






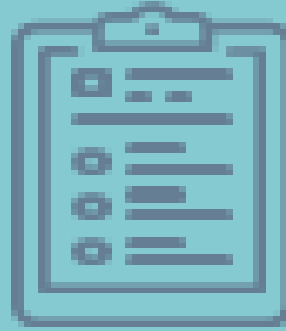


Epidemic Preparedness And How It Affected Covid-19

-  **Topic: Epidemic preparedness**
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-  **Date: 16/ 5 /2022**
-  **Block: PTS**



Objectives



1

Define epidemic and explain the differences between endemic epidemic and pandemic

3

History of covid-19 and how It developed from an endemic to a epidemic

02

Introduction and structure of covid-19

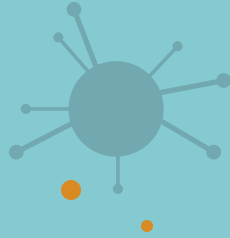
04

The 6 key core systems for epidemic preparedness and how it affected covid-19



1

**Define epidemic and explain the
differences between endemic
epidemic and pandemic**



→ The term epidemic derives from a Ancient Greek

→ epi (upon or above)

→ demos people

→ outbreak of a disease that spreads rapidly among individuals in an area or population at the same time





Endemic

Constant presence in geographical area and not more than expected level



Examples:
Chickenpox in united state

Epidemic

Occur in higher rate than expected sudden and quickly

Examples:

- AIDS in some countries of Africa
- MEASLES Vietnam 2013
- MALARIA Egypt 1942
- SARS

Pandemic

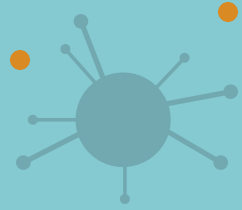
Disease that has spread across many countries and large number of people

Examples :
in 1918 Spanish flu (H1N1 VIRUS)



2

Introduction and structure of covid19



SARS-CoV-2

Coronavirus that causes COVID-19

 very large viral RNA genome

 Medium sized viruses enveloping

Positive single stranded RNA

 Family of Nidoviralesd

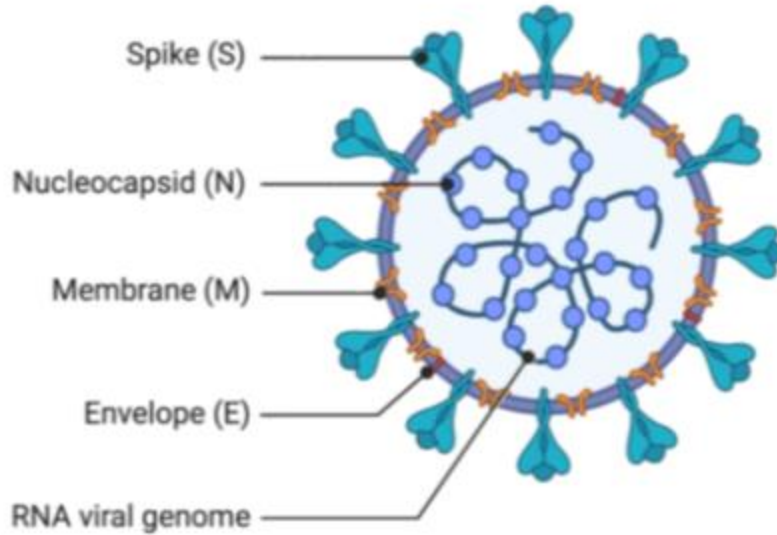
Corona Latin word for crown-

Named for (crown -like) appearance of
virus



structure of covid19

Coronavirus Structure





3

**History of covid19 and how It
developed from an endemic to a
epidemic**



December 2019
 WHO
 was informed of
 cases of
 pneumonia of
 unknown cause

January WHO
 Coronavirus
 outbreak a
 public health
 emergency of
 international
 concern

March 2020
 The rapid
 increase in
 the number of
 cases outside
 china

March WHO
 Characterizes
 Covid-19 as
 epidemic

April 2020
 1 million
 covid-19
 Cases in the
 World

31

30

11

24

4

January
 2020

March
 UN releases
 15 million of
 covid- 19 response

University of oxford
 and AstraZeneca
 Covied-19 vaccine
 shown effectiveness



4

**The 6 key core systems for
epidemic preparedness and how it
affected covid19-**



- **1 . National Laboratory System :**

Country has a national laboratory system to test disease specimens and confirm outbreaks.

- **2 . Real-Time Surveillance :**

Country can find disease outbreaks quickly.

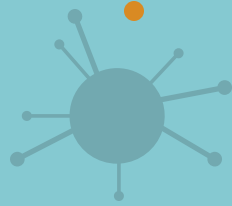
Set up reliable reporting and information systems to detect and report coronavirus cases

- **3 . Workforce Development :**



Country has a capable workforce to find, stop and prevent outbreaks.

Ensure that all public health staff engaged in coronavirus control at all levels are trained.





4 . Risk Assessment and Planning :

Country has done preparedness planning and risk assessment for public health emergencies

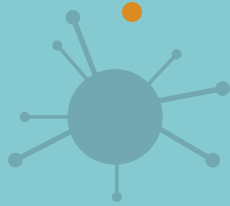
5 . Emergency Response Operations :

Country has emergency system to find and stop outbreaks. Build a rapid response capability to cope with emergency and abnormal situations related to coronavirus



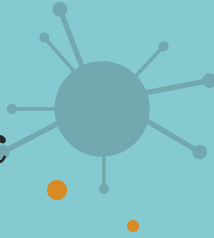
6 . Risk Communication :

Countries can listen and exchange information between experts and the public effectively so that healthcare workers and the public can take protective measures.



Conclusion :

1- Epidemic preparedness is an important step in prevention the spread of regional endemics into epidemic and pandemics



2-the failure to follow the guidelines and expert opinions on covid-19 led to the worst global epidemic since the Spanish flu resulting in the preventable deaths of millions of people

- 3- We need to view this as a lesson for future epidemic so we don't repeat the same mistakes again





Refrains :

1 - Medically reviewed by Alana Biggers, M.D., MPH – Written by Rebecca Joy Stanborough, MFA. How Is a Pandemic Different from an Epidemic? [Internet]: healthline.com; 2020 April 30 [2020 April 30; 2021 March 30]

Available from: <https://www.healthline.com/health/pandemic-vs-epidemic#what-is-a-pandemic>

2 - CDC (Centers for Disease Control and Prevention). Introduction to Epidemiology [Internet]: CDC; 2012 May 18 [2012 May 18; 2021 March 30]

Available from:

<https://www.cdc.gov/csels/dsepd/ss1978/lesson1/section11.html>

The image features a light blue background with decorative elements in the corners, including a dark blue circle with radiating lines and an orange dot in the top-left, and a similar dark blue circle with radiating lines and an orange dot in the top-right. The central focus is a white, rounded rectangular area containing the text "Thank you for leaving" in a black, cursive script. The text is set against a white, cloud-like background that has a subtle drop shadow, giving it a sticker-like appearance.

Thank you
for leaving