

Formation of the public health and medical service system in the Baikal-Amur Mainline regions (the 1970–1980s)*

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Abstract

The paper presents the results of a study of the public health system of cities and towns on the western section of the Baikal-Amur Mainline (BAM) during the all-union Komsomol shock construction projects. The local network of RSFSR medical institutions, which was developing at a painstakingly slow pace, was initially intended to shoulder all the burden of providing medical service. Departmental health care, coordinated by the BAM Medical and Sanitary Service under the Ministry of Railways of the USSR, was organised to allow the swift delivery of medical care to construction workers. Despite the rapid deployment of the network of new medical institutions, the needs of the soaring population in the construction areas could not be fully met. Hospital and clinic capacity was two to three times below the required level. The current state of affairs was due to the priority given to the construction of transport infrastructure, the residual nature of funding the social sector, uncontrolled labour migration to the BAM area, and the peculiarities of the region. Public health officials faced manpower shortages, high staff turnover, and massive return migration volumes. The selfless work of health workers in the under-construction cities and towns enabled them to provide the public with the necessary level of medical care. The peculiarities of the formation of the public health system in this region led to numerous challenges after the completion of construction. The low profit margins of the road and the disbandment of the Baikal-Amur Railway branch meant most of the departmental medical institutions had to be handed over to local authorities. This was despite the local public health system lacking the necessary resources to ensure their functioning. As a result, the public health network in the BAM regions was drastically scaled back, which affected the quality of care.

Keywords

history of public health, medical institutions in the Baikal-Amur Mainline construction area, public health in new development regions, medical service for transport construction workers, medical and sanitary service, industrial injuries

The experience of organising health care delivery, gained during shock construction projects of late

socialism, is of great interest. The implementation of modern comprehensive socio-economic development programs in the eastern regions of the country required dealing with issues relating to organising public health service in new industrial development areas, distinguished by their remoteness, lack of transportation services, a harsh climate, rudimentary social infrastructure, etc.

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This paper examines the peculiarities of the public health and medical service system during one of the Soviet Union's last extensive projects – the construction of the Baikal-Amur Mainline (BAM). In part, this issue was examined within the context of developments based on the history of social development of new industrial centres in Siberia (Bukin 1991; Dolgolyuk 2013; Kuksanova 1993), and the establishment of regional public health care in autonomous regions of the Russian Soviet Federative Socialist Republic (RSFSR) (Matveeva 2004). The study was carried out by analysing documents from central, regional and local archives, social and demographic statistics published in periodicals, memoirs of eyewitnesses and participants in the events recorded by the author during fieldwork in regions on the western section of the BAM.¹

The construction of the railway line, which began during the Stalin-era five-year plans, peaked in 1974–1989. The railway line stretching 4,300 km from west to east was designed to shorten transit by 500 km and ease the workload on the Trans-Siberian Railway. It was also intended to become the base for developing mineral resources in the northern territories of Eastern Siberia and the Far East. According to expert estimates, 1.5–2 million people worked on the western BAM in 15 years of its construction (Kin 2014, p. 59).

A network of several types of permanent and temporary settlements was built to implement the extensive project. The first group consisted of settlements along the railway line built long before the construction began and were part of its orbit. On the western section, such settlements included Ust-Kut (Irkutsk Oblast), and Nizhneangarsk (Buryat Autonomous Soviet Socialist Republic). These settlements acted as transshipment bases and supply points for construction sites. Parent organisations of major construction trusts were also stationed there.

¹ The zoning of the BAM, conducted in 1974 by scientists from the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences, identified three main construction areas – western (areas in the Irkutsk Oblast, Buryat Autonomous Soviet Socialist Republic, Chita Oblast and Yakutsk Autonomous Soviet Socialist Republic), central (Amur Oblast) and eastern (Khabarovsk Krai).

The second group consisted of new towns and villages built during the construction of the railway line. The largest among them in the area of the western BAM were Magistralny (Irkutsk Oblast), Severobaikalsk, Taksim (Buryat Autonomous Soviet Socialist Republic), and Novaya Chara (Chita Oblast). They were intended to become operation centres for the railway line and were home to key industrial and social infrastructure facilities. According to the construction project, their size and status depended on the performance characteristics of the track facilities – they could be major terminals and transport interchanges or small villages. However, the uncontrolled surge in labour migration and protracted construction of the railway line led to the adjustments of plans. As a result, settlements at small stations turned into large centres for the development of the region.

The third group included construction workers' settlements built during the construction of tunnels, bridges and other long-term facilities (Davan, Goudzhekit, Severomuysk, Vitim, etc.). Most of them were disbanded once construction was complete. Some turned into service points for various sections of the railway line. Also, at the height of construction, many camps emerged, often without names and identified by numbers of construction sites, sidings or kilometre markings on the route.

In each group, health care delivery depended on such factors as the projected and actual population size, location, availability of transportation lines, and proximity to a developed socio-cultural centre. When deploying medical institutions in “old” settlements, most of the focus was on the existing local network of the Ministry of Health of the RSFSR. Hospitals, polyclinics and outpatient clinics of the Medical and Sanitary Service of the BAM Construction Directorate (MSS BAM) under the Ministry of Railways of the USSR were set up in settlements of the second group. In construction camps and other small settlements, rural health posts or health centres were created, also under the jurisdiction of the railway ministry.

Work on organising medical service delivery to construction workers began well before the workers left for the construction site. The USSR Academy of Medical Sciences and the RSFSR Ministry of Health drew up recommendations for the Ministry of Transport Construction and the Ministry of Railways of the USSR on providing workers with personal protective equipment, vac-

ination against typhoid fever, tetanus, tick-borne encephalitis and tularemia. The Martsinovskiy Institute of Medical Parasitology and Tropical Medicine and the All-Union Research Institute for Disinfection and Sterilisation were entrusted with developing protective suits against ticks, mosquitoes and gnats.

In 1974, the RSFSR Ministry of Health sent two epidemiological detachments of fifty people combined from the Irkutsk Anti-plague Research Institute to provide hands-on assistance to medical workers in areas where construction workers were stationed. BAM construction workers were allocated 300 tons of chlorine-based disinfectants, 700 thousand bandages, 680 thousand metres of gauze, 60 tons of absorbent cotton wool, 30 thousand first-aid packs.² In the same year, the Presidium of the USSR Academy of Medical Sciences created a standing committee to coordinate research and scientific expeditions in the BAM regions. The committee was soon converted to the Coordination Centre of the USSR Academy of Medical Sciences to deal with medical and biological challenges facing the BAM. The Coordination Council for dealing with challenges facing the BAM was created in 1977 under the RSFSR Ministry of Health. In order to streamline their operations, these centres were merged into a single Coordination Council of the USSR Academy of Medical Sciences and the RSFSR Ministry of Health, headed by Academician R.K. Sedov.

According to the 1974–1980 research plan approved by the USSR Academy of Medical Sciences, about fifty research institutions were enlisted to work on the BAM. Among them were research institutes of virology, epidemiology and microbiology, nutrition, occupational health and diseases, rheumatology, health problems of the North, the All-Union Cardiology Research Centre of the Academy of Medical Sciences, and a number of the country's leading medical universities, including First Moscow State Medical University, Irkutsk, Chita, Khabarovsk, Blagoveshchensk and other medical institutes (Zobnin 2006, p. 91).

Health care workers set up local coordination councils. A coordination council for medical research on the BAM was set up at the Irkutsk Medical Institute. That coordination council was

headed by Professor V.I. Okladnikov, and it enlisted 19 departments of the institute to the construction work. (Okladnikov 2014, p. 122). Every year, staff at the institute organised research and practical expeditions to construction camps and held research and practical conferences with the participation of leading scientists from the Research Institute of the USSR Academy of Medical Sciences (Zobnin et al. 2016, p. 258). Studies were carried out on the dysadaptation syndrome in the BAM regions, peculiarities of the course of pregnancy, childhood diseases, infectious disease epidemiology, occupational health and injury prevention, and mother and child welfare. Medical service and sports medicine were organised. The studies saw more than two dozen candidate of science and doctor of science theses defended. The unique experience of implementing sanitary and epidemic measures, organising public health care, and protecting public health in the new economic development areas was generalised by Academician K.R. Sedov (Sedov 1982).

The delivery of medical service to construction workers was entrusted to local and departmental health systems. The latter was just starting to take shape. Hence, medical institutions of “old” centres initially handled most of the workload of attending to construction workers. Designed to serve small settlements, the local public health network faced an acute shortage of beds, medical staff, and drugs virtually everywhere. The Ust-Kut District Hospital, the largest on the western section of the construction project, had 165 beds. Due to a sharp rise in population, the hospital had to deploy 420 beds, 2.5 times more than the existing standard. The wards had six to eight beds instead of the required three. However, even such stop-gap measures could not solve the problem: the district had 36 hospital beds per 10 thousand population, well below the required 112.³ For instance, the Severobaikalsk District Hospital (Nizhneangarsk), which served the entire Buryat section of the BAM, had 115 beds, and the outpatient clinic could only handle 150 visits per shift.⁴ One doctor at the Central District

² Russian State Archive of Economy (RGAE). F. 9538. Op. 16. D. 1114. L. 65–74.

³ Archive Department of the Ust-Kut Municipality of Irkutsk Region (AOUKMO). F. R-29. Op. 1. D. 155. L. 44.

⁴ Municipal Public Institution “Department of Culture and Archives of the Severobaikalsk District Municipality”. F. R-28. Op. 1. D. 209. L. 122.

Hospital recalls: “The only hospital in the entire district was overcrowded. We had patients on almost two floors. Beds in the wards were so close to each other it was impossible to walk through the narrow passage - there were beds with patients everywhere... The rounds were very interesting. There were three doctors in the ward simultaneously: a surgeon, a general practitioner, and a paediatrician. And sometimes, if one of them was absent, one doctor made the rounds and attended to all the patients. In this sense, it was easier to be on duty. Each doctor virtually knew all the patients”.⁵ There were no departments as such. One ward would accommodate children and adults, patients in need of general medical care and surgical patients, etc.

The beginning of the construction of the BAM was seen as a comprehensive reform of the socio-economic structure of the northern regions of Baikal and Transbaikalia. The project included the construction of not only a railway line but also a belt of industrial plants, as well as investment in infrastructure facilities, including in the social sector. However, the consolidation of the infrastructure of the regional public health network was very slow due to an approach that gave priority to manufacturing facilities, which was typical of all Siberian construction projects (Region BAM... 1996, p. 70–71). The Ministry of Health delayed funding for the construction of new hospital buildings, relying on patronage assistance from the Ministry of Transport Construction and the Ministry of Railways. The BAM Construction Directorate was in no hurry to bolster the capacity of local medical institutions, considering the scheduled relocation of transport construction workers to new sites.

Time and time again, the planned volumes of commissioning health care facilities were not met. The Decree of the Council of Ministers of the Buryat Autonomous Soviet Socialist Republic of October 8, 1985, “On public health service in the BAM region in the Buryat Autonomous Soviet Socialist Republic”, provided for the construction of a district maternity hospital with 60 beds and an antenatal clinic in Severobaikalsk, two district hospitals with 20 beds each in Novy Uoy-

an and Kichera, as well as outpatient clinics and rural health posts in Zarechny, Kichera, Angoya, and Severomuysk in 1986–1990. According to the First Secretary of the Severobaikalsk Town Committee of the CPSU, A.A. Molitvin, these projects would have enabled to “reach pre-war levels of medical service”.⁶ However, even these modest targets were not met as there was no funding for these projects during this period.

The history of the construction of the inpatient unit of the Severobaikalsk District Hospital is revealing. After numerous and ineffective repairs of the old building, the Central District Hospital was moved to a new building built by BAM construction workers for a maternity hospital. A new hospital complex with 150 beds was commissioned in Nizhneangarsk in late 1983. From the memoirs of one doctor at the Severobaikalsk District Hospital: “It was a wonderful two-story hospital, centralised oxygen supply, hot water, baths, a large emergency room – all conditions were there... There was a maternity ward on the first floor, therapy, neurology and surgery on the second. All commissions that came noted what a big hospital Nizhneangarsk had; other regions of the republic would envy it!”⁷ However, the building was erected in a marshy area without a foundation, which quickly distorted its structure. Also, wet lumber that was not treated with antiseptic was used during construction. As a result, the facility was infested with fungus a few years later and became unusable (Na strazhe... 1999, p. 40–41). In 1993, the district hospital and polyclinic were moved to the dilapidated building of a former hotel, reducing capacity to 80 beds. From the memoirs of one doctor at the Severobaikalsk District Hospital: “It was impossible to work in this hotel. When meetings were held in the ballroom, the walls were crumbling. They were later covered with cardboard and painted over. When the floors began to collapse, we were transferred to a former nursery school, where we have remained since then. So the history of public health here is very sad...”⁸

⁵ Author’s field materials (AFM): an interview with a doctor at the Severobaikalsk Central District Hospital, Nizhneangarsk, 2004.

⁶ State Archive of the Republic of Buryatia (GARB). F. P-8. Op. 20. D. 1. L. 47–48.

⁷ AFM: an interview with a doctor at the Severobaikalsk Central District Hospital, Nizhneangarsk, 2004.

⁸ AFM: an interview with a doctor at the Severobaikalsk Central District Hospital, Nizhneangarsk, 2004.

Other parts of the western BAM faced similar challenges. For instance, archive documents show that the construction of a new building for the central hospital in the Ust-Kutsky District turned into a typical Soviet never-ending construction project. All treatment units at the Central District Hospital were housed in crumbling facilities.⁹ The construction of a new 250-bed hospital complex, carried out by the construction departments of the LenaBAMstroy Trust, stretched out for nearly ten years, starting in 1983. It was completed after the BAM was put into full-time service after the collapse of the Soviet Union.

With some delay, the formation of the departmental health care network began in late 1974, after the establishment of the MSS BAM in Tynda. Owing to the limited material and human resources in the early stages of the construction of the BAM, rural health posts and first-aid posts were the most common type of medical institutions. They were initially housed in furnace-heated trailers and tents. Food for the patients was prepared in the same place as food for construction workers in field conditions. Water was supplied from surface water bodies. Medicines and equipment were kept in tents. At first, doctors themselves provided their institutions with everything they needed. They prepared firewood, repaired and insulated the premises, delivered equipment and medicines, etc. The arrival of the first doctors transformed these first-aid posts into outpatient clinics.

For example, the first departmental polyclinic in the Severobaikalsk district was set up in autumn of 1974 in the kitchen of a nursery school at the Nizhneangarsk fish factory. In February 1975, the polyclinic was moved to the self-supporting building of the hostel of tunnel construction unit No. 11 in Severobaikalsk and soon turned into the first railway hospital in the western part of the BAM. By the end of 1975, all sections of the route had six railway hospitals with a capacity of 365 beds (Lena, Tayura, Kirenga, Ulkan, Severobaikalsk and Tynda stations), two departmental polyclinics (Lena and Tynda stations), nine outpatient clinics and about two dozen rural health posts. MSS BAM medical institutions were serviced by 118 doctors

and 290 mid-level health workers. A 50-bed hospital train was also set up in Tynda.¹⁰

In 1977, a 50-bed department hospital opened in the machine operators' settlement in Novy Uoyan. In 1979, a hospital with a capacity of 115 beds was built in the "capital" of BAM tunnel builders in Severomuysk. The last departmental hospitals were built in 1983 in Taksimo (Muysky district of the Republic of Buryatia) and Novaya Chara (Kalarsky district of Zabaykalsky Krai). Overall, by the early 80s, the network of MSS BAM medical institutions consisted of 15 hospitals with 1,845 beds, 39 polyclinics with a capacity of 4,650 visits per shift, 22 rural health posts, 51 health centres, seven maternity wards with 110 beds, five sanitary and epidemiological stations, 40 pharmacies, five dental technician laboratories, three infant-feeding centres, and five blood transfusion centres.¹¹ The rapid expansion of the departmental health care network was facilitated by the construction of temporary buildings using prefabricated panel structures with a service life of no more than 25 years.

However, the medical service needs of the growing population far exceeded the available capacity. At a meeting of the special committee of the RSFSR Council of Ministers, it was noted that "the slow pace of development, in the construction areas, of the network of hospitals, outpatient clinics and sanitary-epidemiological institutions of the Main Medical and Sanitary Department of the Ministry of Railways, and the extremely unsatisfactory construction of these facilities by GlavBAMstroy of the USSR Ministry of Transport Construction, created significant challenges in delivering medical care to construction workers".¹²

Further consolidation of the MSS BAM resource base occurred in the second half of the 1980s. The construction of permanent buildings in permanent settlements of railway workers began during this time. The 390-bed Severobaikalsk departmental hospital was the largest in the western section of the BAM. The bed capacity at other MSS BAM hospitals also increased during the period under review. It was 150 at Novouoyanskaya Hospital, 200 at Severomuyskaya

⁹ AOUKMO. F. R-29. Op. 1. D. 314. L. 20–22. D. 379. L. 21.

¹⁰ RGAE. F. 9538. Op. 16. D. 1646. L.49.

¹¹ RGAE. F. 9538. Op. 16. D. 3825. L. 88–109.

¹² RGAE. F. 9538. Op. 16. D. 1646. L. 39.

Hospital, and 125 in Taksimo (Baikalov 2007, p. 185–186).

Based on the Decree of the Central Committee of the CPSU and the USSR Council of Ministers No. 651, of July 12, 1985, “On measures for further construction of the BAM”, technical projects for the construction of separate sections of the BAM were revised taking into account the volume of construction and installation work for non-production purposes. The estimated cost for social facilities was raised by 86 million rubles, equivalent to 106.7% of the initial cost. The increase also affected the departmental health care network. Challenges in complying with the decree were primarily due to reduced funding. In 1986, 349.4 million rubles were allocated for the construction of social facilities instead of the planned 420 million. And in 1987, 379.7 million was allocated instead of 411.8 million. Consequently, by the time the BAM was put into full-time service, the hospital construction plan had been fulfilled by just 83.3%, polyclinics and outpatient clinics – by 86.4%.¹³ The completion of the remaining facilities was scheduled for 1990–1991. However, the dysfunction and collapse of the Soviet Union thwarted these plans.

The availability of hospital beds in the BAM regions consistently fell short of demand and was two to three times lower than republic and national figures. Doctors were forced to deny 30–40% of patients planned hospitalisation. Annual bed turnover in highly-demanded wards (surgical, gynaecological) reached 375–450 bed-days. Therefore, despite the measures taken during the entire BAM construction period, the required availability of public health institutions could not be achieved.

The functions of departmental medical service changed in the second half of the 1980s following the completion of most of the construction work and the relocation of transport construction workers to other sites. The volume of primary health care delivery decreased, as did vital specialised types of medical care, such as obstetrics, anti-tuberculosis, and cancer care. The importance of medical services for rail traffic safety increased with the opening of a temporary and

then a permanent railway service. Departmental medical service began to take the form of “medical-sanitary stations” (Korshnyak, Nechitaylo, Merkeskin 2014, p. 60).

The MSS BAM network was wound down in two ways: by handing over departmental medical institutions to the local public health system and converting hospitals into polyclinics and outpatient clinics. The first option was primarily utilised in localities on the Irkutsk section of the BAM, which construction workers vacated earlier, moving east after the tracklayer. For instance, in Zvezdny, the handover of the hospital to the district administration was first considered in 1984–1985, when the population of transport construction and railway workers in the settlement fell one and a half times to less than half of the population of the entire settlement. The hospital was transferred to the local system in troubled circumstances. The MSS BAM had actually stopped maintaining it but still delayed its official handover to the district, which took place as late as the end of 1987. As a result, the institution housed in a temporary building was not repaired for several years, leading to roof leaks and breakdown of the water supply and heating systems. Due to the staff reduction, the dressing of surgical patients was designated as unpaid work for the laboratory assistant in the X-ray room; the dishwasher performed the cook’s duties, etc. No funds were allocated for the purchase of dressings, solutions, medicines and fuel and lubricants. At a session of the Zvezdny Council of Deputies, held to discuss “The primary areas for the development of public health and the restructuring of health care in the USSR in the 12th five-year plan and for the period up to 2000”, the hospital’s chief doctor admitted: “My day starts with looking for oil for the ambulance”.¹⁴ Similarly, railway hospitals in Magistralny and Ulkan were handed over to the local administration of the Irkutsk Oblast.

The restructuring of railway hospitals into polyclinics and outpatient clinics primarily affected settlements on the Buryat and Chita sections of the BAM due to the late completion of construction and installation work and the retention of a significant contingent of construc-

¹³ RGAE. F. 9538. Op. 16. D. 7000. L. 10.

¹⁴ AOUKMO. F. R-34. Op. 1. D. 127. L. 160–168.

tion workers in these areas.¹⁵ Hospitals in Novy Uoyan, Severomuysk, Taksimo, Novaya Chara and other settlements were disbanded. The catalyst for this process was the shutting down of the Baikal-Amur Railway as a legal entity in 1996 and the handover of its branches to the East Siberian Railway and the Far Eastern Railway. Today, the railway health care system serving the western section of the BAM consists of seven non-governmental health care institutions, including a departmental hospital in Severobaikalsk and three nodal polyclinics at Lena, Taksimo and Novaya Chara stations (Semenishcheva 2014, p. 64).

The shortage of space and medical equipment was exacerbated by the shortage of medical personnel throughout the BAM construction period. In 1975, the Irkutsk section had 17 doctors, and the Buryat section had 27 doctors per 10 thousand residents, which was short of the standard 32 doctors.¹⁶ The figure dropped every year as the population grew. By the time the BAM opened, the availability of doctors was two and a half times below the standard (it dropped to 10.6 doctors per 10 thousand people).¹⁷

The shortage of medical personnel was most keenly felt by the local public health system, where the staffing level was 60–80% at the height of construction. This was due to the uneven distribution of medical personnel, the lack of training bases for health care workers in several regions, and the transfer of doctors to the MSS BAM departmental network, where the staffing level was significantly higher (95–100%). The priority placed on departmental institutions, more attractive working conditions, including the “BAM salary coefficient” and supply of speciality goods, contributed to this state of affairs.

Also, staffing at MSS BAM medical institutions was less stable due to the high turnover and return migration of workers from construction areas. Among the reasons for the turnover of medical staff, most archive documents cite the lack of housing and shortage of places in preschool institutions, which were primarily allocated to con-

struction workers. For example, there was only one flat for 70 employees of the Ust-Kut Central District Hospital in need of housing in 1986.¹⁸ As a result, out of ten doctors and thirty-three mid-level personnel hired in one year, nine and twenty-seven resigned, respectively.¹⁹

The housing built was usually temporary and substandard: “In the prefabricated houses, the wind is blowing, the roof is leaking, and the floor is collapsing. For 16 years, none of us has been allocated a comfortable flat,” said one deputy of the township council from the Zvezdny Railway Hospital.²⁰ Besides the prefabricated houses, many lived in separate houses built from makeshift materials, dubbed “beams” and “backfills” on the BAM (Baikalov 2018, p. 1006).

In the reports of medical institutions, high staffing levels were achieved by increasing the regular workload per doctor, which exceeded the acceptable levels by three to four patients per hour. “I came home from work between eight and nine o’clock in the evening,” recalls one employee at the Severobaikalsk District Hospital. “Making rounds, prescribing medication, interpreting electrocardiograms, attending to admitted patients and prescribing medication – all this was impossible to accomplish in a working day. I regularly had to work nights, write medical records at home... All doctors worked in these stressful conditions”.²¹

The Decree of the Central Committee of the CPSU and the USSR Council of Ministers “On the construction of the BAM” introduced a regional 1.7 salary coefficient at railway medical institutions and local hospitals if construction workers constituted more than 50% of the patients. Otherwise, the coefficient was set at 1.2–1.3, although all medical personnel worked in the same conditions in the new industrial development area. Such a difference in wages created certain challenges in personnel retention, contributed to staff turnover, and sparked conflicts. However, medics working in the local health care system of BAM regions earned more than in neighbouring “non-BAM” regions. They were paid allowances

¹⁵ For example, Russia’s longest tunnel – the Severomuysky Tunnel, which connects the BAM, was only completed in 2003.

¹⁶ AOUKMO. F. R-29. Op. 1. D. 170. L. 125–126.

¹⁷ AOUKMO. F. R-29. Op. 1. D. 513. L. 27–28.

¹⁸ AOUKMO. F. R-29. Op. 1. D. 438. L. 87.

¹⁹ AOUKMO. F. R-29. Op. 1. D. 494. L. 50–51.

²⁰ AOUKMO. F. R-34. Op. 1. D.167. L. 6.

²¹ AFM: an interview with a doctor at the Severobaikalsk Central District Hospital, Nizhneangarsk, 2004.

for working in areas equivalent to the Far North, for the mobile nature of the work, etc.

Medical workers at the BAM spent their workdays in extreme conditions. Due to the lack of or disruption of power supply, medical rounds were often carried out with candles and kerosene lamps. Ambulance aircraft was widely used to access hard-to-reach areas in seasonal off-road conditions. Relevant units were created under the local health care system in each district along the under-construction railway line. From an interview with one doctor at the Severobaikalsk District Hospital: “A helicopter was just like a car for us. We flew every day to all areas because there was frostbite, severe, purulent pneumonia... With our equipment, test tubes, sterile material on the helicopter. Somewhere, we landed in a gorge, in the snow between mountains. Sometimes we had to walk from that place to the site of the construction workers. It was all fun, we were young”.²²

The medical workers did not always have specially equipped ambulance aircraft at their disposal: “If the helicopters were intended for us, they landed and turned off the propellers. But if the helicopters were flying along the way, they would drop us off, even without turning off the propellers. For some reason, I thought the propeller would hit me, and I always came out head down”.²³

There were not enough ambulances. They were always out for repair due to bad roads. One nurse at the Severobaikalsk Blood Transfusion Station recalls how she once travelled in back of a dump truck: “We flew to Davan and got caught up in a wildfire. A helicopter dropped us off in the Taiga, and we walked to the ambulance station. And on the way back, they sent a truck to pick us up. A young doctor and I are in the back. It’s cold at night. We were carrying clothes for donors with us. So, we put on pairs of pyjamas on top of each other and off we went. The forest is on fire on both sides, and we are in sitting up in the truck...”.²⁴

On official trips and calls, medics stayed in the same tents, wagons or temporary huts in

which the workers lived: “When the first landing party arrived, we were sent to check on these people. They had a bathhouse and two round tents. There were forty people there, all young, healthy guys; there weren’t even women there... There was no room, we spent the whole night by the fire”²⁵.

Medical workers even had to build and set up their workplaces. For example, in 1975, the Ministry of Health of the Buryat Autonomous Soviet Socialist Republic decided to open a blood transfusion station at the Buryat section of the railway line. To this end, the Severobaikalsk Central District Hospital was allocated two staffing positions (a doctor and a nurse): “We arrived and told the chief physician: we need paint and boards to build a department. We needed one room where the donor would lie, another where we would sit, a window where he would stick out his hand... We hired some hard workers from outside, divided the ward, made that window, whitewashed, painted... Then we worked in all settlements that had been formed. We took first place in the republic in a socialist competition, and the hospital was awarded an UAZ vehicle”.²⁶ Such cases on the BAM were no exception: gyms, swimming pools, clubs and other social facilities and housing were built through public initiatives.

Challenges with the delivery of material and technical support to medical institutions, staff shortages and other shortcomings of the public health system were offset by the selfless work of medical workers in the most difficult conditions for implementing a transport megaproject in the northern latitudes of the eastern regions of the country.

Summing up, it should be noted that during the construction of the BAM, a vast network of local and departmental medical institutions was created in the neighbouring areas within a very short period of time. These institutions had a specialised bed capacity and were fitted with state-of-the-art diagnostic and medical equipment. In remote and previously sparsely populated areas, the foundations of the public health service were laid, and specialised types of medi-

²² AFM: an interview with a doctor at the Severobaikalsk Central District Hospital, Nizhneangarsk, 2004.

²³ AFM: an interview with a nurse at the Severobaikalsk District Polyclinic, Nizhneangarsk, 2004.

²⁴ AFM: an interview with a nurse at the Severobaikalsk District Polyclinic, Nizhneangarsk, 2004.

²⁵ AFM: an interview with a doctor at the Severobaikalsk Central District Hospital, Nizhneangarsk, 2004

²⁶ AFM: an interview with a nurse at the Severobaikalsk District Polyclinic, Nizhneangarsk, 2004.

cal care were deployed. The maternity and child welfare system went through significant positive changes. However, the pace of development of the public health system in the region significantly lagged behind its urbanisation. Plans for the construction of hospitals and clinics were regularly not implemented due to the residual principle of funding the social sector, the use of the allocated funds for numerous projects, and the shortage of building materials and other resources. Many facilities were put into service in violation of standards. Priority was given to the MSS BAM departmental health care system. Once the BAM was put into full-time service and the Baikal-Amur Railway branch shut down, the

latter's hospitals and polyclinics were either disbanded or handed over to local authorities.

Therefore, the development of medical service in the BAM region took place amid an acute shortage of not only material but also human resources. The shortage of health care workers was due to the uneven distribution of personnel, the lack of training bases for highly skilled medical personnel in several regions, high staff turnover, etc. Despite all the challenges, the BAM public health system managed to achieve the set task of servicing construction workers and their families, primarily thanks to the heroic efforts of medical workers of all levels.

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