

Soviet dental prosthetics in the second half of the 20th century: availability and quality issues

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The article raises issues about the organization, accessibility and quality of mass prosthetic dental care in the USSR in the second half of the 20th century. The author focuses on the medical, social and economic problems that arose in the provision of this type of medical care, as well as on the actual circumstances and day-to-day carrying out of these dental practices. In the author's opinion, the country created a system of territorial, financial and social equality in the provision of this type of care that should have provided the country's population with functionally comprehensive dental prosthetics. Central and local authorities sought to increase the availability of this type of care for different social groups, however, this was achieved at the expense of quality in medical organizations' work. The set of measures to improve the availability and quality of dental prosthetics included a quantitative increase in infrastructure, the solving of human resource shortages, a search for additional funding sources, an increase in the production, modernization and re-equipping of the material and technical service base, an expansion of the production and range of expendable materials and instruments for dentistry. Ways were sought to stimulate the work of medical institutions and specialists. However, then existing approaches to the planning and development of this type of medical care did not always lead to improved dental prosthetics practices and increased health and social problems. The low demands set by patients for dental prosthetics' functional and cosmetic characteristics allowed professionals to conduct their work at a low level, only meeting people's minimum needs for this kind of care.

Keywords: *USSR, dental prosthetics, dentistry, prosthetic dentistry, dentist*

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Soviet Russia became the first country in the world where dental prosthetics were included in the general system of medical care. In the Soviet Union, the state monopoly on dental prosthetics defined the unified forms and methods of providing this medical care based on the principles of qualification, universal accessibility, and preventive orientation. In the official documents of the second half of the twentieth century, it was emphasized that the network of orthopedic institutions steadily expanded in the country, the number of people who had received dental prosthetics increased, the quality of produced dental prosthetics improved, and modern methods

of dental prosthetics were actively implemented.¹ Meanwhile, the country's orthopedic service had not been fully resolving the challenges it was faced with and this was expressed in the growing gap between the amount of dental prosthetics care provision and the needs of the population overall. The relevance of raising the quality of this type of medical care for the rural population to the level of the populations of cities did not wane. Access to dental prosthetics' not only made it possible to perform preventive tasks but it also raised the social status of a recipient.

¹ The resolution of the USSR Council of Ministers № 738 dated: 12 August 1961, "About measures on improving dental care to the population"; The resolution of the USSR Council of Ministers No. 916 dated: 5 November 1976 "About measures for further improvement of dental help to the population".

Many Soviet and Russian scientists have studied the history of Soviet orthopedic dentistry. In the monographs and scientific articles of I.G. Lukomsky, V.Yu. Kurlyandsky, V.N. Kopeikin, G.N. Troyansky, and K.A. Pashkov, the main stages of this dental section development were determined, the system of training specialists was considered, a focus on emphasising materials and science issues and also professional scientific problems were studied at different stages of the Soviet healthcare development process [1–5]. At present, the domestic study of dental prosthetics is mainly represented by works on institutional and technological history, while the attention has not usually been paid to the real dental prosthetics practice, as well as to the accessibility and the quality of this type of medical care. The study of mass dental prosthetics in the USSR in the second half of the twentieth century seems relevant to us in connection with medical, social and economic problems. The study of the dental prosthetics practice in clinics for high-level party leaders was not included in the work tasks.

In the late 1940s, the Ministry of Health of USSR rejected the idea of universal free dental prosthetics for workers. The format of mass state dental prosthetics was finally determined: it had to be provided by citizens' personal means at the prices established by the government. Besides, additionally categories of the population were identified for whom dental prosthetics were to be carried out and paid for from the budgetary funds: the invalids of the Great Patriotic War, invalids of labour, the merit pensioners and members of their families and retired pensioners.² This decision gave the state the opportunity to exclude rural people from the concessional dental prosthetics programme because pension books were not given to collective and state farm workers. Free (concessional) dental prosthetics funding was carried out at the expense of the local health authorities, so the scope and number depended on the regions' financial solvency. At the end of the 1960s, in large cities free dentures accounted for no more than 2% of the total number of those to whom they were fitted [6] and according to one of the chief doctors at the dental clinic in Leningrad, queues for free dentures were “especially

large” because of a lack of appropriations for this type of assistance [7].

Thus, in the postwar years the principals of getting state dental prosthetics were finalized by the USSR Ministry of health. At its forefront was the principle of distribution according to labour contribution. It was expected that all the working population of the country would pay for this assistance at their own expense. State price adjustment had to increase the availability of dentures to the population. It declared that the state would provide this kind of medical assistance for free only to particular social groups: for those who were not able to earn a living or earned very little. These principles were intended to support the population's equal access to state dental prosthetics. In the 1960s–1970s, the Ministry of Health ignored specialists-dentists' attempts to discuss the question of universal free denture assistance for the population. This model functioned throughout the Soviet period and passed on to the practice of modern Russian dentistry.

In the 1950s, the USSR Ministry of Health paid enough attention to dentures within the set of measures concerning the improvement of dental assistance to the population. For a more complete provision of this type of medical care and to limit dentists' private practice, the Council of Ministers of the USSR allowed local authorities to open self-supporting (paid) dental institutions alongside the existing budgetary network, where the rendering of prosthetics care would constitute a significant share of the total work. In the mid-1960s in Moscow 25% of orthopedic care was rendered by self-supporting medical institutions [8].

The USSR Ministry of Health activity concerning the improvement of the accessibility of orthopedic care to the population in the 1950s can be assessed as successful. Thus, if in the USSR the number of dental departments and rooms increased from 7378 in 1950 to 9999 in 1960 (1,3 times more), so the number of prosthodontic departments and rooms increased from 2347 in 1950 to 4834 in 1961 (two times) and as for the RSFSR³ – from 1138 in 1950 to 2943 in 1965 (2,6 times increase) [9]. However, the location of prosthetic institutions across the country was extremely uneven. Also by the early 1960 in

² Order of the Ministry of Health of the USSR dated: 03.07.1946, No. 417 “About measures for further improvement of dental care”.

³ The Russian Soviet Federative Socialist Republic.

the Ministry of Health of the USSR system on average there were 48,4 thousand people for one prosthodontic room. [10–12].

In the late 1950s – early 1960s, the increasing number of specialists in the field of dentistry led to the fact that the number of dental technicians in relation to the number of prosthetics specialists grew in the field of practical healthcare of the country. That was to suppose the specialists' implementation of individual production plans, to reduce the time spent on making prosthetics. This ratio was not the same across the country. So, according to the information from the Ministry of Health of the USSR, in regions with a satisfactory production of prosthetic care the ratio between the average number of prosthetists and dental technicians was 1:0.3 and in many regions – 1:0.2 and lower [10]. On the other hand, in the mid-1960s practical healthcare even in the big cities saw that 40% of prosthetists did not have a graduate medical education and 18% of dental technicians did not have any medical education [13]. There were not enough prosthetists in remote areas of the country and “everything was handed to the dental technicians”, despite the fact that they were not allowed to engage in clinical dental prosthetics [14].

Different provision of prosthodontic rooms, prosthetists and dental technicians between the regions determined the difference in the amount and value of prosthetic care. Thus, in 1959 in the regions with a low provision of prosthetic institutions and specialists (the Uzbek SSR, the Turkmen SSR, the Kirghiz SSR, the Kazakh SSR, and the Tajik SSR)⁴ the number of people who received dentures ranged from 28 to 50 people per ten thousand people and in regions with a high provision of this medical care (the Estonian SSR and the Latvian SSRs) the numbers ranged from 180 to 232 people per ten thousand people. In 1959 the average production load for one dental technician in the USSR was 227 patients who got dentures and there were 224 patients in the RSFSR [10].

From the early 1950s, the Ministry of Healthcare of the USSR made efforts to improve

the quality of dentures and specialists' productivity on both the clinical and laboratory stages of making prosthetics. In the Ministry of Health of the USSR's letter № 06-21/17 “About quality indicators” dated the 25th of October 1951 it was recommended that doctors had to pay attention to the clinical preparation of oral cavities for prosthetics, they had to use modern diagnostics and treatment methods more widely and had to choose prosthesis design strictly according to indications. The standard load for a prosthetist was determined to be: 2150 “units” per year. For a “unit” the preparation of one dental metal crown and handing it to the patient was acceptable [15]. However, “units” of labour intensity and standard load in prosthetic dentistry were imperfect; therefore, they did not become an effective mechanism for evaluating the work of orthopedists and dental technicians and moreover, they were not aimed at increasing the number of patients who received dentures [16, 17].

In the beginning of 1960s the Ministry of Healthcare of the USSR started arranging large centralized dental laboratories for better quality dentures; it was decided to supply those laboratories with modern new equipment and foundry plants. Moreover, according to the Ministry of Health of the USSR the presence of smaller laboratories resulted not only in a poor quality of work, because amateurish work was thriving, but also because of dental technicians' low productivity, an absence of control during the work process and, finally, the use of state property for private practice. According to the Ministry of Health of the USSR, the setting up of large central laboratories had to increase the level of dental prosthetics, improve working conditions for dental technicians, and decrease the cost of products. These measures turned out to be quite effective. Local health officials noted that the organization of centralized laboratories and supplying them with modern equipment had significantly improved the quality of produced prostheses and expanded the possibilities for making more rational dentures structures [18]. In practical public health terms the issue of dental laboratories' enlargement and centralization continued to be relevant throughout the Soviet period.

At the end of the 1950s, the Ministry of Health and the Ministry of Finance of the USSR

⁴ SSR (Soviet Socialist Republic) was an administrative unit within the USSR. The republics mentioned in the article are present-day Uzbekistan, Turkmenistan, Kyrgyzstan, Kazakhstan, Tajikistan, Ukraine, Estonia, and Latvia.

allowed dental institutions to make dentures from precious metal if patients made such orders [15]. However, stainless steel continued to be the most affordable material for dental prosthetics and it was presented to the patients as a completely harmless, durable and qualitative material [19]. In the late 1980s, experts admitted that dentures used that were made from steel (swaged crown, brazed bridge dentures) did not satisfy the aesthetic, functional and preventive requirements [16].

In the early 1960s, the Ministry of Health of the USSR generally noted the positive dynamics of prosthetic care development to the general population. So, the number of patients, who got dental prosthetics increased from 1094 per one thousand people in 1950 to 2547,2 per one thousand people in 1961 (an increase of 2.3) [10, 11]. Nevertheless the prosthetics quality was not good enough. During that period the soviet scientist A.I. Betelman thought prosthetics' methods were connected with pain, dental drilling, "truculent damage of dental tissue", usage of brazed bridge dentures, and overdentures' colouring with "Sudan" and, as a result, the methods led to serious abnormal changes in oral cavities [20]. In the mid-1960s, the head dentist of Moscow I.F. Romacheva noted that the number of laminar denture fractures was up to 50%, which was connected with dentures' impaired production technology [13]. At the same time, those people thought: "Dental technician set crowns right at home. Everything was done awesome, manually, what you might call on the stool. And the dentures were for the whole life" [21].

Despite the definite results, which were achieved in the dental orthopedic service organization and rendering in the 1960s, the heads of Healthcare of the Ukrainian SSR considered that dental prosthetics was "a lagging section in dentistry" [22]. According to the head dentist of the USSR V.F. Rudko in the early 1960s dental production was on "the primitive level" [23]. Those, who got dentures, said that "they carry dentures more often in the pocket, than in the mouth" [24].

According to the Ministry of Health of the Ukrainian SSR in the republic in the 1960s rural people's requirements in dental prosthetics were only 25% satisfied and town dwellers – by 35–40%. In the queues in dental orthopedics

labs along with the regional and district centers of the country there were not only people, who had a right to free dentures, but also those, who wanted to get dentures for their own means [22]. According to I.M. Oksman's observations (the head of the dental orthopedics department of the Kazan Medical Institute), the demand for orthopedic care in Kazan was only 9.9% satisfied, in the cities of the Tatar ASSR⁵ – by 2%, in rural areas – by 0,6% [25]. In many regions of the Bashkir ASSR dental orthopedic service was not assisted [26]. These figures could be explained by a lack of dental orthopedics labs, their low level of power supply, by the shortage of specialists and equipment, by dental technicians' manual and low-output labour and also by a serious lack in the organisation of work, which defined indications of dentures' supply among the population [22].

At the same time, the increasing volume of dental orthopedic service provision in the USSR continued in the 1960s. Thus, the number of dental orthopedics labs, departments and rooms increased from 4521 in 1960 to 6131 in 1973. The number of patients, who received dentures, increased from 2200 per thousand people in 1960 to 5200 per thousand people in 1973; 400 hundred of these people were country dwellers. Mobile teams and mobile prosthodontic rooms were created to make dental services available to agricultural workers. According to the health authorities of Khabarovsk Krai,⁶ the activities of the last were not always effective.⁷ Throughout the Soviet period, the ratio of denture usage among the rural population was much lower than among urban ones. It was explained by a weak material and technical base and poor personnel maintenance in rural healthcare. It was indicated by Yu. Buyda, the publicist, that the dentures for rural people were inadequate even in the 1980s [27], especially in regions with low population density: in the Nonblack zone, the Far North and the Far East [28].

⁵ The ASSR (Autonomous Soviet Socialist Republic) was a type of an administrative unit within the RSFSR. The republics mentioned in the article above were renamed as the Republic of Tatarstan and the Republic of Bashkortostan. Now they are the part of the Russian Federation.

⁶ Krai is a type of the federal units of the Russian Federation.

⁷ State archive of Khabarovsk territory (SAKkT). F. R-683. Op. 2. D. 1527. L. 49, 69, 70-72, 74.

In the early 1960s, the dominant theory of “mass dentures” began to be criticized within the Soviet public health field. According to the chief dentist of the USSR, V. F. Rudko (who was at the time on business trips in the countries of Western Europe and North America, studying the experience of organizing and providing dental care), in the case of Soviet dentures the “cosmetic factor was significantly underestimated” [23]. N.I. Matveev, the chief of the medical and preventive care of the RSFSR Ministry of Health, noted that “the time had come for widespread integration of dental prosthetics, which would exclude visible metal “spots” in the mouth” [14]. Cosmetic dental methods had to be included in prosthetic dentistry. The state policy concerning the supply of dental care turned from particular groups’ interests (workers and employees) to the majority of citizens’ interests. However, regarding the usual practice while choosing designs of prostheses, doctors, as before, paid little attention to issues of cosmetics and aesthetics, and clasp dentures (specialists considered them as the most functional and effective) accounted for only 1.5% of the total number of overdentures [13].

The amount of produced cosmetic and clasp prosthesis produced could not be increased in such a short time because of medical, economic and organisational problems. To begin with, in public health practice the use of anesthesia in prosthetic dentistry was limited because of the shortage of drugs; there were no effective therapeutic methods of orthopedic preparation of the abutment teeth and roots, and surgical activity dominated. Secondly, the disparity in prices for high-quality prostheses and the real costs of skilled labour and production costs were obvious. These types of prostheses were financially in the red for polyclinics budgets and did not contribute to the workers’ material interest, because the existing doctor’s measure of the labour “units” did not reflect the actual difference in the labor consumption of simple and complex (cosmetic) prosthetics. Thirdly, the cost of the prosthesis was decreased, and less time was given to make the prosthesis than was actually needed. So, the doctor’s labour costs were not offset by the cost of the work. For the same reason, dental technicians would prefer to do simpler, uncomplicated dentures than one more complex, for the same money. Fourthly, the economic interests of

institutions adversely affected the denture’s quality. One and the same prosthesis could be made under different technologies, the cost and complexity of which varied several times. That is why it was profitable for the doctor and the institution to follow the path of decreasing labor costs and cost value [6, 29]. According to Z.S. Vasilenko, the Kiev dentist, the choice of prosthetic construction for the patient often depended not on the clinical evidence but on the financial factors [30].

In this way, the 1950s and the 1960s were marked by a significant increase in the availability of orthopedic care to the population: human potential increased, the network of dental clinics was significantly extended, and the production of products for dentistry greatly increased. During that period, the state had the opportunity to allocate more funds for the development not only of dental science and the profession in general, but also the development of real dental practices in the country. According to Western experts, providing access to this type of medical care in the Soviet Union was of a higher priority than the quality issues [31].

In the 1970s, the Ministry of Health of the USSR, on the one hand, noted the slow development of denture institutions’ network in the country, on the other hand, the lack of increase in prosthetists and dental technicians’ labor productivity. Numerous orders of the Ministry of Health of the USSR (№ 428 from 07.10.1960, № 109 from 22.02.1965, № 6 from 02.01.1968, № 1250 from 01.07.1976, № 1156 from 28.10.1987, № 767 from 14.10.1988.) regulated dental technicians’ labour organization, and materials’ usage and equipment. In the end, they had to stimulate quantitative and qualitative indicators of medical institutions work, to increase economic efficiency and the wages fund. However, they were unable to contribute to the material interest of specialists in dental prosthetics in the final working results. The absence of a material interest in the labour results was a general problem of the Soviet healthcare.

In some republics, regions and areas of the USSR the facts relating to the usage of government equipment by dental staff and technicians during work hours for personal purposes were periodically revealed. For example, in the mid-1960s – early 1970s the Department

Against Misappropriation of Socialist Property of Khabarovsk Territory exposed the activities of a number of groups and individuals connected with the violation of the law, while providing denture services in state hospitals. Prosthetists and dental technicians were brought to trial for larceny, the usage of prosthetic materials from the medical institutions' funds for personal purposes, and embezzling patients.⁸

Thus, in the USSR the establishment of various limits and "ceilings" in material stimulation of prosthetists and dental technicians, "leveling", reducing the differentiation of wages, lack of economic incentives, material and moral motivation took place, but did not contribute to an increase in labour intensity, or the introduction of new, modern and complex dental methods. The doctor was not properly involved in the labour process, its regulation, efficiency improvement, and in the final result achieved. The supplier did not receive decent compensation for their work, it became more profitable to work in an indifferent manner; the psychology of irresponsibility, group selfishness, social apathy and passivity took hold. All these points prepared the conditions for "shadow" forms of prosthetic care assistance. State economic disorder led to the campaigns for searching for enemies: the plunderers, profiteers, "shadow dealers", among them were often prosthetists and dental technicians.

Economic growth in the country and Soviet citizens' increase of material well-being by the early 1970s led to a significant expansion of the provision of dentures made using precious metals. Not all heads of dental institutions had implemented this type of prosthesis. According to chief physicians, it was due to the difficulty of receiving, accounting, storage and consumption of metals, and the lack of specialists and medical equipment. In the opinion of P.P. Petrov, the Deputy Minister of Health of the Kazakh SSR, the indecision of chief physicians "had created a favourable conditions for private practice, "traveling" and other dealers" [32]. Prosthetics from special alloys, as well as the usage of porcelain mass in dental prosthetics, high-strength plastics, first of all was limited because of a lack of consumables, a lack of complex dental

equipment and sometimes due to its low quality. According to the Ministry of Health of the USSR, the lack of specialists' necessary skills in the use of modern technologies and lack of the equipment in clinics inhibited the widespread integration of new materials into practice.⁹ Logistic support remained the weakest link in the dental service of the country, the demand satisfaction at a practical level in the mid-1980s was about 10–40% [33]. On the other hand, in the 1980s, despite the fact that the gold required for dentures was allocated in the same quantity, the number of people who had received dental prosthetics made from precious metals was annually decreasing; at the same time, the number of those who needed them, was growing. According to the Ministry of Health of the BSSR,¹⁰ it was the result of organizational failures, as well as numerous abuses within the system,¹¹ The lack of high-strength, aesthetic and cheap materials for mass dental prosthetics was filled out by using inexpensive metal dentures with nitride-titanium spraying "gold spraying", the effect of which on the human organism is still not fully studied.

Workers' letters and complaints addressed to local authorities, testified not only about the slow speed of development of practical prosthetic dentistry in the field, but also about the deficiency in the orthopedic rooms and offices' work: poor equipment, low quality of work and large queues [32]. Specialists admitted that the low quality of dentures and denture materials caused the necessity after a year or two of re-fitting prosthetics of those patients, who had previously received dentures [16]. For the prevention and rapid resolution of patient complaints about the quality of dental prosthetics made the in-house regional and city commissions were created; their conclusions and recommendations were binding in the hospitals where those dentures were made,¹² The Ministry of Health of the USSR

⁹ Order of the Ministry of Health of the USSR № 370, dated 14 April 1975 "About measures for the further improvement of dental help to the population".

¹⁰ The Byelorussian Soviet Socialist Republic.

¹¹ The order of Ministry of Health of the BSSR № 117 dated 23 August 1982 "About measures for further improvement of dentures made from precious metals".

¹² 7 Order of the Ministry of Health of the USSR № 670, dated 12 June 1984 "About measures for further improvement of dental help to the population".

⁸ SAKHT. F. R-683. Op. 2. D. 989. L. 82; SAKHT. F. R.-683. Op. 2. D. 1097. L. 33, 87, 137, 154, 160.

had carried out the development and integration of the unified requirements regarding the quality of orthopedic designs. So, by the order of the Ministry of Health № 884 from the 3rd of July 1985, “Concerning measures of increasing the effectiveness of orthopedic care to the population” common technical requirements for the dentures’ production on clinical and laboratory phases of dental prosthetics were approved and methods of internal control were defined. Unified criteria for assessing the quality of dentures had to increase their functional properties, reliability and aesthetics.

In the mid-1980s, the Ministry of Health of the USSR stated that, despite the continuing increase in the number of those who received dentures, from 6916 thousand people in 1980 to 8476 thousand people in 1986, the average figures for the USSR were 368,2 in the cities (and 49.9 in rural areas, appropriately) per 10 thousand people. Only 7–8% of country’s population, who needed dental prosthetics, were provided with them¹³. Not all measures, adopted by the Council of Ministers, were realized to ensure an increase of dental institutions networks and the amount of doctors specialising in dentistry (Resolution № 916 from 05.11.1976) and by the Ministry of Health of the USSR (order № 1166 from 10.12.1976, № 670 from 12.06.1984). So, despite the fact that the practice of the organization of self-supporting (paid) dental institutions was considered to be successful, especially in large cities, in actuality – only 19 institutions were opened out of a planned 54. Such a form of dental health service organization was free of many of the deficiencies of territorial medical institutions; and by professor A.V. Alimsky’s estimates, in fact, only 200–250 self-supporting medical institutions were necessary [17].

The period from 1986 to 1989 was characterized by a decline in all indicators of dental service in the country. In particular, the number of people, who received dentures, was reduced to 2,7%. The real population need in dental care was 10 times more than the existing dentures’ supply for people [33]. According to the observations of V.I. Goppe, the dean of the dental faculty in

Khabarovsk medical Institute, during making the appointment for “simple prosthetics – pandemonium starts” [34]. The Party and the Government of the Soviet Union demanded organizational improvement and dentures’ supply for people from the healthcare authorities, because dental prosthetics was considered to be not only a medical, but also a socio-economic problem, which demanded an immediate decision. In the order of the Ministry of Health of the USSR № 830 from 18.11.1988 “Concerning comprehensive program of the dental care service development in the USSR till 2000” it had been alleged that the development of this field of dentistry would take place both by extensive development (increasing number of orthopedists and dental technicians) and by improving the organizational structure, intensification of production, modernization and re-equipment of the material-technical base of the orthopedic service of the country. These activities had to double the number of people, who received dentures over the decade.

Thus, at the end of the 1980s, there was a crisis of the dental service in the country, connected with the inability to work in the previous administrative and legislative conditions; there was a search for new alternative ways to develop this specialty. The most serious questions were connected with services’ management and organization, the economic approach to the dentistry practice, the occurrence of alternative state dental networks (cooperatives, private activity), as well as the specialization of logistics.

To summarize, we can see that in the 1960s the country had developed a new economic situation; society the liberalization of society, the growth of living standards, and state control over people’s social lives easing – all these required that the state had to expand the range of products and services for the customer. In the 1960s – 1970s there were changes, a new standard of quality of life, when the purchase of goods and services became one of the main values in life. The “customer revolution” changed people’s minds: leading to the transformation of prosthetic dentistry from the medical services exclusively to the service of medico-social and even community service. A significant impact on the need for dentures was supported by European and American standards and the growing prestige of intellectual work in the country. Healthcare

¹³ Order of the Minister of Health of the USSR № 830 dated 18 November 1988 “About comprehensive program of dental care in the USSR until 2000”.

managers understood that the need for dentures would only increase because the industrial cities were growing, the people's well-being and level of cultural awareness was rising and the number of old people was also increasing.

In the early 1960s, social policy was a priority for the Soviet government, and advances in medicine ensured the USSR taking a leading place in the world in terms of the volume and growth of services provision. However, in the late 1940s – 1950s, the rural population remained on the periphery of this policy. In the mid-1960s, the social development vector was directed at the creation of universal access to public goods. A system of equal access, quantity and quality of social services was created. The principle of social justice dictated the need to raise the level of dental care for the rural population to the level of the city. Regarding this, the Ministry of Health of the USSR in the 1960s – 1980s was creating prosthetic care infrastructure for rural residents, was sending health workers to the village, was widening the range of functional responsibilities of dentists working in rural areas, namely, the implementation of the simple prosthesis that was supposed to make this kind of dental care available to the rural population. Local health authorities created a mobile denture services to work in the villages. However, these forms of prosthetic care provision were not able to change radically the situation with the availability of this type of medical care for rural residents. In many ways, the lag of orthopedic care in the village was due to the presence of different standards of specialists' provision for the city and the village.

Analyzing the number of dental institutions in the country and the number of people, who received dentures during the second half of the twentieth century, we come to the conclusion that in the early 1970s, the maximum growth of quantitative indicators of denture practices was observed, which corresponded to the highest economic growth in the country during those years. In that period the private interests of an ordinary patient began to be taken into account, and the availability of dentures became an indicator of social importance and of the material wealth of their owners. However, the administrative methods of management, which did not fully take into account the economic aspects of orthopedic dental practices' activity in the country, in the

mid-1970s led the development of the prosthetic service lagging behind. This primarily reflected on the state of the infrastructure, which negatively affected dental care volume and quality.

The progressive development in the theoretical basis of prosthetic dentistry and in the development of new materials and methods of providing this medical care in the USSR was not fully associated with the production and had little impact on the level and quality of mass dental prosthetics in the most hospitals. Technical policy in prosthetic dentistry in the country was not controlled by the healthcare system or by a patient, but it was controlled by the industry, which produced profitable products in small quantities, without taking care of the quality improvement and an increase in productivity; in other words, we can observe the evident dictates from producers. The inculcation of new prosthetics' methods and technologies in the field was hampered or was unproductive; the central healthcare authorities explained it by the lack of local dental societies, the weak leadership of the chief dentists and the inertia of local authorities.

To reduce the growing gap between the prosthetic care provision and people's needs the Ministry of Health of the USSR took steps not only to increase staffing levels and an expansion of the network of institutions, but also in the rational use of internal resources: the enlargement of the orthopedic departments, and undertaking the activities of mechanization and automation of the production of prosthetic products. In the early 1960s, the questions concerning economics and the scientific organization of labor of this type of medical care became relevant. The Ministry of Health of the USSR dealt with the issues of production price, production costs, labor productivity increase, material resources and labor costs savings; that, inevitably affected the efficiency of the prosthetic dentistry institutions' activities. Moreover, the Ministry of Health of the USSR offered the local health authorities authority to change the organizational forms of providing orthopedic care "appeals" and proceed to dispensary methods of prosthetic dentistry for organized groups of the population, to identify those who were in need, to attract additional funds from enterprises, organizations and collective farms. The peculiarity of rendering orthopedic dental help to the population of

the country consisted in the fact that it was the only type of medical care, distinct from all the others, which was based on the principles of a self-supporting running of its operation, in other words, it was conducted according to people's means. However, the number of prosthetists and dental technicians' posts was strictly limited, and price stability for dentures was established by administrative methods. At the same time, the cost of materials, equipment and tools increased, also wages rose, so, dentures became an economically unprofitable activity for medical institutions. The system of self-supporting running expected to use the funds to expand and strengthen the material base, but in practice this did not happen.

The 1960s–1980s were characterized by the growth of quantitative parameters of dental care; it was a reflection of the general state policy of that time in the field of economic and social development, however, dentures were the least adequately served needs of the population. Prosthetic dentistry was not a priority type of medical care for the health authorities, its social importance was not measured, and, as a result,

its planning and development was carried out according to “Residual principle”, without taking into account the real needs of the population.

Due to the state monopoly, the Soviet dentures accomplished their function only in a purely utilitarian sense according to diligent methods for maximising potential volume produced only to restore the lost function of mastication, and the evaluation of the effectiveness of this medical care type reflected only a medical and biological approach, but did not take into account the diversity of human life: its cultural, spiritual, social and financial sides. In the pursuit of quantitative indicators dental care was not focused on the ultimate result – the population's health; according to A.V. Alimsky, “a man was forgotten” [35]. The population was not fully satisfied with the doctors' level of professional work due to the low quality of dental equipment, denture materials, an acute shortage of tools and medicines and the low-service of state prosthetic practice. Throughout the entire Soviet period the problem of providing people with quality dentures remained unsolved.

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