

POLICY BRIEF

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Social Negligence at the Semipalatinsk Nuclear Test Site: Victims of Independent Kazakhstan

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EXECUTIVE SUMMARY

More than 30 years have passed since the closure of the Semipalatinsk Nuclear Test Site. The consequences of its underground and ground-based nuclear tests have become part of the nuclear legacy that has affected all spheres of life of the local population of the former Semipalatinsk region¹ in the northeast of Kazakhstan and the country as a whole. Almost immediately after gaining independence, Kazakhstan, as a part of its disarmament and anti-nuclear policy, took measures to provide social support to the affected population and their descendants within the framework of the Law of the Republic of Kazakhstan on Social Protection of Citizens Who Suffered from Nuclear Tests at the Semipalatinsk Nuclear Test Site of 1992. Even though this law has undergone more than twelve revisions, the question of whether it is useful for citizens of the modern Abay (former Semipalatinsk) region—and in particular in terms of sustainable socio-economic development—remains open according to both experts and ordinary residents. These conclusions were made following a series of interviews with representatives of various spheres in the cities of the Semey and Kurchatov regions, including civil activists and local specialists in the fields of medicine, health, education, youth, and business. The main objective of this policy brief is to contribute to the social development of the Abay region, taking into account its nuclear past and local perspectives.

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¹ The Semipalatinsk region was a part of the East Kazakhstan region from 1997 to 2022. By President Tokayev’s decision, announced within his annual message on 16 March 2022, the ex-Semipalatinsk region was restored under the name of Abay. Poslanie Glavy gosudarstva Kassym-Zhomarta Tokayeva narodu Kazakhstana: Novyi Kazakhstan: Put’ obnovleniya i modernizatsiya. Accessed 20 October 2024, <https://www.akorda.kz/ru/poslanie-glavy-gosudarstva-kasym-zhomarta-tokaeva-narodu-kazahstana-1623953>

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Introduction and Policy Challenge

The Semipalatinsk Nuclear Test Site became one of the largest nuclear weapons testing sites of the Soviet Union. In the period from 1949 to 1989, a total of more than 450 tests were conducted on its territory, including both ground-based and underground tests.² The territory of the site accounts for up to 19,000 square kilometres.³ The number of people who fell into the category of direct victims of nuclear tests is still debated among experts. According to various estimates, this figure varies from 500,000 people to 1.6 million people.⁴ The larger figure was the number initially estimated by the 1992 Law on Social Protection. By 1998, however, this number was adjusted to 1.2 million due to factors such as births, deaths, and migration. Despite the delayed collection of the existing diverse data and studies on the harmful effects on the health and well-being of affected local residents, as studies were often carried out only once, the implications of radiation were understood. Consensus has been emerging that the radiation released during the tests had a long-term cumulative effect on human health in general, and on such organs and body systems as the hematopoietic system, lungs, and gastrointestinal tracts.⁵

During the early years of independence, there was no examination of the site territories to determine which parts would be suitable for economic activity. In the period from 2008 to 2021, specialists of the RSE National Nuclear Center of the Republic of Kazakhstan (NNC RK) carried out a comprehensive environmental survey of the territory of the Semipalatinsk Nuclear Test Site (an area which is 18,311.4 km²).⁶ During this survey, it was found that this territory could be divided into two parts, taking into account the average annual value of the effective dose from man-made sources of ionising radiation: land plots that do not pose a radiation hazard to the population, and those that do. However, to date, there is no data regarding the clear zoning or definition of specific territories and zones that are safe for economic activity versus those which are not. This, in turn, also affects how the social support system is provided to the affected region due to insufficient awareness among the population and professionals and a low position in the priority system on the part of subordinate public authorities. This survey will thus become the first comprehensive attempt to map out the economic usability of the territories. At the same time, steps have also been necessary to examine whether some of the nuclear test site territories can even be visited in the first place, as illustrated by the map below.

² Becker, C., Hill, J., & Muratov, S. (2022). Brighter than a Million Suns: Contemporary Health Consequences of Atomic Testing in the Semipalatinsk Nuclear Polygon. (Working Paper No. 70). University of Central Asia, p. 8. Accessed 17 October 2024, <https://ucentralasia.org/media/0thnm34h/uca-ippa-wp70semipalatinskeng-1.pdf>

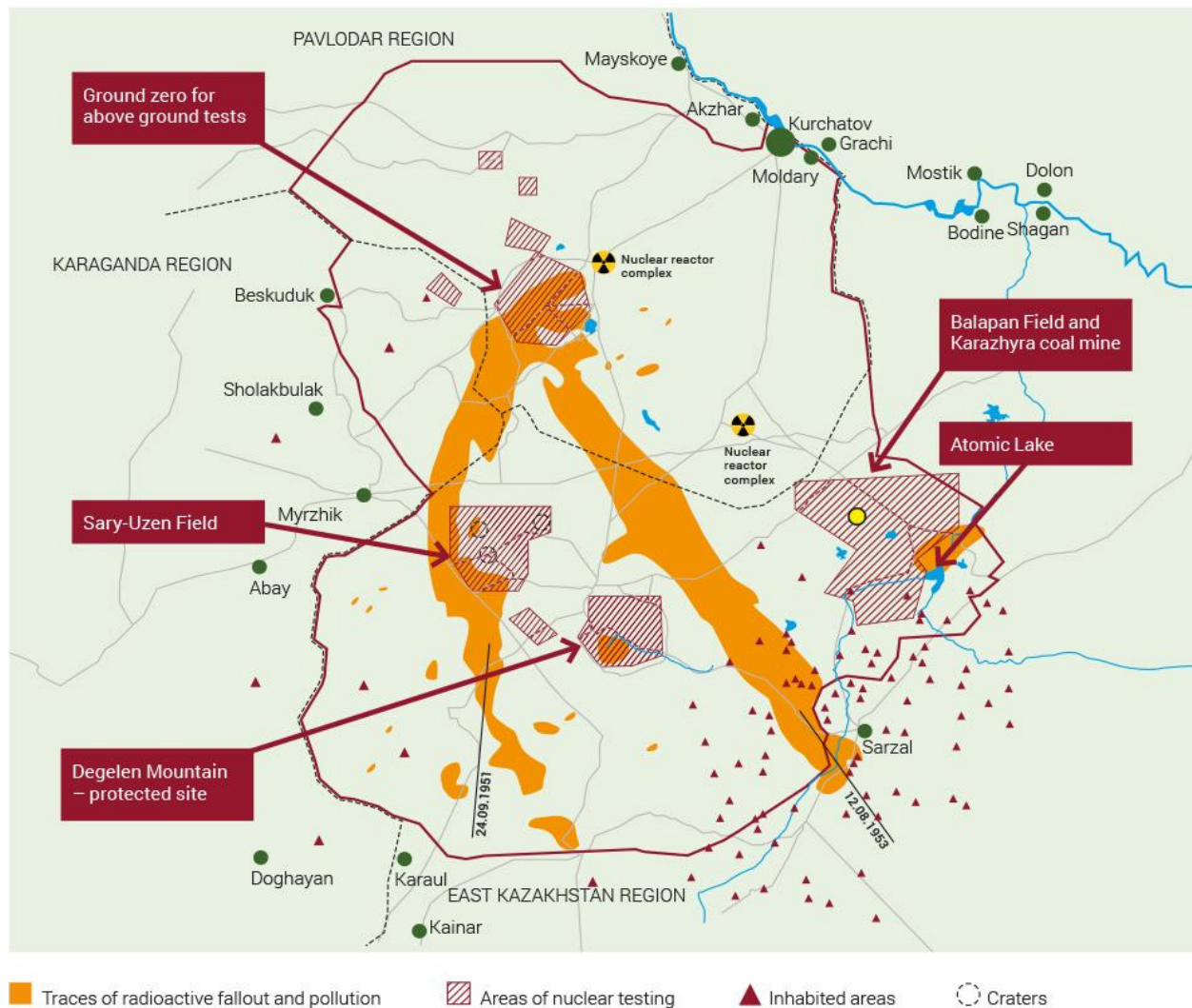
³ Stegnar, P., & Wrixon, T. (1998). Semipalatinsk Revisited. Radiological Evaluation of the Former Nuclear Test Site. *International Atomic Energy Agency Bulletin*. p. 12. Accessed 16 October 2024, <https://www.iaea.org/sites/default/files/publications/magazines/bulletin/bull40-4/40405081214.pdf>

⁴ Brunn, Stanley D. “Fifty Years of Soviet Nuclear Testing in Semipalatinsk, Kazakhstan: Juxtaposed Worlds of Blasts and Silences, Security and Risks, Denials and Memory.” *Engineering Earth*, 2011, pp. 1789–1818.

⁵ Bersimbaev et al., 2002; Apsalikov et al., 2012; Semenova et al., 2018, Becker, Hill, and Muratov, 2022.

⁶ The response of the National Nuclear Center to the request of the research group dated 06/03/2024 regarding the provision of information on preliminary data on the assessment of radio-ecological consequences on the territory of the former Semipalatinsk test site dated 26/03/2024.

Semipalatinsk Nuclear Test Site



Source: EcoMuseum

Figure 1. Semipalatinsk Nuclear Test Site⁷

In order to offset the consequences of the long-term operation of the testing site on the territory for residents, Kazakhstan has taken steps to create social protection measures, reflected mainly in the 1992 law “On Social Protection of Citizens Affected by the Tests at the Semipalatinsk Test Site”.⁸ This law is based on the division of the land surrounding the former nuclear testing site into zones. This division underlies the difference in compensation payments, pension allowances, and extra vacation days. These payments, in turn, are based on the monthly calculation

index (MCI) as a unit of account. The law, in most cases, includes only general, often ambiguous categories of entities involved in the delivery of healthcare, such as “medical check-ups carried out by health facilities at the place of their residence or work”.⁹ In this sense, the law is, in its nature, declaratory. It does not specify the exact authorities and departments responsible for organising social support for “the suffering population” by name. Thus, it does not create opportunities for its effective provision, especially for those who left the region and do not live there any longer.

⁷ Stawkowski, M. E. (2020). *Forgotten ground zeros*. Danish Institute for International Studies. DIIS Policy Brief, 16 April 2024, accessed 25 October 2024. <https://www.diis.dk/en/research/forgotten-ground-zeros>

⁸ Adilet Zan. (1992). О социальной защите граждан, пострадавших вследствие ядерных испытаний на Семипалатинском испытательном ядерном полигоне Закон Республики Казахстан от 18 декабря 1992 года N 1787-XII [On Social Protection of Citizens Affected by Nuclear Tests at the Semipalatinsk Nuclear Test Site.], accessed 13 October 2024 https://adilet.zan.kz/rus/docs/Z920003600_.

⁹ Ibid. Article 17.

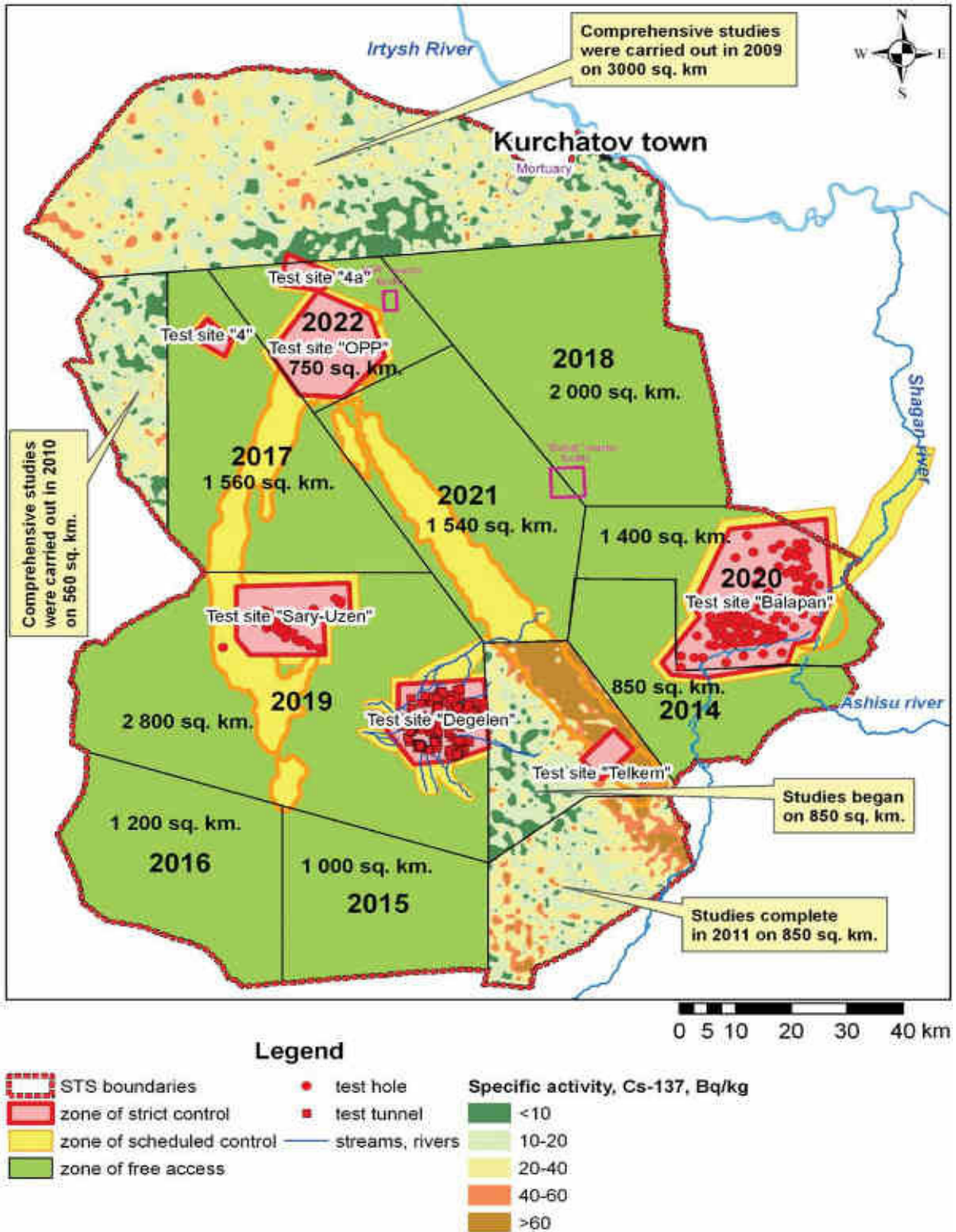


Figure 2. Timeline for the opening up of the test site for public use¹⁰

¹⁰ Caravanistan. (n.d.). *Kurchatov polygon*, accessed 17 October 2024 <https://caravanistan.com/kazakhstan/north/semey/kurchatov-polygon/>

Despite its weaknesses, this law has become the main response by the young Kazakh state to the problematic and controversial issues of providing socially fair compensation, pensions, and other state support measures. This policy brief provides an analysis of interviews with local residents, not only to help identify gaps in the implementation of certain provisions under the articles of the law, but also to provide an opportunity to understand that the articles require revision regarding fair payments of pensions and social benefits, regardless of the existing division of the territory of the former polygon into various nuclear risk zones. Thematic analysis of the interviews helped to identify the main opinions, discontents, and proposals from the above-mentioned groups regarding the law and, on the basis of this, to put forward proposals to supplement articles 13 and 17. These two articles were chosen as the main focus of this policy brief because the concerns and recommendations from the interviewed groups about their content, specifically, were the most prevalent.

Policy Change

Suggestions to supplement articles 13 and 17 of the 1992 law “On Social Protection of Citizens Affected by the Tests at the Semipalatinsk Test Site”. were formed within the framework of 48 semi-structured in-depth interviews conducted in January-February 2024 with residents of Semey and Kurchatov cities.¹¹ The research sample was represented by eighteen civil society activists, seven entrepreneurs, seven specialists from the field of medicine and healthcare, five from the field of education, one environmentalist, and ten representatives of youth.

Article 13 on the “Social Protection of the Population” postulates that citizens living in territories with a certain level of radiation risk, who retired before January 1, 1998, are entitled to additional pension payments, depending on the level of radiation risk in their territory, mainly:

- extraordinary radiation risk = 2.09 monthly calculation index;
- maximum radiation risk = 1.83 monthly calculation index.¹²

As of 2024, 1 monthly calculation index was equal to 3,962 tenge.¹³ This means that the maximum allowance for pensioners in the extraordinary radiation risk category would amount to 8,280 tenge (equal to 16 US dollars).

These payments are also distributed depending on the socio-economic status of the territory. In addition to those payments listed above, citizens are also entitled to additional paid vacations depending on the level of radiation risk in their territory, with the following distribution:¹⁴

- extraordinary radiation risk = two monthly calculation indices and 14 calendar days of paid leave;
- maximum radiation risk = 1.75 monthly calculation index and 12 calendar days of paid leave;
- increased radiation risk = 1.5 monthly calculation index and 10 calendar days of paid leave;
- minimum radiation risk = 1.25 monthly calculation index and 7 calendar days of paid leave;
- in the territory with preferential socioeconomic status = one monthly calculation index and 5 calendar days of paid leave.

The existing division by radiation risk zones may not reflect the actual realities due to the current absence of any scientifically based expert conclusions from environmental monitoring of the territories. This, in turn, does not give ground to believe that such a

¹¹ Kurchatov was the centre of the Semipalatinsk Nuclear Test Site.

¹² Adilet Zan. (1992). Op. cit.

¹³ Uchet.kz. (2024). Ставки МРП и МЗП на 2024 год [Rates of MRP and MZP for 2024], 3 January, accessed 24 October 2024. <https://uchet.kz/news/stavki-mrp-i-mzp-na-2024-god/>

¹⁴ Adilet Zan. (1992). Op. cit.

separation really correlates with the actual radiation dose. A related problem is the noted internal migration of the population, which calls into question the expediency and fairness of the existing distribution. As one of the medical professionals from among the respondents put it:

People affected by the activities of the polygon left the contaminated areas, and those who were not exposed to radiation, on the contrary, arrived in the areas adjacent to the polygon.¹⁵

The citizens of the region also largely agreed that the pension allowances provided, in particular those formed by the monthly calculation index, do not provide significant support for pensioners, since it is difficult to afford to purchase the necessary medicines with these funds.¹⁶

In Japan, Law No. 117 of 1994 identifies separate categories of medical benefits to regulate payments depending on their purpose for people who were affected by the Hiroshima and Nagasaki nuclear blasts.¹⁷ For example, article 26 prescribes that the supplement for microcephaly, which has a nuclear nature, is paid monthly in the amount of 46,600 yen. Kazakhstan may adopt a similar division of social payments, which could be calculated taking into account the category and type of disease and/or condition, rather than based on the MCI.

Another limiting aspect of article 13 of the law by Kazakhstan is that it focuses exclusively on financial forms of public support and work leave. Given that these measures, as it has been shown, do not often correspond to the vision of the residents of the region about fair social support, it is necessary to supplement the provisions of the article with paragraphs containing other, non-financial, forms of support, such as quotas for treatment in sanatoriums and other similar facilities. Article 14 on “Additional Benefits and Compensations

for Women, Children and Adolescents and Their Parents” of this law already stipulates that “children and adolescents under the age of 18 living in the territories affected by nuclear tests have the right to free health improvement (for medical reasons) in health resorts.”¹⁸ Thus, this recommendation would expand the existing legislative frameworks to include all citizens, paying special attention to seniors. As one of the interviewees suggested:

Perhaps this is getting some kind of sanatorium resort treatment for all these, as they are called, spa treatments, do you know? Summer treatment.¹⁹

Article 17 on the “Organization of Medical Care to the Population” emphasises the importance of organising comprehensive medical care and rehabilitation for this category of citizens. The principles enshrined in the article are aimed at creating conditions for a systematic approach to improving and maintaining the health of victims. However, the article neither specifies clear definitions of what is meant by such comprehensive assistance, nor reflects the requirements for its provision:

“Article 17

Persons specified in this Law are subject to comprehensive medical examination. A State Register shall be drawn up for their personal record. The provision of medical care to the victims of nuclear tests at the Semipalatinsk test site, and their comprehensive medical check-ups are carried out by health facilities at the place of their residence or work. Extraordinary specialized medical care of these persons is provided by all public health facilities in the Republic of Kazakhstan.

Annually, the republican budget provides for allocations to increase the funds for the maintenance of health facilities 1.5 times per resident compared with the national

¹⁵ Interviewee, Semey, 31.01.2024.

¹⁶ Interviewee, educational professional, Semey, 31.01.2024.

¹⁷ The Atomic Bomb Survivors’ Support Law. No 117 of 1994, accessed 22 October 2024. <https://kokkai.ndl.go.jp/simple/txt/113104237X01019941201/117>.

¹⁸ Adilet Zan. (1992). Op. cit. Article 14.

¹⁹ Interviewee, educational professional, Semey, 31.01.2024.

average. The Government of the Republic of Kazakhstan annually provides targeted allocation of medical equipment and medicines for health facilities located in areas affected by nuclear tests.”²⁰

Article 17 thus states that the provision of medical care to the affected population is to be carried out by local authorities at the place of residence of a person. Even if such medical support to the population by law is supposed to be provided by all health authorities on the ground, these responsibilities are often directed at the Scientific Research Institute of Radiation Medicine and Ecology. As its representatives stated, “There are certain problems here ... For two more years, the rehabilitation of the population affected by the test site was entrusted to the Research Institute.”²¹ That is, it creates an excessive workload only for one entity. This, in turn, creates an uneven distribution of resources and leads to inefficiency in the proper provision of diagnostic and rehabilitative medical care.

With regard to screening examinations, the obligations to conduct such diagnostic examinations have been assigned to the Scientific Research Institute of Radiation Medicine and Ecology. However, such examinations, along with visits to the affected settlements by the team of doctors of the Institute, were suspended in 2018.²² During interviews with representatives of the institute, a need was identified for the continuation of a scientific programme to identify morbidity among the victims of the test site, which was determined by the framework of targeted financing by the Ministry of Health. The ministry’s suspension of such financing and de-prioritisation at the ministerial level jeopardises sustainable and long-term work to provide timely and high-quality diagnostic medical care to the population of the region. Its renewal, as well as its inclusion in the standard, will make it resistant to changes in financing. In particular, such problems were highlighted in interviews with experts, who point to the difficulties

associated with maintaining the functioning of a special medical register of victims with an established causal relationship from ionising radiation:

All the time...the shell was created as part of a programme funded by the Ministry of Health. And then all these subsequent years, this register has been functioning only thanks to the enthusiasm of our employees. That is, no funding is allocated to maintain the register in working order. Well, in principle, data replenishment, data verification is carried out at the expense of scientific programmes ...²³

Recommendations

The inclusion of amendments and additions to these two articles, 13 and 17, of the law on social protection under consideration should therefore reflect the problems raised by different groups of the region’s population, both in the formulation and in the implementation of the proposals. Taking into account the above, this brief offers the following recommendations.

To make amendments and additions to Article 13 on the “Social Protection of the Population”:

- Abolish the zonal distribution of social benefits and define new calculation methods. In particular, unify social benefits for all residents by abolishing the existing distribution zones and replacing the calculation of payments based on the monthly calculation index with approved amounts. Since there is no clear understanding of the radiological threat, the division into zones appears unjustified. The current calculation method, thus, does not provide any substantial amelioration to citizens’ personal and economic well-being.

²⁰ Adilet Zan. (1992). Op. cit., 17

²¹ Interviewee, healthcare professional, Semey, 31.01.2024.

²² Urnaliyev, S., & Stavrianidi, G. (June 26, 2023). *Zhertvy Semipalatinskogo poligona: “Deti prodolzhayut rozhdatsya s patologiyami”*. Informburo, accessed 17 October 2024. <https://informburo.kz/fotoreportazh/zertvy-semipalatinskogo-poligona-deti-prodolzayut-rozdatsya-s-patologiyami>

²³ Interviewee, healthcare professional, Semey, 31.01.2024.

- Diversify of the ways the state provides social support to citizens, removing limits to certain defined benefits. To do this, specify in article 13, as a separate type of mandatory social support, sanatorium-therapeutic and rehabilitation support for the population, in particular the elderly, by determining the number of necessary places in sanatoriums and treatment centres and creating the necessary infrastructure base for this. Since the current calculation method of financial support and compensation is not often enough for treatment or medicine, other forms of support can be used to provide more results-oriented and feasible solutions for the health of the people.

To make amendments and additions to Article 17 on the “Organization of Medical Care to the Population”:

- Collaborate with the Ministry of Health of the Republic of Kazakhstan and the Research Institute of Radiation Medicine and Ecology to develop and publish a list of medical services with clear instructions on how to access them. That is, clearly define for patients what is meant by the concept of a “comprehensive medical examination” and what the procedure for providing such an examination is. Such a measure will not only enable citizens to have a clear understanding of which specific medical services they can get access, but also equally distribute the work of medical care provision among local public health entities.
- Specify in this standard the range of services offered for the rehabilitation of victims of nuclear tests by generation;
 - Establish standards for the provision of services; and provide the necessary resources and infrastructure to offer assistance;
 - Resume the state programme of targeted financing by the Ministry of Health to allocate funds and include this programme in the proposed standard so that the research programme for the detection of morbidity and diagnoses is not tied to changing political priorities;
 - Identify separate categories of services for children, taking into account the peculiarities of early childhood development and the often different course of diseases among child patients;
 - Determine the procedure for citizens to apply for comprehensive medical examination;
 - Assign to the Ministries of Labor and Social Protection and Health the implementation in accordance with standards;
 - Conduct annual monitoring and evaluation of the activities of subordinate bodies responsible for the implementation of this order in the field.

To achieve these goals, the following steps are proposed:

- Develop a state medical standard for the provision of medical care to the entire population living in all those areas specified under the law;
- Define the concept of “comprehensive medical examination” and determine the course of its passage;

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