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Academician Milivoje Sarvan: The Founder of Modern Paediatrics in Bosnia and Herzegovina

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Abstract

The aim of the article is to present to the medical, and then to the general public, the person and work of Milivoje Sarvan (1896–1978)—one of the pioneers of social paediatrics in Serbia and one of the most prominent paediatricians, scientists and organizers of health services in Bosnia and Herzegovina in the second half of the 20th century. Milivoje Sarvan was born in 1896 in Požega, in the Kingdom of Serbia. He completed his medical studies in Lyon (France) in 1921. Upon his return to Serbia, he was a county physician in Aleksinac for three years and, shortly after the establishment of the University Children's Hospital in Belgrade in 1924, he was among the first assistants employed there. Out of the total of 23 years of professional work in Serbia, for 19 years he was an assistant and assistant professor at the Faculty of Medicine in Belgrade. At the end of 1946, at the initiative of the Ministry of Public Health of the People's Republic of Bosnia and Herzegovina, Dr. Milivoje Sarvan was appointed full professor and head of the Department of Paediatrics at the newly established Faculty of Medicine in Sarajevo. At the same time, he was elected head of the Paediatric Clinic in Sarajevo when it was established, and he would later manage it from 1947 until his retirement in 1967. Already at the beginning, Prof. Sarvan developed the activities of the Clinic in several directions: he created the conditions for clinical, teaching and scientific research work. He took care of the education of future paediatricians and child care workers, organized courses in social paediatrics for general practitioners and professional training for paediatricians in the country and abroad. The next period of his activities was marked by the intensive development of the Clinic in all areas of its work. He published more than 120 professional and scientific papers in national and foreign medical journals, and several health education books on mother and child care that have been published in several editions, with large print runs. He was the dean of the Faculty of Medicine and vice-rector of the University of Sarajevo, founder of the Paediatric Section of the Society of Physicians of Bosnia and Herzegovina, lifetime president of the Association of Paediatricians of Yugoslavia, a member of the Scientific Society of Bosnia and Herzegovina from 1955 and the Academy of Sciences and Arts of Bosnia and Herzegovina from its foundation in 1966. He was honoured with high level social awards and recognitions, including the highest state award of the Socialist Federative Republic of Yugoslavia—the AVNOJ award. After his retirement (1967), he lived in Belgrade, where he died in 1978. Conclusion. Bearing all of this in mind, there is no doubt that Dr. Milivoje Sarvan is one of the significant figures in the field of professional, scientific and organizational work in the field of children's health care in the former Yugoslavia, leaving a significant and indelible mark in the current states of Serbia and Bosnia and Herzegovina.

Key Words: Milivoje Sarvan ■ Serbia ■ Bosnia and Herzegovina ■ Paediatrics.

Introduction

Milivoje Sarvan was one of the pioneers of social paediatrics in the Kingdom of Yugoslavia (1) and one of the most important paediatricians, scientists and organizers of health services in Bosnia and Herzegovina in the second half of the 20th century (2). Although he worked in Serbia for 23

years and was an assistant and assistant professor at the Faculty of Medicine in Belgrade (3), and a well-known health educator, his name is almost never mentioned in contemporary Serbian medical historiography.

The memory of Sarvan is much better preserved among the Bosnian paediatricians of earlier generations (4, 5). Moreover, in 1979, his heirs



Milivoje Sarvan in the mid-1960. Dossier of Milivoje Sarvan, with permission of the Academy of Sciences and Arts of Bosnia and Herzegovina.

unveiled his bust in the hall of the Paediatric Clinic in Sarajevo, which on that occasion also bore his name, as a sign of permanent remembrance and acknowledgment of his work. Under the name the "Prof. Dr. Milivoje Sarvan Clinic and Polyclinic for Children's Diseases" (6), the Clinic operated until the breakup of Yugoslavia in 1992.

Since the professional and scientific contributions of Milivoje Sarvan have not been fully evaluated, we prepared this article with the aim of presenting his person and contributions, primarily to younger colleagues, but also to a wider public.

Youth and Education

Milivoje Sarvan was born on September 23, 1896 in Požega near Užice, in the Kingdom of Serbia¹ (7). He was the first of the three children born to the couple Teofilo and Jovanka Sarvan born Čkonjović. His father, a merchant by profession, was one of the most respected persons in his area—he was a member of the Board of Directors of the Požega branch of the Serbian Agricultural Society, and he was also involved in politics. The scarce historiographical data available indicate his connections with Nikola Pašić in 1886 (8).²

Milivoje probably attended primary school in Požega, and secondary school in Čačak and Valjevo. At that time, the secondary school in Čačak was incomplete, with only six grades, but was considered a very good school. As in other schools, great attention was paid to the upbringing and development of national feelings among students, especially after the Austro-Hungarian annexation of Bosnia and Herzegovina (9).3 Through the students' literary club "Rajić", which also had its own reading room, the love for literature was nurtured, so the names of the students, including Milivoje's, are on the lists of subscribers to the editions of the Serbian Literary Association (10).4 After completing the fifth grade in 1912, Milivoje transferred to the secondary school in Valjevo, which became a complete eight-grade high school that vear. This meant that students could take the matriculation exam, which was a requirement for admission to university. Although during the 1912/13 school year classes were interrupted for a few months due to the First Balkan War, students were allowed to finish their classes, so Milivoje also finished the sixth, then the seventh grade (1913/14), both with excellent grades (11).5 He did not have time to enrol in the eighth grade because the First World War broke out in July 1914, which again interrupted the education of Serbian youth. At the beginning of October 1915, on the eve of the invasion of Serbia by the Central Powers, Sarvan and his peers were recruited into the army which began to retreat through Albania, towards Greece. When, in May 1916, the Ministry of Military Affairs made a decision to discharge pupils and students from the army in order to continue their education, he was in a group that set off for France the following month. In Voreppe, a small town near Grenoble, he attended the matriculation course and passed the matriculation exam in November 1916, and then enrolled at the Faculty of Medicine and Pharmacy in Lyon. He completed his studies within the prescribed period and on December 20, 1921, he received his doctorate with the thesis "Les lesions pleuropulmonaires de la maladie de Hodgkin"(12).6

The First Years of Medical Practice

In January 1922, after five and a half years spent in France, Sarvan arrived in Belgrade, then already the capital of the new state, the Kingdom of Serbs, Croats and Slovenes (Kingdom of SCS). At first, he served in the Permanent Military Hospital for two months, the time he had left of his regular military service, and then completed the mandatory medical internship at the General State Hospital. At the same time, he also volunteered at the Permanent Bacteriological Station. As he had also completed a six-month course in hygiene at the University of Lyon, it seems that he intended to devote himself to the then most promising branch of medicine preventive medicine (13).7 Considerable financial resources were invested in the development of the Preventive Medicine Service, which was managed by Andrija Štampar⁸ the head of the Hygiene Department of the Ministry of Public Health and the creator of the health policy of the Kingdom of SCS. The priority given to the development of preventive medical institutions compared to hospital ones led to opposition and division within the medical class, but it did not hinder their progress. However, Sarvan soon decided on a different path: in February 1923, he requested permission from the Ministry of Public Health to start a specialization in internal medicine at the General State Hospital (14).9 His request was not respected: young doctors were mostly distributed throughout the interior of the country, where they were few in number. Thus, on March 20, Sarvan was appointed county doctor in Aleksinac (15).10 He spent the next three years in that small town in the southeast of Serbia, which was once an important border town, but it had lost its former importance after the territorial expansion of Serbia (1878). In addition to his regular duties, he performed three other jobs: he was acting head of the county hospital and actually the only hospital doctor (1923), he taught Hygiene in Aleksinac Secondary school and also acted as a school doctor (1923/24 and 1924/25) (16).11 As can be seen from the elder's report, he performed his duties diligently—it was assessed that he was "professionally well educated, reliable, orderly in his service and of good behaviour" (17),¹² but he himself was not satisfied with his position and life in Aleksinac. He aspired to move to Belgrade, where his family lived at the time, and already in November 1923 he tried again to attain the position of a resident at the General State Hospital, this time in the Children's Department (18).¹³ This request was not accepted either, but two years later, when he applied for the position of assistant at the University Children's Hospital of the Faculty of Medicine, he was more fortunate: he was appointed assistant on August 24, 1925 (19).¹⁴

Assistant and Assistant Professor at the Faculty of Medicine in Belgrade

The University Children's Hospital in Belgrade was founded on September 29, 1924, with the appointment of Franciszek Groër (1887-1965) as a contractual full professor of paediatrics at the Faculty of Medicine (20).15 Groër, who from 1918 was a full professor of paediatrics in Lviv (then in Poland, now in Ukraine), accepted the invitation of the Faculty of Medicine in Belgrade under one condition: that the construction of the building for the Children's Hospital should begin in the spring of 1925. In addition to the lectures he gave to the first generation of students at the Faculty, immediately after his arrival he devoted himself to organizing and equipping the Hospital, which began operating on January 23, 1925, in temporary accommodation, in a rented apartment, as a Polyclinic (without inpatients). With the admission of young doctors and auxiliary staff, Groër formed the first working team. At the same time, in cooperation with the architect Svetozar Jovanović, he prepared the project of the future hospital building. However, since money and land for the building were not secured in the spring of 1925, he resigned and returned to Lviv in October of the same year (21). Although they only worked together for a month, Sarvan remembered Groër vividly even after 50 years. In the chapter he wrote about Groër's work in Belgrade in the memorial book entitled Franciszek Groër: life and work, published in 1973 by the Association of Paediatricians in Poland, he marked him as his first teacher (22).16

After the departure of Professor Groër, there were four assistants employed at the Children's Hospital: Smilja Kostić-Joksić, 17 Marija Gajić-Vajs, 18 Ljubomir Vulović 19 and Milivoje Sarvan. Although he was the last among them to be hired, Sarvan was entrusted with the management of the Children's Hospital until the appointment of a new professor. Only a year later, at the end of 1926, with the appointment of Dr. Matija Ambrožić²⁰ as associate professor of paediatrics, the Children's Hospital had a new head. Ambrožić came from Slovenia, where in previous years he had distinguished himself with extraordinary entrepreneurship and organizational skills: in Ljubljana he founded the Institute for Social and Hygienic Protection of Children with the Queen Marija Children's and Maternity Home, and the first School for Child Caregivers in the Kingdom. Like Groër, he was a student of the famous Viennese paediatrician Clemens von Pirquet (1874–1929) and a follower of the modern paediatric school that combined social protection of children, preventive and curative paediatrics. On this basis, he and his assistants organized work at the Children's Hospital.

In the legacy of Matija Ambrožić kept in the Museum of Science and Technology - Belgrade,

Prof. Dr. Matija Ambrožić (in the middle) with the doctors of the University Children's Hospital, in Belgrade in the early 1930s. Dr. Milivoje Sarvan is marked with an arrow. From the Archives of the University Children's Hospital in Belgrade. Courtesy of Prof. Dr. Mirjana Kostić.

there are ten letters from Milivoje Sarvan—seven from 1926 and three from 1930. From them it can be seen that they established contact while Ambrožić was in Ljubljana and was waiting for the completion of his procedure appointments. Sarvan informed him about the situation at the Children's Hospital, about the talks he had with the dean of the Faculty about the Children's Hospital budget, and about the course of negotiations with the management of the "Serbian Mother" Society about the establishment of a kindergarten, in which Štampar also participated, etc. In the summer of 1926, Sarvan travelled to Ljubljana to learn about the organization and work of the Ambrožić Institute, which, as he wrote, fascinated him (23).21 Not only a good professional relationship, but also a lasting friendship was established between them. In the years that followed, Sarvan was Ambrožić's closest collaborator, and after his departure to Sarajevo in 1946, their close cooperation continued.

Two years after his arrival in Belgrade, Ambrožić managed to secure new accommodation for the Children's Hospital, in which a department for bed-ridden patients was also organized. The Institute for the Health Protection of Mothers and Children worked under the same roof, also under his management. Ambrožić formed the

Working Community of the Children's Clinic, which included clinical departments and the Institute (with departments: the children's dispensary with a Counselling Centre for infants and toddlers; colonies for infants and young children without parental care, the Department for the Popularization of Children's Hygiene, and the Department of Records of Work in the field of child protection), the Centre for Infants of the Mothers' Association, the Children's Dispensary of the "Serbian Mother" humanitarian society, the municipal counselling centre for infants and small children and the Neonatal Department of the Gynaecology and Obstetric Clinic. In addition to participating in teaching, the assistants of the Children's Hospital were also assigned to various duties in the institutions of the Working Community. So Milivoje Sarvan also worked in the Kindergarten of the "Serbian Mother" Society (1916-1928), and in the Colony for infants and young children (1931-1933); he collaborated with the organization of the Museum of Hygiene of Infants and Young Children at the Institute and in the Seminar for trainee doctors, and in 1933 he was appointed head of the Municipal Counselling Centre for Infants and Young Children (24).22 In the meantime, he obtained the title of specialist in children's diseases (1927) and for a little longer than a year, between September 1929 and December 1930, he trained in Germany as a scholarship holder of the Rockefeller Foundation (25).23

Being a French student, Sarvan was particularly satisfied that the scholarship allowed him to get to know the German paediatric school and to learn from the most important German paediatricians of the time. First, he spent two months in paediatric institutions in Berlin: at the University Children's Hospital of Professor Czerny (Adalbert Marianus Czerny, 1863-1941), whose school primarily dealt with the physiology of nutrition and metabolic disorders; then in the the Kaiserin Auguste Victoria Haus children's hospital, where under the direction of Fritz Rott (1878-1959), professor of social medicine, and Doctor Leopold Langstein (1876-1933), he studied issues of social hygiene organization and health care for mothers and children; and also in the Kaiser-und-Kaiserin-Friedrich-Kinderkrankenhaus hospital under the direction of Heinrich Finkelstein (1865-1942), who especially dealt with the problems of infant care and nutrition (26).24 He spent the next year in Düsseldorf, at the Children's Clinic of the Medical Academy, with Professor Arthur Schlossmann (1867-1932), a pioneer in the field of social welfare for children (27).25 In addition to daily work in the hospital departments, the practical part of the training also included laboratory work, study of autopsy material and work on the organization and implementation of the health care system for children and youth in the Düsseldorf Health Administration. The theoretical part consisted of lectures on paediatrics by Professors Schlossmann, Albert Eckstein (1891-1950) and Adolf Hottinger (1897-1975), and lectures on social medicine by Professors Ludwig Teleky (1872-1957) and Ernst Graf (1869-1938) (28).26 The issues that Sarvan particularly studied during that time were early mortality, prematurity, tuberculosis therapy, post-vaccination encephalitis, organization of social protection for children, and health education for parents (29).27 He also engaged in experimental work in the field of tuberculosis and BCG vaccination. Between two semesters, during the summer vacation, he visited child protection institutions in Belgium, the Netherlands and France. In a letter to Ambrožić he wrote some interesting observations: "In terms of work in the purely social and hygienic field [the French are], in some matters, always one quarter of century behind the Germans; in some cases there is something interesting (Placement familial de tout petits), which cannot be seen with the Germans".

After returning from Germany, in addition to his regular duties at the Hospital and in socialmedical institutions, Sarvan dedicated himself to scientific and health education work. However, as new teaching positions at the University were opened in limited numbers due to the economic crisis in the country, he waited for a promotion to an academic title for 14 years. From 1937, the Department for Children's Diseases had two courses: Pathology and Therapy of Children's Diseases and Hygiene in Childhood, but new teachers were not appointed until December 1939, both to the position of assistant professor—Sarvan for the subject of Hygiene in Childhood28 and Smilja Kostić-Joksić for the subject Pathology and Therapy of Children's Diseases (30). A few months earlier, assistant professor Uroš Ružičić²⁹ was appointed associate professor. As the teacher of the newly introduced subject, Milivoje Sarvan had the opportunity to teach students in the areas he was dedicated to during his professional career. However, that did not last long. In April 1941, the



Doctors of the Children's Hospital with members of the administration of the Mothers' Association, 1930s. Dr. Milivoje Sarvan is marked with an arrow, next to him stands Prof. Dr. Matija Ambrožić, and the second on the right is Prof. Dr. Uroš Ružičić. From the Archives of the University Children's Hospital in Belgrade. Courtesy of Prof. Dr. Mirjana Kostić.

during November 1941. After the liberation, they continued working at the Clinic, but after one year, their retirements followed. Sarvan retired in December 1942, Ambrožić in January 1943, and Ružićić in June 1943. Until the end of the war, Sarvan worked as a private physician in Belgrade. After the liberation of Belgrade, Ambrožić, Sarvan and Ružičić were reactivated and returned to their positions and duties already in November 1944. Until his appointment to a new position in 1946, Sarvan held the position of head of the Polyclinic Hospital.

Second World War engulfed and dismembered Yugoslavia.

From the beginning of the occupation of Serbia, the Germans, in cooperation with the local collaborationist administration, persecuted communists, freemasons, Jews and opponents of the new regime. The repressive measures were especially intensified after the Uprising of July 7, 1941. In order to intimidate the population, and also due to the suspicion of the existence of connections between members of the Belgrade intelligentsia and the insurgents, in November 1941, the Germans arrested about 200 public and cultural workers, university professors, doctors, lawyers, industrialists and other prominent figures. As "hostages who will guarantee security on Serbian territory with their lives" (31),30 the arrested were imprisoned in the Banjica concentration camp until the Uprising was suppressed. Among them were professors of paediatrics-Matija Ambrožić, Uroš Ružičić and Milivoje Sarvan. Ambrožić was imprisoned for the longest time, a full two months; Sarvan was first in prison, and then for a week in the concentration camp. Both of them were released on January 5, 1942 (32).31 Professor Ružičić was imprisoned in the Banjica concentration camp for ten days

Professor of Paediatrics and Head of Department of Paediatrics and the Paediatric Clinic in Sarajevo

On the initiative of the Ministry of Public Health of the People's Republic of Bosnia and Herzegovina (PRB&H), assistant professor Milivoje Sarvan (30) was appointed full professor of paediatrics and head of the Department of Paediatrics at the newly established Faculty of Medicine in Sarajevo at the end of 1946 (33). At the same time, he was appointed as the head of the Paediatric Clinic in Sarajevo, which was being founded at that time (6). He took office after June 17, 1947. He was expected to participate in the broadest sense in the development of the newly opened Faculty of Medicine, especially in the establishment of the Department of Paediatrics and the Paediatrics Clinic in Sarajevo. At that time, there were no children's hospitals in Bosnia and Herzegovina (B&H). In Sarajevo, as part of the State Hospital in Koševo, there was a the Unit for Children's Diseases (VI Department)³² (34, 35), which was formed after the First World War in a pavilion previously intended for patients suffering from mental illnesses. The head of the department was Prim. Dr. Konstantin Delijanis,33

who initially worked alone, with occasional help of medical doctors doing internships. Later, Dr. Jelena Bulić-Adamović worked at the Department,³⁴ as a specialist in children's diseases. The Second World War founds both these doctors doing the same work (35).

Unlike hospital health care, primary health care for children in B&H was somewhat organized. Immediately after the end of the Second World War, the work of the Institute for Maternal and Child Health Care was activated in Sarajevo, where the paediatrician Dr. Maša Živanović,³⁵ and Dr. Mara Kurtović,³⁶ a specialist in school medicine (36) worked. Dr. Kornelija Rakić worked in Mostar, in the Children's dispensary³⁷ (37), while in other parts of B&H, the primary health care of children was at a very low level in the Public health centres, in which mostly general practitioners worked.

Establishment of the Paediatric Clinic in Sarajevo

After the Second World War, Unit for Children's Diseases of the State Hospital in Sarajevo became the "core" of the future Paediatric Clinic of the Faculty of Medicine in Sarajevo (34). However,

it was not possible in terms of space and personnel to meet the professional, teaching and scientific needs of the clinic (6). On the other hand, the severe economic crisis did not allow the construction of a dedicated building, but the decision of the competent authorities was accepted that the existing general hospital of the Railroad Sickness Foundation, newly built before the Second World War on "Jezero", and originally intended for the treatment of adults, be used for the work of the Paediatric Clinic in Sarajevo (38).

Adaptation work³⁸ started at the end of 1946, and already in the middle of 1947, the Children's Department of the State Hospital was moved to the building of the new clinic, with a capacity of 60 beds, with patients and two doctors: one paediatrician³⁹ and one doctor on specialization, and several nurses, one trained laboratory assistant, scant equipment and a modest laboratory (34, 38). During the following year, 1948, the young doctors: Dr. Mimi Sejdi, Dr. Katarina Carić⁴⁰, Dr. Nevena Stojkov⁴¹, Dr. Suzana Čanji⁴², Dr. Žarko Mićić⁴³ and Dr. Nina Hadžiselimović⁴⁴ as residents employed at the Paediatric Clinic in Sarajevo (34).

Later Dr. Borivoj Ćurčić⁴⁵ in 1951, Dr. Vera Golubović Ćurčić⁴⁶ and Dr. Džemal Haverić⁴⁷ in 1952, and other doctors were employed at the

Clinic for children's diseases.

Along with the initial solution of pressing spatial problems, Prof. Sarvan gradually solved personnel problems, reflected not only in the lack of doctors, but also of auxiliary medical staff. He saw a long-term solution to the lack of doctors in young doctors graduating from the Faculties of Medicine in Sarajevo, Belgrade and Zagreb who showed an interest in working at the Paediatric Clinic in Sarajevo. In the first five years of its existence, the Clinic had nine doctors, some of whom were paediatricians or doctors



The first doctors of the Paediatric Clinic in Sarajevo: Prof. Dr. Milivoje Sarvan (in the middle), first from the left, Dr. Nevena Stojkov, and the first right, Dr. Žarko Mićić. From the Archives of the Family of Nevena Stojkov. Courtesy of Prof. Dr. Borislav Stojkov.

on specialization. Two thirds of them completed their medical studies in Belgrade (39).

The auxiliary medical staff initially consisted of nuns and women who had taken only short courses, which did not meet the needs of the institution (39). Knowing the importance of their expertise and work in paediatric institutions, Prof. Sarvan, after convincing the authorities about the solution to this burning problem, founded the School for Child Caregivers at the Clinic. The first generations of trained caregivers played a significant role in the care of sick children not only

at the Clinic, but also in other paediatric institutions in Bosnia and Herzegovina (39, 2).

A relatively favourable solution to the Clinic's accommodation and staffing issues enabled reliable professional and scientific treatment of the pathological conditions of hospitalized patients (39). With this in mind, the management of the Clinic, together with the employees, worked hard to improve the work space, hiring a larger number of educated specialist laboratory staff, acquiring modern equipment, and modernizing existing and introducing new diagnostic procedures. These changes made it possible to begin scientific research into children's pathological issues in Bosnia and Herzegovina (39) in addition to routine examinations and treatment of patients at the Clinic (39). It is interesting to note that as early as 1950, the Federation of Medical Societies of Yugoslavia recognized the successful development of the Clinic in all its aspects and as a result decided that the Paediatric Clinic in Sarajevo would be the organizer of the First Congress of Paediatricians of Yugoslavia. 48

The concepts applied in the work of the Clinic very quickly proved to be successful in completing the tasks set. However, this was only a partial solution to the pressing problems in children's health



At the beginning of 1953, assistant professor Dr. Dimitrije Miletić, paediatrician from Paediatric Clinic in Sarajevo at the Dispensary for Children's Diseases in Kasapovići (Novi Travnik B&H).

care in B&H (39). Namely, Prof. Sarvan very quickly saw that it was necessary for the professional staff of the Clinic, with him at the head, to be involved in solving children's health problems throughout the whole of B&H. He initially tried to solve the problems he perceived with advice, by sending requests to the competent authorities of the Republic to which he insisted that health institutions from the interior of B&H should refer their doctors, as scholarship holders, to courses for specialization in paediatrics.

At the same time, the Clinic's doctors were occasionally sent to the surrounding municipalities—Kalinovnik, Kiseljak, Kakanj, Sokolac, and Novi Travnik—to work in paediatric clinics, counselling centres, and dispensaries. In addition, the doctors from the Clinic, headed by their director, took on some of the responsibilities that arose after the Centre for Health Care of Mothers and Children was unjustifiably abolished: providing advisory, professional, and methodological assistance to regional health care centres in Banja Luka, Brčko, Tuzla, Livno, Mostar, Foča, Zenica, and Bihać (39). This type of activity was especially significant when children's hospital wards or children's hospitals were being opened in these places.

Organization of Postgraduate Paediatrics Courses

One of the most significant visions of Prof. Sarvan in solving the problems of child health care overall in Bosnia and Herzegovina was the strengthening of paediatric dispensares and hospital work in Bosnia and Herzegovina through the organization of various types of postgraduate paediatrics training. Amongst these activities, a significant place is occupied by the organization of Paediatric Days of B&H (PDB&H) in cooperation with the Paediatric Section of the Society of Physicians of B&H.

The idea of Prof. Sarvan was that the PDB&H should be held every year, except for the year in which the congresses of the paediatricians of Yugoslavia were held, and that at those gatherings achievements in the development of health care for children in B&H Yugoslavia should be presented (34). The PDB&H were not intended only for paediatricians but also for other doctors who dealt with the treatment of children within their specialties. The gatherings were held in the cities of B&H, which were seen as the centres of children's health care of a certain region, with the aim that paediatricians and other doctors who dealt with the treatment of children in that area would present current paediatric issues and so that the participants would get to know each other, exchange experiences, and gain new knowledge. So, if these gatherings were started to educate doctors dealing with the treatment of children in Bosnia and Herzegovina, they quickly became interesting to paediatricians throughout Yugoslavia, of which B&H was a part at that time. They were not only members of the audience at PDB&H, but active participants, and they often presented the results of their own research. Prof. Sarvan was the organizer of and an active participant in PDB&H until his retirement in 1967.

According to Prof. Sarajlić, the first PDB&H was held in Sarajevo in 1959. However, when reading today the contents of the lectures that were published in the Almanac marking 25 years of the Paediatric Clinic in Sarajevo (34), it is easy to see that the lecturers were from the former Yugoslav

Republics (Serbia, Croatia, Slovenia), but also from European countries (England, Switzerland, and Poland); their titles, functions, and lecture titles are listed, but the location and date of the meetings are not mentioned in detail.

Twenty years later, Professor Rikica Najdanović, one of the closest and longest-term co-workers of Prof. Sarvan, wrote about that gathering: "In 1959, Prof. Sarvan organized the first paediatric days, which he left his stamp on from the beginning by choosing the topics of the most current problems and gathering eminent paediatricians from the country and abroad as guest lecturers. As a result, the Paediatric Days immediately gained a high reputation because they represented a great contribution to the development of paediatric thought in our country, to the modernization of paediatric knowledge, and also to the mutual acquaintance of doctors who work with children in our Republic and with doctors from abroad" (4).

Prof. Sarvan saw the solution to the problem of the lack of primary health care paediatricians in B&H in the organization of postgraduate classes in paediatrics for general practice doctors from the interior of B&H, that is, the training of doctors from smaller towns to work in children's counselling centres and dispensaries. This education started in 1964/65 in the form of four-month courses in Social Paediatrics, which were realized through theoretical and practical classes. Courses were held once a year in December, January, February, and March.⁴⁹ (34).

The theoretical classes were held by the teachers of the Clinic, and for the part of the programme related to related paediatric disciplines, teachers from other departments of the Faculty of Medicine and the University of Sarajevo were engaged, as well as prominent experts in the field of health and social legislation in B&H (6, 34). The practical teaching of the course participants was realized through daily work in the clinic's departments and afternoon duty with the clinic's senior doctors.

After the completion of the course, study trips were organized in the country and abroad with the aim of making the participants familiar with the work of reputable institutions for the protection of mothers and children (40). In the 1970/71 academic year this type of education was abolished because there was no longer a need for this type of professional staff. A total of seven courses were held. Eighty-seven general practitioners completed this type of education. Most of them worked as doctors qualified to work in children's dispensaries in municipal towns in B&H, and some continued their professional activity in other medical disciplines (34).

An interesting observation about this type of education was written by the primarius Dr. Esad Zukić⁵⁰, a paediatrician from Gradačac, Bosnia and Herzegovina, who attended the course in the 1965/66 academic year: "The doctors learned so much on the course that they were able to do a great deal in the children's dispensaries. They learned to spot current paediatric problems in a timely manner and to solve them at the level of primary health care. In addition, they were aware of the necessity of continuous professional development because they knew that the time spent on the course and the subsequent six-month work in a children's dispensary would be recognized in a future paediatric residency" (Written announcement. August 10, 2024).

Professor of the Faculty of Medicine, University of Sarajevo (1946 – 1967)

By being appointed head of the Department of Paediatrics immediately after the founding of the Faculty of Medicine in Sarajevo (1946), Milivoje Sarvan was given enough time to make preparations for classes in the subject of Paediatrics, which, for the first generation of students, were not supposed to start until the autumn of 1949. This concept was also applied at other clinics and institutes in order to create at least the basic conditions for the start of classes in terms of personnel, space, and equipment provided for in the study curriculum (6).

In the autumn of 1949, the Paediatric Clinic was ready to start working with students. Prof. Sarvan held an introductory lecture for

fourth-year students in an improvised lecture hall on the ground floor of the Clinic's main building (6). At that time, Dr. Jordan Tomić was working at the Department of Paediatrics as an assistant professor.⁵¹

Practical work with students was initially the task of all Clinic doctors, until the first assistants were chosen: Dr. Nevena Stojkov⁵², Dr. Suzana Čanji⁵³ and Dr. Irina Tomić⁵⁴ (34). Student exercises were organized in the afternoons in a very pleasant working atmosphere in which students helped in the care of patients and the application of therapy (34). The admission of the first generation of students to the Paediatric Clinic did not mean that the issue of the formation of the Department of Paediatrics was resolved. On the contrary, training the medical staff to work with students continued with the same intensity, because of the expected increase in the number of students in the coming years, which inevitably implied an increase in auxiliary teaching staff. In the selection of assistants, preference was given to younger staff, including those who are still specializing in paediatrics, in order to provide staff for conducting practical exercises (34).

Training assistant teaching staff in the conditions in which the Paediatric Clinic operated at the time was not an easy task. In addition to the complex and extensive professional work performed by the Clinic's doctors, which by its nature always had to have priority, they were expected to continuously improve their professional skills, to educate intermediate medical staff and doctors on specialization courses, to engage in scientific research work, and to present their results at professional conferences and publish them in journals. After the first few publications in the first years of the Clinic's existence, the number of professional and scientific works in the following period grew year by year, and its associates presented the results of their own research and observations at congresses and symposiums in the country and abroad (6). In the first ten years (1947-1956) of the Clinic's existence, according to the "Bibliography of the Works of Associates of the Children's Clinic Sarajevo" (40), 32 articles were published, mostly in national



Prof. Milivoje Sarvan, the dean of the Faculty of Medicine in Sarajevo, with his colleagues. (From the Archives of the Family of Mirjana Džumhur. Courtesy of Dr. Sead Džumhur).

periodical medical publications. Of that number, Prof. Sarvan published 19, or 60% of the articles, while all his collaborators together published a total of 13 or 40% of the articles.

Although the selection of assistants began as early as the arrival of the first students at the Paediatric Clinic, the selection for teaching positions did not begin until 1958 (34). This is understandable, given that the criteria for these titles were significantly different from today's and, moreover, it was a period when spatial and personnel issues were being resolved simultaneously. Only in the following ten years of work at the Clinic, which was still managed by Prof. Sarvan, was there an obvious improvement in its professional and scientific work, which , among other things, resulted in the selection of doctors for teaching positions. Dr. Dimitrije Miletić⁵⁵ was the first to be promoted to the position of assistant professor, then Dr. Izet Hadžić⁵⁶, Dr. Ešref Sarajlić⁵⁷, Dr. Borivoj Ćurčić⁵⁸, and Dr. Izet Čustović⁵⁹ Prof. Sarvan produced teaching positions. And not only that, after retiring, as emeritus professor, he proposed the promotion of the most capable doctors and the promotion of three assistant professors to the title of associate professor, which was quickly implemented.

Work at the Medical Faculty and University in Sarajevo

In addition to being the head of the Department of Paediatrics, Prof. Sarvan had other responsibilities at the Faculty of Medicine and the University of Sarajevo. In the academic years 1949/50 and 1955/56, he was vice dean, in 1951/52, and 1954/55, dean, (41), and in 1950/51, vice chancellor of the University of Sarajevo (42). In those periods, these institutions were still at the beginning of their

work, which was a good opportunity for the extraordinary organizational and pedagogical abilities of Prof. Sarvan to come to full expression. His work enabled their further successful development.

Academician of the Academy of Sciences and Arts of Bosnia and Herzegovina

At the recommendation of Prof. Dr. Nedo Zec⁶⁰ and Prof. Dr. Pavao Štern,61 on November 12, 1955, Professor Sarvan was appointed a full member of the Scientific Society of Bosnia and Herzegovina⁶² (SSB&H) in the Department of Medical Sciences (DMS) (43). He gave the introductory lecture "Evolution of the concept of health and social care for children" on October 31, 1958 (44). At the end of 1959, he was appointed secretary of the DMS, replacing the deceased Blagoje Kovačević (45). In the period from 1959 to 1963, he was also a member of the Presidency and the Supervisory Board of the SSB&H (45). After he moved to Belgrade in 1969, he was no longer a member of the staff of Academy of Sciences and Arts of Bosnia and Herzegovina (ASAB&H) (46).

Admission to the SSB&H was a recognition for his overall professional and scientific

contribution to the development of contemporary paediatric thought in the former Yugoslavia (47). Membership in the SSB&H provided him with wider opportunities for scientific activity and thus also for his co-workers. Very quickly, his scientific, organizational, and management skills were noticed in this institution as well. His scientific and research work was always based on projects previously completed in cooperation with junior doctors of the Clinic for Children's Diseases and the Institute of the Faculty of Medicine, and sometimes with doctors of the Institute of Hygiene in Sarajevo (48). He mainly presented the results obtained and new knowledge acquired resulting from his research, at medical meetings in the country and abroad, and published them together with other project research participants in national and foreign medical publications.

For young doctors, his professional co-workers at the Paediatric Clinic in Sarajevo, this method of research work had multiple significance. In addition to gaining new knowledge, they had the opportunity to participate in the scientific research process and to practically master its basic principles. Moreover, they also participated in collecting and processing the results obtained and writing the press release, which was a good opportunity for them, together with Prof. Sarvan, to master these skills, and the co-authorships they acquired on the basis of this allowed them to advance to higher scientific and teaching positions.

One year after admission to SSB&H, Prof. Sarvan began to publish articles in the journal "Work" with younger colleagues from the Clinic for Children's Diseases, and the results of experimental research done with academician Štern. He published eight articles in the journal Work. The first article, "The influence of general extratherapeutic factors for the prognosis of tuberculous meningitis treated with tuberculostatic agents", was published in 1956, followed by the article "Social and paediatric problems posed by rheumatic disease in childhood" in 1958. Until his retirement in 1967, he published the following articles in the journal Work: "Our experiences in the therapy of tuberculous meningitis", 1961;

"Values of biological tests for evaluating the evolution and effect of hormonal treatment of rheumatic disease in children", 1963; "Experimental analysis of convulsions during hyperpyrexia", 1960; "Allergological examinations of children in two schools in Zenica", 1964; "Study of factors that influence the occurrence of poor health status of children in the mining area of the municipality of Kakanj", 1965; "Disturbance of acid-base balance and ion status in acute bronchopathies in the first two years of life", 1966.

At the invitation of Prof. Žarković, he participated in the Symposium on scientific research work in the field of nutrition of the population with the report "Current problems of children's nutrition in the first three years of life: the significance of the problem". The same paper was published in the publication Special Issues 16. Department of Medical Sciences 3. Sarajevo: Academy of Sciences and Art of Bosnia and Herzegovina, 1972.

Medical Literature

Prof. Milivoje Sarvan wrote numerous medical texts of varying content with different goals in different publications. The focus of these texts were always topics relating to healthy or sick children, or research aimed at improving the diagnosis or therapy of sick children closely related to the time and place in which he worked. When he worked as a young doctor in small towns, he was aware that for successful work, the education of his first associates—parents and auxiliary medical staff—was of great importance. That is why he prioritized writing health education texts about current paediatric problems at the beginning of his medical career, which would later remain his permanent preoccupation for the rest of his life.

Health Education Literature

As a socially oriented paediatrician, Sarvan was very dedicated to health education even as a young doctor. In collaboration with Dr. Žika Marković⁶⁴ in Serbia, he started and edited the monthly journal "Children and Parents: Care-feeding-raising

children-health of parents" (Deca i roditelji: nega, ishrana, vaspitanje dece - zdravlje roditelja, 1934-1937). It is interesting to point out that in the editorial of the first issue of that journal, perhaps for the first time, the public's attention was drawn to the role of the father in raising a child: "Life's struggle from ancient times, folk customs, and even nature itself placed the father, in terms of raising a child, in second place. Sometimes it goes so far that the father does not have any feel for his duties. Often he considers that he has fulfilled all his duties towards the child if he provides for him economically. This understanding should be considered wrong. A child can only develop completely harmoniously if the male and female sides cooperate in raising him".65

In the preface to the first edition of the book "Infant and Mother" (Dojenče i majka, 1960), Sarvan wrote: "The task of a modern paediatrician is not only to treat sick children, but rather that with his work on health education he/she instructs parents on the means by which children's diseases can be most successfully combated. Having understood this task in such a way I started to realize it at the beginning of my medical practice".

It was, in a sense, his conceptual guide, which he would follow for the rest of his life. In order to get as close as possible to the people, from the beginning of his medical work, he consistently wrote health-education articles with an emphasis on disease prevention and published them in the daily press⁶⁶ and health-education medical journals in Serbia.⁶⁷ Later, in B&H, he continued to do so by publishing popular articles about current pathology in the daily newspaper "Liberation" (Oslobođenje)⁶⁸ and journal "Life and health" (Život i zdravlje).⁶⁹

Following this "ideal path", Prof. Sarvan, in simple, understandable and vernacular language, wrote health education books and brochures that were published in the period from 1928 to 1979 in large editions as editions of health institutions in Serbia, Bosnia and Herzegovina, and reputable publishing houses in the former Yugoslavia. Today, it is not easy to determine the exact number of health education books that Prof. Sarvan wrote.



The cover of the first issue of the journal Children and Parents, 1934.

In the list of "popular medical books", which is in his file at ASAB&H, ten references (49) are listed, which are incomplete and incorrectly written.

However, according to our still unfinished research, Professor Sarvan wrote 12 health education books. When compiling this bibliography, we had at our disposal all 12 books that were collected through interlibrary loans from B&H and Serbia. Seven books were published in Sarajevo and five books in Belgrade. We received the books from the libraries of larger and smaller towns in B&H and Serbia, which indicates that they were once widely distributed.

Today, after more than 45 years since the last edition in 1979, his books are preserved as rarities in libraries throughout the former state. Moreover, some of them are also found in home libraries and still serve new generations of parents to nurture their children the way their grandmothers

and mothers did. Overall, his health education books and brochures have been present amongst the wider public for a long time; they have educated generations and generations of young parents, helping them master knowledge for the prevention of children's diseases, but also the timely recognition of child health disorders and undertaking certain health procedures to reduce the duration of the disease and resolve it without consequences. Today, when we read between the lines, we see advice and procedures that can be interpreted as primary, secondary, and tertiary prevention.

Professional and Scientific Literature

Dr. Sarvan decided on an academic career on the day in 1925 when he applied for the position of assistant at the Children's Hospital of the Faculty of Medicine in Belgrade, i.e. when he was appointed honorary assistant (30).⁷⁰ As a clinical physician and also an assistant at the Faculty of Medicine, he was presented with a great opportunity to treat the pathological conditions of hospitalized patients professionally and scientifically, which, together with his clinical observations, was later the source from which he drew material for writing professional clinical and scientific papers, which were presented at professional and scientific meetings and

published in medical journals in Yugoslavia and abroad. In this way, he successfully transferred his professional and scientific knowledge to younger colleagues and to the general public.

The exact number of his professional and scientific papers published in journals and proceedings of medical meetings has not been determined so far. In the list "Scientific and professional papers of academician Prof. Dr. Milivoje Sarvan", which is in his file at the ASAB&H (49), 116 bibliographic items

are listed, according to professor Hadžić (2) 118, and according to the "Bibliography of works of associates of the Children's Clinic Sarajevo (1947–1972)", 82 papers, noting that during his time at the University Children's Hospital in Belgrade he published 34 scientific and professional papers (50), while Professor Kosorić states in the published obituary (5) that the professional and scientific contribution of Professor Sarvan contains 125 bibliographic units published in national and reputable foreign journals. A review of these sources reveals many shortcomings in citing and writing references, which casts doubt on the accuracy of these data and the need for the references to be written again, separately by hand.⁷¹

Experimental Research Literature

Prof. Sarvan started experimental research while working as a young specialist and assistant at the Faculty of Medicine in Belgrade. According to the commissions that wrote the report for his appointment to the SSB&H (47), his article "On the issue of protective grafting against varicella", which was published in "Medical Journal" (Liječnički vjesnik) in 1928, was evaluated as an experimental article because it had an experimental basis. Even though it was written in an unusual way compared

(Aus der Kinderklinik der Medizinischen Akademie zu Düsseldorf. — Direktor: Geheimrat Prof. Dr. A. Schlossmann.)

Über die Rolle der Milz bei der experimentellen Tuberkulose*.

Von

Dr. med. Milivoj Sarvan, Assistent der Universitäts-Kinderklinik Belgrad, z. Zt. in Düsseldorf.

 $(Eingegangen\ am\ 1.\ Dezember\ 1930.)$

Vom klinischen Standpunkte aus wird im allgemeinen die Milz als ein Organ betrachtet, welches in der Abwehr der Infektionen eine große Rolle spielt. Als Beweis dafür wird die bei fast allen Infektionskrankheiten vorhandene Volumenzunahme und Blutfülle der Milz als Ausdruck einer Hyperfunktion im Sinne einer intensiven Antikörperbildung betrachtet. Die experimentellen Untersuchungen liefern allerdings in dieser Hinsicht kein eindeutiges Bild, da den Experimenten, welche die immunkörperbildende Rolle der Milz einwandfrei beweisen, solche gegenüberstehen, bei denen die Abwehrkraft der Milz ganz...

Sarvan M. The role of the spleen in experimental tuberculosis [in German]. Beiträge zur Klinik der Tuberkulose und spezifischen Tuberkulose-Forschung. 1931;77(2): 182-185.

to his later experimental papers, it was significantly methodologically different. A year later, as a Rockefeller Foundation scholarship holder, Dr. Sarvan attended training at the Children's Clinic in Düsseldorf (Germany) from September 1929 to December 1930, where he and his colleagues had the opportunity to engage in experimental research (25). Later, after being admitted to the SSB&H with academician Pavao Štern, he again engaged in experimental research. According to our research, he published a total of six experimental articles. After the first one in "Medical Journal", he published three articles in German magazines: one with Prof. Albert Eckstein in the magazine "Journal of Hygiene and Infectious Diseases" (Zeitschrift für Hygiene und Infektionskrankheiten), one authored and one with his assistant Arno Nohlen in the magazine "Contributions to the Clinic of Tuberculosis and Specific Tuberculosis Research" (Beiträge zur Klinik der Tuberkulose und spezifischen Tuberculose-Forschung), and two experimental papers published in the journal "Work" (Radovi) with Prof. Pavao Štern.

Memberships in Medical Associations

Prof. Milivoje Sarvan was a member of the Section for Paediatric Medicine of the Serbian Medical Association and the founder of the Paediatric Section of the Association of B&H Physicians, founded in August 1945 and its first president until his retirement in 1967 (5). He was the president and lifelong honorary member of the Association of Paediatricians of Yugoslavia (5), a corresponding member of the Association of Paediatricians of France, Switzerland, West Germany, Italy, an honorary member of the Association of Paediatricians of Czechoslovakia and Poland (2), and an active member of the council of the International Children's Centre in Paris (5). As a member of the editorial board, he worked for many years for the newly founded journals "Medical Archives" (Medicinski arhiv)72, and Work and as editor of the journal "Yugoslavian Paediatrics" (Paediatria Iugoslavica). He was also a member of the editorial board of the journal "Archives for the Protection of Mothers and Children" (Arhiv za zaštitu majke i djeteta). At the National Health Council of the PRB&H, he was the president of the Commission for the Protection of Mothers and Children.

Recognitions and Awards

For his life's work in the Socialist Republic of Bosnia and Herzegovina (SRB&H), Professor Milivoje Sarvan received the most significant federal and republican awards in the former Yugoslavia. He was the recipient of the AVNOJ award, Orders II and I, the Order of the Republic with a silver wreath, the July 27 award of SRB&H. In addition, he received the Memorial Plaque of the Faculty of Medicine in Sarajevo and the Golden Plaque of the Clinical Hospital in Sarajevo. Among foreign decorations, he was a recipient of the high French decoration of the Order of the Legion of Honour.

Concluding Remarks

Academician Milivoje Sarvan was one of the pioneers of social paediatrics in the former Yugoslavia. From his appointment as assistant at the University Children's Hospital in Belgrade (1925), he worked as a paediatrician alongside the first directors of the Clinic—Franciszek Groër, and Matija Ambrožić. Thanks to a scholarship from the Rockefeller Foundation (1929/30), he trained with the best socially oriented German paediatricians of the time. For decades, he remained dedicated to topics that he specifically studied at the time, such as early infant mortality, prematurity, tuberculosis therapy, post-vaccination encephalitis, the organization of social welfare for children, and health education of parents. Although during the interwar period he was engaged in scientific work and was the closest associate of Professor Ambrožić, due to the economic crisis in Yugoslavia, and perhaps for some other reasons, Sarvan held the position of assistant for the entire 14 years. He was appointed assistant professor of Hygiene in Childhood at the end of 1939. During the Second World War and the occupation of Yugoslavia, he was, like many university professors in Belgrade, imprisoned in the Banjica

concentration camp (1941/1942), and then retired (1942). After the liberation of Belgrade, he returned to duty (1944), to the position of assistant professor and head of the Polyclinic.

In the autumn of 1946, Sarvan had the opportunity for academic advancement and full professional affirmation by being appointed full professor and head of the Department of Paediatrics at the newly founded Faculty of Medicine in Sarajevo, in the then PRB&H.

The organization and equipping of the Clinic, the formation of a team of experts and preparations for the start of classes in Paediatrics were his first tasks, but it soon became clear that he needed to engage in a wider field of work. B&H, devastated by the war, but also one of the most underdeveloped parts of the country even before the war, had a shortage of doctors; primary health care was at a low level, and there were almost no in-patient institutions for the treatment of children. The people were largely poor and uneducated about health. Under Sarvan's leadership, the Children's Clinic became a school for professional staff (paediatricians and childcare workers), a centre for the education of general practitioners for the treatment of children and for health education, and also provided advisory, professional and methodological assistance to regional centres in the organization of children's health care at primary and secondary level. In addition to numerous obligations, Sarvan devoted great attention to scientific work and professional development of the Clinic's doctors. Within the Association of Physicians of Bosnia and Herzegovina, he founded the Paediatric Section and established annual professional meetings known as the Paediatric Days of Bosnia and Herzegovina. He also managed to secure scholarships for his young colleagues to train abroad.

He contributed to the development of the Faculty of Medicine by performing the duties of vice dean (1949/50, 1955/56) and dean (1951/52, 1954/55). In 1950/51 he was the vice-rector of the University of Sarajevo. He published more than 120 professional and scientific papers, 12 health education books and a large number of health education articles. As a distinguished scientific worker,

in 1955 he was appointed a regular member of the Scientific Society of Bosnia and Herzegovina (since 1966, the Academy of Sciences and Arts of Bosnia and Herzegovina). Among other rewards, he received the highest recognition of the SFRY—the AVNOJ Award (1971) and the French Legion of Honour (1954). The Clinic he founded bore his name from 1979 until the breakup of Yugoslavia in 1992.

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Conflict of Interest: The authors declare that they have no conflict of interest.

Notes

- State Archives of Serbia, collection of the Ministry of National Health of the Republic of Serbia, Personal file of Dr. Milivoje Sarvan, F-149, No. 50 (hereinafter: SAS, G-216, F-149, No. 50). Although all of Sarvan's documents mention Požega as his place of birth, from the Extract from the Register of Births of the Church of Požega, the Church of St. Konstantin and Jelena in Ravni, issued on August 8, 1907, it could be concluded that he was actually born in the village of Ravni, in Požega county. The surname of the parents is given in the Certificate as Sarvanović, and the same surname is mentioned in the death announcement of Milivoje's younger brother Ignjat (1902–1936), a postal clerk and reserve engineer lieutenant (Source: *Službeni vojni list* 1936, June 23; 55(23):1363-64). In addition to their sons Milivoje and Ignjat, the Sarvans also had a daughter named Slavka.
- In Nedeljko V. Radosavljević's article "Simo Sokolov and Serbian emigration in Bulgaria 1883 1885 (documents)". Miscellanea 2013, vol. XXXIV:253-4, the text of the receipt was published by which Teofilo Sarvan confirms that he received two packages of documents from Simo Sokolov on the order of Nikola Pašić; Sofia, October 11/23, 1886. "Political friends" of Teofilo Sarvan are also mentioned in a letter sent by Milivoje Sarvan to Matija Ambrožić in 1926. Source: Museum of Science and Technology Belgrade, Collection of archival materials Medicine; Legacy of Matija Ambrožić (2014/1033). Letter from M. Sarvan to M. Ambrožić, Belgrade, April 8, 1926. [in Serbian].
- Popović D. S. Čačak Secondary school: 1837 1937. Čačak: [Community of the home and school of the Čačak Secondary School]; 1939, pp. 189-190.
- ⁴ Archives of the Čačak Secondary school, Reports on work and student progress in the school years 1907/08, 1908/09,

- 1909/10, 1910/11 and 1911/12, printed in the form of brochures in the printing house of Stevan Matić in Čačak in 1908, 1909, 1910, 1911 and 1912. The authors sincerely thank Mrs. Jadranka Vitas, secretary of the Secondary school, for the copies of the brochures.
- Archives of Valjevska Secondary school, Register of students of Valjevska Secondary school for school year 1912–1913. (I VII grade), No. 21 Milivoje Sarvan; Report on work and success in the school year 1913–1914. Valjevo: Valjevska Secondary school, 1914 [in Serbian]. The authors sincerely thank Prof. Dr. Vladimir Krivošejev on the submitted copies of the documents.
- ⁶ SAS, G-216, F-149, No. 50 Certificate of the University of Lyon on obtaining the title of Doctor of Medicine; Lyon, December 22, 1921.
- ⁷ SAS, G-216, F-149, No. 50 Certificate of the Permanent Bacteriological Station in Belgrade on the voluntary work of M. Sarvan between February 1 and April 31, 1922; Belgrade, December 12, 1922 and M. Sarvan's application to the manager of the General State Hospital regarding the acquisition of the general right to practice medicine; Belgrade, December 15, 1922.
- Andrija Štampar (1888–1958), completed his medical studies in Vienna in 1910. From 1919 to 1930, as head of the Hygiene Department in the Ministry of Public Health of the Kingdom of SCS, he created a network of over 600 preventive medical institutions. After premature retirement in 1931, he worked as an expert of the League of Nations and he was also a professor of social medicine, dean of the Faculty of Medicine in Zagreb and president of the Yugoslav Academy of Sciences and Arts. Between 1946 and 1948, he was president of the Interim Commission of the World Health Organization. [Štampar, Andrija. Hrvatska enciklopedija, mrežno izdanje. Leksikografski zavod Miroslav Krleža, 2013. 2024. Accessed on October 8, 2024. https://www.enciklopedija.hr/clanak/stampar-andrija
- 9 SAS, G-216, F-149, No. 50 Request of M. Sarvan to the Minister of Public Health, Belgrade, February 6, 1923.
- ¹⁰ SAS, G-216, F-149, No. 50 Decision of the Minister of Public Health dated February 19, 1923.
- Stevanović Z. [et al.] Healthcare in Aleksinac and surroundings: 1836-2018. Aleksinac: "Vuk Karadžić" Library; 2018. p. 77. [in Serbian]
- SAS, G-216, F-149, No. 50 Elder's report of the Regional Health Administration of the Niš County Region on the work of M. Sarvan, Niš, March 14, 1925.
- ¹³ SAS, G-216, F-149, No. 50 Request of M. Sarvan to the Minister of Public Health; Aleksinac, November 22, 1923.
- ¹⁴ SAS, Faculty of Medicine collection (hereinafter: G-203) Register for 1925, No. 895, February 24, 1925 Request of Dr. Milivoje Sarvan for the position of assistant at the Children's Hospital; SAS, G-216, F-149, No. 50 Ministry of Education to Ministry of Public Health, August 24, 1925 Notification that by the decree of the Minister of Education

- dated August 24, 1925, M. Sarvan was appointed as an assistant at the Faculty of Medicine and that it is therefore necessary to relieve him of his duties in Aleksinac.
- ¹⁵ SAS, G-203 Register for 1924, No. 3851 On October 8, 1924, the Rector of the University reported to the Dean of the Faculty of Medicine about the decision on Groër's appointment, which was made by the Ministerial Council at the session on September 29, 1924.
- ¹⁶ Sarvan M. Działalność profesora Franciszka Groera w Belgradzie [in Polish]. In: Helena Krukowska, editor. Franciszek Groer: życie i działalność. Warszawa: Państwowy Zakład Wydawnictw Lekarskich; 1973. p. 53.
- ¹⁷ Smilja Kostić-Joksić (Belgrade, 1895 Belgrade, 1981) completed her medical studies in Montpellier in 1919. She worked at the University Children's Hospital as an assistant (from 1924), assistant professor (1939–1948) and associate professor (1948–1954). In 1952, she was awarded the French Legion of Honour for her scientific contributions to the study of tuberculosis and the protective value of immunization with the BCG vaccine. (Bondžić D. Kostić Joksić, Smilja. Serbian biographical dictionary, Vol. 5, ed. Čedomir Popov, 299-300. Novi Sad: Matica srpska, 2011. [in Serbian]).
- ¹⁸ Marija Gajić-Vajs (Sarajevo, Austro-Hungarian Monarchy, 1899 - Belgrade, 1964) completed her medical studies in Vienna in 1924; from 1925 to 1931 she was an assistant at the University Children's Hospital in Belgrade. She earned the title of specialist paediatrician in 1927. Until the occupation of Serbia in World War II, she worked in the health service of the Belgrade municipality, where she advanced to the position of head of the Department for Social Protection of Children and the head of the Children's Home. In the spring of 1941, she joined the National Liberation Movement and during the war she worked as a doctor in partisan units. After liberation, she was an advisor to the Council for Public Health and Social Policy of the Government of the Federal People's Republic of Yugoslavia. (Archives of Yugoslavia, collection of the Ministry of Social Policy and Public Health of the Kingdom of Yugoslavia (F-39), Personnel files (hereinafter: AY, F-39, Personnel files), Folder 41 [in Serbo-Croatian]).
- ¹⁹ Ljubomir Vulović (Belgrade, 1896 Belgrade, 1969) completed his studies in Geneva in 1921, and specialized in paediatrics in Vienna in 1923. He was an assistant at the University Children's Hospital in 1925–1926, and then until mid-1932 he was the head of the Central Dispensary and Counselling Centre for infants and mothers of the Belgrade municipality. At the same time, from 1928, he worked at the Children's Department of the General State Hospital, where he founded the Department for Children's Chest Diseases in 1938. He managed that department until 1947, and then until his retirement in the early 1960s, he was the head of the Children's Department of the Railway Hospital in Belgrade. (AY, F-39, Personnel files, Folder 208 [in Serbo-Croatian]).

- ²⁰ Matija Ambrožić (Hrastnice, Slovenia, Austro-Hungarian Monarchy, 1889 - Belgrade, 1966) was a pioneer of social paediatrics in the Kingdom of SCS/Yugoslavia. In Vienna, he completed his medical studies (1918) and specialization in paediatrics (1921). Until he was appointed associate professor of paediatrics at the Faculty of Medicine in Belgrade (1926), he worked in Ljubljana, where he founded the Institute for Social and Hygienic Protection of Children (1923) and the first school for paediatric nurses (1924). He was appointed full professor in 1947. He managed the University Children's Hospital in Belgrade and the Department of Children's Diseases of the Faculty of Medicine until his retirement in 1961, with a break during the Second World War (1943-1944). (Tasovac B. In memoriam: Professor Matija Ambrožić (1889-1966). Srp Arh Celok Lek 1967; 95(7-8):755-7. [in Serbo-Croatian]).
- Museum of Science and Technology Belgrade, Collection of archival materials Medicine; Legacy of Matija Ambrožić (2014/1033) (hereinafter: MST, CAM, MA, 2014/1033) Letter from M. Sarvan to M. Ambrožić, Belgrade, May 4, 1926.
- Archives of Yugoslavia, collection of the Ministry of Social Policy and Public Health of the Kingdom of Yugoslavia (F-39), Personnel files—File of Dr Milivoje Sarvan, f-159, Sheet of personal and official data, Belgrade, November 20, 1946; SAS, collection of the University of Belgrade (hereinafter: G-200), 1939, F IV, r. 27 Report on the election of Dr. M. Sarvan to the position of assistant professor for the subject of Childhood Hygiene at the Department of Children's Diseases of the Faculty of Medicine in Belgrade, 1939.
- ²³ Rockefeller Archive Centre, Fellowship Recorder Card for Milivoje Sarvan 1929/1930, RF_FA426_24_710_B19_Sarvan-M_29208. The authors sincerely thank Mrs Bethany J. Antos, Archivist at the Rockefeller Archive Centre, for the copy of the document.
- ²⁴ Stürzbecher, Manfred, "Finkelstein, Heinrich" in: Neue Deutsche Biographie 5 (1961), S. 162-163 [Online-Version]; URL: https://www.deutsche-biographie.de/pnd117508152. html#ndbcontent.
- Wunderlich, Peter, "Schlossmann, Arthur" in: Neue Deutsche Biographie 23 (2007), S. 108-109 [Online-Version]; URL: https://www.deutsche-biographie.de/ pnd117330442.html#ndbcontent.
- ²⁶ MST, CAM, MA, 2014/1033 M. Sarvan Arbeitsplan [in German]; SAS, fund University of Belgrade (G-200), 1939, F IV, r. 27 Report on the appointment of Dr. M. Sarvan to the position of associate professor on the subject of Hygiene in Childhood at the Department of Children's Diseases of the Faculty of Medicine in Belgrade, 1939.
- ²⁷ MST, CAM, MA, 2014/1033 Letters from M. Sarvan to M. Ambrožić, Düsseldorf, February 15, 1930 and August 29, 1930.
- ²⁸ "Faculty of Medicine Appointments Decrees Milivoje Sarvan". Educational Gazette 1939; LV(12):1447. [in Serbian-Croatian].

- ²⁹ Uroš Ružičić (Pljevlja, Kingdom of Montenegro, 1891 Belgrade, 1966) completed his medical studies in Bordeaux in 1919. As a scholarship holder of the Rockefeller Foundation, he trained in the USA and France (1924–1926). In 1927 he was appointed an assistant at the University Children's Hospital in Belgrade, where he was successively appointed to all the academic positions until his retirement in 1961. From 1958 he was a correspondent member, and from 1963 a regular member of the Serbian Academy of Sciences and Arts. (Jovanović Simić J. Uroš Ružičić. In Giants of Serbian Medicine: 19th century and first half of the 20th century, 93. Belgrade: SASA: Museum of Science and Technology: Serbian Medical Society; 2016 [in Serbian]).
- Jovanović N. The attitude of occupiers and quislings towards Freemasonry in Serbia 1941 1942 [in Serbian-Croatian]. Godišnjak grada Beograda, knj. XVIII 1971, p. 88.
- ³¹ Historical Archives of Belgrade, Administration of the city of Belgrade, record books of the Banjica concentration camp, Book 2, 1319 – Matija Ambrožić; Book 3, 3390a – Milivoje Sarvan.
- The Department for Children's Diseases was previously part of the Obstetrics and Gynaecology Department of the National Hospital in Sarajevo, located in one room with eight beds, where sick children were admitted, except those suffering from infectious and skin diseases.
- ³³ Konstantin Delijanis (Sarajevo, Jun. 6, 1882–Sarajevo, Dec. 31, 1961) completed his secondary education in 1901 in Sarajevo and Faculty of Medicine in 1906 in Vienna. His specialization in paediatrics was recognized by the Royal Administration of the Drina Banovina. Until April 6, 1941, he was the head of the Children's Department of the State Hospital in Sarajevo, when he was dismissed from service without the right to a pension. After the liberation in 1945, he worked for a short time in the Ministry of Social Policy, and from February 15, 1946, he was again the head of the Children's Department of the State Hospital in Sarajevo. (AY, F-39, Personnel files, File of Dr. Konstantin (Josifov) Delijanis, f. 28 [in Serbo-Croatian]).
- ³⁴ Jelena Bulić-Adamović (Kostroma, Russian Empire, Oct. 29, 1886 Sarajevo, Aug. 20, 1967) graduated from the Faculty of Medicine in 1917 in Moscow, Russia, where she completed her medical internship in the period from 1917 to 1919. She received the title of Specialist in Children's Diseases from the Royal Administration of the Drina Banovina in Sarajevo in 1933. From that time, she worked as a assistant physician at the General State Hospital in Sarajevo. For her zealous work in the service in 1939, she was awarded the Order of St. Sava from Drina Banovina. (AY, F-39, Personnel files, File of Dr. Jelena Bulić-Adamović, f. 1 [in Serbo-Croatian).
- ³⁵ Maša Živanović (Delnice, Dec. 14, 1898 Beograd, Aug. 12 1960) was a reputed paediatrician in Sarajevo in the interwar years. She was the head of the Children's Dispensary and the Institute for Health Care for Mothers, Children, and Youth in Skerlić's Street in Sarajevo. After World War II,

- she performed the same duty. Živanović was a well-known women's activist and president of the Women's Movement in Sarajevo (1924–1936). (Available from: https://pubmed.ncbi.nlm.nih.gov/36943037/).
- ³⁶ Mara Kurtović (Belgrade, Jul. 12, 1892 Sarajevo, Oct. 17, 1979) was the first expert in school hygiene in Bosnia and Herzegovina and the head of the School Polyclinic at the Institute for Maternal and Child Health Care on Skerlić Street in Sarajevo. (Archives of B&H. Dossier Mara Kurtović).
- ³⁷ Kornelija Rakić (Ruma, Aug. 19, 1879 Mostar, Jul. 1952) was the first Serbian female physician in Novi Sad, Vojvodina, and she was employed as an AH official female physician in Bihać (1908–1912), Banja Luka (1912–1917) and Mostar (1917–1918). After World War I, she participated in the establishment and expansion of public health institutions in Mostar and Herzegovina from 1918–1949 against the backdrop of the devastation of the two World Wars. (Available from: https://pubmed.ncbi.nlm.nih.gov/34075776/).
- ³⁸ It is worth noting that a few months after the completion of the adaptation of the hospital, in the September issue of the journal Medical Archives in 1947, Prof. Sarvan published an article entitled "Several organizational problems related to the opening of children's hospital wards in Bosnia and Herzegovina". He knew very well that with the development of the paediatric service in Bosnia and Herzegovina, the inevitable opening of children's hospitals or children's hospital departments would soon occur and that his experience in "construction" would be useful to those who were taking up this work in Bosnia and Herzegovina (Sarvan M. Several organizational problems related to the opening of children's hospital departments in B&H, [in Serbian]. Medical Archive. 1947;2;80-6).
- ³⁹ Milena Mitrović (Vienna, Austria, Feb. 20, 1895 Sarajevo, Jun. 10, 1959) graduated from the Faculty of Medicine in Vienna in 1920. She completed her medical internship at the State Hospital in Belgrade. She then worked as a municipal and secondary doctor at the hospital in Livno and then in Skopje, Ohrid, Novi Sad, and Subotica, in various hygiene institutions. She spent the Second World War in Karagujevac working as a children's doctor at the County Hospital and the National Health Centre. After liberation, she was employed at the Children's Department of the State Hospital in Sarajevo as acting head of the Department and physician assistant. After the opening of the Paediatric Clinic in mid-1947, she was one of the first associates of Prof. Sarvan. She temporarily worked at the Children's Hospital in Tuzla in 1949, and after that returned to Sarajevo to the Paediatric Clinic, where she remained until her death. (Protić M. Dr. Milena Mitrović. Oslobođenje. 1959 Jun 11; Col. 4; Historical Archives of Belgrade, Fund of the Chamber of Physicians, no. 2315—Dossier of Dr. Milena Mitrović-Popović).
- ⁴⁰ Katarina Carić (Sarajevo, Jan. 10, 1920 Dubrovnik, Oct. 14, 2013).

- ⁴¹ Nevena Bajić, married Stojkov (Bosanski Novi, B&H, May. 5, 1915 - Belgrade Mar. 2, 2008), graduated from the Faculty of Medicine in Belgrade on November 13, 1940. After completing her internship, she was not employed until January 15, 1945 because she believed that her work would benefit the enemy. After that, already in January 1945, she began her specialization in paediatrics at the University Children's Hospital in Belgrade. In February 1948, she successfully passed the specialist paediatrics exam at the same clinic, leading to her selection as paediatrics assistant at the Faculty of Medicine in Sarajevo. She remained in that position until January 31, 1959. From February 1, 1959, she worked at the Pneumophthisiology Clinic in Sarajevo as the head of the Children's Department. In 1964, on December 15, she was appointed consultant at the Federal Institute of Statistics in Belgrade. (AY, F-39, Personnel files, File of Dr. Nevena Stojkov Bajić, f. 175 [in Serbo-Croatian]; Personnel and Family Archives of Nevena Stojkov).
- ⁴² Suzana Čanji (Bački Petrovac, Austro-Hungarian Empire, Oct. 17, 1913 Sarajevo, Feb. 5, 1969) graduated from the Faculty of Medicine in Belgrade on December 21, 1940. After completing her medical internship in Banja Luka, she worked at the State Hospital there until August 1942, when she was arrested as a member of the People's Liberation Movement by the Ustaša authorities and taken to the Stara Gradiška concentration camp. She was liberated in February 1943. She worked in the Yugoslav Army from September 19, 1944, to December 6, 1945. From March 1946 she was mobilized as a civilian doctor at the State Hospital in Banja Luka, and from July to October 1946 she was a county doctor in Zavidovići. From 1948, she worked at the Paediatric Clinic. (AY, F-39, Personnel files, File of Dr. Suzana Čanji, f. 23 [in Serbo-Croatian]).
- ⁴³ Žarko Mićić (Stupari near Kladanj, B&H, Oct. 30, 1918 Zrenjanin, Serbia, Jul. 17, 2007) graduated from high school in Tuzla in 1937 and the Faculty of Medicine in Belgrade on December 4, 1946. During 1947, he completed a medical internship at the General State Hospital in Belgrade, and in early 1948, he was employed at the Paediatric Clinic in Sarajevo, where he began his specialization in paediatrics. In May 1952, he returned to Tuzla as a specialist in paediatrics, where he opened a children's dispensary and the Department for Children's Diseases as part of the General Hospital in Tuzla. (AY, F-39, Personnel files, File of Dr. Žarko Mićić, f. 103 [in Serbo-Croatian]).
- ⁴⁴ Nina Delari married Hadžiselimović (Minusinsk, Siberia, Russian Empire, Mar. 18, 1914 Basel, Switzerland, Mar. 17, 2007). She graduated from high school in Bela Crkva, Serbia, and from the Faculty of Medicine in Belgrade on July 4, 1939. She completed her medical internship at the General State Hospital and the Central Institute of Hygiene in Belgrade in 1940. From April 1941 to February 1942, she worked in Belgrade and then as a doctor in Kovin (Serbia). She specialized in paediatrics at the Paediatric Clinic in Sarajevo with Prof. Dr. Milivoje Sarvan. As a paediatrician, she worked in primary health care clinics in Sarajevo. She

- ended her working life in 1979 as a paediatrician with the title of primarius at the Clinic for Eye Diseases in Sarajevo. (Historical Archives of Belgrade, Fund of the Chamber of Physicians, no. 1577—Dossier of Dr. Nina M. Delari [in Serbo-Croatian]).
- ⁴⁵ Borivoj Ćurčić (Sarajevo, May 4, 1924 Belgrade, Oct. 15, 2016) graduated from high school in Sarajevo in 1943. He enrolled in the Faculty of Medicine in Belgrade in 1945 and graduated from the same faculty in 1951. Then he was employed at the Paediatric clinic in Sarajevo. He completed his specialist internship from 1953 to 1957 in Sarajevo, where he also passed the specialist exam. He was trained in Lyon, London, and Edinburgh. He defended his doctoral dissertation "The relationship between magnesium and magnesia in various children's nephropathies", at the Faculty of Medicine in Sarajevo in 1965. He was appointed associate professor in 1967. After the departure of Prof. Sarvan 1967, he was appointed head of the Paediatric Clinic in Sarajevo. After being appointed full professor from Sarajevo, he moved to Belgrade in 1973 as the head of the "Olga Popović Dedijer" Institute of Paediatrics in the "Zvezdara" Clinical Hospital Centre. At the same time, he was a regular professor of paediatrics at the Faculty of Dentistry in Belgrade. He retired in 1989. (Marković D, Mimica M, editors. Who is Who in Yugoslavia [in Serbo-Croatian]. Belgrade: Savez lekarskih društava Jugoslavije; 1968. p. 525. Andrejević M. They created the city hospital 1936-2006 - 70 years of work of KBC Zvezdara in Belgrade. Belgrade: MG Marketing; 2007, p. 137-138).
- ⁴⁶ Vera Golubović Ćurčić (Belgrade, Jun. 4, 1925 Belgrade, Oct. 15, 2016) graduated from the Faculty of Medicine in Belgrade in 1952, after which she was employed at the Paediatric Clinic in Sarajevo, where she completed her medical internship and specialized in paediatrics in 1958. In 1960/61, she trained in Cambridge, where she was educated in experimental medicine. She defended her doctoral dissertation under the title "Effect of a diet with different protein percentages in experimental malnutrition and rehabilitation" in 1963 at the Paediatric Clinic in Sarajevo, after which she was appointed assistant professor. As an associate of Professor Sarvan, she participated in work on projects of the Scientific Society of B&H. She moved to Belgrade in 1973, where she started working at the "Zvezdara" Health Centre in November of the same year. (Marković D, Mimica M, editors. Who is Who in Yugoslavia [in Serbo-Croatian]. Belgrade: Savez lekarskih društava Jugoslavije; 1968. p. 529. and Data obtained from Mrs. Nevena Ćurčić, daughter of Dr. Vera Golubović Ćurčić).
- ⁴⁷ Džemal Haverić (Podgorica, Jun. 4, 1919 Sarajevo, Oct. 10, 1995). He enrolled in medical studies in 1939 in Belgrade. After the start of World War II, he moved to Zagreb, where he graduated in July 1946. He started his first service on the Šamac–Sarajevo youth railway, then he was a doctor for the youth work brigade for the reconstruction of Warsaw and for the suppression of freckles. From 1947 to 1949, he worked as an assistant at the Institute of Physiology of

- the Faculty of Medicine in Sarajevo under Prof. Aleksandar Sabovljev. After that, he was an assistant at the Dermatology clinic with Prof. Josip Fleger (1950–1951). From February 1, 1952, to December 23, 1955, he specialized in paediatrics at the Paediatric Clinic in Sarajevo. He took the exam in front of a commission composed of Prof. Dr. Matija Ambrožić, Prof. Dr. Milivoje Sarvan, and Prof. Dr. Blagoje Đorđević. After his specialization, he worked from 1956 to 1959 at the Children's Dispensary in Sarajevo. Then he returned to the Paediatric clinic, where he remained until the end of his working life. (Marković D, Mimica M, editors. Who is Who in Yugoslavia [in Serbo-Croatian]. Belgrade: Savez lekarskih društava Jugoslavije; 1968. p. 531. and Family archive of Tarik Haverić).
- ⁴⁸ The congress was held from September 24 to September 28, 1952, in Sarajevo (Banja Ilidža). The president of the organizing congress committee was Prof. Dr. Milivoje Sarvan. The main topic was "Nutrition and disorders of digestion and nutrition in early childhood in our country". The main lectures were given by eminent professors of clinics for children's diseases in Yugoslavia at the time, and other lectures were given by distinguished paediatricians. Two years later, in 1952, the topics of the Congress were published in the book Sarvan M, Kostić-Joksić S, Skrivaneli N, Avčin M, ed. Nutrition of our children and its disorders. Belgrade Zagreb: Medicinska knjiga; 1954.
- ⁴⁹ This period was chosen because it best suited the health institutions in the field.
- Esad Zukić (Gradačac, B&H, 26 Feb. 1935) completed primary and secondary education in Gradačac, Bosnia and Herzegovina, and then the Faculty of Medicine in Sarajevo, Bosnia and Herzegovina, in 1962. He passed the specialist exam in paediatrics at the Paediatric Clinic in Sarajevo in 1972. He received the title of primarius in 1982. He spent his entire working life at the Health Centre in Gradačac, where he founded the Children's and School Dispensary. He has been a participant in all Paediatric Days of Bosnia and Herzegovina since 1972. (According to Dr. Zukić's oral statement, August 10, 2024).
- ⁵¹ Jordan Tomić (Tetovo, Ottoman Empire, 1910 Belgrade, 1998) graduated from high school in Belgrade in 1928 and the Faculty of Medicine in 1935. Two years later, he began his specialization in paediatrics at the Children's Department of the General State Hospital in Belgrade. After completing his specialization, from 1943 to 1945 he worked as an assistant at the University Children's Hospital, Belgrade, Serbia, then moved to Niš, where he was the head and manager of the Children's Hospital. Then he went to Switzerland for training, where he worked for a year at the Children's Hospital of the University of Zürich with Professor Guido Fanconi. He worked at the Paediatric Clinic in Sarajevo from 1949 to 1952. He was an assistant professor at the Department of Paediatrics and a paediatrician at the Paediatric Clinic at the Faculty of Medicine in Sarajevo. Then he went to Belgrade, where he founded the "Olga Popović

Dedijer" General Hospital for Children's Diseases, which he managed as the primarius until his retirement in 1972 (Andrejević M. They created the City hospital in 1936–2006. 70 years of work of the KBC "Zvezdara" in Belgrade. Belgrade: MG Marketing; 2007, pp. 134–135).

- ⁵² Ibid, p. 227.
- ⁵³ Ibid, p. 218.
- ⁵⁴ Irina Tomić (Rostov, Russian Empire, 1915 Belgrade, ?) finished high school in Valjevo in 1933 and the Faculty of Medicine in Belgrade in 1939. She was recognized as a dentist by the Dental Clinic of the Faculty of Medicine in Belgrade in 1942. From the liberation of Belgrade in October 1944 to August 1945, she had a private practice. Then she went to Niš with her husband, Dr. Jordan Tomić, where she volunteered at the Children's Department of the State Hospital. She worked at the Paediatric Clinic in Sarajevo from 1948, and in 1952 she passed the specialist exam in paediatrics. (AY, F-39, Personnel files, File of Dr. Irina Tomić, f. 190 [in Serbo-Croatian]).
- ⁵⁵ Dimitrije Miletić (Sarajevo, Mar. 7, 1920 Belgrade, Apr. 22, 1989) graduated from the Faculty of Medicine in Belgrade in 1949. He began his specialization in paediatrics at the University Children's Hospital, in Belgrade in 1949 and continued the same year at the Paediatric Clinic in Sarajevo. He was appointed assistant at the Paediatric Clinic of the Faculty of Medicine in Sarajevo in 1953. He defended his habilitation thesis "Neurotoxic infant syndrome" in 1958 at the Faculty of Medicine in Sarajevo, where the following year, 1959, he received the title of assistant professor. After being promoted to the position of associate professor (1962), he moved to the Faculty of Medicine in Novi Sad, where from 1963 he held the position of head of the Department of Paediatrics and director of the Clinic for Children's Diseases. As a professor and head of the Department of Paediatrics, he worked at Makerere University in Kampala (Uganda) from December 1969 to October 1971. His doctoral dissertation entitled "Clinical protein malnutrition of hematological and serum protein changes" was defended at the Faculty of Medicine in Sarajevo in 1974. He was appointed professor of paediatrics and child care at the Faculty of Medicine in Banja Luka in January 1979. In May of the same year, he was appointed dean of the Faculty of Medicine in Banja Luka. He held that function until his retirement at the end of December 1982. (Predojević Samardžić J. The first dean of the Faculty of Medicine in Banja Luka [in Serbian]. Kod. 2020;19(52):61-62; Šuščević D. Prof. Dr. Dimitrije Miletić - Obituaries [in Serbian]. Scripta Medica. 1955;24(1-4):53).
- ⁵⁶ Izet Hadžić (Bileća, Apr. 20, 1920 Sarajevo, Aug. 11, 1998). He graduated from the Faculty of Medicine in Zagreb in 1951. He passed the specialist exam in pediatrics at the Paediatric Clinic in Sarajevo in 1956. After defending his habilitation thesis entitled "Diagnostic values of cytochemical analysis of cerebrospinal fluid in children" in 1961, he was elected Assistant Professor, and in 1968 Associate Professor

- of Paediatrics at the Faculty of Medicine of Sarajevo. He undertook additional postgraduate training in Germany, Czechoslovakia and France. His doctoral dissertation entitled "Clinical and electroencephalographic characteristics of febrile convulsions and their relationship to epilepsy" was defended at the Faculty of Medicine in Sarajevo in 1971, followed by his election to a Professor of Paediatrics at the Faculty of Medicine, University of Sarajevo in 1975. He was University Chair of Paediatric Department and Director of Paediatric Clinic in Sarajevo from 1976-1980. He has initiated regular annual meetings of paediatricians from Bosnia-Herzegovina entitled Pedijatrijski Dani. During his academic career he presented his work at several overseas conferences and published over 170 papers in the national and international journals. He was the president of The Medical Doctors' Association of Bosnia and Herzegovina and Yugoslav Society of Paediatricians over many years. He retired and became Emeritus Professor of Paediatrics at the Faculty of Medicine of Sarajevo in 1985. (Marković D, Mimica M, editors. Who is Who in Yugoslavia (in Serbo-Croatian). Belgrade: Savez lekarskih društava Jugoslavije; 1968. p. 530).
- ⁵⁷ Ešref Sarajlić (Sarajevo, Jun. 6, 1923 Sarajevo, Jan. 24, 1980) graduated from the Faculty of Medicine in Sarajevo in 1953. As a resident, in 1957 he was chosen to be an assistant at the Department of Paediatrics at the Faculty of Medicine in Sarajevo. He passed the specialist exam in paediatrics at the Paediatric Clinic in Sarajevo in 1958. After defending his habilitation thesis in 1963, under the title "Carditis during the primary attack of rheumatic disease in childhood", he was appointed assistant professor in the same year, and in 1968, an associate professor. He defended his doctoral dissertation entitled "Changes in the electrocardiogram caused by abnormal concentrations of potassium in the isolated heart and their significance" at the Faculty of Medicine in Sarajevo in 1973, after which, in 1975, he was appointed full professor at the Department of Paediatrics of the Faculty of Medicine of the University of Sarajevo. He was appointed a corresponding member of the Academy of Sciences and Arts of Bosnia and Herzegovina in 1978 at the Department of Medical Sciences. In the period from 1974 to 1980, he was the dean of the Faculty of Medicine in Sarajevo. (Ešref Sarajlić [in Bosnian]. U: Lincender-Cvijetić L. Editor. Spomenica 70 godina ANUBiH. Sarajevo: Akademija nauka i umjetnosti BiH; 2021. p. 366-367.)
- ⁵⁸ Ibid, p. 228.
- ⁵⁹ Izet Čustović (Trebinje, Jun. 6, 1923 Sarajevo, Jan. 24, 1979) graduated from the Faculty of Medicine in Zagreb in 1953. After passing the specialist exam in paediatrics at the Children's Clinic in Sarajevo in 1961, he was selected to be an assistant at the Department of Paediatrics at the Faculty of Medicine in Sarajevo. He defended his habilitation thesis entitled "Electrophoretic and immunoelectrophoretic study of some fractions of serum proteins in eutrophic and dystrophic infants in certain pathological conditions" at the Faculty of Medicine in Sarajevo in 1965. He was appointed

assistant professor in 1967, he defended his doctoral dissertation entitled "Modifications of human colostrum and milk immunoglobulins in the preservation process" at the Faculty of Medicine in Sarajevo in 1970. He was appointed associate professor in 1972, and full professor at the Department of Paediatrics at the Faculty of Medicine of the University of Sarajevo in 1977. (Najdanović R, Kosorić D, editors. 40 years of Children's Clinic and Polyclinic "Prof. Dr. Milivoje Sarvan" in Sarajevo [in Bosnian]. Sarajevo: Pedijatrijska sekcija Društva ljekara B&H i Klinika za dječije bolesti – Sarajevo. Sarajevo; 1987. p. 60-61.

- Medo Zec (Mostar, Jul. 12, 1899 Mostar, Nov. 18, 1971) graduated from the Faculty of Medicine in Vienna in 1927. He was the first Minister of Public Health of the People's Republic of Bosnia and Herzegovina, the Head of the Department of Neuropsychiatry at the Faculty of Medicine in Sarajevo, and an Academician of the Academy of Sciences and Arts of Bosnia and Herzegovina. (Nedo Zec [in Bosnian]. U: Lincender-Cvijetić L. Editor. Spomenica 70 godina ANUBiH. Sarajevo: Akademija nauka i umjetnosti BiH; 2021. p. 488-489.).
- 61 Pavao Stern (Varaždin, Mar.17, 1913 Zagreb, Mar. 20, 1976) graduated from the Faculty of Medicine in Zagreb in 1936. From 1946 he was an assistant professor at the Department of Pharmacology of the Faculty of Medicine in Zagreb, and from 1947 until the end of his life, he was a full professor at the Faculty of Medicine in Sarajevo, where he founded the Institute of Pharmacology. He was appointed a full member of the Scientific Society of Bosnia and Herzegovina in the Department of Medical Sciences in 1952. From the establishment of the Academy of Sciences and Arts of Bosnia and Herzegovina in 1966, he continued to be a full member. From 1976, he was also a corresponding member of the Yugoslav Academy of Sciences and Arts in Zagreb. (Pavao Štern [in Bosnian]. U: Lincender-Cvijetić L. Editor. Spomenica 70 godina ANUBiH. Sarajevo: Akademija nauka i umjetnosti BiH; 2021. p. 400-401.)
- The Scientific Society of B&H operated on July 2, 1951, until it became the Academy of Sciences and Arts of B&H on June 22, 1966.
- 63 Journal of the Scientific Society of Bosnia&Herzegovina.
- Živko Žika B. Marković (Lazarevac near Belgrade, 1889 ?, after 1953) obtained the title of medical doctor in Basel in 1919. He was a county doctor in Lazarevac and Ub (1920–1924), and then, until his retirement in 1943, he worked as paediatrician of the Institute for Health Protection of Mothers and Children. After the end of the Second World War, in March 1945 he was reactivated and appointed head of the department at the Bacteriological and Epidemiological Institute in Belgrade. He retired in 1946. (AY, F-39, Personnel files, File of Dr. Živko Marković, f. 100 [in Serbo-Croatian]).
- 65 "Čitaocima". Deca i roditelji 1934, May; I(1):3.
- ⁶⁶ Opštinske novine, Beograd; Pravda, Beograd; Borba, Beograd.

- ⁶⁷ Deca i Roditelji 1934, editors Milivoje Sarvan and Žika Marković.
- ⁶⁸ Bosnia and Herzegovina daily newspaper.
- ⁶⁹ The first Bosnian-Herzegovinian health and educational Journal.
- SAS, G-203, Register for 1925, No. 895, February 24, 1925
 Request of Milivoje Sarvan for the position of assistant at the Children's Hospital; SAS, G-216, F-149, No. 50 Ministry of Education to Ministry of Public Health, August 24, 1925 Notification that by the decree of the Minister of Education dated August 24, 1925, M. Sarvan was appointed as an assistant at the Faculty of Medicine and that it was therefore necessary to relieve him of his duties in Aleksinac [in Serbo-Croatian])
- The bibliography of medical literature of Prof. Dr. Milivoje Sarvan is part of the overall project "Academic Milivoje Sarvan: Founder of Modern Paediatrics in Bosnia and Herzegovina" and will be published as a separate publication in the next issue of the same journal.
- ⁷² The first medical professional and scientific journal in Bosnia and Herzegovina, founded in 1946.

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- 3. SAS, G-200, 1939, F IV, r. 27 Report of the commission for the election of Milivoje Sarvan to the position of assistant professor in the subject of Childhood Hygiene at the Department of Children's Diseases of the Faculty of Medicine in Belgrade [in Serbian-Croatian].
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- 14. SAS, G-216, F-149, No. 50 Request of M. Sarvan to the Minister of Public Health, Belgrade, February 6, 1923.
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