

## ACKNOWLEDGEMENT

This policy document is the outcome of the sincere effort of all partners in health at the international, regional, national and community levels. The insight and the depth of technical experiences of those participated in compiling this policy has enriched the process and improved the quality of the final document.

Hence, the Ministry of Health as the leading agency for Samoa's health sector wishes to express sincere gratitude to all of its core partners and stakeholders for their fruitful contribution to the development of this national immunization policy for Samoa for the next five years i.e. 2020 - 2025:

The Ministry of Health would also like to acknowledge with heart-felt gratitude the contribution of the Immunization Working committee for their commitments and patience which provided the best practice model for intra-sector and inter-sector collaboration for health development.

Finally, the special thanks are given to UNICEF and WHO for their technical and financial supports.

Without the support of health sector partners, the development of this document wouldn't have been possible.

God abundantly bless you all.

### FOREWORD



Leausa T. Dr. Take Naseri DIRECTOR GENERAL

The National Immunization Policy 2020 – 2025 has been developed as the recommendation in the current Infants Amendment Bill (No. 2) 2019. This policy document addresses broad issues of strengthening institutional framework and processes required for decision making to accelerate universal immunization program in Samoa and improve Expanded Program for Immunization (EPI) coverage.

The introduction of this policy will assure the enhancement of immunization services as well as provision of technical guidance to healthcare providers, to ensure that they follow best practices in terms of vaccination administration, management and storage.

The approach adopted in the development of this document has been inspired by the Samoa's Infants Amendment Bill (No.2) 2019, national Strategy for the Development of Samoa (SDS 2016/17 – 2019/20), Health Sector Plan 2019/20 – 2029/30, Samoa National School Nurse Policy 2018 – 2023, World Health Organization Guiding Principles for Immunization, and Samoa's National Immunization Program.

The process of developing this document provides the model for the kind of collaboration across all health professionals that are directly involved in the Immunization Program to:

- a) assure the provision of unified immunization services across the country;
- b) harmonize and coordinate data collection
- c) enhance data collation, reporting and sharing and
- d) promoting new levels and modes of collaboration.

I would like to heartily commend all partners and or stakeholders of health at international, regional, national and community levels that work tirelessly in compiling this document, which has laid down the basic guiding principles in improving Samoa's national immunization program.

It is hoped that this policy document will inform and provide technical supports that require in standardizing and enhancing immunization services in all health facilities of Samoa both in public and private health sectors.

Fa'afetai.

Leausa Samau T. Dr. Take Naseri **DIRECTOR GENERAL OF HEALTH** 

## ANCRONYMS

| AEFI   | Adverse event following Immunisation                          |
|--------|---------------------------------------------------------------|
| BCG    | Bacillus Calmette-Guerin                                      |
| CEDAW  | Convention on the Elimination of Discrimination Against Women |
| CDC    | Communicable Disease Committee                                |
| cMYP   | Comprehensive Multi-Year Plan                                 |
| DDG    | Deputy Director General                                       |
| DG     | Director General                                              |
| DPT    | Diphtheria-tetanus-pertussis vaccine                          |
| EPI    | Expanded Programme on Immunisation                            |
| HBV    | Hepatitis B vaccine                                           |
| Hib    | Haemophilus Influenza Type b                                  |
| HPED   | Health Promotion and Enforcement Division                     |
| HPV    | Human Papilloma Virus                                         |
| IgM    | Immunoglobulin M                                              |
| IM     | Intramuscular                                                 |
| IPV    | Inactivated Polio Vaccine                                     |
| mL     | Millilitre                                                    |
| МоН    | Ministry of Health                                            |
| MMR    | Measles, Mumps and Rubella vaccine                            |
| MR     | Measles, Rubella vaccine                                      |
| NGO    | Non-Government Organisation                                   |
| NW     | Nursing Midwifery                                             |
| OPV    | Oral Polio vaccine                                            |
| РНС    | Primary Health Care                                           |
| SNS    | Senior Nurse Specialist                                       |
| SOPs   | Standard Operating Procedures                                 |
| SPPRD  | Strategic Planning, Policy and Research Division              |
| ТВ     | Tuberculosis                                                  |
| Td     | Tetanus-diphtheria vaccine                                    |
| ТТ     | Tetanus Toxoid vaccine                                        |
| UNICEF | United Nations Children's Emergency Fund                      |
| VPD    | Vaccine Preventable Diseases                                  |
| VVM    | Vaccine Vial Monitor                                          |
| WHO    | World Health Organisation                                     |

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## 1. INTRODUCTION

Immunization provides active immunity against infectious diseases. It is one of the most costeffective ways to protect pregnant women, babies and children against a range of serious preventable and sometimes fatal diseases. It is a successful disease protection strategy, and the foundation of public health. High immunization rates are a key to preventing the spread of infectious diseases, complications and early death. Vaccines prevent diseases, disability and death in children and adults<sup>1</sup>.

In the past, many children died or were left with life-long problems from diseases such as "diphtheria, tetanus and whooping cough"<sup>2</sup>. Today we use vaccines to immunise children against these diseases.

This policy document is developed to protect the individuals against infectious diseases with associated reduction in mortality, morbidity and long term consequences; to prevent outbreaks of diseases through breaking transmissions; and ultimately to eradicate some diseases world-wide<sup>3</sup>.

#### 1.1 Background Information

The immunization for vaccine preventable diseases was firstly introduced in Samoa in 1960s and had always been led by nurses in terms of administration and implementation, and in particular those who have done a tremendous coordination and were champions who have been in the fort since the 1960's.

In the 1980s, Samoa had adopted the World Health Organization (WHO) policies and guidelines for the implementation of Expanded Program for Immunization (EPI). Vaccines used in the EPI programme are safe and effective. Samoa ensures all vaccines are WHO prequalified.

In 2008, the EPI in Samoa targeted 10 vaccine preventable diseases namely tuberculosis, diphtheria, pertussis, tetanus, hepatitis B, pneumonia with meningitis, measles, mumps, rubella and poliomyelitis.

In 2009, the Samoa EPI added new vaccines to the recommended World Health Organisation (WHO) basic vaccination schedule. The Measles-Mumps-Rubella (MMR1 and MMR 2) were introduced, replacing the Measles-Rubella (MR) vaccine that was introduced in 2003<sup>4</sup>.

The EPI electronic registry system was first established and launched in 2016 and its one milestone in enabling and navigating EPI Report from district and health centres in Upolu and Savaii to the National EPI Coordinating Centre at the main headquarters.

#### 1.2 Scope of the Policy

The direction of the National Immunization Policy is as follows:

- (i) Scaling up immunization coverage further by reducing immunization inequities
- (ii) Expanding immunization services to other population age groups
- (iii) Improving the quality and safety of immunization services in public, private and NGO sectors
- (iv) Introducing new vaccines and medical technologies

Given these directions, the scope of immunization policy will be widened to include older age groups, public and private sectors, and service provision through multiple Divisions of the Ministry of Health and through the multi-sector support of the education, local district government and communities in particular.

<sup>&</sup>lt;sup>1</sup>Association of State and Territorial Health Officials. Policy and Position Statements: Immunization Guiding Principles. <sup>2</sup>Health Navigator New Zealand. Childhood Immunisation

<sup>&</sup>lt;sup>3</sup>Barnsley Clinical Commissioning Group (2015) Vaccination and Immunisation: Policy and Procedure for Registered Nurses <sup>4</sup>Demographic Health Survey, (2009) page 123 and Demographic Health Survey, (2014) page 165

## 2. LEGISLATIVE FRAMEWORK

Samoa being a signatory to the Convention on the Rights of the Child is obligated as part of its commitment to invest in children's health and development. It has also adopted the Sustainable Development Goals (SDGs) that sets out clear objectives and target indicators in child health and development. The SDGs are included and are expressed clearly in the Strategy for the Development of Samoa (SDS)  $2016/17 - 2019/20^5$ .

The Samoa National Immunisation Policy 2020-2025 is guided by the following legislations, policies, and strategic plan:

| Legislations:National Strategy:Protocols & GuidelinesInfants Amendment Bill (No.2)<br>2019Strategy for the Development of<br>Samoa FY2016/17-2019/20MOH Infection Control<br>GuidelineMinistry of Health Amendment<br>Act 2019Health Amendment<br>Act 2019Traditional Birth Attendants<br>GuidelinesHealth Ordinance 1959National School Nurse Policy<br>2018-2023National School Nurse Policy<br>2018-2023Tuberculosis (TB) GuidelinesNational Health Regulations<br>2005National Infection Control Policy<br>(2011-2016)WHO Western Pacific Region<br>Framework for ImmunizationNational Infection Control Policy<br>(2012-2015)National Infection Control Policy<br>(2012-2015)WHO Western Pacific Region<br>Framework for ImmunizationNational Sexual Reproductive<br>Health Policy 2018-2023Health Strategies/Plans:<br>WHO Country Cooperation<br>Strategy for Samoa 2018-2022Professional Standards for<br>Nursing Practice in Samoa 2017Health Sector Plan 2019/20-29/30National Health Sector Disaster<br>Risk Management Strategy 2017National Health Sector Disaster<br>Risk Management Strategy 2017 | Le | EGISLATIONS & REGULATIONS                                                                                                                                                                                                       | HEALTH POLICIES &<br>Strategies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | HEALTH SERVICES STANDARDS<br>& PROTOCOLS/GUIDELINES                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    | Legislations:         Infants Amendment Bill (No.2)         2019         Ministry of Health Amendment         Act 2019         Health Ordinance 1959         Regulations:         International Health Regulations         2005 | National Strategy:<br>Strategy for the Development of<br>Samoa FY2016/17-2019/20<br>Health Policies:<br>National Non Communicable<br>Diseases Revised Policy 2018-<br>2023<br>National School Nurse Policy<br>2018-2023<br>National Food and Nutrition<br>Policy 2013-2018<br>National Child and Adolescent<br>Health Policy (2013)<br>National Infection Control Policy<br>(2011-2016)<br>National Policy for Children<br>(2010-2015)<br>National Sexual Reproductive<br>Health Policy 2018-2023<br>Health Strategies/Plans:<br>WHO Country Cooperation<br>Strategy for Samoa 2018-2022<br>Health Sector Plan 2019/20-29/30<br>National Health Sector Disaster<br>Risk Management Strategy 2017 | Protocols & Guidelines         MOH Infection Control         Guideline         Traditional Birth Attendants         Guidelines for Samoa 2019         Tuberculosis (TB) Guidelines         WHO Western Pacific Region         Framework for Immunization         Professional Standards for         Nursing Practice in Samoa 2017 |

Figure 1: National Immunization Policy 2020 – 2025 Legislative Framework

In addition Samoa is party to the International Convention on the Rights of the Child (CRC), and the Convention on the Elimination of Discrimination against Women (CEDAW). Samoa is also working towards achieving the Sustainable Development Goals.

<sup>&</sup>lt;sup>5</sup> Ministry of Finance (2016) Strategy for the Development of Samoa highlights Samoa's commitment to achieving the SDGs.

## 3. SITUATIONAL ANALYSIS

The projected population of Samoa for 2019 is estimated at 198,449 with a growth rate of 0.76%. The population density is around 70.4 people per square kilometre ( $182.4/mi^2$ ) as of January 2020 (United Nations Department of Economic and Social Affairs, 2018).

### 3.1 Population Health and Demography

As shown below, fertility rates dropped from 4.7 children per woman in 2011 to 3.9 children per woman in 2016. This trend indicates that although there are a lot of factors contributing to the decrease in fertility rate, it is more of an indication towards increased educational levels of the general population, greater female participation in the workforce; and increased access to knowledge of and availability of family planning methods.



#### Figure 2: Population Health Snapshot for Samoa

Administratively, Samoa is divided in 4 regions i.e. Apia Urban Area (AUA), North West of Upolu (NWU), Rest of Upolu (ROU) and Savaii. There are 12 public health facilities that are serving the population. These include 2 main hospitals, 6 district hospitals and 4 health centres as listed below:

| Islands | Types of Health Facility | Name                                                                                            |
|---------|--------------------------|-------------------------------------------------------------------------------------------------|
| UPOLU   | Main Hospital            | Tupua Tamasese Meaole Hospital                                                                  |
|         | District Hospitals       | Leulumoega District Hospital<br>Poutasi District Hospital<br>Lalomanu District Hospital         |
|         | Health Centres           | Matagialalua Clinic<br>Faleolo Health Centre<br>Saanapu Health Centre<br>Lufilufi Health Centre |
| SAVAII  | Main Hospital            | Malietoa Tanumafili II Hospital                                                                 |
|         | District Hospitals       | Safotu District Hospital<br>Sataua District Hospital<br>Foailalo District Hospital              |
|         | Health Centres           | Satupaitea Health Centre                                                                        |

#### <u> Table 1: List of Health Facilities in Samoa</u>

Source: MOH, 2018

#### 3.2 Samoa National EPI Program

The Ministry of Health (MoH) has also initiated its efforts and developed policies and programmes to improve the health and wellbeing of the Samoan children. These initiatives include areas of breastfeeding, nutrition and health promotion in schools, and reintroducing of school nurses in primary schools<sup>6</sup>. In addition, the new Health Sector Plan 2019/20 – 2029/30 also identified maternal and child health as one of its key priority areas, looking into improving services delivery as its key outcome.

#### 3.2.1 Introduction of Expanded Program of Immunization in Samoa

Historically, milestones for EPI and vaccine introduction include:

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|-----------------------------------------|------------------------------------------|--|--|
| YEAR                                    | VACCINE                                  |  |  |
| <b>1960</b>                             | BCG                                      |  |  |
| <b>1970</b>                             | DPT, Polio, Measles                      |  |  |
| <b>1990</b>                             | Hepatitis B                              |  |  |
| 2003                                    | Measles and Rubella (MR)                 |  |  |
| 2008                                    | DTP+Hep B+HiB and MMR                    |  |  |
| 2016                                    | IPV and bOPV (substituted Trivalent OPV) |  |  |

#### Table 2: Introduction of EPI vaccines in Samoa

#### 3.2.2 Immunization Schedule

Samoa has implemented two immunization schedules. These include:

#### 1. Immunization for Infants and Children

The schedule for infants and children immunization in Samoa is detailed in the table below.

#### Table 3: Schedule of Immunization for Infants and Children in Samoa

| Vaccine        | Due Time | Dose    | Route         | Injection site            |
|----------------|----------|---------|---------------|---------------------------|
| Нер В          | At birth | 0.5 ml  | Intramuscular | Outer mid-thigh           |
| BCG            | At birth | 0.05ml  | Intradermal   | Upper left arm            |
| DTP-HepB+Hib 1 | 6 weeks  | 0.5ml   | Intramuscular | Right anterolateral-thigh |
| DTP-HepB+Hib 2 | 10 weeks | 0.5ml   | Intramuscular | Right anterolateral-thigh |
| DTP-HepB+Hib 3 | 14 weeks | 0.5ml   | Intramuscular | Right anterolateral-thigh |
| bOPV 1         | 6 weeks  | 2 drops | Orally        | Mouth                     |

<sup>&</sup>lt;sup>6</sup> The National School Nurse Policy revives the school nursing programme where nurses are present in schools to ensure health and well being of children. The nurses will inspect hygiene, immunization and collect childhood health indicators.

| Vaccine                        | Due Time                   | Dose                      |                 | Route         | Injection site              |
|--------------------------------|----------------------------|---------------------------|-----------------|---------------|-----------------------------|
| bOPV 2                         | 10 weeks                   | 2 dro                     | ps              | Orally        | Mouth                       |
| bOPV 3                         | 14 weeks                   | 2 dro                     | ps              | Orally        | Mouth                       |
| IPV                            | 14 weeks                   | 0.5m                      | 1               | Intramuscular | Anterolateral-thigh         |
| MMR 1                          | 9 months                   | 0.5m                      | 1               | Subcutaneous  | Right upper arm             |
| MMR 2                          | 15 months                  | 0.5m                      | 1               | Subcutaneous  | Right upper arm             |
| DTP Booster                    | 15 months                  | 0.5m                      | 1               | Intramuscular | Outer mid-thigh             |
| OPV Booster                    | 15 months                  | 2 dro                     | ps              | Orally        | Mouth                       |
| Td booster dose                | 5 years                    | 0.5m                      | 1               | Intramuscular | Right upper arm             |
| Td booster dose                | 10 years                   | 0.5m                      | l               | Intramuscular | Right upper arm             |
| Vitamin A                      | 10 doses every 6           | 100,0                     | 000 IU for 6-11 | Orally        | Mouth                       |
|                                | months beginning           | mont                      | ths of age and  |               |                             |
|                                | 6 months of age up         | 200,000IU for 1-5         |                 |               |                             |
|                                | to age of 5 years          | years                     | sage            |               |                             |
|                                |                            |                           | New Vaccines    |               |                             |
| Rotavirus1                     | 6 weeks                    |                           | 1.5 ml          | Orally        | Mouth                       |
| (Rotarix) 1 <sup>st</sup> dose |                            |                           |                 |               |                             |
| Rotavirus1                     | 10 weeks                   |                           | 1.5 ml          | Orally        | Mouth                       |
| (Rotarix) 2 <sup>nd</sup>      |                            |                           |                 |               |                             |
| dose                           |                            |                           |                 |               |                             |
| PCV13 1 <sup>st</sup> dose     | 6 weeks                    |                           | 0.5ml           | Intramuscular | Left outer mid-thigh        |
| PCV13 2 <sup>nd</sup> dose     | 10 weeks                   |                           | 0.5ml           | Intramuscular | Left outer mid-thigh        |
| PCV13 3 <sup>rd</sup> dose     | 14 weeks                   |                           | 0.5ml           | Intramuscular | Left outer mid-thigh        |
| TCV Typhoid                    | 9 months                   |                           | 0.5ml           | Intramuscular | Right anterolateral - thigh |
| HPV 1 <sup>st</sup> dose       | 10 year age (schoo         | ol: 6 <sup>th</sup> 0.5ml |                 | Intramuscular | Right upper arm             |
| (Girls only)                   | year)                      |                           |                 |               |                             |
| HPV 2 <sup>nd</sup> dose       | 10 Year age - 6 m          | onths                     | 0.5ml           | Intramuscular | Right upper arm             |
| (Girls only)                   | after 1 <sup>st</sup> dose |                           |                 |               |                             |

If a child missed the first dose of hepatitis B vaccine at birth, it should be administered within 7 days since birth.

|                                                                                                                                                       | <u>Immunization in Samoo</u>      | <u>a</u>           |                           |                 |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------|---------------------------|-----------------|---------------|
| Vaccine                                                                                                                                               | Age to which it can be<br>given   | Number of<br>doses | Interval between<br>doses | Dose            | Route         |
| BCG                                                                                                                                                   | Upto 12 month                     | 1                  | NA                        | 0.1 ml          | Intradermal   |
| OPV                                                                                                                                                   | Any age                           | 3                  | 4 weeks                   | 2 drops         | Oral          |
| IPV                                                                                                                                                   | Any age                           | 1                  | NA                        | 0.5 ml          | Intramuscular |
| Hib containing<br>Pentavalent-( <b>1</b> st <b>dose</b> )<br>DPT + Hep-B ( <b>2<sup>nd</sup> dose</b> )<br>DPT + Hep-B ( <b>3<sup>rd</sup> dose</b> ) | Up to 4 years and 11<br>months    | 3                  | 0, 1 and<br>6 months      | 0.5 ml          | Intramuscular |
| Td + Hep-B <b>(Pediatric</b><br>dose)                                                                                                                 | 5 years and 14 years 11<br>months | 3                  | 0, 1 and<br>6 months      | 0.5 ml          | Intramuscular |
| Td + Hep-B <b>(Adult</b><br>dose)                                                                                                                     | 15 years and above                | 3                  | 0, 1 and<br>6 months      | 1 ml<br>(Hep B) | Intramuscular |
| MMR                                                                                                                                                   | >12 months to 6 years             | 2                  | 4 weeks                   | 0.5 ml          | subcutaneous  |
| MR                                                                                                                                                    | 6 years and above                 | 2                  | 4 weeks                   | 0.5 ml          | subcutaneous  |
| PCV                                                                                                                                                   | 12 – 23 months<br>2 - 5 years     | 2<br>1             | 8 weeks                   | 0.5 ml          | Intramuscular |
| Rotavirus Vaccine                                                                                                                                     | Between 6 – 24 weeks              | 2                  | 4 weeks                   | 1.5 ml          | Oral          |

| Table 4: | Catch-up schedule      | <u>for the children w</u> | ith Interrupted / | / Delayed Routine |
|----------|------------------------|---------------------------|-------------------|-------------------|
|          | Immunization in Second | amoa                      | - /               | -                 |

| Vaccine | Age to which it can be<br>given | Number of<br>doses | Interval between<br>doses | Dose   | Route         |
|---------|---------------------------------|--------------------|---------------------------|--------|---------------|
| HPV     | 15-17 years                     | 3                  | 0,1,5 months              | 0.5 ml | Intramuscular |

#### 2. Immunization for Pregnant Women and Women of Child-bearing Age

The best programme to protect new born against neonatal tetanus is via immunization of their mother. All women of child-bearing age who are pregnant should receive a total of 5 doses of tetanus-containing vaccine during their lifetime (this should include any documented childhood vaccination). Use Table 5 below as a guideline. Doses should preferably be given as Td, and can safely be given during pregnancy and/or breast-feeding period.

#### Table 5A: Schedule of Immunization for Pregnant Women and Women of Child-bearing age

| VACCINE     | DOSE   | TIME                                                                | ROUTE         | INJECTION SITE  |
|-------------|--------|---------------------------------------------------------------------|---------------|-----------------|
| <i>Td 1</i> | 0.5ml  | First contact or as early as possible during pregnancy              | Intramuscular | Right upper arm |
| Td 2        | 0.5 ml | 4 weeks after first dose                                            | Intramuscular | Right upper arm |
| Td 3        | 0.5ml  | 6 months after second<br>dose(after delivery)                       | Intramuscular | Right upper arm |
| Td 4        | 0.5ml  | 1 years after 3 <sup>rd</sup> dose or during<br>pregnancy           | Intramuscular | Right upper arm |
| Td 5        | 0.5ml  | 1 year after 4 <sup>th</sup> dose or during<br>subsequent pregnancy | Intramuscular | Right upper arm |

Source: Samoa EPI Program

# Table 5B: Td Vaccination Schedule for Adult including pregnant women with documentation of Childhood Immunization

| No. | Category                                                                                                         | No. of Doses<br>Required | Schedule                                                                                             |
|-----|------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------------------------------------|
| 1.  | With documentary evidence of primary series                                                                      | 3 doses                  | 2 dose at least 1 month apart 3 <sup>rd</sup> dose during next pregnancy                             |
| 2.  | With documentary evidence of 3 <sup>rd</sup> dose<br>DTP booster at 6 years and 12 years of<br>TT/Td vaccination | 2 doses                  | 1 dose on 1 <sup>st</sup> contact 2 <sup>nd</sup> dose after<br>6 months or during next<br>pregnancy |
| 3.  | With documentary evidence of primary<br>series, booster dose at 6 years and<br>TT/Td vaccination at 12 years     | 1 dose                   | 1 dose on 1 <sup>st</sup> contact or 1 <sup>st</sup> pregnancy                                       |

#### 3.2.3 Immunization Administration

The DHS 2014 reported 53.3% of children aged 18-29 months in Samoa as fully immunized with all basic vaccinations<sup>7</sup> at any time before the survey. Only 8.3% of children did not receive any vaccinations. The trend tends to be that coverage is higher for the first dos

e of DPT and Polio vaccination and declines with the 2nd and 3rd doses signalling drop out of about approximately 50% for both DPT and Polio. The MDG indicator for percentage of children one year of age immunized against measles is 53%. Samoa in the age cohort of 18months – 29months recorded at least 63% of children having received at least one dose of the measles vaccine<sup>8</sup>.

<sup>&</sup>lt;sup>7</sup>Demographic Health Survey (2014). To be considered fully vaccinated 9basic vaccination), a child should receive: one dose each of BCG and measles, three doses of polio vaccine, and three doses of DPT. BCG protects against tuberculosis and should be given at birth or at first clinical contact. DPT protects against diphtheria, pertussis (whooping cough), and tetanus, and polio vaccine guidelines require three vaccinations at approximately 6, 10 and 14 weeks of age. <sup>8</sup> Ministry of Women, Community and Social Development (2010) Policy on Children

The Figure 2 below by the World Health Organization and UNICEF shows the National Immunization Coverage of Samoa from 1999 – 2018. This provides an insight into the:

- (i) level and trends in vaccination coverage, by comparing changes in coverage over a 15 year period. This trend is visualized both by the colour code and the size of the dot whereas the green colour indicates that the GVAP target of 90% was reached;
- (ii) drop-out between vaccines that are administered early in life, and the ones that are scheduled later. The combination of the vaccines is ordered based on the recommended schedules from birth doses to doses after the first year of life. Ideally, the later doses are only marginally lower than earlier doses, showing the ability of Samoa to track and fully immunize all children; and
- (iii) introduction status and uptake of new vaccines.



Source: WHO, 2018

From 2013 to 2017, the immunization coverage with the exception of Penta 1 has been reduced. This indicates that the numbers of children being vaccinated with other vaccines had been dropped. The trend has not been very positive with percentages as low as 56% as in MMR 2.

The significant decline in MMR1 and MMR2 coverage in 2018 was the outcome of the interruption in vaccination following the two deaths related to MMR vaccination in the country.

Despite the improvement in coverage of child immunization as indicated by the 2014 DHS<sup>9</sup>, the recent immunization coverage of 50% for all basic vaccinations still covers only half of all children who have reached 18 months of age. Therefore vaccination coverage is only half way towards the 100% ideal target for all children at 18 months of age<sup>10</sup>.

Hence, National Immunization Policy for Samoa should be developed to address the aforementioned immunization issues in Samoa, enhance the vaccination administration, management, storage and ensure the quality and safety of immunization services for the targeted population.

### 4. IMMUNIZATION STRATEGIC AGENDA

4.1 Vision

<sup>&</sup>lt;sup>9</sup> Demographic Health Survey (2014) p. 168

<sup>&</sup>lt;sup>10</sup> Demographic Health Survey (2014) p. 168



Leave no one behind. Make Samoa a country where everyone, everywhere and at every age fully benefits from immunization for good health and well-being

#### 4.2 Mission



To provide a sustainable, safe, efficient and effective immunization service with equitable access for all people especially children and adults of Samoa, through public and private sectors with the determination to eradicate vaccine preventable diseases and associated morbidity and mortality by the administration of life saving vaccines



Goals

Ensuring good health and well-being for everyone by strengthening immunization services within primary healthcare and contributing to universal health coverage and sustainable development

### 4.4 *Guiding Principles*

This policy is guided by the following principles:

#### UNIVERSAL REACH

Achieve 100% immunization coverage of all target population

#### **EQUITY**

Provide all target population in Samoa complete Immunization irrespective of residency or nationality

#### **SAFETY**

Follow "first do no harm" principle comply with global and local safety practices Figure 4: Guiding Principles

GUIDING

**PRINCIPLES** 

## star

standard of immunization program operations

Strive to achieve high

#### **SUSTAINABILITY**

**OUALITY** 

Achieve self-financing and move away from donor dependency

#### MANAGEMENT

<u>EXCELLENCE</u> Follow result based principles and evidence based practices

#### 4.5 *Core Values*

It is in the best interest of the National Immunization Programme to uphold the following values in order to achieve its vision and mission:

#### Figure 4: Core Values of Samoa's Immunization Program



#### 4.6 **Objectives**

The principal objectives of this policy are to:

- a) improve effective coverage for immunization services to traditional target groups including women of reproductive age and children under the age of five, including expanded immunization coverage for adolescent girls and boys and adults and high risk population groups through a mixed service delivery approach consisting of fixed site and outreach;
- b) ensure all children, adolescent girls and boys and adults are immunized to eliminate as per requirement/s under the Infants Amendment Bill (No.2) 2019
- c) ensure all children are fully immunized before school entry;
- d) protect the general population at large from vaccine preventable conditions including pneumonia, diarrhoea and cervical cancer;
- e) ensure consistency in the regulatory, technical advisory and decision-making processes to ensure that the immunization schedule and vaccine procurement are based on sound scientific evidence and technical expert recommendations and responds to the health needs of Samoa population;
- f) ensure that sufficient supplies of human resources with required capacity are in place to ensure the effective provision of a consistent standard of immunization surveillance practice across the health sector including public and public sectors;

- g) strengthen monitoring, reporting and evaluation of Samoa's immunization program implementation including administration and management, so that sexdisaggregated immunisation data are systematically integrated within the broader Samoan health information system, including data collection and disaggregation that reports against the social and gender impacts resulting from the implementation of the National Immunisation Policy, including evidence generation through national surveys such as DHS; and
- h) promote sustainability of Samoa's immunization program and security of vaccines supply through the increased commitment of the government of Samoa and development partners technically and financially.

### 4.7 Policy Outcomes

The expected outcomes of this policy document are:

#### Figure 5: Policy Outcomes

### Mortality & Morbidity Control

Reduced mortality and morbidity from vaccine preventable diseases



### Equitable Access

Wider and equitable access of the population to the latest vaccines and medical technologies



### Safety & Quality

Consistency in safety and quality of vaccination whether these services are delivered through public or private health service providers.

## 5. POLICY STATEMENT

All children living in Samoa shall have the right to be fully immunized in line with the approved national immunization schedule as highlighted in Annex 2. Immunization program shall reach every girl and boy and community with immunization opportunities by providing regular fixed sites and outreach services. Immunization program shall track all children to ensure competencies of immunization series after birth in order to minimize left-out and drop-out of children.

It shall also strive to offer services to under 5 children, adolescents, school going children, out of school children, adults (including pregnant women) and special groups such as travellers. While immunisation rates are generally gender equal at a population level, some gender differences in coverage may occur in different geographic, socio-economic, cultural or other groups. Immunization monitoring will identify and respond to these differences.

Samoa government shall maintain above 90% full immunization coverage at all times for all vaccines provided under the national immunization program. The determination of denominators and the size of the target population for health facility is important for achieving good coverage. The building block of planning for routine immunization is the district or health facility micro-plans, which should cover entire population in their area of jurisdiction. One of the key components of these micro-plans is the estimation of target population where health workers shall regularly conduct read counts in their catchment area and then estimate the annual targets for infants (0-12 months), children (13-24 months), pre-school/school entry children (3-7 years), adolescents (12-15 years) and pregnant women.

The government through the Ministry of Health shall ensure equal access to quality EPI services for the children and pregnant women within Samoa. This being non-negotiable, the Ministry of Health shall ensure that adequate and potent antigens are available in Samoa at all times.

EPI programme management is the responsibility of the Health Promotion & Wellness Programs Division. The day to day EPI operations will be overseen by a dedicated full time EPI Coordinator. An Immunization Advisory Committee will provide technical advice to the programme.

### 6. KEY STRATEGIC AREAS

This Immunization Policy will be guided by the following 6 Key Strategic Areas. The KSAs were developed to ensure that the work of the Health Sector involved in the provision of immunization services are consistent and in line with the relevant legislations and mandates, as well as the essential building blocks for comprehensive health policy.

#### KSA 1: Governance and Leadership

#### 1.1 Legislations

The administration of immunization by authorized health service providers are covered under the Ministry of Health Amendment Act 2019, Infants Amendment Bill (No.2) 2019, Samoa Medical Practitioners Act 2007, Samoa Nurses and Midwifery Act 2007 and Health Ordinance 1959.

The Ministry of Health shall work closely with the Ministry of Education, Sports and Culture as well as the Ministry of Women, Community and Social Development to implement immunization activities and programs in this policy document and immunization requirements under the Infants Amendment (No. 2) Bill.

#### **1.2** Formulation of the National Immunization Practice Committee

The National Immunization Practice committee should be formulated to monitor the implementation of the National Immunization Policy 2020 – 2025 for Samoa. This committee should be responsible in reviewing the immunization schedules policy for Samoa and submit to the Director General of Health for endorsement.

#### **1.3** Immunization Schedule Policy Review

Immunization should be reviewed and updated periodically based on major programmatic shifts recommended by global, regional and local evidence and literature on the introduction of new vaccines or when new epidemiological patterns emerges.

#### 1.4 Informed Consent for Immunizations

As immunisations are now mandatory by law, a signed consent form is no longer required. However, it is a legal requirement for the nurse vaccinators to obtain an one time declaration from the parents or caregivers or clients.

Parents must be informed of the vaccines, vaccination schedule, and have any questions answered about the vaccination and may be encouraged to sign a one-time declaration while accessing the immunization services for the first time in any health facility.

Before the child is vaccinated, it is important for the nurse or vaccinator to comply with these important administration processes.

- i. Before immunization the nurse screens for any illness, allergies and contraindications. Refer to medical doctor if needed.
- ii. The nurse vaccinator provides the caregiver with appropriate vaccination advice to include:
  - Information about the vaccine to be administered.
  - Identify any contraindications or allergies.
  - Provide post vaccination advice (**5 key messages**)
    - 1. Waiting at the session site / clinic for 20 mins,
    - 2. Explain what vaccines were given and what diseases they prevent
    - 3. Possible adverse events and explain how to handle them and report
    - 4. Next vaccination date (appointment)

- 5. Benefits of immunization card / baby book, to keep it safely and bring it during next vaccination visit
- iii Administrating nurse to document and sign in appropriate documents-include injection site/location of session site and narrative of care after administering the vaccines.

Any vaccination outside of the Routine/Catch-up Immunisation Schedule or Mass Campaigns requires a doctor's prescription.

Any persons refusing recommended immunisations;

- should be provided further counselling support
- may be referred to community leaders
- is subject to a penalty as per the Infants Amendment Act 2019.

#### 1.5 Pandemic, Epidemic Vaccination and Immunization Campaign

#### a) Mass Vaccination Campaign

In order to control disease outbreak, support disease eradication and elimination objectives, the Ministry of Health in collaboration with the health sector shall implement mass campaigns as indicated as a strategy that is supplementary to routine immunization program activity (e.g. polio, measles, rubella, tetanus, HPV).

#### b) Pandemic and Epidemic Response

Any VPDs outbreak should be investigated to recognised the epidemiology, define why outbreaks have happened (vaccine failures, failure to immunise, accumulation of susceptible, waning immunity, new strain) and ensure proper case management. The reporting and investigation system should activate the Communicable Disease Committee (CDC) at the national level in accordance with emergency response manual.

The immediate reporting of case-based data of probable or confirmed cases from the health areas should use Surveillance Notifiable Disease (Annex 8) form as appropriate.

Suspected cases within the WHO/SPC clinical case definitions, should be investigated and confirmed by the Medical Officer, and should be subsequently reported.

District Hospitals and Health Centres should act as sentinel sites for target diseases in the community to provide a more comprehensive image of morbidity & evaluate the quality of routinely reported data.

Suspected outbreaks must be reported to the Public Health Physician and Team, and the Surveillance Unit at MOH for disease verification; who shall inform the Communicable Disease Committee for further affiliation and decision making.

Any deaths from suspected cases must be reported to the relevant authority for investigation.

Control and investigation of outbreaks should be organised immediately and managed at the national level by Public Health.

In the event of an outbreak in school, any child who is not vaccinated should be either immunised immediately or excluded from school until the outbreak is over.

During the outbreak of a vaccine preventable disease the information included be collected and submitted on specific case reporting forms.

#### 1.6 Partnership

The Ministry of Health's main responsibilities are to:

- a) Provide direction and protection on policies, develop strategies, guidelines and setting priorities for EPI issues
- b) Facilitate and promote EPI programme implementation, monitoring and supervision and evaluation of the EPI program
- c) Provide health facilities and appropriate places to ensure provision of quality immunization services and
- d) Ensure other government ministries such as Ministry of Education, Sports and Culture support the EPI programs in particular the immunization in schools

The NGOs responsibility is to support Immunization Program implementation under the direction of the Ministry of Health; provision of technical/financial support and contribute in supervision, monitoring and evaluation of EPI in an integrated manner.

The United Nations agencies, bilateral, multi-sectoral agencies and relevant stakeholders shall play a vital role in provision of technical support and assistance in terms of capacity building, supplies, logistics, operational and procurement.

The community responsibilities are to support the Ministry of Health and the health sector to facilitate the implementation of EPI programs at community level.

#### 1.7 Supervision, Monitoring and Evaluation

The quality of the fixed site/outreach immunization service delivery shall be constantly enhanced by a cadre of supervisory staff by applying principles of support supervision.

Supervisory infrastructure shall be created for enhanced program supervision.

The program shall be reviewed and evaluated once during each of the five-year plan period.

The immunization coverage, AEFI incidences and dropout rates shall be amongst the indicators to monitor the performance of the immunization services in all health facilities.

The cold chain and vaccine management shall be assessed regularly including periodic EVM assessment to ensure the safety and efficacy of the vaccines and shall be in compliance with the regulatory requirements of the DRA.

A core group for instance National EPI Committee shall be constituted within the Ministry of Health which will provide necessary directions and oversight monitoring and implementation of this plan.

#### 1.8 Equity and gender equality

While girls and boys in Samoa have equitable access to injunctions at a national level, gender is a key factor in barriers to accessing immunisation. Gender-related barriers

limit immunisation service demand, utilisation, coverage and impact. Other social issues that will contribute to barriers for caregiver and children in accessing vaccines include disability, geographic distance, and socio-economic inequalities.

Gender-related barriers can impact access to immunisation at various levels

- at an individual level, gender inequalities result in caregivers, often women, possible lacking health literacy and education about immunisation
- at household and community levels, unequal decision-making power and uneven distribution of household resources may limit a caregiver's ability to access to health facilities, and cultural norms may dictate women and men's roles in children's health
- in the health service, the approach or the gender of health workers may discourage caregivers to attend and return, and
- at the institutional level, government policies and a lack of gender parity in decision-making processes may result in less focus to the distinctive needs of women and girls' is key to ensuring 100% coverage.

Therefore, the equity goal of this policy is to identify and overcome gender and other equity-related barriers to reach all children and pregnant women with the full range of vaccines. This encompasses:

- A focus on identifying and addressing underlying gender-related barriers faced specifically by caregivers, adolescent girls and boys, and health workers.
- Where they exist, overcoming differences in immunisation coverage between girls and boys.
- Encouraging and advocating for women's and girls' full and equal participation in decision-making related to the vaccine programmes related to this policy.
- Accessible services for children and adults with disabilities.
- Considerations of geographic and other barriers to accessing vaccinations built into vaccine roll-out plans.

#### KSA 2: Immunization Service Delivery

#### 2.1 Rural Immunization Services

All rural district hospitals will provide immunization services in a well demarcated designated area and they will be responsible for ensuring full immunization coverage of all children in their jurisdiction.

Vaccination services will be available at fixed health facilities including main hospitals/district hospitals and health centres on all working days or on certain designated days of the week.

Outreach services will be provided on a monthly basis in all rural communities according to a micro-plan that will be prepared in collaboration with the Ministry of Education, Sports and Culture, Ministry of Women, Community and Social Development and the community.

Service providers for vaccination in rural areas will be designated by the immunizationin-charge health facility/ies and or Ministry of Health, and will include nurse/s and the auxiliary health assistant/s.

Immunization contacts will be linked to other feasible service delivery provisions including maternal care, birth registration, nutrition (screening for acute malnutrition

and referral) to leverage the opportunity for delivery of integrated primary care services.

#### 2.2 Urban Immunization Services

Vaccination in urban areas is the primary responsibility of the main hospital through the appointed service provider (public and or private health service providers).

All urban areas will be clearly demarcated and immunization coverage of the population living in the urban area will be the responsibility of the main hospital serving that area.

It is the responsibility of the Ministry of Health to mobilize human and financial resources to maintain immunizations services of national quality and safety policy and standards for the population within the administrative jurisdiction of the government

Vaccination services will be available at fixed sites on all working days or on certain designated days of the week.

#### 2.3 Immunization in Educational Institutions

Immunization services for educational institutions both in public and private sectors will be developed in order to extend the benefits of immunization to children of all educational institutions, and to protect the population from additional vaccine preventable diseases.

Based on certification provided by the health facilities, each educational institution shall check the vaccination status of each child prior to his or her enrolment.

#### 2.4 Immunization Status for Health Workers

All health care workers on commencement of employment are required to have an updated immunization record of the following immunizations:

- Two documented doses of MMR or MR
- Full schedule for Td and Hep-B immunisations
- Any additional immunisations as required.

Medical and nursing schools are required to ensure that their students are fully vaccinated on enrolment as per their organisation's policy.

#### 2.5 Travellers

For people travelling to Samoa, it is recommended to have MMR, Hepatitis B and Typhoid vaccination.

People travelling out of Samoa to other countries need to follow the travel advisory to fulfil the recommended requirements for that particular country.

#### 2.6 Immunization by Private Healthcare Service Providers

The healthcare service providers may administer immunization to children and pregnant women in accordance with Samoa's Immunization Schedule at the choice of clients. Before initiating the immunization services for the public, they must submit the evidence for qualifying criteria as highlighted in the Standard Operating Procedures for administering immunization and sign the memorandum of Understanding (MoU) with the Ministry of Health. The private health service providers may obtain the vaccines from the Central EPI Unit and they must not charge the public for the cost of vaccines.

It is the responsibility of the Ministry of Health to provide the required vaccines utilising the approved cold chain equipment to maintain the cold chain. Similarly it is the responsibility of the Private Healthcare service providers to ensure the continuity of the cold chain of vaccine during the clinic's immunisation session. The private clinic must regularly submit detailed immunization reports along with the information about beneficiaries to the Ministry of Health staff for accounting the vaccines utilization in the prescribed format.

#### KSA 3: Human Resources

#### 3.1 Capacity Building for Immunization Health workers

All staff administering vaccines should receive specific EPI training, with continuing refresher updates. They should also be informed and updated on any changes to the policy, immunisation process and cold chain management. These changes should also be communicated to all health workers providing EPI services – Biomedical staff, NUS faculty of Health Sciences, and other health sector partners. All staff administering vaccines must be recognised with identification (ID) and be credentialed every two years. Junior registered nurses administering immunizations are under the supervision of senior vaccinators for a probationary period until credentialing has been completed.

In-service training for EPI staff is an on-going process and must include emergency response/resuscitation interventions and drugs. Credentialing is compulsory for all nurses and midwives who administer immunisation vaccines to improve and update skills, performance and competencies. All staff should also receive equity in healthcare training and be familiar with the equity principles of the Samoa national Health Policy and this policy.

Immunization supervisors shall be trained to use the Data Quality Self-Assessment tool to assess the denominator, especially in districts that are poorly performing or having problem of over-reporting or under-reporting of immunization coverage.

Health workers for Samoa Immunization Program should be informed of any new policy and changes introduced to immunization or cold chain management.

All staff routinely administering or handling vaccine should be trained, with refresher updates at least annually, and when changes to the immunisation policy are made. All staff involved with immunisation should have a copy of the Samoa Immunization Handbook for ready reference.

To enhance response to any AEFI, the EPI Coordinator and Team must ensure that all health personnel's providing EPI services must attain emergency response / resuscitation training.

#### KSA 4: Financing

#### 4.1 Comprehensive Multi-Year Plan (cMYP)

Samoa shall adapt a long term planning cycle for immunization program and health system development and shall prepare a costed comprehensive multi-year plan as per WHO/UNICEF guidelines in collaboration with stakeholders and partners that will operate in a 5-years cycle. This multi-year plan shall aim to meet global immunization targets, national priorities while considering available resources and its linkages to the national strategy and health sector plan.

The comprehensive Multi-year plan shall be broken into annual work plans (AWPs).

#### 4.2 Financial Sustainability

The Samoa government shall gradually enhance their share of financing the cost of procuring all traditional vaccines (BCG, OPV, Pentavalent, DPT, Td, IPV, MMR, PCV, Rotavirus and HPV) and new vaccines being introduced in the national immunization schedule.

#### KSA 5: Information, Education and Awareness

#### 5.1 Data Quality and Management and routine reporting of Vaccination

All health facilities in both public and private health sectors will maintain a uniform gender-age and disability-disaggregated vaccination register outlined by the Ministry of Health for the targeted population in the catchment area of the health facility, and if feasible, will link immunization registration to birth registration and maternal care processes.

Immunization registers at health facilities shall be child based with regular updating of records by immunization service providers.

Unique identity numbers should be provided to every vaccine recipient along with biometrics in order to comply with national electronic registry for immunization data.

All health facilities in public and private health sectors shall record sex-disaggregated immunization data provided on a Child Health Book, which shall also include the contents of the routine public sector immunization schedule.

All health facilities shall provide certificates to children on completion of routine immunization as per national immunization schedule for pre-school and school entry purpose.

#### 5.2 Advocacy and Communication

The Ministry of Health and political leaders should provide active demonstration of support and promotion of routine immunizations and services. The key four audiences to address include:

- (i) Potential partners: aid coordination, government agencies, NGOs, researchers, and others who have a stake in immunization;
- (ii) Policy and decision makers who influence immunization;
- (iii) General public; and
- (iv) Mass media.

All EPI communication activities should be developed considering integrated public health and gender sensitive communication according to a comprehensive EPI communication package and strategy which contains a content to mainstream gender equality and social inclusion principles in line with this policy. Also key interventions should leverage on community partnerships/models as well as stakeholders, including parents, students, community and church leaders, health service providers, government officials, civil society partners.

#### 5.3 Awareness Programs

The Ministry of Health shall work closely with the Ministry of Women, Community and Social Development, Ministry of Education, Sports and Culture to introduce immunization services into the community as well as educational institutions.

Through the School Nurse Program necessary on-site immunization and information, education and communication materials will be provided for teachers, students and parents.

The MOH will work with the MWCSD and their community representatives (Sui Tamaitai) for immunisation outreach services.

In addition, the Ministry of Health shall play a key role in advocacy, social mobilization and communication for immunization.

#### 5.4 Information and Education Materials

The immunization information and education materials for educational institutions shall include information on the immunization schedule, list of diseases prevented by immunization, benefits of immunization as well as information on adverse events following immunization. These include standard procedures and protocols for responding to such adverse events.

#### 5.5 Research in Immunization

A national population-based coverage survey should be conducted regularly in Samoa that collects, analyses and reports against sex-disaggregated immunisation data in order to evaluate the social and gender impact of the Immunisation Policy in terms of quantity and quality integrating equity into its survey questions.

A post introduction evaluation (PIE) should be conducted following the introduction of any new vaccine or medical technology.

Burden of disease assessments should be undertaken on a periodic basis to provide an evidence based information for introduction of new vaccines, to assess the efficacy of vaccines, and to measure the impact of immunization programs on vaccine preventable disease burden.

Periodic qualitative and participatory social research including interviews, surveys, focus group discussions, and Key Informant Interview with stakeholders will be undertaken to identify factors that enhance and or constrain the effectiveness of Immunisation policy introduction and practices as well as barriers and/or enablers to immunization access, particularly for vulnerable, high risk or unreached population groups.

Vaccine or impact assessments should be conducted by the relevant implementing agency in collaboration with the Ministry of Health that assesses health systems performance related to immunisation policy, capacity of Immunisation health workers, community knowledge, attitude and practice.

#### KSA 6: Immunization Products, Vaccines and Technology

All stakeholders should follow the latest Routine Immunisation Guide which details EPI procedures and guidelines.

#### 6.1 **Procurement of Vaccines**

All vaccines procured for immunization must meet the WHO standards for immunization and should be the core responsibility of the EPI coordinator overseen by the Deputy Director General for Public Health Services.

#### 6.2 Vaccine Administration

Only qualified and certified health workers can administer vaccinations.

#### a) Administration of two or more vaccines on the same day

The scheduled vaccines shall be given at the same time on the same day. If more than one injectable vaccine is due on the same day, they should be given in different limbs where possible, and using separate auto-disable syringes.

Refer Annex 2 for Vaccine Administration Protocol.

If catch up vaccinations are required, ensure as many as antigens are administered in the catch up visit. Up to four injectable vaccines can be given at a time. It is more beneficial if the child is given multiple vaccinations in one visit rather than splitting into multiple visits in order to avoid drop out situation.

Ensure all EPI antigens are safe and effective when administered at the same visit. Giving doses of a vaccine less than 4 weeks apart may lessen the antibody response and should be avoided.

**b)** Use a sterile auto-disable (AD) syringe and needle, for each injection. The needle should not be recapped, nor the syringe and needle ever separated. Used injection equipment is to be immediately placed in a safety box and destroyed at the MoH Incinerator outside of Apia

Reconstituted vaccines (BCG, MR / MMR) must be kept cool, protected from light and discarded after 6 hours. The vaccine and diluent must be supplied by the same manufacturer.

#### 6.3 Cold Chain and Vaccine Management

All health facilities and providers both in public and private health sectors must conform to Ministry of Health guidelines and procedures on maintenance of the cold chain with respect to vaccine arrival procedure, temperature monitoring, storage and transport of vaccines, maintenances of cold chain equipment, stock management and distribution and vaccine management. This is to ensure safety, quality and efficacy of vaccine in both public and private health sectors.

It is the responsibility of all vaccine storage facilities to store and distribute vaccines according to a consistent national standard as specified in the guidelines of the Ministry of Health.

Vaccine arrival inspections, storage and transport for public and private sectors including importation of vaccines and monitoring of cold chain implementation will be conducted by a competent authority.

All EPI cold chain equipment shall conform to WHO/UNICEF standards and be Chloro-Fluoro-Carbon free for vaccine storage/transport and shall be used only for storage of vaccines at all levels of health system in order to avoid program errors in vaccination.

All cold chain equipment shall be replaced after ten years, however, if the equipment is optimally functioning properly after ten years, the health facility shall be advised to continue using it after proper technical evaluation.

All vaccines cold stores and health centres shall have Standard Operating Procedures (SOPs) for storage and distribution of vaccines. The National store and health centres shall have adequate storage space when new vaccines are being introduced and bundle distribution system shall be practiced.

During the interim period of cold chain breakdown, a health facility shall utilize cold chain facilities of the nearest health facility/vaccine storage site. In case cold chain equipment is declared non-functional, interim measures as per the current EPI manual for health workers shall be implemented.

#### 6.4 Handling of multi-dose vials

Specific vaccines vials of BCG, MMR and other vaccines are to be discarded at the end of immunization sessions or after six hours as per WHO Guidelines for Immunization.

Multi-dose vials of OPV, DPT, TT, Td and HB vaccines can be used up to 4 weeks, provided that all the following are fulfilled:

- (i) expiry date has not passed;
- (ii) vaccines are stored in a refrigerator kept at the appropriate temperature;
- (iii) aseptic techniques has been used to withdraw all doses;
- (iv) VVM, if attached, has not changed colour enough to show that the vaccine should be discarded;
- (v) punctured vial septum has not been submerged in non-sterile water eg, ice water; and
- (vi) date of first opening must be written on the label.

In the case of a life threatening adverse event especially if a multi-dose vaccine is involved, immunization for that clinic or health centre should cease immediately. Vaccinators should **NOT** use the particular vial for further immunization.

#### 6.5 Vaccines Quality and Adverse Event Following Immunization (AEFI)

An adverse event following immunisation is any event that happens after a vaccine is given, and is defined as a "medical event or incident, but may not necessarily be caused by immunisation"<sup>11</sup>.

AEFI surveillance includes:

- (i) detecting, monitoring and responding to adverse events following immunisation; and
- (ii) implementing appropriate and immediate action to correct any unsafe practices detected through AEFI surveillance system, in order to lessen he negative impact on the health of individuals and the reputation of the immunisation programme.

An AEFI surveillance system should be established for reporting AEFI at all levels. Investigations and follow up action should follow to the National Administration Protocol (Annex 4). All AEFI must be reported using the AEFI investigation form to the

<sup>&</sup>lt;sup>11</sup>WHO.Training Module 3: Immunisation Safety.Training Material for mid-level managers (MLM) - Vaccine Safety and Quality; Safe injections and waste disposal; and immunisation safety surveillance.p.20 Department of Immunisation, Vaccines and Bilogicals – Family and Community Health. Geneva, Switzerland. Retrieved from: https://www.who.int/immunization/documents/MLM\_module3.pdf?ua=1

EPI Coordinator who will then forward the information to the National Medicines and Therapeutics Committee for further assessment and follow up.

In order to ensure the quality and safety of immunization in Samoa, all community, all health facilities, hospitals and private clinics should report adverse events to the relevant disease surveillance focal point/s according to the Ministry of Health procedures and guidelines.

Any serious AEFI (death, hospitalization, and significant community concern or cluster event) must be investigated and a report should be submitted by the designated investigation team to the Ministry of Health as early as possible.

In all health facilities and outreach vaccination sites, there should be a contingency plan for post vaccination on emergency management including maintain an emergency Anaphylaxis / AEFI response kit (at the immunization site) as per AEFI guidelines.

All health staff shall monitor, report and manage Adverse Events Following Immunization appropriately, and MOH shall be communicated to the parents and general public after proper and full investigation.

Refer to Annex 4 Anaphylaxis Algorithm.

#### 6.6 Introduction of New Vaccines

Introduction of new and underutilized vaccines shall be based upon the recommendation of the global recommendations and latest international evidence as descried in the most recent WHO positions papers on vaccine efficacy and safety.

The general public shall be informed prior to the introduction of new vaccines.

The planning and implementation of a newly introduced vaccine/s requires strong partnership with bilateral and sectoral partners and relevant stakeholders.

#### 6.7 Vaccines Wastage Reduction

Vials opened for outreach or mobile campaigns are at a higher risk of contamination and heat exposure. For daily Community Outreach, Vaccinators need to calculate the required number of vaccines needed for the daily session to avoid unnecessary exposing vaccines to temperatures that they may affect their potency.

Early Expiry and First Out (EEFO) principle should be used while storing and distributing the vaccines and logistics. However, if VVM of a later expiry lot of vaccine is getting closer to the discard point, it should be prioritised for distribution and use.

Opened vials from previous sessions should be prioritized for distribution, provided they satisfy the other required criteria as per the Multi-dose open vial policy.

Nurses are to record vaccine wastage in their daily vaccine stock records.

#### 6.8 Disposal of Vaccines wastes

All immunisation providers should be familiar with the handling and disposal of sharps.

Immunisation waste should be put into the safety box indicated for EPI sharps only, and separate from other general sharps. The box should not be overfilled, it must be  $\frac{3}{4}$  filled to prevent needle injury/ piercing. Rubbish should be segregated.

Used/expired vaccine vials should be discarded into the safety box for incineration.

The Health Care Waste Management Team collects sharps at least twice a week from all health facilities. All EPI waste in safety boxes must go to the incinerator.

#### KSA 7: Monitoring & Evaluation

It is important that immunization data is properly managed and effectively provide evidence based information for decision making.

#### 7.1 Monitoring of Child Health Books

All immunisations are to be recorded on the child health book, and in the clinic and the EPI Register

Immunisation coverage for children is to be calculated at the national level using the immunisation registry verified by MoH:

- the numerator is the number of doses of vaccines reportedly administered to children and
- the denominator is the official MoH figure for the number of children of the appropriate age e.g. children born for that year for coverage under 1 year

#### 7.2 Reporting

Nurses are required to ensure to promptly document all immunization record data and keep hardcopy and electronic system databases up-to-date.

Immunisation coverage should be reviewed monthly at all levels for all antigens. Each health centre should review EPI registers on a monthly basis as to identify children who have missed immunisation appointments for immediate follow-up

Data on immunisation are to be collated and reported monthly at the national level through electronic registry system

## 7. MONITORING, EVALUATION, RESEARCH & LEARNING

Monitoring and evaluation (M&E) has an important role to play in effectively designing, implementing and delivering policies and services to the public. There is a need to ensure that policy making is informed by sound evidence on what works is essential to achieve key objectives.

The Ministry of Health through its Strategic Planning, Policy and Research Division and Health Promotion & Wellness Programs Division will monitor and evaluate the implementation of this policy document's Action Plan (Annex 1) on annual basis; in collaboration with its stakeholders and donor partners at the international, regional, national and community levels.

The Monitoring and Evaluation Reports will include assessment of health systems performance related to immunisation programs, capacity of immunisation health experts, community knowledge and attitude and share findings on all present the implementation status of immunization and activities highlighted in this policy document.

It is expected that the successful implementation of this policy relies heavily on genuine partnership and close working relationship amongst all relevant partners and stakeholders whose works will be impacted by this policy.

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| <b>KEY STRATEGIC AREA 1</b>                                                                                                                        | <b>GOVERNANCE AND LEA</b>                                                                    | DERSHIP                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OBJECTIVE                                                                                                                                          | STRATEGY                                                                                     | ACTIVITIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Coordination of EPI<br>program<br>implementation                                                                                                   | Establishment of a<br>National EPI Committee                                                 | <ul> <li>Develop a Terms of Reference for the National<br/>EPI Committee</li> <li>Conduct the National EPI committee meetings<br/>on quarterly basis</li> </ul>                                                                                                                                                                                                                                                                                                                       |
| Ensure proper waste<br>management system by<br>2020                                                                                                | Strengthen healthcare<br>waste management<br>system at all levels                            | • Use the existing Healthcare Waste policy,<br>guidelines and or strategy to guide the<br>development of EPI waste management plan<br>for all health facilities                                                                                                                                                                                                                                                                                                                       |
| Effective logistics and cold chain system                                                                                                          |                                                                                              | • Implement activities in the Effective Vaccine<br>Management (EVM) improvement plan                                                                                                                                                                                                                                                                                                                                                                                                  |
| EPI research                                                                                                                                       | Undertake appropriate<br>immunization research as<br>required                                | <ul> <li>Identify priority needs and establish a research agenda</li> <li>Conduct research in EPI</li> <li>Disseminate findings of research conducted</li> </ul>                                                                                                                                                                                                                                                                                                                      |
| Midterm and full-term<br>review of the National<br>Immunization Policy<br>2020-2025                                                                | Evaluate the National<br>Immunization Policy<br>2020-2025 at mid-term<br>and end of 2025     | <ul> <li>Establish and implement annual evaluation plan</li> <li>Conduct quarterly meetings of the National EPI committee to evaluate the implementation of the National Immunization Policy 2020-2025 and EPI annual plan of action</li> <li>Review coverage, surveillance and other EPI issues.</li> </ul>                                                                                                                                                                          |
| Strengthen surveillance<br>for vaccine preventable<br>diseases (VPD) to attain<br>and sustain key<br>surveillance indicators<br>by 2020 and beyond | Vaccine Preventable<br>Diseases embedded into<br>Integrated Disease<br>Surveillance Response | <ul> <li>Conduct integrate active disease surveillance at all levels</li> <li>Improve data sharing and feedback system at all levels</li> <li>Conduct regular surveillance visits to priority sites</li> <li>Conduct training for all surveillance officers at all levels</li> <li>Production of surveillance tools and training materials</li> <li>Conduct community sensitization</li> <li>Clinicians sensitization</li> <li>Support outbreak investigation and response</li> </ul> |

## ANNEX 1: NATIONAL IMMUNIZATION POLICY 2020-2025 ACTION PLAN

| KEY STRATEGIC AREA 2 IMMUNIZATION SERVICE DELIVERY     |                                                                                                                     |                                                                                                                                                                                                                                                                                                                        |  |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| OBJECTIVE                                              | STRATEGY                                                                                                            | ACTIVITIES                                                                                                                                                                                                                                                                                                             |  |
| Measles mortality<br>reduced by 90% by<br>2025         | Strengthen routine<br>immunization, conduct<br>high quality SIAs and<br>integrate with high impact<br>interventions | <ul> <li>Conduct measles follow up campaign for less<br/>than five years in 2020</li> <li>Strengthen community engagement in<br/>implementation of EPI program in the<br/>community</li> <li>Strengthen the full immunization of records of<br/>children to be one of requirement for school<br/>enrolment.</li> </ul> |  |
| Introduce new<br>vaccines into routine<br>immunization | Introduce rotavirus, HPV,<br>Pneumococcal vaccine and<br>Typhoid into routine<br>immunization                       | <ul> <li>Implement rotavirus and HPV vaccines<br/>introduction plan</li> <li>Conduct rotavirus and HPV vaccine post<br/>introduction evaluation</li> </ul>                                                                                                                                                             |  |
| Expand immunization program services                   | Introduce immunization<br>program in private clinics                                                                | • Develop memorandum of agreement between<br>the Ministry of Health and private health<br>service providers who are willing to<br>implement immunization program in their<br>clinics                                                                                                                                   |  |
|                                                        | Introduce immunization<br>program in all rural and<br>urban health facilities                                       | <ul> <li>Train all nurses in all health facilities both in<br/>rural and urban on vaccination and<br/>immunization data entry.</li> </ul>                                                                                                                                                                              |  |

| <b>KEY STRATEGIC AREA</b>                                                                             | 3 HUMAN RESOURCES                                                                                                              |                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OBJECTIVE                                                                                             | STRATEGY                                                                                                                       | ACTIVITIES                                                                                                                                                                                                                      |
| All immunization staff<br>in all health facilities<br>reach national staffing<br>levels and standards | EPI human resources<br>development                                                                                             | <ul> <li>Conduct EPI human resources needs<br/>assessment at all levels</li> <li>Recruit additional staff to EPI unit.</li> <li>Conduct EPI staff training needs assessment<br/>and develop multi-year training plan</li> </ul> |
|                                                                                                       | Ensure availability of<br>technical and sufficient staff<br>to fulfil the National<br>Immunization Policy 2020-<br>2025 vision | <ul> <li>Conduct comprehensive micro plan at all<br/>levels to include all aspects of EPI</li> <li>Provide adequate support to EPI operations<br/>at all levels</li> </ul>                                                      |
| Actively engage in<br>professional<br>processes                                                       | Credential health<br>professionals' services as an<br>integral part of professional<br>development.                            | <ul> <li>Credential nurse specialist every two year<br/>and ensure vaccination experience is<br/>considered to be included</li> <li>CPR Certification for all Vaccinators every<br/>two years</li> </ul>                        |
|                                                                                                       | Ensure Anaphylaxis<br>Kits (Emergency Kits)<br>are available at every<br>immunization session                                  | • Nurses / Vaccinators trained in identifying such events and utilize the medication as appropriate                                                                                                                             |

| <b>KEY STRATEGIC AREA</b>        | 4 FINANCING                                                                                                         | NANCING                                                                                                                                                                        |  |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| OBJECTIVE                        | STRATEGY                                                                                                            | ACTIVITIES                                                                                                                                                                     |  |
| Sustainable Finance<br>mechanism | Ensure adequate budget for<br>procurement of vaccines,<br>cold chain needs and<br>maintenance of EPI<br>consumables | <ul> <li>Develop a costed Comprehensive Multi-year<br/>Plan for EPI</li> <li>The costed Comprehensive Multi-year Plan<br/>should be breakdown into annual work plan</li> </ul> |  |

| KEY STRATEGIC AREA 5 INFORMATION, EDUCAT                                                                                                                                          |                                                                                                           | ION AND AWARENESS                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| OBJECTIVE                                                                                                                                                                         | STRATEGY                                                                                                  | ACTIVITIES                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| Integrate EPI into<br>national health<br>promotion plan                                                                                                                           | Strengthen coordination<br>and integration mechanisms<br>at all levels.                                   | <ul> <li>Establish or maintain and regularly update directory of all EPI stakeholders</li> <li>Place and hold coordination meetings, document and disseminate proceedings of the meetings and implement follow up actions</li> <li>Maintain and ensure the use of the national health plan and health reforms to update the EPI policy</li> </ul>                                                                                             |  |
| Strengthen<br>communication and<br>social mobilization in<br>support of EPI to<br>achieve and sustain<br>disease eradication,<br>elimination and<br>control by 2020 and<br>beyond | Advocacy, social<br>mobilization, community<br>engagement, production<br>and dissemination of<br>messages | <ul> <li>Strengthen EPI coordination meetings at all levels</li> <li>Implement plan for routine and Supplemental Immunization Activities</li> <li>Produce Immunization IEC materials for both languages for parents, teachers, children and the community.</li> <li>IE materials developed with introduction of new vaccines and changes to immunization schedule</li> <li>Conduct multi-media awareness programs on EPI regularly</li> </ul> |  |

| KEY STRATEGIC AREA 6 IMMUNIZATION PRODUCTS, VACCINES AND TECHNOLOGY                                               |                                                                                                                                                                                                                           |                                                                                                                                                                                                             |  |  |
|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| OBJECTIVE                                                                                                         | STRATEGY                                                                                                                                                                                                                  | ACTIVITIES                                                                                                                                                                                                  |  |  |
| Improve and sustain<br>adequate vaccines<br>supply, quality and<br>appropriate logistics<br>at all levels by 2020 | Timely forecasting,<br>procurement and<br>distribution of bundle<br>vaccines<br>Ensure availability of                                                                                                                    | <ul> <li>Annual forecasting, procurement of bundle<br/>vaccines, and installation of adequate cold<br/>chain equipment and temperature<br/>monitoring devices</li> <li>Develop distribution plan</li> </ul> |  |  |
| and beyond                                                                                                        | appropriate and functional<br>cold chain equipment and<br>transport                                                                                                                                                       | <ul> <li>Expansion and construction of dry storage at all levels</li> <li>Implement activities in the EVM improvement plan</li> </ul>                                                                       |  |  |
| Guidelines on vaccine<br>management,<br>transport, cold chain<br>disposal and<br>destruction                      | Inform all relevant staff on<br>how to manage vaccines<br>including cold chain<br>maintenance, disposal and<br>destruction of al syringes,<br>needles and other hospital<br>waste by incineration,<br>burning and burying | Provide training for relevant staff on healthcare waste management                                                                                                                                          |  |  |
| Reduce vaccine<br>wastage for single<br>dose vials to <25%                                                        | Reduce wastage rates in<br>unopened single dose vials<br>to 5% and wastage rates in                                                                                                                                       | All EPI staff should receive proper<br>vaccination training                                                                                                                                                 |  |  |

| C < | opened single dose vials to <20% by ensuring a |  |
|-----|------------------------------------------------|--|
| f   | functioning cold chain, stock                  |  |
| n   | management and transport                       |  |
| V   | vaccines                                       |  |

| KEY STRATEGIC AREA 6 PARTNERSHIP                                                                                                |                                                                              |                                                                                                                                                                          |  |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| OBJECTIVE                                                                                                                       | STRATEGY                                                                     | ACTIVITIES                                                                                                                                                               |  |
| Improve and sustain<br>adequate vaccines<br>supply, quality and<br>appropriate logistics<br>at all levels by 2020<br>and beyond | Timely forecasting,<br>procurement and<br>distribution of bundle<br>vaccines | <ul> <li>Annual forecasting, procurement of bundle<br/>vaccines, and installation of adequate cold<br/>chain equipment and temperature<br/>monitoring devices</li> </ul> |  |

| KEY STRATEGIC AREA                                            | 7 MONITORING & EVALUA                                                                                  | TION                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OBJECTIVE                                                     | STRATEGY                                                                                               | ACTIVITIES                                                                                                                                                                                                                                                  |
| Improved Data<br>Management and<br>Reporting                  | Ensure availability and use<br>of data management tools<br>to improve data<br>management and reporting | <ul> <li>Provide training on Basic Data Management<br/>and statistical analysis for relevant staff</li> <li>Strengthen mechanisms and tools for data<br/>collection, management and analysis</li> </ul>                                                     |
|                                                               | Timely and regular<br>reporting of immunisation<br>data                                                | <ul> <li>Conduct monthly and Quarterly monthly<br/>analysis of immunization coverage</li> <li>Strengthen reporting systems for<br/>immunisation reporting and data<br/>management</li> </ul>                                                                |
| Ensure adherence to<br>Standard Operating<br>Procedures (SOP) | Regular on-going<br>monitoring of SOP                                                                  | <ul> <li>Monitor and review the implementation of the SOP</li> <li>Conduct a full review of the National Immunization Policy 2020 – 2024</li> <li>Conduct a Monitoring and Evaluation assessment of the National Immunisation Policy 2020 – 2024</li> </ul> |

## ANNEX 2: NATIONAL VACCINE ADMINISTRATION PROTOCOL

Please address all correspondence to the Chief Executive Officer



Office of the Chief Executive Officer Private Mail Bag, Motootua Tel: (685) 23330 or 68100 ext 102 Facsimile: (685) 26553

#### Please refer to the National Vaccinators Guide for detailed information.

| All children have the right to                                                                                                                                                                                        | oforo you start make sure                                                                                                                                                                                                                     | * Before you start it is                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| be vaccinated with the safe<br>and potent vaccine product<br>that will protect them from<br>diseases. We, vaccinators<br>MUST use all opportunities to<br>vaccinate if vaccines are<br>potent and available, provided | solore you start make sure<br>you have everything that<br>you need for your session:<br>a safe procedures should be<br>adhered to;<br>a ensure safe administration<br>of vaccines, and<br>a avoid adverse reactions<br>collowing immunisation | <ul> <li>child's name is the same on all necessary paper works, ie; register book and the baby book.</li> <li>* The vaccinator should check the eligibility of the child to the vaccine on that day depending on the date of birth and/or the interval from the</li> </ul> |
| PURPOSE:       To assists the health workers and implementers of the immunization program to carry out immunisation injection in       Ref                                                                            | following immunisation.<br>Refer Below for<br>Preparations Procedures                                                                                                                                                                         | last dose. (Understand your<br>EPI schedule). Remember you<br>6 Rights!<br>Note: All vaccines are NOT to<br>be given before the due date<br>or it is counted as an invalid<br>dose.<br>Educate the mother; make                                                            |
| the safest manner                                                                                                                                                                                                     |                                                                                                                                                                                                                                               | child's immunisation plan.<br>Ask the mother if her child is<br>well or have had any reactions<br>to any previous immunisation.<br><u>Refer Below for Vaccination</u><br><u>Procedures</u>                                                                                 |

### **PREPARATION PROCEDURES**

| Actions                                     | Points of Emphasis                                                 |
|---------------------------------------------|--------------------------------------------------------------------|
| Condition ice packs -run water over ice     | Frozen ice packs damages the vaccines sensitive to cold            |
| packs until ice is slightly melted.         |                                                                    |
| Check the expiry dates of vaccines and any  | Do not use expired vaccines or vaccines with discoloured           |
| discolorations of VVMs                      | VVMS (see below for VVMs)                                          |
| Pack vaccines in a plastic bag – separately | Avoid septum from submerging in water when ice melts in the        |
| ie; Pentavalent, OPV etc                    | flask                                                              |
| Check that you have the correct/matching    | Each vaccine vial should be paired with its own diluent as this    |
| numbers for diluents and reconstituted      | may cause AEFIs if diluted with a different diluent.               |
| vaccines. Both diluents and vaccine vials   | Different manufacture for vaccine vial and diluent also cause      |
| should come from the same manufacture.      | serious AEFI.                                                      |
|                                             | On expiration, vaccines should be removed immediately from         |
| Check your batch numbers and expiry date    | the general stock. Expired vaccines may cause AEFIs.               |
| of vaccines.                                |                                                                    |
| Label ALL Vaccines within the ice-line      | To ensure safety injection & minimize AEFI.                        |
| Label the time the vaccine has been opened  | Open Vial Policy- BCG & MMR discard 6 hrs after being              |
| or reconstituted.                           | diluted or at end of immunisation session, whichever comes         |
|                                             | first. DTP, HepB, IPV, OPV & Td                                    |
|                                             | can be valid up to 28 days provided that vial septum is <u>NOT</u> |
|                                             | contaminated, label date & time vial has been opened.              |
| Make sure you have enough AD syringes, for  | Different AD syringes for BCG & other vaccines. AD syringe is      |
| BCG and other vaccines                      | the recommended device for the administrations of vaccines         |
| Sterile swabs                               | It is not necessary to apply alcohol swabs unless the injection    |
|                                             | site is dirty                                                      |
| Sharps container                            | Do not overfill the safety box. Must only be 34 full.              |
| Immunisation register                       | All babies immunised must be registered                            |
| Child Immunization Register/Child Health    | Enter all the details of the vaccines, the batch number, the       |
| Book/ Appointment book                      | site and sign. Document and inform the mother of the next          |
|                                             | appointment                                                        |

<u>Note:</u> AD Syringes(auto disable syringes) are self-locking syringes and is the equipment of choice for administering vaccines. There are different AD syringes for BCG vaccine and other vaccines. Please <u>DO NOT</u> use 26" needle or insulin syringes for BCG

<u>OPEN VIAL POLICY</u>: DTP, HepB, IPV, OPV & Td can be valid up to 28 days provided that vial septum is <u>NOT</u> contaminated. MMR & BCG used up to 6 hours after being reconstituted or end of Immunization session whichever comes first. Label date & time on the vial once it has been opened.

#### VACCINATION PROCEDURES



# Poor management of vaccines can result in vaccine wastage; programme errors and severe adverse reaction

<sup>12</sup>Routes of administration differ to take full advantage of effectiveness of the vaccine. The route of administration is the way by which a vaccine (or drug) is brought into contact with the body. This is a vital factor for success of the immunization. A substance must be transported from the site of entry to the part of the body where its action is needed to take place. Using the body's transport mechanisms for this purpose, however, is not trivial.

*Intramuscular (IM) injection* administers the vaccine into the muscle mass. Vaccines containing adjuvants should be injected IM to reduce adverse local effects.

**Subcutaneous (SC)** injection administers the vaccine into the subcutaneous layer above the muscle and below the skin.

<sup>&</sup>lt;sup>12</sup> Route of Administration: <u>https://vaccine-safety-training.org/route-of-administration.html</u>



Route of Administration: <u>https://vaccine-safety-training.org/route-of-administration.html</u>

**Intradermal (ID) injection** administers the vaccine in the topmost layer of the skin. BCG is the only vaccine with this route of administration. Intradermal injection of BCG vaccine reduces the risk of neurovascular injury. Health workers say that BCG is the most difficult vaccine to administer due to the small size of newborns' arms. A short narrow needle (15 mm, 26 gauge) is needed for BCG vaccine. All other vaccines are given with a longer, wider needle (commonly 25 mm, 23 gauge), either SC or IM.

**Oral administration** of vaccine makes immunization easier by eliminating the need for a needle and syringe.

## ANNEX 3: NATIONAL VACCINE HANDLING AND STORAGE PROTOCOL

*Please address all correspondence to the Chief Executive Officer* 



Office of the Chief Executive Officer Private Mail Bag, Motootua Tel: (685) 23330 or 68100 ext 102 Facsimile: (685) 26553

#### **INTRODUCTION**

Proper vaccine storage and handling practices play a very important role in protecting individuals and communities from vaccine-preventable diseases

Vaccine quality is the shared responsibility of everyone, from the time vaccine is manufactured until it is administered.

#### **PURPOSE**

This protocol guides the implementation of Immunisation program to ensure safe and effective immunisation

#### (1) <u>PROTOCOL</u>

At the beginning of each immunization session, two nurses need to check and record all batch numbers for vaccines and diluents to be used during the session. Two nurses need to check the batch numbers of vaccines and diluents before diluting multi-dose vials.



#### (2) PROCEDURE

To ensure effective immunisation, vaccines are to be stored at the recommended temperature so that they are not exposed to temperatures at which they could lose potency and become ineffective.

| Action                                       | Points of emphasis                     |
|----------------------------------------------|----------------------------------------|
| Check vaccine ILR temperature twice a day, 7 | Maintain the cold chain                |
| days a week including weekends and holidays. |                                        |
| Check vaccines VVM                           | Ensure potency of vaccines             |
| Check expiration date of vaccines            | Ensures quality &validity of vaccines  |
| Label all vaccines in the ILR                | Avoid confusion & ensure safety        |
| Prioritize vaccines according to expiry date | Avoid Vaccine wastage                  |
| Check stock on hand                          | Avoid delays of vaccination programs   |
| Clean ILR appropriately                      | Maintain potency of vaccines           |
| Place vaccines separately in ILR             | Right temperature/free air circulation |
| Document temperature reading on Temperature  | Accurate documentation                 |
| monitoring Chart                             |                                        |

### (3) <u>COLD CHAIN</u>

System used for keeping and distributing vaccines in good condition. It consists of a series of storage and transport links, all designed to keep vaccines within the acceptable range until it reaches the user (mother &child)

#### **PROCEDURE**

| ACTIONS                                                                                                      | POINT OF EMPHASIS                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Vaccines are transported to hospitals in vaccine carriers / cold boxes</i>                                | Ensure safety of vaccines through undisturbed Cold chain system.                                                                                                                                        |
| Transfer vaccines to the ice lined refrigerators once arrived to hospital.                                   | Ice packs can melt easily and vaccines may get warm inside<br>the flask. Vaccines can be destroyed immediately by warm<br>temperature.                                                                  |
| Set refrigerator temperature to 2º- 8ºC                                                                      | Recommended temperature for ALL vaccines storage                                                                                                                                                        |
| Organise vaccines in the refrigerator, do not stack boxes together                                           | Free cooling ventilation amongst vaccines will ensure vaccine safety and potent.                                                                                                                        |
| <i>Store OPV, MMR/ MR and BCG vaccines in the bottom compartment along with their corresponding diluents</i> | These are heat sensitive vaccines; easily damaged by light<br>and heat. Diluents must be stored in the same temperature<br>as the vaccine. Diluents must be cooled before reconstitution<br>takes place |
| <i>Store Freeze sensitive vaccines like<br/>Pentavalent, Hep B, IPV on the top<br/>compartment</i>           | <i>These are freeze sensitive vaccines, can easily destroyed by the freezing.</i>                                                                                                                       |
| Place thermometers in the ice lined refrigerators                                                            | Monitor the temperature inside the refrigerators to ensure<br>the vaccines are kept and stored in the correct temperature.                                                                              |
| <i>Monitor the temperature. of the ice lined refrigerators twice a day</i>                                   | Assign a responsible person to monitor the temperature twice everyday- including weekends and holidays.                                                                                                 |
| Do not adjust the thermostat on the refrigerator                                                             | The temperature inside will change if the thermostat is being adjusted, the power does not change the setting of the refrigerator                                                                       |
| Report cold chain equipment if malfunction                                                                   | Vaccines can be secured through Immediate cold chain maintenance by Cold Chain technician if reported earlier.                                                                                          |

#### <u>Note:</u>

- Ice lined refrigerators are lined with ice packs and they can maintain the temperature for more than 24 hours without power.
- ILRs should be <u>cleaned</u> and <u>kept dry</u> at all times.

<u>**DO NOT**</u> store food or drinks inside ice-line fridges.

**<u>IMPORTANT & REMEMBER</u>**: The first person who opens the ILR in the morning should be the one who monitors and at the <u>same time</u> pack the vaccines for the day. The last person, who packs the vaccines after immunization session, should be the one who monitor and record the temperature for end of day.

<u>ALL</u> Vaccines are sensitive to Heat therefore; please minimise frequent opening of ice-line refrigerators.

## ANNEX 4: ANAPHYLAXIS PROTOCOL

Anaphylaxis is a **severe life-threatening hypersensitivity reaction** that may occur after the administering of a vaccine or medication.

Registered nurses are authorised to administer intramuscular adrenaline as per protocol or standing order.



## ANNEX 5: ADVERSE EVENT FOLLOWING IMMUNIZATION PROTOCOL Adverse Event Following Immunization (AEFI) Protocol



## ANNEX 6: AEFI REPORTING FORM

Please address all correspondence to the Chief Executive Officer



Office of the Chief Executive Officer Private Mail Bag, Motootua Tel: (685) 23330 or 68100 ext 102 Facsimile: (685) 26553

AEFI Reporting ID Number:

#### **REPORTING FORM FOR ADVERSE EVENTS FOLLOWING IMMUNIZATION (AEFI)**

| Patient name:               | Reporter's Name:         |
|-----------------------------|--------------------------|
| Patient's full Address:     |                          |
|                             | Designation:             |
| Ethnicity:                  |                          |
| Telephone:                  |                          |
| Sex: M F                    | Telephone:               |
|                             |                          |
| Date of birth (DD/MM/YYYY): | Date today (DD/MM/YYYY): |

| Health facility (or vaccination centre) name: |                        |                        |                                                             |                                                      |                |                    |
|-----------------------------------------------|------------------------|------------------------|-------------------------------------------------------------|------------------------------------------------------|----------------|--------------------|
| Name of Vaccines<br>Received                  | Date of<br>vaccination | Time of<br>vaccination | Dose<br>(e. g. 1 <sup>st</sup> , 2 <sup>nd</sup> ,<br>etc.) | Batch/ Lot<br>number (for<br>vaccine and<br>diluent) | Expiry<br>date | Name of Vaccinator |
|                                               |                        |                        |                                                             |                                                      |                |                    |
|                                               |                        |                        |                                                             |                                                      |                |                    |
|                                               |                        |                        |                                                             |                                                      |                |                    |
|                                               |                        |                        |                                                             |                                                      |                |                    |
|                                               |                        |                        |                                                             |                                                      |                |                    |

| Adverse event (s):                                                                                                        | Describe AEFI (Signs and symptoms):                                   |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <ul> <li>Severe local reaction</li></ul>                                                                                  |                                                                       |
| Date & Time AEFI started (DD/MM/YYYY):                                                                                    |                                                                       |
| <b>*Outcome:</b> □ Recovering       □ Recovered         □ Died       If died, date of death (DD/MM/YYYY):                 | ielae                                                                 |
| Past medical history (including history of similar reaction or ot<br>(e.g. other cases). Use additional sheet if needed : | ner allergies), concomitant medication and other relevant information |
|                                                                                                                           |                                                                       |
| Date report received at national level (DD/MM/YYYY):                                                                      | Comments:                                                             |
|                                                                                                                           |                                                                       |

## ANNEX 7: ADVERSE EVENTS FOLLOWING IMMUNISATION- CASE INVESTIGATION FROM

Necessary data should be obtained from the parents / patient / physicians/hospital records and patient medical record.

| Date Investigation Started (DD/MM/YY)   Date Investigation Completed (DD/MM/YY)   Date Investigation Completed (DD/MM/YY)   Date Investigation Started (DD/MM/YY)   Date Investigation Completed (DD/MM/YY)   Date Investigation Started (DD/MM/YY)   Date Investigation Invest                                                                                                                                                                                                                                                                                         | Family Name                                                                                                                                                                       | First Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | AEFI Reporting ID                   | AEFI Investigation ID                        |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------------|--|--|--|
| Display Control Contrect Control Control Conterve Control Control Control Control Contr                               | Date Investigation Started (DD/MM/YY) Date Investigation Completed (DD/MM/YY) Date Investigation Completed (DD/MM/YY)                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Type and date of Vaccine:       Type and date of Vaccine:         Date & Time vaccinated:       Date & time onset of AEFI/present illness:         Reporting AEFI (describe)       Any issue with vaccine storage, preparation and administration:         Any issue with vaccine storage, preparation and administration:       Any issue with vaccine storage, preparation and administration:         Community Investigation       Ary history of similar events reported among those vaccinated       Yes: No Unknown If yes (specify)         - A the same clinic session                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Immunization History (triager event)                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Type and dose of Vaccine:   Date & Time vaccinated:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | initialization mistory (cryger                                                                                                                                                    | eventy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                              |  |  |  |
| Date & Time vaccinated: Date & time onset of AFFI/present illness:   Reporting AFFI (describe)   Any issue with vaccine storage, preparation and administration:   Community Investigation   Any history of similar events reported among those vaccinated   Yes   No   Using same vaccine atter previous clinic sessions at the same clinic centre   Using same vaccine atter previous clinic sessions at the same clinic centre   Using same vaccine atter previous clinic sessions at the same clinic centre   Using same vaccine atter previous clinic sessions at the same clinic centre   Using same vaccine atter previous clinic sessions at the same clinic centre   Using same vaccine atter previous clinic sessions at the same clinic centre   Past Medical History & Family medical history   Yes   Yes   Previous history of similar event   Diagnosis   Diagnosis <                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Type and dose of Vaccine:                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Reporting AEFI (describe)   Any issue with vaccine storage, preparation and administration   Any issue with vaccine storage, preparation and administration   Any history of similar events reported among those vaccinated   Yes No Unknown If yes (specify)   - A the same clinic session   - Using same vaccine at the other clinic centre   - Using same vaccine at the other clinic centre   - Using same vaccine at the other clinic centre   - Using same vaccine at the other clinic centre   - Using same vaccine at the other clinic centre   - Vistory of similar events reported among those unimmunized   - Persisting underlying disease   - Persisting underlying disease   - Pervious history of similar event   - Previous history of similar event                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Date & Time vaccinated:                                                                                                                                                           | Date & time onset of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FAEFI/present illness:              |                                              |  |  |  |
| Any issue with vaccine storage, preparation and administration:   Community Investigation   Any history of similar events reported among those vaccinated   Yes   No Unknown   If yes (specify)      At the same clinic session   Ising same vaccine at the other clinic centre   Using same vaccine at the other clinic centres   Isitory of similar events reported among those unimmunized   Parsisting underlying disease   Persisting underlying disease   Previous history of similar event   Persisting underlying disease   Persisting underlying disease   Persisting underlying disease   Per                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Reporting AEFI (describe)                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Community Investigation         Any history of similar events reported among those vaccinated       Yes       No       Unknown       If yes (specify)         - At the same clinic session                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Any issue with vaccine storage, pa<br>administration:                                                                                                                             | reparation and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     |                                              |  |  |  |
| Any history of similar events reported among those vaccinated       Yes       No       Unknown       If yes (specify)         - A the same clinic session                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Community Investigation                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| - At the same clinic session Using same vaccine at previous clinic sessions at the same clinic centre Using same vaccine at the other clinic centers Ves No Unknown Usy (specify) - Persiting underlying disease Ves No Unknown Usy (specify) - Pervious history of similar event - Family history of similar event - Family history of similar event - Previous history of similar event    - Previous history of similar event    - Previous history of similar event    - Previous history of similar event    - Previous history of similar event in - Previous eraction - Providue related | Any history of similar events rep                                                                                                                                                 | orted among those vaccinated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Yes No Unknown If yes (             | specify)                                     |  |  |  |
| Past Medical History & Family medical history         Yes       No         Persisting underlying disease                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | - At the same clinic session<br>- Using same vaccine at previous<br>- Using same vaccine at the other<br>- History of similar events reporte                                      | clinic sessions at the same clinic<br>clinic centers [<br>ed among those unimmunized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Centre C                            |                                              |  |  |  |
| Pass Medical History & Palmidy Medical History         Yes No       Unknown         If yes (specify)         Persisting underlying disease                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Dest Madical History & Family                                                                                                                                                     | madiaal history.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                              |  |  |  |
| Persisting underlying disease     Previous history of significant illnesses     Previous history of similar event     Previous history of similar event in the eveloped by WHO shall guide for conclusion     Previous Assessment algorithm developed by WHO shall guide for conclusion     Previous history of prevent in the event in t     | Past Medical History & Family                                                                                                                                                     | Yes No Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | If yes (specify)                    |                                              |  |  |  |
| Any significant other information:         Any significant other information:         Clinical & Laboratory investigation findings         Diagnosis         Conclusion as to the cause of AEFI* (Tick category and rank if more than one)         *causality Assessment algorithm developed by WH0 shall guide for conclusion.         Immunization Error related reaction         Vaccine Prepared incorrectly         Non sterile injection         Vaccine product related         Transportation/storage issue         Other         Other         Reason(s) for conclusion:         Corrective Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul> <li>Persisting underlying disease</li> <li>Previous history of significant il</li> <li>Family history of similar event</li> <li>Previous history of similar event</li> </ul> | Its:         No         Onknown           Inesses         Image: Constraint of the second seco | ı, yes (specify)                    |                                              |  |  |  |
| Clinical & Laboratory investigation findings         Diagnosis         Diagnosis         Conclusion as to the cause of AEFI* (Tick category and rank if more than one )         "causality Assessment algorithm developed by WH0 shall guide for conclusion.         Immunization Error related reaction         Vaccine Reaction         Vaccine propared incorrectly         Vaccine product related         Incorrect technique/site/dose         Transportation/storage issue         Other                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Any significant other information                                                                                                                                                 | 1:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     |                                              |  |  |  |
| Clinical & Laboratory investigation findings         Diagnosis         Conclusion as to the cause of AEFI* (Tick category and rank if more than one )         *Causality Assessment algorithm developed by WHO shall guide for conclusion.         Immunization Error related reaction         Vaccine prepared incorrectly         Vaccine product related         Incorrect technique/site/dose         Transportation/storage issue         Other         Other         Reason(s) for conclusion:         Recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Diagnosis         Conclusion as to the cause of AEFI* (Tick category and rank if more than one )         *Causality Assessment algorithm developed by WHO shall guide for conclusion.         Immunization Error related reaction         Vaccine Properties         Vaccine quality defect         Vaccine prepared incorrectly         Incorrect technique/site/dose         Other         Other         Other         Other         Other         Reason(s) for conclusion:         Recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Clinical & Laboratory investig                                                                                                                                                    | ation findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     |                                              |  |  |  |
| Diagnosis         Conclusion as to the cause of AEFI* (Tick category and rank if more than one )         *Causality Assessment algorithm developed by WHO shall guide for conclusion.         Immunization Error related reaction       Immunization Anxiety related reaction         Vaccine quality defect       Similar event in         Vaccine prepared incorrectly       Vaccine quality defect         Incorrect technique/site/dose       known vaccine reaction         Transportation/storage issue       Other         Other       Other         Reason(s) for conclusion:       Econnendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Conclusion as to the cause of AEFI* (Tick category and rank if more than one )         *Causality Assessment algorithm developed by WHO shall guide for conclusion.         Immunization Error related reaction       Immunization Anxiety related reaction         Non sterile injection       Vaccine quality defect       Similar event in         Vaccine prepared incorrectly       Vaccine product related       Hyperventilation         Incorrect technique/site/dose       Other       Other       Other         Other       Other       Other       Other         Reason(s) for conclusion:       Ecommendations       Ecommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Diagnosis                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Conclusion as to the cause of AEFI* (Tick category and rank if more than one )         *Causality Assessment algorithm developed by WHO shall guide for conclusion.         Immunization Error related reaction       Coincidence         Non sterile injection       Vaccine quality defect         Vaccine prepared incorrectly       Vaccine product related         Incorrect technique/site/dose       known vaccine reaction         Other       Other         Other       Other         Reason(s) for conclusion:       Ecorrective Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Conclusion as to the cause of AEH* (Tick category and rank it more than one)         *Causality Assessment algorithm developed by WHO shall guide for conclusion.         Immunization Error related reaction       Coincidence         Non sterile injection       Vaccine quality defect         Vaccine prepared incorrectly       Vaccine product related         Incorrect technique/site/dose       Known vaccine reaction         Other       Other         Other       Other         Reason(s) for conclusion:       Ecommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Immunization Error related reaction       Vaccine Reaction       Immunization Anxiety related reaction         Non sterile injection       Vaccine quality defect       Similar event in       Syncope         Vaccine prepared incorrectly       vaccine product related       Hyperventilation       Hyperventilation         Incorrect technique/site/dose       known vaccine reaction       Illness not relevant to vaccine       Hysteria         Other       Other       Other       Other       Other         Reason(s) for conclusion:       Kecommendations       Ecommendations       Incorrect ecomplexity       Image: Site state sta                                                                                                                                                                                                                                                                                                                                                                      | *Causality Assessment algorithm developed                                                                                                                                         | <b>LEF1</b> <sup>**</sup> (11CK CATEGORY ANA TANK 15)<br>by WHO shall quide for conclusion.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | more than one J                     |                                              |  |  |  |
| Non sterile injection       Vaccine quality defect       Similar event in       Syncope         Vaccine prepared incorrectly       vaccine product related       Immunized       Hyperventilation         Incorrect technique/site/dose       other       Underline disease is obvious       Other         Other       other       Other       Other         Reason(s) for conclusion:       recommendations       Image: state                                                                                                                                                                                                                                                                                                     | ☐Immunization Error relat<br>reaction                                                                                                                                             | ed 🗌 Vaccine Reaction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Coincidence                         | ☐Immunization<br>Anxiety related<br>reaction |  |  |  |
| Vaccine prepared incorrectly       vaccine product related       unimmunized       Hyperventilation         Incorrect technique/site/dose       known vaccine reaction       Ullness not relevant to vaccine       Hysteria         Other       Other       Other       Other       Other         Reason(s) for conclusion:       Known vaccine       Vaccine product related       Vaccine product rel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Non sterile injection                                                                                                                                                             | □ Vaccine quality defect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | t 🔄 Similar event in                | Syncope                                      |  |  |  |
| Incorrect technique/site/dose       known vaccine reaction       Illness not relevant to vaccine         Transportation/storage issue       Other       Other         Other       Other       Other         Reason(s) for conclusion:       Corrective Action         Recommendations       Illness not relevant to vaccine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Vaccine prepared incorrectly                                                                                                                                                      | uccine product relat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ed unimmunized                      | Hyperventilation                             |  |  |  |
| I Transportation/storage issue       Other       Other disease is obvious       Other         Other       Other       Other       Other         Reason(s) for conclusion:       Corrective Action         Recommendations       Image: Corrective Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Incorrect technique/site/dose                                                                                                                                                     | e 🗌 known vaccine reacti                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | on 🛛 Illness not relevant to vaccin | ne 🛛 Hysteria                                |  |  |  |
| Corrective Action       Reason(s) for conclusion:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Transportation/storage issue                                                                                                                                                      | <b>U</b> 0ther                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Underline disease is obvious        |                                              |  |  |  |
| Reason(s) for conclusion:       Corrective Action       Recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Corrective Action Recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Reason(s) for conclusion:                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Corrective Action                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Recommendations                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Name of Investigator :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Name of Investigator :                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                              |  |  |  |
| Designation :<br>Signature: Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Designation :                                                                                                                                                                     | Sianature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Date                                |                                              |  |  |  |

## ANNEX 8: SURVEILLANCE NOTIFIABLE DISEASE FORM

| ease address<br>correspondence<br>the Chief Executive Officer                                                                                    | Ν                                   | Government of Sam                                                                     | oa<br>alth                      | Office of the Chi<br>Private N<br>Fac                          | ef Executive Officer<br>Mail Bag, Motootua<br>Tel: (685) 23330<br>or 68100 ext 102<br>simile: (685) 26553 |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 1. Outbreak Identific                                                                                                                            | ation                               |                                                                                       |                                 |                                                                |                                                                                                           |
| Outbreak identifier<br>CCA/LHO<br>First reported date<br>Onset date of <i>last</i> case<br>Reported by (name)<br>Telephone<br>Email              | //                                  | County HSE-Area Onset date of Recognition of Position Fax                             | f first case<br>f outbreak date | //                                                             |                                                                                                           |
| 2. Outbreak notifica<br>General practitioner<br>Hospital Clinician<br>If other, please specify                                                   |                                     | tick all that apply)                                                                  | Laborator<br>Other              | y report                                                       | 8                                                                                                         |
| S. Extend of the outre     Local     Across HSE-Area     National     Cross border     International     4. Type of outbreak     Eamily outbreak | (please tick one)                   | /<br>E-Area)<br>Areas)<br>Areas or 2 or more non-a                                    | djacent HSE-Area                | 15)<br>24                                                      |                                                                                                           |
| Family outbreak                                                                                                                                  |                                     |                                                                                       | General outbrea                 | ak                                                             |                                                                                                           |
| 5. Main location of t<br>Community hospital/Loc<br>Hospital<br>School<br>Extended Family<br>Other<br>If other, please specify                    | he outbreak (please<br>ng stay unit | e tick one)<br>Community outbreak<br>Private house<br>University/College<br>Workplace |                                 | Crèche<br>Residential institution<br>Travel related<br>Unknown |                                                                                                           |
| Describe (include name                                                                                                                           | of institution / location e         | etc.):                                                                                |                                 |                                                                |                                                                                                           |
|                                                                                                                                                  |                                     |                                                                                       |                                 |                                                                |                                                                                                           |
| 6. Pathogen<br>a. Was the pathogen id                                                                                                            | entified?                           |                                                                                       | Yes 🗌                           | No 🗌                                                           |                                                                                                           |
| (if influenza specify type, s                                                                                                                    | subtype & strain if avail           | able)                                                                                 |                                 |                                                                |                                                                                                           |
| h Name of laboratory                                                                                                                             | whore tests were con                | ductod:                                                                               |                                 |                                                                |                                                                                                           |
| b. Name of laboratory v                                                                                                                          | vilere tests were con               | ducted.                                                                               |                                 |                                                                |                                                                                                           |
| c. Were specimens refe                                                                                                                           | erred to the NVRL?                  | Yes No 🗌                                                                              | Unknown 🗌                       | Date referred/                                                 | 1                                                                                                         |
| d. What pathogens wer<br>Standard ILI suite                                                                                                      | e tested for?<br>Unknown            |                                                                                       |                                 |                                                                |                                                                                                           |
| 7. Exposure                                                                                                                                      |                                     |                                                                                       |                                 |                                                                |                                                                                                           |
| Number ill                                                                                                                                       |                                     | Number hospit                                                                         | alised                          |                                                                |                                                                                                           |
| Number dead<br>Number laboratory con<br>Number with clinical sy                                                                                  | firmed                              | Number at risk<br>Number labora                                                       | /exposed<br>tory investigate    | d                                                              |                                                                                                           |

| 8. Number of cases by sex:         |                     |              |                 |                                         |                    |              |
|------------------------------------|---------------------|--------------|-----------------|-----------------------------------------|--------------------|--------------|
| Males Fema                         | ales                | S            | ex Unknown      |                                         |                    |              |
| 9. Number of cases by age gr       | oup:                |              |                 |                                         |                    |              |
| 0–1 yr 2–4 yrs 5–9 y               | rs 10 – 19 y        | yrs 2        | 0 – 49 yrs      | 50 – 64 yrs                             | 65+ yrs            | Age NK       |
|                                    |                     |              |                 |                                         |                    |              |
| 10. Symptoms: (Please tick all the | at occurred)        |              |                 |                                         |                    |              |
| Cough                              | Diarrhoea           | Fat          | igue/Malaise    |                                         | Fever              |              |
| Ruppy pose                         | Myalgia             |              | e throat        | H                                       | Dyspnoea<br>Other  | 님            |
| If other, please specify           | Oncezing            |              | njuncuvius      |                                         | outer              |              |
|                                    |                     |              |                 |                                         |                    |              |
| 11. Complications: (Please tick a  | all that apply)     |              |                 |                                         |                    |              |
| a. Total number with pneumoni      | a                   | t            | . Total number  | er with otitis r                        | nedia              |              |
| c. Total number with encephalit    | us                  |              | I. I otal numbe | er with other (                         | complications      |              |
| 12. In healthcare settings:        |                     |              |                 |                                         |                    |              |
| a. Number staff ill                |                     | 1            | . Number cl     | ients/hospita                           | patients ill       |              |
| 13. Measures taken: (Please tick   | all that apply)     |              |                 |                                         |                    |              |
| Outline main control measures      | undertaken:         |              |                 |                                         |                    |              |
| Information/self-monitoring        |                     |              | Conta           | ets vaccinate                           | -d                 |              |
| Hygiene advice                     |                     | Ξ            | Antivi          | rals                                    |                    |              |
| Advice on respiratory etiquette    |                     |              | Quara           | antine                                  |                    |              |
| Closure of institution             |                     |              | Isolat          | ion/cohorting                           |                    |              |
| 14. Report                         |                     |              |                 |                                         |                    |              |
| Will a full outbreak report be ava | ailable?            |              |                 | Yes                                     | No 🗌               |              |
|                                    |                     |              |                 |                                         | _                  |              |
| 15. Laboratory results relating    | g to the outbre     | ak           |                 |                                         | Man II and a state |              |
|                                    | No. of complex      | tested       | No positive     | No. of ear                              | well peop          | No positive  |
| All individuals tested during the  | No. of samples      | lested       | NO. positive    | NO. OF SAF                              | npies tested       | NO. positive |
| oubreak.                           |                     |              |                 |                                         |                    |              |
| 16. Any additional comments        | : (include actions) | taken & an   | other aspects   | not covered)                            |                    |              |
| ,,                                 |                     |              |                 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                    |              |
|                                    |                     |              |                 |                                         |                    |              |
|                                    |                     |              |                 |                                         |                    |              |
|                                    |                     |              |                 |                                         |                    |              |
|                                    |                     |              |                 |                                         |                    |              |
| rease forward Full Outbreak Repo   | π and Epi-curve     | it available | ;               |                                         |                    |              |
| Notifying Doctor:                  |                     | _ (          | Date:/_         | _/                                      | _                  |              |