

# Prevalence of infectious diseases in the population of United Nations soldiers in Lebanon

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## ABSTRACT

### Aim of the study

This article aims to outline the prevalence of contagious diseases in the population of soldiers deployed within the United Nations Interim Force in Lebanon (UNIFIL). The risk factors which influence the incidence of infectious diseases are discussed and particular attention is paid to environmental factors.

### Material and Methods

The material of this retrospective study derived from medical records of 2.054 soldiers of various nationalities treated in the UNIFIL Hospital within the years 1993-2000. The clinical examination of patients was complete and the results were subjected to statistical and epidemiological analysis.

### Results

Contagious and parasitic diseases accounted for 10.6% of all hospitalizations within the analyzed period. It was demonstrated that among all patients hospitalized in the United Nations Hospital in Lebanon salmonellosis (55 cases, mainly soldiers of the Irish nationality) and staphylococcal food poisoning (31 cases, mainly Polish soldiers) were the most commonly occurring health problems; this was undoubtedly connected with an outbreak of an epidemic in military contingents. Among parasitic diseases helminthiasis of gastrointestinal tract (51 cases, partly multiple infestations, mainly soldiers of the Nepalese nationality) prevailed.

### Conclusions

A surge in the prevalence of infectious diseases resulted from mass food poisoning in the Irish (1996), and the Polish (1998) contingents. Moreover, infestation of the digestive tract, especially in the Nepalese contingent, posed a considerable health hazard. Except for cases of the afore-said illnesses the epidemiological situation of UNIFIL from 1993 to 2000 can be regarded as satisfactory, which was mainly due to effective work of sanitary services of the UN mission.

**Keywords:** infectious disease, communicable disease, soldiers, United Nations, Lebanon

## INTRODUCTION

In recent decades an escalation of armed conflicts has been observed in Asia, particularly in the Middle East and Central Asia. Interventions of international organizations have led to an establishment of a series of peacekeeping and stabilization missions. The UN and NATO military contingents consist of soldiers coming from different countries and different continents. Each region of the deployment of Multi-National Forces has its own specific characteristics. A many-thousand population of soldiers, who represent a group of immigrants, are temporarily deployed in the territory of a country characterized by environmental conditions different to the ones prevailing in their home countries. The population of peacekeepers differs considerably in many respects. Common existence of representatives of different races, religions and nationalities, people of different culture, habits and attitude towards personal hygiene, feeding and accommodation all contribute to an increased occurrence of various contagious and parasitic diseases.<sup>1,2</sup> There is a clear correlation between increasing incidence of infectious diseases and disregard of basic principles of hygiene and prophylaxis, aimed at reducing the risk of falling ill.<sup>3,4</sup> Issues concerning prophylaxis gain particular importance in hot climate areas.

The major risk factors which influence morbidity rates and prevalence of diseases in hot climate areas are high temperatures, humidity, poor sanitary and hygienic standards of a region, especially low standards of public sanitation, lack of safe sources of drinking water or domestic sewage treatment facilities as well as widespread use of excrement as manure to irrigate cultivated fields. The factors mentioned above influence both the occurrence of endemic infectious and parasitic diseases and also increase the risk of cosmopolitan infectious diseases.<sup>5</sup>

Apart from water- and food-borne diseases, which pose a major epidemiological threat, particular attention should be paid to other ways of transmission, among which respiratory, vector-borne illnesses and sexually transmitted diseases are the centre of attention of sanitary services.<sup>6</sup> Regions such as the Middle East and the peacekeeping mission in Lebanon, where thousands of UNIFIL (United Nations Interim Force in Lebanon) soldiers have been deployed, require expertise in

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