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THE EPIDEMIOLOGICAL SITUATION IN IRAQ

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This article presents information on the health condition of the Iraqi population as well as the situation of the country's health care and education system over the course of recent decades. Author has discussed a number of risk factors which influence the incidence of diseases among the country's population paying particular attention to environmental factors. In the 1980's the epidemiological situation of Iraq and its citizens was comparable with the situation in average developed countries. Over the last two decades the country, rich in natural resources, having one of the world's richest crude oil deposits, has been turned into an economic ruin. Warfare, famine and catastrophic sanitary conditions are now widespread and they all intensify the growth of incidence of infectious and non-infectious diseases.

Key words: Iraq, epidemiology

THE EPIDEMIOLOGICAL SITUATION IN IRAQ AFTER THE SECOND WORLD WAR

The health condition of the Iraqi population after the second world war was not satisfactory. Contagious and parasitic diseases commonly occurred. At that time, malaria was endemic in all parts of the country. On average, about 600 thousand cases of malaria were treated in health service centers every year (from 26 to 266 cases for every 1000 citizens depending on the region, the most in the Karbala province). Schistosomiasis caused by the *Schistosoma haematobium* parasite was a significant problem in all parts of the country, especially in the Tigris and Euphrates delta where the morbidity rate was on the level of 18 to even 80% of the population (35% in Baghdad). 25-35% of the citizens in Baghdad were carriers or suffered from yet another parasitic disease – amoebiasis caused by *Entamoeba histolytica*. In the Al-Basra province the morbidity rate from amoebiasis reached between 60-70%. Other commonly occurring parasitic diseases were: ancylostomiasis, ascariasis, trichostrongylosis and echinococcosis. Also, trachoma, a serious, contagious disease of the

sight organ caused by *Chlamydia*, posed a serious problem among the population of Iraq. Every year there were 500 thousand cases of trachoma. In the 1950's tuberculosis was widespread among the Iraqi people. At the time 3400-6800 cases of pulmonary tuberculosis and 1400-3100 cases of non-pulmonary tuberculosis were recorded yearly. At the same time the Iraqi people commonly suffered from sexually transmitted diseases. In the course of six years 38600 cases of venereal diseases were treated in health service clinics, including syphilis (65%), gonorrhoea (26%) and chancroid (9%) (18).

IRAQI HEALTH SERVICE AND EDUCATION SYSTEM

Only 811 doctors were employed in Iraq in 1950 (including 444 in the Baghdad province). In so far as there were 55-70 doctors for every 100 thousand citizens in Baghdad, there were only 4-6 of them for every 100 thousand citizens in rural areas. The number of nurses was even smaller (only 601 in the whole country). The number of hospital beds also fell short of the demand; there was only one hospital bed for every 1 thousand citizens. Dental care was also in a disastrous condition. Only 72 dentists were employed in Iraq in 1950 (18). The country's bad sanitary and epidemiological situation was further worsened by the catastrophic condition of the education system. Until 1958, when the monarchy was abolished, Iraq belonged to a group of the most underdeveloped countries in the world. About 80% of the population were illiterate out of whom 95% were women (38).

This situation began to change drastically in the mid-seventies when the country's industry was nationalized and the health and education services were provided with the money earned on the export of crude oil. Due to free medical care and low-priced medicines, epidemics of the most dangerous, contagious and parasitic diseases had been successfully controlled (10). In 1977 there were 199 hospitals in Iraq (with the total number of 23754 beds), 1653 health service centers and 387 private clinics. It was estimated there were 4527 doctors and dentists, and roughly 7500 nurses in Iraq; albeit the problem of inadequate distribution of medical personnel still remained. 37% of all hospital beds in the country as well as 42% of national clinics and 38% of medical personnel were situated in the Baghdad province (4). The education of the Iraqi people was given full consideration. Compulsory schooling was introduced in the mid-seventies (six-year primary schools for six-year-old children and supplementary education of adults up to the age of 45). Education became free on all levels including higher education. All private schools had been transformed into public ones. In 1977 there were 6 universities and three colleges of Muslim theology which had the status of a higher school (38). In 1990, 96% of children between the ages of 6-11, 47% of adolescents between the ages of 12-17, as well as 13,8% of young people between the ages of 20-24 were attending schools (whereas until 1970 the rate of people with higher education did not exceed 1% of the entire population) (9). Despite having been educated in their own country, the Iraqi people enrolled into foreign universities, especially in the United Kingdom and the United States. The period of prosperity in the health service and education system was interrupted by the war between Iraq and Iran, when petrodollars had been mainly intended for the armament (11). The situation in both sectors began to worsen drastically after Saddam Hussain's regime was defeated in the Persian Gulf War in 1991. Iraq became isolated from the international arena and the impunity of Hussain's dictatorship led to extreme poverty and backwardness of millions of Iraqi people (7). As much as 42% of

adults (over 15 years old) cannot read or write although the number of students in primary schools rose by 44% between 1976 and 1985. At present 31% of girls and 17.5% of boys do not attend a primary school, whereas 60% of girls and 50% of boys do not attend a secondary school (13). The Iraqi health service does not cover the basic needs of its citizens. There is a vast disproportion between the number of medical personnel in big cities and in rural areas. Currently, over 50% of doctors employed in Iraq work in Baghdad, whereas it is difficult to obtain basic health services in rural areas. Before the first Gulf War broke out in 1990, medical services were easily accessible to 97% of the Iraqi citizens living in cities and 79% of the people living in rural areas. At the time there were 1800 health service centers which rendered basic medical services. A decade later the number had been reduced by half and a lot of staff employed in the medical service emigrated abroad (27).

THE PRESENT EPIDEMIOLOGICAL SITUATION IN IRAQ

Nowadays it has been estimated that nearly one fourth of children in Iraq are chronically malnourished (24). Mortality rate among children under the age of five is one of the highest in the world (131 for every 1 thousand alive newborns). The birth rate is continually at a high level – 2.9% (the world's average being 1.68%). The average life expectancy among Iraqi people is short (average 60.7 years) (30). The main reasons for morbidity and mortality of the Iraqi population are now acute infections of lower airways as well as contagious and parasitic diseases of the digestive tract. Both groups of diseases cause 70% of deaths among children under the age of five (21).

Respiratory tract diseases. There has been a significant surge in the number of respiratory tract diseases in 1990's, and the incidence of such infections has remained at a high level until now. The most commonly occurring disease of this group is pneumonia. It is mainly caused by *Streptococcus pneumoniae* and *Haemophilus influenzae* (5). In 2000, 152932 cases of pneumonia among children under the age of five were diagnosed (the number five times more than reported in 1990). According to UNICEF in the northern provinces of Iraq, 25% of the population under five suffers from acute inflammation of lower airways (pneumonia). Undoubtedly, the reasons which effect in high incidence of the above diseases are: malnutrition, insufficient primary health service, migrations and overpopulation (23).

Contagious and parasitic diseases of the digestive tract. The spread of contagious and parasitic diseases of the digestive tract is facilitated by unsatisfactory sanitary conditions which result from the damage of plumbing and sewage systems (mostly as the effect of the warfare) (1). Merely 50% of people living in cities and 33% of the population in rural areas have the access to uncontaminated drinking water supplies (20). Every day 0.5 million tons of sewage is dumped into Iraqi rivers which remain the major source of drinking water in the country. This situation leads to the outbreak of epidemics of various diseases (14). In 2001 it has been reported on 652314 cases of amoebiasis (2477 cases for every 100 thousand people) and 563642 cases of giardiasis (2141 for every 100 thousand people) (36). Cases of amoebiasis and giardiasis occur in all regions of the country, especially in the summer months. Another common infectious diseases of the digestive tract are salmonellosis and shigellosis (62862 cases in 1993) (36). Parasitoses such as ancylostomiasis, ascariasis, trichinosis and strongyloidosis are also widespread. Since the outbreak of the first Gulf War in 1991 endemic disease has become cholera. There had been 718 cases of cholera in

2002 and 560 cases in 2001. The incidence of this disease reached its peak in 1998 (2560 cases) (36). In the first half of 2003, in the southern Al-Basra province, further incidents of cholera had been recorded (32). In relation to the last decade the number of diarrhoeal diseases had increased significantly. In so far as the occurrence of disease symptoms in the form of diarrhea among children under 5 were on the level of 3.8 cases a year in 1990, there had been five times as many such disease symptoms in 1996. The situation is further complicated by the fact that there are difficulties in diagnosing particular disease entities, which is the result of the damage or theft of laboratory equipment. In such situation foreign laboratories provide some assistance. Selected material from medical centers in the Al-Basra province is taken to laboratories in Kuwait to ascertain if the clinical picture and microbiological diagnosis are consistent (33). The incidence of typhoid fever, a bacterial disease caused by *Salmonella typhi*, has invariably been at a high level since the beginning of the 1990's. 21356 cases of the disease were diagnosed in the whole country in 2001; in 2000 there were 24614 cases. It needs to be pointed out that the death rate as a result of typhoid fever is particularly high and has reached the level of 10-20%. This has been the effect of insufficient access to primary as well as specialized medical services and the impossibility of fast and accurate treatment (36).

Contagious pediatric diseases. This group of diseases constitute a serious epidemiological problem in Iraq. Measles has been the third major cause of death among children under 5 in respect of frequency of occurrence, especially in the regions where malnutrition is widespread and the number of preventative immunizations which have been carried out has been at a particularly low level (26,37). In 2001 there were 4088 incidents of measles in the whole country (43735 cases in the peak year – 1998) (36). In March 2002 a large scaled project of mass immunizations against measles (using the MCV vaccine) was conducted in Iraq; the action was sponsored and supervised by WHO. Over 90% of children aged from 9 months to 5 years were immunized in almost all provinces of the country (22). Currently, nearly two thirds of the incidence of measles have occurred in the central and southern part of the country among older children (6-12 years old), a result of the low number of immunizations conducted in Iraq in the mid 1990's (37). Other contagious pediatric diseases including pertussis and diphtheria, rarely occurring in other countries in the Middle East, are widespread in Iraq. In 2001 there were 2922 cases of pertussis and 33 cases of diphtheria. The rise in the number of incidence of the diseases is noticeable in the winter months. Currently, these groups of diseases occur mainly among refugees' settlements where a considerable number of children have not been immunized. It has been estimated that 67% of the population requiring active immunoprophylaxis were immunized (using the DTP3 vaccine) in 2002. At present Iraq has been free from cases of poliomyelitis. The last cases occurred in 2000 (4 people) and in 1999 (67 people). According to WHO 84% of the population requiring immunoprophylaxis were immunized with the Polio3 vaccine in 2001. Despite the fact that no new incidences of poliomyelitis have been diagnosed for the last three years, the economic situation of the country, low standard of the health service, as well as migrations of the population condition the spread of the disease. The central and southern regions of the country are particularly endangered with the occurrence of poliomyelitis. In February 2003, a large-scaled action of mass immunizations were carried out in Iraq. 14 thousand voluntaries, employees of Iraqi health services recruited from 880 health service centers, immunized 98% of children (the total children's population under the age of 5 being 4.2 million) (22). Actions of mass immunizations against contagious

pediatric diseases are of great importance with regards to epidemiological situation in Iraq, especially considering the fact that every month 75 thousand children are born there (35). In all areas of the country there were cases of meningococcal meningitis with the upward trend in winter months. 501 cases were diagnosed in 2001, 574 in 2000, and 5792 cases in the peak year 1991 (36).

Enzootic diseases. In Iraq there is a high risk of falling ill from rabies which derives mainly from infected dogs. In 2001 seven cases of rabies among people were diagnosed in the whole country. 14 cases were diagnosed in 2000 and as many as 256 cases in the peak year – 1991. Laboratory diagnostics of the disease are inaccessible in Iraq. All diagnoses are based on the clinical picture of the disease. In spite of being the main source of infection, dogs have only been vaccinated sporadically. In 1999 approximately 3 thousand dogs had been vaccinated (90% of the group included home-bred animals, which is only 1% of the whole dog population in the country) (36). Another widespread, enzootic disease is brucellosis; for this reason it is recommended to abstain from non-pasteurized dairy products available on the market and derived mainly from sheep and camels (36).

Tuberculosis. In the course of the last decade there has been a three-time growth in the incidence of tuberculosis (from 46.1 in 1989 to 131.6 in 2000 for every hundred thousand citizens). The increase of the morbidity rate, apart from unsatisfactory sanitary conditions and poor standard of living, is also conditioned by the shortage of phthisiatric medicines at the local market. According to WHO and UNICEF 93% of the population were immunized against tuberculosis with the BCG vaccine in 2001. A national health program against tuberculosis has been launched under auspices of WHO and it is targeted at diagnosing 70% of all cases of tuberculosis in the country and the successful treatment of 85% of all diagnosed cases until the year 2005 (36).

Malaria. Until 1991, the year when the Gulf War broke out, there had been a decrease in the number of registered cases of malaria. Since then, however, malaria has developed into a serious medical problem. In 1957, at the time when a campaign aimed at eradicating the disease was launched, hundreds of thousands of the disease cases had been registered yearly. After thirty years the number had been reduced to several thousands. The growth in incidence of malaria took place again in 1994 and 1995 when adequately 94236 and 98705 cases of malaria had been registered. Afterwards, the number had once more fallen down. In 2000, 3859 cases of malaria had been diagnosed, in 2001 – 1120 cases. Endemic sources of the malaria *Plasmodium* (in Iraq it is *Plasmodium vivax*) occur in the north-east regions of the country, in the provinces of Dahuk, Ibril, Niniwa, As-Sulajmanijja and At-Tamim, and also in the areas below 1500 meters above the sea level, as well as in the south of the country in the Al-Basra province. Therefore, antimalarial prophylaxis is strongly recommended in the above regions (500 mg of Chloroquine once a week). The vectors of infections are mosquitoes of the *Anopheles* genus (*A. sacharovi* being the most common, *A. superpictus*, *A. stephensi*). Cases of malaria caused by *P. falciparum* last occurred in Iraq in the 1980s. Nowadays they have ceased to appear. The transmission of the disease to Baghdad has not been stated. The reduction in numbers of malaria cases on the scale of the whole country had been predominantly facilitated by drying wet soil and an easier access to antimalarial medicines (6,36).

Leishmaniasis. In central Iraq, as well as in the capital of the country, cases of visceral leishmaniasis (*kala-azar*) caused by the *Leishmania donovani* protozoon (with the bacterial

strains of *L. infantum* and *L. chagasi*) have been registered. This has been the result of the increased number of the infection vectors (sand flies), a large concentration and the unsatisfactory health condition of the population. Since 1991 incidences of leishmaniasis had started to occur in the southern provinces of the country (Majsan, Zi Kar, Al-Basra), until that time its appearance was extremely rare. In 2001, 2893 cases of visceral leishmaniasis were diagnosed, in 2000–2611 cases, and as many as 3866 cases in the peak year – 1992 (20 cases for every 100 thousand citizens). In all areas of the country there had also been cases of cutaneous leishmaniasis. The course of the disease is much more gentle than that of *kala-azar*. In 2001 there were 625 cases of cutaneous leishmaniasis, 955 cases in 2000 and as many as 8779 cases in the peak year 1992 (45 cases for every 100 thousand citizens). Cases of cutaneous leishmaniasis caused by *L. tropica* mostly occur in the suburbs of big cities (Baghdad, Mosul) among large conglomerations of people where the sanitary conditions are unsatisfactory. Incidences caused by *L. major* are much more common; they appear primarily in rural areas, especially in the northern and southern provinces of the country (6, 36).

Schistosomiasis. For the last several years the country has been free from the incidences of schistosomiasis, a parasitic disease caused by *Schistosoma haematobium* (other groups of the parasite, *S. mansoni* and *S. japonicum* have not occurred in Iraq). The disease affects and causes changes in the urinary system. The last cases of the disease were registered at the beginning of the 1990's (between 1990 and 1994 the morbidity rate had gradually decreased from the level of 60 cases in 1990 to 20 cases in 1994 for every 100 thousand people). The river-basin of the Tigris and Euphrates was a region where the occurrence of the disease was endemic. Nowadays, the presence of the *Bulinus truncatus* snail (an indirect host for *S. haematobium*) has not been ascertained in either of the rivers. Until recently the snail had only occurred on swampy ground in the southern regions of the country. However, as the result of the planned action of drying wet soil local fauna and flora died away (2, 36).

HIV/AIDS. According to the Iraqi government's reports published in 2001, 124 people suffer from AIDS, and 222 people are HIV carriers. The majority of the group constitute young people suffering from haemophilia who were infected due to the usage of blood or blood substitutes infected with HIV. WHO estimates that the number of those affected with AIDS or infected with HIV in Iraq does not exceed 1000 cases. In 1999, 18 people died of AIDS. In 2000, 6 new cases of AIDS occurred (5 caused by parenteral drug taking and 1 by a blood transfusion). In 2001, 4 cases were diagnosed (all caused by blood transfusion). The first cases of AIDS in Iraq were registered in 1991 (7 people). The peak level of morbidity occurred in 1994 (37 cases) (36). The group of high risk constitute patients suffering from haemophilia, thalassaemia, after transplantations, requiring blood transfusion, drug addicts, and people having a number of different sexual partners. The Iraqi government aiming at reducing the influx of potential HIV carriers or people suffering from AIDS arriving in Iraq from abroad, introduced a compulsory carrier state testing on the Iraqi borders (12). The cost of blood taking and its testing in a doctor's office near the border (where the sanitary conditions are far from satisfactory) is \$50 (8). A number of people are exempted from blood testing; those are: the staff of embassies, consulates and international organizations (UN, the Arabian League), people possessing diplomatic or official passports together with their families, people arriving by official invitation on condition their stay in Iraq is no longer than fifteen days, Muslim pilgrims crossing the territory of Iraq, children under the age of 14 on condition they do not suffer from haemophilia and after their parents' as-

surance they require neither any kind of operation nor blood transfusion, men over the age of 60 and women over the age of 50. Also, people with a valid medical certificate proving they do not suffer from AIDS nor are HIV carriers are exempted from the obligation to do the blood test (such a certificate and the test results need to be translated into Arabic by an official translator) (12).

Sexually transmitted diseases. In spite of being a Muslim country with a number of prohibitions and social regulations Iraq has not been free from sexually transmitted diseases. In 2000, over 30 thousand venereal diseases were diagnosed among the Iraqi population; the prevailing ones being: gonorrhoea (18% of all cases), bacterial vaginitis (9%), non-gonococcal urethritis (9%), trichomoniasis (9%). Screening examinations carried out among pregnant women in the same year revealed that 0.01% of the women showed positive serological reaction in the course of syphilis (27).

Venomous arthropods and reptiles. Venomous arthropods and reptiles commonly occur in all regions of the Middle East including Iraq. Scorpions are particularly widespread in the northern parts of the country. One of the most dangerous being the black scorpion, *Androctonus crassicauda*. Every year there have been several registered cases of deaths from scorpion bites, especially, among small children and elderly people. As for spiders, the most dangerous of the group are the arthropods of the *Latrodectus* genus. Also, In Iraq there appear more than 20 species of snakes; several are venomous. However, victims of snake bites have been registered sporadically. The venomous species occurring in the area of the whole country are: *Walterinesia aegyptia* called the Desert Black Snake, Blunt-nosed Viper, Persian Sand Viper, Desert-horned Viper, and Saw-scaled Viper (16).

Non-infectious diseases. Non-infectious diseases establish a serious health problem among the Iraqi population. Among this group, diseases of the cardiovascular system prevail - acute ischemic disease as well as cerebral stroke are the main causes of deaths. Also, one of the most commonly occurring non-infectious disease among the Iraqi people is diabetes. In 2000, the number of diabetics was estimated at more than 600 thousand, which is approximately 3% of the entire population. Another group of non-infectious diseases of epidemiological implications are neoplastic diseases. Their occurrence is linked with smoking tobacco, changes in life style and nutrition. In 2000, 195374 cases of neoplastic diseases (not including skin neoplasms) as well as 127677 deaths from neoplasms had been registered. The most commonly occurring neoplasm among the male population is lung cancer, whereas among the female population it is breast cancer. Apart from the risk factors mentioned above, there is yet another significant determinant which causes the occurrence of neoplastic diseases, namely, radioactive contamination. In the course of the last decade there has been a 100% increase in the incidence of various forms of leukemia among the population under the age of 15 living in the Al-Basra province; whereas between 1990 and 1999 the incidence of all neoplastic diseases among the age group mentioned above had risen by 242% (10.1 cases among 100 thousand population under the age of 15). According to the reports issued by the Iraqi health service such a dramatic growth in the incidence of neoplastic diseases was caused by exposing the local population to danger of contact with radioactive uranium which was used by the armed forces of the West countries in the Desert Storm operation of 1991. In the course of the warfare in the Al-Basra province the forces of anti-Iraqi coalition had used 400-500 tons of impoverished uranium, which led to radioactive contamination of air, soil and water, thus, putting the local people at risk of

irradiation. Consequently, apart from neoplastic diseases, there had also occurred certain genetic disorders (chromosome aberrations), injuries to the skeletal system and the sight organ as well as metabolic diseases in newborn children (29,31,33,34).

At present the most serious problem in Iraq, which may lead to a civil catastrophe, is a serious shortage of food and drinking water. It has been estimated that 18 million Iraqi people do not have free access to provisions. Approximately 60% of the population can only rely on the supplies of food rations which are delivered within the framework of the action "Oil for Food" (25). The system of the food distributions undergoes frequent breakdowns due to unstable domestic affairs, the shortage of fuel and border closures. The results of the situation are as follows: one third of the Iraqi children are malnourished, every eighth child dies under the age of 5, one fourth of children are born with low body weight, one fourth of all children do not have access to uncontaminated drinking water (15). A number of diseases are the result of malnutrition; the dominating ones being: anaemia, marasmus, and kwashiorkor. Also, due to the deficit of the vitamin D3 there have been cases of rickets. According to the report of the Iraqi Ministry of Health, issued in 2000, 3545 cases of kwashiorkor, 291587 cases of marasmus, and 1977454 cases of malnutrition with symptoms of hypovitaminosis and hypoproteinaemia were diagnosed among the population of children under the age of 5 (17).

The problem of refugees and emigrants. According to the Norwegian Refugee Council and UN departments functioning in Iraq during the 1990's around one million people had been forced to leave their place of residence due to military operations conducted in the territory of the country. They moved mainly from the south and the centre of Iraq to the northern provinces. It has been estimated that between 2000 and 2001 further 900 thousand people had changed their permanent place of residence. The reason of the migrations, apart from warfare, was also a conscious action of Saddam Hussain's regime which, on the one hand, aimed at displacing the Shi'a population from the south (mainly the "Arabs from marshes" residing in the Tigris and Euphrates delta), and, on the other hand, leading to "arabization" of the northern areas of the country by evicting Kurds, Turkmens and Assyrians. Consequently, until today thousands of people have been living in tents in the refugee camps in the whole area of Iraq, and approximately 900 thousand people emigrated abroad (3).

SUMMARY

Until 1990 the epidemiological situation in Iraq was comparable with the situation in average developed countries. The health care system was one of the best in the Middle East region. The malnutrition of people was observed sporadically. According to government sources 97% of urban and 79% of rural population had free access to primary health service. In that time prophylactic actions against malaria and tuberculosis as well as the immunization of children against contagious diseases were conducted on mass scale. Within one decade the epidemiological situation of Iraq had changed dramatically. WHO and UNICEF estimate that due to difficult access to health care institutions, among 10 thousand population, 30 children with diarrheal diseases, 55 children with respiratory tract diseases (including 5 children with pneumonia) and also 30 diabetics are not being treated (17,20).

The industrial infrastructure, which had already been in a catastrophic condition, was completely destroyed by military operations in March and April 2003. The plumbing system

and sewage treatment plants are damaged. Refuse collection and utilization poses a serious problem both in cities and in the country. Numerous public buildings, including hospitals and clinics, are destroyed. This has further been worsened by mass scale thieving; everything which is of any use or value can be stolen in Iraq. There is a shortage of basic medicines and dressing materials. A great number of operations cannot be conducted due to the lack of oxygen in hospitals. Water and food contamination is common (35).

It is strongly recommended that visitors to Iraq should be immunized against typhoid fever, tetanus, viral hepatitis type A and B, cholera, and rabies. It is also advisable to receive antimalarial prophylaxis (Chloroquine). Yellow fever does not occur in the territory of Iraq; nevertheless, people arriving into the country from regions where the occurrence of the disease is endemic (African countries lying in the region of the equator and the majority of South American countries) are bound to possess a valid certificate of immunization against yellow fever. Also, carrier-state testing on HIV has become compulsory on the Iraqi borders. Only those who possess a valid medical certificate proving they neither suffer from AIDS nor are HIV carriers are exempted from the obligation. A medical insurance covering the costs of evacuation back home is indispensable. Due to the bad condition of the Iraqi health service and a serious shortage of medicines on the Iraqi market it is suggested that all visitors to Iraq should undergo a detailed medical examination before their arrival into the country (7,12,19,28).

K Korzeniewski

SYTUACJA EPIDEMIOLOGICZNA IRAKU

W pracy przedstawiono dane na temat stanu zdrowia ludności Iraku oraz sytuacji w służbie zdrowia i oświacie tego kraju na przestrzeni ostatnich kilkudziesięciu lat. Omówiono czynniki ryzyka mające wpływ na występowanie chorób wśród Irakijczyków, ze szczególnym uwzględnieniem czynników środowiskowych. W latach 80. XX wieku sytuacja epidemiologiczna Iraku i jego mieszkańców była porównywalna do sytuacji w krajach średniorozwiniętych. W ciągu ostatnich dwóch dekad kraj zasobny w surowce naturalne, mający jedno z największych złóż ropy naftowej na świecie, zostało obrócone w ruinę gospodarczą, a działania wojenne, głód i katastrofalny stan sanitarno-higieniczny są obecnie zjawiskiem powszechnym, potęgującym szerzenie się chorób infekcyjnych i nieinfekcyjnych.

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