

28 APRIL 2019

NEGLECTED DISEASES

Why in news?

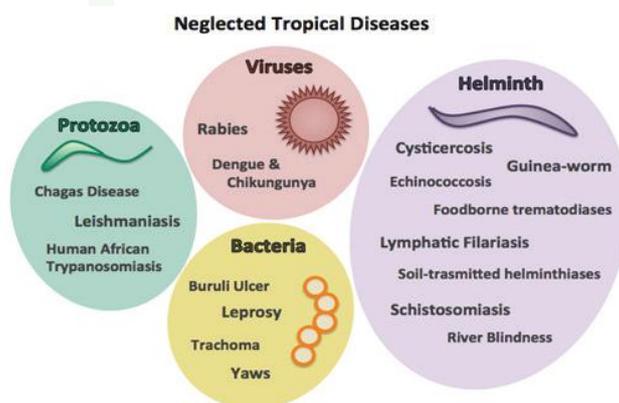
- As per a recent study, India was reported to be the fourth largest funder of research and development (R&D) in neglected diseases.

More on news:

- However, the same study observes that the policy framework for tackling the neglected diseases is poor in India.
- The study advises India to learn from the global examples of treating the neglected diseases as a separate class for special policy intervention.
- The study believes that these kinds of approaches will arrest the innovation deficit in the neglected diseases sector.

About Neglected Diseases:

- The Neglected Diseases are also called as Neglected tropical diseases (NTDs) since most of those diseases occur in the tropical region.
- This category of Neglected diseases was charted for the first time in 1980s by World Health Organisation.
- Neglected tropical diseases (NTDs) are a diverse group of tropical infections which are common in low-income populations in developing regions of Africa, Asia, and the Americas.
- They are caused by a variety of pathogens such as viruses, bacteria, protozoa and helminths.
- These diseases are contrasted with the big three infectious diseases (HIV/AIDS, tuberculosis, and malaria), which generally receive greater treatment and research funding.
- Some of the Neglected tropical diseases include Leprosy, Rabies, Dengue, Chikungunya, Leishmaniasis, Chagas diseases, Trachoma, Yaws disease etc.



About Rare Diseases:

- A rare disease is any diseases that affect a small percentage of the population.
- Most rare diseases are genetic and thus are present throughout the person's entire life, even if symptoms do not immediately appear.
- Many rare diseases appear early in life, and about 30% of children with rare diseases will die before reaching their 5 years of age.
- However there is no single cut-off number has been agreed upon by the global health community for which a disease is considered rare.
- A U.S. based health organisation has estimated that more than 300 million people worldwide are living one of the approximately 7,000 diseases.

About Orphan Diseases:

- The Orphan diseases comprise both rare diseases and neglected diseases. They are orphans of research focus, market interest and even public health policies.
- The reason for this situation is the business led pharmaceutical innovation model currently prevalent in this world.

Note



- This business led model pharmaceutical model works well in cases of diseases with markets that ensure adequate return or investment.
- If the market size is not attractive, industry will not invest in such cases. This leads to market failures resulting innovation deficit.

Note:

The Government of India should leverage more policy action when it comes to the neglected tropical diseases in order to achieve the goal of Universal Health Coverage for all

RTS,S

In News:

RTS, S is the world's first malaria vaccine tested in Malawi.

In Brief:

1. The vaccine is being called RTS,S.
2. It is the first, and to date, the only, vaccine that has demonstrated it can significantly reduce malaria in children.
3. The pilot tests in Malawi of the world's first malaria vaccine is the biggest public health news break his year.
4. The vaccine, to be administered to children under two years, will also be introduced in Ghana and Kenya.

Why this is big?

1. At a time when the very scientific basis and veracity of vaccines are being challenged and doubted as the rising insurance of vaccine hesitancy shows, the malaria vaccine pilots is a reinforcement of the age-old adage of medicine – prevention better than cure.
2. It is also important because as global warming becomes more and more severe there are predictions of vectors such as mosquitos seeing an explosive rise the world over, including in areas where they are traditionally not found.

Malaria:

Malaria, according to the World Health Organisation, remains one of the world's leading killers, claiming the life of one child every two minutes.

Most of these deaths are in Africa, where more than 250 000 children die from the disease every year. Children under 5 are at greatest risk of its life-threatening complications. Worldwide, malaria kills 435 000 people a year, most of them children.

India and Malaria:

1. India ranks very high in the list of countries with a serious malaria burden.
2. In 2018, 399134 malaria cases were reported in the country, says data from the National Vector Borne Disease Control Programme.

Note

What is this RTS,S?

The vaccine is the first, and to date, the only, vaccine that has demonstrated it can significantly reduce malaria in children. In clinical trials, the vaccine was found to prevent approximately 4 in 10 malaria cases, including 3 in 10 cases of life-threatening severe malaria.

Cyclone Kenneth

In news:

Kenneth is the first tropical cyclone with the equivalent of hurricane strength (With 140 mph winds) to strike Mozambique's northern province of Cabo Delgado since modern record-keeping began 60 years ago.



In March 2019, the central part of the country was slammed by Cyclone Idai, which resulted in hundreds of fatalities.

Tropical Cyclones:

Tropical cyclones are the most violent storms on Earth. People call these storms by other names, such as typhoons or Hurricanes, depending on where they occur. The scientific term for all these storms is tropical cyclone. Only tropical cyclones that form over the Atlantic Ocean or eastern Pacific Ocean are called “hurricanes.”

Whatever they are called, tropical cyclones all form the same way.

Conditions required:

1. Large sea surface with temperature higher than 27° C,
2. Presence of the Coriolis force enough to create a cyclonic vortex. Tropical cyclones do not form at equator, because of absence of Coriolis force.
3. Small variations in the vertical wind speed,
4. A pre-existing weak low-pressure area or low level cyclonic circulation,
5. Upper divergence above the sea level system.

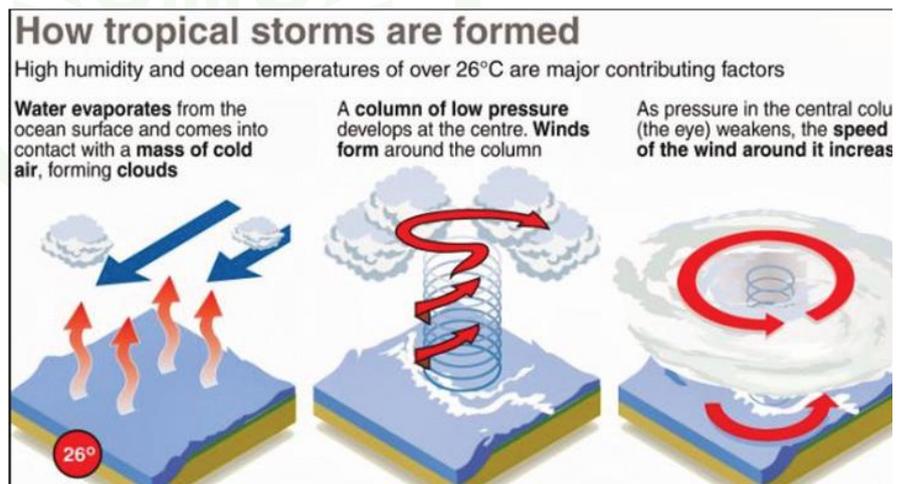
Most of the cyclonic activity occurs between 8° and 20° N/S latitude.

Ocean waters having temperatures of 27° C or more is the source of moisture which feeds the storm. The condensation of moisture releases enough latent heat of condensation to drive the storm.

Storms that form north of the equator spin counter-clockwise. Storms south of the equator spin clockwise. Tropical cyclones usually move from east to west, because of presence of easterly winds in tropical zone.

Why tropical cyclones don't form in the eastern part of tropical oceans?

- The depth of warm water (26-27°C) should extend for 60-70 m from surface of the ocean/sea, so that deep convection currents within the water do not churn and mix the cooler water below with the warmer water near the surface.
- The above condition occurs only in western tropical oceans because of warm ocean currents (easterly trade winds pushes ocean waters towards west) that flow from east towards west forming a thick layer of water with temperatures greater than 27°C. This supplies enough moisture to the storm.
- The cold currents lower the surface temperatures of the eastern parts of the tropical oceans making them unfit for the breeding of cyclonic storms.



Note





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AYUSHMAN BHARAT

In News:

Ayushman Bharat, the government run health insurance programme, confirmed that there had been an attempted security breach.

In Brief:

Alerted about the intrusion, the National Health Authority which administers the programme has now written to all State Governments alerting them about the threat and warning that no sensitive data be shared.

With more than 3 crore e-cards issued countrywide to individuals covered under the scheme and over 21 lakh hospital admissions, worth Rs. 2,820 crore, having been approved, the scheme is one of the world's largest state-run health insurance programmes, according to the government. Health data is extremely sensitive and of great value to commercial and pharmaceutical companies.

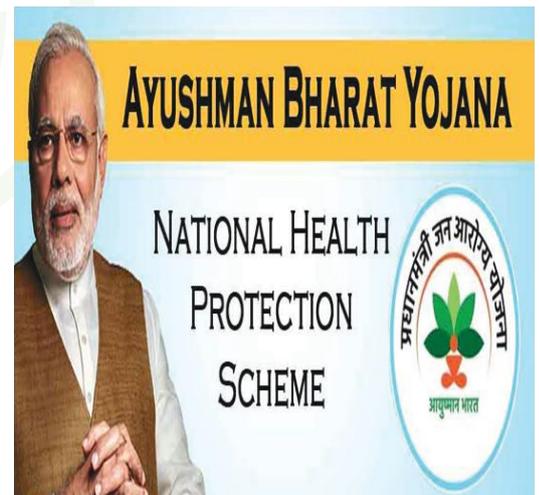
Ayushman Bharat has also had to combat multiple attempts to defraud individuals and companies. People have been offered jobs and some have even been duped saying that we charge for registration. All of this is illegal.

About Ayushman Bharat:

- The National Health Protection Mission or Ayushman Bharat Yojana, launched by the Government is the first major step.
- Ayushman Bharat Yojana is a program which aims to create a healthy, capable and content new India.
- It will also focus on the poor and weaker sections of the society.
- It aims to provide insurance of up to 5 lakh rupees to each family.
- The new scheme also intends to improve secondary and tertiary healthcare services for crores of Indians.

There are two flagship initiatives under Ayushman Bharat:

1. PradhanMantri Jan ArogyaYojana (PMJAY):
 - Under this scheme, 1.5 lakh health sub-centres are being converted into health and wellness centres.



Note



- It will bring the healthcare system closer to the people.
 - The centres will provide comprehensive healthcare, including treatment for non-communicable diseases and maternal and child health services.
 - Besides this, they will also provide free essential drugs and diagnostic services;
 - Rs. 1200 crore have been allocated for this flagship programme.
 - The scheme will cover more than 10 crore poor families, which is approximately 50 crore persons.
 - It will also setup wellness centres which will give poor people OPD facility near their homes.
2. National Health Protection Scheme:
- The National Health Protection Scheme will cover over 10 crore poor and vulnerable families.
 - It will provide coverage up to 5 lakh rupees per family, per year for secondary and tertiary care hospitalization.

Best health care at the lowest possible cost should be:

1. Inclusive
2. make health-care providers accountable for cost and quality
3. achieve a reduction in disease burden, and
4. eliminate catastrophic health expenditures for the consumer.

Criticism of Ayushman Bharat:

- Currently, the NHPM is pushing for hospitalisation at secondary, and at tertiary-level private hospitals, while disregarding the need for eligible households to first access primary care, prior to becoming 'a case for acute care'.
- It is important to note that without the stepping stone of primary health care, direct hospitalisation is a high-cost solution.

Problem of constraints:

- Public sector health capacities are constrained at all levels.
- Further, forward movement is feasible only through partnerships and coalitions with private sector providers.
- It is important to note that these partnerships are credible only if made accountable.
- It has been suggested that Health-care providers (public/private) should be accredited without any upper limit on the number of service providers in a given district.

Note