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India's Anaemia Situation

- The National Family Health Survey - 5 (NFHS-5) data has shown that India's anaemia situation has remained unchanged from the high prevalence of nearly 60% reported in the NFHS-4 survey (2015).
- It indicated that there was a high anaemic population of Indian women and children that had not responded to the various iron supplementation and food fortification programs implemented in the last five years.
- **WHO standard** - Currently, the WHO haemoglobin (Hb) diagnostic cut-off to diagnose anaemia is 12 gm/decilitre for women, and between 11 and 12 gm/decilitre at different ages for boys and girls.
- Some researchers said that anaemia is being over-diagnosed in India due to an inappropriately high WHO cut-off, and they asserted the need for re-examining this Hb cut-off.
- These researchers used data from the Comprehensive National Nutrition Survey (CNNS) carried out in 2016-18 (by the Health Ministry in collaboration with UNICEF and the Population Council).
- **CNNS** is an exhaustive and quality-controlled survey that measures a number of biomarkers of health and nutrition with great precision in venous blood sampled from a very large number of children across India.
- The prevalence of anaemia in these children was 35%, when using the WHO cut-off, lower than what the NFHS surveys have found.
- The extreme low value in a representative healthy population of children (in CNNS), or the 2.5th centile of the distribution of Hb values, was chosen as the Hb cut-off to diagnose anaemia.
- The Indian cut-offs based on the CNNS were lower than the current WHO cut-off, across all ages from 1-19 years in boys and girls.
- If the proposed anaemia cut-offs were used, the burden of anaemia in Indian children would fall from present value (35%) to one-third (11%).

Difference in blood sampling method

- The NFHS survey measured haemoglobin in a drop of capillary blood that

oozes from a finger prick.
- This can dilute the blood and give a falsely lower value, and so it will appear that there was a higher prevalence of anaemia in the population.
- The CNNS survey used the recommended method of venous blood sampling and gave accurate values.

Human DNA-inspired Storage System

- MIT researchers are working on a storage system that can hold ample data, without taking much space. It is inspired by the human DNA.
- **Need** - A coffee mug full of DNA could store all of the world's data.
- There are about 10 trillion gigabytes (GB) of digital data on Earth right now. Every day, another 2.5 million GB of data are added.
- This data consumes a lot of space as they are stored in enormous facilities known as exabyte data centers which can be the size of several football fields and cost around $1 billion to build and maintain.
- **Pros** - As the human DNA doesn't consume any energy, the data written on the DNA can be stored forever.
- Extreme stability, ease of synthesis and sequencing are other factors that favour DNA-based storage.
- **Challenges** in using DNA to store data include the cost of DNA synthesis and pulling out the vital file from the massive data repository.
- **Retrieval Technique** - The MIT team has developed a new retrieval technique to pull out the required data. It involves encapsulating each DNA file into a small silica particle.
- Each capsule is labeled with single-stranded DNA "barcodes" that correspond to the contents of the file.
- This enables them to pull out the desired file while leaving the rest of the DNA intact to be put back into storage.

Indian Certification of Medical Devices Plus Scheme

- ICMED 13485 PLUS scheme was launched by the Quality Council of India (QCI) and Association of Indian Manufacturers of Medical Devices (AiMeD).
- It has added further features to the ICMED the Scheme that had been launched for Certification of Medical Devices in 2016.
- ICMED Plus will verify the quality, safety and efficacy of medical devices.
- It integrates the Quality Management System components and product related quality validation processes through witness testing of products with reference to the defined product standards and specifications.
- Association of Healthcare Providers (AHPI) will encourage implementation of ICMED Plus among its members and stake holders.
- **Significance** - ICMED PLUS is the first scheme around the world in which

quality management systems along with product certification standards are integrated with regulatory requirements.
- This scheme will be an end to end quality assurance scheme for the medical devices sector in India.
- It provides the much-needed institutional mechanism for assuring the product quality and safety.
- It will assist the procurement agencies to tackle the challenges relating to the menace of counterfeit products and fake certification.

Categories of Security

- The Central Reserve Police Force (CRPF) and Central Industrial Security Force (CISF) are the two forces tasked with providing security to VIPs.
- While ministers get Central security cover due to their position in the government, a call on such security to private individuals is taken by the Home Ministry based on inputs from intelligence agencies.
- **Types of security cover** - There are six kinds of central security covers: X, Y, Y plus, Z, Z plus and SPG.
- The Special Protection Group (SPG) with an annual budget of about Rs 600 crore protects only the Prime Minister.
- But, the other categories - X, Y, Y plus, Z, Z plus - are provided to anyone based on the Centre's assessment.
- **X category** - Two personal security officers round the clock, which means around six PSOs assuming an 8-hour shift.
- **Y category** - Two PSOs and an armed guard at residence round the clock and additional security at night.
- That means about 11 personnel (5 for static duty and 6 for personal security) will work over shifts for the person.
- **Z category** - 22 personnel including 2 to 8 armed guards at residence, 2 PSOs round the clock and an armed escort of 1 to 3 for all road journeys.
- **Z+ category** - In addition to Z category security arrangements, protectees under this category get a bulletproof car, escort in three shifts and additional security when required.
- **Related Links** - How India Protects its VIPs

World Competitiveness Index

- The World Competitiveness Index was topped by Switzerland, while India maintained 43rd rank.
- This list is compiled annually by the Institute for Management Development (IMD) World Competitiveness Center.
- The Index ranks 64 economies and assesses the extent to which a country promotes the prosperity of its people by measuring economic well-being

through hard data and survey responses from executives.
- It measures the prosperity and competitiveness of nations by examining four factors -- economic performance, government efficiency, business efficiency, and infrastructure.
- This year, the rankings examine the impact of COVID-19 on economies around the world.
- **India** - India has maintained its position for the past three years but this year, it had significant improvements in government efficiency.
- India's improvements in the government efficiency factor are due to,
    1. Relatively stable public finances (despite difficulties brought by the pandemic, in 2020 the government deficit stayed at 7%) and
    2. Positive feedbacks registered among Indian business executives with respect to the support and subsidies given by the government to the private companies.
- IMD, however, added that the short term performance of India's economy will depend on its ability to address the pandemic.

Inland Vessels Bill, 2021

- The Union Cabinet gave the nod to the Inland Vessels Bill, 2021, which will replace the Inland Vessels Act, 1917.
- Total 4,000 km inland waterways have been operationalised. The Bill will regulate safety, security and registration of inland vessels.
- **Unified law** - A key feature of the Bill is a unified law for the entire country, instead of separate rules framed by the States.
- The certificate of registration granted under the proposed law will be deemed to be valid in all States and Union Territories. There will be no need to seek separate permissions from the States.
- **Central database** - The Bill provides for a central database for recording the details of vessel, vessel registration, crew on a portal.
- It requires all mechanically propelled vessels to be mandatorily registered. All non-mechanically propelled vessels will also have to be enrolled at district, taluk or panchayat or village level.
- **Definitions** - The Bill enlarges the definition of ‘inland waters’, by including tidal water limit and national waterways declared by the Central Government.
- **Pollution Control** - This Bill directs the Central Government to designate a list of chemicals, substances, etc. as pollutants. This deals with pollution control measures of Inland Vessels.

Source: PIB, The Hindu, Times of India



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