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HIGHLIGHTS OF THE STRUGGLE AGAINST THE MOST IMPORTANT
 INFECTIOUS DISEASES IN THE UZBEK SSR IN THE FIFTY YEARS OF SOVIET RULE
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TECHNICAL TRANSLATION

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HIGHLIGHTS OF THE STRUGGLE AGAINST THE MOST
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Despite the great successes achieved during the past fifty years by world-wide medical science and practice, infectious diseases in many regions continue to remain a most important problem. This primarily concerns the countries of Asia and Africa, recently freed from colonial dependency, with still insufficiently developed economy and public health.

In these countries at the present time there is wide incidence of malaria, parasitic typhoid, small pox, typhoid fever, diphtheria and other infections, although prophylactic measures of many diseases are well developed.

Until 1917, Uzbek was a backward colony of backward czarist Russia and had conditions as serious as those in eastern countries which bordered it.

A burdensome legacy was left by czarism to the people of Uzbek. Poverty and prejudice, unsanitary conditions of population centers, absence of medical and sanitary-anti-epidemic establishment permitted the extensive distribution of such serious illnesses as malaria, filaria, *Medinensis*, small pox, cholera, typhoid, amebiasis, etc.

Many of these diseases at times reached epidemic proportions and did serious damage, taking 100,000 human lives.

The great October socialist revolution freed all the people of Russia, and during an historically very short period allowed grandiose changes in the lives of our society.

Now Uzbek is a country with highly-developed industry and agriculture, a country of high culture. In the number of specialists with higher and secondary education, it has not only surpassed such countries as Turkey and Iran, but has also significantly surpassed a series of western European governments.

The unalterable progress attained is actually the protected health of the workers.

In a journal article, it is impossible to throw light upon the extensive work carried out in the republic in this direction during the years of Soviet rule, and, therefore, we are presenting only the highlights of the struggle against the most important infectious diseases in this period.

Until 1917, in the entire territory of the Turkistan region, to which Uzbek was admitted, measures directed towards combating infectious diseases have almost not been carried out. In the borders of present Uzbek in all there were 102 doctors and 234 orderlies working, while the overwhelming majority of them were found in the large towns. Medical treatment of the rural population was left to the local Tabibs.

With the formation of the Uzbek SSR in 1924, a system of governmental public health began to be developed, while at the same time much attention was turned to creation of specialized anti-epidemic institutions.

In the pre-revolutionary period, the only anti-epidemic institution was a small bacteriological laboratory at the Tashkent War Hospital, where a small amount of small pox vaccine was produced. As a consequence this laboratory under the direction of Professor A. V. Grekov was converted into a bacteriological institute. At the present time, this is a vigorous scientific research institute of vaccines and sera.

In 1924, in Bukhara, the Uzbek Institute of Tropical Medicine was organized, which was founded and directed for many years by Professor L. M. Isaev. This institute was transferred to Samarkand. Now, this is the Uzbek Scientific Research Institute of Experimental Medical Parasitology and Helminthology.

In 1920, in Tashkent a medical faculty was created at the government university, which in 1931 became an independent medical institute with four faculties. Moreover, doctors were prepared at medical institutes in Samarkand and Andizhan, and average medical workers at 18 schools for medical assistants.

In 1962, the Uzbek Scientific Research Institute of Epidemiology, Microbiology, and Infectious Diseases was founded.

Beginning in 1924 in the towns and regional centers a malarial (subsequently tropical) and Pasteur station was organized, and also bacteriological laboratories. In 1937, the first seven sanitary-epidemiological stations were opened. Now there are sanitary-epidemiological stations in every town in the region.

During the fifty years of Soviet rule, social-economic changes which have occurred, the immeasurably rising cultural level of the population of our republic along with creation of a stable system of general medical and specialized medical institutions have permitted the attainment of vast successes in combating infectious diseases.

Malaria was the number one problem of pre-revolutionary Uzbekistan. How many people every year were stricken with malaria and how many died of it is not known. It is known, however, that from this infection, the populations of entire volosts died off; those who remained alive, spared from death, abandoned the "damned" places and departed for new ones.

In studying the enormous significance to the national economy of combatting these diseases, the government of the republic in 1924 created a central commission for combatting malaria--an interdependent organ, coordinating all work carried out in this direction. From 1934, measures of combatting malaria in our republic began to be looked upon as one of the sections of the plan of the national economy.

The struggle against malaria was carried out in three directions:

- 1) carrying out of large scale sanitary-hydrotechnical and hydromeliorative work in the limitation and elimination of breeding sites of the carriers;
- 2) combatting the carriers at all stages--mosquito larvae at the breeding site, winged mosquitoes at premises;
- 3) opportune discovery and treatment of malaria patients and carrying out of public chemoprophylaxis.

In the period from 1940 to 1960 alone, more than 10 million rubles (at the new value) were spent on sanitary-hydrotechnical work. Air treatment of water supplies was extensively carried out for combatting mosquito larvae.

Each year about 1 million people, i.e. 15-20% of the population of the republic, were examined for malaria. All who were revealed to be ill and parasite carriers underwent treatment by the acrichin, Plasmochin, and methods developed in the Soviet Union.

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The complex of anti-malarial measures carried out led to a reduction, and subsequently to eradication of this disease in the republic.

From 1925 to 1950, the number of patients per year varied from 200,000 to 700,000. In 1956 in Uzbek, 780 malaria patients were reported, in 1957--293, in 1958--166, in 1959--45, in 1960--11. This graphically demonstrates that the problem of elimination of malaria in our republic was successfully solved.

Many localities of pre-revolutionary Uzbek were most ancient sites of parasitic worms (dracuncules). The largest source of this serious tropical disease was located in the Bukhara region. At Bukhara, for example, parasitic worms infected about 20% of the entire population. As a result, we had not begun the measures carried out with patients with parasitic worms from 1931.

The struggle is successfully carried out against such parasitic diseases as Acarina recurrent typhoid, cutaneous and visceral leishmaniasis, amebiasis, etc. Despite the presence of large natural sources of Acarina spirochetosis, we are recording only isolated cases of this disease. The number of patients with cutaneous leishmaniasis has been sharply reduced, although in the recent past in the steppe and desert regions of the southern part of the republic this disease was widely distributed.

It is known that in the territory of the Uzbek SSR, in the Kyzylkum Desert, there are natural, actively functioning sources of the plague. At the present time 10,000 people live and work in the Kyzylkum. In the former desert, towns arose, which mixers of gas, gold, and other useful minerals populate; in the deserts asphalt and railroads have been laid, thousands of new wells drilled, and dozens of stock farms have been established.

The penetration of man to the very depths of natural sources of plague have lead to the exposure of cases of the disease among the people. However, thanks to the carrying out of systematic combat against sources and carriers of infection, and also by specific prophylaxis of the populations in the zone of the natural source, complete epidemic safety was achieved: the disease of plague is now encountered in the republic.

Small pox was a common disease in pre-revolutionary Uzbek. Every year small pox struck tens of thousands of people; every third native inhabitant carried on his face the imprint of this dreadful disease. Small pox did not spare the population of large towns either: even in Tashkent small pox patients were constantly registered. It is sufficient to remember that the brilliant Russian actress Komissarzhevskaya having arrived on tour in Tashkent was stricken with small pox and died. Tens of thousands of people, stricken with small pox, were blinded.

From the moment of formation of our republic, a universal plan of attack on this serious disease was begun. Special mobile divisions of vaccinators were created which penetrated to the deepest corner. As a result of extensive carrying out of specific prophylaxis, morbidity was sharply reduced, and towards 1936 small pox was eradicated, although in our southern neighbors across the border, this dreadful disease is still rather widely distributed.

The economic bond of the Turkistan region with India, originating in ancient times, promoted penetration of cholera into the Uzbek territory. Earlier this infection found favorable conditions here for wide distribution. Each case of cholera brought in created epidemic outbreaks, which no one worked at eliminating, and the disease was not curtailed with the years. In the first year after establishment of Soviet rule, cholera was eradicated in the Uzbek SSR, after which we have had no cases of this disease.

In the first year after the revolution in Uzbek, as in all states, much work was carried out in combatting exanthematic typhus. Measures carried out, the improvement of living conditions of the population permitted in a short period a sharp reduction of morbidity, and to reduce it to isolated cases.

In the years of the great domestic war, in connection with evacuation of the population from the regions in our republic, temporarily occupied by the enemy, morbidity from exanthematic typhus somewhat increased; there are also cases of illness from recurrent typhus from lice. The medical workers again successfully solved the problem before them of the eradication of this disease: lice typhus was eradicated.

From the beginning of the fifty years, a high level of morbidity from diphtheria was noted in the republic. In 1956 the morbidity increased in comparison with 1951 indexes from one and three times.

In 1957, a general attack on diphtheria was begun. It was again decided to revaccinate all children up to 12 years of age, to organize in a new way the registration of inoculations in the child population. The carrying out of these measures was not delayed in showing up. Beginning in 1958 the morbidity from diphtheria began to decrease and in 1966 in all of Uzbek decreased 35 times in relation to the 1958 level; death decreased parallelly. At the present time in many towns and rural regions of the republic no cases of diphtheria have been registered for a period of several years. However, this does not give the basis for easing up, and medical workers are engaged in still more careful carrying out of measures of prophylaxis against this disease.

Well-known successes have been achieved in preventing whooping cough, from which the morbidity in 1966 had decreased approximately five times in comparison with 1958. The rather high rate of reduction of morbidity from whooping cough depends, evidently, on undecipherable differential diagnostics of whooping cough and parapertussis, and also, possibly, on the imperfection of the preparation used for specific prophylaxis.

Morbidity from poliomyelitis in the post war years was not especially high, but it showed a tendency to increase. In the summer of 1959, in the period of rising incidence, for a short period massive vaccinations with live poliomyelitis vaccine were carried out at the institute of poliomyelitis of the ANN-SSR, and in this way the outbreak was controlled. Subsequently, thanks to widely practiced specific prophylaxis, morbidity from poliomyelitis was reduced to several cases per year. Intensive indications in 1966 in comparison with 1959 were reduced almost 150 times.

These are the general patterns of certain results of combatting infectious diseases in the Uzbek SSSR during the fifty years of Soviet Rule.