



# ANALYSIS OF THE FOCUS OF LEPROSY IN CITIES AND REGIONS OF THE SURKHANDARYA REGION (1926-2018)

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## ANNOTATION

*Analysis of leprosy foci in cities and districts in the Surkhandarya region (1926-2018) The article provides an analysis of endemic foci of leprosy in the Surkhandarya region.*

**KEY WORDS:** *leprosy, endemic foci, the role of migration, mucous membrane, Mycobacterium leprae, tuberculosis bacterium.*

## INTRODUCTION

Leprosy is an infectious skin disease that affects not only the skin, but also in the next half of the next, possibly the nervous, then the muscular, skeletal systems and, finally, internal organs. If sick patients are not treated in a timely manner, they eventually become severely disabled. Suffice it to say that every third patient ends his life blind. Literature data indicate that early detection of leprosy, in-depth study of previous endemic foci and their analysis is still an urgent task of the time. Although there is incomplete information about the presence of endemic outbreaks of leprosy in the Surkhandarya region, they have been identified. (five). The emergence of lepromatosis, as the most contagious type of leprosy in the region, in the early years of independence in 1996 and later in 2005, prompted us to study this problem more deeply and set ourselves a specific goal.

## THE AIM OF THE STUDY

To study endemic outbreaks of leprosy in cities and districts of the Surkhandarya region and determine the causes of its occurrence.

## RESEARCH OBJECTIVES

On the basis of archival documents (1926-2018) and research, determine the total number of

patients with leprosy in cities and districts of the Surkhandarya region and study endemic foci. Identify the factors causing leprosy in the region and provide a comparative assessment. In the implementation of the set goals and objectives, the archival materials collected in the leprosy foci of Uzbekistan, Karakalpakstan, Kazakhstan, the Republic of Tajikistan and the Russian Federation (medical records, epidemiological cards, annual reports, etc.), as well as materials from personal meetings with patients who lived from 1996 to 2018.

## RESEARCH RESULTS

In the region from 1926 to 2018, 82 patients with leprosy were identified, of which: 53 (64.6%) were men and 29 (35.4%) were women, with a sex ratio of 2.1: 1. These data are for both sexes. practically coincide with the literature data (1). Epidemiological studies have shown that the majority of patients were identified in the areas of Denau and Sariosia - 63 (76.8%). The Denau region is the second most populous in the region and is a mountainous region bordering Tajikistan. Later, two more Uzun and Oltinsky districts were formed. But in order to avoid confusion in our scientific research, we have left the previous division of regions into districts.



**Table 1**  
**Information on cases of leprosy in Surkhandarya region (n = 82)**

№	City and districts	Number of patients										Abs	%
		1926-30	1931-40	1941-50	1951-60	1961-70	1971-80	1981-90	1991-00	2001-09	2010-18		
1	Sariosia	1	10	1	5	1	-	1	-	-	-	19	23,2
2	Denau	-	3	1	19	17	1	-	2	1	-	44	53,7
3	Shurchi	-	2	0	4	1	2	-	-	-	-	9	10,9
4	Kumkurgan	-	1	-	-	-	-	-	-	-	-	1	1,2
5	Dzharkurgan	-	1	-	-	3	1	-	-	-	-	5	6
6	Termiz	-	-	-	-	-	-	-	-	-	-	-	
7	City Termiz	-	-	-	-	-	-	-	-	-	-	-	
8	Angor	-	-	-	-	-	-	-	-	-	-	-	
9	Muzrabad	-	-	-	-	-	-	-	-	-	-	-	
10	Sherabad	-	-	-	-	-	-	-	-	-	-	-	
11	Kyzyrik	-	-	-	-	-	-	-	-	-	-	-	
12	Bandikhan	-	-	-	-	-	-	-	-	-	-	-	
13	Boysun	-	2	-	1	-	-	1	-	-	-	4	4,8
	Total:	1	19	2	29	22	4	2	2	1	-	82	100,0
	Years	1926-30	1931-40	1941-50	1951-60	1961-70	1971-80	1981-90	1991-00	2001-09	2010-18		

Table 1 shows that according to the detection of the disease, the following main indicators of the disease are, respectively, Shurchi - 9 (11.0%) and Dzharkurgan - 5 (6.1%) districts, which adjoin the Denau and Sariosia districts. In Boysun district - 4 (4.9%) and Kumkurgan - 1 (1.2%), sporadically isolated patients were identified. In the rest of the city of Termez, as well as in such areas as Termez, Angor, Kyzyrik, Bandikhan, Sherabad and Muzrabad, not a single patient was found. It is noteworthy that the highest level of detection of the disease was in 1931-1940, then in 1951-1960 and 1961-1970. This situation is clearly visible from the table. Such figures can now be seen in the statistics of all the former Soviet republics and the whole world. In particular, 74.1% of 357 patients identified in the territory of the Republic of Tajikistan adjacent to the Sariosia and Denau districts of the Surkhandarya region fall on the same years (1931-

1970) (4). Consequently, there is a certain relationship between these two neighboring republics. In fact, two peoples, religion, customs, culture and weddings of which are almost identical, without respecting territorial boundaries have always been very close. This, in turn, opened the way for free migration.

When we talk about the source of leprosy, of course, the question arises whether the source of the disease is in the family or outside the family. This can be interpreted in different ways. Many experts say that if the source of the disease often comes from the family, the duration of the outbreak will last for many years and the outbreak will be stable (4). On the basis of these same arguments, we studied the sources of diseases of the patients identified in the Surkhandarya region. Studies have shown that 23 (28.0%) of 82 identified patients had a history of leprosy in the family (father,



mother, brother, sister, sister, grandmother, grandfather, etc.). 13 close relatives (15.8%) of whom, including an uncle, aunt, aunt or uncle, were infected with leprosy. This means that out of 82 identified patients, 36 (43.8%), who had close family relations, had previously suffered from leprosy. That is, the disease was transmitted through family ties. In 11 (out of 13.4%) patients, 0%) in the family, but only 3 representatives were registered with leprosy. Of these, 1 representative, out of 16 (19.5%) - 2 representatives and 1 more (1.2 data show that almost half of the source of the disease was in the family, and the rest - in the microdistrict or in the village. - a practical trip to study leprosy in the Republic of Tajikistan in 2018, it became clear that most of the patients identified in these two neighboring countries

once lived themselves or their parents in the same village borders, which lasted 20-25 years, have lost this isolation without a trace. In the region, the identified patients had only 156 family contacts. On average, this value is 1.9. According to statistics, the peoples of Central Asia have long been considered large. Their family had at least 5-6 children. But in our case, the fact that most patients with disabilities have been treated for leprosy from an early age for many years suggests that this has prevented them from building a healthy family. Table 2 shows that 24.4% of men (20) and 14.6% (12) of women did not have a family at all. The study showed that there are also destroyed families, respectively (20.7%; 17.1%), which is a high indicator. That is, the family of every fifth patient is unstable and has broken family ties.

**Table 2**  
**Analysis of patients by marital status (n= 82)**

Family status	Sex				Total	
	Male		Female			
	abs	%	abs	%	abs	%
Family	20	24,4	12	14,6	32	39,0
No family (not married, not married)	14	17,1	3	3,6	17	20,7
Broken families (widows or single)	17	20,7	14	17,1	31	37,8
Minors (15-17 years old)	2	2,4	-	-	2	2,4
Total	53	64,6	29	35,4	82	100,0

According to these data, the number of household contacts of patients was very small and amounted to only 1.9. It should be noted here that for many years, sometimes a whole life devoted to the treatment of leprosy, did not allow the sick to build a family in peace and quiet. Most of them lived lonely lives and passed away. Some of them teamed up with others with leprosy, hoping to rebuild their families or start a family.

**CONCLUSION**

Thus, our retrospective and practical research, based on historical documents, confirms that there were endemic outbreaks of leprosy in the modern Sariosi, Uzun, Denovsk, Oltinsky and later Shurchinsky districts of the Surkhandarya region. In other districts, such as Kumkurgan, Jarkurgan, Boysun and Termez, the patients moved due to internal migration. The incidence peaked in the 1950-1965s. The last patient was registered in the summer of 2005. Such data indicate that endemic foci of the disease still exist in these regions. In this regard, it is necessary to strengthen control over these foci in order to prevent recurrence of the disease in the family of patients, as well as in connection with common household contacts.

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