

# Peacekeeping in South-East Asia

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## ABSTRACT

### Aim of the study

South-East Asia is commonly known as a region of numerous military conflicts and peace missions realized in last decades. One of the peacekeeping operations executed in Indo-China Peninsula within the years 1992-1993 by representatives of more than forty countries was UNTAC (United Nations Transitional Authority in Cambodia). Its priority was to confirm the realization of the agreement's resolutions reached in connection to the end of Cambodian conflict dating back to the 1970s and 1980s. One of the bigger military formations participating in the UNTAC peacekeeping mission was the Polish Military Contingent (1254 soldiers and civil workers) fulfilling logistic and engineering tasks. Executing mandatory tasks in adverse environmental conditions of South-East Asia was connected with the occurrence of numerous health problems among the participants of the mission. The study presents the results of the research concerning the sickness profile of Polish soldiers in service from May 1992 to September 1993.

### Material and Methods

The conducted analysis was based on medical data of 707 Polish patients treated in 1st and 2nd level of UNTAC medical centers as well as medical tests carried out among all of the Polish Military Contingent on their return to Poland (n = 1254).

### Results

The research has shown that the predominant health problem among the population of Polish soldiers treated in Cambodia were contagious and parasitic diseases, consisting the 25.1% of medical interventions (malaria, gonorrhoea, amebiasis), skin diseases – 21.4% (mainly mycoses), gastrointestinal tract diseases – 18.8% (non-infectious diarrheas), and eye diseases – 14.7% (epidemic conjunctivitis).

### Conclusion

It is noteworthy that a large number of infections were imported to Poland. The largest number of invasive and contagious illnesses among soldiers home-bound were parasitic diseases of the digestive system and sexually transmitted diseases.

### Keywords:

Cambodia, soldiers, hygiene, military medicine, sexually transmitted diseases, parasitic diseases

## INTRODUCTION

In 1970, in Cambodia, a South-East Asian country, Lon Nol seized power in a coup, which in consequence led to the outbreak of a civil war. The Khmer Rouge and the followers of the overthrown Norodom Sihanouk raised against the government forces. The period from 1975 to 1979, when power was seized by the Khmer Rouge and their chief ideologist Pol Pot, was a disastrous era in the history of the country. Within just a few years the ruling regime had murdered over 2 million people in mass executions, displaced urban population to rural communes, closed down schools and forced citizens to slave work. In 1979 the regime of the Khmer Rouge was overthrown by Vietnamese forces supported by USSR (Union of Soviet Socialist Republics) which afterwards occupied the country for the next decade. In 1991 a peace process started, the Supreme National Assembly of Cambodia, whose members constituted representatives of all dissident groups, came into being.<sup>1</sup>

The peacekeeping mission UNTAC (United Nations Transitional Authority in Cambodia) was founded under the resolution No. 745 issued by the Security Council of UN on the 28th of February 1992. Its priority was to secure the execution of the political agreement's resolutions concerning the ceasefire, organizing and conducting parliamentary elections, preserving law and order, ensuring the return of refugees and reconstructing the country's devastated infrastructure.<sup>2</sup> In the peak period (June 1993) there were 15991 soldiers, 3359 police officers, 1150 civil workers and 465 UN volunteers recruited from 45 different countries as well as 4830 local personnel on UNTAC duty. The mission lasted 19 months. Within this period 82 of the mission's participants died including 41 soldiers, 16 police officers, 4 military observers, 5 people of civil personnel and 16 of the local workers.<sup>3</sup> The decision that the Polish Military Contingent (PMC) was to take part in the UNTAC mission was taken in December 1991. The first soldiers were sent to Cambodia in May 1992. Main forces of the PMC, consisting of logistic and engineering troops were deployed in the combat zone in July 1992. The principal tasks of the PMC, consisting of 1254 soldiers and civil workers (two rotations), were to ensure water, food and patrol supplies, and to carry out re-

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pair works of roads and bridges in the region of the mission in the period from May 1992 to September 1993.<sup>4</sup> Four Polish soldiers died while executing mandatory tasks.<sup>5</sup>

During the UNTAC peacekeeping mission, Cambodia was marked by low living standards and adverse environmental conditions. Life expectancy of the Cambodian population was estimated at 48 years for men and 51 years for women. It was difficult to get access to healthcare and uncontaminated drinking water. A large number of food- and water-borne, arthropod-borne, and sexually transmitted diseases was observed. Death rate among infants under 1 year old amounted to 125 for 1000 live births. The percentage of children immunized against contagious diseases was low.<sup>6</sup> The South-East Asia region, including Cambodia is characterized by the tropical monsoon climate. It has two distinct seasons: dry and rainy. Southwest monsoons, blowing from the middle of May until the middle of October, bring heavy rains (over 70% of the annual 2000mm rainfall), whereas the northeast monsoon, blowing from the beginning of November until the middle of March, ushers in the dry season with low humidity and infrequent rains. The average annual temperature is 25°C, the maximum temperatures, soon before the beginning of the rainy season, can rise up to 38°C. Almost all of the Cambodia's territory lies in the Mekong basin, the Tonle Sap Lake and Tonle Sap River, the second largest water reservoir of the country.<sup>1</sup>

## MATERIAL AND METHODS

The analysis of sickness prevalence among the population of the Polish Military Contingent taking part in the peacekeeping mission in Cambodia was based on the data included in medical records of patients treated in 1st and 2nd level of UNTAC medical centers. The basis for the epidemiological assessment were medical records of 707 Polish soldiers treated from May 1992 to September 1993. In addition to this, all members of the Polish contingent were examined on their return to Poland in September 1993. The research which had been conducted allowed to evaluate the incidence of diseases among the given population. Two battalions were part of the Polish Military Contingent: the engineering and the logistic ones. The logistic companies were deployed in six different sectors in the territory of the whole country. Each of the companies consisted of a few dozen people secured by a two-person medical section (a doctor and a driver/paramedic). Health service of the engineering battalion consisted of 6 doctors, a dentist, a vet, a microbiologist, 2 analysts and 4 paramedics. All means and measures of the health service were divided in proportion to the number of personnel in individual troops of the Polish contingent.

There had been some prophylactic actions taken among Polish soldiers; the emphasis was placed on the chemoprophylaxis of malaria. Doxycyclinum was recommended. However, in some of the troops the decision was taken to stop the application of the drug due to numerous side effects reported during a many-month usage (gastrointestinal disorders, mycoses, and photodermatoses). In the area of the camps insecticides were sprayed 2-3 times weekly. Also, soldiers were using insect repellents. A lot of attention was paid to proper clothing (long sleeves and trouser legs), nets above beds and in all windows.

Antimalarial prophylaxis was implemented in cases of departures

from the camp or deployment of forces in the regions where the prevalence of the disease posed a serious threat. The incidence of malaria among the Polish contingent was reported in the region of Kratie, where engineering troops were deployed nearby the Mekong basin. There were no reports of the incidence of malaria from any other places where Polish soldiers were stationed.

## RESULTS

The data which was gathered from 707 Polish patients, who had been treated in 1st and 2nd level of UNTAC medical centers from May 1992 to September 1993, were subjected to analysis in terms of a structure of sickness prevalence. The most serious health problem among soldiers of the Polish Military Contingent participating in the UNTAC mission were contagious and parasitic diseases (25.1%) (Figure 1), with malaria as the dominating one (127 cases), amebiasis, giardiasis, other parasites of the digestive system, and sexually transmitted diseases, mainly gonorrhoea (86 cases) (Table 1).

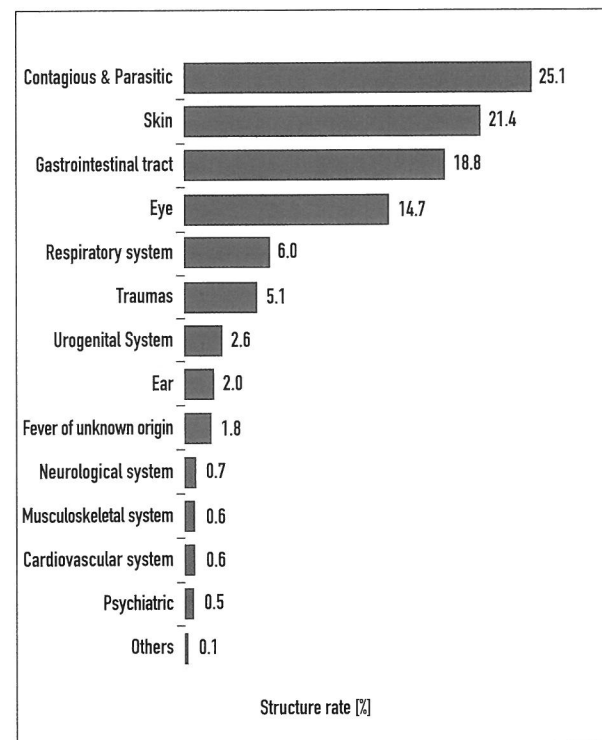


Figure 1. The structure of sickness prevalence in the population of Polish peacekeepers treated in the UNTAC medical centers from May 1992 to September 1993 (n = 707).

Source: UNTAC. Own studies

TABLE 1. Parasitic and contagious diseases in the population of Polish peacekeepers treated in the UNTAC medical centers from May 1992 to September 1993 (n = 707).

Disease	Number of cases	Disease	Number of cases
Malaria	127	Taeniasis	2
Amebiasis	47	Strongyloidosis	1
Giardiasis	20	Pediculosis	2
Trichuriasis	17	Scabies	1
Ascariasis	13	HIV infection	5
Trichinosis	2	Gonorrhoea	86
		Syphilis	1

Source: UNTAC. Own studies

Other health problems among Polish soldiers which required medical intervention were skin diseases – 21.4% (236 patients with mycoses, mainly of groin and feet), gastrointestinal diseases – 18.8% (232 patients with non-infectious diarrhea), and eye diseases – 14.7% (202 cases of epidemic conjunctivitis) (Figure 1,2).

All of the 1254 home-bound Polish soldiers and civil personnel - members of the Polish Military Contingent in Cambodia - were subjected to medical examination and laboratory analysis in terms of the incidence of diseases and injuries. It is noteworthy that a large number of infections were imported to Poland after termination of service in the UNTAC mission. The largest number of invasive and contagious diseases was parasitic diseases of the digestive system (giardiasis, amebiasis) and sexually transmitted diseases (gonorrhoea, genital warts) (Table 2).

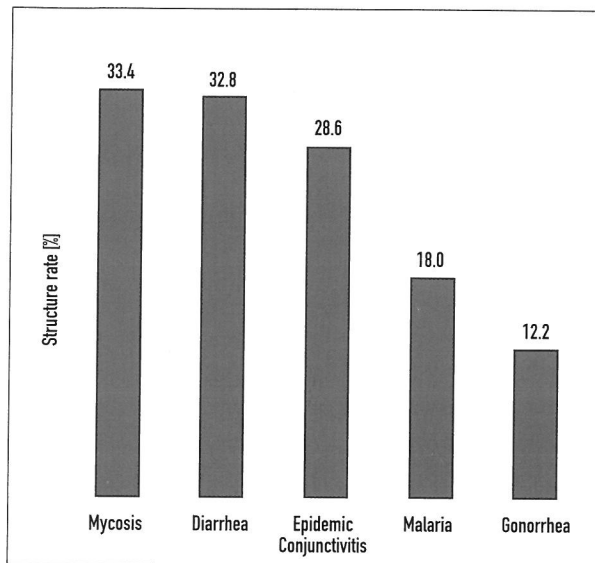


Figure 2. The most frequent cases of diseases treated in the population of Polish peacekeepers treated in the UNTAC medical centers from May 1992 to September 1993 (n = 707)  
Source: UNTAC. Own studies

TABLE 2. Parasitic and contagious diseases in the population of Polish peacekeepers home-bound from U.N. mission in Cambodia in 1993 (n = 1254)

Disease	Number of cases	HIV / AIDS	9 / 1
Giardiasis	71	Gonorrhoea	55
Amebiasis	20	Syphilis	8
Strongyloidosis	11	Genital warts	17
Ascariasis	9	Granuloma inguinale	2
Ancylostomiasis	5	Lymphogranuloma venereum	1
Trichuriasis	4	Genital herpes	5
Malaria	2	Scabies	4
Aspergillosis	12	Pediculosis	2

Source: UNTAC. Own studies

## DISCUSSION

From June to November 1992 there were 45578 medical examinations carried out in medical centers of the UNTAC mission. Undoubtedly, the majority of health problems constituted the

incidences of non-infectious diseases (72.9%), mainly of the respiratory tract and skin. As much as 9.75% of patients' admissions were due to ailments of teeth and parodontium, 3.55% caused by body traumas (car, sport, and combat injuries).

Among the contagious and parasitic diseases (13.8% of treated patients) malaria constituted 23.1% of all cases (mostly due to *Plasmodium falciparum* in the territory bordering with Thailand; the cases caused by *P. vivax* occurred in the northeast part of the country). 23.2% represented sexually transmitted diseases (gonorrhoea, non-gonococcal urethritis, chancroid, single HIV infections), 27.7% – gastroenteritis, 26% – others (Denga, viral hepatitis, mainly A).

Within the given period 17 of peacekeepers died due to: car accidents (6 cases), malaria *P. falciparum* (3), drowning (3), a fall from heights (1), gunshot wound (1), sport injury (1), heart attack (1), and Mallory-Weiss syndrome (1). It was necessary to repatriate 56 people home owing to medical reasons, mainly because of psychiatric disorders (34%), body injuries (23%), diseases of cardiovascular system (11%), diseases of neurological system (9%), malaria and its complications (7%).<sup>7</sup>

The epidemiological situation in Cambodia in the period of the UNTAC peacekeeping mission (1992-1993) was difficult, which undoubtedly was influenced by tough climatic conditions and low sanitary standards of the local population. Sickness profile was dominated by contagious and parasitic diseases, among which food and water-borne, arthropod-borne and sexually transmitted diseases were predominant. In rural areas, in the Mekong and Tonle Sap basin amebiasis was widespread, the percentage of local population afflicted with the disease ranging from 30% to 70%, which was connected to restricted access to uncontaminated drinking water and low standards of sanitary fittings.

Other parasitic diseases of the digestive system widespread among the Cambodian population were giardiasis, ancylostomiasis, and strongyloidosis. In the northwest Cambodia, in the areas bordering with Thailand, cholera was endemic. In the territory of the whole country the risk of typhoid fever and shigellosis was considerable. Cases of schistosomiasis and viral hepatitis A were also reported.<sup>8</sup> Medical examination carried out in several villages nearby the capital of the country (n = 3401, 1350, 1044) showed numerous parasitic infections of the digestive system (*Ancylostoma duodenale*, *Necator americanus* 17-34%, *Ascaris lumbricoides* 14-19%, *Strongyloides stercoralis* 13-18%).<sup>9</sup>

Among arthropod-borne diseases transmission of malaria posed the biggest threat. The disease occurred in the north, west and southeast parts of the country (the etiological factor of 80% of all cases was *Plasmodium falciparum*). Cases of malaria were not noted in the capital of the country, Phnom Penh.<sup>8</sup>

Widespread occurrence of sexually transmitted diseases posed a considerable epidemiological problem among the Cambodian population. Research conducted in 5 different areas of the country among 437 prostitutes providing services in local brothels demonstrated that as much as 40.5% were HIV infected, 38.7% were infected with chlamydia and/or gonorrhoea, and 13.8% with syphilis.<sup>10</sup> The risk of infection was much increased by the fact that Cambodian citizens were not using condoms.<sup>11,12</sup> The research conducted among prostitutes from Siem Reap (n = 140) demonstrated that 78% were using condoms during intercourse with clients,

whereas only 20% of them were using condoms during intercourse with their regular partners.<sup>13</sup>

Contagious and parasitic diseases widespread among the Cambodian population also posed a serious health hazard among the UNTAC peacekeepers. A large number of infectious diseases of the digestive system were connected to the fact that food and feeding hygiene was neglected (buying food at local markets, consumption of fruit and vegetables without prior disinfection, cooking or peeling). From January to September 1993 there were 51 parasitic infections of the digestive system detected among 56 Polish soldiers: giardiasis (18 cases), amebiasis (16), trichuriasis (13), ascariasis (4).<sup>14</sup>

A distinctive feature in the region of the UN peacekeeping mission in Cambodia was high incidence of sexually transmitted diseases (STD's). High incidence of STD's among the population of soldiers was determined by a number of risk factors such as incidental intercourse, numerous sexual partners, reluctance to use contraception (condoms).<sup>15</sup> Easy access to sexual services provided by prostitutes, carriers of different STD's, has been observed in South-East Asia for decades.<sup>16</sup> Cases of sexually transmitted diseases among military personnel and civilians increases significantly in combat zones. The need of sexual fulfillment, but also the need to work off stress plays a key role in taking up incidental sexual intercourse. The stress factors were not only combat actions and separation from family but also adverse climatic conditions. The circumstances listed above resulted in alcohol abuse and incidental sexual intercourse with prostitutes.<sup>17</sup> The majority of UNTAC peacekeepers constituted young, sexually active men, who declared a number of different sexual partners in medical interviews. However, incidental sexual intercourse was negated by a considerable group of older soldiers, for whom the likelihood of a HIV infection was an effective deterrent. During the UNTAC peacekeeping mission a lot of prostitutes arrived in Cambodia from neighboring countries, mainly from Thailand. Based on later research it was reported that a high percentage of Thai prostitutes were infected with STD's, mainly gonorrhoea, but also tropical illnesses such as granuloma inguinale and lymphogranuloma venereum. The incapability of carrying out specialized diagnostic tests was a significant impediment to treat the diseases listed above. There were a number of cases where doctors of the mission's contingents and of UN Hospital in the country's capital, Phnom Penh, diagnosed a specific disease without its laboratory confirmation.<sup>18,19</sup> Incorrect diagnosis and treatment resulted in numerous active STD's infections among soldiers home-bound.<sup>18</sup> Sickness prevalence among soldiers of the Polish Military Contingent connected to environmental conditions hit the highest point during the first few months of the mission, while the adaptation process to local conditions was still taking place (in July 1992 it amounted to 88.5% of the contingent's population). As the consequence of the improvement in the quality of feeding and accommodation as well as soldiers' adjustment to new climatic conditions the incidence of diseases diminished in September 1992 and it amounted 27.7%.<sup>8</sup> High temperature and humidity facilitated incidence of skin diseases, mainly groin and feet mycoses and intertrigo candidamycetica. A significant problem was also conjunctivitis, characteristic of the South-East Asia, which occurred among a large number of the UNTAC peacekeepers.<sup>8</sup> Mandatory tasks carried out in a combat zone often bring about the occur-

rence of psychiatric disorders. Research conducted among Dutch soldiers participating in the peacekeeping mission in Cambodia from 1992 to 1993 after their return home revealed a number of health problems in the form of memory disorders, short attention span, mental fatigue, headaches. These applied to 17% of the mission's population (n = 2616). Health problems concerning mental disorders were not only associated with adverse environmental conditions in the mission zone but also with side effects of prophylactic vaccination and implementation of antimalarial prophylaxis in the form of mefloquine (Lariam). In addition to this, it was suggested that there existed a number of other factors which resulted in mental disorders, such as: problems in a family, difficulties in adaptation to service at home.<sup>20</sup> Similar health problems occurred in response to similar factors among participants of the Desert Storm operations in the Middle East within the years 1992-1993.<sup>21,22</sup> Research carried out among 59.4% of the Dutch contingent (n = 1256) participating in the UNTAC mission in the years 1992-1993 demonstrated predominance of health problems connected to the fact of being stationed in a tropical climate (24.8%), body injuries and diseases of motor system (23.9%) and skin diseases (22.7%). Other diseases connected to being stationed in unfamiliar climatic and poor sanitary conditions included: traveler's diarrhea (542 cases) and amebiasis (105 cases).<sup>23</sup> Frequent occurrence of infectious and invasive diseases of the digestive system caused by combat actions in hot climate areas clearly indicates that special precautions concerning food and feeding hygiene, personal hygiene, and controlled water supplies need to be taken.<sup>24,25</sup> Other health problems occurring among Dutch soldiers (n = 1356) included skin diseases, mainly mycoses (238 cases) and miliaria (152 cases).<sup>23</sup> A serious health hazard not only in Cambodia but also in the whole territory of Indo-China Peninsula during the UNTAC peacekeeping mission was malaria, especially its malignant form caused by *Plasmodium falciparum*. There had been 31 cases of the disease diagnosed among soldiers of the Dutch contingent in the area of the mission and another 33 cases diagnosed among soldiers home-bound.<sup>26</sup> Within the frames of antimalarial chemoprophylaxis among Dutch soldiers mefloquine was applied. Temporary side effects associated with the application of mefloquine (headaches, dizziness, nausea, insomnia, bradycardia, leucopenia, growth in transaminase value) only related to 3% of the contingent's population.<sup>27</sup> A serious health and life hazards in the mission areas are undoubtedly body injuries caused by car and sport accidents as well as injuries sustained while executing tasks on duty. Yet, the predominant source of all injuries constitutes road accidents.<sup>28</sup> During the UNTAC mission road accidents were the main cause of all deaths among peacekeepers executing mandatory tasks in the territory of Cambodia from 1992 to 1993.<sup>7</sup>

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#### CONFLICT OF INTEREST:

None.

## References

1. Wikipedia – Cambodia. Available online at: <http://pl.wikipedia.org/wiki/Kambod%C5%BCa> (accessed: May 8, 2008).
2. The UN Information Center in Warsaw. The UN Peacekeeping Missions – UNTAC. Available online at: [http://www.unic.un.org/pl/misje\\_pokojowe/mzaz\\_untac.php](http://www.unic.un.org/pl/misje_pokojowe/mzaz_untac.php) (accessed: May 8, 2008).
3. United Nations Transitional Authority in Cambodia (UNTAC). Available online at: [http://www.un.org/Depts/dpko/dpko/co\\_mission/untacfacts.html](http://www.un.org/Depts/dpko/dpko/co_mission/untacfacts.html) (accessed: May 8, 2008).
4. Polish Ministry of Defense. In Remembrance of soldiers killed on missions abroad. United Nations Transitional Authority in Cambodia. Available online at: <http://www.untac.pamieciopolegnych.mon.gov.pl/?a=true> (accessed: May 8, 2008).
5. Korzeniewski K. Participation of Polish Armed Forces in international organizations' peacekeeping and stabilization missions. In: Olszański R, Morawiec B, Dąbrowiecki Z, Korzeniewski K. *An Outline of Tropical Medicine*. Gdynia, Poland: In-fodruk, 2007.
6. World Factbook. Cambodia 1992. Available online at: <http://www.theodora.com/wfb/1992/cambodia/index.html> (accessed: May 8, 2008).
7. United Nations Transitional Authority In Cambodia. *Health situation of UNTAC*. International Edition: Phnom Penh, 1993.
8. Kierznikowicz B, Zabielski A, Olszański R, Kotłowski A. The Influence of Service Conditions on Health State of UNTAC Peacekeepers in Cambodia. *The Annual of the Navy's Health Service, 1990-1994*. Gdynia, Poland: Command of the Navy's Health Service, 1994.
9. Koga-Kita K. Intestinal parasitic infections and socioeconomic status in Prek Russey Commune, Cambodia. *Nippon Koshu Eisei Zasshi* 2004; 51(11): 986-992.
10. Ryan CA, Vathiny OV, Gorbach PM, Leng HB, Berlioz-Arthaud A, Whittington WL, Holmes KK. Explosive spread of HIV-1 and sexually transmitted diseases in Cambodia. *Lancet* 1998; 351(9110): 1175.
11. Global Health Council. Cambodia. *AIDSlink* 1993;23:15.
12. Hor LB, Detels R, Heng S, Mun P. The role of sex worker clients in transmission of HIV in Cambodia. *Int J STD AIDS* 2005;16(2):170-4.
13. Wong ML, Lubek I, Dy BC, Pen S, Kros S, Chhit M. Social and behavioural factors associated with condom use among direct sex workers in Siem Reap, Cambodia. *Sex Transm Infect* 2003;79(2):163-5.
14. Kierznikowicz B, Nowak B. The observations of logistic company's doctor in Cambodia. In: Kierznikowicz B, Knap J. *Health Service of the Polish Armed Forces in Peace Missions*. Warszawa: Eurostar Ltd, 2001.
15. Korzeniewski K, Olszanski R. Cases of Sexually Transmitted Diseases among Polish soldiers serving in the UN Armed Forces in the Middle East and in the South-East Asia. *The Epidemiological Review* 2006;60:359-366.
16. Korzeniewski K, Kierznikowicz B, Olszanski R. Sexually transmitted diseases among Polish soldiers serving in the U.N. peace missions in Lebanon and Cambodia. *International Maritime Health* 2003;54:101-107.
17. Korzeniewski K, Olszański R, Nowicki R. Environmental Health Risk Factors Occurring in the Hot Climate, in Warfare Zone. *Polish Journal of Environmental Studies* 2006;15(4b):81-86.
18. Kierznikowicz B. The Subject Matter of STD (including HIV) among peacekeepers in Cambodia. In: Kierznikowicz B, Knap J. *Health Service of the Polish Armed Forces in Peace Missions*. Warszawa: Eurostar Ltd, 2001.
19. Olszanski R, Kierznikowicz B. Dermatological problems and certain STD's among soldiers of the Polish Military Contingent in Cambodia. In: Kierznikowicz B, Knap J. *Health Service of the Polish Armed Forces in Peace Missions*. Warszawa: Eurostar Ltd, 2001.
20. de Vries M, Soetekouw PM, Van Der Meer JW, Bleijenberg G. Fatigue in Cambodia veterans. *QJM* 2000 May;93(5):283-9.
21. Soetekouw PM, de Vries M, van Bergen L, Galama JM, Keyser A, Bleijenberg G, van der Meer JW. Somatic hypotheses of war syndromes. *Eur J Clin Invest* 2000;30(7):630-41.
22. de Vries M, Soetekouw PM, van Bergen LF, van der Meer JW, Bleijenberg G. [Somatic and psychological symptoms in soldiers after military clashes and peace-keeping missions]. *Ned Tijdschr Geneeskd* 1999;143:2557-2562. [Article in Dutch].
23. Hopperus Buma A, van Ameijden E, Huyboom M. Morbidity Surveillance among Dutch Troops a Peace Support Operation in Cambodia. *Military Medicine* 1999; 64(2):107-111.
24. Hyams KC, Bourgeois AL, Merrell BR, Rozmajzl P, Escamilla J, Thornton SA, et al. Diarrheal disease during Operation Desert Shield. *N Engl J Med* 1991;325(20):1423-8.
25. Sharp TW, Thornton SA, Wallace MR, Defraites RF, Sanchez JL, Batchelor RA, et al. Diarrheal disease among military personnel during Operation Restore Hope, Somalia, 1992-1993. *Am J Trop Med Hyg* 1995;52(2):188-93.
26. Hopperus Buma AP, van Thiel PP, Lobel HO, Ohrt C, van Ameijden EJ, Veltink RL, et al. Long-term malaria chemoprophylaxis with mefloquine in Dutch marines in Cambodia. *J Infect Dis* 1996;173(6):1506-9.
27. Jaspers CA, Hopperus Buma AP, van Thiel PP, van Hulst RA, Kager PA. Tolerance of Mefloquine Chemoprophylaxis in Dutch Military Personnel. *Am J Trop Med Hyg* 1996;55(2):230-4.
28. Hargarten SW, Baker SW. Fatalities in the Peace Corps. A retrospective study: 1962 through 1983. *JAMA* 1985;254:1326-1329.