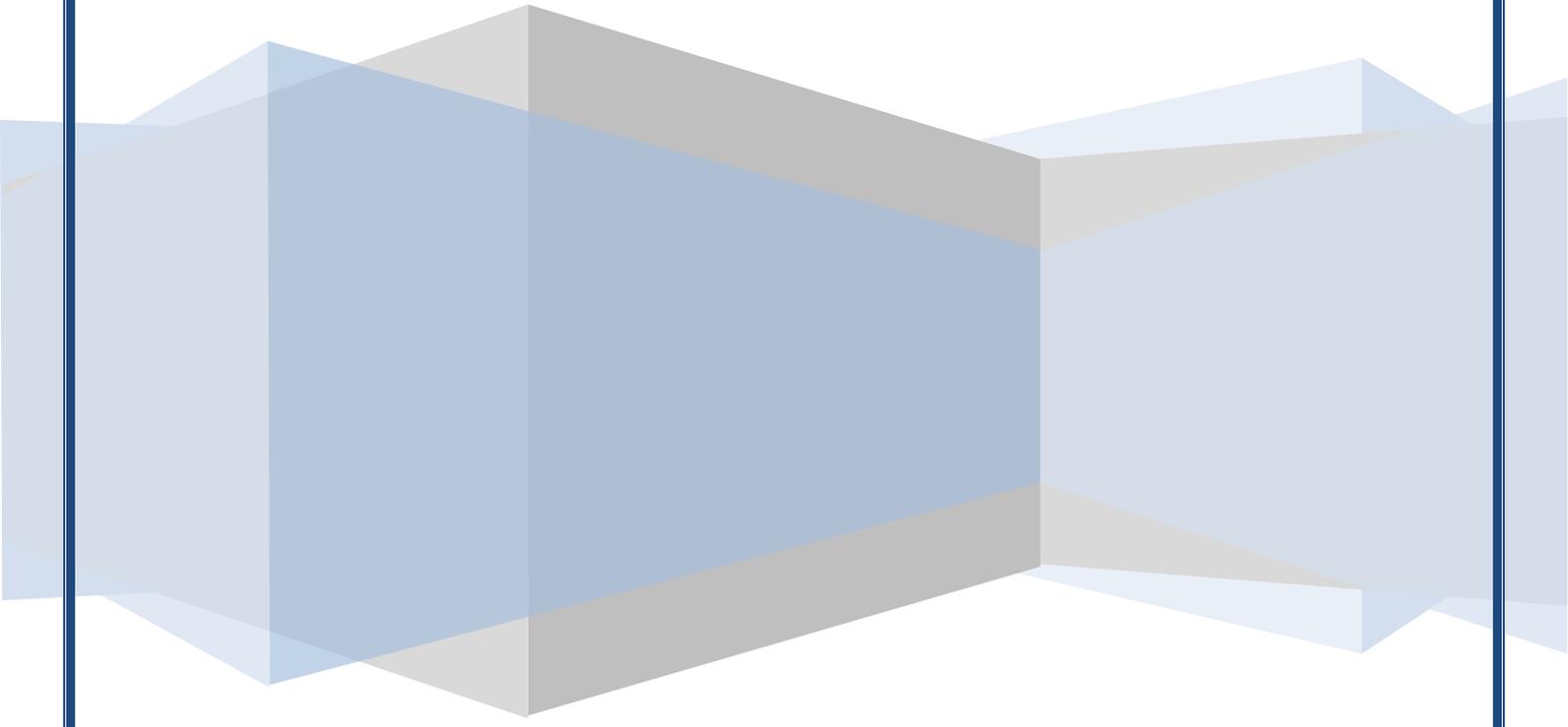


Epidemiology Unit, Ministry of Health

MMR
Supplementary Immunization
Activity (SIA)
January 2024

Children aged 6-9 months and children who
have missed the routine Measles Containing
Vaccine (MCV)

EPIDEMIOLOGY UNIT



MMR Supplementary Immunization Activity (SIA) guidelines: Sri Lanka
January 2024

Introduction

Following decline in global and regional measles vaccination coverages due to the COVID pandemic in 2020-2022, measles cases have subsequently increased globally and regionally. Amid this global and regional threat – the country started reporting transmission of measles, with cases initially being reported predominantly among vaccine refusal communities and subsequently spreading to those who were partially vaccinated (between 9 months - 3 years) or not eligible for vaccination via routine immunization services (< 9 months of age). Sri Lanka reached measles elimination status in 2019 and has maintained the measles free status till May 2023. In this background, the country needs to take measures to mitigate the ongoing outbreak and interrupt the transmission cycle. The Advisory Committee on Communicable Diseases and Certification Committee on Measles-Rubella /CRS elimination discussed this issue in depth and recommended to carry out a Supplementary Immunization Activity (SIA) targeting vulnerable children (6 – 9 months of age) in selected high-risk districts based on ongoing measles outbreak epidemiology and eligible children who have missed or refused the routine two doses of Measles Containing Vaccines (MCV) throughout the country.

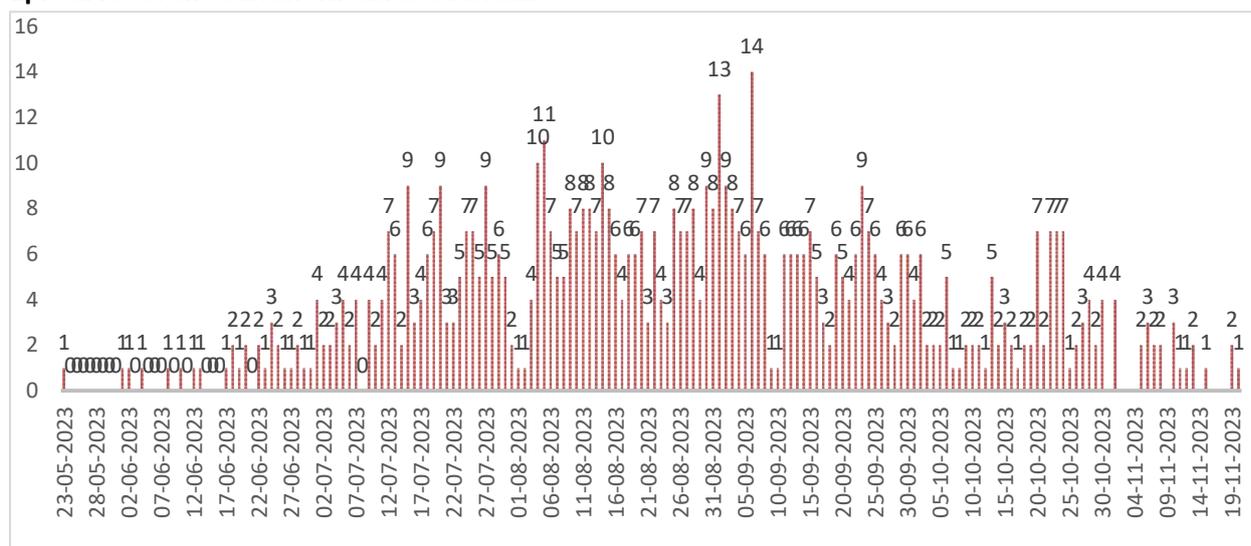
Justification

Measles surveillance data revealed an increasing number of laboratory-confirmed measles cases from May to December, 2023 in Sri Lanka. The first case was reported on 23rd May 2023 through the routine disease surveillance system from the Colombo Municipality Area.

Transmission of the disease was initially observed predominantly among vaccine refusals in CMC area followed by Kolonnawa, Gothatuwa and Dehiwala MOH areas in the Colombo district. As of mid-November, there were 710 confirmed measles cases reported across the island affecting 150 MOOH areas out of a total of 358 MOOH areas. Majority of the cases were reported from Colombo district (42%) and Gampaha district (18.6%) followed by Jaffna district (11.3%).

Among them, 52% cases occurred among Sinhalese, 30% belonged to the Moor ethnicity & 16.9% among the Tamil ethnicity. Out of the total positive cases, 17% were among less than 9 months old aged infants while nearly 35% of patients belonged to the 20 to 30 years age category (who were born after 1984, before introduction of the 2nd MCV).

Epi Curve for the current Measles outbreak



As two doses of the MMR (Measles Containing Vaccine) vaccine in routine immunization (EPI programme) is given at the age of 9 months and 3 years, the Advisory Committee on Communicable Diseases decided to go for a Supplementary Immunization Activity (SIA) with MMR vaccine targeting 6-9 months old infants in selected high-risk districts in Sri Lanka, based on the available epidemiological evidence of measles disease burden. The main purpose of the campaign is the rapid reduction of the susceptible age group who are highly vulnerable for complications of measles. This vaccination will be given as an additional vaccine dose against measles in view of controlling the current measles outbreak. The routine MMR vaccination doses will be continued at appropriate ages in accordance with the National Immunization Schedule.

SIA date/s and places:

MMR SIA will be carried out on 6th January 2024 in a selected nine (9) districts in all Immunization clinic centers.

Selected health districts for SIA activity: Colombo (including CMC area), Gampaha, Kalutara (including NIHS area), Galle, Matara, Kandy, Jaffna, Kurunegala, Kalmunai

During the period of SIA, a nationwide catch-up programme will be launched to vaccinate children (9 months to 15 years) who have missed their due routine Measles Containing Vaccine/s (MCV).

Those who were eligible (born between 7th April 2023 – 5th July 2023) for the SIA in the selected high-risk districts but missed the opportunity of getting the MMR vaccination on the 6th of January (SIA day) due to a justifiable reason (e.g. temporary contraindications) will be given an additional opportunity to get the vaccination in the MOH office central clinics on 4 consecutive Saturdays following the SIA date (13th, 20th, 27th January and 3rd of February 2024)

All SIA vaccination and documentation procedures should be completed within 6 weeks duration (before 9th February 2024).

Target age group

- All children in the age group of completed 6 months and up to 9 months of age by 6th January 2024 will be given an additional dose of MMR vaccine irrespective of the past history of clinical measles.
- Children eligible are those born between 7th April 2023 and 5th July 2023 including those two dates.
- This target age category (aged 6 to 9 months of age) was selected based on:
 - the available evidence of relatively higher proportion of reported cases,
 - higher vulnerability to complications,
 - as a viable preventive strategy to break the transmission cycle among a highly vulnerable group,
 - with the view of rapid reduction of transmission as an outbreak control measure.
- Supplementary Immunization of MMR vaccination should be considered as an additional vaccination dose and due routine MMR vaccination should be given to all children who have received SIA-MMR vaccination, on completion of 9 months and 3 years of age. However, ensure a minimum of 8 weeks-time interval between SIA MMR vaccination and due routine MMR vaccination.

Identification and estimation of the target group for the SIA:

- Estimated target population for the district to calculate the vaccine requirement for the district.

$$\text{District CBR (crude birth rate)* X District population* / 4}$$

- Estimated target population for the MOH area will be calculated as per the above, applying to MOH area population instead of district population.

$$\text{District CBR (crude birth rate)* X MOH area population (use the highest number out of the estimated and actual population) / 4}$$

**2022-CBR as given by Register General Department and estimated district population or most updated population data to be used.*

For total vaccine requirement, in addition to the SIA target, add the children up to 15 years of age, who have missed their due MCV based on vaccine refusal registers / BI registers.

- Identify and list the actual target groups for the SIA, in the MOHs of the selected high-risk districts, by referring to the Birth and Immunization Registers of each PHM area (children born between 7th April 2023 to 5th July 2023). In addition, if there are unregistered children in the area, need to incorporate them into the SIA as well.
- Each PHM is required to complete a line list of eligible children for the SIA in selected high-risk districts using the Epid/M/S/Form 6 – ‘Line listing at PHM level of target infants (6-9 months) for the SIA’ and ensure distribution of invitation leaflets for the SIA to either parent/guardian of the eligible child, well ahead of the SIA day. Each MOH is supposed to collect all completed forms of the PHM level line list by 31st December 2023.
- All PHMM are responsible to get down all eligible children in her area, for the SIA to the designated immunization clinic center, on the 6th January 2024.
- The option of vaccination from the Central clinic on following consecutive 4 Saturdays should be provided only for essential reasons (e.g. sick on SIA day, parents’ unavailability due to an essential reason, Live vaccine received within last 4 weeks and requires to postpone MMR vaccination)
- Each PHM is required to complete a line list of eligible children for the special catch-up vaccination campaign all over the country targeting 9 months to 15 years of age who have missed their routine MCV, using the form Epid/M/S/Form 7 – ‘Line listing at PHM level of children aged between 9 months to 15 years, who have missed their routine MCV’. Each MOH is supposed to collect all completed forms of the PHM level line list by 31st December 2023. For the selected high-risk districts, this activity needs to be coupled with ongoing SIA. Other districts are required to carry out this catch-up campaign on the planned SIA period.

Vaccine requirement:

- Calculation of MMR Vaccine requirement for the district is the responsibility of the Regional Epidemiologist. Use the Wastage multiplier factor of 1.1 to get the estimated vaccine requirement.

Number of Vaccines doses/Diluents required = Target population X Wastage factor (1.1)

Wastage factor = Expected coverage (100%) / 100% -10% (wastage rate for 10 dose vials) = 1.1

Number of vaccine vials required = No of vaccine doses /10
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- The vaccine requirement to the district should be provided to Epidemiology Unit and vaccine requirement to each MOH area should be available with each Regional Epidemiologist by 20th December 2023.

Other requirements

- Estimate other requirements for the district by Regional Epidemiologist and to the MOH area by the respective MOH.
- Regional Epidemiologist should actively get involved in provision of necessary supplies to each MOH area in their respective districts.
 - AD syringes (number equal to number of doses estimated)
 - 5ml syringes and 19G needles for reconstitution of the MMR Vaccine (number equal to number of vaccine vials estimated)
 - Adequate cotton swabs
 - Sharp disposal safety boxes (1 standard box = 10L, can hold 100 syringes and needles)
 - Estimated number of AD syringes + reconstitution syringes /100 = required number of safety boxes
 - Assess the adequacy of vaccine carriers to distribute vaccines to all clinics in each MOH area (if inadequate need to re-distribute within the district locally).
 - Assess the adequacy of ice packs for vaccine transport to all clinics in each MOH area (if inadequate need to re-distribute within the district locally).
 - Ensure the availability of a plan for freezing and storing of adequate icepacks at the MOH office or with other local arrangement.
 - Ensure adequate cold chain capacity to store estimated vaccines in each MOH area (500 doses or 50 vials require 1 L capacity).
- Ensure the availability of a medical officer to all Immunization clinics on SIA day by mobilizing staff from other health institutions.

Clinic functioning (During SIA functioning days)

- All immunization clinics in the area should be functioning from 9.00 am to 4.00 pm on 6th January 2024.
- MMR Vaccines should be made available in all clinics by 9.00 am.
- At least 1-2 competent, trained vaccinators are essential to function the single clinic centre.
- Only the trained vaccinators should carry out vaccination.
- Volunteer support can be obtained for assistance in directing, registration, recording or tallying.
- The children coming for the MMR SIA should be entered into the MMR SIA Clinic Registration Sheet (Epid/M/S/Record 2) provided.
- If any child is presented for vaccination without knowing exact date of birth, most appropriate age will be considered and should be vaccinated based on the available history of the mother.
- All children coming for SIA should be adequately screened to identify possible contra-indications or any other high-risk conditions by health care workers.

- MMR vaccination should be avoided in infants with past history of allergy to Neomycine, gelatin, or any other vaccine components, documented or known history of severe immune compromised status as a result of congenital immune deficiency disease, advanced Leukaemia or Lymphoma, serious Malignant disease, or treatment with high-dose steroids, and receiving immunosuppressive therapeutic radiation.
- If a history of administration of a live vaccine (except Oral Polio Vaccine) within the preceding 4 weeks or currently suffering from any acute illness (Immunization Handbook guidelines, Epidemiology Unit, 2012) the vaccination should be postponed.
- Any child if identified as not healthy and suffering from an acute infection, should not be vaccinated and should be referred to the Central clinic on Saturday of the following week for completion of the SIA MMR vaccination.
- Previous history of Measles disease is not a contraindication and should be adequately vaccinated with MMRs SIA vaccination.
- In any doubtful cases, contact MOH, Regional Epidemiologist, Provincial CCP, Epidemiology Unit or a Paediatrician for advice.
- Medical Officer/RMO available in the clinic should screen the child and refer to the Central clinic on the next Saturday if any high risk identified.
- MOH or a Medical Officer/RMO should be available for Central clinic functioning on 13th, 20th, 27th January and 3rd of February 2024 to advise on special or high-risk cases.
- Reconstituted vaccines should be kept in a foam pad to maintain the cold chain (+2^o C to +8^o C) and should be protected from direct sunlight.
- Reconstituted vaccine should be discarded after 6 hours of reconstitution or at the end of the clinic session, whichever comes first.
- All clinic attendees for SIA and vaccine recipients' details should be entered correctly in clinic Registration sheet (Epid/M/S/Record 2).
- Once the child is selected as eligible for vaccination, he/she needs to be marked in the Clinic tally sheet provided (Epid/M/S/Record 3).
- Special documentation of MMR vaccination has to be entered in the child's Child Health Development Record (CHDR), in a row for "other Vaccines" and indicate as 'MMR SIA'.
- Same procedure should be applied if any child is found with a private sector vaccination card.
- MMR Vaccine is given as a single dose of 0.5 ml, deep subcutaneous route, usually to the outer part of child's upper arm preferably on the left side.
- All vaccination procedures and vaccine management should be in accordance with the National guidelines given in the Immunization Handbook (3rd Edition), Epidemiology Unit, Ministry of Health.
- Vaccine safety in Immunization clinics should be maintained and managed according to the circular "Initial Management of Anaphylaxis at Field level" (circular number 01-20/2001, dated 23/08/2011) and National guidelines given in the Immunization Handbook (3rd Edition), Epidemiology Unit, Ministry of Health.

- After administration of the MMR vaccine, all children should be observed for a minimum of 20 minutes in the clinic for Adverse Events Following Immunization (AEFI).
- Any reported AEFI identified at the clinic needs to be entered in the Clinic Registration Sheet (Epid/M/S/Record 2), compiled into the Clinic Return (Epid/M/S/Form 2) and also entered in the Clinic AEFI Register at the end of the clinic.
- All AEFI reported during or after the SIA needs to follow the routine AEFI reporting and investigation procedure. (Please refer the Guidelines on reporting and investigation of AEFI by Chief Epidemiologist in the Epid/75/2012 dated 01/04/2013)
- At the end of the clinic, compile all the data and complete the MMR SIA January 2024, Immunization Clinic Return (Epid/M/S/Form 2) in two copies.
- Duly completed one copy of 'MMR SIA, Immunization Clinic Return' (Epid/M/S/Form 2) has to be returned to MOH on the same day once remaining vaccines will be returned with the Clinic Vaccine Stock Return (Epid/M/S/Form 3).
- The second copy of 'MMR SIA, Vaccination Clinic Return' (Epid/M/S/Form 2) has to be filed with 'MMR SIA Clinic Registration form' (Epid/M/S/Record 2) and with Clinic tally sheet (Epid/M/S/Record 3) with the PHM responsible for the clinic.
- Disposal of sharps in safety boxes and waste bins should be done according to the standard accepted practices applied in the routine Immunization clinics.

Responsibility of the MOH:

- Identify a line list of all Immunization Clinic Centers in the area with the responsible PHM, designated Supervisory Officer & assistant staff.
- One Supervisory Officer can be assigned to supervise several clinic centers.
- Identification and estimation of eligible population and estimated details of MMR vaccine stocks should be provided to the Regional Epidemiologist by 19th December 2023.
- Conduct adequate training of health staff in the area.
- Motivate to get assistance from non-health staff in the area and mobilize all to get down all target group children to clinics in achieving coverage.
- All possible efforts to make local advocacy to make the campaign a success.
- If volunteer support is expected, make them properly trained on documentation and registration procedure.
- Plan and make available adequate vaccines, proper storage, maintenance of cold chain, adequate vaccine carriers and formed ice packs, documentation formats and all other logistics to make the MMR SIA a successful programme.
- Motivate all PHMM/ PHII and other supervisory staff to get 100% coverage in the target age group.
- Ensure timely availability of adequate stocks of MMR Vaccine and other logistics in the clinic.

- Make MMR Vaccine transportation plan with an appropriate network to make sure timely receipt of the vaccine to the clinic. In all possible instances develop a transportation network.
- Same transportation plan can be used for post clinic vaccine and return collection.
- At the end of the clinic, completed clinic return (Epid/M/S/ Form 2) of all clinics should be received by the MOH.
- Need to conduct Central clinic for 4 consecutive Saturdays (13th, 20th, 27th January and 3rd of February 2024) and need to provide MMR vaccination for all missed children for the SIA.
- At the end of all 5 clinic days, compile all data in 3 copies of MOH return (Form 4) and send one copy to Epidemiology Unit, one copy to Regional Epidemiologist and file the other as an office copy before 15th February 2024.

Immunization data entry for children who have missed their routine MCV

During the proposed SIA campaign, children who have missed their routine MCV (9 months to 15 years), and have taken MMR vaccination during the catch-up campaign, should be marked in the MMR section of the CHDR. In this category, data needs to be entered into the routine immunization clinic registers and relevant PHMM needs to enter the data into their BI registers.

Records and Returns

Records	Name of the record	Description
Record 1	Epid/M/S/Record 1	Regional Epidemiologist's Record of Estimated population and vaccine requirement by MOH area
Record 2	Epid/M/S/Record 2	Clinic Registration Sheet
Record 3	Epid/M/S/Record 3	Vaccination Clinic Tally sheet

Returns	Name of the form	Description
Form 1	Epid/M/S/Form 1	Vaccine Stock Request and Return of Regional Epidemiologist
Form 2	Epid/M/S/Form 2	Clinic Return
Form 3	Epid/M/S/Form 3	Clinic vaccine stock request and return form
Form 4	Epid/M/S/Form 4	MOH office return
Form 5	Epid/M/S/Form 5	Regional Epidemiologist's return
Form 6	Epid/M/S/Form 6	Line listing at PHM level of target infants (6-9 months) for the SIA
Form 7	Epid/M/S/Form 7	Line listing at PHM level of children aged between 9 months to 15 years, who have missed their routine MCV

MMR Supplementary Immunization Activity, January 2024
 [Children 6-9 months of age]
 Regional Epidemiologist's Record
 Estimated population and vaccine requirement by MOH area for
 the District -

No	Name of the MOH area	Estimated Population (children 6-9 months of age)	Vaccine requirement (Doses)
		District crude birth rate (CBR) X area population (higher number out of Estimated or Actual / 4	Estimated population X 1.1
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

23			
24			
25			
Total			

Date:.....

Name

Designation

Signature:.....

EPIDEMIOLOGY UNIT

MMR SIA, January 2024

Vaccination Clinic Tally Sheet

Please mark each square when administering one dose of MMR vaccination to one child

Clinic Name:

MOH area:.....

Date:.....

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<input type="checkbox"/>																			
<input type="checkbox"/>																			
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<input type="checkbox"/>																			
<input type="checkbox"/>																			
<input type="checkbox"/>																			
<input type="checkbox"/>																			
<input type="checkbox"/>																			

Total number vaccinated:

Name of the PHM:.....

Signature:.....

Keep filed with the PHM

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MMR SIA, January 2024: Children 6-9 months of age

(born between 7th April 2023 to 5th July 2023)

Vaccine stock request and return of Regional Epidemiologist

[Fill in 2 copies, hand over one to Epidemiology Unit, keep one as an office copy]

Fill in 2 instances: 1) beginning of the SIA 2) Completion of the SIA

District:

Date	Number of estimated district total	Number of vaccines requested	Number of vaccines received	Number of children vaccinated	Number of doses wasted	Total number of vaccine doses used in SIA	Number of AEFI reported	Coverage %	Wastage %
	CBR X district population /4 = A	A X 1.1 = B	C	D	E	(doses in opened vials + unopened vials wasted) F		D/A X 100 %	F – D/F X 100 %
			NR	NR	NR	NR	NR	NR	NR

Name:

Regional Epidemiologist:

Signature:

Date:

EPIDEMIOLOGY UNIT

MMR SIA January 2024, Immunization Clinic Return

Children 6-9 months age group (born between 7th April 2023 to 5th July 2023)

(to be completed in 2 copies by responsible officer (PHM/SPHM/PHNS/SPHI) of the index immunization clinic and handover one copy to the MOH at the end of each SIA clinic session and one keep as a clinic copy)

District:

MOH area:

Clinic name:

Date	Number of children (6-9 months) expected/estimated for SIA for index clinic centre	Number of vaccine doses requested	Number of vaccine doses received	Number of vaccines doses returned	Total number of children vaccinated	Number of doses wasted	Number of AEFI reported	Coverage %	Wastage %
	(birth rate X area population [higher of the estimated or actual] /4 = A (Area indicate number of PHM areas covered by the index clinic centre)	(A X 1.1) = B	C	D	E	F= C-(D+E)	G	E/A X 100 %	F/C-D X 100 %

Name: Designation:..... Signature:..... Date:.....

 EPIDEMIOLOGY UNIT

MMR SIA, January 2024

Clinic Vaccine Stock Request and Return Form

Children 6-9 months of age (born between 7th April 2023 to 5th July 2023)

- Fill in 2 copies by the PHM in charge of the clinic centre, hand over one to MOH, keep one as an office copy.
- MOH copy will come back with Vaccine stocks.
- At the end of the clinic, complete the return and hand over to the MOH.
- A completed copy needs to be filed with the PHM.

Clinic name:

MOH Area:

Date	Number of vaccine doses requested	Number of vaccine doses received	Number of children Vaccinated	Number of vaccine doses wasted	Number of vaccine doses returned
Total					

Name of the PHM :

Signature:

Date:

EPIDEMIOLOGY UNIT

MMR SIA: January 2024

MOH Office Return

Children 6-9 months of age (born between 7th April 2023 to 5th July 2023)

(to be completed by MOH in 3 copies and send one copy to the Epidemiology Unit [No: 231, De Saram Place, Colombo 10, or Fax : 0112 696 583] and one copy to the Regional Epidemiologist before 15th February 2024 and one copy to be kept as an office copy)

District:

MOH area:

Number of children expected/estimated (total)	Number of children attended	Number of children vaccinated	Number of vaccine doses received to MOH area	Number of doses wasted	Number of doses remaining	Number of AEFI reported	Coverage %	Wastage %
A	B	C	D	E [D-(C+F)]	F	G	$C/A \times 100\%$	$E/(D-F) \times 100\%$

Name of the MOH/AMOH:

Signature:

Date:

Serial No	BI Reg No	Name	DOB	Address	Contact no of care giver	Distribution of the leaflet

Note - In addition to the eligible children in the BI register, please include any unregistered infants identified in the eligible age group for the SIA.

Name:

Signature:

Date:

Supervisory officer:

Signature of the supervisor: