board of Directors of each private clinic and hospital providing EPI services shall accept responsibility accordingly. The EPI Manager will monitor and supervise all health facilities including those managed by Government, NGOs, and private health facilities responsible for the administration vaccines in the area of responsibility to ensure that the EPI policy and procedures are implemented by all.

All private facilities prior to initiating an immunisation program shall have such premises assessed and certified for their suitability for administering vaccines including suitable staff standards meeting the above policies. The local EPI Technical Staff with local supervisor shall inspect and certify such premises upon approval of the director of Health Service.

## **XX HEALTH EDUCATION RESPONSIBILITIES**

### **A. ADVERSE EFFECTS FOLLOWING IMMUNISATION (AEFI) SIDE EFFECTS OF VACCINES**

<b>All health workers shall inform mothers/caretakers of the significance of vaccine side effects and its positive implications.</b>
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1. Health workers have a responsibility to inform caretakers of common side effects of specific vaccines and the recommended treatments, shown in Table 6. Such explanations shall be conveyed in simple terms, indicating that side effects reflect that the body is responding by preparing to fight of the disease. Poor explanations scare away mothers and may deter bringing back the child for subsequent doses and other future children. They may also discourage other parents from having their children vaccinated.
2. Mothers should be encouraged to take their babies to the clinic if there are serious complications from vaccine administration. If several children have serious reactions to vaccinations, this should be investigated. Reasons may include bad vaccine, poor technique and poor sanitary conditions. If there is no response to recommended treatment, such patient shall be referred.

## B INFANT WELFARE CARD & ANTE NATAL CARD

1. The Infant Welfare Card (IWC) and anti natal cards are primary instruments for documenting vaccinations. Mothers and/or caretakers should be strongly encouraged to maintain the card in good condition and to bring it along each time the child is brought to the clinic.
2. Growth monitoring and promotion is recognized as a major ingredient of promoting a child's well being. The child's weight should be regularly charted and monitored on the IWC card and nutrition education provided appropriately.
3. The information on the IWC card regarding feeding the baby and "The Growth Chart" can be used as aids for health education. When caretakers cannot read, they should be encouraged to remember that the card includes this information and can use it to get appropriate assistance.

## C COMMUNITY MOBILISATION

The success of the EPI Program depends on the understanding and involvement of the local population. Communities shall participate and be fully involved in the vaccination programme.

PHC team members such as village health workers or trained traditional birth attendants shall serve as a nucleus for community mobilisation. Each Division will develop, implement and revise as necessary a mobilisation plan for its communities.

## **ANNEXES**