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The formation of the European healthcare systems and veterinary medicine in Mongolia in the 19th-20th centuries

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The author examines the evolutionary phases of the European healthcare systems and veterinary medicine in Mongolia in the 19th-20th centuries. He attempts to outline the background and the fundamental moments in the transition from Mongolia's traditional system of providing the population with medical aid, which was based on the principles of Tibetan and folk medicine, to the European type. The article concludes that the new Mongolian healthcare system was established in consideration of the achievements of national medicine, combining traditional and European principles of providing the population with medical aid. In the first quarter of the 20th century most of the Mongolian population suffered from socially significant diseases, which resulted in a drastic decline of the indigenous population and the deterioration of social-hygienic conditions. Traditional Mongolian healing methods were ineffective in treating venereal and other extremely dangerous infectious diseases, which had become epidemic (in the cities at least 40% of the population had contracted syphilis and at least 50% had contracted gonorrhea). Russian doctors, who were employing the latest medical breakthroughs, were able to cure the Mongolian population of venereal diseases and chickenpox. As a result of the fruitful cooperation with the Russian specialists Mongolia established a European healthcare system, also using the achievements of Tibetan medicine. Together with the establishment of the European healthcare system Mongolia also undertook steps to create a modern veterinary service, whose breakthroughs were supposed to protect the people from animal-transmitted diseases.

Keywords: *history of healthcare, veterinary medicine, the Mongolian population's recovery, Tibetan medicine*

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One of the first mentions of ties between Russia and Mongolia in the field of medicine relates to the 13th century. Berke Khan[1] of the Golden Horde[2] (who ruled from 1255 to 1266) [1, p. 503–507] asked Bishop Kirill of Rostov for help in curing his sick son.[3] In 1357, Alexius, Metropolitan of all Russia, (a position he held from 1354 to 1378) cured Taidula, mother of Jani Beg Khan of the Golden Horde (who reigned from 1342 to 1357), of blindness ("sickness of the eyes") [2]. This episode is one of those illustrated on the icon "St. Alexius, Metropolitan of Moscow, with Scenes from His Life" (in the image "A miracle of Saint Alexius, who healed a Muslim queen with his prayers"), a copy of which (dating from 1480) is in the Cathedral of the Dormition in the Moscow Kremlin.

As we will see below, there were no specialised medical schools in Mongolia before the end of the 1920s. At certain large monastic institutions, the lamas studied medicine as well as theology and astrology. There were three levels, or stages, to their education.[4] First, they studied general

[1] The Ulus of Jochi, known by its Turkic name "Ulu Ulus" ("Great State") in Eurasia, was part of the Mongol Empire from 1224 to 1266.

[2] Berke (1209–1266), called Berkai in Russian chronicles, was the third son of Jochi and a grandson of Genghis Khan, as well as the brother of Batu Khan.

[3] The bishop consecrated some water at the shrine of Saint Leonius in Rostov and brought it with him to the Horde. After sprinkling the Khan's son with this water, Kirill read a prayer and said to the Khan "Your son will live and become as strong as you." See *The Life of Tsarevich Peter of the Horde* URL: http://www.oocities.org/edinulus/ordyn_tsarevic.html [in Russian].

[4] Education at a monastic school in Mongolia could be divided into three stages: lower, middle and higher. The lower stage lasted for 7–8 years, the middle for 10. There were

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medicine and theology. At the second stage, they began specialising: general theology was not compulsory for future *emches* (doctors). Tibetan medicine was taught from books and from the personal experience of the *emch* doing the teaching. In 1869, the Mongolian lama Choi-Manramba began to lead instruction in Indo-Tibetan medicine at the Tsugol Datsan (monastery). Special schools with faculties of medicine (*manba*), philosophy (*tsanid*) and tantrism (*jüd*) were opened, and the most talented and outstanding graduates were awarded the academic degrees of *gebshi* and *gabju*.[5]

The state of public health in Mongolia, and the prevalence there of such serious diseases as typhoid, smallpox and syphilis, made a discouraging impression on the Russians. For example, Captain Konstantin Boborykin, adjutant to Emperor Alexander II's chief of staff, and, from 1861 to 1864, Russia's first consul in Urga (now Ulaanbaatar),[6] wrote: "Whatever they say about the medicine of Tibet and the art of the lama doctors, that medicine is worthless, and the lamas know-nothings and fraudsters." [3]. The only remedy used in an outbreak of smallpox was isolation: the patient and their family members were left alone on the steppe, and no one was permitted to see the Khutugtu, the religious leader, and most respected figure, of the Lamaists.

Russian doctors made a significant contribution to the establishment and development of European medicine in Mongolia. As traditional Mongolian treatment methods were ineffective against a range of illnesses (primarily acute infectious diseases), when a feldsher (auxiliary health worker) by the name of Osipov came to the Russian embassy he was visited not only by sick Mongols, but also by lama doctors eager to learn from him (to "adopt best practices"). Some Mongol khans sent their relatives, lamas, and so on, to the consulate to study Russian medicine; one lama, the head of a large monastery, obtained from Osipov everything required for bloodletting, then a popular method of treatment against many illnesses in Russia. Osipov was the first person in Mongolia to vaccinate against smallpox. As he could not do all these vaccinations himself, he began training locals. Captain Boborykin asked for a doctor to be sent to the Russian consulate, arguing that this would be "a kind and Christian act... with regard to this poor people". Osipov was also assisted by Russian merchants, who carried out vaccinations on their own initiative, taking pity on the Mongols, who were helpless against serious diseases [4]. For example, in 1892 G.N. Potanin wrote of a merchant who "combined a cultural mission with his trading activity: he vaccinated anyone who wanted against smallpox. Mongols everywhere greeted him like a dear friend." When smallpox was raging through Kobdo (now Khovd) Province, one of the local lamas, who had heard about vaccinations, proposed his own treatment method: he injected pus from a smallpox sufferer into a healthy person. D.N. Yermolin, an agent for Nikolai Assanov, a merchant from Biysk, brought some variolovaccine from Russia and offered to vaccinate people with it, explaining that the lamas' treatment would not save them from death, but his would help them to get better. Reports that Yermolin was saving people spread rapidly, and thousands of Mongols came to him. He spent whole days performing vaccinations, seeing hundreds of people a day. They brought him gifts and money,[7] and he was famed as "the kind Russian saviour".[8]

The Mongols were not afraid of the Russian health workers, and received treatment from them willingly: when Pyotr Kornievsky, a health worker at the Russian Ecclesiastical Mission, travelled from Peking (Beijing) through Urga, Mongols queued up to be seen by him.

The fact that Russian subjects were prohibited from having permanent shops, storage facilities and accommodation in Mongolia hampered them from providing healthcare support for their compatriots living in Mongolia, and from organising medical services for the Mongolian

exams at the end of each academic year. The higher stage lasted for 20 years. The most gifted pupils continued their education in various specialist fields (studying individual aspects of theology and philosophy) and, on completing the course, received the religious title of *agimba*.

[5] Equivalent to a PhD and a doctorate.

[6] The city was founded in the state of Mongolia in 1639 as a Buddhist monastery. ("Urga", as it was known in Russian and European literature until 1924, derives from the Mongolian "Örgöö" ("palace" or "camp".)

[7] For example, in Kobdo Province a vaccination cost 1 ruble 43 kopecks at the pre-revolutionary exchange rate, a considerable sum for the Mongols [5].

[8] See N.E. Yedinarkhova: "The Russians in Mongolia". URL: http://ricolor.org/rz/mongolia/mr/3/ [in Russian].

population. Aleksandr Svechnikov, a veterinarian from Troitskosavsk (now Kyakhta), wrote: "People have been trading in Mongolia for decades; they live there almost permanently, many of them with families, and they do not have any accommodation other than yurts or Chinese *fangzis* [traditional huts]..." [6, p. 20].

In response to the Boxer Rebellion[9] of 1898–1901 in China,[10] and to the Russo-Japanese War of 1904–1905, Russia sent troops to Urga, and with them came doctors, who treated Russians and Mongols, Manchurian officials, and Chinese soldiers. The Russian doctors were noted for their high level of professionalism. For example, a Doctor Serezhnikov was awarded the Order of the Double Dragon,[11] the Qing dynasty's highest European-style government award. More than 220 years of Qing rule in Mongolia,[12] where the rulers' policy with regard to the local population aimed to isolate it from the outside world, had had a pernicious effect on the status of the Mongols physical health. The view that the Mongols were dying out, and that their population was in fairly rapid decline, was quite common at the turn of the 20th century among Russians living in Mongolia and travellers visiting the country. For example, Pyotr Kozlov commented: "The population of Mongolia is not increasing at all; rather, it is falling, as the most qualified of its people have told us" [10, p. 114]. The British explorer Douglas Carruthers described the fall in the Mongol population and its causes [11, p. 327–336]. Andrei Boloban wrote: "All the (Mongolian) officials unanimously claim that the population of the districts is decreasing, and the Mongol elders say the same. From such assertions, it is clear that Mongolia in the sense of its population is dying out." [12, pp. 51–52]

However, there was also a different opinion: Ivan Maisky believed that the Mongol population had remained practically unchanged for centuries. According to his observations, the Dörbet and the Khalkha Mongols gave the impression of being a strong and healthy people; the majority of the inhabitants of Outer Mongolia were in the best of spiritual health, which, he suggested, was explained by the laws of natural selection (in the harsh conditions of Mongolian life, the weak died in infancy, and only the strong and fit survived). They ate reasonably well, their families were relatively large and stable, and their family relationships were normal and natural.

Various illnesses,[13] the high rate of child mortality from intestinal diseases, which were common among Mongolian children at the time (scarlet fever and diphtheria were almost unknown among them), the weak healthcare system, the influence of the Lamaist church[14] and a range of other factors had a negative effect on the natural growth of the Mongol population in the early 20th century. In addition, the Mongols' life expectancy was not high for the time. The Mongolians regularly suffered epidemics, most devastatingly of smallpox, which killed tens of thousands. The Mongols did not use soap. They washed their faces and hands with cold water, but did not wash their bodies: they had a superstition that washing away dirt meant washing away happiness [5]. They did not wash their clothes; instead, they replaced their shirts and trousers, which were made of short-lived Chinese material, roughly once a year when they were no longer wearable. Overall, however, according to Ivan Maisky, these factors did not mean that the Mongol population was under threat of dying out [5].

Let us turn to the written sources. A report dated 20 January 1913 from the Cossack captain

[9] Led by the Yihetuan (literally "righteous and harmonious militia") movement, also known as the Yihequan (literally "righteous and harmonious fist") movement [7].

[10] The Great Qing dynasty (1616–1912) was founded by the Manchurian Aisin Gioro clan in Manchuria (now Northeast China). In less than 30 years, all China, part of Mongolia, and part of Central Asia were under its power [8].

[11] Literally "Double Dragon Precious Star."

[12] In 1691, the rulers of the Khalkha clans of Northern Mongolia (now the state of Mongolia) declared themselves vassals of the Qing dynasty's Kangxi Emperor. Northern Mongolia was renamed "Outer Mongolia" and lost its political and economic independence. The Kangxi Emperor declared himself Emperor of Mongolia, and its land his possession [9].

[13] The most widespread were various eye and skin diseases (except lupus), a consequence of the "extremely low level of sanitation in Mongolian life" [5], with oesophageal stricture, stomach cancer, syphilis, rheumatism and haemorrhoids relatively common, and tuberculosis and heart disease less so.

[14] 48% of Mongolia's adult males were monks [13]. Both "pure" monks and those who had not taken, or had broken, a "vow of chastity" (but continued to wear religious clothing, had some religious education, etc.) were known as "lamas." Only those who had not taken, or had broken, a "vow of chastity" were permitted to marry [9].

Andrei Vasilyev on progress with training Mongolian troops in Urga states: "from the very first days, around 80 people had to be reassigned for being completely unsuited, leaving 22 for the training. When I wanted to increase this number to 300, it turned out that there was no Mongol left in Urga fit for training".[15] Reporting to Nicholas II on the work done by Russian military instructors on establishing a Mongol brigade between 3 May and 1 August 1913, Minister of War Vladimir Sukhomlinov wrote: "The sanitary situation in the brigade is facing insuperable difficulties. The Mongols recruited for service are almost all sick with venereal and skin diseases".[16] The situation was so serious that the Russian Ministry of Foreign Affairs asked the Russian Red Cross (RRC) to take over medical services to the Mongolian troops. The RRC sent a team comprising Doctor A.I. Makarevich, Feldsher Grigory Burenkov and four nursing assistants to Urga "to provide medical and sanitary assistance to the Russian instructors and the Mongolian team."

According to Mongolia's first census, in 1915, (which was incomplete and did not cover every part of the country), the country's population was 542,504. The majority of the population and their livestock (13 million head) were suffering from infectious diseases. The Indo-Tibetan and Mongolian medicine practised in Mongolia at the time was ineffective against venereal and other highly dangerous infectious diseases.

According to research by Professor Shagdarin Bira, of the Mongolian Academy of Sciences, the decrease in the Mongol population during this period was caused by a number of factors. Foremost among these was the high prevalence of syphilis[17] – a disease responsive to changes in the environment, adaptable to it, and capable of mutating. The presence of this disease was a sign of the poor standard of healthcare, and that basic hygiene requirements were being ignored. The early age at which Mongolians began their sex life (before the age of 15 for 73% of women), and their risky sexual behaviour, contributed to the spread of venereal diseases. The demographic policies of the Qing dynasty, and, following its collapse, the Republic of China, with regard to Mongolia (for example, Mongolians were forbidden from having surnames, resulting in cases of incest) were another factor.

The 1918 census recorded 648,100 people living in Mongolia, including 540,000[18] Mongols, 100,000 Chinese, and 5,000 Russians [14]. The Russian influence on Mongolian healthcare and veterinary science was growing. In 1908–1909, the Russians began inoculating livestock in Mongolia against cattle plague, and by 1919–1920 it was hard to find a Mongol, particularly in the provinces of Tsetsen Khan and Tushetu Khan, who did not consider the approach highly effective. They were happy to have their livestock injected, even though they had to pay for it. There were also changes in Mongol-Tibetan medicine. The lama doctors accepted smallpox vaccination and did not oppose it. In Urga, they would sometimes invite a Russian doctor to a case conference. The Mongolian princes and the Bogd Gegeen made use of a Russian doctor's services quite often. Sanzhimitab Tsybiktarov, a doctor from Russia, described how one young lama doctor had, on behalf of his comrades, expressed a desire to study anatomy under him (anatomy was not studied in the Mongol-Tibetan medical tradition). The training was a success, but the senior lamas heard about it and stopped the lessons [5].

Following Urga's liberation from Chinese troops on 4 February 1921 by the 1st Cavalry Brigade under Russian general Baron Roman von Ungern-Sternberg, the latter attempted to impose a raft of measures aimed, among other things, at improving sanitation and hygiene. His achievements included cleaning up the city and opening a veterinary clinic [15]. However, these measures were not enough to counter venereal[19] and other infectious diseases, as

[15] Russian State Military Historical Archive (RSMHA): F. 2000. Op. 1. D. 7773. L. 553.

[16] Irkutsk Oblast State Archive (IOSA): F. 25. Op. 11. D. 63. L. 2–14.

[17] According to Professor Bira, syphilis was called "the Chinese disease" in Mongolia.

[18] According to Ivan Maisky, the population was 406,000 people and 7,565 head of livestock in 104 districts (not including the population of Kobdo Province and the Bogd Gegeen's land near Lake Khövsgöl). According to Professor Bazaryn Shirendev, the population, based on statistics in the MNR state archives from a 1918 survey of 87 districts, was 374,000 people and 5,925 head of livestock.

[19] The most common were syphilis and gonorrhea, with chancroid less frequent. There was a high proportion of household and congenital syphilis.

well as Hodgkin's lymphoma,[20] then common in Mongolia. For example, at least 40% of the urban population were infected with syphilis, and at least 50% with gonorrhoea. Venereal diseases were less common on the steppes. These illnesses were the cause of the low capacity for reproduction of the Mongolian women, including infertility in 31%.[21] On average, Mongolian women surveyed had one third the number of living children as their Russian counterparts [16, 17].

The decrease in the Mongol population and the challenging epidemiological situation in the country went against the principles of the international policy of the USSR, which provided assistance to Mongolia. Soviet doctors considered the high prevalence of diseases constituted a threat to public health a result of the poor standard of Mongolian healthcare, which was incapable of overcoming everyday infections, the devastating consequences of which, in the belief of most doctors studying syphilis in the Mongols, represented a serious, if not existential, threat to them.[22]

In 1923, P.N. Shashtin, the first Russian doctor officially invited by the Mongolian government, started work at a military hospital. Five medical and sanitary expeditions (in 1926, 1927, 1928–1929, 1933 and 1936–1937) was sent to improve public health in Mongolia. Throught their work, they managed to obtain a general picture of morbidity in the country and to assess the health status of the population. In 1925, a small hospital opened in Ulaanbaatar,[23] with two doctors to see outpatients. Permanent European medical centres (EMCs) were set up in Bayan Tu'men (now Choibalsan) / Khan-Ul and Altanbulag in 1928. There were eight such clinics by 1930, and 25 by early 1931. In 1929, the Mongolian Health Ministry first engaged a public health consultant. In the late 1920s, training in mother and child welfare was organised for Mongolian nurses.

2,500 outpatient consultations were recorded in Ulaanbaatar in 1925, 18,000 in 1926, 20,000 in 1927, 50,000 in 1928, 82,000 in 1929, and 135,000 in 1930. 26 people received hospital treatment in 1925, 564 in 1926, 39 in 1927, 791 in 1928, 2,316 in 1929, and 5,000 in 1930. In 1930, the EMCs at Altanbulag, Bayan Tu'men / Khan-Ul, Öndörkhaan and Tsetserleg received 1,800, 2,500, 1,500 and 2,000 visits a month respectively [16, 17].

In Mongolia during this period, statistics on infectious diseases were kept only in Ulaanbaatar. For example, from March 1928 to October 1929 164 cases of scarlet fever, 144 of mumps, 131 of chickenpox, 98 of dysentery, 97 of lobar (croupous) pneumonia, 70 of measles, 46 of smallpox, 41 of typhoid, 39 of whooping cough, 28 of erysipelas, 4 of diphtheria, 2 of plague, 2 of rubella and 1 of anthrax were recorded among its population of 60,000. In 1930, there were epidemics of measles and chickenpox among schoolchildren [16, 17].

There were also outbreaks of plague. For example, there was one around Öndörkhaan in 1926 (with 23 deaths), one around Öndörkhaan, Mishig Gun and Ulaanbaatar itself in 1928 (with 2 deaths), and another around Öndörkhaan in 1929 (with 20 deaths) [16, 17]. In 1930, around 500,000 tögrögs was spent on establishing a new psychiatric hospital and renovating the general hospital in Ulaanbaatar, and on building hospitals in other locations in Mongolia.[24] By the end of 1930, Mongolia had hospitals in Ulaanbaatar (two: a general hospital with 300 beds, which had surgery, therapeutic, infection, paediatric, maternity, male and female venereal, eye and tuberculosis departments; and a psychiatric hospital with 80–100 beds), Bayan Tu'men / Khan-Ul (a general district hospital with 30 beds), Öndörkhaan (now Chinggis City) (15 beds), Altanbulag (30 beds), Tsetserleg (30 beds), Uliastai (15 beds), Kobdo (15 beds), Ulaangom (10 beds), and Van-Kuren (now Bulgan) (5 beds) [16, 17].

A children's home (for 25 children), children's health centre, infant feeding centre and nursery were set up in Ulaanbaatar. Children's health centres were established at the major EMCs, and a nursery at Altanbulag.

Mandatory smallpox vaccination was introduced. In 1930, about 20 vaccination teams performed vaccinations in central Mongolia, a

[20] Many people in Mongolia suffered from this oncological disease.

[21] The rate of infertility among Mongolian women was twice as high as that among Russian women living in Mongolia.

[22] National Archive of the Republic of Buryatia: F. R-661. Op. 16. D. 1 (V.N. Zhinkin: "On the spread of syphilis in Buryatia"). L. 226–227.

[23] At a session of the 1st Great People's Khuraldaan of Mongolia in 1924, Urga was renamed Ulaanbaatar Khot ("Red Hero City"), under pressure from Turar Ryskulov, a Soviet activist from the Communist International [18].

[24] At the time, 1 tögrög was worth 1 ruble.

public health inspectorate (with 1 doctor) was established in Ulaanbaatar, municipal, district and village public health councils supervised by doctors were set up, and governmental health legislation and compulsory regulations were adopted (via the city government in Ulaanbaatar).

The increase in Mongolia's population in 1925–1926 was the result of improvements in public healthcare and to sanitation and hygiene in general. In 1927–1928, a number of health promotion initiatives continued (covering 546,000 people in 1924, 651,700 in 1925, 683,900 in 1926, 698,700 in 1927, and 710,500 in 1928) [16, 17].

The USSR also provided Mongolia with veterinary assistance during this period. The main focus was on protecting livestock against infectious diseases. Veterinary inspections in Mongolia began in 1923, when an epizootic of cattle plague meant that whole herds had to be practically wiped out. The Sangiin anti-cattle plague centre was established (18 km from Ulaanbaatar); around 1930, this became a research and practice institution. Throughout Mongolia, there were 32 veterinary centres in 1930 (8 doctor, 15 feldsher and 9 quarantine). The country began making its own inoculants: 600,000 doses of anti-sheep pox ovinia, 400,000 doses of anthrax vaccine, 50,000 doses of anti-plague serum, 20,000 doses of anti-anthrax serum and 1,500 doses of rabies emulsion were produced at Sangiin in 1930 [16, 19, 20]. By 1935, 46 doctor and 16 feldsher centres, and 18 veterinarian and 52 veterinary feldsher centres, were planned for Mongolia [21].

In 1940, thanks to the assistance of Russian doctors, Mongolia became the first Asian country to defeat smallpox. One of the last "battles" between Soviet doctors and plague took place in Mongolia in August 1945. For ten days, Lyubov Sobolyeva, head of the Soviet anti-plague team in Dzapkhin, fought alone, at great risk to her own health, to cure a young Mongolian orphan boy called Uvgun of plague.[25] For this, she was awarded the Order of Sukhbaatar.

In 1952–1956, there were teams of Soviet doctors in every province of Mongolia, and their work included the treatment of venereal diseases. They cured practically the entire Mongolian population by checking each person for venereal diseases. Another team of Soviet doctors, working in 1958–1960, treated people for tuberculosis.

There was a severe shortage of professionals in 1920s Mongolia, primarily of doctors. Many Mongolian specialists were educated in the Soviet Union, not least in healthcare. The Mongolian Workers' Faculty in Ulan-Ude, which opened in 1930, played a major role in this. It took pupils who had completed primary and basic general secondary education at Mongolian schools, as well as those who had done a course at the Ulaanbaatar preparatory school. Those who completed two years of the faculty's four-year course could then study at Soviet secondary technical schools; those who completed the full course could study at Soviet higher education institutions. The facilities at the faculty (a teaching block, student accommodation and other essential premises) were good. The coursebooks were free of charge. The teachers (S.A. Khamganova, D.A. Abasheyev, A. Ayurzanayev, N. Ts. Dabzhayev, K.A. Olzoyev, A.P. Chaivane, B.B. Shagdyrov, etc.) were highly trained. Between 1930 and 1940, more than 400 people graduated from the faculty (not just in Medicine). Many of its graduates went on to graduate from Soviet higher education institutes and to work as doctors in Mongolia [22].

A significant event took place on 5 October 1942, when the country's first national higher education institution, the National University of Mongolia, opened in Ulaanbaatar. At the time, around 100 students studied there, including in its medical faculty.

Until 1930, Tibetan medicine was state-funded in Mongolia. Lamas (*emches*) performed the role of doctors. Some of them qualified from specialist "medical" schools at the largest monasteries; others practised without special training, relying on their own experience. Tibetan medical science is based on reading the pulse, the study of which is the main objective criterion in diagnosis. Treatment basically consists of medication and advice on hygiene and diet. Medicines are taken in the form of powders or pills, and are made from roots, leaves, berries, flowers, fruits, bark,

[25] In May 2013, yours truly met Doctor Uvgun Burgut-Sobolyev, a hospital manager in Khalkin-Gol, at the Ulaanbaatar branch of the Plekhanov Russian University of Economics (under Mongolian law, the surname of the person who had saved him had been added to his, so the young Uvgun was now Uvgun Burgut-Sobolyev). Uvgun told the students this story and about the help provided by the Russian specialists.

wood, shells, stones and minerals, animal and bird organs, insects, reptiles, etc., crushed in a mortar. Treatment is scholastic and symptomatic. The methods and medications used in Tibetan medicine were ineffective against venereal and other highly dangerous infectious diseases, so in early 1930 the 6th Great Khural ruled that Tibetan medical centres would no longer receive state funding, which would go only to European medical centres.

Even so, Tibetan medicine was effective against many conditions. For example, when former World War II Soviet army general Georgy Zhukov suffered a stroke, he turned to Mongolian specialists for help. He was treated by a well-known Mongolian doctor by the name of Khaidov, who was defending his doctoral thesis in Moscow at the time. In 1971, on the orders of Mongolian Prime Minister Yumjaagiin Tsedenbal, Ragchaagiin Bikhanz, a folk healer (whose family currently lives in Ulaanbaatar) was sent to Moscow, where, as well as Georgy Zhukov, he treated the families of Politburo members.

Commenting on the Mongol-Russian cooperation, the well-known Mongolian writer Lodongiin Tudev wrote: "With Russia's help, the Mongols, in a short historical period... were liberated from infectious diseases, made their nation healthy... The positive results of this cooperation can be seen both in the current state of development of the Mongols, as well as in the health status of the country in general. What the country has achieved we must link with the assistance from the Soviet Union and cooperation with it." [24].

Healthcare was one of the main areas of cooperation between Russia and Mongolia. For example, branches of the Mongolian Centre for traditional Mongolian Medicine were set up in Saint Petersburg, Novosibirsk and Ulan-Ude. A memorandum of scientific cooperation was signed between the Russian and Mongolian academies of medical sciences. Under an agreement between the Russian Foundation for Basic Research and the Mongolian Ministry of Education Culture and Science, a competition for genetic research projects was held in 2012.

Russia has provided Mongolia with significant assistance in fighting diseases that are a threat to public health, and in implementing European-style healthcare [36]. As a result of the systematic measures carried out over many years, the Mongolian population has not only not died out, but has even increased [25]. In a very short time, Mongolia, with the USSR's help, established the infrastructure required to provide medical services (by 1930), and laid the foundations for European-style systems of healthcare, veterinary services and medical training.

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History of building up the European healthcare system in national borderland autonomies of the USSR reveals certain flexibility with which the Soviets resorted to foreign medical expertise in order to attain short and mid-term goals of socialist modernization. Involvement of international medical research teams in the study of endemic diseases in Buryat-Mongolia, Central Asian 1 republics or the Caucasus in the 1920s, transfer of scientific ideas, practitioners and scientific entrepreneurs across national borders, shifting of ideological limits in favor of practical benefits of science-based s Access the latest research on COVID-19, including preprints, on Scilit. Ã—. Basic Search.Â The formation of the European healthcare systems and veterinary medicine in Mongolia in the 19th-20th centuries. S.A. Filin. Published: 1 January 2017. by The Classical Studies Foundation. in Istoriya meditsiny. Istoriya meditsiny , Volume 4, pp 52-61; doi:10.17720/2409-5583.t4.1.2017.05e. Publisher Website. EudraVigilance is a system designed for collecting reports of suspected side effects. These reports are used for evaluating the benefits and risks of medicines during their development and monitoring their safety following their authorisation in the European Economic Area (EEA). EudraVigilance has been in use since December 2001. This website was launched to comply with the EudraVigilance Access Policy, which was developed to improve public health by supporting the monitoring of the safety of medicines and to increase transparency for stakeholders, including the general public. The Management Medicine through time. Advances in medical procedures and medicines means that today, you are likely to be healthier and live longer than at any other time in human history. Part of. History. Medieval and Renaissance medicine.Â Things were improving by the 19th century. In 1842, the average age of a rich person living in the countryside was 52, but the average age of a labourer living in Liverpool was 15. Treatment. In 1864, Louis Pasteur proved that germs caused disease. Building on Pasteurâ€™s work, other researchers, like Robert Koch, discovered the bacteria which caused other diseases. By 1900, scientists had discovered that viruses also caused diseases and malaria was carried by mosquitoes. Dr Edward Jenner tests his small pox theory on James Phipps.