

STATE SCHOOL OF HYGIENE AS A DEPARTMENT OF EDUCATION IN THE NATIONAL INSTITUTE OF HYGIENE IN WARSAW*

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ABSTRACT

The article presents the history of the establishment of the State School of Hygiene (PSH) in Poland after the First World War. The difficulties faced by the public health service in a country destroyed by war and created after the reunification of the lands, which for over 150 years remained under the control of three powers, were pointed out. It discusses how the foundations of modern teaching in the field of public health were created in the National Institute of Hygiene (PZH) in Warsaw, an institution to which the Ministry of Public Health entrusted tasks related to health education in the country. The State School of Hygiene was built by the Polish Government with a significant financial contribution from the *John Davison Rockefeller* Foundation. The official opening ceremony took place on 20 April 1926. The State School of Hygiene in Warsaw was the first such school in Europe. It educated professional staff for the health service in Poland, especially sanitary physicians, sanitary inspectors, nurses and staff to work in health offices. The importance and scope of influence of the State School of Hygiene as the Department of Education in the National Institute of Hygiene was constantly increasing, as evidenced by the number of students (about 800 per year) participating in courses, especially in the first years after its establishment. By the end of 1935, 6,389 students had completed the courses, including 1,900 physicians. Apart from the teaching activities, the State School of Hygiene also carried out research work. The State School of Hygiene was supported by the Rockefeller Foundation, which funded scholarships for the employees of the National Institute of Hygiene at university centers in the USA.

Key words: *State School of Hygiene (PSH), National Institute of Hygiene (PZH), public health service, education, Rockefeller Foundation, Poland*

STRESZCZENIE

W artykule przedstawiono historię utworzenia Państwowej Szkoły Higieny (PSH) w Polsce po I Wojnie Światowej. Wskazano na trudności, z jakimi borykała się publiczna służba zdrowia w kraju wyniszczonym wojną i powstałym po zjednoczeniu ziem, które przez ponad 150 lat pozostawały pod zaborem trzech mocarstw. Omówiono jak powstawały podstawy nowoczesnego nauczania w dziedzinie zdrowia publicznego w Państwowym Zakładzie Higieny (PZH) w Warszawie, instytucji, której Ministerstwo Zdrowia Publicznego powierzyło zadania związane z edukacją zdrowotną w kraju. Państwowa Szkoła Higieny wybudowana została przez Rząd Polski z wydatną pomocą finansową Fundacji *Johna Davisona Rockefellera*. Uroczyste jej otwarcie odbyło się 20 kwietnia 1926 r. Państwowa Szkoła Higieny w Warszawie była pierwszą tego typu szkołą higieny w Europie. Kształciła personel fachowy dla służby zdrowia w kraju, a w szczególności lekarzy sanitarnych, inspektorów sanitarnych, pielęgniarki i personel do pracy w urzędach zdrowia. Znaczenie i zakres oddziaływania Państwowej Szkoły Higieny jako Działu Nauczania w Państwowym Zakładzie Higieny, stale wzrastał, o czym świadczyła liczba studentów (około 800 rocznie) uczestniczących w kursach, zwłaszcza w pierwszych latach po jej utworzeniu. Do końca 1935 r. kursy ukończyło 6389 słuchaczy, w tym 1900 lekarzy. Niezależnie od działalności dydaktycznej w Państwowej Szkole Higieny wykonywane były także prace badawcze. Państwową Szkołę Higieny wspierała Fundacja Rockefellera fundując stypendia naukowe pracownikom Państwowego Zakładu Higieny w ośrodkach uniwersyteckich w USA.

Słowa kluczowe: *Państwowa Szkoła Higieny, PSH, Państwowy Zakład Higieny, PZH, szkolenia, publiczna służba zdrowia, Fundacja Rockefellera, Polska*

INTRODUCTION

In the initial period of Poland being reborn after World War I, one of the most acute shortages was the lack of staff in the public health service. This was due not only to the lack of physicians, pharmacists

and sanitary staff, but also to the different level of education of these personnel, who came from three different partitions of Poland and the poor sanitary condition of the country.

At that time, the National Institute of Hygiene (PZH) in Warsaw, established in 1918, was the most

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important health-related institution in Poland, to which the Ministry of Public Health entrusted tasks related to health education in the country, including the training of medical and auxiliary health care personnel [3, 5]. Therefore it turned out to be necessary to establish a hygiene school in Poland, which would be responsible for theoretical and practical training in public health [5]. Already at that time, it was well known that not only the quality of disease treatment, but also health prevention supported by education and dissemination of knowledge throughout the country contributes to the health of the society.

BEGINNINGS OF THE STATE SCHOOL OF HYGIENE

In order to meet these needs, the Council of Ministers adopted a resolution of 19 June 1922 on the establishment of the State School of Hygiene (PSH) as a new department in the National Institute of Hygiene [6]. An Inter-ministerial Committee for the Creation of the School was setup and started to work as early as September 1922. This was made possible by an agreement between the Polish Ministry of Public Health and the *J. D. Rockefeller* Foundation on July 10, 1922, under which the Foundation allocated \$ 292,500 for the construction of the State School of Hygiene in Warsaw. However, this amount turned out to be insufficient and therefore the Polish Government, for its part, allocated PLN 500 000 (and also a building lot) for the finishing of the School and its equipment. At the same time, the government undertook to maintain the School [3].

The school was to educate specialist personnel for health care, in particular sanitary physicians, sanitary inspectors, nurses and office staff dedicated to work in health offices operating at the provincial level throughout Poland.

The building of the School, designed by architect *Czesław Przybylski*, was to be completed in 1924. At that time the director of the National Institute of Hygiene was Dr. *Ludwik Rajchman*, who held this position in 1918-1930.

The Polish authorities at that time understood perfectly well how important for the proper development of society and the functioning of the state will be the establishment of such a training centre, which was intended to radiate knowledge throughout Poland [6].

At that time, the National Institute of Hygiene was the only institution in Poland that was able cope with the tasks imposed on the State School of Hygiene.

The establishment of the State School of Hygiene as an Department of Education in the National Institute of Hygiene made it possible to use many outstanding scientists to conduct training activities. Thanks to

this, the students of the School of Hygiene could learn from the most eminent specialists who usually combine research passion with practice in the field of bacteriology, immunology, epidemiology, food safety, proper nutrition and hygiene.

The State School of Hygiene was established two years before its official opening on 20 April 1926 [7].

In 1926, the State School of Hygiene, whose director was Dr. *Witold Chodźko*, consisted of the following divisions [6].

- Biochemistry – Head, Dr *Kazimierz Funk*
- Epidemiology and Statistics – Head, Dr *Marcin Kacprzak*
- Sanitary Technology – Head, Eng. *Aleksander Szniolis*
- Occupational Hygiene – Head, Dr *Brunon Nowakowski*
- Social Hygiene – Head, Dr *Jerzy Lubczyński*
- and Museum of Hygiene

The State School of Hygiene also owned the Amelin estate with the Health Centre and Bursa. Some of these branches had already been operating in the National Institute of Hygiene before [1].

It is worth noting that the State School of Hygiene in the National Institute of Hygiene in Warsaw was the first such school of hygiene in Europe. Similar schools of hygiene were soon opened in Zagreb and Budapest [2].

It was recognized that the programme for hygiene schools had to be developed through international cooperation with the participation of both professors with knowledge of teaching and health officials with knowledge of practical hygiene needs.

The official opening of the State School of Hygiene in Warsaw became an opportunity to organize a meeting of the Section of Hygiene of the League of Nations, whose director was Dr *Ludwik Rajchman*. It was attended by members of this Section - representatives of universities and state administration from Berlin, Budapest, Lisbon, London, Paris, Warsaw and Zagreb. The opening ceremony was attended by *Aleksander Skrzyński* - Prime Minister. *Witold Chodźko*, Director of the State School of Hygiene, gave a lecture presenting the curriculum of the School. He was later invited to give a lecture on the occasion of the opening of the School of Hygiene in Budapest [2, 7].

ORGANISATION AND TASK OF THE SCHOOL

The National Institute of Hygiene was located in a complex of buildings at 24 Chocimska Street in Warsaw. The State School of Hygiene occupied a separate, four-story building located at the front of Chocimska Street. On the ground floor there were offices, a library and a laboratory for bacteriological trainings for 50 people. The Museum of Hygiene also played an important role. It occupied a significant part

of the first floor, the remaining part was occupied by the Laboratory of Occupational Hygiene. The Museum had the character of a permanent exhibition and occupied an important place in the process of education and dissemination of knowledge on the epidemiology of infectious diseases and public hygiene. The Museum had the following sections: food hygiene, village hygiene, sanitary engineering and others. It also had a section named "Health and Disease", where examples were used to explain what are epidemics, what are the conditions for their spread, what is immunity and how external conditions can affect human susceptibility to disease. The museum was visited by more than 5,000 people a year [3].

On the second floor of the State School of Hygiene there were two lecture rooms (small and large), seminar room and rooms for professional staff. The third floor was occupied by the Department of Biochemistry. There were rooms for chemical exercises and separate rooms for assistants and academics. In addition, there was also a room for experimental animals in the building. The fourth floor was used for housing for the employees of the State School of Hygiene [6].

The Amelin property at 91 Puławska street in Warsaw was an auxiliary institution for the State School of Hygiene. The Amelin estate was purchased by the Government in 1922 thanks to the help of the American "Joint Distribution Committee". In two buildings standing there was a bursa of the State School of Hygiene, whose rooms could accommodate 50 students. The next two buildings were occupied by the Health Centre with many outpatient clinics serving as didactic facilities for the School's students. A separate building was also erected in this area, in which disinfecting and insect control devices used for practical exercises were placed [3]. The Health Centre in Amelin had a tuberculosis clinic with a children's sanatorium, an anti-venereal diseases clinic, a maternal and child care station, a milk station, an anti-trachoma clinic, a mental hygiene clinic, an anti-alcoholic and a dental clinics [6, 7]. Apart from treating and spreading sanitary knowledge among the population, doctors gained there practical experience and became acquainted with many issues of social medicine.

The significant step in the development of the State School of Hygiene was to put at its disposal an experimental station to study the methods of wastewater treatment in Kaskada Park¹, which enabled

the introduction of practical classes in this important area of sanitary engineering. Regardless of the training, the access to the experimental station on the Cascade made it possible to investigate the level of pollution of the Vistula river and developing wastewater treatment methods. Studies on the effectiveness of chlorinating drinking water were also carried out there [7].

The importance and scope of the impact of the State School of Hygiene was constantly increasing, which is indicated by the growing number of students participating in the courses.

The number of students in the first years after the establishment of the School of Hygiene is shown in Table 1.

Table 1. The number of students in the first years of the State School of Hygiene [7]

Years	1924	1925	1926	1927
Number of students	76	258	478	806

DIDACTIC AND RESEARCH ACTIVITY

The National Institute of Hygiene was the only research and development institution in Poland at that time that trained hygiene physicians and auxiliary staff [3], and the State School of Hygiene operating there conducted basic courses for specific groups of employees (i.e. candidate physicians in the public health service or sanitary inspectors) and information courses of a more general nature.

The scope of training was consistent with the requirements of the Act on the State Civil Service, according to which each provincial physician should undergo one-year training completed with a passed state examination in the field of epidemiology, medical statistics, social hygiene, sanitary administration, sanitary legislation and forensic medicine. Each participant of the course acquired theoretical knowledge in the State School of Hygiene for 6 months, and for the remaining part (3 months) of the nine-months training he completed practical exercises in health centres and sanitary administration offices.

The regulations concerning obligatory studies at the State School of Hygiene covered only provincial physicians but not city physicians. Nevertheless, the high level of graduates of the State School of Hygiene resulted in the fact that they were also employed as hygienists in the cities [3].

¹ Kaskada Park - at the junction of Kolektorska Street and Trószczyńskiego Street in Warsaw. In the years 1913-1915, the Experimental Station for Sewage Treatment was built here, designed by *Rafał Gomółski* with the main sewerage system of the city existing since the 1880s. Works on the construction of the station, interrupted during World War I, resumed in 1927. The official address of the institute was Marymoncka 16, where research was conducted in the field of sewage treatment methods, next to the station, on the collector, there was also an aqueduct on the Rudawka river. https://warszawa.wikia.org/wiki/Miejsc_pami%C4%99ci_w_Parku_Kaskada



Figure 1. Training for provincial physicians in 1929.

Sitting in the first row from the left: Prof. *Ludwik Hirszfeld* (first) director of the National Institute of Hygiene (PZH), Dr. *Witold Chodźko* - director of the State School of Hygiene (sixth from the left).

(Photo from the collection of the National Institute of Hygiene, Warsaw).

Training was also organised for medical auxiliaries, including sanitary inspectors. They constituted the future staff of the Voivodship Sanitary and Epidemiological Stations established after World War II. The main objective of these trainings was to improve the sanitary condition of the country and to transfer appropriate knowledge and skills in the field of environmental hygiene, supervision of food products, water intakes and, what was then extremely important, disinfection treatments of the homes of people suffering from infectious diseases.

The State School of Hygiene educated health care staff and provided many other trainings and courses on its own initiative or at the request of the authorities, such as [6]:

- 1) Training of public health personnel, at the initiative of the General Directorate for Health Services and the State School of Hygiene itself. In 1924, 76 students and in 1925, 83 students were trained;
- 2) Courses run by the public authorities in consultation with the State School of Hygiene. The aim of these courses was to train staff in public hygiene. In 1925, 95 students were trained;
- 3) Lectures and courses conducted by scientific organisations and social associations with the participation of PSH staff in order to teach and promote hygiene and preventive medicine to different groups of people. In 1925, 80 students were trained and 32 lectures were given.

For the duration of the training, the course participants were housed in the dormitory of the School of Hygiene in Amelin, where they also received full board for a moderate fee [6].

The School of Hygiene during the economic crisis (1932-1933) was financially supported by the Rockefeller Foundation. It also funded scholarships for employees of the National Institute of Hygiene (PZH) to enable them to undergo training at scientific universities in the USA (International Health Division, *John Hopkins* University in Baltimore and Cambridge University in Boston).

Scholarship holders of the *J. D. Rockefeller* Foundation from the National Institute of Hygiene in honor of *John Davison Rockefeller* funded a commemorative plaque. Unveiling of the plaque signed: "*Rockefellerczycy Polskiej Służby Zdrowia*" took place on 6 January 1938 in the hall of the State School of Hygiene. Unfortunately, this plaque disappeared during the German occupation during the World War II. There is only a photograph of it. However, a plaque commemorating the establishment of the State School of Hygiene, which is located nearby the entrance to the main auditorium of the National Institute of Hygiene, has been preserved. On the photograph (Figure 2) a plaque commemorating the establishment of the State School of Hygiene in Warsaw is visible in the foreground, and in the background one can see the lost memorial plaque funded by the Rockefeller Foundation scholarship holders.

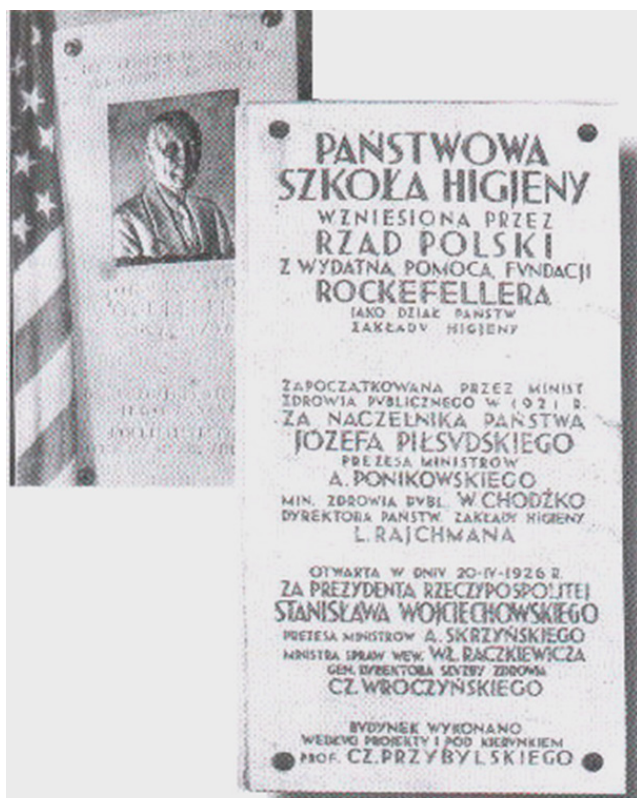


Figure 2. The plaque commemorating the establishment of the State School of Hygiene in Warsaw by the Polish Government with the significant financial support of the *J.D. Rockefeller* Foundation. Lost memorial plaque funded by Rockefeller Foundation scholarship holders in the background.

In 1935, the State School of Hygiene acting as the Department of Education, after the organisational changes that took place in the National Institute of Hygiene, constantly grew and eventually consisted of the following Departments [3].

- Statistics, Social Hygiene and Epidemiology
- Occupational Hygiene
- Nutrition Hygiene and Biochemistry
- Control of Biological Products
- Sanitary Engineering (Administration)
- Institute of Mental Hygiene
- Museum of Hygiene
- Library
- Bursa (in Amelin)

Regardless of the didactic activity in 1938, the departments carried out the following research [3]:

The Department of Statistics, Social Hygiene and Epidemiology conducted research on rural hygiene, organization of general medical care, infectious diseases and population issues. The latter, carried out in cooperation with the Polish Institute for Population Research, allowed to demonstrate that in reality infant mortality in the eastern provinces was much higher than the official statistics. As a result of these studies 23 papers were published.

The Department of Occupational Health carried out field and laboratory tests of workers. The methods for the determination of lead in blood, urine and faeces, benzene, hydrogen sulphide, sulphur dioxide, carbon disulphide and chlorinated hydrocarbons in the air, free silica dust were developed there. Besides the research on dust and ionization of air the study were conducted in the ventilation chamber. There were also led modern field studies in factories concerning the importance of active rest for female workers. As a result of these activities 5 papers were published.

The Department of Nutrition Hygiene and Biochemistry dealt with, among others, the study of the biological values of cereal and vegetable proteins, the study of the influence of storage on the content of vitamin C in cranberries, the influence of alcohol on adrenal function, the study of biological values of vitamin preparations. 10 papers have been published on these issues.

The Department of Control of Biological Products conducted pharmacological and biological tests of 415 hormonal and vitamin preparations from the Polish market. There have been also conducted numerous scientific studies in the field of endocrinology (e.g. iodine content from thyroxine in thyroid preparations), pharmacology and vitamin sciences, including the mechanisms of their action, calibration of vitamin E in different products, vitamin B1 content in yeast preparations. Since 1935, pregnancy tests in urine have been performed. 4 papers were published.

The Department of Sanitary Administration was responsible for the retrospective examination of the progression of measles for several dozen years, defining the characteristics and factors influencing the development of the epidemic. The results of diphtheria vaccination in the years 1935-1938 and health indicators in the Central Industrial District were also examined. Surveys on the development and care of infants and organizing nursing competitions for mothers were also conducted. 3 papers were published.

The location of scientific departments in the structure of the State School of Hygiene, whose scientific employees were obliged, apart from teaching, to conduct scientific work and publish its results, was a solution ensuring the highest possible level of education under given conditions. Direct contact between course participants and lecturers allowed to get acquainted with current health care problems and enabled students to access the latest scientific achievements.

The Institute of Mental Hygiene was also incorporated into the structure of the State School of Hygiene from 1935 [9]. Its task was to organise scientific research and normative works, to teach and disseminate knowledge in the field of mental hygiene, and first of all to organize and run clinical facilities in this area, which could serve

as a model in the emerging state health service. Within the framework of these activities, 5 outpatient clinics for children and youth were opened. In 1937, the turnout at outpatient clinics for children was 1,839 and the number of visits to outpatient clinics for adults was 302. Independently of outpatient care, the Institute, through the Social Welfare Department, organized the placement of children with mental disorders in foster families in rural areas and organized courses for social nurses and educators, as well as lectures for parents [3, 10].

By the end of 1935, the State School of Hygiene had organized 122 courses, training 6389 students, including 1900 physicians. By the end of 1938, 8614 students had completed their courses. This indicates that around 800 students completed the courses annually [4, 8, 11].

The subject matter of the courses was very diverse and included a wide range of social medicine. For example, the courses organized in 1935 included the following topics [8]:

- Public hygiene training for physicians applying for public health service positions
- Training for sanitary inspectors
- Trachomatology training for physicians
- Instructional training for doctors of Health Centres
- Hygiene training for primary school teachers
- Sports rescue training
- Alcohol counselling and training centre
- Course in eugenics and prenuptial counselling for physicians
- Information course on school hygiene for teachers of Primary Schools
- Course for physicians of industrial adoption camps.

Some of these courses were repeated in the subsequent following years, but there were new issues and so between 1937 and 1938, in addition to the courses mentioned above, the following courses were included [10, 11]:

- Course in medical microbiology for the sanitary cadets of the reserve
- A 3-month course in mental hygiene for nurses and educators
- Theoretical and practical course on blood group science for reserve physicians
- Course in the field of population issues
- Course on prevention, diagnosis and treatment of venereal diseases for social insurance physicians.

ACTIVITIES AFTER THE WORLD WAR II

In 1946 the State School of Hygiene resumed its teaching activity and started training social health service personnel, who were to take up new tasks in the field of improving and protecting the health of the society [2, 4].

However, the post-war situation for the State School of Hygiene was misfortune. The School of Hygiene building in ruined after the war Warsaw, was temporarily occupied by the Ministry of Health. The School of Hygiene had only two rooms where lectures and exercises were held. A bursa (in Amelin) was made available to the students. Soon, the Ministry of Health left the occupied premises of the School of Hygiene, but some of the rooms were handed over to the Board of Polish Health Resorts, and the ground floor was partially occupied by the Medical Scientific and Publishing House.

The State School of Hygiene organized trainings not only in Warsaw, but also in four centres in the branches of the National Institute of Hygiene in Gdańsk, Łódź, Poznań and Wrocław [12].

The State School of Hygiene was also the patron of the journals "Zdrowie Publiczne" (Public Health), "Medycyna Doświadczalna i Społeczna" (Experimental and Social Medicine), "Na Straży Zdrowia" (Healthcare) published in 1946 in the National Institute of Hygiene.

In 1952, the tasks of the State School of Hygiene were taken over by the Sanitary and Hygiene Study at the Medical Academy in Warsaw, but the post-graduate trainings were left the National Institute of Hygiene [4].

The main goal of the educational activity was to train public health service employees who could supplement the lack of doctors, administrators of health service (municipal and district doctors, occupational doctors, sanitary controllers and other health service personnel). In Warsaw courses for doctors were held, in Kraków, where the lack of laboratory staff was severely felt, a course for technical assistants was organised, and in Łódź, a training course for disinfectors. Courses were also held in Płock, Pruszków, Garwolin, Witkowice, Bydgoszcz, Wieluń, Suwałki, Lublin, Wrocław, Gdańsk and Konin. The lack of textbooks necessary for the education process was supplemented by the National Institute of Hygiene own publications [13].

The tradition of the own publications, used to improve the skills of employees of the sanitary and epidemiological stations, has been preserved in the National Institute of Hygiene (PZH) to this day. They were published as needed in the form of the Methodical Publications of the National Institute of Hygiene (PZH) and are intended for the use of the Sanitary and Epidemiological Stations. This resulted from the fact that one of the statutory duties of the National Institute of Hygiene was to supervise laboratory activities of the sanitary and epidemiological stations.

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