The new stage of development of the Northern Sea Route, the only highway connecting the subarctic and arctic regions of the Russian Federation (RF), involves the development of a transport system, the complex of which includes all the numerous rivers flowing into the Arctic Ocean. The Arctic territories are a key strategic reserve for the country's development. The efficient operation of the river and sea transport infrastructure in the northern regions determines the dynamic growth of the RF economy.

The need to study the traumatism of the members of vessel's crew of the river fleet is dictated by the socio-hygienic significance of injuries and accidents, their prevalence, long-term temporary disability, complexity of vocational rehabilitation, moral and economic damage inflicted on the state. The lack of system analysis in the prevention of traumas of this contingent of industrial workers leads to a repetition of situations of the same type that is dangerous as a result of injury resulting in serious injuries [1-5].

The maintenance of the economic development of the northern territories of the RF is the modernization of systems for ensuring the safety of river vessels, the development of transport and technological port complexes, which will inevitably lead to an increase in the labor intensity of the members of vessel's crew of the river transport fleet in adverse professional conditions of subarctic regions. In such a situation, the prognosis of the incidence and injury of a contingent of the members of vessel’s crew can be very negative. At the same time, the forces and means of health care should be directed towards
their prevention and readiness to minimize the consequences. Therefore, research on the prevention of injuries in the river transport fleet should be considered as a form of preservation of the workforce of a contingent of industrial working groups of the members of vessel’s crew due to a difficult demographic situation and a limited influx of specialists [6–10].

The unified transport network of the Russian Federation includes the largest river arteries of Siberia, land, air and pipeline modes of transport. Perspective volumes of transportation by river transport fleet may be associated with the development of oil and gas fields on the Yamal Peninsula, in the basins of the Ob, Yenisei, Lena, Amur rivers, as well as in the adjacent areas of the Barents Sea (Timan–Pechora oil and gas province, Shtokman gas condensant and Prirazlomnoye oil and gas bearing regions, and others) and the development of offshore oil and gas exports from these fields to Europe. The development of commercial timber processing enterprises in the Yenisei and Lena river basins and the resumption of timber cargo exports, an increase in transit traffic due to the export of ferrous metals and mineral fertilizers produced by exporting enterprises in the European part of the RF will further increase the growth of the river–sea coastal shipments and increase the demand for river water transport fleet [11–15].

Despite the fact that the shipping system of Siberian rivers is an important part of the infrastructure of the economic complex of the Far North and a link between the Russian Far East and the western regions of the country, it has not been the subject of systematic targeted medical research on the prevention of the incidence and injuries of the members of vessel’s crew of river fleet as a professional contingent groups of industrial workers.

Individual scientific works in the largest Ob, Lena and Amur river’s basins should be the reason for revising long-term scientific planning and motivation, both regional medical research teams and individual scientists to create a systematic program for studying and preventing traumatism of industrial groups of workers of river transport fleet in the area of responsibility of the Northern Sea Route [16].

The purpose of the systemic development of the health service of the members of vessel’s crew of the river transport fleet should be a real improvement in the quality and accessibility of medical care, drug support, provision of sanitary and epidemiological well-being, increased life expectancy, prevention of diseases and other conditions threatening the life and health of river men by improving health care systems [17–21].

To do this, it is necessary to increase the efficiency of the health care system; to ensure the availability and quality of medical care to the members of vessel’s crew of the river transport fleet, to form a sustainable motivation and conscious attitude to their health, striving for a high health culture and healthy lifestyle as the basis of a long-term and full life for this contingent of industrial workers; Creation of a positive attitude to the river people to the health care system.

The current system of organization of medical care should specify the state guarantees for providing free medical care to the members of vessel’s crew of the river transport fleet, create an effective model for managing the financial resources of these guarantees, and improve the medical provision of outpatient medical personnel under the compulsory medical insurance system. This is not possible without improving the qualifications of medical workers and creating a system for motivating them to quality work, developing medical science and innovation, and informatization of water transport healthcare [22–27].

In modern conditions, the creation and operation of information systems and analytical tools for data processing are the “gold standard” of the organization of industry management. The introduction of new medical technologies is impossible without the parallel introduction of information systems that ensure the optimization of the service delivery process. The introduction and use of modern information and telecommunication technologies in health care is a key enabling task, on the solution of which depends the effectiveness of most of the activities of the State Program “Health Development” [28–30].

The “Health of healthy people” of occupational groups of industrial workers should be the basis of public health. Reorientation from the pathology of health to the health of healthy people will lead to: the need to define and standardize the relevant standards of health standards, systems and organs, depending on the sex and age of the person; replacing the case history with the health history, reflecting the history of quantitative deviations from the standards that correspond to the age and sex standards; reorientation of health services and public services to improve the health of various categories of the population in the territory under their jurisdiction [31–32].

The practical implementation of the transition to a healthy lifestyle is impossible without the approach of preventive medicine to a person. In this regard, the priority is to provide the population, especially healthy people and people with chronic diseases without exacerbation, preventive care within walking distance. It is necessary to develop and introduce outpatient stimulation mechanisms for the earliest possible detection of diseases and to prevent the development of diseases to the stage leading to hospitalization [33–34]. The implementation of these measures is aimed at improving the indicators of temporary disability of the working population.

Formation of a responsible attitude to their health at the river men, refusal from the use of toxic substances (tobacco, alcohol and drugs), assistance in organizing a healthy lifestyle, correction and regular monitoring of behavioral and biological risk factors for non-communicable diseases at the population, group and individual levels should be crucial health policy [35–37].

The basis for promoting healthy lifestyles, along with informing workers about the dangers of tobacco use, poor nutrition and unbalanced nutrition, low physical activity,
alcohol, drug and other toxic substances abuse, should be training in hygiene, work and rest. In order to increase the motivation of the members of vessel’s crew to maintain a healthy lifestyle, it is necessary to create appropriate production, organizational, social and medical conditions. The task consists not only in the timely identification of risk factors for non-communicable diseases and injuries, but also in their timely correction.

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