

CDC Breaking News Bulletin

From: CDC Headquarters
To: Biomedical Engineers
Subject: General Viral Warning

We are issuing a general warning to be on high alert for outbreaks of highly infectious viral diseases. Instances of such diseases have been on the rise in recent months and local officials and biomedical engineers should be sure to take the necessary precautions to ensure they are prepared to engineer a response to an outbreak.

Remain vigilant!

Sincerely,
CDC Headquarters
Atlanta, Georgia

A small hospital outside of **St. Paul, Minnesota** is reporting an **outbreak of an unknown and highly contagious illness**. Two people have been hospitalized for **high fever, uncontrollable sneezing, severe headache, confusion, frothing of the mouth, and difficulty walking**.

Wait a minute... I have just received word that the **patients' blood samples have been sent to the CDC for analysis**. Researchers are working there to identify the cause of the illness. We will have more on this story as it develops.



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Activity 4 Hospital Data Cards

CITY: ST. PAUL, MINNESOTA # HOSPITALIZED: 15 # OF STICKERS: 3	CITY: MADISON, WISCONSIN # HOSPITALIZED: 9 # OF STICKERS: 2	CITY: DES MOINES, IOWA # HOSPITALIZED: 15 # OF STICKERS: 3	CITY: SPRINGFIELD, ILLINOIS # HOSPITALIZED: 10 # OF STICKERS: 2
CITY: JEFFERSON CITY, MISSOURI # HOSPITALIZED: 15 # OF STICKERS: 3	CITY: MINNEAPOLIS, MINNESOTA # HOSPITALIZED: 10 # OF STICKERS: 2	CITY: BATON ROUGE, LOUISIANA # HOSPITALIZED: 3 # OF STICKERS: 1	CITY: NEW ORLEANS, LOUISIANA # HOSPITALIZED: 10 # OF STICKERS: 2

Activity 5 Hospital Data Cards (I)

CITY: NEWARK, NEW JERSEY # HOSPITALIZED: 3 # OF STICKERS: 1 I	CITY: ST. PAUL, MINNESOTA # HOSPITALIZED: 35 # OF STICKERS: 7 I	CITY: NEW YORK, NEW YORK # HOSPITALIZED: 20 # OF STICKERS: 4 I	CITY: BOSTON, MASSACHUSETTS # HOSPITALIZED: 25 # OF STICKERS: 5 I
CITY: PORTLAND, MAINE # HOSPITALIZED: 15 # OF STICKERS: 3 I	CITY: BURLINGTON, VERMONT # HOSPITALIZED: 10 # OF STICKERS: 2 I	CITY: PORTSMOUTH, NEW HAMPSHIRE # HOSPITALIZED: 15 # OF STICKERS: 3 I	CITY: LOS ANGELES, CALIFORNIA # HOSPITALIZED: 15 # OF STICKERS: 3 I
CITY: SAN FRANCISCO, CALIFORNIA # HOSPITALIZED: 10 # OF STICKERS: 2 I	CITY: BOULDER, COLORADO # HOSPITALIZED: 6 # OF STICKERS: 1 I	CITY: PHOENIX, ARIZONA # HOSPITALIZED: 8 # OF STICKERS: 2 I	CITY: GREEN BAY, WISCONSIN # HOSPITALIZED: 11 # OF STICKERS: 2 I
CITY: BOISE, IDAHO # HOSPITALIZED: 13 # OF STICKERS: 3 I	CITY: SEATTLE, WASHINGTON # HOSPITALIZED: 6 # OF STICKERS: 1 I	CITY: BILLINGS, MONTANA # HOSPITALIZED: 1 # OF STICKERS: 1 I	CITY: SAN DIEGO, CALIFORNIA # HOSPITALIZED: 12 # OF STICKERS: 2 I

Activity 5 Hospital Data Cards (II)

CITY: SAN FRANCISCO, CALIFORNIA # HOSPITALIZED: 4 # OF STICKERS: 1 II	CITY: ST. PAUL, MINNESOTA # HOSPITALIZED: 5 # OF STICKERS: 1 II	CITY: NEW YORK, NEW YORK # HOSPITALIZED: 10 # OF STICKERS: 2 II	CITY: BOSTON, MASSACHUSETTS # HOSPITALIZED: 7 # OF STICKERS: 1 II
CITY: SEATTLE, WASHINGTON # HOSPITALIZED: 2 # OF STICKERS: 1 II	CITY: BURLINGTON, VERMONT # HOSPITALIZED: 10 # OF STICKERS: 2 II	CITY: SAN DIEGO, CALIFORNIA # HOSPITALIZED: 8 # OF STICKERS: 1 II	CITY: LOS ANGELES, CALIFORNIA # HOSPITALIZED: 9 # OF STICKERS: 2 II

CDC Breaking News Bulletin

From: CDC Headquarters
To: Biomedical Engineers
Subject: Virus Mutates

As of this moment, the CDC is declaring a national public health emergency. Hospitals are now reporting a rapid increase of patients hospitalized. Almost every major city in the country has at least 200 confirmed infected patients. Nurses and doctors are reporting that giving the antiviral pills to patients no longer improves the infection.

Using advanced medical technologies, scientists have analyzed blood samples from the new patients. They have found a new shape of the NMRV, different from the original structure that the antiviral was designed to block. This change in the virus structure is caused by a mutation in the virus DNA, which results in different physical characteristics. We need help in responding to this new virus mutation.

Sincerely,
CDC Headquarters
Atlanta, Georgia

The CDC reports **infection rates of NMRV have slowed to a halt**, allowing them to reduce the public health emergency status issued to the country. The newest engineered antiviral has been **effective at blocking the mutant virus from infecting cells**. Hospitals are reporting **very few new infections**. CDC researchers and biomedical engineers were very effective at responding quickly to the first signs of the outbreak. **Public service announcements** will continued to be posted across the country so people will know how to remain safe and stay healthy.



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