

EMPHNET Emergency Bulletin

August 11, 2024

Polio Resurgence in Gaza: An Additional Threat to Public Health

Introduction


On July 21, 2024, WHO Director General, Dr Tedros Adhanom Ghebreyesus announced that Polio had been detected in Gaza. This news immediately spread to all news outlets, especially those focusing on public health security. According to the National Foundation for Infectious Diseases (NFID), Poliomyelitis, commonly shortened to Polio, is a highly contagious infectious disease caused by a virus that invades the nervous system. It spreads through contact with the stool (feces) of an infected person or droplets from a sneeze or cough. Its highly infectious nature merits the spread of such news rapidly.

The polio virus was detected in wastewater samples in Gaza, which is alarming news, not only because polio is one of the most feared diseases but also in light of the other challenges weakening the health system in Gaza. According to Shaparenko, WHO Palestine Health Emergencies Team Lead, **“many people are living in shelters with just one toilet for 600 people, and they have little access to safe drinking water.”**


In Numbers

Since October 7, 2023


 **39,623**
people have
been killed

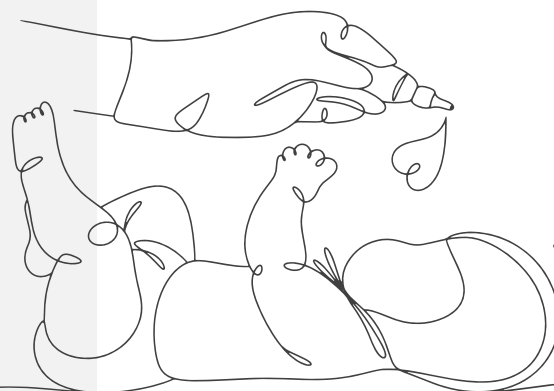
 Most hospitals are no
longer functional

 **91,469**
were wounded

 Diarrheal diseases,
respiratory infections, and
hepatitis A, among others,
are raging through Gaza

 **10,000+**
are estimated
to be missing

 Nearly everyone in Gaza
is suffering from acute
food insecurity and
catastrophic hunger



According to Nutrition Cluster highlights, detected malnutrition cases among children in Northern Gaza increased by more than 300 percent between May and July, 2024. From another angle, about 2.3 million people live in an area of 365 sq km (141 sq mile) within the Gaza Strip, which translates into a very high population density amidst limited access to clean and safe water and deteriorating sanitary conditions.

Furthermore, 70% of all sewage pumps in Gaza have been destroyed, and not a single wastewater treatment plant is working. All these factors contribute to the increasing risk of disease.

Watch the second episode
of “Gaza Health Chronicles:
Inside the Crisis,”

produced by EMPHNET



Public Health Implications and Reflections

Even though the Gaza Strip has been polio-free for more than 25 years, circulating variant type 2 poliovirus (cVDPV) has been confirmed there. As recorded on June 23, 2024, the virus was isolated from six environmental (sewage) samples collected from two different collection sites in two sub-regions (Deir al-Balah and Khan Younis) within Gaza.

Further genomic sequencing of poliovirus isolates has identified that these strains have close genetic links and are also closely related to the poliovirus variant circulating in Egypt during the second half of 2023.

“People in Gaza are constantly displaced, living in tents under the scorching summer sun with minimal access to drinking water.” UNRWA, August 3, 2024.

WHO indicates that there is a high risk of the spread of this strain within Gaza and internationally, particularly with current challenges seen in Gaza including the massive destruction of healthcare infrastructure. This poses challenges to efforts made to combat vaccine-preventable diseases, including Acute Flaccid Paralysis (AFP) surveillance.

“Since early May, almost a million people have been relocated from Rafah to Khan Younis and Deir al-Balah, where the polio samples were detected.” WHO Director General

Conclusion

Historically, polio has spread among populations suffering from conflict and instability. For example, in 2017, an outbreak of variant poliovirus spread in Syria leaving 74 children paralyzed.

Many organizations, including EMPHNET, support the health authorities in the West Bank and Gaza in planning response activities implemented in the Gaza Strip.

The WHO is working on sending more than one million polio vaccines to Gaza, the planned administration of this vaccine will target children in the next few weeks. However, such efforts require an immediate ceasefire and the acceleration of humanitarian aid to stop suffering. A vaccination campaign is needed to prevent a polio outbreak and its severe health and economic consequences on Palestine and the region, as well as its threats global health security. The vaccination campaign target age group is currently

A risk assessment is being implemented to assess the sensitivity of surveillance for detecting acute flaccid paralysis (AFP) cases, environmental surveillance, and subnational immunity levels.

In this regard, WHO is working closely with the Palestinian MoH, UNICEF, and UNRWA, and is coordinating with the Global Polio Eradication Initiative (GPEI) in the region. This work will serve to assess the scope of the poliovirus spread and determine appropriate response activities. Given the current situation, these may include vaccination campaigns and the boosting of routine immunization and surveillance as much as possible.

Due to intensified efforts to enhance polio surveillance and to respond to the cVDPV2 outbreak, three suspected cases of Acute Flaccid Paralysis were detected in Gaza between July 22 and 29, 2024. This was done through the coordination efforts of the WHO to transport the stool samples from Gaza for testing in a WHO-accredited polio laboratory.

“My first thought is, ‘Okay, how are we going to do this in an active war zone?’” said the WHO Palestine Health Emergencies Team Lead, **“It’s a job ahead of us that is going to be humongous.”**

under discussion, and it may include children above five years of age.

The risk of vaccine-preventable diseases is imminent, particularly in communities affected by conflict. Hence, the coming issue of the Emergency Bulletin will highlight and discuss the situation in Gaza, Sudan, and other countries in the region.



EMPHNET Awareness Session on Polio Virus Prevention, Gaza. Taken by Abeer Ismail

References

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4. Cover photo: EMPHNET Awareness Session on Polio Virus Prevention