

Public Health Services in Herzegovina Region during 1992–1995 War

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ABSTRACT

The aim of this study was to describe the situation and the development of Croatian Defense Council medical corps during the 1992–1995 war in Bosnia and Herzegovina. The paper provides an overview and describes the main events that lead to development of the medical care in the wartime conditions, with special emphasis on the public health system in Herzegovina region. This included the creation of three distinctive public health system settings: initial, integral and post-war period, all marked by certain specificities in organization and delivery of the public health and overall health care to both military and civilians. The knowledge and skills gathered during this period can be useful in situations that involve the need for fast public health actions, such as various natural disasters and disease outbreaks, and could be used for establishing highly mobile response public health teams. Furthermore, the experiences gathered during these periods may be useful during the planning phases of the health care reforms, all aiming to deliver the best possible health care to the entire population.

Key words: war, public health, organization, Croatian Defense Council, Bosnia and Herzegovina

Introduction

Setting

Warfare is one of the most amazing and devastating human-induced catastrophes, with something over 14,500 recognized wars in over 5,500 years of the human written history¹. Unfortunately, the intensity and the extent of warfare seem to have increased with the development of human civilization, leading to more destructive and wide-spread warfare activities¹. Warfare causes substantial disruptions in the regular society activities, including various services such as the food and water supply, education or health system. This is especially well seen in case of the infective diseases outbreaks, which have often been recognized and registered during wartime periods, sometimes causing even more casualties than the warfare itself. Such findings were reported from e.g. Chinese-Japanese war (1894–1895), where the ratio of the infectious to warfare related deaths was 12 to 1, or Crimean war (1835–1856) where this ratio was 9.3 to 1, suggesting that infectious diseases may completely modify

the warfare pattern, and possibly substantially affect the outcome of the war¹.

Besides the possibility for various outbreaks to occur and re-emerge from their usually isolated and silent reservoirs, lack of the appropriate food and water supply, reduced possibilities to keep personal hygiene as well as the psychic trauma may all aggravate the immunity and reduce the resistance to various diseases and parasites in the entire affected population^{1–3}. This is why any disruption in the public health system and disease surveillance may have devastating effects on both general populations and military corps.

Public health is definitely one of the most strongly affected segments of the entire health system during wartime. This is additionally aggravated by the fact that most peace-time public health systems are usually not designed to perform well in the wartime conditions.

While the main activities of the public health systems during peace-time include disease surveillance and research, wartime conditions require a substantial shift in the system organization, in order to comply with the new criteria and develop the means to control and reduce the health threats on the large scale. In case of the Bosnia and Herzegovina 1992–1995 war, Croatian Defense Council (CrDC) was formed as a military establishment, aiming to protect the territory and people who were living in that area^{4,5}. Public health had an important place within CrDC, ensuring that the infectious diseases outbreaks were prevented, detected early in their onset and dealt with proper public health activities in both civilian and military personnel. The main focus of public health activities was related to prevention of dysentery, hepatitis and Rickettsia infections, as well as the other highly contagious infectious diseases^{1–3,6,7}. Previous wars have often witnessed devastating epidemics of some of these infectious agents, such as e.g. breakdown of Napoleon's army in 1812, when 25,000 French soldiers died in Vilna⁸. Similar outcomes are known from Serbia, where over 135,000 civilian and military personnel deceased as the consequence of Rickettsia epidemic, while the worse outcome was described in Russia, with over 3 million of Rickettsia associated deaths in 1918–1922 period⁸. The public health system had to have one more thing in mind, related to the endemic type of Rickettsia described in Bosnia, which was associated with large epidemics in 1943, with over 30,000 affected and over 5,000 deceased in Lika, Kordun and Banovina region of Croatia, with the remnants of the epidemic still recorded two years after the epidemic broke out⁹. Finally, all of the figures above are almost certainly biased, as the true number of casualties is likely to be much higher than the one that was recorded due to poor wartime surveillance and lack of the appropriate diagnosing and disease recording during wartime^{1,10}.

The Existing Public Health System

The beginning of the warfare activities in Bosnia and Herzegovina was marked by the lack of the defensive army, lack of the clear warfare command, low number of specialists who could organize the wartime defensive and health system, all contributing to the situation that could be described as a wide-spread general panic^{4,11,12}. The situation was further aggravated by the large-scale waves of health workers emigration, leading to almost complete collapse of the entire health system. This was most strongly seen in the case of public health workers and surgeons, which were the two most important physician groups in the given situation. Therefore, a special body of integrated health care was created, which aimed to provide health care to both civilian and military population during wartime. At the beginning of the war, in the Croatian political territories numerous crisis headquarters were formed, with Muslim Bosniaks that joined some of these units. Among various defensive and organizing roles, each of these units had a medical corps in

their ranks, notably with preventive department, ensuring proper water and food supply and control over the epidemic diseases. After the initial planning period, Central Medical Corps of the Croatian Defense Council (CrDC) was formed on March 18, 1992, with extensive help from the Croatian Medical Corps, which served as the initial model for implementation of similar service in Herzegovina region. With the development of the civilian government on March 19, 1992, the system was divided in two branches – civilian health care and medical corps^{13,14}. While the civilian health care system was now under the governance of the Ministry of health, military medical corps was under the governance of the CrDC and the Ministry of Defense. The links between these groups remained strong, while the activities in the everyday practice often overlapped ensuring that both the civilian and military personnel received the appropriate health care. The system has remained relatively unchanged since the end of the war.

Public Health Activities in the Region

Three different stages can be identified in the public health organization and broad-scope activities: initial, integral civilian-military period and post-war (post-Dayton) period.

The initial period started in the situation in which approximately 70% of the former federal republic was under the Serbian rule and paramilitary groups, making any systematic effort in delivery of the health care to the entire population virtually impossible. This situation required that the public health system should be adjusted to the given situation. The initial activities included the development of the public health system plan that would ensure the continuity of the health monitoring and disease prevention. The creation of the preventive medicine department (PMD) meant that there was a unit which was responsible for planning, surveillance and monitoring, analysis and reporting of the Main medical corps of the CrDC. One unit within the PMD was mobile unit, which consisted of a physician, veterinary doctor, agricultural specialist, sanitation specialist, medical technician and a driver. The main tasks of the mobile units were to provide timely information on the various aspects of the situation in the field due to its broad expertise. The mobile unit reported to the PMD head. Soon after the initial period has started, special document on the preventive and public health activities was made, and distributed across all of the involved units and departments. This meant that there was a document which was used to provide uniform care in the entire affected region, in line with the current situation¹⁴.

By the beginning of 1993, four regional headquarters were made: Mostar, Tomislav Grad, Vitez and Orašje, each with one motorized military corps^{15,16}. Each of the corps was also assigned a medical corps unit, which aimed to cover the basic hygiene and sanitary services. The units were further supported by the civilian institutions, ensuring the continuity and integral place of the

public health care and providing sufficient public health services coverage^{13–15}. In this period, medical corps were under the direction by the Ministry of Health. The health authority of the Ministry of Defense remained to provide services and retain the mobile teams. This later became units involved in planning, organization, performance and monitoring of the military medical tasks^{13,14}, all within the integral health care system.

The list of activities included various prophylaxis, education, monitoring and surveillance of water and food supply, accommodation guidance for military personnel, as well as the solid waste disposal. The activities often extended even further, to disinfection, rat and insect control and the initial battlefield sanitation^{13,14}. Prophylaxis methods included seeking, isolation and ambulatory treatment of infectious diseases, and in some cases organized medical transport of the affected individuals to tertiary health care facilities in Mostar and Livno, or even Split in the Republic of Croatia^{13,14}. Vaccinations for flu and tetanus were also applied, while in some cases this also included chemoprophylaxis against scabies and meningococcal infections^{13,14}.

The current (post-war) organization is largely set by the integral period, with some exceptions regarding the military and civilian services separation. Subsequent reforms of the entire health system will largely depend on the existing resources available, nevertheless aiming to retain the high levels of public health coverage, maintaining relatively favorable public health situation that is currently encountered in the region.

Therefore, the public health system in Bosnia and Herzegovina managed not only to survive the wartime and substantial population changes that may be induced by the war^{17,18}, but also managed to retain relatively high public health standards and protect the overall health of

the population, at least in terms of the warfare priorities. During the post-war period, the shift has and will largely be made towards the non-communicable chronic diseases, which should become the new focus of the public health system^{19–23}, aiming to describe the patterns of various risk factors and then providing various public health activities to reduce the burden of disease and deliver the optimal health care to the entire population.

Conclusion

Majority (or possibly even all) social functions can be affected by the warfare, leading the entire society into the state of disorganization, disarray and even collapse. Such situation poses a substantial threat to the integrity and well-being of the entire affected population. In such situations, the governance has a very important role, being responsible for the organization of the minimal set of activities which would reduce the harmfulness of the war. One of the central activities (besides organization of the military corps) is the organization of the health care and the best possible medical services. Public health has a central and even more important role in the wartime than peacetime conditions, as the usual sanitation and hygiene services may not be working in the full extent. This article provided an overview of the public health service organization during the 1992–1995 war in Bosnia and Herzegovina, showing that the good organization and careful planning may result in huge population migration waves without any major disease epidemics. The experiences gathered during this period may all be well suited for use in incidental situations or the (re)organization of the peacetime health system.

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ORGANIZACIJA SUSTAVA JAVNOG ZDRAVSTVA U HERCEGOVAČKOM PODRUČJU TIJEKOM RATA 1992.–1995. GODINE

S A Ž E T A K

Cilj ovog istraživanja bio je prikazati razvoj preventivne jedinice Hrvatskog Vijeća obrane, tijekom rata 1992.–1995. godine. Rad prikazuje pregled glavnih događaja koji su doveli do stvaranja i ustroja preventivne jedinice, s posebnim naglaskom na sustav koji je djelovao na području Hercegovine. Ovo je uključivalo stvaranje tri jasna ustroja zdravstvenog sustava: početni, integralni i poslijeratni, svaki od kojih je imao neke svoje osobitosti u pružanju zaštite civilima i vojnicima. Znanja prikupljena tijekom tog razdoblja mogu poslužiti u situacijama u kojima se zahtjeva hitna akcija čitavog javnozdravstvenog sustava, poput prirodnih nepogoda i izbijanja raznih bolesti, a uključuju stvaranje mobilnih timova. Nadalje, iskustva stečena tijekom rata mogu poslužiti tijekom planiranja i reorganizacije sustava zdravstva, a sve s ciljem pružanja najbolje moguće zdravstvene zaštite cjelokupne populacije.