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**The sanitary politics and medical infrastructure in the post-war Soviet Kharkiv (1943–1991)**

The research aims to trace typical features of Soviet society by the analysis of politics that had to manifest the socialism advantages. It takes into account the impact of three essential characteristics of Kharkiv.

First of all, Kharkiv was the third city in the USSR in terms of its scientific and industrial potential after Moscow and Leningrad and one of the 8 largest Soviet cities. After World War II Kharkiv became a center of engineering, military, aircraft and space industry. In the 1980s one-third of its population were industrial workers.

During World War II Kharkiv became the largest city under the Nazi occupation. At the Nuremberg trials Kharkiv was named among the 14 most destroyed Soviet cities.

Finally, the war interrupted the creation of modern urban sewerage systems, water supply, and waste removal. Donald Filtzer paid attention to the primitive sanitary measures in the pre-war Soviet cities. Indeed, the pre-war Kharkiv plumbing that provided 120.000 m³ of water daily did not satisfy needs of residents because its capacity was not sufficient even for a smaller city population during the post-war recovery. Although the first five-year plan envisaged increasing the daily water consumption in Ukrainian cities to 100 liters per person, in the 1950s it ranged from 250-350 liters in the Kharkiv center to 20-50 liters in the outskirts. At that time the certain city districts were not connected to the water supply. In the mid-1950s sewerage covered only 50 % of the Kharkiv population that even had not reached its pre-war size.

The sanitary politics in the post-war Kharkiv included: emphasis on preventive and mobilizing sanitation measures; detailed regulation of urban sanitary conditions; large-scale sanitary infrastructure projects.

The usage of residents’ unpaid labor for a Kharkiv cleaning was an important element of the post-war recovery. From 1944 to 1945 the one-third of the Ukrainian urban population participated in “months and Sundays of cleanness”. Those formally volunteer activities were guided by the executive committees of district councils which had the right to involve the population into city cleaning in the order of labor duty and mobilize the transport for that. In the situation when resources were used for the industry recovery the authorities organized the Socialist competitions for the best sanitary conditions. The authorities tried to create the framework in which the participation in recovery would become the duty of everyone. For example, the head of Kharkiv city council proposed to introduce special documents for every resident with an information about the individual results on the city reconstruction.

In response to the increasing infectious morbidity due to the re-evacuation, the extraordinary anti-epidemic commissions were set up. Commissions assigned medical workers and public health inspectors to train stations, dormitories, schools, apartments for supervision, anti-epidemic measures and urgent hospitalization. Due to the lack of transport, the authorities proposed doctors to hospitalize patients by improvised carts. Fines and one-month forced labor supplemented sanitary measures in case of their violation. Thanks to preventive and emergency measures outbreaks of the most dangerous infections in Kharkiv were eliminated in 1946.

In the post-war Kharkiv sanitary arrangement was regulated by numerous “obligatory decisions” by the city authorities. According to them the house managers, owners of the private houses, tenants had to keep the households and nearby streets clean. The heads of district housing administrations were responsible for the city sections that were not assigned to any organization. Nevertheless, according to the memoirs, Kharkiv gave the impression of a dirty and dusty city. The number of public toilets was limited to a minimum.

The Kharkiv residents reacted to the administrative regulation of the city cleaning with a shifting responsibility. When the city council installed waiting pavilions at the bus stops and obliged the bus depot to clean them, it refused from a juridical responsibility. In the late Soviet times the citizens were hostile to “the initiative from above” because it meant imposing a new responsibility without financial compensation.

Back in the early 1920s, the founder of Ukrainian Sanitary and Epidemiological Service Alexander Marzeev visited the USA to study the healthcare system. After World War II he summarized the foreign and domestic experience. Marzeev suggested a set of available sanitary measures: composting garbage and provision suburban farms with fertilizers; creation of treatment plants and sewage disposal fields; mechanization of cleaning transport; scheduled yard cleaning.

Soviet hygienists followed the experience of Western countries which overcame intestinal infections by a complex solution to three problems: construction of water supply, sewerage, and garbage disposal. The implementation of such a program in Kharkiv continued throughout the post-war Soviet period. The backlog of sewerage and water supply development from the industrial and population growth continued in the 1940–1960s and led to the permanent accidents at overloaded wastewater treatment plants.

Only in 1970–1980 large-scale sanitary projects were implemented. The Dykanivka wastewater treatment plant was built; the new sewer collectors were installed in the city center at a depth of 25-50 meters that became an engineering achievement in the USSR; in 1974 the second deepest in Europe and the largest in Ukraine Main sewage pumping station started to work. The plan for the long-term development of sewerage up to 2000 aimed to supply industrial enterprises with water directly from the Kharkiv rivers by increasing their water capacities. It was the first project in the USSR for the centralized circulating water supply of the large city. The project could significantly reduce the consumption of drinking water for industrial purposes. In 1976 the first Soviet automated control system for a city water supply was launched in Kharkiv. Finally, the building of the Dnieper-Donbass canal in 1982 solved the problem of the Kharkiv water supply. The construction of the incineration plant in 1983 mitigated the garbage disposal problem.

The industrial emissions became a relevant problem in the 1960s due to the emergence of environmental legislation. About 50 Kharkiv enterprises were not connected to the sewerage and polluted rivers. However, the existing treatment plants at the main industrial enterprises did not always provide qualitative wastewater treatment. Only the interference of the Soviet ministers in case of the wide-scale accidents and city pollution forced the enterprises’ directors to install sewage treatment plants. Nevertheless, sanitary surveillance noted slow rates of improvement. Ten years after the adopting the Law on Nature Conservation in 1960, the Kharkiv industrial giants continued to pollute the environment.

Since the late 1960s, a withdrawal of industrial enterprises outside the city began. However, large enterprises that could not be relocated still polluted air of nearby residential areas within a radius of 2 km. In the late 1980s 32 Kharkiv industrial enterprises did not have sanitary protection zones. The exception was a socialist city “New Kharkiv” – settlement of the Kharkiv Tractor Plant that was constructed in the 1930s. Its green sanitary protection zone along the Moscow Avenue separated the industrial and residential areas. Currently, that green area is almost destroyed by residential development.

Principles of the Soviet healthcare model (free universal coverage, priority for primary care, district medical service) called for the proximity of medical care to a patient, availability of a medical facility as a structural element of a city district and caused a large-scale development of medical infrastructure.

Even 10 years after the war the Kharkiv medical network had not reached the pre-war level. Certain districts didn’t have hospitals due to premises’ scarcity. As a result, many medical facilities placed in small adapted buildings, sometimes in primitive houses and basements. That caused a long-lasting unequal access to medical aid in the city center and outskirts, abnormally high density of beds in hospitals due to the lack of space.

Disproportions in the provision of medical care continued to increase because the population growth and housing construction also outpaced the medical network development. The number of hospital beds was increasing mainly due to the reconstruction or using the first floors of new apartment buildings. Access to preventive and specialized care was partially provided by the development of medical-sanitary units of industrial enterprises that had modern medical equipment.

By the early 1970s, the Kharkiv medical network already could not satisfy needs of the growing city. Although the Kharkiv General Plan of 1967 included medical facilities into the three-stage system of the population service, healthcare managers faced the need to “reserve” the most convenient sites for building of future hospitals. It happened because the design institutes not always took the needs of medical facilities into account when they planned the city infrastructure.

The problem required a comprehensive solution. In 1972 the regional health department started developing the long-term plan for the medical network development up to 2000. Its implementation had to ensure the medical facilities’ technical update, availability of specialized and ambulance services. The main task was the creation of five thousand beds multi-profile medical complexes that could serve several city districts together with ambulance stations and district policlinics. The plan implementation covered city needs for the period up to 2050.

However, the lengthy delays in construction posed the obstacle for the plan implementation. Typical for the USSR slow construction of the service objects was conditioned by its dependence on the development of industrial facilities. The guiding principle of Soviet urban planning was a proportional development of all city elements. The underdevelopment of one of them caused the “freezing” of other projects’ construction.

Kharkiv construction organizations did not have enough capacities and were so overloaded with tasks to build industrial facilities and housing that could not include medical facilities into the construction plan. Sometimes they presented the unfinished hospitals and medical stuff afterward repaired them. Those problems required heads of the city health service to establish informal contacts with construction managers.

Nevertheless, by the late 1980s, a half of planned medical facilities including five medical complexes were built. That fact radically increased the hospitals’ size and allowed to reach the normative provision of inpatient and outpatient care. Kharkiv became one of the first cities in the USSR where a modern ambulance system appeared with its hospital, district stations, specialized crews, and ambulance depot.

To conclude one cannot help but notice that the controversial features of the Soviet system (planned economy, centralization, mobilized character, control, interference to private space) proved to be socially useful in overcoming sanitary outcomes of the war.The authorities’ choice in favor of mobilization and preventive measures during the post-war recovery was determined bysignificant destructions, unfinished modernization of Soviet cities, limited funds that were primarily invested in industry reconstruction. Thanks to those measures the Soviet authorities in the late 1940s achieved considerable success in curbing infectious diseases and reducing the mortality comparable to the level of developed countries.

However, maintaining the practice of cleanup campaigns in the late Soviet times was an anachronism when the citizens performed functions of municipal services for free as “public duty”. The detailed regulation of the city sanitary conditions encountered a problem of avoiding those duties by responsible subjects. The practical complexity of centralized services management prompted the authorities to limit the number of its objects what explains the shortage of public toilets in Kharkiv. Thus some elements of the Soviet sanitary politics demonstrated neglect of individual needs and the inconsistency with the Communist ideology.

Taking advantage of the planned economy and the experience of the first sanitary revolution that took place in the West in the early 20th century the Soviet authorities by the 1980s implemented large-scale projects that solved Kharkiv sanitary problems.

Environmental pollution in Kharkiv highlights how the Soviet economy functioned. The enterprises trying to reach plan targets chose the easiest and at the same time most harmful way of work. The priority development of resource-consuming or, according to Donald Filtzer, “waste economy” that required quick recovery after the war prevented any significant distraction of finances in favor of medical infrastructure.

Disparities in access to medical care, the backlog of sewerage and medical network development from industrial growth violated the basic principle of Soviet urban planning – the harmonious city development. The priority industrial development determined the medical infrastructure development in positive and negative ways causing long delays in the construction of medical facilities.

The uneven location of Kharkiv medical facilities aggravated by the haphazard healthcare development was finally corrected by the long-term planning of the early 1970s. Its successful implementation became possible due to initiatives of the city health managers.

**References**

1. Bater J. H. The soviet city – ideal and reality. Edward Arnold, 1980. 196 p.
2. Filtzer D. The Hazards of Urban Life in Late Stalinist Russia: Health, Hygiene, and Living Standards, 1943–1953. Cambridge University Press, 2010. 410 p.
3. Борисенко М. Житло та побут міського населення України у 20–30-х роках ХХ століття. К. Стилос, 2009. 357 с.
4. Робак І. Ю., Ільїн В. Г. Харківська охорона здоров’я в післявоєнний радянський період (1945–1991 рр.). Х. : Колегіум, 2018. 344 с.
5. Тріпутіна Н. П. У двобої з небуттям: комунальне господарство Харкова у роки Другої світової війни. Х. : ХНУ ім. О.М. Бекетова, 2019. 228 с.