

# 25 Jan 2022: UPSC Exam Comprehensive News Analysis

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# A. GS 1 Related

Nothing here for today!!!

B. GS 2 Related

**Category: HEALTH** 

# 1. The challenge of antimicrobial resistance

Syllabus: Issues Relating to Health

Prelims: Pathogens of concern with respect to AMR



# Mains: Major findings of GRAM report; Causes of AMR; Associated concerns and recommendations to counter this challenge.

# **Context:**

- The Global Research on Antimicrobial Resistance (GRAM) report was published in 'The Lancet'.
  - GRAM is a joint effort of the University of Oxford Big Data Institute and Institute for Health Metrics (IHME).
- Based on estimates from 204 countries and territories, this report provides a comprehensive estimate of the global impact of <u>Antimicrobial Resistance (AMR)</u>.

# Major findings of the report:

- The report notes that as many as **95 million deaths may be associated with bacterial AMR in 2019.** As per this estimate, AMR is the leading cause of death globally, being higher than even HIV/AIDS or malaria.
- The six leading pathogens for deaths associated with AMR were *Escherichia coli*, followed by *Staphylococcus aureus, Klebsiella pneumoniae, Streptococcus pneumoniae, Acinetobacter baumannii*, and *Pseudomonas aeruginosa*. These six pathogens alone were responsible for 3.57 million deaths associated with AMR in 2019.
- Lower respiratory tract infections were the most common infectious syndrome, accounting for more than 1.5 million AMR related deaths in 2019.
- There is a **marked regional variation of the impact of AMR**. The death rate due to AMR was highest in Western sub-Saharan Africa and lowest in Australasia. In South Asia, over 3,89,000 people died as a direct result of AMR in 2019.

# Antimicrobial resistance:

- Antimicrobial resistance (AMR) refers to the **ability of microorganisms to withstand antimicrobial treatments**. Available antimicrobials become ineffective because pathogens such as viruses, fungi and bacteria become resistant to them.
  - Antimicrobials include antibiotics, antivirals, antifungals and antiparasitics.





# **Concerns:**

#### Leading cause of death:

• Increasing Antimicrobial resistance (AMR) among common bacteria has made them more resistant to treatment. As a result, common infections such as lower respiratory tract infections, bloodstream infections, and intra-abdominal infections have become the cause of death of hundreds of thousands of people every year.



#### Threat to public health:

- AMR remains a major threat to public health.
- As the microbials no longer respond to medicines, this **makes infections harder to treat** and this increases the **risk of disease spread, severe illness and death.** It renders available treatment ineffective. Previously treatable infections, such as pneumonia, hospital-acquired infections, and foodborne ailments have also become untreatable in some cases due to AMR.
- Especially alarming is the rapid global spread of **multi- and pan-resistant bacteria** (also known as "**superbugs**").
- The <u>World Health Organization</u> has declared **AMR as one of the top 10 global public health** threats facing humanity.

#### Impact on growth and development:

• The cost of AMR to the economy is significant. In addition to death and disability, prolonged illness results in longer hospital stays, the need for more expensive medicines and financial challenges for those impacted.

#### Vulnerability of children:

- Though everyone is at risk from AMR, young children are particularly vulnerable.
- Children continue to be affected due to AMR. In 2019, one in five global deaths attributable to AMR occurred in children under the age of five.

#### **Impact on health practices:**

- Antimicrobial resistance has been having an adverse impact on global health practices as well. AMR is threatening the ability of hospitals to keep patients safe from infections and **undermining the ability of doctors to carry out essential medical practice safely**, including surgery, childbirth and cancer treatment since infection is a risk following these procedures.
- Without effective antimicrobials, the success of modern medicine in treating infections, including during major surgery and cancer chemotherapy, would be at increased risk.

#### **Recommendations:**

• AMR is a complex problem that requires a united multisectoral approach.

#### Judicious use of antibiotics:

• There should be more thoughtful use of antimicrobial medicines. The antibiotics should be used only where necessary and minimised where not necessary according to **WHO's recommendations** on the same.



#### One health approach:

- The use of antibiotics in food and animal production must be optimised.
- This brings together multiple sectors and stakeholders engaged in human, terrestrial and aquatic animal and plant health, food and feed production and the environment to communicate and work together in the design and implementation of programmes, policies, legislation and research to attain better public health outcomes.

#### Monitoring infections:

- A structured monitoring system should be put in place to monitor the advent and spread of AMR. This would help identify the dominant pathogens and drive evidence-based policymaking on the issue.
  - WHO launched the **Global Antimicrobial Resistance and Use Surveillance System** (**GLASS**) in 2015 to continue filling knowledge gaps and to inform strategies at all levels. GLASS has been conceived to progressively incorporate data from surveillance of AMR in humans, surveillance of the use of antimicrobial medicines, AMR in the food chain and in the environment.

#### **Controlling infections:**

- Lack of clean water and sanitation and inadequate infection prevention and control promotes the spread of microbes, some of which can be resistant to antimicrobial treatment.
- There needs to be a greater focus on **controlling infections, globally, nationally and within individual hospitals**. Access to vaccines, clean water and sanitation needs to be expanded to control the spread of infectious diseases.
- Antimicrobials should be made affordable and accessible to everyone.

#### **Developing new antimicrobials:**

- Between 1980 and 2000, 63 new antibiotics were approved for clinical use. Between 2000 and 2018, just 15 additional antibiotics were approved. Out of the seven deadliest drug-resistant bacteria, vaccines are only available for two (Streptococcus pneumoniae and Mycobacterium tuberculosis).
- There needs to be **increased Research and Development activities with respect to the development of new antimicrobials**. This would require the allocation of increased funding and development of **national policies** and required human resources.
- Also, the efforts at developing new antimicrobials must be **targeted at priority pathogens such** as *K. pneumoniae* and *E. Coli*.

#### **Collaboration and cooperation:**



- Given the criticality of the issue and the potential of pooling resources, **increased international collaboration and cooperation** on this would be a welcome effort.
  - Globally, countries committed to the framework set out in the **Global Action Plan1 (GAP) 2015 on AMR** during the 2015 World Health Assembly and committed to the development and implementation of multisectoral national action plans.

#### Nut Graf

Antimicrobial resistance (AMR) is a global health and development threat and unless urgent multisectoral action is taken in this regard, AMR could undermine global efforts to achieve the Sustainable Development Goals (SDGs).



# Syllabus: Issues relating to development and management of Social Sector relating to Education

# Mains: Consequences of School Closure on Children in India

Context: This article examines the adverse consequences of School Closure on Children in India.

#### How Covid-19 Pandemic has impacted School Closure in India:

- UNICEF estimated that school closures affected about 250 million children in India.
- The primary "reason" being provided for school closure is to "protect children".
- Some medical professionals have argued that COVID-19 vaccines are necessary for children as otherwise children may carry the infection from school back home to adults.



#### What are the Consequences of School Closure on Children Welfare?

- **Deprivation of Learning Skills:** It is observed that reading and writing levels of children have declined, with nearly half of them unable to read more than a few words. More than a third of them were not studying at all.
- **Mental Health Issues:** The mental health issues are deeply concerning. The U.K. has reported alarming increases in mental health issues among kids. Likewise, the American Academy of Pediatrics called the mental health crisis among children a national emergency.
- **Increasing Issue of Malnutrition:** Malnutrition has become a serious problem since the closed schools deprived children from mid-day meals.
- Child Labour: Decades of progress against the severe malice of child labour has been reversed due to extended school closure. As per the 2011 Census, we had an estimated 10.1 million children in child labour.
- Increased Exposure to Violence and Exploitation: When schools shut down, early marriages increase, sexual exploitation of girls and young women rises, teenage pregnancies become more common, and child labour grows.
- **Digital Divide deepening the already existing Inequalities:** School closures have led classes to be moved online. Millions of children from poor families were left disadvantaged as they did not have access to digital devices and the internet.
- Unsuitability of online education: Online education would be a poor replacement for physical classes as children, especially in primary and pre-primary classes, can learn efficiently only through human interactions with teachers and peers.

#### **Initiatives Taken:**

**'Happy 2022, Happy for Kids Too' Initiative:** A group of professors and eminent persons have started an initiative, 'Happy 2022, Happy for Kids Too', which has been endorsed by various epidemiologists, doctors and educationists.

**UNICEF's Framework for Reopening Schools:** This framework is issued jointly with <u>UNESCO</u>, UNHCR, WFP and the World Bank, and offers practical advice for national and local authorities to prioritize the unique needs of every student.

#### **Recommendations:**



- Education sector must adopt a multipronged approach to ensure no child is left behind
- Policymakers should focus on creating incentives to get children back in school. For ex mid-day meals
- Building back better education system such as Identifying gaps and assessing the current educational status of the children
- Focusing on direct and continuous interactions with parents to encourage increased attendance of children
- Incorporating bridge courses that help children overcome their learning losses, so that the gap created in education does not impact their learning in the future.
- Launching a campaign aimed at getting girls back to school with active support from school management committees and the local government

#### **Conclusion:**

• Education is a constitutional right. Prolonged school closures and the lack of quality and accessible online education is a violation of children's rights.

#### **Nut Graf**

School closures have devastating consequences for children's learning and wellbeing. The most vulnerable children and those unable to access remote learning are at an increased risk of never returning to the classroom, and even being forced into child marriage or child labour. The decision to have prolonged school closures as a response to the pandemic should be a thoroughly thought-out one.

#### **Category: HEALTH**

#### 1. Tackling the Omicron wave, getting future-ready

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health.

Mains: Ways to tackle the third wave of COVID-19 in India



# **Context:**

This article discusses the necessary steps to be taken to tackle the third wave of COVID-19 in India.

#### What is Omicron?

- WHO has designated the COVID-19 Omicron variation as a variant of concern, based on evidence that it contains numerous alterations that could affect how it acts.
- Know more about **Omicron Variant of Concern (VOC).**

#### What is the Global Response to Omicron variant of COVID-19?

- Many countries opted for 'medicalised' health system response amidst insufficient adherence to COVID appropriate behaviour by citizens.
- Two doses of vaccine continue to provide protection from severe disease, hospitalization and deaths.
- Besides, administering a booster dose to keep antibody levels high is another example of the 'medicalisation' of a public health intervention.
- COVID-19 testing is being promoted to carry out routine activities of daily life, while there is limited public health benefit of such testing in halting transmission.
- In this backdrop, it is not a complete surprise that spread continues unabated in some countries.

#### CASE STUDY: South African Response to Omicron:

In the recent wave, in spite of the high number of cases, South Africa imposed minimal restrictions, which were lifted quickly. In response to this wave, the country revised the isolation, quarantine and contact tracing strategies, based on new epidemiological understanding. There were no reports of excessive use of blood tests, CT scans, unnecessary medications or hospital admissions.

Following the Omicron surge, South Africa decided to introduce the COVID-19 vaccine booster dose.

#### What are the ways to tackle the third wave of COVID-19 in India?

- Considering the infection and hospitalization 'decoupling' in this wave, the old indicators such as test positivity rates are inefficient and more effective parameters must be used for decision-making.
- Focus upon developing science and evidence-based case identification and treatment plans which are strictly adhered to, by both public and private healthcare providers.
- Make efforts to continue economic activities by minimizing unnecessary COVID-19 curbs with the only exception being large public gatherings.



- Mount a credible, timely and transparent science communication from trustworthy sources to face the challenge of 'Infodemic'.
- Use new scientific and epidemiological understanding to ensure that social and economic activities return to normalcy.
- To ensure social and economic activities return to normalcy, there has to be a renewed focus on improving public health communication for calibrated COVID appropriate behaviour.
- Incentivize citizens to increase adherence to COVID appropriate behaviour and explore public subsidies for masks including provisions for free mask distribution.
- Train and retrain and empower general physicians, family physicians and primary care providers in every setting.

#### **Conclusion:**

One of the biggest learnings from the pandemic is that India needs to strengthen primary healthcare systems, which could become the fulcrum of the COVID-19 response in the post-pandemic period.

The pandemic response strategy should be revised to ensure that the majority of infections are detected and COVID-19 cases attended at primary healthcare facilities which are closer to the people.

#### Nut Graf

A multi-dimensional approach to tackling the pandemic is the best way forward even as India battles the third wave of the covid-19 virus. Lessons should be learnt from success stories and best practices embraced to reduce the social, economic and health impacts of the third wave.

#### **F. Prelims Facts**

# 1. Recognise Netaji as India's first PM: TMC

#### **Context:**

- A senior member of a political party has asked the Union government to recognise <u>Netaji Subhas</u> <u>Chandra Bose</u> as the first Prime Minister of the country as he headed the Provisional Government of Free India formed in October 1943.
- This comes amid celebrations of the 125th birth anniversary of Subhas Chandra Bose.

# Azad Hind government:



- On 21 October 1943, Subhas Chandra Bose announced the formation of the <u>Provisional</u> <u>Government of Azad Hind (Free India)</u>, with himself as the Head of State, Prime Minister and Minister of War. Thus it became India's first independent provisional government. It was based in Singapore.
- Soon after the announcement, the Provisional Government received **recognition from various countries** including Japan, Croatia, Indonesia, Germany and Italy along with a few others. They also had diplomatic relations with it.
- The government of Azad Hind had its own currency, court, civil code and national anthem.
- The Provisional Government facilitated the mobilisation of Indians in East Asia to join and support the **Indian National Army.**

#### G. Tidbits

#### 1. 100 terrorists waiting across border: BSF

- Border Security Force (BSF) has stated that around 135 militants are present at launch pads across the LoC waiting to infiltrate into India.
  - 2021 saw around 58 infiltration attempts from across the LoC. Notably, infiltration along the LoC has been showing a downward trend.
- BSF noted that the overall situation along the Line of Control has been peaceful since the ceasefire agreement between India and Pakistan in 2021.

#### 2. India, Israel mark a major milestone

- India and Israel have started a series of events to celebrate three decades of diplomatic relations, which began in 1992.
- The Indian Prime Minister has previously termed **India and Israel as natural partners**, underlining the potential of this bilateral relationship.
- The relationship has been multidimensional with major scope in the domain of **defence technology**, **national security and counter-terrorism**, **water technology**, **agriculture**, **trade and innovation and entrepreneurship**.

#### 3. 'India can make \$300-bn electronics by 2026'



- As per a document released by the Ministry of Electronics and IT (MeitY) in association with the India Cellular & Electronics Association (ICEA), India is likely to achieve electronics production of \$300 billion by 2026 as against the set **target of \$400 billion by 2025** as per the **National Policy on Electronics (NPE) 2019.**
- Despite lower than targeted growth owing mostly to the challenges brought forth by the pandemic, the electronics manufacturing sector has shown impressive growth over the prepandemic phase years.
- The major challenges being faced by the industry include qualitative (non-tariff, infrastructure-related) and quantitative (tariff, free trade agreements, etc.) aspects.

#### 4. Amid Ukraine crisis, NATO sends planes, ships to Eastern Europe

- NATO allies have put forces on standby and are reinforcing eastern Europe with more ships and jets to bolster Europe's eastern defences as tensions soar over Russia's military buildup around Ukraine.
- The U.S. is also trying to prepare an unprecedented **package of sanctions on Russia** if it sends in more of its forces.

#### H. UPSC Prelims Practice Questions

#### Q1. Which of the given statements with respect to Star campaigners is/are correct?

- 1. There is no law that defines a star campaigner or governs who can or cannot be made a star campaigner.
- 2. The election commission has issued guidelines under the Model Code of Conduct (MCC) for regulating election campaigning by star campaigners.
- 3. A star campaigner is nominated by the Election Commission specifying their constituencies.
- 4. A recognised political party can have 30 star campaigners and an unrecognised registered political party can have 15.

#### **Options:**

- a. 1, 2 and 3 only
- b. 2 and 4 only
- c. 1, 2 and 4 only
- d. 1 and 4 only

#### Answer: c



#### **Explanation:**

- There is no law that defines who is a star campaigner. It is a status that political parties contesting an election give to certain big names who the parties feel have more vote-fetching ability in the polls than others.
- A star campaigner is a celebrity vote seeker in an election for a party. This person can be a politician or even a film star. There is no law governing who can or cannot be made a star campaigner.
- They are nominated by the concerned political parties specifying their constituencies and duration of the status.
- A 'recognised' party declared as such by the Election Commission -- can nominate a maximum of 40 star campaigners. An unrecognised political party can nominate a maximum of 20 star campaigners. However, owing to the pandemic this has been reduced to 30 for recognized parties and 15 for unrecognized parties.
- The Supreme Court in one of its rulings has said the Election Commission does not have the power to decide who can be a star campaigner.

#### Q2. Consider the following statements with respect to INSPIRE-MANAK Awards:

- 1. The scheme is being executed by the Department of Science and Technology with the National Innovation Foundation.
- 2. It covers students in the age group of 10-15 years and studying in classes 6 to 10 from both government as well as private schools.
- 3. Award of Rs. 10,000 is disbursed into the bank accounts of short-listed students through Direct Benefit Transfer (DBT) scheme.

# Which of the given statement/s is/are INCORRECT?

- a. 2 only
- b. 3 only
- c. 1 and 3 only
- d. None of the above

#### Answer: d

#### **Explanation:**

• 'Innovation in Science Pursuit for Inspired Research' (INSPIRE) scheme is one of the flagship programmes of the Department of Science & Technology (DST), Government of India. The INSPIRE Awards - MANAK (Million Minds Augmenting National Aspirations and



Knowledge), being executed by DST with National Innovation Foundation – India (NIF), an autonomous body of DST, aims to motivate students studying in classes 6 to 10.

- The objective of the scheme is to target one million original ideas/innovations rooted in science and societal applications to foster a culture of creativity and innovative thinking among school children.
- Award of Rs. 10,000 is disbursed into the bank accounts of short-listed students through Direct Benefit Transfer (DBT) scheme.

#### Q3. "Minsk Agreements" often seen in news were signed between:

- a. Russia and USA
- b. Russia and Belarus
- c. Russia and Ukraine
- d. Russia and Crimea

#### Answer: c

#### **Explanation:**

• Minsk Agreement was signed in 2015 between Russia and Ukraine. It mainly dealt with a commitment to a ceasefire along the existing line of contact between Russia and Ukraine.

# Q4. Birbala Kanaklata Barua is famous for taking part in which of the following movements during the Indian Freedom Struggle?

- a. Civil Disobedience Movement
- b. Salt Satyagraha
- c. Non-Cooperation Movement
- d. Quit India Movement

# Answer: d

#### **Explanation:**

• Kanaklata Barua also called Birbala was an Indian independence activist who was shot dead by the British police while leading a procession bearing the National Flag during the Quit India Movement of 1942.

# **Q5.** Consider the following statements in respect of Trade Related Analysis of Fauna and Flora in Commerce (TRAFFIC):

1. TRAFFIC is a bureau under United Nations Environment Programme (UNEP).



2. The mission of TRAFFIC is to ensure that trade in wild plants and animals is not a threat to the conservation of nature.

#### Which of the above statements is/are correct? (UPSC 2017)

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

#### Answer: b

#### **Explanation:**

- Wildlife trade is one of the world's most pressing conservation challenges, affecting hundreds of millions of people and thousands of wildlife species. Trade Related Analysis of Fauna and Flora in Commerce (TRAFFIC) is a leading non-governmental organization working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.
- It was founded in 1976 as a strategic alliance of the World Wide Fund for Nature (WWF) and the International Union for the Conservation of Nature (IUCN).

# I. UPSC Mains Practice Questions

- 1. List out the most probable reasons for increasing antimicrobial resistance in India. What initiatives have been taken to tackle this problem? (250 words; 15 marks)(GS Paper 3/Science and Technology)
- 2. Prolonged school closures due to the pandemic have dented an already fragile education system in India. Comment. (250 words; 15 marks)(GS Paper 2/Social Justice)