SPECIAL ARTICLE

Polish medicine in 1918

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Health condition of the society After the outbreak of World War I in 1914, the quality of health care clearly deteriorated on Polish lands. Many doctors were mobilized and some of the existing health care infrastructure was taken over by the fighting troops (FIGURE 1). In addition to the difficult access to medical care, there were also other factors that influenced the decline of public health. The war caused a deterioration of housing and sanitary conditions (destruction of residential buildings, forced lodgings). Also, there was a serious problem with food supply due to the insufficient amount of food on the market. The conditions of war were conducive to the spread of epidemics, not only due to the worsening living conditions and difficult access to medical care, but also because of the mass movement of civilians and

troops. The increasing number of deaths particularly affected children. That was the case in private homes and various types of care facilities. A drastic example may be the situation in the City Orphans' Home in Vilnius, run by the local government, where mortality among children exceeded 90% over the entire war period.¹

During World War I, Polish lands became the theater of military operations. In fact, only the western part (the area of the Prussian Partition) was not affected by war. In the other areas, especially in the first year of the conflict, there were regular clashes between the German and Austro-Hungarian armies on one side and the Russian army on the other. From the second half of 1915, the front became stabilized. Some of the Polish territories formerly under Russian rule,



FIGURE 1 Military hospital in Warsaw in 1914 or 1915 (photo courtesy of the Central Medical Library in Warsaw, Poland)

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phone: +48 41 349 73 06, email: m.przenioslo@neostrada.pl Received: August 27, 2018. Revision accepted: August 28, 2018. Published online: October 18, 2018. Conflict of interest: none declared. Pol Arch Intern Med. 2018; 128 (11): 693-700 doi:10.20452/pamw.4348 Copyright by Medycyna Praktyczna, Kraków 2018 including Warsaw, were taken over by the troops of the Central Powers.

The German and Austro–Hungarian military authorities made efforts to improve medical care in the occupied territories. They monitored the health situation on a regular basis, especially epidemiological threats, and supported health-related initiatives of local governments and various social organizations. The occupation authorities organized various projects in order to support the search for solutions to improve the health situation. An example could be the nationwide German congress of doctors, with representatives of the Polish medical community, organized in Warsaw in 1916.^{2,3} Unfortunately, the actions undertaken resulted in no significant improvement.

During the war years, the number of civilian deaths increased markedly. The rising death toll was accompanied by a decrease in the number of births, which further aggravated the demographic situation. Some data regarding the Catholic population in the Kingdom of Poland illustrate the problem well. In 1918, compared with 1913, the number of births dropped by 36% while the number of deaths rose by 40%. In 1915, compared with 1913, the number of deaths increased by 42%. As for the births, the situation was particularly grim in cities where, in 1918, 60% fewer children were born than in 1913.⁴ The decrease was influenced by the significant deterioration of living conditions, a circumstance in which families preferred to limit the number of offspring. There was also a temporary decrease in the number of young men (some were called up by the army).

Both during and after the war, it was a big challenge to prevent and fight epidemics, especially typhus, and, from 1918, also the so called Spanish flu. Even international organizations joined the fight against the epidemics. In March 1919, in connection with the alarming epidemiological situation in Eastern Europe, the International Red Cross set up the Central Epidemiological Bureau for Eastern Europe, which included delegates from Poland. The Red Cross mission in Poland mostly focused on the fight against epidemics.⁵ For instance, in 1918 and 1919, the epidemiological situation was very difficult in Eastern Galicia. There are reports from the area, written in 1919 by the inspectors of the Central Welfare Council (in Polish, Rada Główna Opiekuńcza w Warszawie), a social organization that provided help to the needy. Here are some quotes (our translation):

Typhus in the Bohorodczany county; 31 municipalities are visited by only one doctor who acts as the county physician.⁶

The typhus epidemic in the Buczacz county has become so large that it cannot be suppressed before winter, and the lack of doctors, hospitals and medical resources is very conducive to its expansion.⁶ In the Tłumacz county, the typhus epidemic decimates the population. Only one doctor, a dentist, works for 108000 people in the county; no disinfectants, no medicines.⁶

The situation was slightly better in the Stanisławów county:

Typhus in the city and the surrounding area; though the city has enough doctors (15), there are none in the countryside. Patients remain in hospitals and at home; no disinfection is carried out due to the lack of funds.⁷

After the war, the situation was similarly tragic in north-eastern Poland. An example report from that area reads as follows:

The sanitary situation in the Borderlands is simply terrifying. The number of people suffering from typhus and black smallpox goes beyond imagination. The American Red Cross has taken action to combat this epidemic, but it is insufficient in the face of its scale.⁸

Tuberculosis was also a major problem in Poland at that time. Numerous cases had already been recorded before 1918. In 1916, in Warsaw, tuberculosis caused the highest number of deaths.⁹

The military authorities attached great importance to preventing the spread of venereal diseases because they were a great threat to soldiers. A higher incidence of venereal diseases during the war was associated with a significant increase in prostitution caused by difficult economic conditions. This increase was noticeable not only in Poland but also in the whole war-torn Europe. After the war, the threat of venereal diseases did not diminish. In December 1918, the Polish authorities set up Sanitary-Moral Offices (in Polish, Urzędy Sanitarno-Obyczajowe) to supervise prostitution and combat venereal diseases. They employed doctors to search for susceptible individuals, organize free medical examinations, encourage treatment (compulsory for prostitutes), and take measures to prevent the spread of venereal diseases—by raising awareness, giving away brochures, or giving official readings to the public.^{10,11}

During and directly after World War I, special social aid organizations were established to remedy the tragic situation of the population on the Polish lands. They provided food aid on a mass scale as well as established orphanages and nursing homes for the elderly. They also aimed to improve the health of the population. The organizers of the aid were primarily representatives of the intelligentsia, mostly doctors, clergy, teachers, and civil servants. Landlords and industrialists were also active. The largest aid organizations established in Poland after the outbreak of World War I were: the Central Citizens' Committee in Warsaw (Centralny Komitet Obywatelski w Warszawie; it operated in the years 1914-1915), Central Welfare Council in Warsaw (1915-1921), Main Rescue Committee in Lublin (Główny Komitet Ratunkowy w Lublinie; 1915-1918), and Duke-Bishop's Committee in Kraków (Książęco-Biskupi

FIGURE 2 The Central Welfare Council's hospital for children in Warsaw in 1918 (photo courtesy of the Polish Central Archives of Modern Records in Warsaw, Poland)



FIGURE 3 Medical clinic for mothers and children in Sambor in 1919 (photo courtesy of the Polish Central Archives of Modern Records in Warsaw, Poland)



Komitet w Krakowie; 1915–1919). These organizations undertook very intensive actions aimed at improving public health, for example, they set up and financed their own small hospitals and health centers (FIGURES 2 and 3), organized a medical consultation system, financed the purchase of medicines for the poorest, and organized vaccination campaigns. They also took action to improve the level of hygiene and made efforts to raise public awareness, for example, by disseminating information on the ways to avoid infectious diseases. The aid organizations which operated on Polish lands were financially supported by the General Relief Committee for the Victims of War in Poland (in Polish, Komitet Generalny Pomocy dla Ofiar Wojny w Polsce), established in 1915, in Switzerland. Its first president was Henryk Sienkiewicz. As for other foreign assistance, the Poles could also count on the American government and organizations, especially from 1918. In the postwar period, the most significant help from the United States came from the American Relief Administration.¹² Established in November 1918, it was headed by Herbert Hoover (FIGURE 4), who attempted to organize help for Poland as early as in 1915.

Some of the aforementioned physicians who engaged in the work of social aid organization represented the medical scientific community. FIGURE 4 Herbert Hoover in Poland in 1919, next to him: Józef Piłsudski – Poland's Chief of State and Ignacy Paderewski – Prime Minister (photo courtesy of the National Digital Archives in Warsaw, Poland)



For example, the cofounder of the Duke-Bishop's Committee in Kraków was an anatomist and cytologist, Kazimierz Kostanecki (1863–1940). He was a professor at Jagiellonian University and the university rector from 1913 to 1916. An active member of the Central Welfare Council was the later professor of Stefan Batory University in Vilnius and an otolaryngologist, Jan Szmurło (1867–1952). He was particularly involved in the organization of help for children.

Health care management in 1918 An opportunity to improve the public health appeared before the end of hostilities. In 1917, the Central Powers that occupied the Kingdom of Poland gave consent to the creation of the Polish government, which was allowed to operate to a limited extent. One of the soon launched ministries was the Ministry of Public Health, Welfare and Labor Protection (Ministerstwo Zdrowia Publicznego, Opieki Społecznej i Ochrony Pracy). It was created in April 1918 and reorganized in October 1918. As a result, the Ministry of Public Health and Welfare (Ministerstwo Zdrowia Publicznego i Opieki Społecznej) was established. In the last days of the war and at the beginning of the existence of independent Poland, Władysław Szenajch (1879–1964), a pediatrician, became the head of the ministry. Earlier, during the war, he had been an activist of the Central Welfare Council. The next reorganization of the ministry took place in December 1918, when the Ministry of Public Health (Ministerstwo Zdrowia Publicznego) was established. From then on, it was a ministry which focused exclusively on health. It was headed by a neurologist, Witold Chodźko (1875-1954), who had previously been in charge the Ministry of Public Health,

Welfare and Labor Protection (from April to October 1918). Chodźko organized the basics of public treatment in Poland. He also made great contributions to the fight against epidemics and improving sanitary conditions in the country. In January 1919, Chodźko was replaced by a hygiene assistant at Jagiellonian University, Tomasz Janiszewski (1867–1939), who remained the head of the ministry until December 1919, when Chodźko was reappointed.

The ministry's aims and the organizational rules for health care in Poland were defined in the Sanitary Act of July 1919. According to the act, the responsibilities in the area of health care were divided between the ministry and local governments. The ministry supervised the organization of health care, while local governments were responsible for direct management and financing. Apart from supervision, the ministry was obliged to support local governments in their initiatives related to health protection. It could particularly provide state financial support for those local governments which did not possess adequate resources to organize health care. The act also guaranteed special financial support for local governments to implement certain tasks such as vaccinations against smallpox and campaigns against venereal diseases.¹³ Initially, the implementation of the act encountered obstacles due to the weakness and lack of experience of local governments. Of course, part of the problem lay in the difficulty in finding the right number of doctors as well as the lack of medicines and medical equipment.

Apart from the Sanitary Act, in July 1919 the law on the control of infectious diseases was passed. It defined the procedures to be followed after identifying cases of infectious diseases and listed specific diseases by name, with plague, smallpox, cholera, typhoid, dysentery, scarlet fever, diphtheria, and measles at the top of the list. There was also an obligation to report cases of diseases which originated from animals: anthrax, glanders, trichinosis, and rabies.¹⁴

When Poland regained independence in November 1918, its boundaries had not been established yet. The struggles for their favorable shape, by means of military actions and political endeavors, lasted until 1921. Even in the case of territories as to which there was no doubt that they belonged to the Polish state, their full integration into one state was not easy and took time. The Polish lands which had previously been included in Russia, Germany, and Austria-Hungary for some time functioned partially based on the solutions applied in those countries. This was the case for Galicia, a former part of the Austro-Hungarian Empire. The Polish Liquidation Commission, which managed the area at the turn of 1918 and 1919 (as a temporary local government), adopted a health care system similar to that which had existed in Galicia in previous years. According to the system, every county and municipality had to have district (county) and municipal physicians, respectively. The commission attached great importance to combating infectious diseases. If an ill person could not afford treatment, the cost was borne by the municipality (from funds for the poor), which was consistent with the prewar act on preventing and combating infectious diseases. The municipality could turn to the county authorities for help if it lacked funds. And if the epidemic threat was serious, the request for reimbursement of the cost of medicines could be addressed to the Polish Liquidation Commission and its Department of Health and Social Welfare.¹⁵

University medical education in the first years of Polish

independence In interwar Poland, medical education was taught at the then 5 state universities: the University of Warsaw, Jagiellonian University, Jan Kazimierz University in Lviv, the University of Poznań, and Stefan Batory University in Vilnius. Each of them had a faculty of medicine. Two of the universities, the University of Poznań and Stefan Batory University, were founded in 1919, yet the beginnings of the latter reached back to the 16th century. Faculties of medicine were among the largest at Polish universities in the interwar period, both in terms of the number of research and teaching staff as well as students.

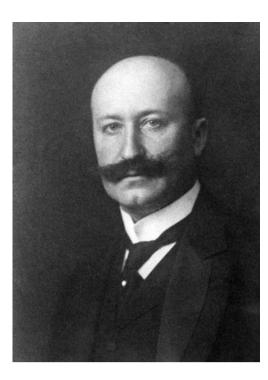
In the initial period of their activity, the new universities struggled with staffing problems, especially for professors. Some of the professorial chairs remained vacant for a certain period, yet it was usually a temporary situation until suitable candidates were found. They were employed from the already operating Polish universities or they were academics who had previously worked at foreign universities. For example, among the professors who took over the newly formed chairs at the Faculty of Medicine of Stefan

Batory University, from 1919 to 1921, were: Jerzy Aleksandrowicz (histology), Emil Godlewski (medical biology), Teofil Gryglewicz (bacteriology and serology), Aleksander Januszkiewicz (internal medicine), Juliusz Retinger (physiological chemistry), Stanisław Władyczko (neurology), and Józef Ziemacki (general and topographic surgery). In 1922, further chairs were taken. In 1919, Stanisław Władyczko was made responsible for the creation of the Faculty of Medicine at Stefan Batory University, and he was appointed the first dean of the faculty. After the dean elections in the academic year of 1919/20, Emil Godlewski was voted dean, and Władyczko became deputy dean. The number of students at the medical faculty grew rapidly. In the academic year of 1919/20, there were 142 students; 1920/21, 218; 1921/22, 398; 1922/23, 551; and 1923/24, 675. As for all medical faculties in Poland, there was a total of 4735 students in the academic year 1921/22, and 5112 students, in 1923/24.16

The staffing situation was better at the medical faculties of those universities which operated before 1918. In particular, Jagiellonian University (founded in 1364) and Jan Kazimierz University in Lviv (created in 1661) had had an experienced and scientifically strong academic staff for years, despite difficulties in running normal didactic activity during World War I. The University of Warsaw, reactivated in 1915, whose history dates back to the early 19th century, experienced greater difficulties. The staffing situation gradually improved; however, in 1918, it was still in the replenishment phase. At Jan Kazimierz University, the war difficulties of the period 1914–1918 dragged on for another year. In fact, in the academic year of 1918/19, the university suspended its activities due to the ongoing Polish-Ukrainian conflict in Eastern Galicia and Lviv itself. From November 1918 to May 1919, clashes continued in the city and its surroundings.

Polish physicians in the fight for Polish indepen-

dence Among the people who got involved in the struggle to regain independence (for example, by serving in the Polish Legions) and for the favorable shape of Polish borders in the years 1918-1921, there was a large group of doctors-scientists. Here are some of those who, at that time or in the following years, were professors at medical faculties at Polish universities: Ignacy Abramowicz (Stefan Batory University), Jerzy Aleksandrowicz (Stefan Batory University), Eugeniusz Artwiński (Jan Kazimierz University), Stanisław Bądzyński (Jan Kazimierz University, University of Warsaw), Antoni Cieszyński (Jan Kazimierz University), Marian Eiger (Stefan Batory University), Henryk Halban (Jan Kazimierz University), Stanisław Hiller (Stefan Batory University), Stefan Horoszkiewicz (Jagiellonian University, University of Poznań), Władysław Jakowicki (Stefan Batory University), Witold Kapuściński (University of Poznań), Edward Loth (University of Warsaw), Józef Markowski (Jan Kazimierz FIGURE 5 Professor Henryk Halban (photo courtesy of the National Digital Archives in Warsaw, Poland)



University), Włodzimierz Mozołowski (Stefan Batory University), Tadeusz Ostrowski (Jan Kazimierz University), Ludwik Rydygier (Jagiellonian University), Jan Kazimierz University), Hilary Schramm (Jan Kazimierz University), Adam Straszyński (University of Poznań), Janusz Supniewski (Jagiellonian University), Zygmunt Szantroch (Jagiellonian University), Ireneusz Wierzejewski (University of Poznań), Teofil Zalewski (Jan Kazimierz University), Marcin Zieliński (University of Poznań), and Edward Żebrowski (University of Warsaw).¹⁷ They all held professorial chairs, so they belonged to the elite among the academic staff. It is worth presenting a few facts from the lives of those who were most active in their struggle for the independence of Poland and the shape of its borders: Halban, Jakowicki, Mozołowski, Rydygier, Wierzejewski, and Zieliński.

Henryk Halban (1870–1933) Henryk Halban (FIGURE 5) was a neurologist and psychiatrist. During World War I, he managed one of the military hospitals in Vienna, a facility which was mainly intended for Polish legionnaires. In 1918, he joined the Polish Army and became Sanitary Inspector of the Army "East", a formation created in November 1918 to fight against the Ukrainian army in Eastern Galicia. He rose to the rank of colonel. In the interwar period, he was Rector of Jan Kazimierz University in Lviv and Dean of the Faculty of Medicine at this university.

Władysław Jakowicki (1885–1940) Władysław Jakowicki was a gynecologist. He served in the Polish Legions where, among other responsibilities, he served as chief medical officer of the 1st Infantry Regiment. He accompanied these troops along their entire combat trail. In 1918, Jakowicki joined the Polish Army and became lieutenant colonel. In the interwar period, he was Rector of Stefan Batory University in Vilnius and Dean of the Faculty of Medicine.

Włodzimierz Mozołowski (1895–1975) Włodzimierz Mozołowski was a specialist in medical chemistry and a pathologist. Before 1914, he was active in Polish independence organizations, and from 1914, he served in the Third Brigade of the Polish Legions. In 1917, Mozołowski was conscripted into the Austro-Hungarian Army. Then, in 1918, he joined the Polish Army, took part in the battles for Vilnius during the Polish–Lithuanian conflict, and, from 1919 to 1920, fought in the Polish– Bolshevik War. He rose to the rank of captain.

Ludwik Rydygier (1850–1920) Ludwik Rydygier was a surgeon. During World War I, he served as a physician in the Austro-Hungarian Army. Then, after the war, he joined the Polish Army and, in November 1918, fought for the "Polishness" of Lviv in the Polish–Ukrainian conflict. In 1919–1920, Rydygier fought in the Polish–Bolshevik War. He rose to the rank of general. Before 1914, he was Rector and Dean of the University of Lviv.

Ireneusz Wierzejewski (1881–1930) Ireneusz Wierzejewski (FIGURE 6) specialized in orthopedics (he is considered the father of Polish orthopedics). He was an outstanding specialist who dealt with gunshot nerve injury. During the Wielkopolska Uprising, he was head of the medical aid in Poznań, and then became chief medical officer of the insurgent Army of Wielkopolska. In 1920, during the Polish–Bolshevik War, he became sanitary chief of the 1st Polish Army. In 1921, he organized

FIGURE 6 Professor Ireneusz Wierzejewski (photo courtesy of the National Digital Archives in Warsaw, Poland) FIGURE 7 Military hospital in Kalisz, memorial photographs 1918–1921 (photo courtesy of the Central Medical Library in Warsaw, Poland)



sanitary and food aid for Silesian insurgents. He rose to the rank of general.

Marcin Zieliński (1886–1940) Marcin Zieliński was a neurologist and psychiatrist. Before 1914, he was active in Polish independence organizations. Then, in 1914, he joined the Polish Legions and, among others, fought in Volhynia. In 1918, he joined the Polish Army, and early in 1919, he was sent to France as a military doctor, where he was assigned to one of the detachments of the Polish Army (the Blue Army) of General Józef Haller. He rose to the rank of major.

Other forms of pro-independence activities Many representatives of the medical community were active in the struggle for independence and participated in military operations (FIGURE 7), while others tried to help the reborn homeland in a different way. Some were involved in organizing support for people in difficult life circumstances on Polish lands (as already mentioned above) or provided help to the Poles in need in other countries, especially Polish refugees and prisoners. An example of such an activist was an internist, Witold Orłowski (1874–1966). During World War I, he was a professor at the University of Kazań. In 1920, he returned to Poland and took over the Chair of Internal Medicine at Jagiellonian University. While in Russia, mainly in 1918 and 1919, he initiated and organized campaigns of support for Polish refugees.¹⁸

Summary The difficult 4-year war period had the greatest impact on the health of the Polish population after the end of World War I. The prolonged armed conflict greatly strained the economic and

health condition of the population on the entire Polish land. Regaining independence could not improve this state in a short time. Apart from the warfare itself and its victims, the war razed places of residence and work to the ground and brought about requisitions in industry and agriculture, shortages of supply, pauperization of the population, and deterioration of sanitary conditions. Having regained independence, the state remained in a difficult economic and political situation and could not provide immediate medical help to all those in need. Apart from the insufficient level of medical care, there were also shortages in food supply, clothing, and footwear, as well as difficulties in obtaining the required amount of household fuel. Another challenge was the outbreaks of infectious diseases that were difficult to control because of a strong population movement (return of soldiers from the front, movement of war refugees). A new major threat was influenza, the so called Spanish flu, which occurred on a large scale and also in other countries. It should be added that the high incidence rate of infectious diseases was undoubtedly influenced by poor sanitary conditions, both in rural areas and in cities.

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