

AD 688050

# U.S. ARMY FOREIGN SCIENCE AND TECHNOLOGY CENTER



ACHIEVEMENTS IN THE STRUGGLE AGAINST  
INFECTIOUS DISEASES IN SOVIET ESTONIA

COUNTRY: USSR

## TECHNICAL TRANSLATION

Distribution of this document is unlimited. It may be released to the Clearinghouse, Department of Commerce, for sale to the general public.

Reproduced by the  
**CLEARINGHOUSE**  
for Federal Scientific & Technical  
Information Springfield Va. 22151

**AD 688050**

**TECHNICAL TRANSLATION**

**FSTC-HT-23-144-68**

**ACHIEVEMENTS IN THE STRUGGLE AGAINST  
INFECTIOUS DISEASES IN SOVIET ESTONIA**

by

**O. M. Tamm and Kh. O. Pikh**

**SOURCE: ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII  
(Journal of Microbiology, Epidemiology and Immunobiology)  
No. 11, pp. 37-39, 1967, USSR**

**Translated for FSTC by Techtran Corporation**

**This translation is a rendition of the original foreign text without any analytical or editorial comment. Statements or theories advocated or implied are those of the source and do not necessarily reflect the position or opinion of the US Army Foreign Science and Technology Center. This translation is published with a minimum of copy editing and graphics preparation in order to expedite the dissemination of information. Requests for additional copies of this document should be addressed to the Defense Documentation Center, Cameron Station, Alexandria, Virginia, ATTN: OSR-2**

UNCLASSIFIED

Security Classification

AD 688050

DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author) Foreign Science and Technology Center US Army Materiel Command Department of the Army		5a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	
		2b. GROUP	
3. REPORT TITLE Achievements in the Struggle Against Infectious Diseases in Soviet Estonia			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) - Translation			
5. AUTHOR(S) (First name, middle initial, last name) O. M. Tamm and Kh. O. Pikh1			
6. REPORT DATE 17 April 1969		7a. TOTAL NO. OF PAGES 4	7b. NO. OF REFS N/A
7c. CONTRACT OR GRANT NO.  A. PROJECT NO. 9223628 2301		8a. ORIGINATOR'S REPORT NUMBER(S) FSTC-HT-23- 144-68	
		8b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report) ACSI Control Number (None)	
9. DISTRIBUTION STATEMENT Distribution of this document is unlimited.			
11. SUPPLEMENTARY NOTES		12. SPONSORING MILITARY ACTIVITY US Army Foreign Science and Technology Center	
13. ABSTRACT Significant progress has been made in combatting such diseases as malaria, brucellosis, rabies, poliomyelitis, diphtheria, whooping cough, tuberculosis, and measles. This has been accomplished by prophylactic measures, improved laboratory diagnosis, systematic vaccination, and a network of sanitary-epidemiological stations. Medical facilities in the Estonian SSR are among the best in the Soviet Union.			

DD FORM 1473

1 NOV 65 1473 1 JAN 66, WHICH IS COMPLETE FOR ARMY USE.

UNCLASSIFIED

Security Classification

14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT.	ROLE	WT.	ROLE	WT.
Topic Tags  Estonian SSR Infectious Diseases Prophylaxis Epidemiology Medical Science						

## ACHIEVEMENTS IN THE STRUGGLE AGAINST INFECTIOUS DISEASES IN SOVIET ESTONIA

The achievements of the Estonia SSR in the field of public health is demonstrated by the fact that in 1965 the number of doctors per 10,000 persons in the Republic was in third, and the number of hospital beds was in second place in the Soviet Union. A sanitary-epidemiological service has also been successfully developed. Despite the small territory, the Republic has twenty sanitary-epidemiological stations, which until the establishment of the Soviet rule did not exist. In 1952 a scientific research institute of epidemiology, microbiology, and hygiene was created in the Republic.

At the present time one may consider brucellosis, rabies, malaria, poliomyelitis, diphtheria, and other diseases to be eradicated in the Estonia SSR. The last new case of brucellosis among people in the Republic was registered in 1957, and in animal husbandry in 1961. The eradication of brucellosis in the Estonia SSR was made possible as the result of cooperative work by medical and veterinary services. The last case of rabies among people was noted in 1955, and among animals in 1961. The local disease of malaria has not been observed since 1953. Isolated cases of tropical malaria have been brought in from Africa in recent years.

Poliomyelitis was formerly a genuine disaster in Estonia. Effective measures against this disease have resulted from specific prophylaxis. Vaccinations against poliomyelitis by inactivated vaccine were begun in 1957. In January, 1959, live, attenuated vaccine, which was used to vaccinate 67% of the population in 1960 and 70% in 1961, was used in Estonia (the first in the Soviet Union). There has not been a single recorded case of poliomyelitis in the Republic since 1962. Despite this, vaccinations are continuing to be carried out, to control the condition of immunity and the circulation of polio virus among the population.

Estonia was the first Republic in the Soviet Union where diphtheria was eradicated. In 1965 and 1966 there was not a single case of infection recorded. Not long ago, diphtheria still had the highest morbidity.

Diphtheria was distributed in all towns and regions of the Republic, since in the autumn-winter period an increase in morbidity was usually observed. The percent of morbidity among adults was also rather high. Prophylactic measures begun in 1945, among them vaccination, permitted a 6 1/2 fold decrease in morbidity already in the following two years. Over a ten year period (1952-1961) the morbidity decreased 34 times. The territorial distribution of the disease also sharply decreased. Cases of diphtheria were noted only in individual towns and regions and the seasonal increase was not observed.

The reduction in morbidity from diphtheria in the Republic was facilitated by the compulsory registering and following up of children twice a year beginning in 1959; introduction of a single chart of vaccinations down to the rural nursing-obstetric stations, the organization of vaccinating cabinets in the towns and the formation of card indexes in child clinics.

In 1964 timely vaccination and revaccination of 75-92% of the children took place. Indications of the strength of immunity also changed. While in 1962 8.8% of the children gave a positive Schick reaction, in 1964 this had decreased to 4%, and among preschool children even to 1.4%. A constant reduction in bacteria carriers was also noted, and a change in the biochemical properties of the cause and the age of diphtheria. Among strains isolated in 1965, not one was toxigenic.

The morbidity from tuberculosis significantly decreased. The number of primary infections constantly decreased from 1953, and from 1957 the overall contingent of tuberculosis patients decreased. Over the last twelve years, morbidity from tuberculosis has decreased more than two fold, and among children-more than six fold. Among persons who have had contact, morbidity has decreased by 53.9%. Prophylaxis of tuberculosis has been significantly extended. From 1962 to 1963 intracutaneous vaccination was begun. Fluorographic investigation is widely used. In 1965 xray and fluorographic studies were carried out on 51.7% of the entire population older than twelve years. Cooperative work has improved in tuberculosis dispensaries, sanitary-epidemiological stations, and other treatment-prophylactic institutions.

Morbidity from whooping cough decreased approximately eight times in 1965 in comparison to 1959. Before introduction of widespread vaccination in 1958, a characteristic summer-fall seasonal variation was observed. More frequently children from one to five years were stricken. The morbidity from whooping cough among children in towns was twice as high as in rural localities. As the result of immunization against whooping cough and regular revaccination, a change in the age structure of those stricken

was observed along with the reduction in morbidity. In recent years the seasonal increases are no longer noticed. In several regions cases of whooping cough have not been recorded since 1965. In recent years light forms of average severity have prevailed. In 1965 there were no deaths from whooping cough. Bacteriological diagnosis of whooping cough in the Estonian SSR have been carried out since 1961. In 1965 whooping cough was confirmed bacteriologically in 59.7% of the cases. Bacteriological research is usually completed serologically. The increase circulation of the causative agent of paraptussis has led to the beginning of vaccination against it.

Among the infectious diseases still requiring active control measures, are intestinal infections, epidemic hepatitis and of the childhood infections-measles.

Morbidity from measles in the Republic has a wave-like character: years of high morbidity alternate with years of sharp reduction. Apparently this is connected with the immergence of new children of non-immuned contingents. Evidently, vaccination is the basic measure which can lead to a reduction in the morbidity from measles. Until the present time, vaccination against measles in the Republic was carried out on a limited scale and was experimental in character. The decision has been made to carry out active immunization against measles on a wide scale.

Until recent times in the territory of the Estonian SSR a marked fall-winter increase in the incidence of epidemic hepatitis was observed. Primarily children up to fourteen years in age were effected. Prophylaxis of epidemiological hepatitis was begun in the schools in the Republic in the 1961/62 school year with  $\gamma$ -globulin, which showed sufficient activity. The incidence among school children who obtained  $\gamma$ -globulin was 6.4 times lower than among school children not receiving the preparation. Having studied the actualities of the problem of epidemic hepatitis, the Pallinskiy Scientific Research Institute of Epidemiology, Microbiology, and Hygiene is providing for its treatment. The possibility of early laboratory diagnosis is being studied. Centralized sterilization of medical instruments is being introduced into several treatment-prophylactic institutions under the methodological direction of the institute for prevention of the development of parenteral hepatitis.

Until recent times the problem of intestinal infections, primarily dysentery, has remained urgent. There have been undeniable achievements in the control of this infection in the Estonian SSR. Laboratory diagnosis has improved. In 1965 on the average, dysentery was concerned bacteriologically in 48.6% of the cases in the Republic, and in 1966 - in 59.7% of the cases. The number of chronic patients has significantly decreased. While in 1960 they accounted for 9.2% of the total number of patients, in 1965 - 2% and in 1966 - only 0.5%. Deaths from dysentery are encountered extremely rarely.

On the e of the renowned celebration of our Mother land, medical workers of Soviet Estonia are all joining forces in order to achieve some more significant successes in the control of infectious diseases.