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Ministry of Health Management in monitoring drinking water and its mechanism of action in times of crisis

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Abstract

Introduction: The Palestinian Ministry of Health (MOH) plays a crucial role in monitoring drinking water quality, especially given the region's unique challenges and crisis situations, such as blockades, and curfews. Ensuring safe drinking water is essential to preventing waterborne diseases, which become more prevalent during crises.

Method: This study analyzes microbial test results from 2020 to 2024 for drinking water, with a specific focus on water networks and cisterns, as recorded in the MOH's annual reports. Additionally, it examines the quantity of calcium hypochlorite tablets dispensed for water disinfection.

Results: Between 2020 and 2024, microbial test results indicated that the percentage of water samples contaminated with total coliforms ranged from 11.8% to 22.6%. These levels exceed the World Health Organization's standard, which stipulates that contamination should not exceed 5% within a 12-month period.

Conclusion: Despite the MOH's efforts in monitoring and ensuring drinking water safety through regular testing, crisis-response strategies, and public awareness campaigns, microbial contamination remains a significant issue. This underscores the urgent need for stronger intervention from water supply and regulatory authorities. The MOH has demonstrated its preparedness for crisis situations through resource mobilization, the maintenance of a central public health laboratory, and the implementation of professional response strategies to address waterborne disease outbreaks. The water situation in Palestine has reached a critical state due to ongoing conflicts, population growth, excessive groundwater extraction, and the depletion of resources. Additionally, the adverse effects of climate change pose an increasing threat to Palestine's drinking water sources, further exacerbating the crisis.