

STATE AEFI TECHNICAL COLLABORATION CENTRE
DEPARTMENT OF COMMUNITY MEDICINE
MAULANA AZAD MEDICAL COLLEGE, DELHI



E-NEWSLETTER



January 2026, Volume 5, Issue 1

WHAT'S INSIDE?

- Global updates on VPDs
- New FDA approved vaccines
- New public health milestones
- Evolution of AD syringes
- Vaccines and Autism
- Upcoming events

EDITORS

Dr Pragya Sharma

Dr Shivani Rao

Dr Amod L Borle

Dr Amita Raoot

Dr Warisha Mariam

Dr Ajanya V

Warm New Year wishes for a safe, healthy, and hopeful 2026! 🎉 ✨

As we welcome 2026, the New Year arrives with fresh optimism, renewed energy, and the promise of healthier days ahead. Winter is a time of celebration and reflection, but also a reminder to care for ourselves and our communities; especially in the face of seasonal influenza and rising air pollution, which call for extra vigilance and preventive action.

In this issue, we share global updates on vaccine-preventable diseases, keeping you informed on emerging trends and surveillance signals worldwide. You'll also find highlights of new FDA-approved vaccines, offering insights into scientific advances that may shape future immunization efforts.

We proudly feature recent public health milestones that reflect collective commitment and resilience, alongside an article on the evolution of Auto-Disable (AD) syringes, showcasing how innovation and quality improvement continue to strengthen injection safety and reduce programmatic AEFIs. Addressing common concerns, our "Breaking the Myths" section presents clear, evidence-based facts on vaccines and autism, reinforcing trust through science and transparency.

Email: aefitechnicalcentre.mamc2021@gmail.com

Website:

<https://mamc.delhi.gov.in/mamc/aefi-technical-collaboration-centre-department-community-medicine>

UPDATES ON VACCINE PREVENTABLE DISEASES IN THE KNOW. IN THE NOW!

Global Influenza Situation: In the season of Flu!

Seasonal influenza activity has increased globally since October 2025, particularly in the northern hemisphere with the onset of winter. Influenza A viruses have predominated worldwide, especially influenza A(H3N2), although overall activity remains within expected seasonal ranges.



In the WHO South-East Asia Region, influenza detections rose from June 2025, peaked in August and have generally declined thereafter, with some country-specific increases. Between January and November 2025, **Influenza A viruses accounted for about 66%** of all laboratory-confirmed influenza cases in the region. **Influenza A(H3N2) was the predominant subtype (~43%)**, followed by **A(H1N1)pdm09 (~20%)**. Increased A(H3N2) activity was reported in Thailand during October–November, while Bangladesh and Sri Lanka recorded rising detections from July and October, respectively. Genetic surveillance identified **22 influenza A(H3N2) subclade K (J.2.4.1) viruses** from Nepal (1), India (4) and Thailand (17) by 30 November 2025, with no evidence of increased disease severity.

Vaccination remains one of the most effective strategy to prevent influenza and its complications. Despite viral evolution, seasonal influenza vaccines continue to offer protection, particularly against severe disease and hospitalization. WHO recommends annual influenza vaccination for high-risk groups, including health-care workers, supported by strong AEFI surveillance to ensure vaccine safety and sustain public confidence.

Source: WHO Disease Outbreak News

Diphtheria Situation in the WHO African Region: Emphasis on Prevention

From **1 January to 2 November 2025**, a total of **20,412 suspected diphtheria cases**, including **1,252 deaths**, were reported from eight countries in the WHO African Region; Algeria, Chad, Guinea, Mali, Mauritania, Niger, Nigeria and South Africa. This corresponds to an average case fatality ratio of 6%, with several countries experiencing ongoing outbreaks since 2023. Children and young adults account for the majority of cases, with a slightly higher proportion among females.

Diphtheria is a vaccine-preventable bacterial disease that can cause severe complications such as myocarditis, renal failure and neurological damage. However, outbreak control remains challenging due to **low laboratory confirmation, shortages of diagnostic supplies, limited testing capacity** and a **global shortage of diphtheria antitoxin (DAT)**. Many affected countries are fragile or conflict-affected, with disrupted routine immunization services, overcrowded living conditions and high population mobility, increasing the risk of transmission.

The regional public health risk is assessed as high due to ongoing transmission, high case fatality rates and limited surveillance capacity, while the global risk remains low because most countries outside the region maintain strong immunization and surveillance systems. Strengthening routine vaccination coverage remains the most effective strategy to prevent diphtheria outbreaks and associated mortality.

Source: WHO Disease Outbreak News

What's New, What Matters

Events & Recent Advances

FUTURE-SHOTS: 2025's GROUND TO DEFENDERS OF HEALTH

The U.S. Food and Drug Administration (FDA) continues to play a critical role in strengthening global vaccine safety and effectiveness through the rigorous evaluation and approval of new vaccines. In 2025, coinciding with Immunization Awareness Month, the FDA approved seven innovative vaccines addressing emerging and re-emerging public health threats. These approvals come at a time of increasing vaccine hesitancy worldwide, underscoring the importance of transparent regulatory processes and robust post-licensure safety surveillance. For clinicians and public health professionals, such global regulatory milestones provide valuable insights into evolving vaccine technologies and safety monitoring frameworks.



VACCINES	DATE OF APPROVAL	MANUFACTURER	REMARKS
Vimkunya	14 th Feb 25	Bavarian Nordic A/S	Prevent disease caused by Chikungunya virus in ≥ 2 years of age
Penmenvy	14 th Feb 25	GlaxoSmithKline	To prevent disease caused by Neisseria meningitidis serotypes A, B, C, W and Y for ages 10-25 years.
Nuvaxovid	19 th May 25	Novavax	- To prevent COVID-19 caused by SARS-CoV-2 in ages ≥ 65 years. - Used in people of 12-64 years of age who have at least one high risk condition for COVID
mNEXSPIKE	30 th May 25	Moderna	
mRESVIA (Expanded approval)	12 th June 25	Moderna	- Prevent lower respiratory tract infection caused by Respiratory syncytial virus (RSV) in ≥ 60 years of age - In 18-59 years who are at increased risk condition
Spikevax (Expanded approval)	9 th July 25	Moderna	- Prevent COVID-19, caused by SARS-CoV-2 in ≥ 65 years of age - In 6 months to 11 years of age, who are at increased risk for COVID-19.
Shingrix (New formulation)	17 th July 25	GlaxoSmithKline	- Prevent Herpes zoster (HZ) in ≥ 50 years - In ≥ 18 years, who are at risk of HZ due to immunodeficiency or immunosuppression caused by known disease/therapy.

Reference: New Vaccines Approved in 2025 (So Far) - Guideline Central [Internet]. Guidelinecentral.com. 2025 [cited 2025 Dec 25]. Available from: <https://www.guidelinecentral.com/insights/aug-2025-approvedvaccines-med-rundown/>

Contributed by: Dr. Bibhu, Postgraduate Resident, Community Medicine, MAMC

Elimination of Measles and Rubella in Three Sub-Saharan African Countries

On 17 November 2025, **Cabo Verde, Mauritius and Seychelles** were officially verified as having eliminated measles and rubella, becoming the **first countries in sub-Saharan Africa** to achieve this important public health milestone. Verification was conducted by the African Regional Verification Commission for **Measles and Rubella Elimination**, established by the World Health Organization.

Globally, these three countries now join 94 countries verified as having eliminated measles and 133 countries that have eliminated rubella. All three countries demonstrated interruption of endemic transmission of measles and rubella for more than 36 months, along with strong surveillance systems capable of rapidly detecting and responding to imported cases.

- Cabo Verde has fully financed its immunization programme since 1998 and maintained measles-rubella vaccination coverage above 90% for over two decades. The country has not reported a confirmed measles case since 1999 and last confirmed rubella cases occurred in 2010.
- Mauritius strengthened its immunization and surveillance systems following a measles outbreak in 2018–2019 and achieved national measles-mumps-rubella (MMR) coverage of 98% for the first dose and 96% for the second dose by 2024.
- Seychelles has sustained over 95% coverage for both measles vaccine doses for more than 20 years, supported by vigilant surveillance and entry-point screening.

Across the African region, **intensified measles control strategies** since 2001; including **two-dose vaccination schedules, supplementary immunization activities, enhanced surveillance and improved outbreak response** have led to an estimated 79% reduction in measles deaths between 2000 and 2023, preventing nearly 21 million deaths. While regional immunization coverage continues to improve, sustaining elimination requires continued high coverage, strong surveillance and prompt response to adverse events and outbreaks.

Source: WHO News section

A look back into 2025!

Under the Universal Immunization Programme (UIP), the Ministry of Health and Family Welfare (MoHFW) achieved significant progress in 2025 towards strengthening routine immunization and disease surveillance. As per the **National Health Policy, Full Immunization Coverage (FIC) of over 90%** has been achieved nationally. For the period **April–October 2025**, the National FIC stood at an impressive **98.6%**, reflecting sustained improvements in service delivery, outreach and monitoring mechanisms across states and union territories. **Measles–Rubella (MR) surveillance** through the “**Zero Measles Rubella Campaign**” in **April 2025**, resulted in a **28% reduction in measles cases** during **January–October 2025** compared to the same period in the previous year. Together, these initiatives underscore MoHFW’s continued commitment to expanding immunization coverage, reducing vaccine-preventable diseases and achieving national and global immunization targets.

Source: MoHFW initiatives & Achievements 2025

Safety-Engineered Evolution of the AD Syringe

Injection safety is a cornerstone of public health, particularly in immunization programmes where over 16 billion injections are administered globally each year. The shift from standard disposable syringes to Auto-Disable (AD) syringes represents a landmark application of Total Quality Management (TQM) in healthcare, directly addressing programmatic errors, a major cause of Adverse Events Following Immunization (AEFI).

In 2000, WHO estimated that 40% of injections worldwide were administered using reused equipment, resulting in millions of new infections of Hepatitis B, Hepatitis C and HIV. AD syringes were designed to eliminate this risk by **engineering out human error by mechanical locking mechanism** that permanently disables the syringe after a single use, enforcing the principle of *“one needle, one syringe, one time.”*

From a TQM perspective, reliability is ensured through robust engineering and quality control. Common safety features include

- **Internal clips or flanges** that lock the plunger once fully depressed,
- **Breakable weak points** in the plunger shaft that snap if reuse is attempted.
- Manufacturers apply **Failure Mode and Effects Analysis (FMEA)** during design to anticipate and mitigate risks such as mechanism failure, premature activation, or inaccurate dosing.
- These risks are controlled through **stress testing, stringent quality control, low Acceptable Quality Limits (AQL), and automated vision-based checks** to ensure accurate dose markings.

International standards further reinforce safety, as shown in table below.

Standard	Device Type	Primary Utility & Safety Feature	Injection Safety Devices – Key Milestones			
ISO 7886-3	Auto-Disable (AD) Syringes	Fixed-dose immunization. Guarantees reuse prevention (RUP) specifically for vaccination campaigns.	1950 – Glass syringes used as the norm			
			1960 – Market authorization for sterile single-use syringes			
			1990 – Market authorization for AD syringes			
ISO 7886-4	Reuse-Prevention (RUP) Syringes	Therapeutic injections. Similar to AD but allows for variable dosing and reconstitution while preventing reuse.	1999 – WHO–UNICEF–UNFPA joint statement on AD syringes for immunization			
			2003 – WHO-SIGN guiding principles for injection device security			
			2004 – Market authorization for RUP and SIP syringes			
			2005 – WHA 55.18: quality of care and patient safety (injection safety)			
ISO 23908	Sharps Injury Protection (SIP)	Worker Safety. Includes features like needle shields to prevent needlestick injuries to healthcare workers.	2006 – ISO standards developed for RUP syringes			
			2010 – WHA 63.18 on viral hepatitis (injection safety)			
			2012 – ISO standards developed for SIP			
			2014 – WHA 67.6 on viral hepatitis (injection safety)			

For India’s Universal Immunization Programme, AD syringes exemplify frugal innovation, delivering maximum patient safety at a sustainable cost of **USD 0.03–0.04 per unit**. India is one of the largest manufacturers and users of AD syringes in the world. By making this technology a mandatory part of its public immunization programs, India has not only adopted but has become a global leader in implementing this crucial benchmark for injection safety.

Contributed by: Dr Warisha Mariam, Ex Senior Resident ,Community Medicine, MAMC

FRESH UPDATES, TRUSTED INSIGHTS

CLEARING THE AIR ON VACCINE HESITENCY

BURSTING THE MYTHS: VACCINES AND AUTISM

On **11 December 2025**, the WHO Global Advisory Committee on Vaccine Safety (GACVS) reaffirmed, based on the strongest available scientific evidence, that **vaccines do not cause autism spectrum disorder (ASD)**. This conclusion follows a detailed assessment of two new systematic literature reviews and reinforces findings from earlier WHO reviews conducted in 2002, 2004 and 2012.

The first systematic review evaluated the relationship between **thiomersal-containing vaccines, vaccines in general, and ASD, covering studies published from January 2010 to August 2025**. It included **31 primary research studies** from **11 countries**; 16 studies focused specifically on thiomersal-containing vaccines and 15 studies on vaccines overall, along with five meta-analyses. Importantly, 20 of the 31 primary studies, including the most methodologically rigorous research, and all five meta-analyses, found **no evidence of an association** between vaccination and ASD. The remaining 11 studies, many originating from a single research group, had significant methodological limitations and a high risk of bias, rendering their evidence very weak.

The second systematic review focused on the safety of **aluminium-adjuvanted vaccines**, analysing data from six major literature databases. High-quality evidence from 10 randomized controlled trials and 7 large cohort studies found no association between aluminium-containing vaccines and ASD or other chronic or systemic diseases. Although two ecological studies reported a correlation between cumulative aluminium exposure and ASD prevalence, these studies could not establish causality and were rated as having very low-quality evidence.

In addition, a large nationwide cohort study from Denmark, covering children born between 1997 and 2018, examined the incidence of 50 chronic conditions, including ASD, and found no increased risk associated with early exposure to aluminium-adsorbed vaccines.

Taken together, decades of high-quality evidence from multiple countries clearly demonstrate that **vaccines including those containing thiomersal or aluminium do not cause autism**. Dispelling these myths is critical to maintaining public confidence in immunization, which remains one of the most effective public health interventions for preventing serious and potentially fatal diseases.

Source: WHO news section

National events

- Jan 26-27, 2026 - Bengaluru, India - International Conference on Vaccines and Vaccination (ICVV)
- Feb 10-11, 2026 - Pune, India - Vaccines World Summit 2026 (IMAPAC).
- Feb 23-24, 2026 - New Delhi, India - International Conference on Vaccines and Immunization
- Feb 26 - Mar 1, 2026 - Silvassa (Dadra & Nagar Haveli), India - IAPSMCON 2026
- Feb 28 2026, Bhubaneswar, India - International Conference on Immunology, Infectious Diseases and Vaccine Policy (ICIIDVP)
- March 14-15, 2026 - Bengaluru, India - Healthcare Summit 2026 (HCS-2026)
- March 16 2026 – National Vaccination day



International events

- Jan 24-27, 2026 - Pacific Grove, California, USA - 63rd Midwinter Conference of Immunologists (Asilomar).
- Feb 23-27, 2026 - (WHO) - IVIR-AC: Immunization and Vaccines-related Implementation Research Advisory Committee.
- Feb 25-26, 2026 - Atlanta, USA & virtual - CDC ACIP (Advisory Committee on Immunization Practices) Meeting
- March 16-17, 2026 - Paris, France - 8th World Congress On Vaccine And Immunology
- March 24-25, 2026 - Paris, France - 9th International conference on Vaccines, Immunology and Clinical Trials
- Mar 30 - Apr 2, 2026 - Washington D.C., USA - World Vaccine Congress
- April 13-15, 2026 - Paris, France - 4th International Conference on Vaccines Research and Development
- April 24-30, 2026- World Immunization week (WHO)

Editors: Dr Pragya Sharma, Dr Shivani Rao, Dr Amod L Borle, Dr Amita Raoot, Dr Warisha Mariam, Dr Ajanya V

Email: aeefitechnicalcentre.mamc2021@gmail.com