

Coronavirus

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Source: *The Hindu*

Manifest pedagogy: Every year one or more diseases (epidemic or endemic) and the microbes responsible for them make big news. The cause, spread, cure and prevention of those diseases become important for mains and the microbes and the vaccine specifications are important for prelims.

In news: India's first case of Coronavirus of a student from Wuhan University has been reported in Kerala.

Placing it in syllabus: Diseases (explicitly mentioned)

Static dimensions:

- What is a Coronavirus?
- History of Coronavirus

Current dimensions:

- Timeline of nCoV
- Precautions to be taken
- nCoV and India

Content:

Over 170 people have died so far in China and thousands infected after the outbreak of the deadly Coronavirus. The Chinese government has sealed off several cities, in a bid to contain the spread of the virus.

What is a Coronavirus?

- Coronavirus is a kind of common virus that causes an infection in your nose, sinuses, or upper throat.
- **Most coronaviruses are not dangerous.**
- They get their name from their **crown-like shape.**

- These viruses are **zoonotic**, which means they are transmitted from animals to humans.
- Most coronaviruses **spread through infected people** coughing and sneezing, by touching an infected person's hands or face, or by touching things that infected people have touched.
- Often a coronavirus **causes upper respiratory infection symptoms** like a stuffy nose, cough, and sore throat.
- But if a coronavirus infection spreads to the lower respiratory tract it can cause pneumonia.

History of Coronavirus:

- Coronavirus family is sprawling and **includes** deadlier outliers like **Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS)**, which have fatality rates of up to 15 percent and 35 percent, respectively.
- In 2003, 774 people died from SARS outbreak.
- About 858 people died from MERS, which first appeared in 2012 in Saudi Arabia and then in other countries in the Middle East, Africa, Asia, and Europe.
- In May 2015, there was an outbreak of MERS in Korea, which was the largest outbreak outside of the Arabian Peninsula.
- In early 2020, following a December 2019 outbreak in China, the World Health Organization (WHO) have identified a new type, **2019 novel Coronavirus (2019-nCoV)**.

Timeline of nCoV:

- The 2019-nCoV is a **new strain of coronaviruses** and **has not been previously seen in humans**.
- While the **exact source is yet to be identified**, other strains of coronaviruses have previously been seen to be transmitted from civet cats to humans (in the case of SARS-CoV) and from dromedary camels to humans (in the

case of MERS-CoV).



The WHO has listed the **following common signs** observed in people infected by 2019-nCoV:

- Fever
- Cough
- Shortness of breath and breathing difficulties
- Pneumonia
- SARS
- Kidney failure
- Death
- **WHO on January 30th, 2020 has declared a global health emergency** over the nCoV.
- More than **8,200 people have been infected with the virus** – almost all of them in China and **171 have died**.
- There have been **82 confirmed cases in 18 other countries**, including cases of onward transmission in Germany, Japan, the United States and Vietnam.
- The **designation, which is reviewed every three months**, allows the WHO to issue global recommendations that the international community is expected to follow.
- The WHO has called a **public health emergency of international concern only five times since 2007** – for *Swine Flu, Polio, Zika and twice for Ebola outbreaks in Africa*.

Precautions to be taken:

There is no vaccine for Coronavirus. Scientists are racing to develop a vaccine for nCoV and WHO is coordinating this global quest for a new vaccine. **Research is still at an early stage** at all the facilities. There are no guarantees that any of the designs so far developed will be safe and effective enough to be used in the outbreak in China.

As per WHO, the **following precautions** need to be observed:

- Avoiding close contact with people suffering from acute respiratory infections.
- In case of symptoms of acute respiratory infection, maintaining distance, coughing and sneezing using disposable tissues or clothing.
- Washing hands frequently, especially if there is a direct contact with ill people or exposure to their environment.
- Avoiding close contact with live or dead farm and wild animals.
- Avoid touching eyes, nose or mouth with hands and avoiding any contact with sick animals or spoiled animal products.
- Avoid consuming raw or undercooked animal products.

nCoV and India:

- The patient detected positive with n-CoV in Kerala is in isolation in a hospital and is being closely monitored.
- The Health Ministry has prescribed a **14-day isolation period for people with travel history to China in the past 15-days** or had possible contact with an nCoV-infected person (i.e. sleeping in a separate room, limit contact with other family members and avoid visitors and close contact with anyone with cold or flu-like symptoms and maintaining a distance of at least 1 metre from any individual).
- Various airports in the country have started **screening passengers arriving from China** for symptoms of coronavirus infection.
- **India has readied a state-carrier airplane to travel to Wuhan** but was waiting for a nod from Chinese authorities who were trying to sequence the whole evacuation process.
- According to official sources, **only those nationals who don't have the virus will be airlifted** and will be brought into a **quarantine facility outside Delhi.**

