

PUBLIC HEALTH/SCIENCE AND TECHNOLOGY

❖ **Is the SARS-CoV-2 XBB.1.16 lineage a cause for concern?**

➤ **CONTEXT: Over the past three years and multiple waves of infection, the SARS-CoV-2 virus continues to evolve by accumulating genetic variations.**

➤ **What are recombinants?**

- Co-infection of multiple lineages of a virus could result in recombinations between genomes which can give rise to chimeric genomes, otherwise called recombinants. While most recombinations may not give rise to viable viruses, there is a rare possibility that recombination could result in the creation of a new lineage of the virus with better functional capabilities than either of the parent lineages.

- Several recombinant lineages of SARS-CoV-2 have emerged during the course of the COVID-19 pandemic. Two such recombinant lineages are currently designated as Variants Under Monitoring (VUM) by the World Health Organization

- ✓ XBB, a recombinant of Omicron sublineages BA.2.10.1 and BA.2.75,

- ✓ XBF, a recombinant of BA.5.2.3 and BA.2.75.3 Omicron sublineages.

- The lineage XBB.1.5, a sublineage of the XBB, first identified in New York City in October 2022, is currently designated as a Variant of Interest (VOI) by the WHO.

➤ **What is the XBB.1.16 lineage?**

- First detected in SARS-CoV-2 sequences from India, the XBB.1.16 is a recombinant lineage of the virus and is a descendent of the XBB lineage. The lineage has been circulating predominantly in India.

- A significantly large number of the genomes from outside India, such as in the U.S. and Singapore, have been linked with international travel, mostly from India. The variant has to date been detected in at least 14 countries across the world.

- The lineage XBB.1.16 has a number of mutations in common with the VOI XBB.1.5. Additional key mutations including E180V and T478R in the Spike protein and I5T in ORF9b are present in the XBB.1.16 lineage. In contrast, the XBB.1.5 has the mutation T478K in Spike.

- T478R is associated with immune escape, or the ability of the virus to evade antibodies generated from previous infections or vaccines. The ORF9b I5T mutation is also found in the lineage XBB.1.9 and has been widely believed to lend a growth advantage to the virus.

- Preliminary data also suggest that XBB.1.16 has a higher growth advantage over currently circulating SARS-CoV-2 lineages, including the XBB.1.5 lineage.

➤ **Why is XBB.1.16 a cause for concern?**

- Amid the ongoing increase in the number of seasonal influenza H3N2 cases, an uptick in COVID-19 cases is also being seen in India in the month of March, despite the low number of testing. The total number of active COVID-19 cases across the country has increased to over 6,000.

- The fast-spreading XBB.1.16 lineage is believed to be responsible for the recent spike in COVID-19 cases in India. Although data from systematic genomic surveillance in India is limited, XBB.1.16 today accounts for more than 30% of all the sequenced genomes in the month of March 2023, and its proportion has been seen to be increasing in the past few weeks.

- The States of Telangana, Karnataka, Gujarat and Maharashtra have reported the highest number of XBB.1.16 cases. However, this could be biased as not all States proactively sequence their samples. Based on preliminary data, there is no evidence to suggest that infections with the XBB.1.16 lineage differ in clinical severity from those caused by other Omicron lineages although the higher growth advantage and immune escape could lead to a higher risk of reinfection with XBB.1.16 compared to other circulating Omicron lineages. Protecting the vulnerable through time-tested means could therefore significantly blunt the rise in infections.

GOVERNANCE

❖ **Women in Public Sector Banks**

➤ **CONTEXT: Recently, data shared by the government shows increased participation of women on the payrolls of public sector banks.**

- According to data shared by the Minister of State for Finance, in the Lok Sabha the proportion of women employees has increased over the past year in most public sector banks. In three public sector banks women employees constitute 30% or more of the total work force. Indian Overseas Bank had the highest share of female staffers in their total staff strength at 36%

- Cabinet committee on Empowerment Of Women in its fourth report (16 th lok sabha) considered the working condition of women in public sector banks. It had the following suggestions

- ✓ It found representation of women in high grades low and asked the government to treat it as an issue of high priority.

- ✓ It called on the government to revisit policies regarding posting /transfer of women to distant places.

- ✓ It found low awareness among women employees regarding the venues available to them for prevention of sexual harassment at work place.
- **Women's Labour force participation**
- Data from the Centre for Monitoring Indian Economy (CMIE) shows that India's Labour Force Participation Rate (LFPR) has fallen to just 40% from an already low 47% in 2016.

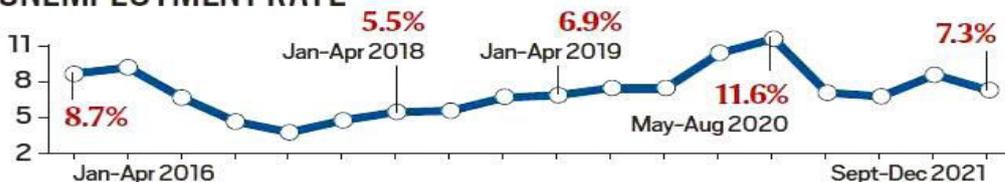
CHART 1

LABOUR FORCE PARTICIPATION & EMPLOYMENT RATES



CHART 2

UNEMPLOYMENT RATE



- The main reason for India's LFPR being low is the abysmally low level of female LFPR. According to CMIE data, as of December 2021, while the male LFPR was 67.4%, the female LFPR was as low as 9.4%.
- India ranks 135 among a total of 146 countries in the World Economic Forum's Global Gender Gap Index 2022, which slipped from 112th position in 2020.
- According to the World Bank. From 30.7% in 2006, the proportion of working age women taking part in paid work dropped to 19.2% in 2021,
- **Reasons for Low Participation**
- Lack of opportunities: Rural distress has affected women the most as income-generating opportunities have disappeared. The lack of suitable job opportunities is acute for women in rural India.
- Women education: India is one of the most climatically vulnerable places. All the improvements done over decades could be erased in an instance by Natural calamity; the poor public infrastructure and limited state capacity make the task difficult.
- Rising income among urban population: It has removed the economic incentive for women to work .
- Unpaid work: Most Indian women are deeply engaged in running households, which is unpaid work, and does not count as being part of the workforce.
- Demand-supply gap in employment: The country has not created enough jobs and the demand-supply gap in employment opportunities results in women deciding to stay at home.
- Working Conditions: The non-availability of white collar jobs, disproportionate long hours and lesser job security restricts the job opportunities for educated women in India.
- **Government Initiatives**
- The Maternity Benefit Act entitles a woman working in the organized sector to 26 weeks of paid maternity leave. With regard to childcare, the Act has created a provision to provide for crèche facilities in every establishment having 50 or more workers.
- The Protection of Women against Sexual Harassment at Workplace Act, defines sexual harassment at the workplace and creates an organisational mechanism for redressal of complaints.
- Equal Remuneration Act, 1976; Factories (Amendment) Act, 1948 also seek to provide equality and fairness in women working conditions.
- **Way Forward**
- Government policies should also start targeting women workers in the unorganised sector which houses the largest number of females and has little to no penetration of schemes.
- Apart from this Provision of amenities and basic infrastructure such as childcare facilities will go a long way in welcoming the entry of women into the labour force

PRELIMS

1. INS Androth

➤ **CONTEXT: Anti-submarine warship INS Androth launched**

- The INS Androth, second in a series of eight Anti-Submarine Warfare Shallow Water Craft, was launched in Kolkata recently.
- It was built by Garden Reach Shipbuilders and Engineers.
- Propelled by three diesel-driven water jets, these ships can attain a maximum speed of 25 knots.
- Their primary role is to conduct anti-submarine operations in coastal waters, low intensity maritime operations and mine laying operations.
- These ships are also capable of full-scale sub surface surveillance of coastal waters and various surface platforms and coordinated ASW operations with aircraft.

2. AT1 Bonds

➤ **CONTEXT: The biggest losers in the Credit Suisse fire sale are investors in the banking major's riskiest bonds — called additional tier 1 or AT1 — who are faced with a \$17 billion wipeout, potentially pushing Europe's \$275 billion market for these bonds into turmoil, with likely cascading impact across other geographies.**

➤ **What are AT1 bonds?**

- AT1 bonds are unsecured bonds that have perpetual tenors. In other words, these bonds, issued by banks, have no maturity date. There is a call option, which can be used by the banks to buy these bonds back from investors.
- Call options allow banks to redeem them after five or 10 years. But banks are not obliged to use this call option and can opt to pay only interest on these bonds for eternity. Two, banks issuing AT-1 bonds can skip interest payouts for a particular year or even reduce the bonds' face value without getting into hot water with their investors, provided their capital ratios fall below certain threshold levels. These thresholds are specified in their offer terms.
- Three, if the RBI feels that a bank is tottering on the brink and needs a rescue, it can simply ask the bank to cancel its outstanding AT-1 bonds without consulting its investors.

➤ **Purpose of AT1 Bonds**

- AT 1 bonds are typically used by banks to bolster their core or tier-1 capital.
- These bonds were introduced by the Basel accord after the global financial crisis to protect depositors. The bonds act as buffers for banks in times of stress and are perceived to be safer than equity shares.
- While AT1 Bonds offer higher returns to investors compared with other debt products, AT1 bonds are considered high risk because, in case of an institutional failure, the banks are allowed to stop paying interest and, if needed, write off these bonds.
- AT1 bonds are subordinate to all other debt and only senior to common equity. Mutual funds (MFs) were among the largest investors in perpetual debt instruments.

➤ **High Return High-Risk Bonds**

- These Bonds offer higher returns to investors. But compared to other debt products, these instruments carry a higher risk as well.
- These bonds can be written down by banks under the directions of the Reserve Bank of India (RBI) in the event of an institutional failure. Hence, they are seen as high-risk instruments. If the bank reaches the point of non-viability, AT1 bonds are the first part of the debt that will be written down.

3. Mental Health Act 2017

➤ **CONTEXT: The Mental Health Care Act, 2017 defines substance abuse disorders as mental illness, the Ministry of Social Justice and Empowerment informed the Lok Sabha recently, in response to a question about whether the government recognised this.**

- The Union government's measures to address this issue come under the umbrella of the National Action Plan for Drug Demand Reduction. This involves running the Nasha Mukta Bharat Abhiyan in 372 vulnerable districts, 340 integrated rehabilitation centres for addicts, 48 community-based intervention centres, and 71 outreach and drop-in centres.

➤ **Back ground of the Act**

- Before MHA 2017, the Mental Healthcare Act, 1987 existed, which prioritized the institutionalization of mentally ill people and did not afford any rights to the patient.
- The Act provided disproportionate authority to judicial officers and mental health establishments to authorize long-stay admissions, often against the informed consent and wishes of the individual.
- Consequently, several persons continue to be admitted and languish in mental health establishments against their will.
- It embodied the ethos of the colonial-era Indian Lunacy Act of 1912, which linked criminality and madness.

- ✓ Asylums were places where “abnormal” and “unproductive” behaviour was studied as an individual phenomenon, isolating the individual from society. The intervention is meant to correct an inherent deficit or “abnormality”, thereby leading to “recovery”.
- In 2017, the MHA dismantled the clinical heritage attached to asylums.
- **About the Act:**
- This Act defined mental illness as “a substantial disorder of thinking, mood, perception, orientation, or memory that grossly impairs judgment, behaviour, capacity to recognize reality or ability to meet the ordinary demands of life, mental conditions associated with the abuse of alcohol and drugs.
- It also provides the right of patients to access facilities that include rehabilitation services in the hospital, community, and home, sheltered and supported accommodation.
- It regulates the research on PMI (Person with Mental Illness) and the use of neurosurgical treatments.
- Rights under MHA:
 - ✓ Right to Make an Advance Directive (Patient can state on how to be treated or not to be treated for the illness during a mental health situation).
 - ✓ Right to Access to Healthcare Services.
 - ✓ Right to free of cost healthcare services.
 - ✓ Right to live in a community.
 - ✓ Right to protection from cruel, inhuman and degrading treatment.
 - ✓ Right not to be treated under prohibited treatment.
 - ✓ Right to equality and non-discrimination.
 - ✓ Right to information.
 - ✓ Right to confidentiality.
 - ✓ Right to legal aid and complain.
- Attempt to Commit Suicide not an Offence: A person who attempts to commit suicide will be presumed to be “suffering from severe stress” and shall not be subjected to any investigation or prosecution.
- The act envisages the establishment of Central Mental Health Authority and State Mental Health Authority.
- 4. **Rule 357 of the Rules and Procedure and Conduct of Business in Lok Sabha**
- **CONTEXT: Facing the heat for his recent critical remarks on the state of Indian democracy, Congress MP Rahul Gandhi has once again approached Lok Sabha Speaker Om Birla, seeking permission to respond to “totally baseless and unfair charges” made against him by senior Ministers in the Lok Sabha.**
- While making the request, Rahul cited one of the rules of procedure and conduct of business in the lower house of the Parliament “I am seeking this permission under the conventions of Parliamentary practice, the constitutionally embedded rules of natural justice and Rule 357 of the Rules of Procedure and Conduct of Business in Lok Sabha.”
- According to the norms of parliamentary procedure, the constitutionally enshrined principles of natural justice, and Rule 357 of the Rules of Procedure and Conduct of Business in the Lok Sabha, a member of parliament requests permission to present his View.
- In the part titled "Rules to be observed by the members" of the Lok Sabha Rules of Procedure and Conduct of Business, there is a provision for "personal explanation" in rule 357.
- According to the rule, "A member may, with the Speaker's permission, provide a personal explanation even if there is no question before the House; but, in this situation, no disputed topic may be raised, and no debate shall emerge."
- **View of Constitutional experts**
- According to constitutional expert that the House has the authority to determine whether the member violated a privilege or was in contempt of the House. The House has full autonomy.
- In general the claim that opposition legislators' microphones are turned off when they speak could be a matter for the Privileges Committee because it might be regarded as an insult to the Chair; however, the claim that India's democracy is under attack would probably not amount to a violation of the privileges of Parliament. However it is the House that decides on what it deems as contempt.

ANSWER WRITING

Q. India is one of the fastest-growing economies in the world however this growth has not resulted in a corresponding increase in its Human Development Index (HDI). Give reasons in support of this statement and suggest measures that should be taken to correct this.

The Human Development Index (HDI) is a composite statistical measure published by the United Nations Development Programme (UNDP) to evaluate and compare the level of human development in different regions around the world. The HDI assesses a country's average accomplishment in three aspects: a long and healthy

life, knowledge, and a decent standard of living. According to the Human Development Report of 2021-22, India ranks 132 out of 191 countries.

Reasons for low levels of human development in India:

- **Inequitable Growth:** Economic growth has been unevenly distributed and the top 10% of the Indian population holds over 77% of the wealth. This has resulted in significant disparities in access to basic amenities such as healthcare and education.
- **Regional Disparities:** The subnational HDI shows that, while some states have made considerable progress, others continue to struggle. E.g., Despite having the highest SGDP per capita among larger states, Gujarat and Haryana have failed to translate this advantage into human development and rank 21 and 10, respectively.
- **Absence of socioeconomic safety nets:** These are transfer programs to prevent the poor or those vulnerable to poverty from falling below a certain poverty level. One of the reasons for the low score on the HDI is that India does not have these safety nets.
- **Low quality of public services:** While India has made significant progress in reducing poverty and increasing access to healthcare and education, the quality of such services remains a concern. E.g., while the country has achieved near-universal enrolment in primary education, the quality of education remains low.
- **Historical factors:** The presence of a caste system in India has also resulted in many becoming disadvantaged, and having low levels of education, health and income. E.g., according to the 2011 census, the literacy level for scheduled castes is only 66.1 per cent as compared to the all-India level of 73 per cent.
- **Jobless Growth:** The job growth in India has not kept pace with GDP growth. Only 40% of the labour force that is capable of working is actually working or looking for work.

Measure that should be taken to improve human development:

- **Education Sector:** The education policy should shift its focus from enrolment to improvement in the functioning of schools as well as towards raising the quality of education outcomes.
 - ✓ The focus should be on the systematic implementation of the New Education Policy 2020.
- **Health Sector:** Effective policies in the public health sector calls for a convergence of initiatives in different sectors.
 - ✓ The focus should be on certain wider determinants of healthcare, like food and livelihood security, drinking water, and better nutrition and sanitation.
- **Employment and Skill development:** There is a need for prioritising investment for job creation and skill development to leverage demographic dividend.
 - ✓ The unorganised sector should also be strengthened and sustained with investment due to its spillover effect on the organised sector.
- **Social Protection Measures:** Disparities, whether they are rural-urban or regional, need to be reduced to ensure a higher level of economic development.
 - ✓ This calls for addressing the social protection needs of special groups such as migrant workers, the elderly, persons with disabilities, and tribals.
- **Ensuring gender equality:** There is a need to recognise the crucial role of women as agents of sustained socio-economic growth and change. This necessitates focusing on removing gender gaps as well as on women's empowerment, which would have a significant impact on reducing poverty and inequality.
- **Governance measures:** 'Outward accountability' is essential for facilitating greater responsiveness to the needs of the public and thereby enhancing service quality.
 - ✓ Participatory governance, through organisations of marginalised people, involvement of civil society, social audit etc. can yield positive results.
- **Developing required infrastructure:** Strategies should be designed to generate the requisite infrastructure in terms of both hardware and software, including teachers, pedagogy, health centres, training programmes, electricity and internet.

The UNDP report on human development highlights that countries should focus on implementing the 3Is which are Investment, Insurance and Innovation. Achieving development along with economic growth requires a multidimensional strategy. Policies that focus on the 3Is can enable India to thrive in the face of uncertainty and emerging challenges.

MCQs

1. With reference to recent developments regarding 'Recombinant Vector Vaccines', consider the following statements :
 1. Genetic engineering is applied in the development of these vaccines.
 2. Bacteria and viruses are used as vectors.
 Which of the statements given above is/are correct?

- a) 1 only b) 2 only c) **Both 1 and 2** d) Neither 1 nor 2
2. Consider the following statement with reference to INS Androth
1. It is an Anti-Submarine Warfare Shallow Water Craft (ASW SWC).
 2. It is built by Hindustan Shipyard Limited Vishakhapatnam for the Indian Navy.
 3. Its Primary Role is to conduct anti-submarine operations in coastal waters, low-intensity maritime operations, and mine-laying operations.
- Which of the above statement/s is/are correct?
- a) 1 and 2 only b) 2 and 3 only c) **1 and 3 only** d) 1,2 and 3
3. With reference to the Additional Tier-1 (AT1) bond, consider the following statements:
1. It is an unsecured and perpetual tenor bond.
 2. It is only issued by the Central Bank of a country.
- Which of the statements given above is/are correct?
- a) **1 Only** b) 2 Only c) Both 1 and 2 d) Neither 1 nor 2
4. With reference to Mental Healthcare Act 2017, consider the following statements:
1. Mental Healthcare Act 2017 succeeded the Mental Health Act of 1987.
 2. It decriminalized attempted suicides.
 3. The Mental Health Care Act, 2017 defines substance abuse disorders as mental illness
- Which of the above statements is/are correct?
- a) 1 and 3 only b) 2 and 3 only c) 1 and 2 only d) **1,2 and 3**
5. Which of the following Act/Acts seeks to provide equality and fairness in women working conditions?
1. The Maternity Benefit Act.
 2. The Protection of Women against Sexual Harassment at Workplace Act.
 3. Equal Remuneration Act, 1976
 4. Factories (Amendment) Act, 1948.
- Choose the correct answer using the codes given below
- a) 1,2 and 3 only b) 1 and 2 only c) 2,3 and 4 only d) **1,2,3 and 4**
6. The term "Governance Diagnostic Mission" often mentioned in news related to which of the following?
- a) **International Monetary Fund (IMF)**
 - b) World Bank (WB)
 - c) World Trade Organization (WTO)
 - d) World Economic Forum (WEF)
7. The term "Extend Fund Facility" recently seen news is associated with which of the following?
- a) Asia-Pacific Economic Cooperation (APEC)
 - b) Asia Pacific Trade Agreement (APTA)
 - c) **International Monetary Fund (IMF)**
 - d) Asian Development Bank (ADB)
8. Which of the following country became the first country in Asia to come under IMF's governance diagnostic exercise?
- a) Bhutan b) Pakistan c) Nepal d) **Sri Lanka**
9. Consider the following statements regarding the Corporal punishment:
1. Corporal punishment is any punishment in which physical force is used and intended to cause some degree of pain or discomfort.
 2. There is no statutory definition of 'corporal punishment' targeting children in the Indian law.
 3. Right of Children to Free and Compulsory Education (RTE) Act, 2009 only prohibits physical punishment not mental harassment.
 4. Juvenile Justice Act 2015 prohibits the corporal punishments.
- Choose the correct option below:
- a) **1, 2 and 4 only**
- b) 2,3 and 4 only
- c) 1 and 3 only
- d) 2 and 4 only
10. Which of the following became the first and the only state in India to pass Right to Health Bill?
- a) Punjab
 - b) Karnataka
 - c) **Rajasthan**
 - d) Himachal Pradesh