World Health Organization
occupied Palestinian territory

المعهد الوطني الفلسطيني للصحة العامة
The Palestinian National Institute of Public Health

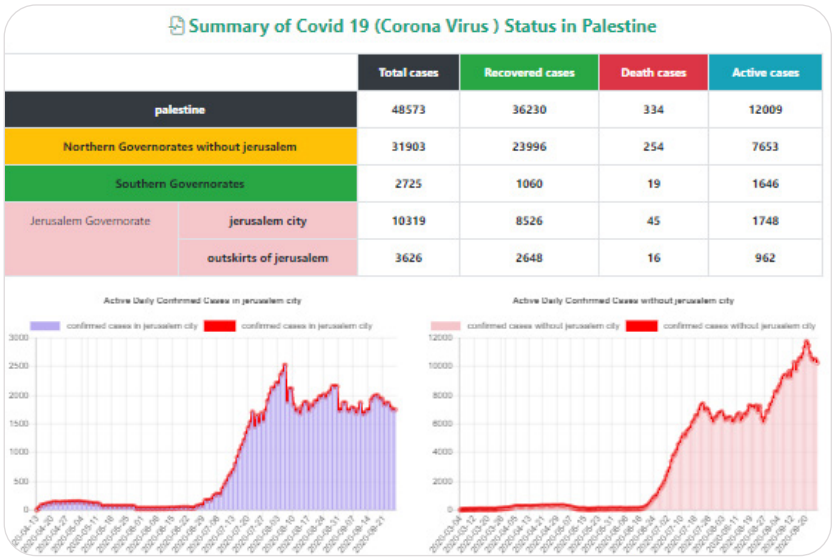
Palestinian National Institute of Public Health
COVID-19 Response

Following the outbreak of COVID-19 in Palestine, the Palestinian National Institute of Public Health (PNIPH) pivoted its focus towards supporting government and national response efforts.

These efforts have included:

- National COVID-19 Surveillance System
- COVID-19 Stigma Survey
- Monitoring of COVID-19 Epidemiological Situation Among School Students
- COVID-19 Health Workforce Capacity Building
- Infection Prevention and Control Training
- COVID-19 Public Health and Social Measures Project
- SARD-CoV-2 Sero-Survey
- Development Support for the Guiding Framework of Emergency Preparedness and Response Plan | Gaza Strip
- Development Support for the National Hospital Emergency Plan | West Bank
- COVID-19 Modeling
- Public Outreach and Communication

National COVID-19 Surveillance System



Palestinian National COVID-19 Surveillance System dashboard

In response to the outbreak of the COVID-19 virus in Palestine, PNIPH, in collaboration with the Ministry of Health (MoH) and the DHIS2 Country Team, built on existing open-source DHIS2 information to develop and customize a COVID-19 surveillance system unique to the Palestinian context.

MoH health workers, trained by PNIPH, are responsible for entering data into the system to track COVID-19 cases throughout the country. The software provides real-time analyses and generates statistics and indicators required for monitoring the epidemiological situation. Statistics generated by the system illustrate the characteristics and classification of cases, whether confirmed or suspected, and health outcomes (recovered, stable, or deceased), in addition to other WHO and health system indicators. Over 70 indicators are generated by the system and are presented in the dashboard as tables, graphs, and GIS maps. As the situation evolves, additional indicators will be added. This information is now being leveraged to support decision-making regarding preventive and containment procedures.

PNIPH and the MoH have also developed a public-facing website that provides information and indicators on COVID-19 in Palestine based on data in the system. All information on the site is available in both English and Arabic and is updated daily by PNIPH.

The MoH COVID-19 Surveillance website is available **here**.

COVID-19 Stigma Survey

In July 2020, PNIPH, in partnership with the MoH, conducted a survey on feelings of stigma among patients who had recovered from COVID-19 and their families. Study participants were selected from a list provided by the MoH of patients who contracted COVID-19 in the West Bank and Gaza, were discharged from isolation and quarantine centers, and finished home quarantine. Key findings are outlined here.

46% of respondents felt that **people feared them** once they knew they were infected

44% felt **empathy** and **support**

78% reported that people were **afraid** and/or **rejected** those who were infected

46% **stopped socializing** with people and/or **lost friends** due to their infection

13% **blamed themselves** for getting infected

20% were **careful who they told** about their infection, worried that people would tell others

32% were **bullied** and **blamed** for getting the infection

63% reported that **being blamed** for getting the infection **was among the stressors** they experienced

>50% of COVID-19 patients' families faced **avoidance** or **stigma** from the community

Social rejection against patients' families was one of the **top reported stressors**

Based on the results of the survey, PNIPH provided recommendations to the government to help fight stigma against COVID-19 patients and their families, primarily through public outreach, awareness campaigns, and communication strategies.

PNIPH, in partnership with the MoH, is currently conducting a study on access to antenatal and postnatal care and immunization and medication services, as well as delays in seeking care and barriers to accessing services among a random sample of 1,500 Palestinians from the West Bank and Gaza.

Monitoring of COVID-19 Epidemiological Situation Among School Students

PNIPH participated in meetings with decision-makers from the Ministry of Education, represented by His Excellency the Minister, the Deputy Minister, and other related parties, to develop a proposed list of national indicators that will be used to monitor the epidemiological situation of school students and assess the progress of the educational process in light of the COVID-19 pandemic. The indicators were presented to His Excellency the Prime Minister, and will be used to assess and monitor the situation, and provide recommendations related to safety measures.



Representatives from PNIPH and the Ministry of Education with HE Prime Minister Shtayyeh

COVID-19 Health Workforce Capacity Building

As part of the ongoing response to the COVID-19 outbreak, PNIPH-WHO, under the leadership of the MoH, provided a series of trainings between September and December 2020 to build the capacity of the local health workforce. The Basic Assessment and Support in Intensive Care (BASIC) course was conducted in partnership with Juzoor for Health and Social Development and Augusta Victoria Hospital for doctors and nurses working with COVID-19 patients who had a basic understanding of ICU practices. The training focused on both theoretical and practical skills in critical care management. The Basic Life Support (BLS) course was provided in partnership with the Emergency and Disaster Unit at the MoH for doctors, nurses, and emergency medical technicians (EMTs) working in emergency units at government, NGO, and private sector hospitals.

By the end of 2020, 66 doctors and nurses completed BASIC training, and 365 EMTs, doctors, and nurses completed BLS training. Both the BASIC and BLS, as well as other advanced trainings, will continue to be held next year.



BASIC training conducted for Ministry of Health doctors and senior nurses



BLS training with doctors, nurses, and EMTs from emergency units at governmental, NGO, and private hospitals

Infection Prevention and Control Training



Infection prevention and control training in Gaza

The PNIPH team in Gaza conducted infection prevention and control training in late September and early October for health providers working in Maternal and Child Health services in hospitals and clinics. The three-day trainings focused on general infection prevention and infection prevention and control related to reproductive health during the COVID-19 outbreak. In total, around 160 health providers from reproductive health services, including doctors, nurses, midwives, physiotherapists, lab technicians, and pharmacists were trained.

Preparations have been completed to conduct the infection prevention and control training for primary health care workers in the West Bank once the situation permits.

COVID-19 Public Health and Social Measures Project





Palestine has been selected to participate in a global public health and social measures (PHSM) project based on the strength and success of the COVID-19 surveillance system developed by PNIPH and the MoH and the comprehensive data it collects that aligns with the information and indicators being collected by the project.

The project aims to better understand the impact of PHSM on COVID-19 epidemic dynamics by comprehensively evaluating their implementation across a range of selected countries. This work will combine quantitative statistical analyses with detailed qualitative investigations at the country level to provide a better understanding of the effectiveness of PHSM.

As part of this effort, data collectors have been trained and assigned to all COVID-19 treatment hospitals and hospitals handling COVID-19 cases in the West Bank and Gaza. Data collectors are responsible for reporting each case that enters the hospital and collecting data related to COVID-19 cases that have occurred since the beginning of the epidemic. The information collected under this project will help develop a fuller picture of the current situation in real time and assist in advising policy makers about response efforts.

SARD-CoV-2 Sero-Survey

A high number of COVID-19 cases in Palestine and challenges related to testing capacity has made it difficult to know the true number of infections, as well as age and sex distribution, and the proportion of cases that are severe or fatal. Data on COVID-19 prevalence is critical for planning effective mitigation strategies and understanding the true impact of the disease and relevant intervention measures.

As part of a global effort to improve the understanding of COVID-19, address the gap in data on prevalence of the virus, and provide guidance on prevention and control measures, the MoH, in cooperation with PNIPH-WHO is in the process of conducting a standardized serological prevalence survey of COVID-19 in the West Bank and Gaza. The survey will examine the differences between the Palestinian regions to understand what factors may have influenced transmission and provide information on the extent and incidence of infection among the population.



Sero-Survey data collection in Gaza

Individuals from households in different regions in the West Bank and Gaza will be randomly selected to participate in the study, regardless of their previous or current infection with COVID-19. A blood sample will be collected from study participants to test for COVID-19 antibodies, and face-to-face interviews will be conducted with each participant to gather information on comorbidity and hospitalization history, along with any other information about symptoms.



Development Support for the Guiding Framework of Emergency Preparedness and Response Plan | Gaza Strip

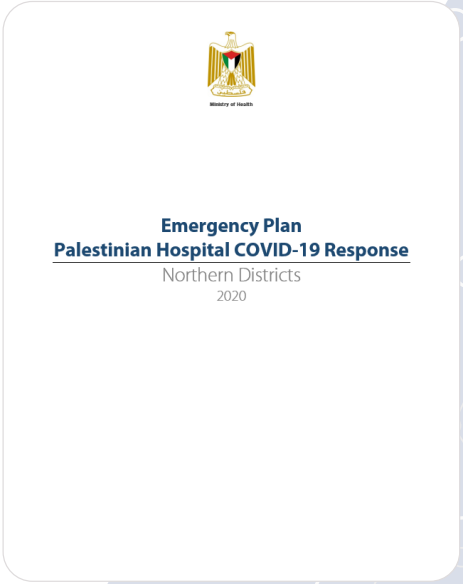
In March 2020, following a request by the MoH for the Southern Districts, the Guiding Framework of Emergency Preparedness and Response Plan (GFEPRP) for the COVID-19 pandemic was developed with significant contribution from PNIPH. The framework provides guidance for MoH units and partners on developing operational plans and tailored programs that will help confront and control the virus. The objectives of the framework are to ensure continuity of basic, essential, and COVID-19 services, as well as availability of health workers, medications, and medical supplies; improve local governance to address COVID-19; strengthen relationships with stakeholders and encourage community engagement; promote health awareness and the role of media in responding to the outbreak; and determine an exit strategy and prepare for recovery. The plan is currently being implemented.





Development Support for the National Hospital Emergency Plan | West Bank

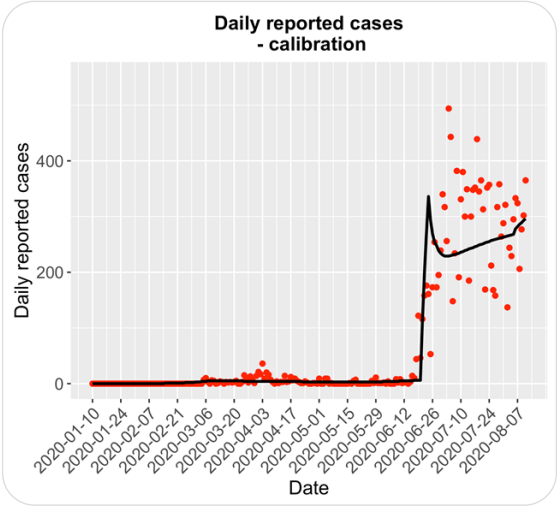
In April 2020, the MoH, with significant support from PNIPH, developed a hospital emergency plan for the West Bank to enable hospitals and their staff to respond to the outbreak of COVID-19. The plan aims to improve the health sector's ability to treat COVID-19 patients, manage communication and coordination among hospitals, maintain the continuity of health services related to COVID-19, ensure availability of the health workforce, and centrally manage needed medical supplies. The plan was officially adopted and is currently being implemented.

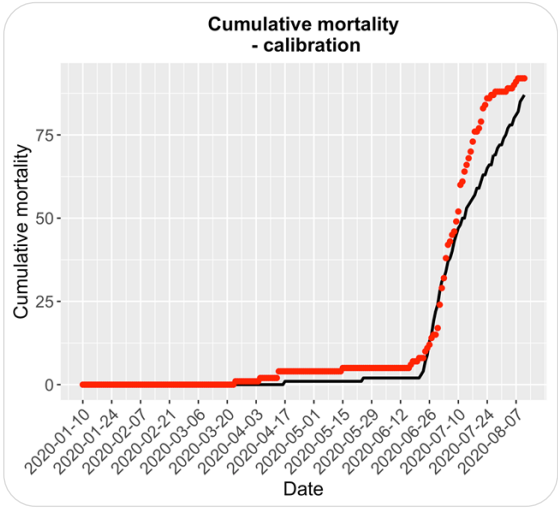


COVID-19 Modeling

In cooperation with Oxford University and the Cornell University COVID-19 International Modeling Consortium (CoMo Consortium), and with support from WHO-EMRO, PNIPH is using a COVID-19 epidemic modeling system to produce projection models for both the West Bank and Gaza.

The projections have been presented to policy makers and health officials to provide insight into potential intervention scenarios and allow for comparisons of response options. PNIPH is working to advance the CoMo system and expand its uses locally.





Examples of models showing calibrations of daily reported cases and cumulative mortality

Public Outreach and Communication



COVID-19 protection guideline video

Since the beginning of the COVID-19 outbreak, PNIPH has produced and shared a number of videos encouraging hygiene, infection prevention, and positive mental health practices through the organization's Facebook and Twitter accounts. PNIPH also launched a partnership with local media company Mada TV to share short video clips through their streaming service, which has a wide national viewership. Through these efforts, the information disseminated by PNIPH has reached hundreds of thousands of viewers.

PNIPH is also supporting WHO's emergency communications response, sharing materials every day through social media on safety and infection prevention measures.

PNIPH's COVID-19 videos are available **here**.