नेपाल सरकार
स्वास्थ्य तथा जनसंख्या मन्त्रालय
स्वास्थ्य सेवा विभाग
परिवार कल्याण महाशाखा

पूर्ण खोप, सुरक्षित भविष्य
राष्ट्रिय खोप कार्यक्रम

Measles Rubella and JE Surveillance and Outbreak update 2026

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CHISS Chief, FWD

Outline

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राष्ट्रिय खोप कार्यक्रम

- Introduction to NIP
- MR Elimination Roadmap
- MR Surveillance
- Measles outbreak and response
- JE/AES Surveillance
- JE Outbreak and response
- Summary

National Immunization Program (NIP), Nepal

- **NIP is a priority Program (P1) of GoN**
- **EPI Program** started in **1979** with BCG & DPT
- By **1988 expanded** across the country with all primary series of vaccines- BCG, DPT, polio, measles
- Currently provides vaccination against **14 VPDs**
- **Missed vaccination** schedule is up to 5 years of age

Given at	Vaccine
Pregnancy	Td
At birth	BCG
6th weeks	DPT-HepB-Hib1, OPV1, PCV1, Rota1
10th weeks	DPT-HepB-Hib2, OPV2, PCV2, Rota 2
14th weeks	DPT-HepB-Hib3, OPV3, fIPV1
9 months	MR1, PCV3, fIPV2
12 months	JE
15th months	MR-2, TCV
10 years girls	HPV

खोप निशुल्क पाइन्छ

खोप सुरक्षित हुन्छ

Key Milestones, National Immunization Program, Nepal

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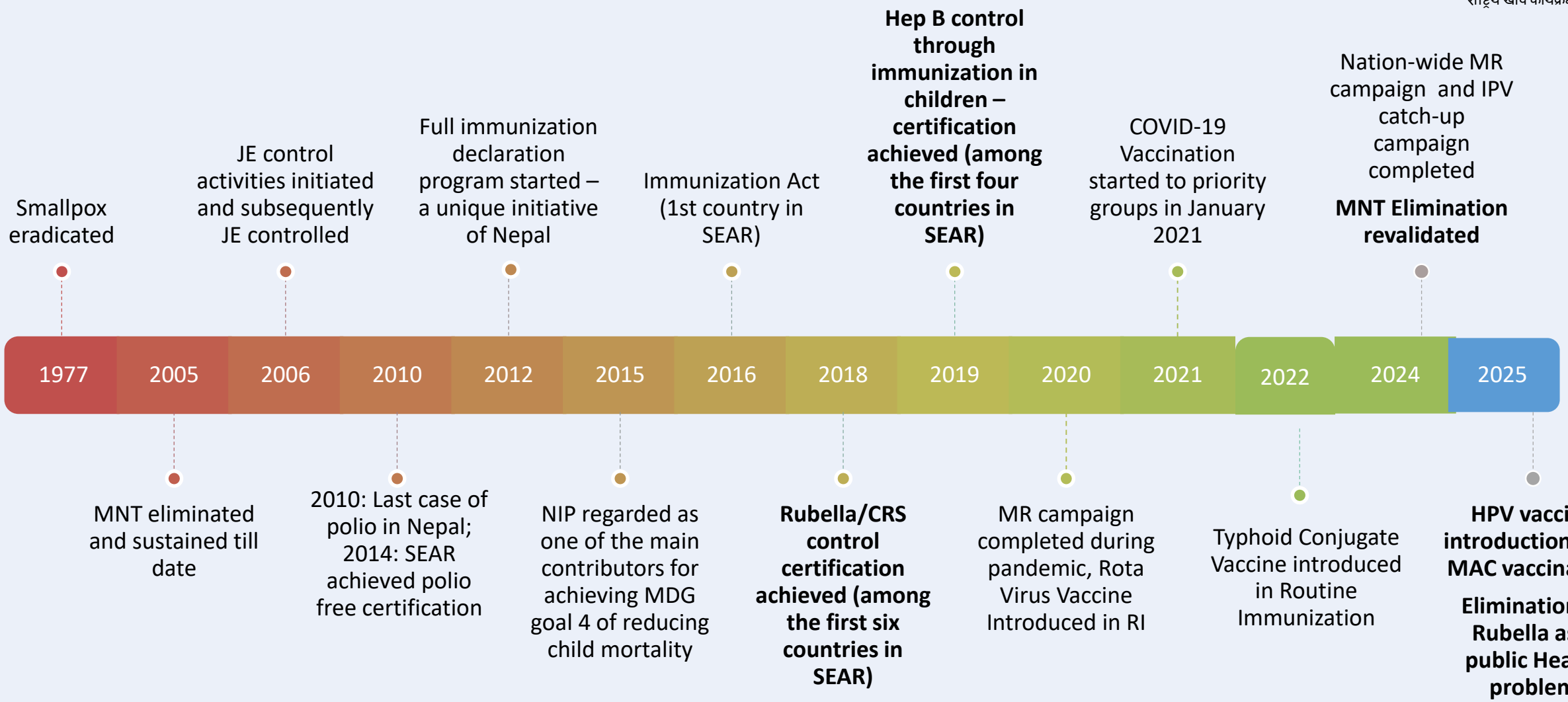
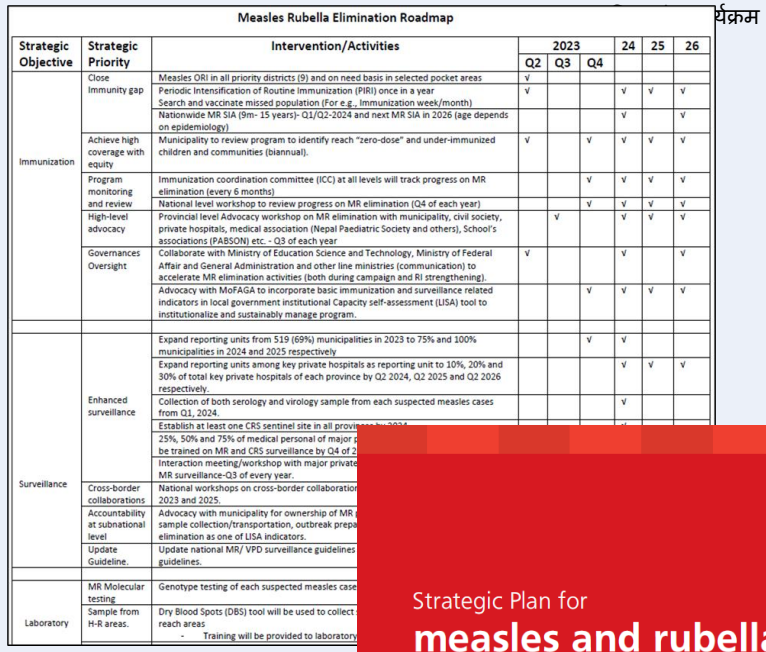


5 Strategic Objectives for Measles & Rubella Elimination

- **National goal: "Eliminate Measles and Rubella by 2026"**
- **Five key strategic objective (SO)areas:**

1. Immunization
2. Surveillance
3. Laboratory
4. Outbreaks
5. Linkages/Enablers



Measles Rubella Elimination Roadmap

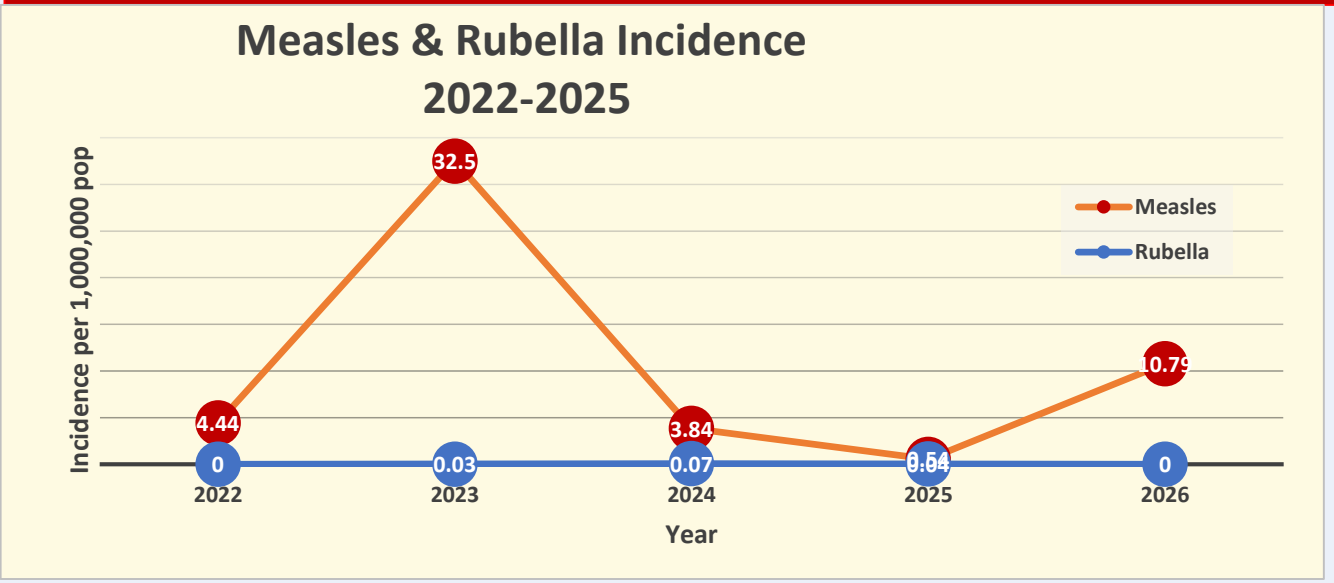
Strategic Objective	Strategic Priority	Intervention/Activities	2023 Q2	2023 Q3	2023 Q4	24	25	26
Immunization	Close Immunity gap	Measles ORI in all priority districts (9) and on need basis in selected pocket areas	√					
		Periodic Intensification of Routine Immunization (PIRI) once in a year Search and vaccinate missed population (For e.g., Immunization week/month)	√			√	√	√
		Nationwide MR SIA (9m- 15 years)- Q1/Q2-2024 and next MR SIA in 2026 (age depends on epidemiology)				√		√
	Achieve high coverage with equity	Municipality to review program to identify reach "zero-dose" and under-immunized children and communities (biannual).	√		√	√	√	√
	Program monitoring and review	Immunization coordination committee (ICC) at all levels will track progress on MR elimination (every 6 months)			√	√	√	√
		National level workshop to review progress on MR elimination (Q4 of each year)			√	√	√	√
	High-level advocacy	Provincial level Advocacy workshop on MR elimination with municipality, civil society, private hospitals, medical association (Nepal Paediatric Society and others), School's associations (PABSON) etc. - Q3 of each year		√		√	√	√
	Governances Oversight	Collaborate with Ministry of Education Science and Technology, Ministry of Federal Affair and General Administration and other line ministries (communication) to accelerate MR elimination activities (both during campaign and RI strengthening).	√			√		√
		Advocacy with MoFAGA to incorporate basic immunization and surveillance related indicators in local government institutional Capacity self-assessment (LISA) tool to institutionalize and sustainably manage program.			√	√	√	√
Surveillance	Enhanced surveillance	Expand reporting units from 519 (69%) municipalities in 2023 to 75% and 100% municipalities in 2024 and 2025 respectively			√	√		
		Expand reporting units among key private hospitals as reporting unit to 10%, 20% and 30% of total key private hospitals of each province by Q2 2024, Q2 2025 and Q2 2026 respectively.				√	√	√
		Collection of both serology and virology sample from each suspected measles cases from Q1, 2024.				√		
		Establish at least one CRS sentinel site in all provi						
		25%, 50% and 75% of medical personal of major p be trained on MR and CRS surveillance by Q4 of 2						
		Interaction meeting/workshop with major private MR surveillance-Q3 of every year.						
	Cross-border collaborations	National workshops on cross-border collaboratio 2023 and 2025.						
	Accountability at subnational level	Advocacy with municipality for ownership of MR sample collection/transportation, outbreak prepa elimination as one of LISA indicators.						
	Update Guideline.	Update national MR/ VPD surveillance guidelines guidelines.						
Laboratory	MR Molecular testing	Genotype testing of each suspected measles case						
	Sample from H-R areas.	Dry Blood Spots (DBS) tool will be used to collect reach areas - Training will be provided to laboratory						

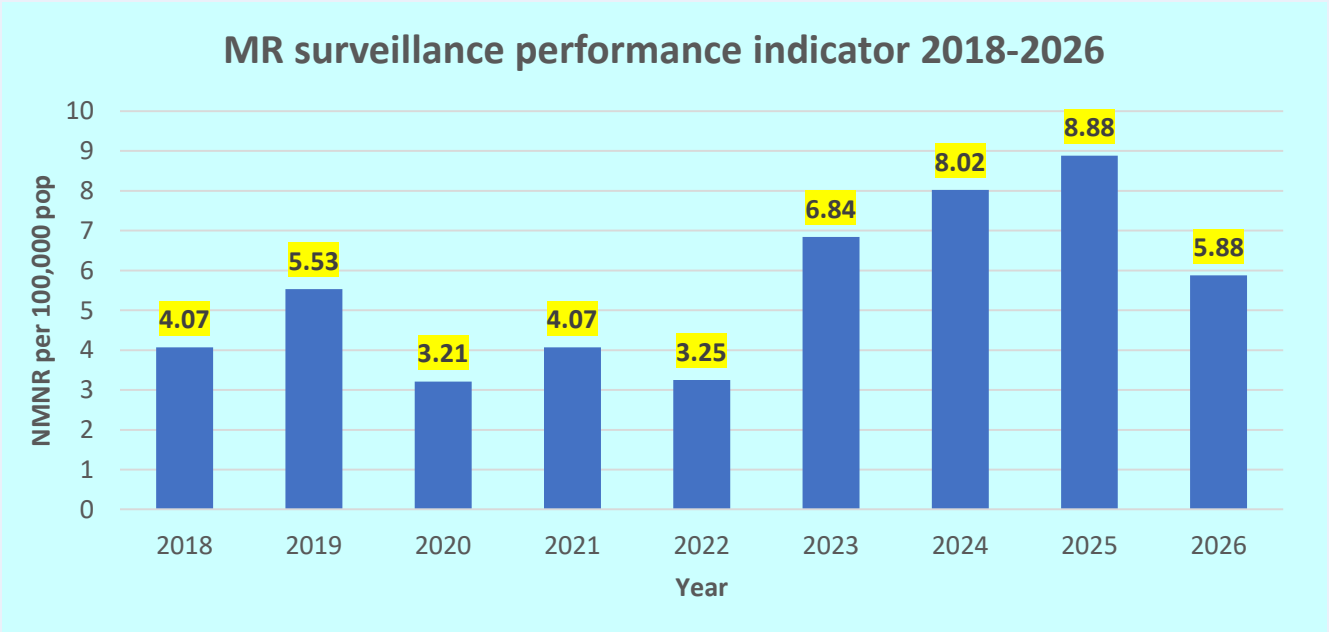
Based on this, Nepal developed

"Measles Rubella Elimination Roadmap 2023-2026"

https://www.who.int/publications/i/item/9789290229476

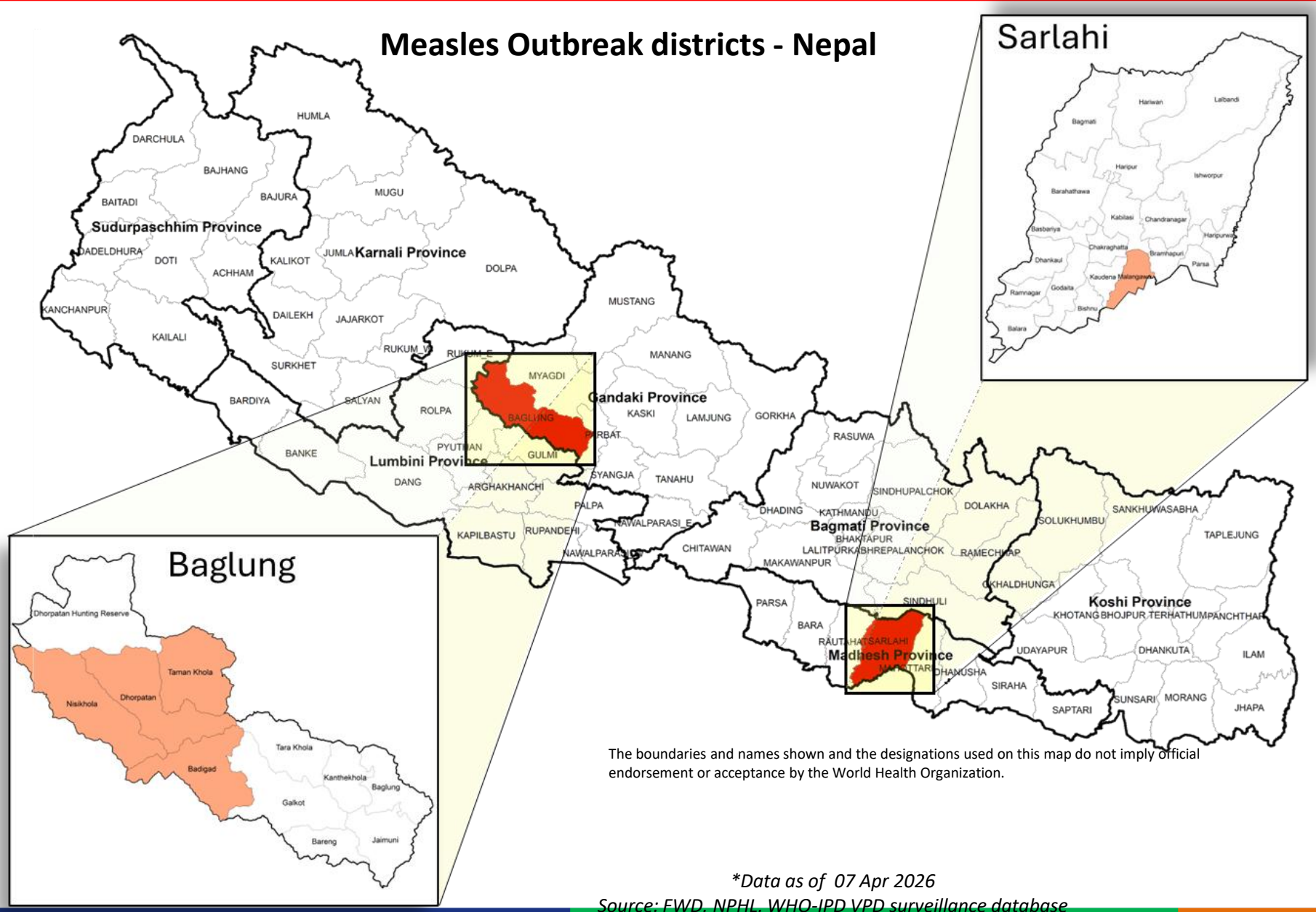
Measles Rubella Surveillance





- Rubella incidence remains less than 1 per 1,000,000 population since 2022.
- Measles incidence is declining. But sudden rise in Q1 2026
- Achieved and maintained MR surveillance performance indicator as per global and regional target.
  - Non-Measles Non-Rubella rate(**NMNR) ≥2** per 100,000 pop)
- **>1800** case-based measles surveillance sites exist in 92% of total 753 municipalities of Nepal.
- **15 CRS** surveillance sites exist across all seven provinces.
- Development of Measles, Rubella & CRS surveillance and outbreak **guidelines.**
- Community-based surveillance strengthened engaging Female Community Health Volunteers-(FCHV). (~3,500 FCHVs oriented.)

Measles and Rubella Outbreaks- Nepal, 2026*



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the World Health Organization.

- **Two Large Measles outbreak:**
  - Sarlahi - January (n-34)
  - Baglung – February (n-204) & ongoing

Data as of 07 Apr 2026

Source: FWD, NPHL, WHO-IPD VPD surveillance database

Measles Outbreak Sarlahi, Madhesh province - 2026

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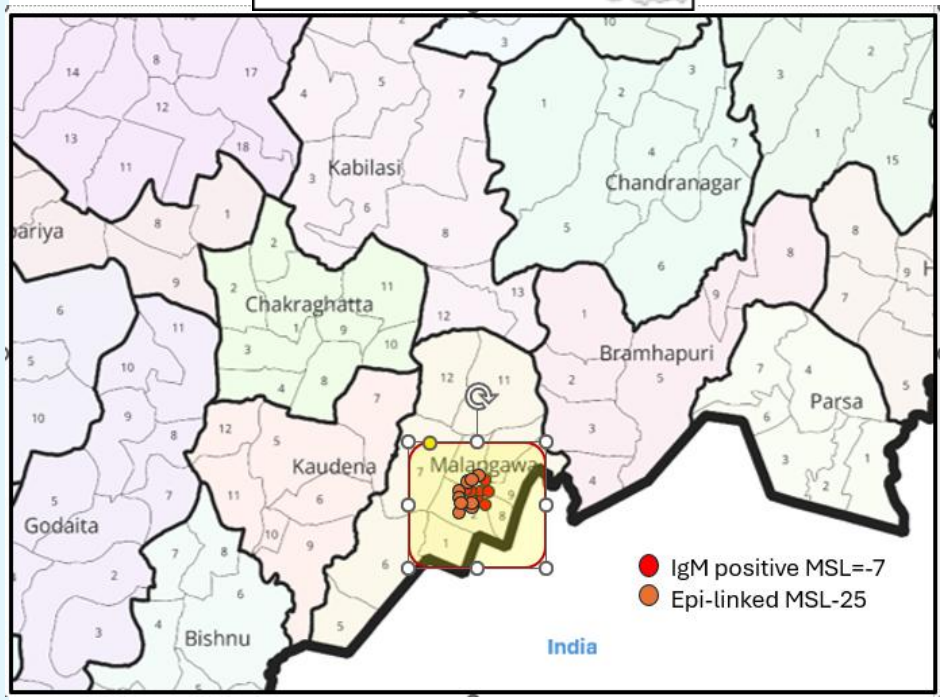
- **Total Measles cases: 34**
- **Lab confirmed Measles – 7 & Epi-linked - 27**
- Most affected wards of Malangwa municipality: **Ward no-3 and 4**
- Most cases managed at home.
- No hospital admission and measles related mortality
- **Vit. A** supplementation to all suspected cases.
- Most cases identified through House-to-house screening by local health authorities and WHO networks.
- Age group: **1m to 22 years**
- **M:F** = 26:8
- Affected community: religious minority.
- **ORI conducted within 3 days** of Measles outbreak confirmation vaccinating **10,032 (133%)** of 6m-14y children.

Measles Outbreak map - Nepal



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**Data as of 03 Apr 2026*

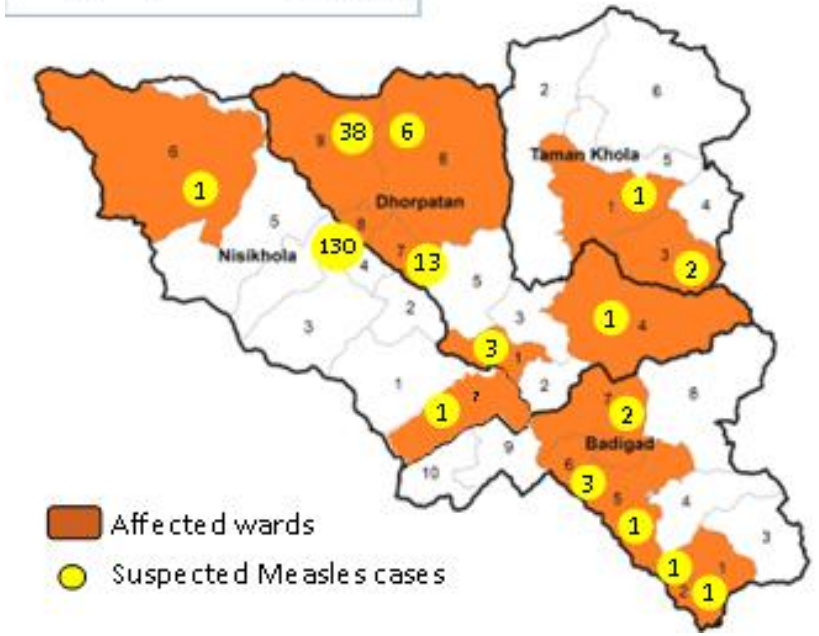
Source: FWD, NPHL, WHO-IPD VPD surveillance database

Measles Outbreak Baglung, Gandaki province - 2026

- **Total suspected Measles cases: 204**
- **Lab confirmed Measles – 18**
- Four affected municipalities: Dhorpatan municipality, Badigad RM, Taman Khola RM, Nishikhola RM.
- **177** cases managed at Measles isolation center : Burtibang Hospital and Bobang HP. Currently, 4 are undertreatment. Others are discharged.
- **8** serious cases referred and treated at tertiary hospitals at Western regional hospital (WRH) - 1 still undertreatment
- No measles related mortality till date.
- **Vit. A** supplementation to all suspected cases.
- Age group: **3m to 80 years**
- Most affected **age group 10-20 years (63%)** including one 16-year-old **pregnant woman** (1 month gestation**) and 1 lactating mother (post partum 3month)**.
- **M:F** = 92:105
- Affected community: socially marginalized community (84%) & seasonal migrants.
- MR vaccination status is mostly unknown.
- **ORI conducted within 7 days** of Measles outbreak confirmation vaccinating 5,934 (85%) of 10y-19y children.

Measles Outbreak map- Nepal

Municipality:
Dhorpatan UM, Taman Khola RM, Badigad RM and Nisikhola RM



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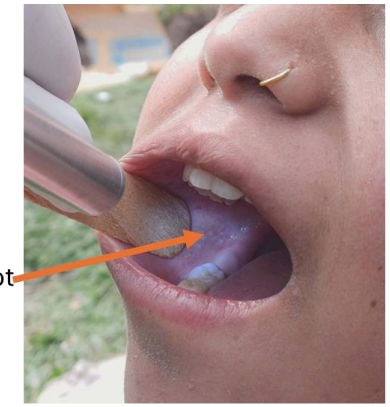
**Data as of 03 Apr 2026*
Source: FWD, NPHL, WHO-IPD VPD surveillance database

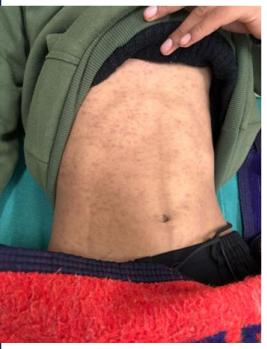
Measles and Rubella Outbreaks Response

Active case search & Clinical case management

Suspected Measles cases, 2026



Kopliks spot



Maculopapular rashes

Photo courtesy: Baglung Health Office

Next step:

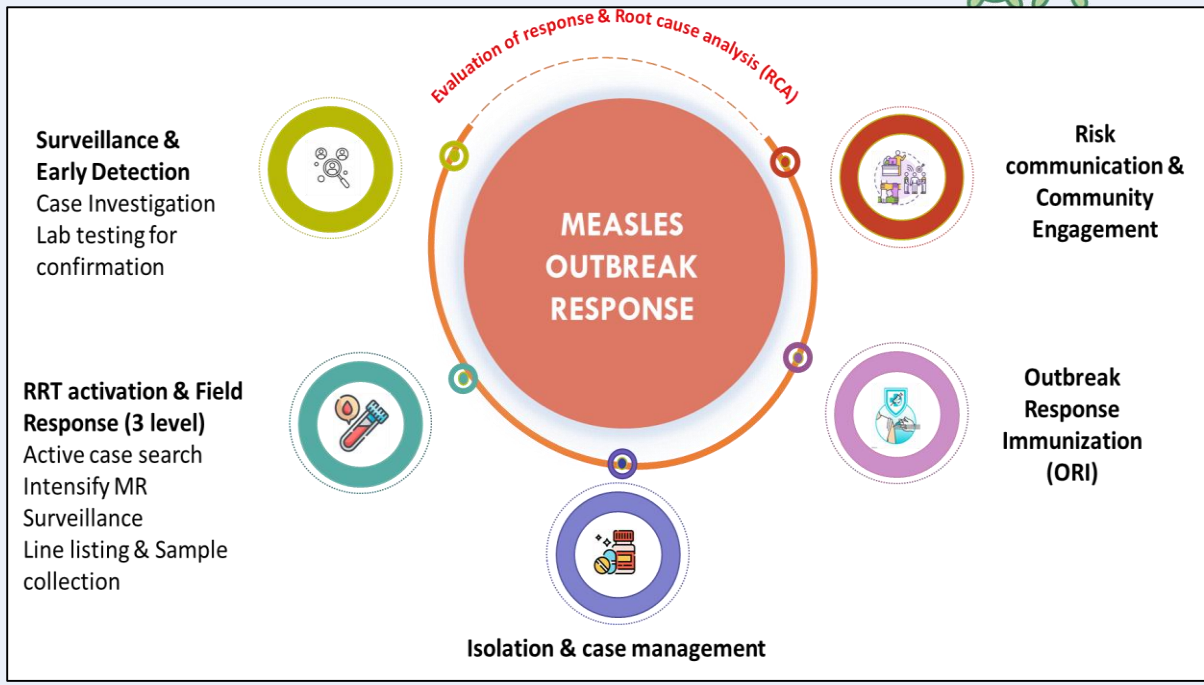
- Conduct **ORI** in adjoining municipalities of outbreak affected municipality of Sarlahi and Baglung district
- In depth analysis of outbreak data
- **Risk communication & community engagement** activities with local and religious leaders, schools,
- **Root cause analysis**

Measles Outbreak Response

- NIP conducted National Immunization Advisory Committee (**NIAC**) meeting immediately after confirmation of Measles outbreaks in Sarlahi and Baglung districts.

- **NIAC Recommendations:**
  - Close the population immunity gapsoutbreak response immunization (**ORI**).
  - Based on epidemiological findings, NIAC recommends to lift the existing policy barriers to allow MR **vaccination of children under 15 years of age** who previously missed in RI.

- Both outbreaks are **promptly investigated, responded, and managed** with Measles outbreak response immunization (**ORI**)
  - Sarlahi (6m -15y): 10,032
  - Baglung (10-20y): 5,934



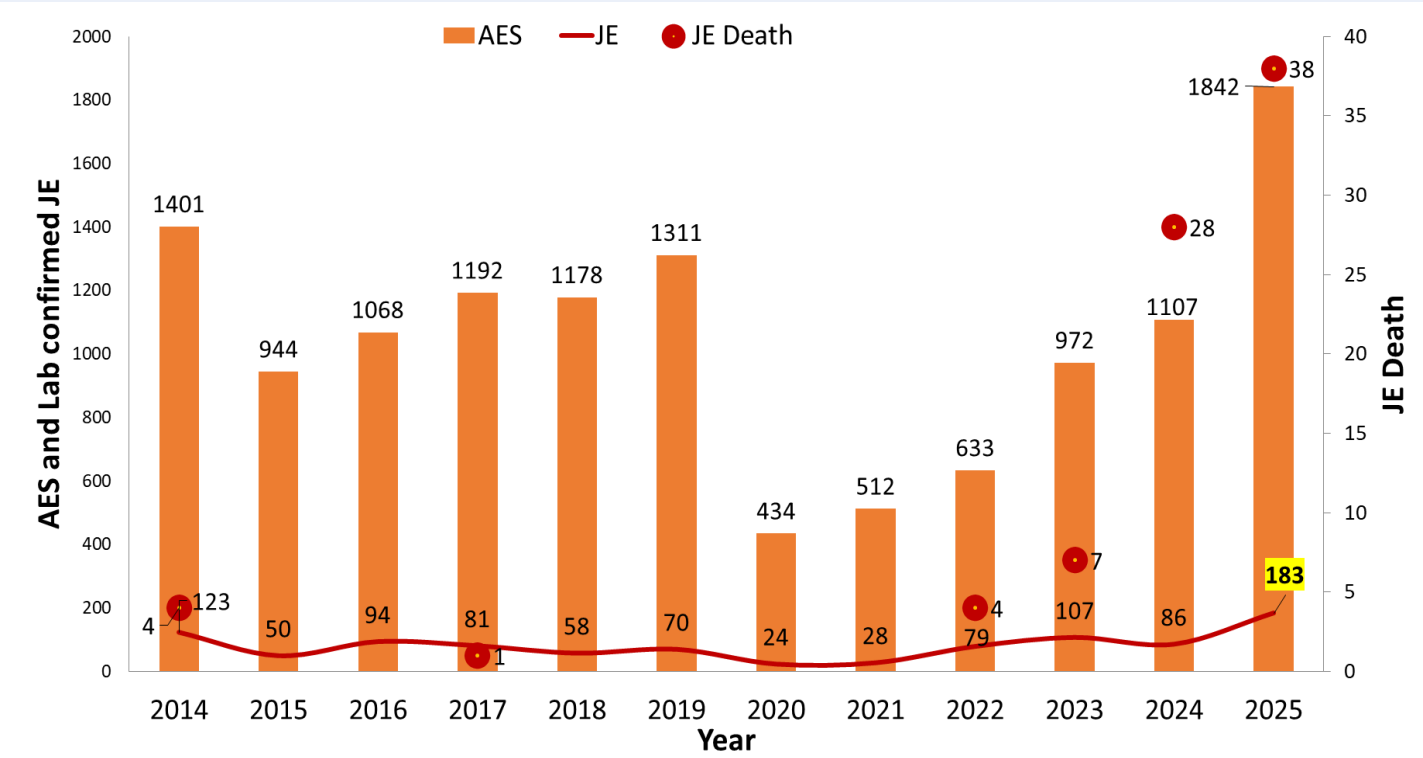
Sarlahi

Baglung

Summary

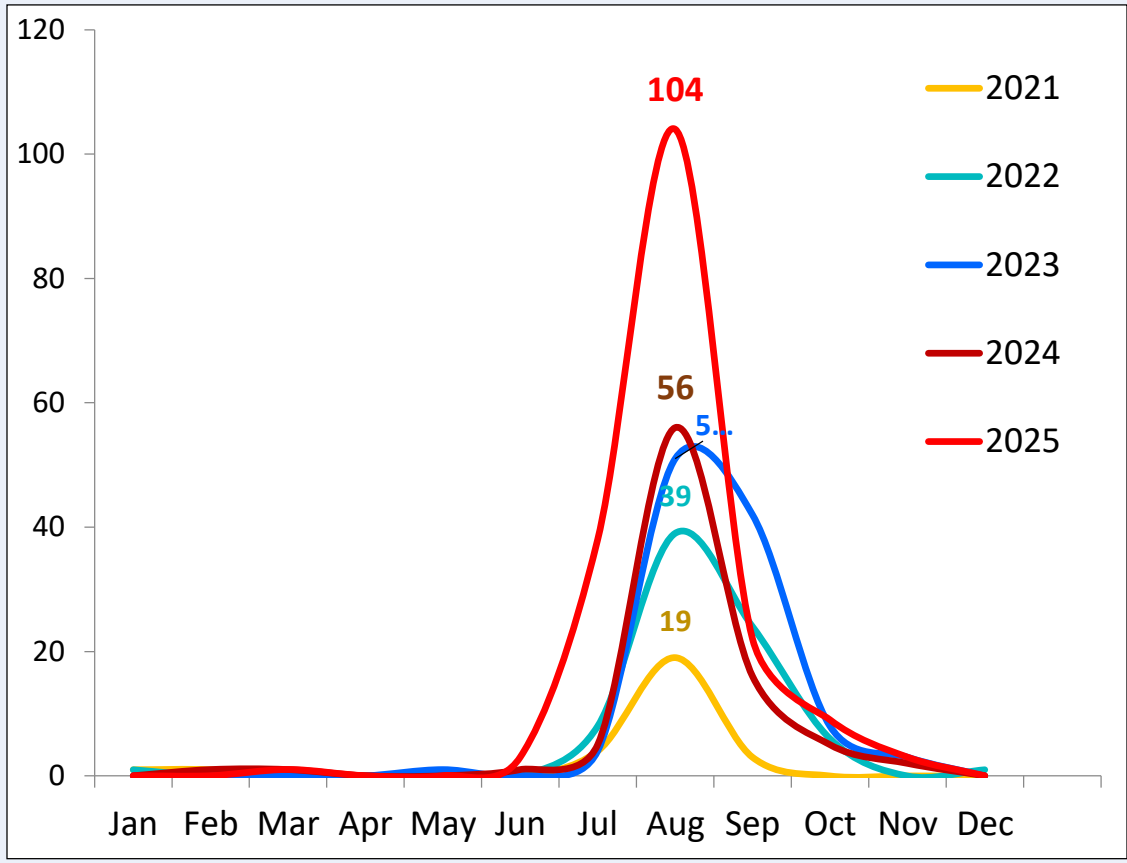
1. Achieved **>= 95% Measles Rubella vaccination coverage** at national level but **variations exists** at subnational level**.**
2. Highly **sensitive lab supported MR surveillance** is achieved and being maintained.
3. **Absence of endemic rubella transmission** for at least 40 months and no **confirmed CRS** cases in last 10 years.
4. **Decline in Measles incidence** since 2024 onward (less than 5 per 1,000,000 population) but sudden rise in Q1 2026.
5. Herd immunity exist in children, but any measles virus importation may lead to outbreak – (**Age shift**) in children **below 9 months and adult population**.

AES, JE and JE death 2014-2025



- AES/JE surveillance started in 2006.
- JE **incidence** is significantly increasing over 6 years
- Case fatality rate (**CFR**) : Peaked in 2024 (32.5%) and 21% in 2025

Seasonal Trend of JE by month, Nepal, 2021-2025



- Seasonally, called an epidemic pattern. eg. Nepal.
- Peak month: Monsoon
  (Asadh – Kartik in Nepali calendar) or
  (July-October in English calendar)

Data as of 07 Apr 2026, Data source:, FWD, NPHL & WHO/IPD

High burden districts with JE cases

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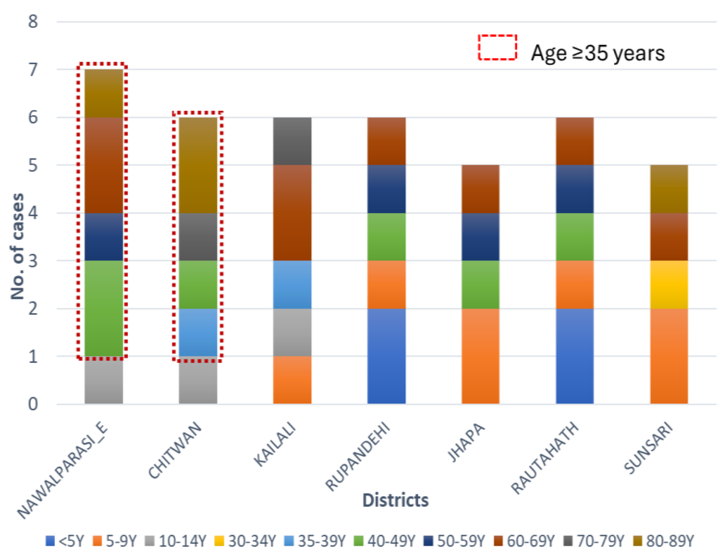
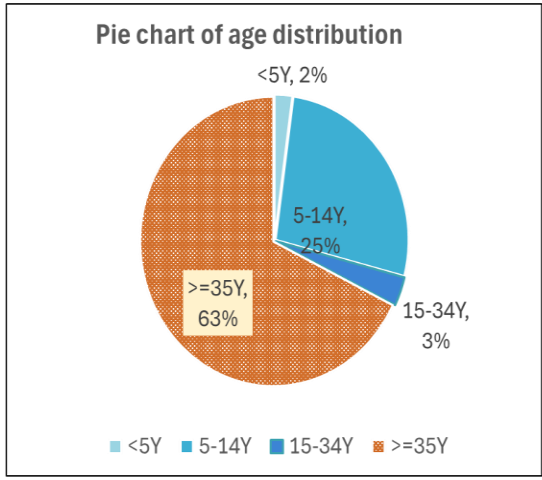
High JE burden districts in last 5 years

Districts	2021	2022	2023	2024	2025	Grand Total
NAWALPARASI_E		7	13	3	15	38
CHITWAN	1	11	6	4	16	38
KAILALI	4	3	2	9	10	28
TANAHU		4	5	2	9	20
DANG	2	1		3	13	19
JHAPA	1	1	2	4	11	19
KAPILVASTU			1	6	11	18
MORANG	1	4	5	2	6	18
RUPANDEHI		1	3	5	7	16
SUNSARI	1	2	6	3	2	14
RAUTAHAT		2	4	3	4	13
SARLAHI	1	3	2	3	4	13



- **63%** of JE morbidity seen in higher age group 35 years and above in top 6 JE highrisk districts.



JE cases reported every year for last 5 years

High burden districts with JE deaths

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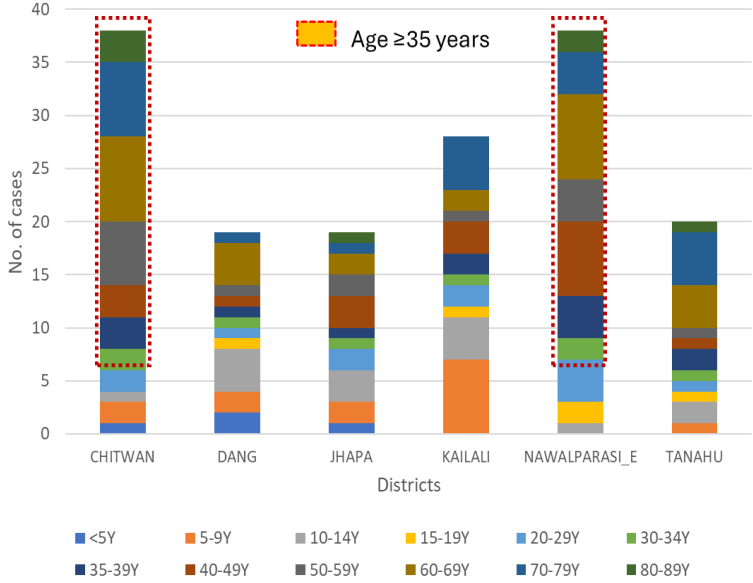
High JE death districts in last 5 years

Districts	2023	2024	2025	Grand Total
NAWALPARASI_E	4		3	7
CHITWAN		1	5	6
KAILALI	1	3	2	6
RUPANDEHI	1	3	2	6
JHAPA		2	3	5
RAUTAHAT	1	2	2	5
SUNSARI	2	3		5
KAPILVASTU	1	3		4
BANKE		1	2	3
NAWALPARASI_W			3	3
PALPA	2	1		3
SINDHULI		1	2	3
BARA	1		1	2
DHANUSHA	1	1		2
GORKHA	1		1	2
KATHMANDU	1	1		2
MAHOTTARI	1	1		2
MORANG	1		1	2



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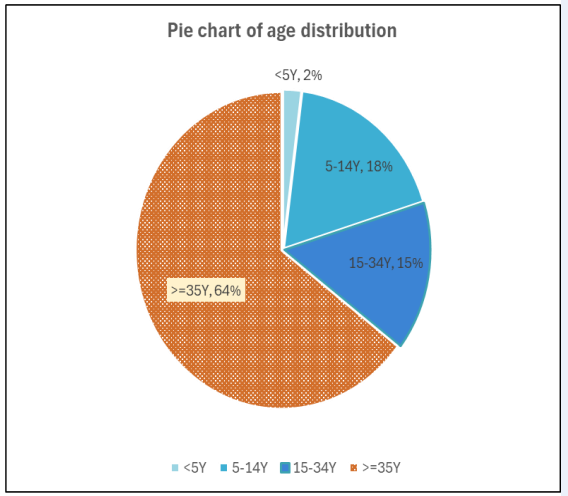
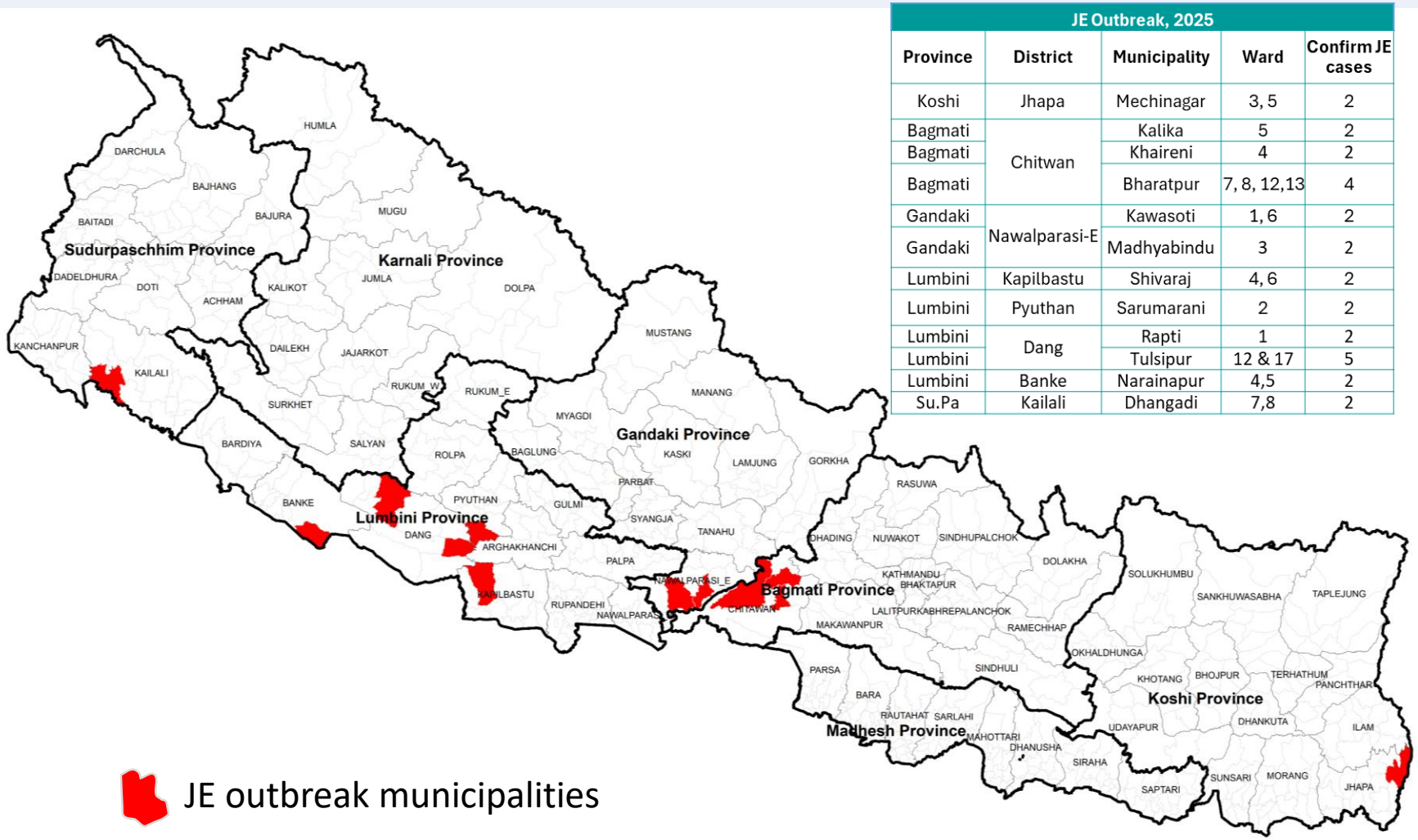


JE Outbreaks, preparedness and response in 2025



JE outbreak municipalities

JE Outbreak, 2025				
Province	District	Municipality	Ward	Confirm JE cases
Koshi	Jhapa	Mechinagar	3, 5	2
Bagmati	Chitwan	Kalika	5	2
Bagmati		Khaireni	4	2
Bagmati		Bharatpur	7, 8, 12,13	4
Gandaki	Nawalparasi-E	Kawasoti	1, 6	2
Gandaki		Madhyabindu	3	2
Lumbini	Kapilbastu	Shivaraj	4, 6	2
Lumbini	Pyuthan	Sarumarani	2	2
Lumbini	Dang	Rapti	1	2
Lumbini		Tulsipur	12 & 17	5
Lumbini	Banke	Narainapur	4,5	2
Su.Pa	Kailali	Dhangadi	7,8	2

Outbreak preparedness & Response

- **12 outbreaks** in 12 municipalities of 8 districts in 5 provinces close to India border are fully investigated and responded.
- AES/JE Surveillance **guidelines** and Clinical case management protocol developed.
- **Capacity building** in clinical case management.
- JE morbidity and mortality majority in **higher age group**.
- National Immunization Advisory Committee (**NIAC**) recommended to conduct **JE campaign** in highly prioritized districts and municipalities. → recently completed in Nawalparasi-E and started in Madi RM, Chitwan.

JE Outbreak definition: *≥2 JE confirmed cases within a ward or adjoining wards of municipality within 14 days period) as per new AES Surveillance Manual 2025*


MEASLES AND RUBELLA MOVE FAST
WE HAVE COMMITTED TO MOVE FASTER
Eliminating measles & rubella requires reaching every child
with vaccine to protect them against both diseases.

Thank you!