

## PROFESSOR JAN KAROL KOSTRZEWSKI, MD (1915-2005) CENTENARY ANNIVERSARY OF THE BIRTH

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History is created by people. That is, the history of each domain consists of biographies of any people. All are important, but some are of particular importance - to the human environment from which they come, sometimes to their country and even to specific fields across the world. People with these achievements are not numerous, but they deserve a moment to reflect on their role, who they were, and what is their lasting legacy. Such a person was without doubt Professor Jan Karol Kostrzewski.

He was born in Krakow in 1915. on December 2. In 1934, he began his medical studies at the Medical Faculty of the Jagiellonian University in Krakow - but finished medical school during the war - in 1940. obtaining his diploma of physician at the underground University of Warsaw in Nazi occupied Poland.

During the German occupation at the time of World War II he was active in the resistance movement connected to underground Polish State, under the legal government in exile. He initially operated in Krakow - but to avoid arrest he moved to Warsaw. In July, 1941. he got a position in the National Institute of Hygiene. In 1943. on his request he started to work in mobile Counter Epidemic Columns to control typhus in the county Sokołów-Węgrów and in other regions of the Lublin district.

It facilitated his underground activity, under which he was given the task of organizing the medical service of the Second District, Unit VII AK (underground Home Army) Warsaw-Downtown. He took part in the Warsaw Uprising, as a physician in the battalion „Ruczaj”. After the surrender of the uprising, in the POW camp, he led infirmary. When he returned to Poland in 1945. he settled in Krakow and worked in the branch of the National Institute of Hygiene producing serums and vaccines. His medical degree of physician, which he received in the underground university, was officially confirmed in 1945. After presentation of

his doctoral thesis he obtained the degree of doctor of medicine in 1948. In 1948-1949 he was called up to the army as a lieutenant and was appointed for the position of the epidemiologist in the Krakow Military District.

The difficulties occurring in the anti-epidemic activity emerging, among other things, from the shortage of adequately trained personnel, led him to establish a contract with prof. Marcin Kacprzak, who was preparing a program of undergraduate studies for physicians oriented on hygiene. J.K. Kostrzewski supplemented this list with the need for training of the epidemiologists - and had a significant contribution to the preparation of the final program for then formed Sanitary - Hygienic faculty at the Medical School in Warsaw. This faculty began its activity in 1950 and was partly based at the National Institute of Hygiene.

In 1951. on April 1 J.K. Kostrzewski moved from Krakow to Warsaw with the task, among others, to organize the Department of Epidemiology in the National Institute of Hygiene. This decision coincided with the Resolution of the Government (01.05.1952) on the establishment of sanitary-epidemiological stations. The structure for the reforms was based on already existing branches of the National Institute of Hygiene. Shortly later, in 1954. a decree on the appointment of the State Sanitary Inspection was issued.

J.K. Kostrzewski in connection with these developments considering, as he called it „the horizon of needs” saw both the actual tasks and the future of epidemiology in the country including the role of the Department of Epidemiology in the National Institute of Hygiene. The starting point for the organization of the Department was to apply modern up-to-date definition of epidemiology covering the full range of the field. Epidemiology was seen by J.K. Kostrzewski as a branch of practical medicine dealing with occurrence and distribution of diseases

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in human communities, taking into account the factors and conditions affecting their emergence, spread and distribution and assess the effectiveness of measures and ways to prevent and control them.

Implementation of tasks resulting from the new shape of the State Sanitary Inspection required to prepare the appropriate staff. It was necessary to start with the preparation of skeleton crew for the Department of Epidemiology that in his vision had the mission to be a kind of laboratory for creation of human resources. He gathered young doctors, who were not supposed to deal with clinical practice, they were to be epidemiologists.

How he saw tasks of the Department is illustrated by the selection of the first set of new employees with higher education. It consisted of medical doctors recruited mainly from graduates of Sanitary-Hygienic faculty in Warsaw Medical School. The veterinarians who were employed beside them had to show interest in the problems of zoonosis including the ability to conduct laboratory diagnostic tests in this area. Specialists in statistics and demography were employed to process numeric data for analysis and evaluation of the epidemiological situation.

In the years 1959-2007, in the Department worked for a time range from 1 to 40 years a total of 70 people. Among them twenty completed their doctoral theses preceded by completing specialty training in epidemiology and obtaining the specialization in infectious diseases and epidemiology. Nine of these people received the habilitation, and over time 5 of them received the title of professor. Scientific achievements of the Department have been documented in more than a thousand and one hundred publications.

In this way, the principal task of the Department was completed: preparation of personnel that could train the next generations in epidemiology. But efforts with organization of the Department, directing activity for practical fieldwork and for scientific research and teaching at the university level were not the only domain of activity of professor Kostrzewski. The other was to continue research on the epidemiology of recurrent cases of typhus and also epidemic cases transmitted by the clothing lice. The result of these studies, particularly the role of detecting recurrence of typhus, the so-called Brill-Zinsser disease, in the persistence of its endemic in the interwar period and after the World War II in Eastern, Southern and Central Europe - was included in the WHO list of discoveries in biomedical sciences and medical achievements on global scale. This list contains two more discoveries of Professor Kostrzewski:

- the detection of the risk of cases of paralytic polio associated with vaccination with live attenuated strains of polio virus, especially type 3 and the need to increase the surveillance of the safety of these

vaccines - in these studies participated Assistant Professor in the Department of Epidemiology Alexandra Kulesza;

- analysis of the effectiveness and safety of vaccines and vaccination against typhoid fever in extensive controlled field studies planned and performed by the Department of Epidemiology in collaboration with sanitary epidemiological stations.

It also does not close the list of issues dealt with by professor Kostrzewski. Among such activities as managing the Department, conducting research, teaching, editorial work as Editor of the quarterly *Epidemiological Review* and many others, he found time for broadening his knowledge, and even education. In 1957-58 as a WHO scholar he expanded his knowledge during study visits in scientific centers in the US, UK and the Soviet Union as well as participated in scientific meetings and conventions in Poland and abroad. The acquired new skills he implemented into the Department of Epidemiology and used in his lectures for employees of sanitary-epidemiological stations. Among his achievement is widening the use of the new statistical methods entering the modern epidemiology in those years.

His experience in teaching was used in the book "Epidemiology: manual teaching methods" coedited with CR Lowe.

Earlier, in the sixties, he inspired and mobilized employees of the Department to publish the monograph: "Infectious diseases and their control on Polish territory in the twentieth century". As a longtime editor of the quarterly "Epidemiological Review" he inspired and encouraged his subordinates to publish data from the assessment of the current epidemiological situation in the country.

Profile of its activities changed after 1961, when he was appointed the Chief Sanitary Inspector. This gave him an extra boost to work. The position is important to the extent that it can be used to implement actions relevant to the improvement of the epidemiological situation" - he explained to co-workers.

And now in the time for attempted answer to the question: how He is was able to embrace such a plethora of obligations and perform them effectively? He was very disciplined in the use of time, consistent in action. He saw the need to resolve the issues that were currently important, but also those that only in the course of time they have proven to be important. His ability to anticipate and assess the hierarchy of needs was due to his continual improvement of the knowledge obtained and perfected in contact with actual achievements of science, but also with practical experience in the field. For his subordinates he always set the tasks specifying the timelines and objectives clearly. .

That discipline was strongly related to punctuality in every field and rational use of time in any situation. He hated chatter, gossip, informing, pseudo-kindness - submitting wishes, congratulations, etc.

When referring the problem to him one had to avoid wording such as “reportedly” or “this is not my field, but I believe that... “

On the other hand Professor Kostrzewski respected opinions and comments of field workers. He often emphasized that - mutual respect is the basis of good cooperation, good results and a normal life.

In 1961, 10 years after the beginning of the organization of the Department of Epidemiology he was appointed Undersecretary of State in the Ministry of Health and Welfare and obtained position of the Chief Sanitary Inspector. Later, he held various senior positions at home and abroad. In 1975, he was elected Chairman of the Executive Board of WHO for the years 1975-1980. He had the honor of chairing the International Commission for the assessment of the eradication of smallpox in India and African countries, and was vice-chairman of the World Commission

set up in 1979. for assessment of the eradication of smallpox in the world. In 1995-1996 he chaired the World Commission to confirm the eradication of polio in the world.

As long as his health condition allowed, he kept his contact with the National Institute of Hygiene especially with the Editors of *Epidemiological Review*. He retired in 1991, but until the end of 2001 he worked for the WHO.

His last visit to the National Institute of Hygiene was on October 8. 2002, when he participated in the conference organized at the NIH on the occasion of the signing the certificate of eradication of poliomyelitis in the European Region. He died on May 27. 2005. in Warsaw at the age of 89.

In fact, “*non omnis mortuus est*” – his legacy includes the prestige given by him to Polish epidemiology, improved epidemiological situation of infectious diseases in the country and a great number of epidemiologists who are his students or student of his students. Our duty is to preserve his memory and continue his fascination with epidemiology.

