

Regional features of urban healthcare reforms in Western Siberia (1947 – late 1950s)

Marina P. Dudkina

Novosibirsk State Technical University

20 Karl Marx Avenue, Novosibirsk 630073, Russia

In this article, regional aspects of Soviet urban healthcare reforms, introduced in the post-war period, are viewed following the analysis of archival data and publicly disclosed statistical sources. The administrative reform, the greatest in fifteen years that followed World War II, was caused by the lack of qualified medical care, which adversely affected the workforce potential. The reform was also driven by the abnormal rise in mortality associated with the famine of 1946–1947 and troubled political circumstances due to the beginning of the Cold War. In Western Siberia, the medical care issue was further complicated by the fact that in 1941–1942, a great number of industrial facilities were translocated to the urban centers of the region with workers and their families settled in the existing insufficient space. City amenities necessary for the normal human life has not been renewed during the war, which caused a great number of problems. The reform was based on the principles of Soviet healthcare, viewed at that time as an auxiliary domain primarily aimed at the replacement of the population. The goal of the reform was to increase the number of health facilities and their bed capacity, as well as to improve the quality of medical care. The main idea was to incorporate out-patient and in-patient facilities, which helped shift the emphasis on the out-patient care and make the medical care more efficient and accessible without having to expand the bed capacity. At the same time, the lack of healthcare personnel also needed to be addressed. The results of this grand-scale reformation of healthcare appear to be mixed. The author overviews the basic framework of the reform and its results, analyzes the dynamics of the increase in the number of healthcare facilities, summarizes the regional aspects of the reform, attempts to estimate people's satisfaction with the healthcare with the help of the criteria used at that time.

Keywords: *healthcare, administrative reform, efficacy, quality of medical care, cities of Western Siberia, World Health Organization*

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About the author

Marina Petrovna Dudkina – Candidate of Historical Sciences, Associate Professor at the Department of Management, Novosibirsk State Technical University (Novosibirsk, Russia). E-mail: m.dudkina@corp.nstu.ru

After the end of World War II, the main task before the nation was to restore normal living conditions for the population, an important part of which was ensuring the population's health. The particular nature of urban settlements' development in Western Siberia in the second half of the 1940s was determined by the role played by the region during the war. From mid-summer 1941, a significant number of enterprises were transferred from the front-line areas to the region, and the vast majority of them were immediately restructured to produce military products. Defense plants were located mainly in Western Siberian cities. As a consequence,

from January 1, 1941 to September 1, 1945, the urban population of the Western Siberian region increased by almost 26% (approximately 728,000 people). The greatest increase was observed in the period from the summer of 1941 to the beginning of 1942 – a total of about 16%. The next wave of evacuees, retreating from the German army's attack in the summer of 1942 and subsequent events in the Stalingrad and North Caucasus regions, led to an increase in the number of urban residents by only 6%. In the last period of the war, the dynamic of urban population growth in Western Siberia continued to decline and in the summer of 1945 it amounted to only 0.1% [1, p. 98]. Nevertheless, the large-scale evacuation enabled the cities of Western Siberia to avoid the demographic catastrophe that was observed in the

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western regions of the country. It compensated for the loss of town dwellers associated with the call-up to the Workers' and Peasants' Red Army (RKKA), the decrease in the birth rate and increase in mortality.

During the postwar fifteen years, the majority of the urban population was still engaged in industrial production: the region exceeded the average rate for the country in this indicator. In 1959, in the cities of the RSFSR (the Russian Soviet Federative Socialist Republic), the share of industrial workers was 54.3% and in Western Siberia it was 60.7% [2, p. 173–174].

Due to objective circumstances, in the early post-war years, the state did not have the opportunity to fundamentally improve the living conditions that existed at that time in the cities of Western Siberia. The overall unfavorable situation was complicated by an abnormal increase in mortality: in 1947 it was 52.3% higher than in 1945 [3, p. 109–110].

This phenomenon was due to a collection of medico-social causes. Documents of the Ministry of Health of the RSFSR for 1946 reveal that the main causes should be considered to be cities' unsatisfactory sanitary conditions, poor food supply, inadequate hospitalization of patients due to a deficit of hospital beds and, as a consequence, hospital overcrowding.¹ While adapting to peacetime conditions, the healthcare system experienced acute shortages: there were not enough facilities, personnel, equipment or medicines. There was another reason that was not mentioned in official documents – the post-war famine caused by both natural climatic conditions (drought and the resulting crop failure), economic difficulties during the reconstruction phase and the need to quickly increase military-political potential as a result of the complex geopolitical situation.

With the end of the war, the life of the townspeople changed. During the war years the problem of survival was foremost, and during peacetime, the issues of improving the quality of life came to the fore, an important element of which was access to timely and high-quality medical care. This led to the need to conduct serious healthcare reforms, which should have

involved only the urban segment. This approach was dictated, firstly, by the fact that cities possessed military-industrial potential and were the centers of the country's economic development. Secondly, it was necessary to take into account city living conditions and, as a result, the fact that the population's mass employment in industrial production created specific threats to public health. From among the adverse factors affecting people's physical condition, the World Health Organization (WHO) identifies three main factors: infectious diseases (e.g., tuberculosis, pneumonia and diarrhoeal infections), noncommunicable diseases and health conditions (e.g., heart disease, cancer and diabetes), and injuries and violence [4, p. XII], which was a problem in society in the postwar period.

General principles for the building and functioning of the Soviet system of medical care formed the basis of the reforms. Firstly, from the point of view of the authorities, public health was a field that "actively participates in solving the problem of the country's labor resources and in raising specific means of labor productivity" [5, p. 803]. The needs of the population were taken into account only when they coincided with those of the state. Secondly, there was an attitude according to which the medical care system in the USSR was more advanced than in bourgeois countries, and therefore only positive dynamics should be inherent in it. This was reflected in the strategic decisions taken by the Council of Ministers and the USSR Ministry of Health, including the organizational and structural reforms of 1947–1953. Thirdly, healthcare in the USSR was a field in which the principles of the Soviet economy were fully applied: a governmental nature, strict centralized management, free-of-charge care and general accessibility, a preventive orientation and the unification of medical science and practice [6, p. 33].

The health reforms were initiated on the orders of the USSR Minister of Health – No. 431 of October 24, 1947 "On measures to improve medical and preventive health services for the urban population," No. 232 of April 20, 1948 "On further measures for the unification of hospitals and polyclinics" and No. 870 of November 21, 1949 "On streamlining the network of medical and preventive health institutions and establishing

¹ State Archives of the Russian Federation (SARF). F. 259. Op. 6. V. 4465. L. 9.

a unified nomenclature for it.” It was planned to be completed by 1952–1953.

A document analysis reveals the reforms’ two main objectives. The first was a quantitative increase in healthcare capacity and the second was an improvement in the quality of medical services provided to the urban population. To this end, hospitals were integrated with polyclinics to create unified medical and preventive health institutions that provided services to the entire population where they lived and at labor collectives – on an enterprise basis. It was assumed that favorable conditions would be created for the improvement of doctors’ qualifications, since it became mandatory for them to combine work in hospitals and polyclinics with outpatient care at people’s homes. This ensured continuity in patients’ monitoring with a unified method and a single team. Particular attention was paid to the work of polyclinics, whose employees were supposed to conduct preventive healthcare examinations, diagnose diseases at an early stage and treat them on an outpatient basis. In the long term, this approach provided for the optimization of budgetary expenditures for the medical industry.

In order to determine how effective the reform was, evaluation criteria need to be revealed. The difficulty of this lies in the fact that there is no generally accepted methodology for analyzing the medical and economic efficacy of healthcare systems. Currently, the WHO suggests using a number of parameters as criteria, not all of which can be applied in a retrospective assessment. The WHO parameters for changes in life expectancy, infant and child mortality, and preventable mortality can be used to assess past experience [7, p. 1–4], but such criteria as, for example, responsiveness, self-assessed health status or financial satisfaction, are not applicable in the analysis of the state of medical care in the USSR in the post-war period, since at that time it was not centrally monitored. It is important that neither the WHO nor the European Commission’s Directorate-General for Economic and Financial Affairs department offer a single approach for assessing the effectiveness of healthcare in analyzing all national systems, since it is necessary to take into account regional, historical and physiological characteristics of the population of different countries [8, p. 63–64; 9, p. 10–12]. That is why, in order to evaluate the

results of the post-war administrative reform of urban healthcare in Western Siberia, we turn to the criteria that were adopted in the period under consideration in the Soviet Union.

This is the easiest way to analyze the reforms’ quantitative results, because in a planned economy they were every industry’s indicator of effectiveness. In this regard, an increase in the number of hospital beds, the number of patients seen by a doctor in a polyclinic or visited at home and the availability of medical personnel were scrupulously monitored.

The reform’s main organizational component was the unification of city hospitals and polyclinics – according to this parameter the goals set by the legislative bodies were almost fully achieved: by the end of 1953, 96.8% of city hospitals and 79.9% of polyclinics had been unified in the RSFSR. But the desire to meet established standards often led to a mechanical merger and led to the emergence of new problems, the most significant of which should be recognized as “the polyclinic lag.”

The reform, one of the goals of which was to optimize public health spending, planned to shift the “center of gravity” in rendering medical care from inpatient to polyclinic care, but did not invest the resources needed for the outpatient sector to cope with the sharply increased burden. This is evident from an analysis of the statistical data for visits by patients to physicians. For example, if in 1947, residents of the cities of the Novosibirsk region visited polyclinics 1.2136 million times, in 1950 the figure was 1.3034 million [10, p. 130]. In the cities of the Altai Territory in 1954, doctors saw 2.947 million patients in polyclinics, in 1955 – 3.0876 million and during home visits – 219,800 and 208,800 times respectively.² At the same time, according to the research of the Scientific and Methodological Bureau of Health Statistics of the USSR Ministry of Health, in 1952, i.e., by the time the reform was completed, the time allocated for therapeutic treatments decreased by 36.2% in polyclinics but in hospitals, it increased by 99.7%. At the same time, the number of patients received by a district resident doctor per hour remained in the same – seven to eight patients – while in

² State Archive of the Altai Territory (SATT). F. 726. Op. 5. V. 11. L. 13.

hospitals in the same period (1951–1952), one doctor served two to three patients in three hours of work [11, pp. 131–132].

The situation with the implementation of the standard by the number of people served by district resident doctors is significant. Order No. 870 established unified limits for medical districts with a population of approximately 4,000 people per therapist, and the districts themselves were allocated within the administrative borders of urban areas. According to the resolution of the Council of Ministers of the RSFSR of March 7, 1947 “On measures to further reduce the incidence of child illness,” the standard for the pediatric district was less: one pediatric doctor should have no more than 1,000 children under the age of 3 under his or her care.³ In Tyumen this indicator was almost reached by 1958 (30 districts with 4,300 inhabitants each) [12, p. 17]. But in the cities of Kuzbass, the Altai Territory and the Tomsk Region in 1960, the population served by one district doctor averaged 4,000 to 6,000 people, in Ishim the number was 7,100, and in such industrial centers as Novokuznetsk and Prokopyevsk, there were still districts with a population of up to 8,000 people.⁴

A major achievement of Soviet healthcare in this period was the introduction of mass medical examinations for the population. This diagnosed diseases at an early stage, but at the same time increased the indicator of the number of patients who need inpatient treatment. An increase in the number of hospital beds in such a situation was unavoidable. The indicator for the number of these patients in Western Siberian cities exceeded that of the country as a whole. In the USSR over nine years (1950–1959), the number of hospital beds increased by as much as 163% on average, and in Western Siberia the dynamic was impressive: 127% in 1953, 140% in 1955, 1959 – 242%. However, taking into account other indicators, the picture is less optimistic. The number of places in urban hospitals in Western Siberia increased by 242% by 1959, while the number of medical institutions (over nine years) increased by only 160%.⁵ This

means that, in most cases, new hospital beds appeared on account of the increased number of beds in previously commissioned facilities.

None of the regions of Western Siberia managed to overcome their lag behind the central regions of the country in terms of the number of hospital beds per 1,000 urban residents. In the European part of the USSR in the 1950s, the standard was 10–12 beds per 1,000 people, while the West Siberian region only met this standard in three of six areas: Kemerovo (18.2), Novosibirsk (13.8) and the Altai Territory (12.2). Omsk (9.9), Tomsk (7.1) and especially Tyumen (6.1) regions lagged far behind, with the latter two failing to reach the target by 1960 [13, p. 534; 14, p. 108, 109, 155–157, 167].

It is harder to assess the quality of medical care in the period under review. Due to the lack of sufficient direct evidence of the effectiveness of the work of medical institutions, it is necessary to use indirect indicators for the analysis, such as the rate of correct diagnosis, the timeliness of inpatient care, hospitalization times and the percentage of mortality in hospitals and at home, and life expectancy. These data are correlated with each other. An incorrect diagnosis made by an insufficiently qualified doctor, untimely registration in a polyclinic or a delayed referral to a hospital reduced the possibilities for treatment and increased the risk of death.

The accuracy of a medical diagnosis can be assessed on the basis of the discrepancy between clinical and pathoanatomical diagnoses. But in the post-war years, because of the acute shortage of pathologists, autopsies of the deceased were often carried out by the treating physicians. Such analysis was not always objective. This is indirectly confirmed by the fact that subsequently, despite an improvement in material support for medical institutions, the introduction of new techniques and medicines, the percentage of the divergence between pathoanatomical and clinical diagnoses not only did not decrease, but even increased. For example, in Novosibirsk in 1948 it was 5.2%, and in 1949 it increased to 5.4%. A similar situation was observed in the cities of Kuzbass: in 1946 this figure was 6.0%, in 1947 – 7.1%, in 1952 – 15.3%; the highest figure for that year was in

L. 151–163. V. 754. L. 157–158, 163–168, 171–176; Op. 27. V. 165. L. 153–156, 167.

³ SARF. F. 259. Op. 6. V. 4465. L. 2.

⁴ Russian State Archive of Economics (RSAE). F. 1562. Op. 18. V. 754. L. 157–158; Novosibirsk City Archives (NSA). F. 276. Op. 1. V. 64. L. 2; SARF. F. 482. Op. 50. V. 2270. L. 9. V. 3438. L. 3. V. 5110. L. 246.

⁵ RSAE F. 1562. Op. 18. V. 544. L. 68–74, 78; V. 612.

Prokopyevsk – 36.1% and Osinniki – 35%. In the cities of the Altai Territory, diagnoses coincided in 88.5% of cases in 1951, in 1952 – in 92.3%.⁶

Significant problems were observed with hospitalization. In 1951, only 12.3% of those in need in Kuzbass towns were denied inpatient care because of a lack of places. In pediatric clinics in Tomsk in 1948, 9.8% of children died on the first day after admission, and 65% of therapeutic patients and up to 75% of surgical patients in 1960 were taken to hospitals by ambulance, which indicated that they missed the optimal starting point for beginning treatment.⁷ For this reason, in 1950 in the Kemerovo region, children with pneumonia were hospitalized in only 26% of cases, between the ages of 1 to 3 – only 4.2%, and adults – 83.6% of cases. In 1953 in the cities of the Novosibirsk region, among registered patients with pneumonia, 34% of children were hospitalized more than three days after the onset of the disease. In the cities of the Altai Territory in 1952, 95.7% of patients with dysentery were sent to hospitals for treatment, in 1953 – 92.6%, patients with toxic dyspepsia – 90.6% and 86.1%, patients with acute gastroenterocolitis – only 12.1% and 16.1%, respectively.⁸ In 1956 in the Tyumen region, children with dysentery were hospitalized in only 78% of cases, in 87.3% of cases of scarlet fever, in 86.6% of cases of toxic dyspepsia [12, p. 13].

The effectiveness of city medical institutions in the region can be tracked by the indicators for the number of fully recovered patients or patients whose health improved as a result of treatment. However, there is not enough direct data about this, and fragmentary and rather contradictory information does not provide for a complete picture. According to health departments' reports, 1947, which experienced famines and was a difficult year from a socio-economic point of view, after treatment in Kuzbass city hospitals 67.2% of patients were discharged having been cured, 27.6% were discharged with an improved

condition, 4% with no change in condition, and 0.7% with a deterioration, which implies a high assessment of the quality of medical work. But by the end of the period under review, in 1960 in Tomsk hospitals only 8%–15% of those treated were considered to have been cured, 74%–84% of those discharged after treatment were considered to have an improved condition, and 12% of patients' physical condition did not change.⁹ Such a difference in the number of people who were considered to have recovered, most likely, indirectly indicates an improvement in the quality of treatment.

The results of war invalids' hospital treatments were more closely monitored. Perhaps this is due to the fact that disabled people were a limited set of patients who were under constant medical observation, were people with certain types of pathologies, the most common of which was complicated gunshot osteomyelitis, usually advanced forms (with a history of 9–12 years). In connection with this, the hospitals tracked not only the volume of surgical operations performed and the number of war invalids treated, but also the percentage of those whose health improved as a result or who had a complete recovery. From among all the war invalids who came for treatment for trophic ulcers in Omsk and Barnaul hospitals in 1953, 68.9% were treated there again. As a result, 30.7% of war invalids in the Omsk hospital and 44.4% of those treated in Barnaul recovered, an improvement was observed in 46.2% and 51.9%, respectively, while in 23.1% and 3.7% of patients discharged there was no change in their condition.¹⁰

Home mortality is more relevant in the case of chronically ill patients under ambulatory care. The example of the Altai Territory's city medical institutions is indicative. In 1953 it occupied the rather high 35th place in the RSFSR in terms of active home-based services. But, in spite of this, only 66.3% of those in need received outpatient care, which caused a high (70%) home mortality rate for the chronically ill.¹¹

In general, in the period under review in the RSFSR, there was a decrease in hospital mortality.

⁶ NSA F. 278. Op. 1. V. 64. L. 7; State Archive of the Kemerovo Region (SAKR). F. 864. Op. 1. V. 7. L. 32; V. 59. P. 108; SAAT. F. 726. Op. 6. V. 3. P. 6, 14.

⁷ State Archives of the Tomsk Region (SATR). F. 441. Op. 1. V. 39. L. 9; V. 264. L. 10.

⁸ SAKR. F. 864. Op. 1. V. 59. L. 20, 82, 94, 95; State Archives of the Novosibirsk Region (SANR). F. 29. Op. 1. V. 701. L. 6; SAAT. F. 726. Op. 6. V. 3. L. 13.

⁹ SAKR. F. 864. Op. 1. V. 7. L. 22; SAAT. F. 441. Op. 1. V. 264. L. 10.

¹⁰ SARF. F. 482. Op. 49. V. 6925. L. 5.

¹¹ SAAK. F. 726. Op. 6. V. 3. L. 14.

From 1950 to 1956, mortality in the republic's hospitals decreased from 2.4% to 1.4% [12, p. 95]. The same steady trend was found in the cities of Western Siberia. The total hospital mortality rate in the Novosibirsk region in 1947 was 3.1%, and in 1959 it was 0.9%; in the Tyumen region in 1951 it was 5.0%, among children up to 1 year – 9.0%, in 1954 – 2.5% and 6.4% respectively. Timely hospitalization and improved diagnosis in the Kuzbass in 1950 provided for a reduction in the hospital mortality rate of 2.8% and in 1956 – by 1.5%. In the therapeutic departments of the Altai Territory's cities from 1950 to 1955, this the indicator decreased from 3.1% to 2.2%.¹²

The quality of medical care, work and recreational conditions for townspeople ultimately influenced life expectancy.¹³ In the second half of the 1940s and in the 1950s, the average life expectancy in the country increased. In the USSR in 1956 it was 67 for men and 69 for women, and in 1957–1958 it averaged 68 years. In the Western Siberia in 1958–1959, the average life expectancy was 67 years. For example, in the

Altai Territory, life expectancy averaged 67.88 years; men lived to about 62.78 years, while women lived up to 71.55 [15, p. 146; 14, p. 45; 16, p. 68; 17, p. 107; 18, p. 47].

The results of the reform overall for the whole country and in the Western Siberian region were mixed. Undoubtedly, positive results included the expansion of the network of medical services, which moved closer to citizens' place of residence and work, the improvement of technical equipment at health facilities, the expansion of doctors' diagnostic and therapeutic abilities, the introduction of a number of new methods that significantly improved the effectiveness of medical care. This resulted in a decrease in morbidity and mortality, especially among working-age people, and an increase in life expectancy. However, there were social factors that reduced the effectiveness of medical institutions' work (for example, inadequate funding and facilities to provide necessary and timely treatment). It must also be taken into account that there was a developmental lag in the urban treatment network during the region's first 15 post-war years, and this could not be overcome, and the costs of ensuring the health of the population in this region were higher than in the European part of the country. This prevents us from making an unambiguous conclusion about the high social efficacy of the urban health system in Western Siberia during the period under review.

¹² SANR. F. 29. Op. 1. V. 1009a. L. 9; NSA. F. 278. Op. 1. V. 64. L. 7, 70; SARF. F. 482. Op. 50. V. 1797. L. 7; V. 1157. L. 56; Op. 49. V. 1930. L. 9; SAAT. F. 726. Op. 5. V. 11. L. 25.

¹³ Life expectancy is the number of years that people can expect to live on average for a given generation of births, assuming that throughout his or her life, from one age to another, mortality will be equal to the current mortality rate of the population in certain age groups.

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About the author

Marina Petrovna Dudkina – Candidate of Historical Sciences, Associate Professor at the Department of Management, Novosibirsk State Technical University (Novosibirsk, Russia).