



Post-Hospitalization Mortality in Covid-19 Patients

For Prelims: Indian Council of Medical Research (ICMR), [Covid-19](#)

For Mains: How can healthcare systems address the post-covid-19 mortality

Source: [DTE](#)

Why in News?

Recently, a new study conducted by the [Indian Council of Medical Research \(ICMR\)](#) has shed light on the **post-hospitalization mortality rate among former Covid-19 patients**.

- The study's comprehensive examination of factors such as **comorbidities (more than one disease or condition at the same time), age, and vaccination** sheds light on vulnerabilities and emphasizes the importance of managing health conditions to reduce mortality risk.

What are the Key Highlights From the Study?

- **Mortality Rate and Participant Demographics:**
 - The study examined 14,419 former Covid-19 patients across 31 Indian medical centers.
 - The **observed mortality rate one year after hospital discharge is 6.5%**.
 - Around **50% of patients** who died, passed away **within 28 days of hospital discharge**.
 - **The risk of mortality decreases as time elapses after discharge.**
 - The **elderly age group (60+)** with **comorbidities** is particularly **vulnerable to mortality**.
- **Prevalence of Post-Covid-19 Conditions:**
 - 17.1% of participants experienced Post-Covid-19 conditions, including **lethargy, breathlessness, cognitive abnormalities, and difficulty in concentrating**.
- **Focus on All-Cause Mortality:**
 - The study primarily concentrated on all-cause mortality, rather than attributing deaths solely to Covid-19.
 - All-cause mortality encompasses various causes of death, including comorbidities and other factors.
- **Vaccination and Disease Severity:**
 - Vaccination confers **approximately 60% protection before Covid-19 infection**.
 - Vaccines contribute to **reducing disease severity during hospitalization**.
- **Vulnerabilities Leading to Higher Mortality:**
 - Comorbidity, age, and gender were identified as factors influencing mortality risk.
 - Individuals with **one comorbid condition are over 9 times more likely to die**.
 - Men faced a **1.3-fold higher risk**, and aged 60 and above were associated with a **2.6-fold higher risk**.
 - The study underscores the **importance of managing comorbidities to reduce mortality risk**.
- **Children's Vulnerability:**
 - **Children aged 0 to 18 faced a 5.6 times higher risk of death** between four-week and

one-year follow-ups.

- Risk 1.7-fold higher in the first four weeks post hospitalization.
- Children with serious health conditions like **cancer and kidney disorders had a higher chance of passing away.**
- **Limitations of the Study:**
 - The study did not examine **long Covid symptoms.**
 - The operational definition of Post Covid Condition (PCC) used in this study is not an exact match with the definitions provided by either the [World Health Organization \(WHO\)](#) or the **Centers for Disease Control and Prevention (CDC)**, the national public health agency of the United States.
 - WHO definition for PCC says that we have to **wait for three months and then check if the symptoms persist for two months**, it says long covid symptoms **persist post-three months after initial infection.**
 - Long Covid-19, as defined by the CDC, encompasses various ongoing health problems post-Covid-19 infection, starting from **at least four weeks after infection.** However, the **ICMR study only did a symptomatic assessment at four weeks' time, not after that.**

Indian Council of Medical Research (ICMR):

- ICMR is the apex body in **India for the formulation, coordination, and promotion of biomedical research.**
- ICMR was established in 1911 as the Indian Research Fund Association (IRFA) and was renamed as ICMR in 1949.
- ICMR is funded by the Government of India through the **Department of Health Research, Ministry of Health and Family Welfare.**
- Its mandate is to conduct, coordinate and implement medical research for the benefit of the Society; translating medical innovations into products/processes and introducing them into the public health system.
- ICMR also collaborates with international organizations, such as WHO, [United Nations Children's Fund \(UNICEF\)](#), etc., on various health research projects and programs.
- ICMR has also supported human resource development and capacity building in biomedical research through various schemes and programs.

Mains

Q. COVID-19 pandemic accelerated class inequalities and poverty in India. Comment. **(2020)**

Dholpur-Karauli: India's 54th Tiger Reserve

Source: [TOI](#)

Why in News?

[National Tiger Conservation Authority \(NTCA\)](#) has given its approval for the **establishment of the Dholpur-Karauli Tiger Reserve** in the state of Rajasthan.

- It has secured its position as the **fifth tiger reserve** in the state of Rajasthan following **Mukundra**

Hills, Ramgarh Vishdhari, Ranthambore, and Sariska.

What are Tiger Reserves?

- A protected area designated for the conservation of the **striped big cats (tigers)** is referred to as **Tiger Reserve**. However, a **tiger reserve may also be a national park or wildlife sanctuary**.
 - For Example: The **Sariska Tiger Reserve** is also a **national park**. It is so because the place was originally created as a national park and **later dedicated to tiger conservation**.
- Tiger Reserves are **notified by State Governments** as per provisions of **Section 38V of the Wildlife (Protection) Act, 1972** on advice of the National Tiger Conservation Authority.
 - Presently, India accommodates **a total of 54 Tiger Reserves** (with the most recent addition being the **Dholpur-Karauli Tiger Reserve**).

Note:

- India is home to **75% of the world's tiger population**. As per the latest report on the **Status of Tigers in India**, the tiger count in the country has surged to **3,167 as of 2022**.
- **Project Tiger** is an ongoing **centrally sponsored program** of the Ministry of Environment, Forests, and Climate Change that provides **government assistance to tiger states for tiger conservation in designated tiger reserves**

What is the National Tiger Conservation Authority?

- **About:**
 - The **NTCA is a statutory body under the Ministry of Environment, Forests and Climate Change** constituted under enabling provisions of the **Wildlife (Protection) Act, 1972**, as amended in 2006, for strengthening tiger conservation.
- **Objectives:**
 - Providing **statutory authority to Project Tiger** so that compliance of its directives becomes legal.
 - Fostering **accountability of Center-State in management of Tiger Reserves**, by providing a basis for MoU with States within our federal structure.
 - Addressing **livelihood interests of local people in areas surrounding Tiger Reserves**.

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Tiger Reserves

53 Tiger Reserves
(as of August, 2022)



FACTS

- A State Government, on the recommendation of the National Tiger Conservation Authority, notify an area as a tiger reserve.
- Largest Tiger Reserve (Core Area): Nagarjunsagar Srisailem (Andhra Pradesh).
- Smallest Tiger Reserve (Core Area): Orang (Assam).
- Reserve with Highest Tiger Density: Corbett (Uttarakhand) (All India Tiger Estimation 2018).
- State with Maximum Tigers: Madhya Pradesh (All India Tiger Estimation 2018).



UPSC Civil Services Examination, Previous Year Question (PYQ)

Q1. Consider the following protected areas: (2012)

1. Bandipur
2. Bhitarkanika
3. Manas
4. Sunderbans

Which of the above are declared Tiger Reserves?

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

Ans: (b)

Q2. From the ecological point of view, which one of the following assumes importance in being a good link between the Eastern Ghats and the Western Ghats? (2017)

- (a) Sathyamangalam Tiger Reserve

- (b) Nallamala Forest
- (c) Nagarhole National Park
- (d) Seshachalam Biosphere Reserve

Ans: (a)

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