



## Rapid Fire Current Affairs

### NHAI's Knowledge Sharing Platform for Highway Development

[National Highways Authority of India](#) (NHAI) has launched a 'Knowledge Sharing' platform on its website to facilitate the exchange of **knowledge and best practices** in areas such as **road design, construction, road safety, and environmental sustainability**. The platform **allows experts and citizens to share insights** and upload video clips, PowerPoint presentations, and PDF files, which will be reviewed by NHAI officials for potential implementation.

This initiative aims to foster the holistic **development of the National Highway infrastructure** by encouraging the adoption of innovative practices and sustainable approaches, including the innovative use of recycled materials such as **fly-ash** and **plastic waste**. NHAI is also encouraging the use of **Recycled Asphalt (RAP)** and **Recycled Aggregates (RA)** in the National Highway construction to promote sustainable and eco-friendly practices.

With the integration of modern infrastructure elements like tunnels, bridges, wildlife corridors, and expressways, the platform seeks to engage a wider audience and promote collective efforts toward the nation's highway development goals.

**Read more:** [National Highways Authority of India](#)

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### World Sickle Cell Day 2023

#### // What are Sickle Cell Disorders?

- A group of disorders that cause red blood cells to become misshapen and break down.
- The cells die early, leaving a short age of healthy red blood cells and can block blood flow causing pain.



#### Types:

##### Sickle Cell Anaemia

Dysfunctional red cells due to abnormal haemoglobin

##### Sickle Cell Crisis

Blockage of blood vessels causing severe pain or organ damage



Recently, [World Sickle Cell Awareness Day](#), **observed on 19<sup>th</sup> June**, raises awareness about **sickle cell disease (SCD)** and its global impact.

The theme World Sickle Cell Awareness Day 2023 is **'Building and strengthening global sickle cell communities, formalizing newborn screening and knowing your sickle cell disease status'**. The theme is about recognizing the first step to **understanding the genotype in infants and adults in fighting [sickle cell disease](#)**. It also urges the utilization of advanced technology to identify SCD status.

SCD is a **chronic single-gene disorder** characterized by **chronic anemia, acute painful episodes, organ infarction, and chronic organ damage**, resulting in a significant **reduction in life expectancy**. Common symptoms include chronic anemia leading to **fatigue, weakness, and paleness, as well as painful episodes known as sickle cell crises** that cause intense pain in various parts of the body. **Delayed growth and puberty** can also occur.

Treatment options for SCD include **blood transfusions to relieve anemia** and reduce pain crises, the use of medication such as hydroxyurea to decrease the frequency of painful episodes and prevent long-term complications, and potentially bone marrow or stem cell transplantation.

**Read more:** [Sickle Cell Disease](#)

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## Indigenous mRNA-Based Omicron-Specific Booster Vaccine

The [Department of Biotechnology \(DBT\)](#) in India has **achieved a significant milestone in the fight against Covid-19** with the approval of an **indigenous Omicron-specific mRNA-based booster vaccine** known as **GEMCOVAC®-OM**.

Developed by **Genova Biopharmaceuticals Ltd** using an indigenous platform technology and supported by the [Mission Covid Suraksha](#) initiative implemented by the [Biotechnology Industry Research Assistance Council \(BIRAC\)](#), the vaccine has received **Emergency Use Authorization (EUA)** from the **Drug Control General of India (DCGI)**.

GEMCOVAC®-OM stands out for its **thermostability, eliminating the need for ultra-cold chain infrastructure required by other approved mRNA-based vaccines**. This feature ensures easier deployment across India.

**mRNA vaccines work by using mRNA, or messenger RNA**, which is the molecule that essentially puts DNA instructions into action. Inside a cell, mRNA is used as a template to build a protein. These vaccines **teach cells how to make a protein that triggers an immune response** inside our bodies which then produces antibodies (what protects us from getting infected if the real virus enters our bodies).

**Read more:** [mRNA-based vaccine](#), [Drug Control General of India](#)

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## 'One Nation One Helpline' Initiative for Childline Services

The [Ministry of Women and Child Development \(MoW&CD\)](#) in India has undertaken a significant step by **merging the successful Childline emergency counselling and distress helpline for children with the [Emergency Response Support System \(ERSS\)](#) number 112**. The move aims to **enhance the effectiveness and efficiency of child helpline services** by integrating them with other emergency services such as the **police, fire, and ambulance departments**.

This decision is part of the **'One Nation One Helpline' initiative** introduced by the **MoW&CD**. Initially, the **merger will be implemented in nine states and UTs**, including **Andhra Pradesh, Arunachal Pradesh, Bihar, Gujarat, Goa, Mizoram, Ladakh, Puducherry, and Dadra and Nagar Haveli and Daman and Diu**, with other regions to follow in a phased manner.

Previously, the [Childline India Foundation \(CIF\)](#) and its partner **NGOs were responsible for operating the 24x7 helpline under the Child Protection Services scheme**. However, the existing system lacked interoperability with other emergency services, resulting in delays during distress situations. Also, **childline services were available in only 568 districts, leaving approximately 200 districts without coverage**.

To **automate and integrate the Childline 1098 service with ERSS 112**, the Ministry has appointed the [Centre for Development of Advanced Computing \(C-DAC\)](#) based in Kerala as the "**total solution provider.**" This integration will enable the classification of incoming 1098 calls into emergency, non-emergency, and information categories.

**Read more:** [Emergency Response Support System](#), [Childline India Foundation](#).

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