

# The formation of the elements of school health supervision in the Ryazan province in the period from 1864 to 1890

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## Abstract

The article attempts to analyse the characteristics of the formation of the elements of school health supervision in the Ryazan province in the period from 1864 to 1890. Key takeaways from the establishment and development of elements of school health supervision in this region are identified. An analysis of documents from this period (congress reports, statistical reports, memoranda, teachers' guidelines) enabled to draw conclusions on the leading role played by the zemstvo in the formation of elements of school health supervision in the Ryazan province in the said period, as well as the collaborative efforts of zemstvo doctors and teachers in the implementation of preventive measures in both urban and rural zemstvo schools. All this gradually led to the improvement of sanitary conditions in school buildings and a decline in the incidence of epidemic diseases (smallpox, diphtheria, etc). Zemstvo doctors in the Ryazan province assigned great significance to the medical-topographic description of the area, conducted sanitary and statistical work in their localities, and provided the results to the Provincial Zemstvo Assembly. During this period, doctors and teachers paid special attention to the vaccination of school pupils. The role of vaccinators was played by paramedics, midwives and teachers – graduates of the Aleksandrovskaya Teachers' Training College.

The conclusion drawn is that the formation of the elements of school health supervision in the Ryazan province should be associated with the period from the late 1870s to the early 1880s, when the legislative framework regulating this field started taking shape.

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## Keywords

history of medicine, zemstvo, zemstvo medicine, Ryazan Province, Zemstvo school, doctor, teacher, school hygiene, school and health supervision

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The establishment of zemstvo medicine in Russia as a special system for delivering medical and preventive (sanitary) care primarily to the rural population is associated with the period following the abolition of serfdom (1861) and is tied to zemstvo reforms (1864). The preventive component developed under zemstvo medicine and education. The results of historical research pertaining to prevention in the Ryazan province, as well as considerable factual material on the participation of zemstvo doctors and teachers in the development of this field suggest that the improvement of the health of the young generation was paramount among the critical tasks facing zemstvos in the Ryazan province. The work

of zemstvos was extensively discussed in the late 19th century. However, the discussion was mostly centred on particular characteristic aspects of the formation and development of elements of school hygiene in Russian regions.<sup>1</sup> The work of zemstvos caught the interest of researchers in the post-Soviet era<sup>2</sup> as well, albeit mostly from a political-economical perspective, or with respect to the medical work of certain zemstvos (Belova

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<sup>1</sup> Ref: (Povalishin 1890, Koshelev 1884, Tezyakov 1897, Levashov 1900).

<sup>2</sup> Ref, for example: (Kuchma and Sukharev 2012, Belova 2006, Parkenkova 2015, Arkhangelskiy 1996).

and Belov 2012, Stochik and Zatravkin 2016, Albitskiy and Ustinova 2015, Andriyanova et al. 2018), and matters pertaining to school hygiene were the subject of special research. Furthermore, the role of teachers in medical and preventive work in zemstvo educational institutions, particularly in the Ryazan province, was not investigated.

Based on a comprehensive analysis of archive sources (materials from the State Archive of Ryazan Region), we attempted, from a historical-medical and historical-pedagogical perspective, to shed light on the forms and methods of anti-epidemic and preventive work, associated with the development of school hygiene in the Ryazan province in the second half of the 19th century (starting from 1864).

Conditions for the development of hygiene as a medical discipline emerged in the late 18th century on the back of advances in science. The theoretical foundation of hygiene science took shape from the late 18th century to the second half of the 19th century. Matters relating to school hygiene, which was touched upon in the works of local sanitarians A.P. Dobroslavin, F.F. Erismann and others, formed a component part of that theoretical foundation. The first department of hygiene in Russia opened at the Saint Petersburg Medical and Surgical Academy in 1871. That department was headed by one of the pioneers of hygiene in Russia, Aleksey Petrovich Dobroslavin, who paid a great deal of attention to school hygiene (school conditions, desks, hygiene in school buildings, food hygiene).

F.F. Erismann studied “street” hygiene, hygiene of mental and manual labour (guide book titled “Occupational hygiene, or hygiene of mental and manual labour”, 1877). Along with the underlying rationale for hygienic learning conditions, he proposed his own model of a school desk (“the Erismann desk”) and the “Standard Classroom Design”.

The first challenge which zemstvo doctors and teachers faced, with respect to the development of sanitation and hygiene, was the fight against cholera, syphilis and smallpox. Ryazan doctors and members of the provincial zemstvo assembly were the first to implement prevention and hygiene principles in the remotest corners of the province (Dyuzing 1865, Zabludovskiy 1964). Zemstvo doctors paid a great deal of attention to the medical-topographic description of the area, and conducted sanitary and statistical work in their localities. For example, over time, they arrived at the idea that they had concentrate on the state of the location where a new village school (Deyatelnost Dmitriya Dmitrievicha... 1903, p. 4) would be built.

In 1868, D.D. Dashkov proposed to organise teaching courses during summertime, where teachers would get the opportunity to learn and master new teaching techniques. “Dashkov’s proposal,” noted S.V. Volkonsky, “met the basic needs of public schools of that time” (Shchetinina 2012, p. 207). In light of this, the

syllabus of the Aleksandrovskaya Teachers’ Training College (training school) included such disciplines as hygiene and vaccination (they were studied in the last course years of the training school at the Ryazan Provincial Zemstvo Hospital). The would-be teachers were also familiarised with practical public health, so that they would be able to use the gained knowledge, transfer it to their students, and so that said knowledge “would be made publicly available to the peasantry”.<sup>3</sup>

In 1875, the year of the Second Congress of Zemstvo Doctors of Ryazan Province, it was noted that smallpox was the “most widespread epidemic in the province, and vaccination was unsatisfactory” (Povalishin 1875, p. 20). Among those suffering from natural smallpox, the majority (60%) had not been vaccinated. Doctors and members of the congress stressed that vaccination was one of the “special preventive tools of zemstvo medicine <...>, at the moment it is the only means of preventing diseases, the zemstvo still lacks other tools...” (Protokoly II syezda... 1875, p. 88). In light of this, vaccination was discussed at all of the first ten congresses of zemstvo doctors of the Ryazan province (1874–1883). Paramedics, midwives and zemstvo teachers who had received special training (graduates of the Aleksandrovskaya Teachers’ Training College) were used as vaccinators. Vaccination was also brought into sharp relief at the following congresses of zemstvo doctors (right up to 1883). A new vaccination system for the Ryazan province was approved. The question of introducing mandatory vaccination in the Ryazan province was also discussed. However, the decision was rejected until clarification of circumstances related to the inquiry into financial means for its implementation. Due to the sporadic nature of the statistics on the incidence of smallpox and the haphazard manner in which they were gathered, it was impossible to get a full picture of the process. However, the report of the Bureau of the Congress of Zemstvo Doctors in 1882 stated: “Ryazan zemstvo doctors, in conjunction with the council, are trying with every means possible to conduct vaccination on a large scale, thanks to which outbreaks of smallpox are now fewer and farther between” (Doklady i otchet Byuro... 1883, p. 219).

Therefore, the issue of vaccination received considerable attention in the Ryazan province from 1874 to 1883.

A certain positive trend also emerged with respect to other nosological entities, and this fact is reflected in statistical reports on disease incidence among elementary school pupils in the Ryazan province in the early 20th century. Diseases such as smallpox and diphtheria do not feature in the reported cases. However, syphilis,

<sup>3</sup> State Archive of Ryazan Region (GARO). F. 936. Op. 1. D. 1. For the Ryazan Provincial Zemstvo Assembly, its special committee for the establishment of the Aleksandrovsky school for training rural teachers. L. 397.

scabies and scrofula remained widespread (Ryazanskaya gubernskaya... 1910, p. 236).

The collaboration of zemstvos, doctors and the teaching staff in educational institutions was an essential prerequisite of preventive work against various epidemics in the Ryazan province in the period under consideration.

The Ryazan zemstvo made a strong contribution to the development of the elements of school health supervision. At almost every provincial zemstvo meeting, issues were raised and measures were put into place to improve the situation in the schools; funds were allocated to maintain teachers, doctors, pay vaccinators, pay for trips by members of school councils for the inspection of school buildings, selection of land for new schools, purchase of textbooks, study guides, etc.

The public health education of zemstvo teachers became a critical component of their professional development and was made part of the study programme of various teachers' meetings: courses, congresses, conferences. For instance, the programme of the congress of teachers of public elementary schools of the Ranenburg district, held from 5 to 11 September 1883, included public health issues: the organisation of lectures on medicine and the provision of teachers with the necessary tools for rendering first aid in case of emergency.<sup>4</sup>

The crucial role of the teacher in creating favourable sanitary conditions in the school was noted in the report of the congress of male and female teachers of the Pronsk district (September 1883): "The congress recognised the dependence of the school environment on the personality of the teacher and on the participation of students in maintaining order and cleanliness in school facilities. This is desirable and advantageous from an educational point of view because it accustoms students to cleanliness and order, which they do not always encounter at home; the congress has decided that there is certainly the need to avoid all work that could adversely impact the health of students".<sup>5</sup>

The familiarisation of teachers with elementary sanitation requirements was necessary in light of outbreaks of infectious diseases – which were often fatal – in various regions across the Russian Empire. Thorough inspections of sanitary conditions in all educational institutions were carried out: drain pipes, rubbish pits, water tanks and facilities for lower staff, bedrooms and students' food. Heads of schools were instructed to closely monitor the quality of provisions, provide students with sufficient boiled and cold drinking water. In

educational institutions without paramedics, a doctor was to teach one of the disinfection workers. A decision was made to prepare a brochure on the prevention of diseases and measure to prevent their spreading among students, teachers and service staff.<sup>6</sup>

In its report to the district assembly, the Yegoryevsk Sanitary Council proposed to educate teachers on the basics of school hygiene at medical centres: "Since the physical health of students and the sanitary conditions in school buildings largely depend on public school teachers, who are in constant contact with the parents of students and school trustees, it is very desirable that they be familiar with the basics of school hygiene. Therefore, the council has offered the assembly to duly put a motion to allow public school teachers, once or twice a year, to gather at each medical centre so that doctors can familiarise them with the basics of school hygiene".<sup>7</sup> The programme of short teaching courses (1900) also included issues relating to "conditions unfavourable for the proper organisation and success of the affairs of elementary schools".<sup>8</sup>

In 1902, representatives of Ryazan teachers (5 people) participated in the congress of teachers of urban schools at the Moscow Teachers' Institute, where, among other issues, hygiene in urban schools, the work of the school doctor, his duties and relationship with the teaching council, were discussed.<sup>9</sup>

A fierce debate over measures of tackling syphilis broke out at the First Congress of Zemstvo Doctors (1874). A committee was assembled at the end of the congress. It was tasked with preparing a report on the incidence of this disease and measures to combat it. Member of the committee, zemstvo doctor of the Dankov district, F.S. Pokryshkin, addressed the congress. In his address, he cited data from the Ranenburg district, where syphilis was reported in 47 out of 69 villages. At the same congress, doctors called for the need to conduct preventive work on all infectious diseases, since only this could reduce morbidity and mortality among the child population (Protokoly I syezda... 1874, p. 34).

Sanitary and preventive issues were the subject of discussion at meetings of district school councils, mem-

<sup>4</sup> GARO. F. 593. Op. 1. D. 1292. Congress of elementary public school teachers of the Ranenburg district, held from 5 to 11 September in the city of Ranenburg. L. 56.

<sup>5</sup> GARO. F. 593. Op. 1. D. 1292. Report on the congress of male and female teachers of elementary schools in the Pronsk district. L. 42 ob.

<sup>6</sup> GARO. F. 593. Op. 1. D. 1577. Materials on the implementation of measures to tackle the cholera epidemic and sanitary conditions in schools (minutes, acts, correspondence). L. 16

<sup>7</sup> GARO. F. 29. Op. 154. D. 7. File of the Ryazan Provincial Zemstvo Council (at the request of the Yegoryevsk administration) on allowing zemstvo school teachers to gather at medical centres to learn the basics of school hygiene. L. 2.

<sup>8</sup> GARO. F. 593. Op. 1. D. 1782. File on the provision of assistance, by the provincial zemstvo to public education, on opening teaching courses for elementary school teachers at the teachers' training college. L. 11.

<sup>9</sup> GARO. F. 593. Op. 1. D. 1859. File from 1902 on the assignment of urban school teachers to attend the congress at the Moscow Teachers' Institute. L. 4a.

bers of which included zemstvo doctors. In response to a petition by the Kasimov District Zemstvo Assembly, the Trustee of the Moscow School District granted the council the right to “invite to its meetings one of the zemstvo doctors with a right to vote on matters relating to sanitary and hygiene conditions in public schools”.<sup>10</sup> At the Ryazan city four-year school, at the instigation of its doctor, Pavel Viktorovich Shulgin (resident physician of the psychiatric hospital), the Trustee of the Moscow School District gave permission to teach a short course on popular medicine and hygiene to the 5th and 6th-group students<sup>11</sup> for two hours every day after lessons.

Besides measures to prevent the spread of various infectious and lethal diseases, the issue of combating alcoholism was also critical in the work of medical and public health organisations and the teaching staff at schools in the province. School teachers, whose duties included raising anti-alcohol awareness among students, were to be involved in an anti-alcohol public awareness campaign. For instance, the resolution of the meeting of doctors and representatives of medical and public health organisations to discuss the fight against alcoholism (9–11 May 1915) stated that the beginning of alcoholism among adults can usually be traced back to childhood, especially at school-going age, when children gradually become accustomed to drinking under the influence of parents and other adults. “The harmful effect of alcohol on the child’s body is much more intense than on an adult body, and alcohol particularly affects the nervous system, and makes the child’s body less resistant to agents of disease. Therefore, the fight against child alcoholism should be fought in the most vigorous manner by all public institutions, teachers, doctors and parents themselves” (Postanovlenie Soveshchaniya... 1915, p. 709).

Various measures to combat child alcoholism were proposed: stories at school on the properties of alcohol and its harmfulness; this was to begin from the first steps of schooling, through examples from readingbooks. It was recognised that anti-alcohol awareness at school was only possible with well-prepared textbooks, reading-books, visual aids and guidelines. It was also noted that persons that had undergone teachers’ training were supposed to be familiar with measures to tackle alcohol addiction. Also relevant was the issue of exposing parents to healthy lifestyles so that, in the interest of personal and public health, they would not drink alcohol

themselves and would not accustom their children to drinking.

A recommendation was issued to set up public libraries and study halls at schools, which were to be provided with anti-alcohol literature. Lectures and travelling exhibitions were to be organised as well. In secondary schools, parents’ committees were to be enlisted in these efforts.

In order to assess sanitary and hygiene conditions, school facilities had to be inspected; construction had to be inspected; the location and maintenance of schools, the number of students and the state of classroom furniture had to be assessed. A.K. Dvorzhak appealed to F.F. Erismann for help with more detailed guidelines (1875): how the classroom was supposed to look like and what school hygiene conditions the classroom had to meet. In accordance with the rules of 1873 (F.F. Erismann) the dimensions of the “Standard Erismann classroom” were set: classroom occupancy – 42 students, with good ventilation; length – 9.2 m, width – 6.4 m, height – 4.35 m, windows – on the left side, their height – 2.87 m, width – 1.42 m, with three 0.31 m separating walls in-between. In schools in the Ryazan district, windows were arranged “haphazardly – on the front, left side, right side, at the back; there were buildings and rooms with a minimal number of windows” (Obzor deyatelnosti... 1902, p. 67–68). The Ryazan District Zemstvo Assembly had not adopted such standards as classroom occupancy – 60 students, area per student – 0.44 m<sup>2</sup>, (instead of the 1.5 m<sup>2</sup> according to the Erismann standards), amount of air per student – 2.1 m<sup>3</sup> (instead of 6.3 m<sup>3</sup> according to the Erismann standards).

School sanitary standards in the Ryazan province did not match general school hygiene standards. It should also be noted that the new standards for schools in the Ryazan province in 1882 were closer to the standards developed by Erismann than those adopted in 1875 (see table).

A.K. Dvorzhak aptly noted that Erismann’s school hygiene standards “only told us what is desirable to have in terms of school hygiene” (Zhurnaly Ryazanskogo... 1881, p. 20).

Therefore, the formation of organised school health supervision in the Ryazan province should be associated with the period from the late 1870s to the early 1880s. It was characterised by the implementation of certain public health measures aimed at the improvement of conditions in rural zemstvo schools, physical and functional development of students, and the development of minimal sanitary standards for the Ryazan province.

Resolutions of congresses of doctors and teachers constantly drew attention to the need for joint efforts of everyone interested in the improvement of sanitary conditions in zemstvo schools: doctors, teachers, members of zemstvo councils, members of the Asso-

<sup>10</sup> GARO. F. 593. Op. 1. D. 2059. On the participation of doctors in meetings of the Kasimov District School Council. L. 4.

<sup>11</sup> GARO. F. 593. Op. 1. D. 1586. On the appointment of collegiate assessor Pavel Shulgin as doctor at the Ryazan City School and on giving him permission to teach practical medicine and hygiene to students. L. 2, 5, 5 ob.

**Table 1.** Comparison of some classroom sanitary parameters

Parameter	Erismann		
	standard (Erisman 1873)	Ryazan province	
		1875	1882
Classroom occupancy, people	42	60	Not more than 60
Window-to-floor area ratio	1:2	1:12	1:10
Area per student, m <sup>2</sup>	1.5	0.44	1.5
Amount of air per student, m <sup>3</sup>	6.3	2.1	4.8

Note. The figures for the Ryazan province are based on data from “School Principles” (Ryazan, 1875) and “Guidelines for Male Teachers, Female Teachers and Catechists of Ryazan Province” (1882).

ciation of Ryazan Doctors, whose efforts enabled to create “School Principles”, “Guidelines”, and “Programmes for Public Health Inspection of Zemstvo Schools”. Despite that the implemented measures on the prevention and treatment of infectious diseases did not always yield the desired results, the work of zemstvos, doctors, teachers and local communities nonetheless paved the way for the establishment of an institutional system for school health supervision in the Ryazan province in the 1890s.

Furthermore, when inspecting schools, zemstvo doctors paid attention to the following: the location of the school, the nature of the area where the school was located; whether there were swamps near the school; the soil conditions of the school grounds; whether there were factories near the school, which could contaminate the soil and air; the overall size of the school grounds (Protokoly I syezda... 1874, p. 75).

From 1864 to 1890, the work of Ryazan doctors, teachers and members of the provincial zemstvo assembly was aimed at the implementing preventive measures and laying down the foundation of school health supervision, including in far-flung corners of the province. On the significance of the first congress of zemstvo doctors of the Ryazan province, its chairman, V.N. Kamenev, remarked: “...The congress of doctors is useful for us personally; by bringing us closer, it restores lost camaraderie, and binds us together through common scientific interests. It is also

beneficial for the zemstvo: comprehensive and detailed discussion, albeit of a few question, and their implementation depending on local conditions, gives the zemstvo the opportunity to establish the medical sector as much fruitful as possible” (Protokoly VII syezda 1880, p. 90).

Of great significance in the development of school health supervision in the Ryazan province were congresses of zemstvo doctors<sup>12</sup>, where matters pertaining to school hygiene were discussed: at Pirogov doctors’ congresses, a special committee would be assembled to deal with the dissemination of knowledge about hygiene among the general public (fifth congress, 1894); however, this would happen 20 years after the First Congress of Zemstvo Doctors of Ryazan Province, which was held on 21–25 May 1874. In this day and age, when issues relating to child healthcare are growing more urgent, the experience from the zemstvo era has to be utilised. Attitude towards the health of the young generation reflects not only the economic, but also on the sociocultural level of society (Belova 2006, p. 120). It also helps encourage the individual to take responsibility for their physical and mental well-being, which is the foundation for the well-being of society and the state as a whole.

<sup>12</sup> They were held from 1874 (The first Pirogov congress was held only 11 years later – in 1885).

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