Syllabus subtopic: Important International institutions, agencies and fora, their structure, mandate.

Prelims and Mains focus: about the virus outbreak and actions taken to address it; about Coronavirus and its impact on humans; about WHO: structure and functions

News: There may have been limited human-to-human transmission of a new coronavirus in China within families, and it is possible there could be a wider outbreak, the World Health Organization (WHO) said on Tuesday.

- Coronaviruses are a large family of viruses that can cause infections ranging from the common cold to severe acute respiratory syndrome (SARS). A Chinese woman has been quarantined in Thailand with a mystery strain of coronavirus, Thai authorities said on Monday, the first time the virus has been detected outside China.

Actions taken by WHO

- The WHO is however preparing for the possibility that there could be a wider outbreak.

- Some types of the virus cause less serious diseases, while others - like the one that causes Middle East respiratory syndrome (MERS) - are far more severe.

- The UN agency has given guidance to hospitals worldwide about infection control in case the new virus spreads. There is no specific treatment for the new virus, but anti-virals are being considered and could be "re-purposed".

About Coronavirus

- Coronaviruses are species of virus belonging to the subfamily Coronavirinae in the family Coronaviridae, in the order Nidovirales. Coronaviruses are
enveloped viruses with a positive-sense single-stranded RNA genome and with a nucleocapsid of helical symmetry. The genomic size of coronaviruses ranges from approximately 26 to 32 kilobases, the largest for an RNA virus.

- The name "coronavirus" is derived from the Latin corona, meaning crown or halo, and refers to the characteristic appearance of virions under electron microscopy (E.M.) with a fringe of large, bulbous surface projections creating an image reminiscent of a royal crown or of the solar corona. This morphology is created by the viral spike (S) peplomers, which are proteins that populate the surface of the virus and determine host tropism.

**Diseases caused by Coronavirus**

- Coronaviruses primarily infect the upper respiratory and gastrointestinal tract of mammals and birds. Seven different currently known strains of coronaviruses infect humans.

- Coronaviruses are believed to cause a significant percentage of all common colds in human adults and children. Coronaviruses cause colds with major symptoms, e.g. fever, throat congestion and adenoids, in humans primarily in the winter and early spring seasons.

- Coronaviruses can cause pneumonia, either direct viral pneumonia or a secondary bacterial pneumonia, and bronchitis, either direct viral bronchitis or a secondary bacterial bronchitis.

- The much publicized human coronavirus discovered in 2003, SARS-CoV which causes severe acute respiratory syndrome (SARS), has a unique pathogenesis because it causes both upper and lower respiratory tract infections.

- The significance and economic impact of coronaviruses as causative agents of the common cold are hard to assess because, unlike rhinoviruses (another common cold virus), human coronaviruses are difficult to grow in the laboratory.
Coronaviruses also cause a range of diseases in farm animals and domesticated pets, some of which can be serious and are a threat to the farming industry.

**Note:** to read about the new coronavirus in detail, click on the link below

[https://www.ft.com/content/7a80b8c6-362c-11ea-a6d3-9a26f8c3cba4](https://www.ft.com/content/7a80b8c6-362c-11ea-a6d3-9a26f8c3cba4)

**About World Health Organization**

- **established** on 7 April 1948
- **headquarters** — Geneva, Switzerland
- **specialized agency** of the United Nations
- WHO is a member of the United Nations Development Group
- It is concerned with international public health.

**Its Predecessor**

- **International Sanitary Conferences** — A series of 14 conferences that lasted from 1851 to 1938. The International Sanitary Conferences worked to combat many diseases, chief among them cholera, yellow fever, and the bubonic plague
- **Health Organization** — agency of the League of Nations

**Reports published by WHO**

- World Health Report, the worldwide World Health Survey
- Global Urban Air Pollution database

**How it functions:**

- World Health Assembly — Geneva
- legislative and supreme body of WHO
- appoints the Director-General every five years
- votes on matters of policy and finance of WHO, including the proposed budget
- reviews reports of the Executive Board

**Executive body:** 34 members, technically qualified in the field of health elected by the world health assembly for three-year terms
• carry out the decisions and policies of the Assembly, to advise it and to facilitate its work