

Climate-Induced Mortality

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Climate-Induced Mortality: A Wake-Up Call for Policy Action

Context:

In recent years, the **frequency and intensity of extreme weather events**—particularly **tropical cyclones**—have risen sharply due to **climate change**. These events have disproportionately impacted **low- and middle-income countries (LMICs)** that often lack robust healthcare and disaster preparedness systems.

A **new multi-country research study** has revealed a **concerning link between tropical cyclone exposure and increased infant mortality** in these vulnerable regions.

Key Findings of the Study

- The study analysed **nearly 1.7 million child health records** from **7 LMICs: Bangladesh, India, Madagascar, Cambodia, the Philippines, the Dominican Republic, and Haiti**.
- **Infants exposed to tropical cyclones**, either **in the womb** or during **their first year of life**, were found to have a **significantly higher risk of death**.
- On average:
 - **Infant Mortality Rate (IMR)** increased by **11%** post-cyclone.
 - This equals an **additional 4.4 deaths per 1,000 live births**.
- The **elevated risk** was:
 - **Most acute within the first year** after the storm.
 - It **subsided after two years**.

Country-wise Impact

- While the average increase was **11%**, the impact **varied significantly** across countries.

- **Countries with major increases in IMR:**

- **Bangladesh**

- **Haiti**

- **Dominican Republic**

These nations saw **more than 10 additional deaths per 1,000 births** following cyclone events.

- **Countries with little or no increase:**

- **India**

- **Madagascar**

- **Cambodia**

- **Philippines**

Probable Reasons Behind Variation

The study suggests several **factors influencing differences in impact**:

1. Geography

- **Mountainous terrain** in some countries offers natural protection.
- Others have **flood-prone low-lying regions** more susceptible to cyclone damage.

2. Disaster Preparedness

- Efficient **evacuation mechanisms**, **public awareness**, and **early warning systems** mitigate risk.

3. Housing & Infrastructure

- **Sturdier housing** can prevent displacement and injury.
- Availability of **healthcare services** during and after disasters is crucial.

4. Baseline Health Conditions

- Regions with **high child malnutrition**, **poor sanitation**, and **limited healthcare access** face compounded risks.

Climate Change and Future Risks

- The study reinforces the **growing vulnerability of infants** in the face of **climate-induced extreme weather events**.
- As **climate change intensifies**, both **strong and lower-intensity cyclones** are expected to increase in frequency.
- These findings **highlight an urgent need** to:
 - **Strengthen disaster response systems.**
 - **Improve maternal and child health infrastructure.**
 - **Integrate climate resilience into national health policies.**

Definition: Infant Mortality Rate (IMR)

- IMR refers to the **number of deaths of infants under one year of age per 1,000 live births** in a given year.

- It is a **key indicator of health system performance** and **socioeconomic development**.

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