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"Her Language Must Be the Language of Figures". Medical Statistics of the Russian Empire and the Kingdom of Prussia: A Comparative Perspective*

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This article examines the history of the establishment of departmental medical statistics in the Russian Empire and the Kingdom of Prussia in the first half of the nineteenth century. Starting from M. Foucault's concepts of biopolitics and governmentality, historians have studied the medical and statistical mechanisms for representing "public health" in England, France, and other West European countries in some detail. The case of the Russian Empire remains unexplored in this respect. Researchers have predominantly turned to hygienic statistics and data on mortality and fertility in Russian cities of the late imperial period, while the early period has long remained untouched. Moreover, these data have been analyzed apart from the transnational context of their creation. This article seeks to fill this gap partially. By comparing the introduction of two key medicostatistical indicators in Prussia and Russia (the nomenclature of diseases and the indicator of causes of death by disease), it has been argued that the Russian authorities, in their governing practices, followed mainly the Prussian path. In addition, both countries came to the same statistical model of representing the "public health" of the nation/empire. However, in the case of the Russian Empire, this transition was stretched over many decades and was carried out haphazardly. The article analyzes the main causes of this uneven implementation. In conclusion, it discusses the advantages and disadvantages of each country's medical and statistical models.

Keywords: medical statistics, biopolitics, Russian Empire, Kingdom of Prussia, L. Krug, K. Arsenev

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Статья посвящена становлению ведомственной медицинской статистики в Российской империи и Прусском Королевстве в первой половине XIX в. Отталкиваясь от концепций биополитики и говернментальности М. Фуко, историки довольно подробно изучили медико-статистические механизмы репрезентации «общественного здоровья» в Англии, Франции и других западноевропейских странах. Случай Российской империи все еще остается недостаточно изученным, так как исследователи преимущественно обращались к гигиенической статистике, данным по смертности и рождаемости в российских городах позднего имперского периода, тогда как ранний период долгое время оставался незатронутым. Кроме того, эти данные анализировались в отрыве от транснационального контекста их создания. Автор ставит задачу частично восполнить этот пробел. В рамках сравнительной истории внедрения двух ключевых медикостатистических показателей (номенклатура болезней и индикатор причин смертей по болезням) в Пруссии и Российской империи доказывается, что российские власти в своей управленческой практике во многом опирались на прусский путь. Обе страны пришли к единой статистической модели репрезентации «общественного здоровья» нации/империи. Однако в случае Российской империи этот переход осуществлялся неравномерно, причины чего анализируется в статье. Показаны преимущества и недостатки медико-статистических моделей обеих стран.

Ключевые слова: медицинская статистика, биополитика, Российская империя, Королевство Пруссия, Л. Круг, К. Арсеньев

The main trends in the historiography of medical statistics

In 1841, the Russian *Voenno-meditsinsky Zhurnal (Military Medical Journal)* issued a critical review of the "General Principles of Medical Statistics" published by the French physician Louis Gavarret (1809–1890) a year earlier. Following Gavarret, the anonymous author of the article placed great emphasis on using average rates to reveal "invisible" statistical patterns in clinical observations. It ended with an encouraging remark: "Once more, then, the science of medicine wants facts – comparable facts – numerous facts: well-observed, carefully arranged, minutely classified, and acutely analyzed. Its language must be the language of figures; its test the calculus of probabilities..." [Review, p. 21]. Although the review was published in a Russian scientific journal, it was not a projection of the Russian physician's thinking but, as often happened, a Russian translation of an English review of a French book¹. This case not only demonstrates one of the possible entangled ways of imparting Western European knowledge to Russia, or what Michel Espagne called the "triangular cultural

¹ The Russian translation has another exciting detail. The English sentence "its language must be the *language of figures*" (italics. – *M. R.*) was translated verbatim and correspondingly incorrectly as "*iazyk figur.*" However, it would be more appropriate to translate it as *iazyk tsifr.* Dahl's Explanatory Dictionary does not define *figura* as a synonym for *tsifra* in Russian.

transfer" (*le transfert culturel triangulaire*) [Эспань, с. 230–232] but also makes it possible to pose the article's key research questions: How did the ideas and practices of Western European statisticians translate into the ruling policies of Russian medical and statistical services? To what extent did Russian imperial elites correlate their rulling decisions with those of Western bureaucrats and statisticians?

The institutional and intellectual history of medical statistics in Western Europe has been amply studied, but the case of the Russian Empire in this respect has remained unexplored [Greenwood; Porter; Woolf, p. 602–603; Hacking, p. 187; Foucault, p. 255–284; Rosser Matthews, p. 14–86]. In the Russian Empire, officials of the Ministry of Justice and the Ministry of Internal Affairs (hereinafter MIA) made the first attempts to systematize the legislation and history of sanitary statistics as a source for implementing medical reforms [PFI/A. Φ . 1405. On. 532. [J. 607]. Soviet historians have thoroughly studied various numerical data as a part of other field studies (medical geography, demography, economics, etc.), as well as the sanitary statistics of cities and zemstvos in the late imperial period [Маркузон; Марковин, с. 37–68, Очерки, с. 7–62]. However, these data have often been focused on Russia only and analyzed asynchronously, i.e., in isolation from the historical and transnational context of their creation.

Contemporary researchers have approached the study of Russia's medical topography, military, and economic statistics as power technologies of Western European states by emphasizing the continuity of Russian and European historical trajectories [Гатина; Holquist; Morrissey; Смит-Петер; Smith-Peter; Вишленкова]. Until recently, the history of medical statistics in this regard has not been sufficiently studied. In a new volume of articles on the history of medical geography in the Russian Empire, Elena Vishlenkova and Sergei Zatravkin revisit the paternalistic views of Soviet historians regarding the concept of "people's health." They instead approach sanitary statistics as an imperfect bureaucratic mechanism of epidemic control over vast imperial territories [Вишленкова, Затравкин, с. 235–238].

Research approach

The ongoing research is consistent with the latter study, with more emphasis placed on direct comparative analysis and the thick transnational context that had a significant influence on the institutional development of Russia's medical and statistical services. This goal is achieved on two key levels. Firstly, the article examines bureaucratic mechanisms of statistical counting of deaths in the work of the Prussian Royal Statistical Bureau. Secondly, it turns to an analysis of similar mechanisms in the Russian Empire compared to the Prussian background to show how ministerial decisions in Russia correspond with it and, on the other hand, to point out the ruptures of the two models in conclusion. Defining this comparative study as "the systematic extension of the field beyond national cleavages" in Espagne's terms [Espagne, p. 121], the study focuses on the particular history of the adoption of a unified nomenclature of diseases and statistical indicators of the causes of death by diseases as universal categories for constructing the concept of "public health" in both countries. In contrast to previous historiography that approached the history of medical statistics anachronously, this study employs the synchronous method in terms of Werner and Zimmermann to bind together leading actors, government decisions, and corresponding ideas [Werner, Zimmermann, p. 35].

The rationale for the comparative analysis and sources used

This synchronicity is achieved by contextualizing the origins and development of statistical services in Russia and Prussia, driven by two key factors, institutional and intellectual. While interest in medical statistics grew in France because of research in clinical medicine, its development in the Russian Empire was similar to the institutional development of the Prussian and Bavarian kingdoms. At the highest level in Prussia, there was the *Obercollegium Medicum et Sanitatis*. In the Russian Empire, the same functions were carried out by the Medical Collegium (*Meditsinskaia kollegiia*) since 1763. Followed by the highest institutions, the *Provinzial-Medizinal-Collegium* of Prussia or the Medical Board (*Vrachebnaia uprava*) of the Russian Empire supervised all civil medicine at the provincial level. A local *Physic*, a doctor in the civil service of Bavaria and Prussia, and an *uyezd* doctor in the Russian Empire were at the lowest rung of the bureaucratic ladder. They carried out the orders of the secondary institutions on the spot.

From the intellectual point of view, contemporaries reflected on and referred to the Prussian way as exemplary when they sought to put certain policies into practice. Although some researchers have noted the influence of Adam Smith's economic ideas on Russian statisticians in the early nineteenth century, Prussian statistical thought was considered no less important, especially in the medical field [Smith-Peter, p. 48–49]. For instance, Carl Hermann (1767–1838), the founder of statistical studies in the Russian Empire, was particularly flattered by the research activities of the two leading Prussian statisticians, Leopold Krug (1770–1843) and Johann Hoffmann (1765–1847), while his successor Konstantin Arsenev (1789–1865) wished Russian statistics to reach the "state of perfection" of the Prussian and other German states in this respect [РГИА Ф. 1286. Оп. 2. Д. 168. Л. 8 об.; Арсеньев, 1839, c. II].

Given the above, the article's sources such as statistical tables and figures of deaths from epidemics or endemics are not intended to reconstruct some "objective picture" of mortality or the "real" state of public health in the two countries, which requires a careful correlation of many indicators over specific periods and is the subject of a special study [Stanziani, p. 1–4]. Instead, they are regarded as projections of power elites in representing and measuring "public health" through historically ingrained administrative practices of statistical counting. The legislative decrees and departmental orders in their comparative perspective serve as another key source for reconstructing the heterogeneous landscape of medical and statistical services in Prussia and the Russian Empire in the first half of the nineteenth century.

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The rise of Royal Medical Statistics under Leopold Krug and Johannes Hoffmann

Starting in the late 1780s, medical and topographical descriptions were replaced by structured reports that included statistical data presented in tables. In France, the genre reached its peak in the 1780s and then declined, despite some revivals in the 1820s and during the Second Empire [Fournier, p. 62]. In the UK, medical topography had evolved into regular statistical reporting of the vast British dominions, which was used as an instrument of colonial rule since the 1820s [Jepson, p. 137–138]. In Prussia, such a transition was tied to establishing the Royal Statistical Bureau, which became a structural part of the MIA in 1805. As a strong proponent of cameralism, the first director of the bureau, Leopold Krug, focused on compiling a comprehensive statistical table of human and land resources. Consequently, he compiled an annual historical and statistical report for the year 1804/1805 (known as *Statisticsh-historischer Bericht für das Jahr 1804/5*) that comprised eight sections and 24 tables [Boeckh, 1863, p. 20].

The third part of the report focused on medical and statistical information about the population. The first heading under the meteorological section provided data on weather patterns and their impact on public health. The accompanying table included information on low and high temperatures measured with a thermometer, atmospheric pressure measured with a barometer, wind direction, and the number of cold, warm, and moderate days per year. The second section discussed the causes of epidemic and endemic diseases and their connection to temperature variation, air quality, and nutrition. It also contained statistics and tables on livestock diseases. In 1805, the Statistical bureau obliged local authorities to collect meteorological observations, which were later published in government newspapers throughout the Prussian provinces [Ibid., p. 20–21].

Under the leadership of the second director, the cameralist Johann Hoffmann, the bureau pursued the goal of unifying statistical reporting forms. It divided the objects of the statistical survey into two rigid categories: lands and people. Based on this, Hoffmann developed the socalled "population list" (Bevölkerungsliste) that included yearly statistics on births, marriages, deaths, and their causes, including causes of deaths due to illnesses or epidemics [Engel, 1860, p. 4–5]. The data was provided to the bureau by the Obercollegium Medicum et Sanitatis and later the Deputation für das Medizinalwesen, which in turn gathered it through the Provinzial-Medizinal-Collegium and local physicians. Unlike the first director, Hoffmann employed state doctors more decisively. The *Deputation* was to develop a uniform nomenclature of diseases in the kingdom. With its help, officials were about to adopt a register of causes of death due to diseases (supplemented by suicides and accidental deaths). In 1810, the deputation presented Hoffmann with a list of one hundred and seventeen diseases. The State Council reduced this list to thirty-eight and it was approved in this form by the MIA. As a result, a table of causes of death (Tabelle der Todesursachen) was developed with a breakdown of the text into rows

(thirty-eight diseases) and columns (men, women, provinces). This table showed the absolute numbers of deaths by year for each combination of disease and demographic category [Boeckh, 1863, p. 36–37].

However, the central government soon realized that the nomenclature was too complex and indigestible for local authorities to accurately determine the cause of death. Only physicians could distinguish between the "intermittent," "spotted," or other dozen fevers given in it, but they were lacking in all the provinces. Therefore, as early as 1815, the governors (Oberpräsidenten) of the regained western provinces protested against this order. Eventually, the nomenclature was reduced to 12 entries (death by old age, suicide, accident, stillbirth, infant bed, smallpox, rabies, internal disease, divided into subgroups of acute (labeled as "rapid") and chronic ("lingering") disease, asthma, stroke, internal bleeding (as a single heading), external disease, unknown disease) and arranged in a new simplified form (by male and female in separate columns). Instead of dozens of "fevers" unknown to laypeople, it presented a shortlist of "folk" maladies such as easily recognizable smallpox, rabies, etc. At the same time, it contained the headings of approximate morbid conditions (internal, external, acute, chronic) in which the patient had been found at or near the time of death [Engel, 1861, p. 324; Engel, 1862a, p. 66-68]. This classification remained in use until the 1860s, but special notes were added to the table for cholera. Hoffmann's circular of October 8, 1831 required the provinces to provide information about the beginning and end of the epidemic, as well as the number of the sick and the dead. In addition, a special heading, "deaths from cholera" by sex and age, appeared in the people's lists since the early 1830s [Boeckh, 1863, p. 74].

Thus, the first attempts to link causes of death with specific diseases made by the statistician Krug as early as 1804 were finally established at the state level in 1815. Apparently, from that time onwards, the nomenclature became an invisible tool of epidemic control and a mechanism for (re)producing normative knowledge about the state of public health in the kingdom. The bureau could send it to the Provinzial-Medizinal-Collegium, which, in turn, could forward it through the district doctors (*Kreisphysicus*) and the local self-governments (Landrat) to the parishes to record deaths due to illness in the church registers [Engel, 1862b, p. 219]. At least similar attempts had been made earlier by Krug. Still, the kingdom's highest physicians opposed allowing priests to record deaths because they were unwilling to delegate their professional duties [Boeckh, 1863, p. 20-21]. However, an introduction of the simplified nomenclature turned the tide. Local officials and priests became a crucial link in the supply chain and production of statistical information for "the metropole". Based on their records, the bureau's statisticians kept annual tables for causes of death and population lists at the national level. Since the late 1820s, they gathered, systematized, and packed this information in the form of statistical reporting. By consistently accumulating and dynamically constructing a statistical picture of each province and even the smallest settlements, the Prussian Statistical Bureau began to work as a fine-tuned panopticon.

The establishment of departmental medical statistics in the Russian Empire

In the Russian Empire, August Schlözer (1735–1809) was perhaps one of the first to point out the need for a statistical body (*russischen TebellenCointoir*) as early as 1764. He petitioned the Russian Academy of Sciences to create a statistical office modeled on the Swedish *Tabellverket* because Russia, as a "great power," could gain from it many findings on climate, religion, and customs and become "the third state in the civilized world" after Prussia and Sweden to adopt such an establishment [Schlözer, 1802, p. 155]. In conjunction with the Medical Collegium, this office was supposed to collect numbers of births, marriages, and deaths due to disease through local priests and doctors, which a few years earlier had been achieved by a pioneer of statistical surveys in Sweden, Pehr Wilhelm Wargentin (1717–1783) [Teare, Gino, p. 2293].

Schlözer's plan did not take long. In the same year, the Senate issued a decree that required priests in St Petersburg to make monthly tables of deaths and transfer them to the Synod [∏C3-1, т. 16, № 12061]. Schlözer obtained the idea for the table from Wargentin during his study of statistics in Sweden [Schlözer, 1802, p. 148]. The table comprised a breakdown by sex and age from 0 to 90 years (top heading) and a nomenclature of 21 deprecated "fevers" including smallpox, epilepsy, and madness (presented line by line on the left bar of the table). By introducing the age variable, its compiler assumed to collect data on higher or lower age mortality in the long run. This was a significant improvement over the first Prussian tables, which did not include such a breakdown. Shlözer claimed to be the author of the table, but this is unlikely [Птуха, с. 319]. Although Schlözer's book on smallpox in Russia was published around the same time as the decree, a group of diseases and their numbers in "his" nomenclature differed from the enacted [Schlözer, 1768, p. 10, 12]. Of course, it could have been revised by members of the Medical Collegium before it passed to the Senate for approval.

The key difference, however, is that, unlike Prussia, the Russian nomenclature did not become the state's unified register of deaths by diseases. Indeed, while the decree also obliged provincial offices (*gubernskie kantseliarii*) to provide the Senate with tables on the number of peasants and landlords, monthly tables on the number of deaths caused by illnesses applied only to St Petersburg and the parishes of Estonia and Livonia. Thus, it covered only selected parts of the Empire and only those provinces where such statistical work could be accomplished through a dense network of German parishes or had already been voluntarily conducted by local pastors. Besides, it did not provide simplified instructions for St Petersburg priests to determine death from a specific disease. Assuming that Russia introduced this power technology earlier than Austria (1784), Prussia (1811), or Bavaria (1839), its practical implementation throughout the empire was still not feasible due to the lack of trained intermediaries among local officials, parishes, and doctors [Журавский, с. 154–155].

Although the decree played a tremendous role in the development of medical and statistical surveys of Russia, it is hard to judge to what extent it became a working administrative technology for constant monitoring and safeguarding of public health in St Petersburg. However, enlightened bureaucrats proceeded from the very biopolitical idea of controlling and improving the "public" and its "health" through properly placed statistical work. Based on figures obtained from St Petersburg parishes, an academician Wolfgang Krafft (1743–1814), compiled a summary table of deaths from a particular illness to the total death rate of males and females (per 1000 deaths). He defined this ratio as "a measure of the public health and the strength of disease" (*"est la mesure du degré de la santé publique & de la force des maladies"*) and explained its significance for state interventionism as follows:

These measures show not only the diseases which affect the population the most... but also indicate the locations which are more affected by these diseases, and which are more in need of government assistance. Thus, by preventing disease, an enlightened government acts to preserve the lives of citizens more vigorously than medicine itself does to cure them [Krafft, p. 14–15].

The Statistical Department of which Schlözer dreamed was finally created under the auspices of the Ministry of Police in 1811. At the same time, the pioneering ideas of Kraft did not appear under the radar of the newfound state body. Although its head Carl Hermann tried to expand surveys and revamp statistical work based on the Prussian model, the ministry defined the department's priorities as collecting data on land and space, population (excluding statistics on deaths by disease), and industry [Варадинов, с. 314-315]. The "Rules" of 1834 on establishing provincial statistical committees enshrined this order. According to them, the committees were required to compile "detailed and accurate descriptions of the Governorate... [its] economy, industry, and trade", while there was no explicit requirement to keep records of deaths or mortality by disease [ΠC3-2, т. 9, № 7684]. The situation got off the ground when Konstantin Arsen'ev was appointed head of the department. Nicholas I ordered the MIA to provide him with quantitative data for the statistics course, which Arsen'ev read to the heir [Π туха, с. 362].

As a part of this curriculum, he published a thorough "Plan of Studies of the Statistical Department" (1835). It contained well-structured sections on "Public Welfare" (*ob obshtyestvyennom prizryenii*) and "Public Healthcare" (*o sokhranyenii narodnoguo zdraviya*) which was an equivalent of the Prussian term "*Gesundheitspflege*" [Engel, 1861, p. 332]. Arsenev's study plan, at least in its medical-statical part, resembled the survey program of the Prussian Statistician Bureau in the 1830s. According to it, the department was not only to accumulate statistics on hospital mortality and deaths from endemic diseases but also to process the data received from the provincial statistical committees, summarize the total figures, find averages, such as the ratio of treated persons to the total number of citizens of some province, or to calculate mortality rates in public and private hospitals [Apсеньев, 1835, с. 20, 33–35].

Unfortunately, these ideas remained on paper. The clerks of the provincial statistical committees, already burdened with paperwork from other departments, did not have to collect additional data not required by the "Rules" of 1834. Still, the statistical committees could have obtained medical and statistical data because inspectors of the Medical Boards, who were appointed as their members, had access to this information [∏C3-2, т. 9, № 7684]. Based on a study of archival sources, it became clear that the inspectors did not necessarily collaborate with the committees. For example, in the annual report to the Kherson governor, a member of the statistical committee, landlord Vasilii Fugarov (?-?), very vaguely mentioned that "in the city itself up to 100 people were ill [with cholera], and only 7 of them died" [РГИА. Ф. 1290. Оп. 4. Д. 16. Π . 12]. Thus, the government's priorities on economic and land resources set the pattern for the department's statistical surveys up to the early 1860s. While in Prussia, the bureaucratic machinery of registering deaths due to illness became an integral part of the Statistical bureau's work at an early stage, in the Russian Empire, it was still limited to St Petersburg.

Haphazardness of bureaucratic workflow and the failure of medical and statistical counting

Why did the Russian Statistical Department not become a key center for accumulating and analyzing medicinal and statistical data? Why was the requirement for a mandatory and empire-wide registry of deaths by disease not in the optics of Russian officials from the very beginning, as it was in the work of the Prussian Statistical Bureau? Two lines of reasoning seem possible here. The first concerns the department's lack of autonomy in terms of study scope. Alexander Balashov's plan (1770-1837) for an independent statistical body with a director at its head was not supported by Alexander I [Елисеева, Дмитриев, с. 22–23]. Hermann and Arsenev were constrained by the strict rulings of the MIA, which prioritized economic statistics and had remained largely unchanged since 1804 [Птуха, c. 220-221]. On the contrary, the Prussian Statistical Bureau gained greater institutional autonomy, which Hermann described as "...the right to demand from all government bodies any information that the director [deemed] necessary for the conduct of his affairs." [РГИА. Ф. 1286. Оп. 2. Д. 168. Л. 24]. He wished Russia to follow the Prussian bureaucratic model in this respect, but this was not achieved.

The second is related to the origins of medical management in Russia. Since the disbandment of the Medical Collegium in 1804, the Medical Department had been "wandering" from one ministry to another until it "settled" in the MIA in 1829 [Вишленкова, с. 64]. Due to such scattered management, the quality of work between the center (ministries) and the periphery (the provincial Medical Boards) was severely affected. Starting

in 1800, the Medical Department instructed inspectors of the Medical Boards to compile yearly tables called "medical and physical lists" (*mediko-fizichyeskiye vyedomosti*). These lists contained specific figures regarding the number of deaths and illnesses resulting from epidemics or endemics, categorized by sex and age. The tables were based on an exemplary one created by Jacob Fries (1749–1801), a German physician and inspector of the Vologda Medical Board [РГИА. Ф. 1294. Оп. 1. Д. 2, 9].

However, the Medical Department immediately encountered resentment from local doctors, who did not fully understand how to complete the forms [Там же. Ф. 1299. Оп. 1. Д. 265. Л. 41]. Instead of exact figures, physicians wrote lengthy paragraphs in the columns and provided unclear descriptions of the local soil, air quality, hazards of endemic diseases, etc. Furthermore, there were various versions of these tables [Tam \approx 0. 1294. Оп. 1SV (XLIX). Д. 36. Л. 6-8]. The structure and content of the tables were revised over several years (at least during the years 1806, 1808, and 1812), which created terminological confusion and hindered bureaucratic workflow between higher and lower officials [Гатина, с. 119, 120, 127]. In addition to the omnipresent shortage of medical personnel, there was simply no one to take on this task. In some regions, like Tver', this was due to the unfortunate circumstance of the operator falling ill and the new inspector arriving too late to take up the duty [РГИА. Ф. 1299. Оп. 1. Д. 265. Л. 64]. Over time, the Medical Boards failed to collect yearly tables as required by the MIA, in contrast to Prussia, where the bureau had been consistently gathering such tables from local administrations since 1816 [Там же. Оп. 13. Д. 1184. Л. 10].

The devastating aftermath of the cholera epidemic (1830-1831) highlighted the failure of the MIA in statistical accounting as a timeproven tool to localize the infection in its early spread. It forced the authorities to issue decrees of 1837 and 1839, which obliged the civil governors to submit weekly tables of the dead and sick from contagious and venereal diseases to the emperor [РГИА. Ф. 1405. Оп. 532. Д. 607. Π . 2]. This measure, albeit belated, was borrowed from Hoffmann's circular (1831) on reporting figures for the dead and sick due to cholera in Prussia. The governorates enforced the requirement poorly, so an additional decree followed in 1842. Since the data in the governors' reports were often inaccurate, "and the simplest numerical entries... [were] shown indefinitely or even erroneously," the Decree of October 14, 1842, obliged governors to submit annual reports according to an exemplary one provided by the MIA [∏C3-2, т. 7, № 16084a]. It consisted of 30 tables. For the first time, the "Table of unusual occurrences for some province" included the column "sudden deaths from morbid seizures" (vnyezapniye smyertniye sluchai ot bolyeznyennikh pripadkov), but it did not specify the kind of seizures it was referring to. The decree did not offer a full-fledged table with a breakdown by disease and sex, rendering this column useless for senior officials trying to deduce the total number of deaths or empire-wide mortality rates.

Until the mid-1850s, the Statistical Department and Medical Department of the MIA showed little interest in organizing, analyzing, and summarizing data on deaths from diseases. In 1856, the Medical Department published a comprehensive "Report on the State of Public Health in the Empire," which provided summary tables of deaths by 80 diseases and morbidity rates of ill patients (per 1000 people) in 54 provinces. However, no publications were released from 1860 to 1875. It is also puzzling that the first such report was compiled in 1854 but remained unpublished [Отчет, с. 146]. Although the statistics on the diseased were provided by the Medical Boards from 1843 (according to the decree of 22 July 1842), the MIA did not start to publish them since 1844 [∏C3-2, т. 17, № 15880]. The reason could be that the department had not yet developed a unified nomenclature of diseases. Inspectors of the Medical Boards prepared annual reports based on several nomenclatures in use, which caused the final numbers of the ill and deceased submitted to the MIA to be inaccurate. Processing the same information in different forms often slowed down inspectors' work and, more importantly, affected the reliability of the data sent to higher authorities [$P\Gamma UA$. Φ . 733. Оп. 195. Д. 61. Л. 1, 47].

Nevertheless, for the first time, the report allowed medical officials to invent the "public health" (obshchestvennoe zdravie) of the heterogeneous empire. The statistics of deaths and morbidity immediately revealed "sick" or "healthy" areas. It allowed the officials to construct and, at the same time, link together absolutely diverse imperial spaces. Representing the empire through the geography of its diseases, the Director of the MIA Fyedor Otsolig (1798-1863) took broad strokes: "...In the southern strip (Kherson, Astrakhan, Bessarabia, etc. - R. M.) pertussis was stronger than in other places of the Empire," but "catarrhal fever, with exceptional lesions of the respiratory tracts, occupied mainly the northern and eastern strips of the Empire (Moscow, Kazan, Tamboy, etc. - R. M.)" [Отчет, с. 51, 55, 90, 96, 221]. A similar transformation occurred in the optics and discourse of Prussian officials, who, from the early 1840s, introduced the term "state of health" (Gesundheitszustand), which was connected to or defined by statistics of mortality (Gesundheits- und Sterblichkeitsverhältnisse). In other words, the statistics of causes of death by diseases became a barometer of public health in the kingdom. As for Russia, this cannot be claimed with certainty. While the Prussian physicians and bureau closely monitored the aforementioned MIA reports to assess the threat of impending epidemics from the "eastern neighbor," the Russian authorities had only to find mechanisms for systematic statistical counting [Engel, 1879, p. 877; Niemeyer, p. 360].

* * *

Despite some historical and institutional continuity, the Russian Empire and the Kingdom of Prussia had their fundamental distinctions. By introducing a simplified nomenclature of diseases, Prussian bureaucrats succeeded in implementing an ideal mechanism of statistical counting in terms of its accessibility and ability to cover the most population since deaths were registered not only by physicians but also by priests and local officials. Russian pattern lacked a unified nomenclature of diseases, but it was more accurate since deaths were registered by doctors. However, it reflected only hospital statistics, i.e., the ones bureaucrats wished to see, while most deaths remained out of sight.

Although Russian officials justifiably considered the Prussian statistical model superior to the others, it was still far from being perfect. As in all modernizing states of that time, statisticians carried out population counts erroneously or repeatedly. The Prussian local authorities, as Herzen aptly put it for Russia, similarly "looked upon [statistics]... as a useless luxury, as a caprice of the ministry" and filled out reports with reluctance or delay [Herzen, p. 179; Boeckh, 1861, p. 308]. Hermann and Arsenev were aware of these flaws [PFI/A. Φ . 1286. On. 2. \square . 168. \square . 9 o6., 10]. However, they were rather breaches in the systematic approach of the bureau, which were corrected by the circulars of 1838 and 1859 [Engel, 1862c, p. 166–167]. An establishment in the Russian Empire of a statistical mechanism similar to the Prussian one, given its great distances, ethnical diversity, and, most importantly, the lack of a dense and evenly distributed network of local officials, physicians, and priests, could only be possible gradually and on a pilot basis.

Mandatory registration of death by a doctor was introduced in St Petersburg in 1867 and in Warsaw in 1881. In 1902, it was introduced in the cities of the Kingdom of Poland, and in other cities where the local authorities found it possible. In those towns and districts (uvezds) where this was impracticable, the MIA eventually introduced registration of deaths through local parishes. The provincial Medical Sections, which replaced the Medical Boards in 1865, prepared special forms for priests to enter the numbers of the deceased from one or another disease every month. This measure, first as a temporary and then as a permanent one, was adopted in 1890 for all the district dioceses, except for those in Siberia, Turkestan, Arkhangelsk, and a few other dioceses [ΡΓИΑ. Φ. 1405. Οπ. 532. Д. 607. Π , 2 o6., 3]. The Medical Department raised the question of creating a unified nomenclature of diseases in 1896 only. After six years of discussions, it was adopted in two versions: the short one served as a single form of reporting for all governmental bodies of the empire, while the extended one was designed to clarify diseases not included in the first version [Tam \approx 0.733. Оп. 195. Д. 61]. Thus, it was only in the early twentieth century that Russia's system of medical statistical reporting was finally brought into line with the desired Prussian model, albeit with its peculiarities.

Библиографические ссылки

Арсеньев К. И. План занятий статистического отделения Совета Министерства внутренних дел. СПб. : [Б. и.], 1835. 37 с.

Арсеньев К. И. Материалы для статистики Российской империи, издаваемые с высочайшего соизволения при Статистическом отделении Совета Министерства внутренних дел: в 2. ч. СПб. : Тип. М-ва внутр. дел, 1839. Ч. 1. 690 с. Варадинов Н. В. История Министерства внутренних дел: в 3. ч. СПб. : Тип. М-ва внутр. дел, 1862. Ч. 2, кн. 2. 604 с.

Вишленкова Е. А. «Выполняя врачебные обязанности, я постиг дух народный»: самосознание врача как просветителя государства (Россия, первая половина XIX века) // Ab Imperio. 2011. № 2. С. 47–79. DOI 10.1353/imp.2011.0049.

Вишленкова Е. А., Затравкин С. Н. Медицинская статистика и карты // История медицины и медицинской географии в Российской империи : сб. ст. / под ред. Е. А. Вишленковой, А. Реннера. М. : Шико, 2021. С. 216–254.

Гатина 3. С. Врачебная экспертиза в системе управления Российской империи первой половины XIX века : дис. ... канд. ист. наук. М. : [Б. и.], 2017. 240 с.

Елисеева И. И., Дмитриев А. Л. Очерки по истории государственной статистики России. СПб. : Росток, 2016. 288 с.

Журавский Д. П. Об источниках и употреблении статистических сведений. Киев : Тип. Вальнера, 1846. 210 с.

Марковин А. П. Развитие медицинской географии в России. СПб. : Наука, 1993. 176 с.

Маркузон Ф. Д. Санитарная статистика в городах предреволюционной России // Очерки по истории статистики СССР : сб. ст. / под ред. М. В. Птуха. М. : Госстатиздат, 1955. С. 121–162.

Отчет о состоянии общественного здравия и деятельности больниц гражданского ведомства в империи за 1857 год / сост. Ф. М. Отсолиг. СПб. : Тип. Б-ки мед. наук д-ра М. Хана, 1859. 358 с.

Очерки истории отечественной санитарной статистики / под ред. А. М. Меркова. М. : Медицина, 1966. 286 с.

ПСЗ. Собр. 1. Т. 16; Собр. 2. Т. 7, 9, 17.

Птуха М. В. Очерки по истории статистики в СССР: в 2. т. М. : Изд-во Акад. наук СССР, 1955. Т. 1. 239 с. Т. 2. 476 с.

РГИА. Ф. 733. Оп. 195. Д. 61; Ф. 1286. Оп. 2. Д. 168; Ф. 1290. Оп. 4. Д. 16; Ф. 1294. Оп. 1. Д. 2, 9; Оп. 1SV. Д. 36; Ф. 1299. Оп. 1. Д. 265; Оп. 13. Д. 1184; Ф. 1405. Оп. 532. Д. 607.

Смит-Петер С. Русская статистика первой половины XIX в. в общеевропейском контексте // Вопросы истории, естествознания и техники. 2005. № 4. С. 125–136.

Эспань М. История цивилизаций как культурный трансфер. М. : Новое лит. обозрение, 2018. 816 с.

Boeckh R. Die Bearbeitung von Kreisstatistiken durch die königlichen Landräthe in Folge des Ministerialrescripts vom 11. April 1859 // Zeitschrift des königlich preußischen statistischen Bureaus. 1861. № 12. S. 307–320.

Boeckh R. Die geschichtliche Entwicklung der amtlichen Statistik des Preußischen Staates. Berlin : R. Decker, 1863. 105 S.

Engel E. Zur Geschichte des königlich preußischen statistischen Bureaus. Eine Erinnerungsfeier seiner Errichtung // Zeitschrift des königlich preußischen statistischen Bureaus. 1860. № 1. S. 3–8.

Engel E. Die Sterblichkeit und die Lebenserwartung im preußischen Staate und besonders in Berlin. I. Hauptabschnitt und II. Hauptabschnitt 1–3 // Zeitschrift des königlich preußischen statistischen Bureaus. 1861. № 13, 14, 15. S. 321–352.

Engel E. Die Sterblichkeit und die Lebenserwartung im preußischen Staate und besonders in Berlin. Fortsetzung. I. 4. Die Absterbeordnung und die Lebenserwartung. I. 5. Die Sterbefälle in der Zeit von 1816 bis 1860 nach den Todesursachen // Zeitschrift des königlich preußischen statistischen Bureaus. 1862a. No 3. S. 50–68.

Engel E. Die Sterblichkeit und die Lebenserwartung im preußischen Staate und besonders in Berlin, Schluss // Zeitschrift des königlich preußischen statistischen Bureaus. 1862b. № 10. S. 217–243.

Engel E. Über die neuesten Fortschritte in der Organisation der amtlichen Statistik in Preußen // Zeitschrift des königlich preußischen statistischen Bureaus. 1862c. N_{0} 7, 8. S. 161–176.

Engel E. Katalog der Bibliothek des Königlichen Statistischen Bureaus zu Berlin. Berlin : Verlag des Königlichen Statistischen Bureaus, 1879. Abt. 2. 732 S.

Espagne M. Sur les limites du comparatisme en histoire culturelle // Genèses. 17. 1994. Les objets et les choses, sous la direction de Francine Soubiran-Paillet. 1994. P. 112–121. DOI 10.3406/genes.1994.1266.

Foucault M. Security, Territory, Population. Lectures at the Collège de France, 1977–78. Basingstoke : Palgrave Macmillan, 2009. 464 p.

Fournier P. Épidémies et médicalisation des territoires ruraux (vers 1770 – vers 1830) // Siècles. 2009. Vol. 30. P. 61–83. DOI 10.4000/siecles.136.

Greenwood M. Medical Statistics from Graunt to Farr // Biometrika. 1942. Vol. 32, № 3/4. P. 203–225. DOI 10.2307/2332126.

Hacking I. How Should We do the History of Statistics? // The Foucault Effect : Studies in Governmentality with Two Lectures by and an Interview with Michel Foucault / ed. by G. Burchell, C. Gordon, P. Miller. Chicago : Univ. of Chicago Press, 1991. P. 181–196.

Herzen A. My Past and Thoughts: The Memoirs of Alexander Herzen / transl. by C. Garnett. Berkeley : Univ. of California Press, 1973. 684 p.

Holquist P. To Count, to Extract, to Exterminate: Population Statistics and Population Politics in Late Imperial and Soviet Russia // A State of Nations: Empire and Nation-Making in the Age of Lenin and Stalin / ed. by T. Martin, R. Suny. N. Y. : Oxford Univ. Press, 2001. P. 111–144.

Jepson W. E. Of Soil, Situation, and Salubrity: Medical Topography and Medical Officers in Early Nineteenth-Century British India // Historical Geography. 2004. Vol. 32. P. 137–155.

Krafft W. L. Essai sur les Tables des mariages, des noissances, O' des morts de la Ville de St Petersbourg, dans le période de 17 ans, debuis 1764 jusqu'à 1780 // Acta Academiae Scientiarum Imperialis Petropolitanae. 1782. Pars Prior. P. 3–66.

Morrissey S. Suicide and the Body Politic in Imperial Russia. Cambridge : Cambridge Univ. Press, 2007. 384 p.

Niemeyer P. Bericht über den Volksgesundheits-Zustand und die Wirksamkeit der Civil Hospitäler im russischen Kaiserreiche für das J. 1858 // Jahrbücher der in-und ausländischen gesamten Medizin. Bd. 109. 1861. № 3. S. 360–362.

Porter T. M. The Rise of Statistical Thinking 1820–1900. Princeton, N. Jersey : Princeton Univ. Press, 1986. 360 p.

Review. General Principles of Medical Statistics, or a Development of the Rules Which Ought to Preside over the Use of Numbers in Medical Investigations // The British and Foreign Medical Rev. 1841. Vol. 12. № 23. P. 1–21.

Rosser Matthews J. Quantification and the Quest for Medical Certainty. Princeton, N. Jersey : Princeton Univ. Press, 1995. 195 p.

Schlözer A. L. Von der Unschädlichkeit der Pocken in Rußland und von Rußlands Bevölkerung überhaupt. Göttingen : J. C. Dieterich, 1768. 152 S.

Schlözer A. L. August Ludwig Schlözer's öffentliches und privat-Leben, von ihm selbst beschrieben. Göttingen : V&R, 1802. 308 S.

Smith-Peter S. Defining the Russian People: Konstantin Arsen'ev and Russian Statistics before 1861 // History of Science. 2007. Vol. 45, № 1. P. 47–64. DOI 10.1177/00732753070450010.

Stanziani A. European Statistics, Russian Numbers, and Social Dynamics, 1861–1914 // Slavic Rev. 2017. Vol. 76, № 1. P. 1–23. DOI 10.1017/slr.2017.3.

Teare S. W., Gino M. C. Wargentin, Pehr Wilhelm // The Biographical Encyclopedia of Astronomers / ed. by T. Hockey et al. N. Y. : Springer, 2007. P. 2292–2293. DOI 10.1007/978–0–387–30400–7_1446.

Werner M., Zimmermann B. Beyond Comparison: Histoire Croisée and the Challenge of Reflexivity // History and Theory. 2006. Vol. 45, № 1. P. 30–50. DOI 10.1111/j.1468–2303.2006.00347.x.

Woolf S. Statistics and the Modern State // Comparative Studies in Society and History. 1989. Vol. 31, № 3. P. 588–604. DOI 10.1017/S0010417500016054.

References

Arsen'ev, K. I. (1835). *Plan zanyatii statisticheskogo otdeleniya Soveta Ministerstva vnutrennikh del* [Plan of Studies of the Statistical Department of the Council of the Ministry of Internal Affairs]. St Petersburg, S. n. 37 p.

Arsen'ev, K. I. (Eds.). (1839). *Materialy dlya statistiki Rossiiskoi imperii, izdavaemye s vysochaishego soizvoleniya pri Statisticheskom otdelenii Soveta Ministerstva vnutrennikh del v 2 ch.* [Materials for Statistics of the Russian Empire Published with the Highest Permission of the Statistical Division of the Council of the Ministry of Internal Affairs. 2 Parts]. St Petersburg, Tipografiya Ministerstva vnutrennikh del. Part 1. 690 p.

Boeckh, R. (1861). Die Bearbeitung von Kreisstatistiken durch die königlichen Landräthe in Folge des Ministerialrescripts vom 11. April 1859. In Zeitschrift des königlich preußischen statistischen Bureaus. No. 12, S. 307–320.

Boeckh, R. (1863). Die geschichtliche Entwicklung der amtlichen Statistik des Preußischen Staates. Berlin, R. Decker. 105 S.

Eliseeva, I. I., Dmitriev, A. L. (2016). *Ocherki po istorii gosudarstvennoi statistiki Rossii* [Essays on the History of State Statistics of Russia]. St Petersburg, Rostok. 288 p.

Engel, E. (1860). Zur Geschichte des königlich preußischen statistischen Bureaus. Eine Erinnerungsfeier seiner Errichtung. In Zeitschrift des königlich preußischen statistischen Bureaus. No. 1, S. 3–8.

Engel, E. (1861). Die Sterblichkeit und die Lebenserwartung im preußischen Staate und besonders in Berlin. 1. Hauptabschnitt und II. Hauptabschnitt 1–3. In Zeitschrift des königlich preußischen statistischen Bureaus. No. 13, 14, 15, pp. 321–352.

Engel, E. (1862a). Die Sterblichkeit und die Lebenserwartung im preußischen Staate und besonders in Berlin. Fortsetzung. I. 4. Die Absterbeordnung und die Lebenserwartung. I. 5. Die Sterbefälle in der Zeit von 1816 bis 1860 nach den Todesursachen. In *Zeitschrift des königlich preußischen statistischen Bureaus*. No. 3, S. 50–68.

Engel, E. (1862b). Die Sterblichkeit und die Lebenserwartung im preußischen Staate und besonders in Berlin, Schluss. In *Zeitschrift des königlich preußischen statistischen Bureaus*. No. 10, S. 217–243.

Engel, E. (1862c). Über die neuesten Fortschritte in der Organisation der amtlichen Statistik in Preußen. In *Zeitschrift des königlich preußischen statistischen Bureaus*. No. 7, 8. S. 161–176.

Engel, E. (1879). *Katalog der Bibliothek des Königlichen Statistischen Bureaus zu Berlin*. Berlin, Verlag des Königlichen Statistischen Bureaus. Abt. 2. 732 S.

Espagne, M. (1994). Sur les limites du comparatisme en histoire culturelle. In Genèses,

17, 1994. Les objets et les choses, sous la direction de Francine Soubiran-Paillet, pp. 112–121. DOI 10.3406/genes.1994.1266.

Espagne, M. (2018). *Istoriya tsivilizatsii kak kul'turnyi transfer* [History of Civilizations as a Cultural Transfer]. Moscow, Novoe literaturnoe obozrenie. 816 p.

Foucault, M. (2009). *Security, Territory, Population. Lectures at the Collège de France*, 1977–78. Basingstoke, Palgrave Macmillan. 464 p.

Fournier, P. (2009). Épidémies et médicalisation des territoires ruraux (vers 1770 – vers 1830). In *Siècles*. Vol. 30, pp. 61–83. DOI 10.4000/siecles.136.

Gatina, Z. (2017). *Vrachebnaya ekspertiza v sisteme upravleniya Rossiiskoi imperii pervoi poloviny XIX veka* [Medical Expertise in the System of Government of the Russian Empire in the First Half of the 19th Century]. Dis. ... kand. ist. nauk Moscow, S. n. 240 p.

Greenwood, M. (1942). Medical Statistics from Graunt to Farr. In *Biometrika* Vol. 32. No. 3/4, pp. 203–225. DOI 10.2307/2332126.

Hacking, I. (1991). How Should We Do the History of Statistics? In Burchell, G., Gordon, C., Miller, P. (Eds.). *The Foucault Effect: Studies in Governmentality with Two Lectures by and an Interview with Michel Foucault*. Chicago, Univ. of Chicago Press, pp. 181–196.

Herzen, A. (1973). *My Past and Thoughts: The Memoirs of Alexander Herzen* / transl. by C. Garnett. Berkeley, Univ. of California Press. 684 p.

Holquist, P. (2001). To Count, to Extract, to Exterminate: Population Statistics and Population Politics in Late Imperial and Soviet Russia. In Martin, T., Suny, R., (Eds.). *A State of Nations: Empire and Nation-Making in the Age of Lenin and Stalin.* N. Y., Oxford Univ. Press, pp. 111–144.

Jepson, W. E. (2004). Of Soil, Situation, and Salubrity: Medical Topography and Medical Officers in Early Nineteenth-Century British India. In *Historical Geography*. Vol. 32, pp. 137–155.

Krafft, W. L. (1782). Essai sur les Tables des mariages, des noissances, O' des morts de la Ville de St Petersbourg, dans le période de 17 ans, debuis 1764 jusqu'à 1780. In *Acta Academiae Scientiarum Imperialis Petropolitanae*, Pars Prior, pp. 3–66.

Markovin, A. P. (1993). *Razvitie meditsinskoi geografii v Rossii* [The Development of Medical Geography in Russia]. St Petersburg, Nauka. 176 p.

Markuzon, F. D. (1955). Sanitarnaya statistika v gorodakh predrevolyutsionnoi Rossii [Sanitary Statistics in the Cities of Prerevolutionary Russia]. In Ptukha, M. V. (Ed.). *Ocherki po istorii statistiki SSSR. Sbornik statei*. Moscow, Gosstatizdat, pp. 121–162.

Merkov, A. M. (Ed.). (1966). *Ocherki istorii otechestvennoi sanitarnoi statistiki* [Essays on the History of Russian Sanitary Statistics]. Moscow, Meditsina. 286 p.

Morrissey, S. (2007). Suicide and the Body Politic in Imperial Russia. Cambridge, Cambridge Univ. Press. 384 p.

Niemeyer, P. (1861). Bericht über den Volksgesundheits-Zustand und die Wirksamkeit der Civil Hospitäler im russischen Kaiserreiche für das J. 1858. In *Jahrbücher der in-und ausländischen gesamten Medizin.* Bd. 109. No. 3, pp. 360–362.

Otsolig, F. M. (Ed.). (1859). Otchet o sostoyanii obshchestvennogo zdraviya i deyatel'nosti bol'nits grazhdanskogo vedomstva v imperii za 1857 god [Report about the State of Public Health and the Activities of Departmental Hospitals in the Empire for the Year 1857]. St Petersburg, Tipografiya Biblioteki meditsinskikh nauk doktora M. Khana. 358 p.

Porter, T. M. (1986). *The Rise of Statistical Thinking 1820–1900*. Princeton, New Jersey, Princeton Univ. Press. 360 p.

PSZ [Complete Collection of the Laws of the Russian Empire]. Coll. 1. Vol. 16; Coll. 2. Vol. 7, 9, 17.

Ptukha, M. V. (1959). *Ocherki po istorii statistiki v SSSR v 2 t*. [Essays on the History of Statistics in the USSR. 2 Vols.]. Moscow, Izdatel'stvo Akademii nauk SSSR. Vol. 1. 239 p. Vol. 2. 476 p.

Review. General Principles of Medical Statistics, or a Development of the Rules Which Ought to Preside over the Use of Numbers in Medical Investigations. (1841). In *The British and Foreign Medical Review*. Vol. 12. No. 23, pp. 1–21.

RGIA [Russian State Historical Archive]. Stock 733. List 195. Dos. 61; Stock 1286. List 2. Dos. 168; Stock 1290. List 4. Dos. 16; Stock 1294. List 1. Dos. 2, 9; List 1SV. Dos. 36; Stock 1299. List 1. Dos. 265; List 13. Dos. 1184; Stock 1405. List 532. Dos. 607.

Rosser Matthews, J. (1995). *Quantification and the Quest for Medical Certainty*. Princeton, New Jersey, Princeton Univ. Press. 195 p.

Schlözer, A. L. (1768). Von der Unschädlichkeit der Pocken in Rußland und von Rußlands Bevölkerung überhaupt. Göttingen, J. C. Dieterich. 152 S.

Schlözer, A. L. (1802). August Ludwig Schlözer's öffentliches und privat-Leben, von ihm selbst beschrieben. Göttingen, V& R. 308 S.

Smith-Peter, S. (2005). Russkaya statistika pervoi poloviny XIX v. v obshcheevropeiskom kontekste [Russian Statistics of the First Half of the 19th Century in the European Context]. In *Voprosy istorii, estestvoznaniya i tekhniki*. No. 4, pp. 125–136.

Smith-Peter, S. (2007). Defining the Russian People: Konstantin Arsen'ev and Russian Statistics before 1861. In *History of Science*. Vol. 45. No. 1, pp. 47–64. DOI 10.1177/00732753070450010.

Stanziani, A. (2017). European Statistics, Russian Numbers, and Social Dynamics, 1861–1914. In *Slavic Rev.* Vol. 76. No. 1, pp. 1–23. DOI 10.1017/slr.2017.3.

Teare, S. W., Gino, M. C. (2007). Wargentin, Pehr Wilhelm. In Hockey, T. et al. (Eds.). *The Biographical Encyclopedia of Astronomers*. N. Y., Springer, pp. 2292–2293. DOI 10.1007/978–0–387–30400–7 1446.

Varadinov, N. V. (1862). *Istoriya Ministerstva vnutrennikh del v 3 ch*. [History of the Ministry of Internal Affairs. 3 Vols.]. St Petersburg, Tipografiya Ministerstva vnutrennikh del. Vol. 2. Book 2. 604 p.

Vishlenkova, E. (2011). "Vypolnyaya vrachebnye obyazannosti, ya postig dukh narodnyi": samosoznanie vracha kak prosvetitelya gosudarstva (Rossiya, Pervaya polovina XIX veka) ["In Carrying Out Medical Duties, I Understood the People's Spirit": Self-Awareness of a Physician as an Educator of the Russian State (First Half of the 19th Century)]. In *Ab Imperio*. No. 2, pp. 47–79. DOI 10.1353/imp.2011.0049.

Vishlenkova, E. A., Zatravkin, S. N. (2021). Meditsinskaya statistika i karty [Medical Statistics and Maps]. In Vishlenkova, E. A., Renner, A. (Eds.). *Istoriya meditsiny i meditsinskoi geografii v Rossiiskoi imperii*. Moscow, Shiko, pp. 216–254.

Werner, M., Zimmermann, B. (2006). Beyond Comparison: Histoire Croisée and the Challenge of Reflexivity. In *History and Theory*. Vol. 45. No. 1, pp. 30–50. DOI 10.1111/j.1468–2303.2006.00347.x.

Woolf, S. (1989). Statistics and the Modern State. In *Comparative Studies in Society and History*. Vol. 31. No. 3, pp. 588–604. DOI 10.1017/S0010417500016054.

Zhuravskii, D. P. (1846). *Ob istochnikakh i upotreblenii statisticheskikh svedenii* [On the Sources and Use of Statistical Data]. Kiev, Tipografiya Val'nera. 210 p.

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