

DRAFT

EPI REVISED POLICY

MINISTRY OF HEALTH & SOCIAL WELFARE

**Lesotho Expanded Programme on Immunisation
September, 2002**

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LIST OF ABBREVIATIONS

A-D	auto-disable
AFP	acute flaccid paralysis
AIDS	acquired immunodeficiency syndrome
BCG	bacillus Calmette-Guerin (vaccine against TB)
DHP	District Health Package
DT	diphtheria-tetanus vaccine
DTP3	third dose of diphtheria-tetanus-pertussis vaccine
EPI	Expanded Programme on Immunisation
GAVI	Global Alliance for Vaccines and Immunisation
HBV	hepatitis B virus
HepB3	third dose of hepatitis B vaccine
Hib3	third dose of Haemophilus influenza type b vaccine
HIV	human immunodeficiency virus
HSA	Health Service Area (equivalent to district in Lesotho)
ICC	Interagency Coordinating Committee
IEC	Information, Education, Communication
MNT	Maternal and neonatal tetanus
MOHSW	Ministry of Health and Social Welfare
NGO	non-governmental organization
NIDs	national immunization days
NT	neonatal tetanus
OPV3	third dose of oral polio vaccine
PHC	primary health care
PHN	public health nurse
SNIDs	sub-national immunization days
TT	tetanus toxoid
VVM	vaccine vial monitor
UNICEF	United Nations Children's Fund
WHO	World Health Organisation

FOREWORD

The Government of Lesotho is committed to fully controlling and eradicating vaccine preventable diseases among children. The government sees this control and eradication as being the key to reducing the unacceptably high levels of both the infant and the child morbidity and mortality rates that have historically prevailed in the country.

To demonstrate its commitment, the Government through its Ministry of Health and Social Welfare (MOHSW) and with the support from her local and international partners implements and conducts routine EPI activities. In addition the MOHSW also carries out National Immunization Days (NID's) aimed at augmenting the routine attempts to protect children from Tuberculosis, Pertussis, Diphtheria, Measles, Neonatal Tetanus and Poliomyelitis.

The Government also intends to introduce two new vaccines into the Programme. These are the vaccine to prevent Hepatitis B, a severe and deadly disease, as well as a vaccine to prevent Meningitis and Pneumonia that occur secondary to Haemophilus Influenzae infection among the population with a focus on young children.

The three pillars of the Government vision in health: Universal Coverage, Social Justice and Equity are well articulated in the strategies of the Expanded Programme on Immunisation (EPI) aiming to reach every single child living within the vicinity of a health centre or in a remote and inaccessible village.

As the Programme matures and new developments and research take place both in Lesotho and internationally, the policies and technical requirements will need to be reviewed and up dated to reflect these changes. It has, therefore, been decided to undertake a comprehensive review of the previous policies in line with the technical recommendations of both the World Health Organisation (WHO) and UNICEF that apply in this regard.

The Ministry of Health & Social Welfare will widely disseminate the new EPI Policy document to reach each health facility at community level and training institutions for implementation.

The Ministry of Health and Social Welfare thanks all partners, and especially Ireland Aid and WHO for providing financial and technical resources for this exercise.

Permanent Secretary
MOHSW

1. Introduction and Rationale for Policy Review

The roots of the Expanded Programme on Immunisation (EPI) in Lesotho go back to the late 1970s and early 1980s when it was introduced as an important Primary Health Care (PHC) Programme component. Since then the Programme has made remarkable progress that includes improvement of immunisation coverage among infants and women resulting in considerable reduction in morbidity and mortality from vaccine preventable diseases.

In line with global targets set at the World Health Assembly in 1988, the Lesotho EPI has expanded its focus from vaccination coverage to include eradication of Poliomyelitis and elimination of Measles and Neonatal Tetanus (NT) both of which imply the need for intensive disease surveillance and control measures. However, in spite of significant successes in late 1980 and early 1990s, it appears that the performance of the National EPI in Lesotho has declined considerably. The latest figures show a sharp decrease in EPI coverage among children under the age of one from 97% for BCG and 76% for Measles in 1990 to 51% and 52% respectively in 2000.

There is a real concern that if the coverage continues its downward trend, the nation may lose all the previous gains achieved by the generation of the health workers of 1980's.

The recent review of the Programme revealed that the lack of resources (human, material and financial), problems with management, poor supervision, inadequate training of personnel and low motivation of staff are among the key reasons for this decline. It has also been observed that EPI policies, initially developed in the mid-80s, have not been updated to incorporate modern EPI theory and practice. There has also not, up until now, been any consideration given to the introduction of new vaccines such as the Hepatitis B or the Haemophilus Influenza type b vaccines that have been recommended by WHO and UNICEF for inclusion in National Immunisation Programmes.

The review team recommended that the Basic Training Curricula of Nurses should be reviewed to include the following:

- (i) New procedures as regards vaccine handling and cold chain;
- (ii) Procedures for the safe disposal of syringes and needles;
- (iii) A short list of contraindications to immunisations;
- (iv) Procedures to reduce vaccine wastage;
- (v) Innovations including new vaccines.

The MOHSW has decided to fill these gaps by initiating a comprehensive review and revision of the current outdated EPI policy. It is intended that this revised policy will then serve as the basis upon which to develop appropriate guidelines for health workers at all levels..

The review of the Lesotho Expanded Programme on Immunisation policy is in line with the current Health Sector Reform Strategic Plan that intends to define quality standards in the District Health Package by level and priority, and increase adherence to said standards.

2. Goals and Objectives of Immunisation Policy

The immunisation policy is a consolidated national effort intended to contribute to the improvement of the quality of life of Basotho children. It has the following objectives:

- 2.1. To provide technically sound basis for immunisation procedures according to international standards and norms which have been adapted to Lesotho conditions?**
- 2.2. To ensure that all <5 years old children and women in Lesotho, eligible for EPI vaccines, receive good quality, safe and efficient vaccines for the prevention of childhood killer diseases;**
- 2.3. To ensure that disease eradication and elimination programmes, which include immunisation and disease surveillance strategies, are carried out with established norms and procedures.**
- 2.4. The MOHSW is committed to continue its efforts for universal coverage by the Expanded Programme on Immunisation of all communities irrespective of their geographical location and accessibility.**

3. Guiding Principles for Programme Implementation

3.1. Political Commitment

The Government of Lesotho through the Ministry of Health and Social Welfare is committed to the Expanded Programme on Immunisation, including Poliomyelitis Eradication and to the Measles and Neonatal Tetanus Elimination Initiatives, as a pillar for child survival.

The political commitment is crucial for EPI both on national and community level to make the programme visible and resourceful. It encourages national key stakeholders and international partners as well as communities to participate and take ownership of the programme. In other words it **ensures EPI sustainability**.

The main **indicators of political commitment** should include a budget line for EPI in the MOHSW's annual budget. It is also important that a National Programme manager be appointed. Other important indicators of political commitment include the provision

of transport to the EPI services at all levels to improve supervision and monitoring, as well as ensuring that immunisations are provided free-of-charge.

3.2. Community Participation and Social Mobilisation

The MOHSW regards **communities as being the main stakeholder and partner in any immunisation programme**, both in routine EPI and in the context of the National Immunisation Days (NID's). Both the EPI and Health Education Units will, therefore, explore all possible avenues and community based structures in order to involve them in the EPI programme activities.

The MOHSW will actively promote and support all initiatives geared towards awareness creation, demand generation, attitude change and community participation. The MOHSW will seek close co-operation with community leaders, village chiefs, religious leaders and traditional healers, parliamentarians, teachers and women groups as well as health committees and community health workers.

3.3. Regulatory Issues Relating to Immunisation

There are a number of acts and Regulations that have been issued in the past to guide the public health including provision of immunisation services. Most of these have now been deemed to be out-of-date, and not really relevant for health practice and administration.

The MOHSW will, within the framework of Health Sector Reform Programme, updates the Public Health Act in order to bring it in line with current thinking in the regulating of immunisation activities. These will, amongst other things, cover the rights and responsibilities of individuals and communities as well as private sector towards immunisations.

3.4 Integrated approach

Immunisation services will be provided as an integral part of the National Family Health Programme.

The EPI, known as one of the most cost-effective health interventions, will be a part and parcel of the priority components of the District Health Package (DHP) that is to be defined within the Health Sector Reform Programme.

3.5 Accessibility and Equity

In order to achieve high immunisation coverage among communities the **Programme will aim to be accessible to every child and every woman in childbearing age**. The MOHSW intends to apply two basic strategies in order to achieve these objectives:

Provision of services from static facilities, and the undertaking of scheduled outreach visits aimed at reaching children in the more remote communities.

Because of the special requirements of eradication/elimination programmes such as those for poliomyelitis, measles, and NT, the EPI will also make use of campaigns undertaken through mobile teams in order to break the chain of transmission of these diseases. These eradication campaigns will involve the undertaking of mass immunisations performed simultaneously in all or some selected areas of the country.

To ensure equity and social justice **immunisations will be provided to all target populations irrespective of ethnicity, gender, political or religious affiliation**.

3.6 Quality of Services and Safety Considerations

One of the most important goals of the MOHSW is to improve the quality of health service provision including immunisations. The MOHSW intends to achieve this through the updating the curricula of pre-service training institutions, sufficient provision and regular training of field staff and their technical supervision, provision of the necessary equipment and injection materials, as well as through monitoring and evaluation.

The MOHSW will closely monitor the safety aspects of immunisations and ensure that the highest standards are adhered to at all time. This will be in respect of human resource development, the handling of vaccines, as well as the actual procedures for vaccinations. The training and regular supervision will be carried out to ensure safe immunisation practices in Lesotho.

3.7 Co-ordination and Leadership

In view of recent review results that called for urgent actions to improve EPI performance, the **MOHSW will show high leadership to rehabilitate the programme** through co-ordination and close monitoring.

The MOHSW will co-ordinate the programme through regular meetings with various committees and partners.

The Minister of Health & Social Welfare will chair the Interagency Co-ordinating Committee (ICC) as a forum for key stakeholders tasked to promote advocacy, implementation and resource mobilisation for immunisation programme.

4.GENERAL POLICIES OF EXPANDED PROGRAMME ON IMMUNISATION

4.1 Provision of Immunisation Services

- **All health facilities in Lesotho will provide immunisation services as part of their routine Family Health activities** at the first available opportunity to infants and women coming to the facility to seek services for whatever reason.
- **Hospitals, Health Centres and Health Clinics will organise daily immunisation sessions.**
- **Outreach services will be organised** such that they are undertaken (at least) monthly and using the extensive network of Health Centres and other health facilities in order to ensure that all of the target population is reached and immunised as intended.
- **Mobile Clinics, requiring high costs to maintain, will be used only in exceptional circumstances** or during mass campaigns, **such as NID's or Sub National Immunisation Days (SNIDs).**

4.1.1. Administration of vaccines

- **DPT, TT, Hepatitis B and Hib vaccines if given in combination (as a pentavaccine), should be injected intramuscularly at the anterolateral aspect of the left thigh.**
- **The HepB and Hib monovaccines are administered simultaneously with DPT but at different site (right thigh).**
- **Polio vaccine is an oral vaccine and is administered orally.**
- **Measles vaccine is administered subcutaneously in the right upper arm.**
- **BCG (Vaccine against Tuberculosis) is administered intradermally on the lateral aspect of the left forearm.**

4.1.2. Routine Immunisation and Immunisation Schedule

Lesotho EPI priority target groups are:

- **Children under 1 year of age** (however the Programme will use all opportunities to give booster doses for certain vaccines beyond this age group);
- **Women in childbearing age with a focus on pregnant women.**

All children in Lesotho should receive:

One dose of BCG and Measles vaccines before the first birthday.

- **Three doses of DPT, Hepatitis B and Hib vaccines,**
- **Four doses of Polio vaccines before their first birthday.**
- **One dose each of DT and Measles vaccines at 18 months.**

The routine immunisation schedule for introducing the above vaccines is as follows:

* At birth	BCG, OPV0
* At 6 weeks	DPT1, OPV1, HepB1, Hib1
* At 10 weeks	DPT2, OPV2, HepB2, Hib2
* At 14 weeks	DPT3, OPV3, HepB3, Hib3
* At 9 months	Measles
* At 18 months	DT and Measles

- ◆ The immunisation schedule of TT for pregnant women includes three doses of TT (0.5 ml): two doses as a primary series given one month apart and one booster dose after a year or during subsequent pregnancy.
- ◆ For a lifetime protection of women of childbearing age they should receive 5 doses of TT. The first two doses constitute primary series and are given 4 weeks apart. Other doses can be given after a year or during subsequent pregnancies. The dose is universal: 0.5ml administered intramuscularly at the anterolateral aspect of deltoid muscle.
- ◆ For the missed dose of TT2 immunization should be continued as administration will activate the previous immunization

4.1.3. Intervals between doses of the same vaccine

- For DPT, OPV, TT, Hepatitis B, and Haemophilus Influenza type b (Hib) vaccines a minimum 4-week interval should be maintained between each dose.
- If a vaccine dose is given at less than the recommended 4-week interval, it should not be counted as part of the primary series.
- **A longer-than-recommended interval between doses does not reduce final antibody response.** If a dose of DPT or OPV is missed, immunisation on the next occasion should be continued as if the usual interval had elapsed, **no extra dose is needed.**

4.1.4. Simultaneous administration of Vaccines and Vitamin A

- All the EPI vaccines are safe and effective when administered **simultaneously**, i.e. they can be administered during the same immunisation session but at different sites as specified above in section 4.1.1.
- **Mixing different vaccines in one syringe** before injection or using a fluid vaccine for reconstitution of a freeze-dried vaccine **is not recommended (except for the new Hib vaccine that should be reconstituted by DPT vaccine)**.
- For routine immunisations **two viral vaccines can be given simultaneously, but if not, should be separated by at least 4 weeks** to avoid interference.
- A **supplementation dose of Vitamin A** should be provided as part of the routine immunisation to children between the ages of 6 and 18 months in order to reduce morbidity in such children.

4.1.5. Contraindications to Immunisation

- a) **In general**, health workers should use every opportunity to immunise eligible children. This is because **there are very few absolute contraindications to the EPI vaccines**. Some of the rare contraindications are as follows:
- Live vaccines should not be given to individuals who are **immuno-suppressed**, having therapy with immuno-suppressive agents or irradiation. **However both measles and polio vaccines should be given to persons with HIV/AIDS.**
 - Children with **symptomatic HIV** infection (i.e. AIDS) should not be immunised with BCG.
 - A history of severe adverse event following a dose of vaccine such as - **anaphylaxis, collapse, shock, encephalitis/encephalopathy, non-febrile convulsions.**
 - Vaccines containing the whole cell pertussis component should not be given to children with an **evolving neurological disease such as uncontrolled epilepsy or progressive encephalopathy (DT vaccine should be given instead with two doses, four weeks apart).**
 - Persons with a history of **generalised urticaria, difficulty in breathing, swelling of the mouth and throat, shock following egg ingestion** should not receive vaccines prepared on hen's egg tissues: yellow fever and **influenza vaccines.**
 - **Children who are above the age of one year should not be given BCG.**

- Children presenting at a clinic who are ill enough to be hospitalised should not be immunised.
- b) **The National EPI has identified the following conditions that are not Contraindications to immunisation:**
 - **Minor illnesses such as upper respiratory infections or diarrhoea**
 - **Fever less than 38.5 C**
 - **Prematurity with moderate or normal weight (>2kg) and malnutrition**
 - **History of jaundice after birth**
 - **Child being breastfed and a few others.**
- c) **Vaccines should be given to all eligible children attending outpatient clinics.**
- d) **Children who are hospitalised and who are not regarded, as being critically ill should be immunised on admission** so as to prevent them from getting any of the EPI target diseases whilst in hospital. Those children having serious illness are immunised as soon as their general condition improves and at least before discharge from hospital. **Premature babies with moderate or normal weight (>2kg) should be immunised on discharge.**
- e) **Measles vaccine should be given on admission** in a hospital, if there is no documented evidence of previous vaccination, because of the risk of nosocomial measles transmission.

4.1.6. HIV Infection and Immunisation

- **A sterile syringe and needle should be used** for each injection to eliminate **risk of transmitting HIV** or any other blood-borne infection through immunisation.
- **Individuals with known or suspected asymptomatic HIV** infections should receive **all EPI vaccines** as early in life as possible, according to the immunisation schedule described in section 4.1.2.
- **Individuals with symptomatic HIV infection (i.e. AIDS) should receive all EPI vaccines except BCG** (and Yellow Fever).
- Because of the risk of early and severe measles infection, HIV infected **infants** should **receive a dose of standard measles vaccine at 6 months** of age **and** the second dose **at 9 months**.

4.1.7. Missed opportunities

A missed opportunity occurs when a child or woman who needs immunisation visits a health facility but is not immunised by the health staff.

- **To reduce missed opportunities** and provide immunisation at every opportunity,

all health facilities in Lesotho seeing women and children **should offer immunisation** services.

- **Health facilities should also improve their clinic organisation** by adjusting their schedules to fit in with the local needs.
- **All hospitals in Lesotho should provide immunisation every day of the week including Saturdays and Sundays.**

4.1.8. Mass campaigns

Mass campaigns include:

- **National Immunisation Days (NID's):** these are **nation-wide immunisation** activities (e.g. Polio NIDs) aimed at selected age groups of the population. The intention with such campaigns is to cover the entire country within a pre-determined number of days and according to set plans.
The other approach within this category is organisation of Sub-national immunisation days (SNID's) when the mass campaign is carried out in certain administrative zones of the country.
- **Mop-up Campaigns:** this aim at increasing immunisation coverage (as a supplement to the routine immunisations) **in areas of a country defined as being at high risk** of one-or-other of the target diseases.
- **Catch-up Campaigns:** these aim at **covering some specific age groups** within or outside of the EPI target age group who have missed their routine immunisations.

Such campaigns should not be isolated events but should be part of a comprehensive, long-term strategy especially for diseases under eradication (Poliomyelitis), elimination (Neonatal Tetanus) or under accelerated control (Measles).

4.1.9. Innovative Approaches and New Vaccines

- **Lesotho EPI will be open to new initiatives and strategies that have proved to be relevant at** addressing priority health problems, and are cost-effective. **There are two such initiatives that the Programme will consider for integration: immunisation against Hepatitis B and Haemophilus Influenzae infection** causing child meningitis and pneumonia.
- ◆ Lesotho will look into possibilities to incorporate other vaccines in its Immunization schedule including future vaccines against HIV infection, Which is highly prevalent in the country.
- ◆ number of other innovations and new devices to improve vaccination Safety, wastage rate, handling of vaccines, and prevention of missed Opportunities are described in the next chapters of the Revised Policy

Document.

4.2. Vaccine Delivery, Cold Chain and Logistics

4.2.1. Procurement of Vaccines and Cold Chain Equipment

The MOH will procure vaccines and materials for EPI approved by WHO And UNICEF.

- **Vaccines** and other EPI materials **will be ordered** centrally from the UNICEF in Copenhagen based **on at least six month** planned supplies (twice a year).
- Budget for procurement of vaccines will be secured one year in advance to cater for avoidable shortages of this essential commodity for child survival.

4.2.2. Cold Chain and Logistics

- Functioning of the Cold Chain system, **which is designed to keep vaccines safe and potent**, will be carefully monitored in all health facilities to ensure that good quality vaccines reach from vaccine manufacturer to target population to be immunised.
- Other essential component of EPI are the **equipment and the logistics** which include cold rooms, refrigerators, freezers, vaccine carriers and cold boxes, syringes and needles, temperature monitors, refrigerator repair tools, transport etc. **The MOHSW will attach the same high priority to logistics supply as for the vaccines.**

4.2.3. Storage and Transportation of Vaccines

- Standardised cold chain equipment (approved by WHO and UNICEF) will be used for EPI and an inventory record of all vaccines and cold chain equipment maintained at all levels.
- At any stage of the cold chain, **vaccines will be transported at a temperature 0 - 8° C** using the EPI specialised refrigerated vehicle, cold boxes and vaccine carriers accompanied with temperature monitoring devices and ice packs as appropriate.
- **At the central level** the vaccines will be stored at the National Vaccine Store, which will **maintain a minimum vaccine stock of six months for all vaccines**. The Central store **will distribute vaccines** to HSA's according to a set schedule on quarterly basis, using its refrigerated vehicle.
- **The HSA level** vaccines will be stored in deep freezers and refrigerators **and a minimum vaccine stock of three months** will be maintained. HS A will make

quarterly orders to Central Store for vaccine supply.

- **At Health Centre level** vaccines will be stored in the EPI refrigerator. The Health Centre will store **a minimum supply of one month for all vaccines. Health centres will make monthly orders to HS A level for vaccine supply.**
- **Outreach teams** will carry vaccines in cold boxes or vaccine carriers with the frozen ice packs to the Health Posts and vaccination points.
- At all levels of vaccine storage, **the temperature of the vaccine fridges and freezers will be recorded twice daily.**

4.2.4 Diluents and Reconstitution of vaccines

- Diluents should be shipped, stored and distributed together with the vaccines they will be used to reconstitute.
- Health workers should always **check that the vaccines have been supplied with the right diluent.** No other medication or substances that might be confused with the vaccine or its diluent should be stored in the refrigerator.
- Diluents should not be stored in a freezer. They must not, under any circumstances, be frozen. They must, however be cooled to below +8°C before reconstitution.

4.2.5 The use of opened multi-dose vials of vaccines in subsequent immunisation sessions

- The MOHSW will adopt the **new WHO policy on opened vaccine vials** which declares: **Multi-dose vials of OPV, DPT, TT, DT, Hepatitis B and liquid formulations of Hib vaccines**, from which one or more doses of vaccine have been removed during an immunisation session, **may be used in subsequent immunization sessions for up to a maximum of 4 weeks**, provided that all of the following conditions are met:
 - (i) The expiry date has not passed;
 - (ii) The vaccines are stored under appropriate cold chain conditions;
 - (iii) The vaccine vial septum has not been submerged in water;
 - (iv) Aseptic technique has been used to withdraw all doses;
 - (v) The Vaccine Vial Monitor (VVM), if attached, has not reached the discard Point.
- The **revised policy does not change** the normal **procedures** for the handling of vaccines such as **BCG and Measles** (and other freeze-dried or lyophilised

vaccines) that must be reconstituted. **Once reconstituted, vials of these vaccines must be discarded** at the end of each immunisation session or at the end of 6 hours, whichever comes first.

- **The new policy** on the use of opened multi-dose vials of vaccines **applies** to vaccine vials **for use in both static as well as outreach vaccination sessions**, in different sites, over several days, provided that the above mentioned standard handling procedures are followed.

4.2.6. Use of Vaccine Vial Monitors (VVM) and vaccine quality tests

- The **MOHSW welcomes the introduction of the VVM** in LEPI. The VVM is a heat-sensitive device that is attached to vaccine vials and gradually changes colour, from light to dark, as the vaccine is exposed to heat. It indicates when a vial of vaccine should be discarded because of exposure to heat. Currently all vials of OPV procured through the UNICEF come with VVM. It is expected that the **VVM will** soon be introduced for other EPI vaccines **having significant impact by reducing vaccine wastage and missed opportunities for vaccination**.
- Other available Cold Chain devices and tests, such as Cold Chain Monitor Card, Shake Test, Stop Watch Monitor etc, will be used to record whether vaccines have been subjected to excessive heat or freezing.

4.3. Safety of Immunisations

4.3.1. Safe Injection Practices

An immunisation injection is safe when the vaccine is injected with the appropriate equipment and according to the recommended procedures for injection, sterilisation and appropriate disposal of used syringes and needles.

As an overall policy for the safety of injections “**One sterile syringe and one sterile needle should be used for each injection**”.

Experience has shown that to achieve this goal using reusable or standard disposable injection equipment is not realistic as it is practically impossible to guarantee their proper use and disposal in remote or inaccessible vaccination sites. In view of these considerations the MOHSW approves the following policy decisions:

- **The auto-disable syringe (A-D syringe) ` is the preferred type of syringe** for administering vaccines.
- **Reusable syringes are to be discontinued from further use in the national**

EPI Programme of Lesotho.

- **Until A-D syringes are widely available** and health personnel are properly trained on its use, **MOHSW will use disposable syringes and will establish a strict supervision on the proper use of the syringes in all vaccination sites.**
- **Safety boxes which are puncture-resistant should be used for collecting and disposing of used** disposable syringes, needles and other sharps such as scalpels; used vaccine or diluent vials and ampoules. This container should be made available at all immunisation sessions. The disposal of the injection materials should be done according to the established procedures.

4.3.2. Adverse events following immunizations (AEFIs)

Adverse events or reactions may be caused by faults in the course of administration of vaccines that are programmatic errors (including human errors), or reactions associated with the properties of vaccines themselves.

- All local immunisation programmes should monitor adverse events following immunizations: **each episode** of an adverse event **should be investigated and the case reported** using the standard format.
- The detection of adverse events should be **followed by appropriate treatment** and communication with parents, health workers, and if several persons are involved, with the community.
- **If** the adverse event was determined to be due to **programme errors, operational problems must be solved**, by appropriate logistical support, training and supervision.
- **Strict supervision is essential at vaccination sites** in order to improve the safety of immunisations as well as minimize the impact of programmatic errors.

4.4 Programme Management

4.4.1 Coordination

- In order to maximize resources and avoid duplication of efforts, **the Government will coordinate all programme activities and external contributions through the MOHSW.** This will include intersectoral collaboration (Education, Nutrition, Agriculture, Information and Media, Local Government, Social Welfare etc.), as well as coordination of partner support.

- **The Minister of Health and Social Welfare will chair the Interagency Coordinating Committee (ICC)** on immunisation with a decision-making responsibility on all matters concerning programme development, advocacy and resource mobilization.
- **The MOHSW will also establish special technical committees** for various disease control and eradication initiatives to monitor, in a coordinated manner, the achievements of targets.

4.4.2 Programme Infrastructure and functional linkages

- **The EPI will continue to operate within Family Health Division** ensuring management and delivery of immunisations within PHC services.
- **The MOHSW will build capacity in the following areas of the programme:**
 - Disease surveillance
 - Cold Chain and logistics
 - Data management
- **At HSA and Health Centre level the EPI activities will continue to be carried out in an integrated manner by public health nurses and other qualified health personnel** while Health Posts will be managed by Nurse Assistants/Ward Attendants or Community Health Workers who will be trained in EPI to carry out general immunization tasks in the communities such as community information and education on importance of immunizations.
- **Existing functional linkages between MOHSW programmes, Departments and services** such as EPI, Nutrition, Reproductive Health, Health Education, Pharmacy and Disease Control services, Health Statistics and others, **will be strengthened** at both Central and HSA level.

4.4.3 Role and Responsibilities of Private Sector

- The Ministry of Health and Social Welfare recognizes the role played by the private sector in the delivery of health services including immunizations. **It is essential to support and encourage the participation of the private sector in the EPI** service provision to ensure standardization of practice and reporting procedures.
- **The MOHSW will provide EPI Vaccines to all private practitioners and private institutions free of charge** in accordance with the average number of immunizations performed per month.

- **The Private sector should adhere to the policies and regulations that govern the provision of immunisation services** and should:
 - (1) Provide immunizations to their clients in target groups according to the MOHSW approved schedule.
 - (2) Record any vaccinations given in the Immunisation Card (Bukana)
 - (3) Submit regular reports to health authorities on immunisations and occurrence of target diseases among their clients.
 - (4) Report AEFIs

4.4.4. EPI Information System and Disease Surveillance

- **The MOHSW will give high priority to data collection, analysis and feedback.** All HSA's and the Central level will closely **monitor reporting completeness, reporting timeliness** on immunisations and disease/outbreak occurrence. Reporting centres will also exercise **“zero reporting”** to emphasise absence of a disease during the reporting period.
- Integrated Disease Surveillance (IDS) strategy will be applied to use a common methodology in recording, reporting and case/outbreak investigations and response. For diseases subjected to eradication or elimination in Lesotho a case-based surveillance will be carried out.
- **All HSA's and Health Centres will** obtain from the Bureau of Statistics **their updated population figures to define their target populations** for EPI and to monitor achievements of targets including periodic surveys.
- **The Central level will publish a** Family Health/Epidemiological quarterly **newsletter** to provide feedback on the programme achievements to the health workers and other stakeholders.

4.4.5. Training of Health Personnel and Staff Motivation

- **The MOHSW will attach a first priority to training of all health personnel** on the programme with emphasis on the field staff. Two strategies will be used: (i) on the job training and (i) formal training using operational manuals and widely available WHO EPI modules adapted to Lesotho conditions.
- **The basic training curricula for Nurses and Environmental Health Officers will be reviewed as soon as possible** to include modern theory and practice of EPI.
- The MOHSW will organise health competitions, award ceremonies and other promotional activities to increase staff morale and motivation.

4.4.6. Operational Research

- **The MOHSW through its focal point for research will encourage health service research in EPI to improve decision-making. Special topics such as the reasons for declining immunisation coverage or how to stimulate the staff motivation etc. will be considered among research priorities.**
- The Lesotho University and the Nursing Schools will be encouraged to be involved in the operational research projects.

4.4.7. Strategic Planning, Monitoring and Evaluation

- **The EPI Unit will be guided by the EPI Five Year Plan which will be disaggregated into Annual Plans** prior to each calendar year. Indicators contained therein will be used to monitor the implementation.
- Special supervisory checklists will be developed to assist programme managers in day-to-day supervision.
- **On the third year** of the implementation of the above Plan the **MOHSW will conduct an external evaluation** to measure the achievements and make certain adjustments as necessary.

5. Specific Policies on EPI Target Diseases

5.1 POLIOMYELITIS

The Government is committed to eradicate Poliomyelitis (Polio) and by the year 2005 certify Lesotho as Polio free. The strategies to achieve this target include:

- Routine immunisations
- Conducting regular National Immunisation Days (NIDs)
- AFP surveillance

5.2 MEASLES

The Government is committed to ensuring the elimination of indigenous Measles in the country by 2005. To achieve this Target Lesotho will use the following strategies:

- **Routine Immunisations**
- **NID's and catch up campaigns**

- **Measles surveillance**

5.3 NEONATAL TETANUS

The Government is committed to Neonatal Tetanus (NT) and Maternal Tetanus elimination by the year 2005. Elimination will be certified if every HSA in Lesotho will register less than 1 NT case per 1000 live births. To achieve this goal the following strategies will be adopted:

- **Increasing routine immunisation of under one children** with vaccines containing Tetanus toxoid;
- **Increasing routine immunisation coverage of women of child bearing age,** and especially pregnant women, with Tetanus Toxoid (TT);
- **Conducting supplemental immunisations** among women of childbearing age in high risk HSAs;
- Ensuring **clean deliveries;**
- **Intensified NT surveillance**

5.4 DIPHTHERIA

The goal is to control Diphtheria in Lesotho to the level where it ceases to be a public health problem, using the following strategies:

- Routine childhood immunisations within the framework of EPI;
- Rapid investigation of close contacts to ensure their proper treatment.

5.5 PERTUSSIS

The goal of the MOHSW is to control Pertussis in Lesotho to the level where it ceases to be a public health problem, using the following strategies:

- Routine childhood immunisations within the framework of EPI;
- Disease surveillance.

5.6.TUBERCULOSIS

The EPI goal is **to reduce complicated clinical forms** of Tuberculosis (e.g. **TB meningitis and milliary TB) among the target population.** The strategies will include:

- Vaccination of all newborn babies at birth with BCG (Bacillus Calmette Guerin) or at first contact after birth within the first year of life.
- **The surveillance will be limited to the** monitoring and notification of TB meningitis among target children.

5.7 HEPATITIS B

The objective of the Government of Lesotho **for introducing Hepatitis B** immunisation is to prevent Hepatitis B Virus (HBV) infections of newborns (through mother-child transmission) which result in chronic liver disease later in life; and save human lives and work force.

- To achieve these objectives the MOHSW has decided to integrate Hepatitis B vaccine (HepB) into the Lesotho EPI.

5.8 HAEMOPHILUS INFLUENZAE, type b infection

The bacterium H. Influenzae type b causes fatal meningitis and pneumonia in fewer than 5 year old children. Safe and effective vaccine against these infections exists (Hib vaccine) giving high-level protection to 90-95% of vaccinated children.

- The MOHSW has taken a decision to integrate this vaccine into EPI, Lesotho.

5.9. Vitamin A Deficiency

- In Lesotho where Vitamin A deficiency (VAD) is a known problem, combining the delivery of Vitamin A supplements with routine immunisations can be part of an overall strategy for the control of VAD. The Vitamin A supplementation can also be a part and parcel of mass campaigns.
- Any Vitamin A given during routine immunisations should be recorded in the child's immunisation card. No record is needed during the mass campaigns.

6. Monitoring and Evaluation

The introduction of the new immunisation policies will be routinely monitored within the framework of the 5-year EPI Plan by the MOHSW, as well as by stakeholders and concerned partners. The Interagency Coordinating Committee will serve as a suitable forum to regularly review the implementation to assess the extent of the implementation process.

7. ANNEX 1: Comparison between the former and the revised Lesotho EPI Policy recommendations

Key Items in the Policy Document	Former Policy Recommendations	Revised Policy Recommendations
Vaccines	Use of standard EPI vaccines: BCG, OPV, DPT, Measles	Introduce two new vaccines into EPI: HepB & Hib
Vaccination schedule for less than 1year.	No change	No change
Vitamin A Supplementation	No recommendation. However the practice has so far been to give Vit. A during mass campaigns (Polio, Measles)	Vitamin A supplementation recommended both during routine as well as mass immunisations
Opened vials of vaccines	All opened vials of vaccines to be discarded at the end of vaccination session	At the end of vaccination session discard only reconstituted vaccines: BCG, Measles and new Hib vaccines. Reuse DPT, DT, TT, HepB and Polio vaccines if certain conditions are followed which are specified in the Policy Document
Vaccine Vial Monitor (VVM)	This is a new monitor therefore there is no reference on it in the former Policy Document	Highly recommended as a management tool to reduce missed opportunities and vaccine wastage rate
Type of syringes	Use of reusable and disposable syringes	Auto-disable (A-D) syringes should be used universally as soon as possible. During the transition period disposables can be used under the strict supervision over their safe disposal
Use of Shake Test to observe if DPT, DT, TT or HepB vaccines are exposed to freezing which is	No recommendation proposed	Highly recommended

8. REFERENCES

8.1. Lesotho documents

- Expanded Programme On Immunisation Policy document, MOHSW (1984)
- Expanded Programme On Immunisation 5-year Plan of Action, 2002-2006, Maseru, 2001
- National Social Welfare Policy, 2001
- Lesotho Health Sector Reform Plan, 2000
- Lesotho Measles Elimination Plan, 1999-2004, MOHSW, 1999
- Report of a Review of the Expanded Programme on Immunisation in the Kingdom of Lesotho, Maseru, July, 2001

8.2. Documents from neighbouring countries:

- Zimbabwe Expanded Programme on Immunisation. Policy, 2000
- South African “Vaccinator’s Manual of the Expanded Programme on Immunisation, 1995

8.3. Documents from WHO and other UN Agencies:

- Immunisation Policy, Doc. WHOGPV/GEN/95.03, 1995
- WHO Recommended Standards for Surveillance of Selected Vaccine-preventable Diseases, Geneva,
- Doc. WHO/GEN/98.01. Revision 2
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