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Qal'eh-ye Mehrab Khan: The First Leprosarium in Iran

Before discussing the establishment and functioning of the first real leprosarium in Iran, a brief explanation is given of the pathology of leprosy, the various names are listed under which it was known in Persian, and the earliest archeological evidence of its occurrence is presented. Also, societal behavior in Imperial Iran towards lepers is highlighted, while reference is made to the earliest medical descriptions of leprosy in Persian. Little is known about the occurrence of leprosy in Iran over the centuries, as evidenced by the lack of knowledge about its prevalence among medical practitioners and institutions in Iran, even as late as the 1920s. Although segregated villages with lepers existed prior to 1926, it was only as of then that the Mehrab Khan village became the first true Iranian leprosarium, when regular institutional medical treatment was offered by American missionary physicians. The funding agencies, medical personnel and treatment, the living environment of lepers and their numbers in Mehrab Khan are discussed as well as how its population size and status changed over time, and how it was transformed into a structural component of public medical care. Finally and briefly, the establishment and functioning of two other Iranian leprosaria is discussed as well as the slow but sure disappearance of the disease in Iran.

Keywords: Medicine; Leprosy; Qajar; Pahlavi; American missionaries; Astan-e Qods-e Razavi

The Disease

Leprosy, also known as Hansen's disease, is an infection caused by bacteria called *Mycobacterium leprae*. These bacteria grow very slowly and it may take up to twenty years to develop signs of the infection. The disease can affect the nerves, skin, eyes, and lining of the nose (nasal mucosa) and may cause the affected areas to lose the ability to sense touch and pain, which can lead to injuries, as well as eventually the loss of toes and fingers as well as saddle-nose deformity. Usually, the affected skin changes color and either becomes lighter or darker, often dry or flaky, with loss of feeling, or reddish due to inflammation

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of the skin.¹ According to Browne, lepromatous leprosy, the most severe and most infectious type, was the significant form in the past, while Dols submitted that tuberculoid leprosy, the least damaging and the least infectious type, which does not show clinical signs of the disease, were certainly known in the past.

Leprosy is a term derived from the Greek term “lepros,” which means “scaly.” In Persian many words exist to denote leprosy. One may distinguish a threefold division, namely one group of words that refers to the disfiguring destructive nature of the disease, the other to the change in color of the skin due to the disease, and the third a more generic type of terminology. In group one finds: جذم *jazm* and جذام *jozam*, Arabic words meaning “amputating, lopping, and mutilating.” Its Persian counterparts are خوره *khwāreh*, *khwureh* and کلی *kolī*, i.e. “anything that eats or corrodes.” In group two one finds words that denote white leprosy or morphew, either malignant or not, such as: برص *baras*, the malignant white species of leprosy; بهق *bahaq* or بهك *babak* (distinct from *baras*); بیستگی *bīstagi*, پیس *pīs*, پیسگی *pīsegi*, سرچپ *sarchap*, شوره *shoreh*. In group one there are: تن قره *tan qara*, black leprosy, as well as لری *lari* and لوری *luri*, both meaning “leprosy.” *Jozam* (جذام) has gradually substituted the other terms since the earliest centuries of the Islamic period in Iran and is still the common term for leprosy in use in Persian.² A hyperbolic way of referring to the disease is the term ‘*ellat-e ‘areza suda’i* (علة عارضة سودایی), meaning a “scorbutic affliction.”³ Some of the above terms have other meanings, such as *khureh*, which also means “shanker.”⁴ Its use to denote leprosy is probably due to the fact that traditional physicians often did not make a distinction between the two afflictions. According to Zambaco Pacha, the tubercular form of leprosy was most prevalent and often mistaken for syphilis and treated as such. Likewise, psoriasisiform leprosy was treated as if it were common psoriasis with purifying agents and various pomades.⁵

Earliest Literary Evidence

Leprosy is an ancient disease known since at least 2000 BCE. There are literary references to leprosy in India and China from the first millennium BCE as well as in Egypt from around 1500 BCE.⁶ Likewise, the Avesta mentions leprosy. The Avestan term for leper (*paesa-*) is related to the term *vitārato.tano*, meaning “whose body is isolated,” suggesting that isolation of lepers was practiced. Greek authors such as Herodotus (b. 485 BCE) report that those affected by leprosy or *leuke* (a skin disease like

¹CDC website <https://www.cdc.gov/leprosy/index.html> (accessed 2 July 2018).

²*Loghatnameh-ye Dehkhoda*; Matin 1388, p. 643; Schlimmer 1970, p. 228; Zambaco Pacha 1924, p. 570; Wolff 1860–61, p. 286. According to Polak 1863, p. 175, the term *pīs* was used by Turkish speakers.

³Brydges-Jones 1976, p. 78.

⁴Schlimmer 1970, p. 123.

⁵Zambaco Pacha 1924, p. 570. The Persian terms used for white leprosy probably mostly referred to non-leprous skin diseases, Polak 1865, vol. 2, pp. 307–8.

⁶Griffith 1895, Book I, hymns XXIII and XXIV; Aufderheide et al. 1998, p. 148; McLeod et al. 1981; Bryan 1930, pp. 88–94.

leprosy) stayed outside the towns and avoided contact with non-lepers. This social exclusion is confirmed by Ctesias of Cnidus (a fifth century BCE physician), who reports that Persians, like others in Antiquity, considered lepers to be pariahs. He used the term *pisagas* to refer to lepers, which is the Greek rendering of the Old Persian term *pesag*, or leper. Iranians considered the affliction the result of divine punishment, having offended the sun, possibly meaning Mithra, or the Babylonian Sun or Moon-god. According to Yasht 14.48, believers who don't lie to Mithra and sacrifice to Verethragna will receive protection against leprosy and other plagues. Yasht 5.92–93 states that lepers could not receive the libations offered to Anahita, the goddess of “health giving.”⁷ Videvdad (9.33–35) prescribes for men and women in a state of uncleanness isolation in a building called *armeshtgab* or “house of seclusion.”

He shall sit down there in the place of infirmity, inside the house, apart from the other worshippers of Mazda. He shall not go to the fire, nor near the water, nor near the earth, nor near the cow, nor near the trees, nor near the faithful, either man or woman. Thus shall he continue until three nights have passed. When the three nights have passed, he shall wash his body, he shall wash his clothes with *gomez* and water to make them clean.⁸

There is not only literary evidence, but also in art. Three small masks recently found in the remains of the Tepeh Hasanlu, dating back to the first millennium BCE, may be considered as the first visual instance of the effect of leprosy on Iranian art. On one of three masks “the nose is deformed which is quite compatible with the impact of leprosy on the nose cartilage tissue and deformity. Furthermore, the mask has empty sockets.”⁹

Earliest Medical Evidence

Despite the literary evidence, Dols maintains that “There is no persuasive evidence that true leprosy occurred in ancient Egypt, Mesopotamia, or Persia before the time of Alexander the Great.”¹⁰ However, the literary evidence for the early prevalence of leprosy is borne out by recent paleo-pathological studies of ancient skeletal remains. The earliest corporate evidence of leprosy is from Balathlal (Rajasthan, India) in skeletal remains from the second millennium BCE. This finding is further confirmed by skeletal evidence from the Harappa site in Pakistan. These findings seem to support the hypothesis that leprosy migrated from Africa to Mesopotamia and India in the third millennium BCE.¹¹ Further osteo-archaeological evidence of

⁷Coloru 2017, pp. 65–6; see also Modi 1911; Modi 1917, p. 281.

⁸Coloru 2017, pp. 65–6.

⁹Moghadas 2015, pp. 1162–3.

¹⁰Brown and Simcock 2012; Dols 1979.

¹¹Robbins et al. 2009; Robbins et al. 2013.

leprosy is from first millennium AD from the Ustyurt Plateau, Uzbekistan.¹² A Ptolemaic period cemetery in the Dakhleh Oasis in Egypt contained the skeletons of four adult males of European type from the second century BCE. Dzierzykray-Rogalski diagnosed leprosy on the features of *facies leprosa* and has suggested that these Europeans in a predominantly negroid burial ground possibly represented lepers segregated from the Ptolemaic capital because of their disease.¹³ In addition, DNA taken from the skeletal remains of a man dated 10–50 CE, in a tomb next to the Old City of Jerusalem showed the presence of leprosy.¹⁴ Adequate clinical descriptions of lepromatous leprosy did appear during this period, the best perhaps being that by Aretaeus of Cappadocia, a contemporary of Galen in the second century CE. In Sassanid Iran, according to Christian hagiography, Christians healed royals of afflictions such as leprosy through miracles.¹⁵

The first Iranian physician who described leprosy was Ali b. Rabban Tabari (838–70 CE), the author of *Ferdows al-Hekmat*. Thereafter, Ali b. Abbas Majusi Ahvazi (tenth century CE) described the clinical manifestations of leprosy in his book entitled *Tebb Mālekī*. Ibn-Sinā (980–1037 CE) also discussed the clinical findings of leprosy in his *Canon of Medicine* and was the first to describe the saddle-nose deformity, typical of leprosy, since its first known description in the third century BCE Chinese text *Feng zhen shi*.¹⁶ Later, Esmā'il Jorjānī (1040–1136 CE), in his *Dhakhīreh-ye Khvār-azmshāhī*, described the various stages in the development of the destructive and contagious nature of leprosy.¹⁷

Leprosy in the Qajar Period (1794–1925)

Not much is known about the prevalence and geographical distribution of leprosy in Iran from the year 1000 until the Qajar period. The occasional mention of the disease is found, such as in 1590, when, according to Teixeira, Arabs in the Persian Gulf area were much afflicted by leprosy.¹⁸ However, such mentions of leprosy during this intervening period is rare.¹⁹ Although we know more about leprosy during the Qajar era, the information for that period is not overwhelming either. Most nineteenth century authors who report on it during this period had little experience with the disease, both in terms of the number of patients seen and the parts of the country visited. Sometimes mistaken for, but not related to leprosy, was vitiligo or *baras*.²⁰ *Alphos* (*pīs* or *baras*) was an endemic disorder, also sometimes mistaken for leprosy, about which

¹²Blau and Yagodin 2005.

¹³Dzierzykray-Rogalski 1980.

¹⁴Anonymous 2009; Spigelman and Donoghue 2001; Matheson et al. 2009.

¹⁵Coloru 2017, p. 70.

¹⁶Najmabadi 1353, pp. 316–20, 460, 591; Matin 1388, pp. 642–53.

¹⁷Matin 1388, p. 643.

¹⁸Teixeira 1991, p. 228.

¹⁹Elgood (1951) and Najmabadi (1353) don't mention it at all. The same holds for the entry *jodbām* by Matin 1388 in the *Dār al-Mā'āref Bozorg Eslāmī* and by Dols in the *Encyclopedia of Islam*.

²⁰Polak 1865, vol. 2, p. 307.

little was known at that time.²¹ Likewise, sphacelus, described as a dry gangrene, occurred in some towns, and it was feared as much as leprosy.²² European-trained physicians sometimes did not recognize the disease either. In 1854, Dr. Bock, the Russian Legation's physician, amputated part of the knuckles of a patient from the Khamseh, as he did not suspect leprosy.²³

The general opinion of nineteenth century European physicians and travelers was that leprosy mainly occurred in northwest Iran. According to Ussher, "The whole of north-west Persia would seem to be afflicted with this frightful scourge of humanity."²⁴ De Gobineau encountered deformed leprous beggars at Miyaneh.²⁵ In 1906, Azerbaijan was reported to be the most afflicted province, although the same report stated that leprosy was endemic in Iran.²⁶ According to Polak, leprosy (*jodhām; pīs*) was mainly concentrated in the Khamseh province with its center at Zenjan, and in the districts of Khalkhal and Qaradagh. He had never heard of a case south of Qazvin.²⁷ Häntzsche concurred, for he submitted that leprosy occurs in endemic form among certain families in the higher parts of Iraq-e Ajam, Azerbaijan, and Qaradagh.²⁸ Hirsch reported cases of leprosy in Iraq-e Ajami, Kohestan near Baluchistan and Azerbaijan.²⁹ In 1908, Loew wrote that the disease occurred especially in north-west Iran (Tabriz, Qazvin area).³⁰ Feistmantel reported that there were also loci in the northeast, east and south, in particular among pearl fishers. Abol-Qāsem Khan went even further and reported that leprosy was not widespread in Iran and only isolated cases occurred in the northwest and the south.³¹ In Fars, leprosy was seldom seen.³²

This shows how little was known even about the areas where the disease mostly occurred. Dr. Johan Louis Schlimmer practiced in Talesh and Rasht from 1849 to 1852, treating, among others, lepers. Schlimmer described a case of a leprosy patient referred to him, who was cured after ten months.³³ However, according to Häntzsche, leprosy was rarely seen in the Caspian provinces.³⁴ Contrariwise, Dr. Christides, who had worked for many years in Rasht, reported that in that town

²¹Schlimmer 1970, pp. 28–31, 365–6 (q.v. melas); Polak 1863, pp. 178–9.

²²Polak 1863, p. 179.

²³Ibid., p. 177.

²⁴Ussher 1865, p. 652.

²⁵De Gobineau 1923, vol. 2, p. 259.

²⁶Römer 1906, p. 146.

²⁷Polak 1865, vol. 2, pp. 305–7, vol. 1, pp. 311–12; Polak 1863, pp. 175–6; Schlimmer 1970, pp. 228–54. Polak also tried to treat the illness and showed a case to his medical students in the *Dār al-Fonūn. Vaaqāyē-ye Ettefāqiyeh*, vol. 2, p. 1235 (no. 193, 19 Moharram 1271/March 8, 1856).

²⁸Häntzsche 1863, p. 181.

²⁹Klingmüller 1930, p. 50.

³⁰Loew 1908, p. 701.

³¹Klingmüller 1930, p. 50.

³²IOR/L/PS/20/7, p. 88; Adamec 1989, vol. 3, p. 693 (Shiraz).

³³Schlimmer 1970, p. 306.

³⁴Häntzsche 1863, pp. 181–2; Fraser 1826, p. 200. In 1920 and thereafter, leprosy was seen more common than usual in Rasht. RG 91-19-9, "History of Resht Station," p. 2; Resht Medical Report 1930, p. 3; Resht Medical Report 1931, p. 2.

many lepers were seen, mainly among the poor; allegedly they mostly came from Azerbaijan and Kurdistan.³⁵ In 1886, Dr. Vaume reported that leprosy not only occurred in Gilan, but also in Mazandaran, Talesh and Khamseh/Zanjan, as well as in Kurdistan, where until then it had been unknown.³⁶ Leprosy was allegedly “especially prevalent among the Kurds, lepers are not segregated, although leper settlements are found in a number of places.”³⁷ Leprosy also occurred in Khuzestan³⁸ as well as in Bushehr, where the medical staff of the British dispensary was very proactive in treating lepers.³⁹

The above demonstrates that even the medical community in Iran, including the Sanitary Council, reestablished in 1904, was rather ignorant about the incidence and geographical prevalence of leprosy in Iran, although it was the Council’s task to deal with all aspects of public health of the country and advise the government what action needed to be taken. However, the Council had a rather patchy notion of the occurrence of leprosy in Iran. This is evident from a session of the Sanitary Council in February 1911, when this medical supervisory body was not even aware that the government of Iran had drawn up regulations dealing with leprosy. During this session, “Persian members present described the regulations made by the Persian Government for the isolation and feeding of the unfortunates.” The same session further demonstrated the total lack of knowledge about leprosy in Iran, for the Council “decided to request the Government to see that the regulations were carried out, and to collect information on the question of leprosy in Persia generally.”⁴⁰ This not only shows the ignorance about the occurrence of the disease in Iran, but also what to do about it. When, in September 1912, a center of leprosy was discovered in Bibianlu (Astara district) by the medical officer, the Council “decided to instruct him to take whatever measures of isolation were possible at once,”⁴¹ rather than refer him to the government regulations. Because of the outbreak of World War I the intended assessment of the incidence of leprosy in Iran did not happen. According to Dr. Neligan, a former member of the Sanitary Council, the main endemic foci of leprosy in Iran were Khorasan, Azarbaijan, Gilan, Kermanshah, and Kurdistan, thus ignoring Khamseh province and the Persian Gulf littoral. He added that lepers were not allowed to enter towns and that in Khorasan and Azarbaijan officials encouraged lepers to live in their own settlements.⁴²

Despite the incomplete and imperfect knowledge about the disease and its sufferers, there was a beginning of both medical and official government interest in dealing with the disease and caring for those afflicted by it. In 1862, Dr. Schlimmer wrote a book on dermatological disorders, including leprosy, entitled “Beauty of the Human Bodies” (*Zīnat al-Abdān*), while in 1874 he published his lessons on

³⁵Zambaco Pacha 1924, p. 569.

³⁶Vaume 1886, p. 160.

³⁷Anonymous 1902, p. 46.

³⁸IOR/L/MIL/17/15/8, p. 42.

³⁹Administration Report 1908, p. 12.

⁴⁰IOR/L/PS/10/284, Neligan to Walter Townley, February 3, 1914.

⁴¹IOR/L/PS/10/284, Neligan to Walter Townley, November 4, 1914.

⁴²Neligan 1926, part II, p. 694.

leprosy taught at the *Dār al-Fonūn* in his *Terminologie*.⁴³ ‘Abd al-Hoseyn Khān Zonuzi Filsuf al-Dowleh (1866–1942) was the first Qajar era physician to write a treatise on leprosy.⁴⁴ He submitted that leprosy was not widespread in Iran and only isolated cases occurred in the northwest and the south.⁴⁵

According to Häntzsche, in Iran there was no therapy for the disease. He treated leprosy with Sublimat internally with some poor results, but patients left fearing they would lose their affliction and thus their justification for alms. Schlimmer had good results with Jodkali int.⁴⁶ A traditional medicine in the Tabriz region was to drink large quantities of fermented goat milk.⁴⁷ A Zand courtier was advised to swallow daily a certain quantity of finely crushed china-ware, from which he died.⁴⁸ Other traditional medicines used for leprosy included turnip, *hashīshu’l-baraş*, bucks-horn plantain, *sangisboye*, cinquefoil, *rīju’l-ghurāb*, crows-foot, and *sharābī kadar*, a decoction derived from this plantain, which was believed to be useful against leprosy and other diseases of the skin.⁴⁹

The Number of Lepers

In 1908, according to Dr. Loew, there were no more than 100–200 lepers in Iran and this number was diminishing.⁵⁰ In 1923, Abol-Qāsem Khan held the same opinion: he reported that leprosy was not widespread in Iran and that in the two preceding years only one new case had been reported, although he admitted that it was possible unreported cases had been treated in hospitals.⁵¹ In 1932, the Director of the Public Health Administration (*Sebhiyeh-e koll-e mamlekatī*), established in 1926, reported that lepers were scattered in various parts of Iran, but were mostly found in Khorasan, Mazandaran, Azerbaijan, Qazvin, and Kurdistan. He added that a leper colony was established near Mashhad and one leper house outside the port city of Bushehr. The official number of registered leper patients was 400; however, the Director believed that the actual number was much higher.⁵² In 1936, Dr. Lichtwardt estimated that the number of lepers in Iran was between 500 and 1,000 sufferers.⁵³ In the 1940s, leprosy was reported not to be very prevalent and to occur in Khorasan, Azerbaijan, Gilan, Kermānshāh and Ardālān.⁵⁴

⁴³Schlimmer 1970, pp. 238–55.

⁴⁴Monzavi 1348, 5: 3398.30; Azizi and Bahadori 2011, p. 426.

⁴⁵Klingmüller 1930, p. 50.

⁴⁶Häntzsche 1863, pp. 182–3.

⁴⁷Vinkhuijzen 1868, p. 188.

⁴⁸Brydges-Jones 1976, p. 436 note.

⁴⁹*Loghatnameh-ye Dehkhoda*; see also Matin 1388, p. 643 (bloodletting, diet, etc.).

⁵⁰Loew 1908, p. 701.

⁵¹Klingmüller 1930, p. 50.

⁵²Rusta’i 1382, vol. 1, p. 473.

⁵³Mashad Medical Report 1935–36.

⁵⁴Government of Great Britain 1945, p. 421.

Segregation of Lepers

Although Iranians didn't believe that leprosy was contagious, they nevertheless feared it.⁵⁵ Therefore, as soon as somebody showed signs of leprosy they were expelled from the community as they were held to be "unclean."⁵⁶ Wilson reported that when a woman was banished from the village her family wanted to depart with her. The village owner, who was a traditional physician, did not want to lose the benefit of having such a hard-working family in his village and "offered to give her a medicine that would kill or cure her in eight days. His intention was to poison her."⁵⁷ Usually the expelled person had to go to a leper village situated on a caravan route, which consisted of dilapidated mud huts with holes instead of windows and a door. The local governor was supposed to give them some flour and butter, and in years of need the shah sent them some sacks of flour. However, these gifts usually did not reach them and therefore, dressed in rags; they lived by begging from passing caravans and with help from their family.⁵⁸ Lepers were banned from coming into the cities, and they were rarely seen in Tehran, for example.⁵⁹

A different view was offered by Dr. Christides, who had worked for many years in Rasht. He reported that in Tehran and Tabriz lepers lived among the population and mixed freely with them. In Gilan lepers walked in the streets and bazaars asking for alms. However, Iranians were not afraid of being contaminated by them and even ate with them from the same plate. Because Iranians did not believe in contagion they even employed leprous servants. The same lack of segregation held for the public baths. Here lepers mingled with others in the baths, the water of which was changed only once per month. He concluded that in Iran there was neither prophylaxis, segregation, nor disinfection for leprosy or for any other disease, thus, according to Zambaco Pacha, presenting the optimal case for its propagation.⁶⁰ This view, which totally differed from all other sources and actual practice, must have been due to Dr. Christides having mistaken *baras* and other dermatological conditions for leprosy (see above).

The reality was that it was not uncommon for lepers to live together in rural communities near an urban center. In 1885, Dr. Vaume visited a leper village of twenty huts, housing forty-five lepers from four surrounding villages, at almost 2 km from Sanandaj.⁶¹ A number of villages north of Tehran were exclusively inhabited by

⁵⁵Häntzsche 1863, p. 182; Zambaco Pacha 1924, p. 570. On the belief in contagion, see Floor 2018, pp. 47–8.

⁵⁶Loew 1908, p. 701; Wilson 1896, pp. 271–2.

⁵⁷Wilson 1896, pp. 271–2.

⁵⁸Loew 1908, p. 701; Polak 1863, p. 176; Polak 1865, vol. 1, pp. 311–12; vol. 2, p. 305; Wilson 1895, p. 140; de Gobineau 1923, vol. 2, p. 259 (deformed beggars at Miyaneh); Watelin 1921, p. 6 (near Alulak); Häntzsche 1863, p. 183; Loew 1908, p. 701; Feuvrier 1900, p. 120; Lycklama 1872, vol. 4, p. 30; Brugsch, 1886, p. 170.

⁵⁹Polak 1863, p. 176. The governor of Gilan once expelled lepers from Rasht who had come suddenly from Ardabil. Häntzsche 1863, p. 183.

⁶⁰Zambaco Pacha 1924, pp. 569–70.

⁶¹Vaume 1886, p. 159.

lepers, according to Dr. Verrier.⁶² In Qaradagh in the 1850s, there were said to be well maintained villages for them.⁶³ In 1895, Reverend Wilson reported that “There is a village of them about six miles from Tabriz. Their hamlet is called Payon, or the ‘Village of the Sick,’ and there are about five hundred of them, little, if at all, segregated.”⁶⁴ It was allegedly the only leper village in Iran at that time. In the late 1850s, ‘Aziz Khan Sardar, then governor of Tabriz, ordered all the lepers from Azerbaijan to be assembled at one location. He assigned a piece of land to them,

furnished them with oxen and farming implements, and established them as a separate community. At first they were given charity, month by month from the public treasury. If it was delayed beyond the regular time they came trooping down to the city. Now, on the contrary, it is said that they pay taxes to the government.⁶⁵

According to Dr. Mary Bradford, that village still existed in 1906, for she reported that “About 10 miles from Tabriz there is a village where all the lepers from the northern province of Persia are supposed to be sent, though no one sees to it that all go there.” The government gave them wheat each year to the value of \$400. Everything else they had to beg. Eight people lived together in a windowless room 10 by 12 yards. It had a smoke hole and a door 4 feet high and 2 feet wide. The village had no bath and in the summer the villagers bathed in a nearby salty river, throwing modesty to the wind. In 1906, the Reverend F. N. Jessup collected money for the lepers in the village. Each year, foreigners in Tabriz as well as Iranians, both Armenians and Moslems, gave supplies to the American missionaries, which they brought to the village.⁶⁶ In early 1912, the German ambassador in Tehran informed the Sanitary Council that Mrs. Wanneman, the wife of the American missionary physician in Tabriz, did much for the lepers in Tabriz and the German society had given £50 for the amelioration of the lepers’ lot,⁶⁷ which suggests that either the leper colony no longer existed or that lepers in that village were still rather neglected.

Although by the 1930s the segregation of lepers was no longer considered necessary by the international medical community, as well as the government of Iran; but many other governments, such as that of Great Britain, still maintained this measure as the guiding principle of their medical policy towards lepers. Concerning its Persian Gulf protectorates, Great Britain even went so far as to consider returning Iranian lepers to their country. When in 1942 Bahrain wanted to start a leper colony, the British adviser to the Sheikh did not want to care for and feed non-Bahrainis there.⁶⁸ Because he had heard that there was a leper colony at Rezaich he proposed to send

⁶²Zambaco Pacha 1924, p. 567.

⁶³Häntzsche 1863, p. 183.

⁶⁴Wilson 1895, pp. 140–41; Cochran 1899, p. 105.

⁶⁵Wilson 1895, pp. 140–41; Neligan 1926, part II, p. 693; Brusch 1863, vol. 1, p. 179.

⁶⁶Bradford 1906, p. 502.

⁶⁷IOR/L/PS/10/284, Neligan to Walter Townley, February 3, 1914.

⁶⁸IOR/R/15/2/1297, Adviser to Political Agent, March 21, 1942.

Iranian lepers in Bahrain to Rezaieh. “But before the question of sending Persian lepers there from Bahrain can be taken up with the Persian Government, further information is necessary. The question of whether they contracted leprosy in Persia or Bahrain is also important.” Therefore, he asked the British Political Agent in Bahrain, “how many you want to return to Persia, where are they from, where did they contract it.”⁶⁹

Despite this continued government policy of segregation, in actual practice little was done by the government of Iran to effectively control the spread of lepers. Only in Khorasan (Mehrab Khan) and Azerbaijan (Babi Baghi) were advanced cases segregated in villages, where they cultivated land and received a wheat allowance from the government.⁷⁰ Were these villages just places where lepers were forced to live or were they institutions where they were medically cared for and looked after? Here, I will only consider the case of Mehrab Khan.

The First Real Leprosarium near Mashhad

The early beginnings. In 1884 or 1885, a leper village, the *Jodhām-khāneh-ye Mehrab Khan* (Mehrab Khan Leper House) was established in the old Qal‘eh-ye Mehrab Khan, 3 km northeast of Mashhad. The village was named after Mehrab Khan Qajar, who was governor of Mashhad (1603–10) and Merv (1610–13), because, when he died in 1614, he bequeathed some landed property northeast of Mashhad to the charitable foundation (Astan-e Qods-e Razavi Organization) that manages the Shrine of Imam Reza.⁷¹ Prior to the establishment of this leper village, lepers lived unencumbered in rags and misery in Mashhad among its inhabitants and begged in the streets of Mashhad as well as near the shrine. Given the contagious nature of the disease, or so it was believed, and to provide comfort to the sufferers of leprosy, in 1884 the governor and Custodian of the Shrine, Mirza ‘Abdol-Vahhab Asaf al-Dowleh (1301–3/1884–86) decided to concentrate all lepers in the dwellings of the Mehrab Khan fort and ban them from entering the city.⁷² He allocated an annual budget of 500 *tūmāns* for each leper. Thereafter they continued to be taken care of by the shrine, which gave the eighty or so inmates an allowance of bread, a small amount of money and odds and ends of clothing.⁷³ However, there existed some doubt whether the shrine money really was used to help the lepers. On 27 April 1914, the newspaper *Now Bahār* wrote: “what happened with the Zargandeh *vaqf* property designated to assist the lepers? If it still exists, why are they begging freely in the streets?” On 9 June 1914, the shrine’s custodian, Morteza Qoli Khan Tabataba‘i, replied that there was no particular shrine property allocated to help

⁶⁹IOR/R/15/2/1297, Adviser to the Govt. of Bahrain to Political Agent, September 12, 1942.

⁷⁰Government of Great Britain 1945, p. 421.

⁷¹Nasiri 2008, pp. 241, 246; Mehrab Khan built a mosque in Mashhad in the Darvāzeh-ye Nowghān quarter, which mosque still exists. Adhari-Khakestar 1395, p. 80.

⁷²Mo’tamen 1348, p. 411; Adhari-Khakestar 1395, p. 80.

⁷³RG 231-1-6, p. 67.

lepers. In 1896, Sadr al-Mamalek had decided to assign some of the *vaqf* funds of the *Dār al-Shafā* to be used for the lepers who lived in the Qal'eh-ye Mehrab Khan. At that time, the village had forty to sixty inhabitants, but in 1914 there were more than 160 of them. Although care for the lepers was the city's responsibility, the shrine gave 1,000 *tumans* in cash and 100 *kharvar* of wheat annually to the lepers in Mehrab Khan. Due to negligence, some of the lepers were indeed engaged in begging on the Quchan and Qahqaheh road, but the shrine had asked the governor to detain them. Also, the shrine was ready to make a permanent allocation from the Zargandeh property to assist lepers, on condition that lepers were reallocated to Mehrab Khan. The shrine had spent money to build many dwellings, a special bath-house, and a water reservoir and Tabataba'i believed that those buildings were better than those elsewhere.⁷⁴

Because nothing was really done to change the situation of the lepers, in 1921 the Sanitary Council of Khorasan decided that all lepers had to be removed from the city of Mashhad to Qal'eh-ye Kalat or some other location. Also, amenities such as the water supply and a bath-house had to be readied for them there. On 20 August 1921, the city council under Colonel Mohammad Taqi Pesiyān also decided that lepers had to be gathered at one location. He sent some of the lepers treated in the *Dār al-Shafā* of Mashhad to one of the farms belonging to shrine to be taken care of there.⁷⁵ However, all these plans failed to materialize due to lack of funds and, in November 1923, when part of the shrine funds did not reach the lepers in Mehrab Khan, some of them returned to Mashhad and congregated around the shrine and sought asylum there. The newspaper *Mehr-e Monir* wrote that their presence was a danger to the pilgrims and public health and accused the shrine authorities of negligence in their duties.⁷⁶ At that time the Mehrab Khan village consisted of dirty, one-room huts without windows.⁷⁷

The above shows that the general public considered lepers a threat to public health and that official care of lepers was not a sustained affair, but only incidental in nature, but also that a leper community continued to exist at Mehrab Khan, although many still lived and begged in Mashhad for their living. Because there was no medical treatment for the inhabitants of this village until 1926, it is only from that year that this village may be referred to as a leprosarium, i.e. an institution to treat people suffering from leprosy.

Construction and funding of the leprosarium. In 1926, Dr. Hartman A. Lichtwardt, a physician of the American Presbyterian Missionary Hospital who had begun working in Mashhad in March 1920, began making visits to the village of Mehrab Khan.⁷⁸ He

⁷⁴Adhari-Khakestar 1395, pp. 81–2.

⁷⁵Nezam al-Saltaneh 1361, vol. 2, p. 366.

⁷⁶Adhari-Khakestar 1395, p. 82.

⁷⁷Klingmüller 1930, p. 50.

⁷⁸RG 231-1-6, p. 67. Adhari-Khakestar 1395, p. 90 mentions that prior to Dr. Lichtwardt's regular visits Dr. Stoker of the British Consulate-General in Mashhad did so, but not with what frequency and over what period.

was spurred by the conviction that “if diagnosed early this disease may be cured when thoroughly and adequately treated and in more chronic cases the ravages of the disease may be arrested, so that lepers may return to their villages.”⁷⁹ Dr. Lichtwardt’s work for the lepers stimulated great interest among the leading citizens of Mashhad and prodded the authorities to take action. The governor of Khorasan, Mehdi Vothuq al-Saltaneh Dadvar and several citizens of Mashhad organized an Anti-Leprosy Society, which met under the presidency of Mohammad Vali Khan Asadi, the deputy-chairman of the Astan-e Qods Organization. On 6 October 1926, the board of this society met and decided to make improvements in Mehrab Khan and to construct a new building. The next day the chief of Public Works and the chief city architect went to Mehrab Khan to select the building site, such that both in summer and winter it had a sunny side. Thereafter the design of the buildings was finalized. Hajj Sayyed Hadi Khadem, together with Mr. Nazem, the city’s architect (*mémar*) was appointed as the supervisor of the works. The society raised money to erect a new building and dwellings, whose construction was realized in eighteen months, when they were dedicated with much ceremony. The new building had twenty-nine rooms, built on two sides with an open square, each with a window and door and also a fireplace. According to Adhari-Khakestar, the new building measured 80 by 80 *dhar*⁸⁰ and had 128 rooms. Reza Shah and his wife headed the list of donors with 1,000 *tumans* each and together with other gifts a total of 4,300 *tumans* were received (see Table 1). People in Mashhad were encouraged to give clothes and cash to the leper colony, and lepers were then banned from begging in Mashhad. In 1929, people in Mashhad gave 380 *tumans* and two *grans*; among the donors were Drs. Hofmann and Lichtwardt of the American Christian Hospital, who donated twelve beds, sofas and couches to the leprosarium. The American Mission to Lepers⁸⁰ initially gave \$700/year to the American Christian Hospital for this work, and Persians gave six times more.⁸¹ Despite local support to help lepers and the fact that there were doctors with training in modern medicine in Mashhad, who daily attended sufferers of diverse diseases, only the American missionary doctors were willing to spend time on the lepers.⁸²

In addition to the expenditures by the Anti-Leprosy League in 1929, contributions were made by the American Mission to Lepers: 1350 rials; the Girls School in Rasht: 81 rials; the Christians in Isfahan: 155 rials, or a total of 1,586 rials. Moreover, in the fall of 1928, Iranian and American women gave 120 woolen shirts. Christians in Mashhad gave food to the lepers on Christmas day.⁸³

⁷⁹RG 91-20-2, Mashad Medical Report 1929–30, p. 39.

⁸⁰An American Christian charity organization that aims to eradicate leprosy and was founded in 1906.

⁸¹RG 231-1-6, p. 67; Adhari-Khakestar 1395, pp. 83–4, 89–90. According to Mo’tamen 1348, p. 412, the original building measured 80 by 80 meters and had thirty-eight rooms in which the lepers lived. In the middle was the kitchen. The small hospital was located in the south side of the building and had a courtyard for healthy family members.

⁸²RG 91-20-2, Mashad Medical Report 1932–33, p. 5.

⁸³Adhari-Khakestar 1395, p. 91.

Table 1. List of major donors for the construction of buildings at Mehrab Khan 1928

No.	Name	Amount in rials	No.	Name	Amount in rials
1	Reza Shah	10,000	13	Sadr al-Tojjar Bozorg-niya	500
2	The queen	1,000	14	Marza Hasan Sar- keshik	200
3	Cdr. of the Army of the East	1,000	15	Mas'ud Na'eb al- towliyah	250
4	Mirza Nazer 2 x	130	16	Shoja' al-Dowleh 2 x	500
5	Sheikh al-Ra'is Afsar	200	17	Rokn al-Tojjar	100
6	Motavalli mosque	200	18	Yusef Khan Hazarah	250
7	Sar kashik-e avval	300	19	Hajj Behnud Khan	100
8	Hajj Ra'is-e Daftar	250	20	Major Lewis, treasury manager	100
9	Sardar Mokarram	200	21	Amir Showkat al- Molk	100
10	Salar Mo'ayyad	250	22	Zabet-e ketabkhaneh	20
11	Mo'in al-Saltaneh	500	23	Hajj Khabir Razavi	500
12	The late Hajj Gholamreza Sabzavari	500	24	Two anonymous Americans	200

Source: Adhari-Khakestar 1395, p. 92. According to RG 231-1-6, the queen also gave 10,000 rials.

Occasional irregular funding no obstacle. In 1929 the shrine under Asadi gave to each leper: 10 *sir* of bread per person per day; for children half of that. To each leper 5 *qrans* per month was given for food. Each month, 15.5 *man* of oil was provided for lighting the rooms. Fees for the bath-house were 30 *shabis* per day; its water was always warm. To transport bread daily to the leprosarium 30 *shabis* was paid.⁸⁴ In that year, the lepers also received provisions such as meat, rice, oil, mash, beans, and sugar from the American team. The shrine made *pustins*, clothes, available for two years, all of which had a positive impact on their welfare.⁸⁵ Sometimes the American missionaries

⁸⁴Adhari-Khakestar 1395, p. 85; for a list of other payments made by the shrine in 1929 to help the lepers at Mehrab Khan, see *ibid.*, pp. 86–7.

⁸⁵*Ibid.*, p. 90.

Table 2. Income and expenditures of the Anti-Leprosy Association in 1929

Income in <i>qrāns</i>		Expenditures in rials	
111,494.5	In cash	2,128.75	Office, paper, mail, seal
1,386.6	Value of in-kind income	43,474.95	For the construction of the new building
46,822.7	Contribution shrine	204.8	Treatment building (<i>darmangah</i>)
11,586	Contribution Americans	55,777.30	Clothes, bath-house, medicine, nursing
826.65	Contribution <i>Shir va Khorshid-e Sorkh</i>	9,570.5	Cash in hand
11,149.45	Total	11,149.45	Total

Source: Adhari-Khakestar 1395, p. 91.

gave winter clothes and charcoal, in addition to what the shrine supplied.⁸⁶ This situation was quite an improvement compared to the one prior to 1926, when the lepers at Mehrab Khan lived in ruins, were hungry and had no medicine, as Asadī, the deputy-custodian of the shrine wrote in 1944, when he reported on the major improvements made at the leprosarium and in the condition of its inhabitants.⁸⁷

Despite the shrine's commitment to Mehrab Khan, it sometimes happened that payments were late. The money was eventually paid, but on several occasions the shrine authorities had to be reminded to make their contribution. Adhari-Khakestar blames this on the constrained budget situation of the shrine, to the fact that the allocation was only designated for the needs of Khorasan and that with the growth in the number of lepers coming to Mehrab Khan from outside the province the allocation did not and could not suffice. For example, 130 new lepers arrived in 1930, coming from as far as Kermānshāh and Kurdistan. The shrine had to construct a new building to house twenty-three of them. Also, in 1943 the Health Department transferred a number of lepers from Zanjan and elsewhere to Mehrab Khan.⁸⁸ Although it is true that most of the lepers were not from Khorasan, this was the reality from the very beginning, when the leper village of Mehrab Khan was created in 1884. The reason was simple; the lepers were Shiites who came to Mashhad to seek healing at Imam Reza's shrine, an attraction that was touted by the shrine authorities themselves. After all, Imam Reza was the healer par excellence and throughout history miraculous healings had been ascribed to his powers.⁸⁹ In fact, in 1929, Mehrab Khan received

⁸⁶RG 91-20-2, Mashad Medical Report 1932-33, p. 5.

⁸⁷Adhari-Khakestar 1395, p. 87.

⁸⁸Ibid., pp. 87-8.

⁸⁹Kaempfer 2018, p. 92.

fifty-six additional lepers due to the activities of the Anti-Leprosy Society that tried to attract lepers from all over the country, among whom were many Barbarīs (Afghan Hazaras).⁹⁰ In short, the shrine authorities not only had a moral, but also a religious and institutional obligation to help lepers and other people afflicted with disease. Therefore, it was not surprising that Afghan pilgrims who often came to the shrine to find a cure there were told by shrine officials to go to Mehrab Khan for treatment. The shrine guardian and the governor-general of Khorasan also suggested that people give gifts to the lepers at times of illness, wedding or death in the family.⁹¹ Therefore, many believers bequeathed assets to the shrine to explicitly help that group of people. For example, one-third of the *vaqf* of the Fazak property left by Hajj Mirza ‘Abdol-Karim, known as Hakim Radkani, in 1917 was to be used for poor, the sick and the lepers. As a result, the shrine committed to give each leper one *chāarak* of bread/day and 5 *grans*/month, which was regularly paid thanks to Hakim Radkani, but, unfortunately, later the *vaqf* manager was sentenced in court and the property transferred.⁹²

This budget uncertainty sometimes led to non-delivery or late delivery of the allowance to the Mehrab Khan lepers. On 3 May 1928, about forty lepers gathered in the garden of the custodianship to demand their allowance over the last eight months. Dr. Lichtwardt offered to pay for the construction of two rooms where leper patients could relax, if the shrine gave its permission.⁹³ Dr. Lichtwardt wrote on 1 December 1932 to the deputy custodian that the shrine funds had not arrived as yet. In case there was no budget could he see his way and allocate some funds of the *Shir va Khorshid-e Sorkh* Society to Mehrab Khan?⁹⁴

These problems they did not have a negative impact on the work in Mehrab Khan, however, as they were incidental; in fact they are not even mentioned in the official reports by Dr. Lichtwardt or his colleagues. Moreover, as to the arrangements to help the lepers at Mehrab Khan, Dr. Lichtwardt wrote: “This work has been an excellent example of co-operation, international and inter-religious.” The Presbyterians provided physicians; the American Mission for Lepers funds; the British Empire Leprosy Relief Association certain medicines; land and bread were provided by the shrine; funds for building and hosting the lepers by the local Anti-Leprosy Society, “which is organized and run by Iranians, and to which Reza Shah and his wife gave money.” Moreover, the work was supported by the deputy-custodian of the shrine who “is most loyal in his co-operation and most sincere in his friendship.”⁹⁵

The cooperation between the shrine and the American missionaries continued to be very positive, as both parties were clearly interested in working for the benefit of

⁹⁰ Adhari-Khakestar 1395, p. 90. Also, government officials sent lepers to the leprosarium. On 27 April 1935 the mayor of Mashhad had two lepers detained who were begging in the city and sent them to the leprosarium. Adhari-Khakestar 1395, p. 92.

⁹¹ RG 91-20-2, Mashad Medical Report 1935–36, p. 6.

⁹² Adhari-Khakestar 1395, pp. 81, 89.

⁹³ Ibid., p. 89.

⁹⁴ Ibid., p. 88.

⁹⁵ RG 91-20-2, Mashad Medical Report 1929–30, pp. 40–1.

the leprosy sufferers. On 9 December 1928, Dr. Lichtwardt sent the deputy custodian a letter asking the shrine and the Anti-Leprosy Society to help protect the lepers against the cold and also to remove snow and other obstacles from the road to Mehrab Khan to make access to the leprosarium easier.⁹⁶ In 1932, Lichtwardt reported that the shrine

continues to provide a bread ration of one and a half pounds daily per adult, as well as an allowance of five rials (18 c.) per month, per adult, for the purchase of “extras.” They also provide some fuel, some kerosene and some soap. We assume the responsibility for the medical treatment, and have also provided some food, some clothing and some wool which they have to knit into socks and scarves.⁹⁷

In 1936, Dr. Hoffman reported that the shrine regularly supplied the lepers of Mehrab Khan with bread, occasionally with meat, kerosene, a simple cooking allowance and that year quilts and ten bedsteads for the small hospital. The shrine also agreed to increase the allowance for sixty lepers who were totally and permanently helpless. The shrine treasurer said: “Well, what else can we do, when you people take such an interest in our poor lepers.”⁹⁸ Even when the Sacred Shrine Organization had become a government department in 1937, it continued to send supplies of food, kerosene and occasionally clothing and bedding to the whole colony and cooperated in making a garden in the yard for the healthy children, and granting them a special allowance for food and fuel.⁹⁹ This positive attitude continued in the years thereafter. The shrine continued to work well with the American Christian Hospital and paid many of the costs of the leprosarium.¹⁰⁰

Nevertheless there was some dissatisfaction among the lepers at the end of the 1930s about the level of the shrine’s contribution and the manner in which it was made available. In 1938 and 1939, a group of lepers of Mehrab Khan wrote a petition to the *Majles* asking for an increase in their allowance. They also complained that during six months of the year the water of the bath-house was not heated and consequently they had to wash themselves with cold water. Further, that the supervisor (*mobāsher*), who had been there for fourteen years, be replaced as he was not as caring as before, and they asked for the appointment of an intermediary between them and the bakery and the bath-house. Furthermore, they requested that the *Majles* appoint an observer who discreetly would check whether their demands would be implemented and that they would be properly treated. Finally, they asked for a letter from the *Majles* that stipulated the duties of those who worked at

⁹⁶Adhari-Khakestar 1395, p. 250 doc 10. The extra help was given in the form of *pūstins*, see *ibid.*, p. 90.

⁹⁷RG 91-20-2, Mashad Medical Report 1931–32, p. 17 (on p. 7 a photo of Dr. Lichtwardt examining a leprosy patient).

⁹⁸RG 91-20-2, Mashad Medical Report 1935–36, p. 5.

⁹⁹RG 91-20-2, Mashad Medical Report 1937–38, pp. 2–3.

¹⁰⁰RG 91-20-2, Mashad Medical Report 1938–39, p. 1.

Mehrab Khan. The petitioners drew attention to the fact that they already had made these requests several times.¹⁰¹ Despite these complaints, during the difficult war years when everything was scarce and expensive, the treasurer of the shrine, who was formally in charge of the leprosarium, continued to be most cooperative and supplied food, fuel, some clothing and a small financial allowance, and, in 1946, appointed a more efficient caretaker.¹⁰² In 1949, the shrine allocated 440,000 rials for the lepers.¹⁰³

Despite the fact that Mehrab Khan Leprosarium had been functioning since 1884, 90 percent of Mashadis had never heard about it, according to the newspaper *Tus* on 14 February 1946. The newspaper wanted to correct this ignorance among the public and wrote that most of the about 130 lepers were Barbaris and Azeris. Before 1926 their situation was not good, but since then the shrine and the American hospital had worked together to improve their situation. In the past, the lepers only received one warm meal per week, now every day the kitchen prepared food and their bread was baked from good wheat, prepared in the Shah Reza hospital and brought to them daily. According to the shrine officials, in the past people had given sheep for the lepers, but in the last years this had not happened, and that may have been one of the reasons the article was written.¹⁰⁴ The local press did not always have the same appreciation for the shrine's work during this difficult time. On 5 January 1942, the newspaper *Azadi* wrote that for a few days lepers had been seen in Mashhad begging. Had they fled from the leprosarium or had they come from elsewhere? It was said that those in Mehrab Khan were working in the surrounding villages. If this was true, woe on those people. It was hoped that the shrine or the Health Department would take steps immediately in the interest of the common good.¹⁰⁵

Role of government. Although the Iranian government did nothing to address the problem of leprosy sufferers, hospitals were required by law to report cases of leprosy, which the missionaries did, hoping the government would finally take action.¹⁰⁶ This changed in 1936, when the Health Department financed the construction of new rooms in Mehrab Khan. These rooms were completed and occupied in 1936. The direct involvement of the Health Department had to do with the fact that government health officers sent about twenty lepers to Mehrab Khan. Therefore, these patients were not supported by the shrine; their support came from the government, which was less than that provided by the shrine.¹⁰⁷ In 1937, Dr. Falati, head of the National Health Department, visited Mehrab Khan. He was favorably impressed and immediately endorsed several of the recommendations of the American

¹⁰¹ Adhari-Khakestar 1395, p. 242, doc. 4 (17 Ordibehesht 1317 rec.)

¹⁰² RG 91-20-2, Mashad Medical Report 1942-43, p. 2; Mashad Medical Report 1945-46, p. 3.

¹⁰³ Adhari-Khakestar 1395, p. 89.

¹⁰⁴ *Ibid.*, p. 95.

¹⁰⁵ *Ibid.*, p. 94.

¹⁰⁶ RG 91-20-2, Mashad Medical Report 1931-32, p. 17; RG 91-19-9, Resht Medical Report 1930, p. 3; Resht Medical Report 1931, p. 2.

¹⁰⁷ RG 91-20-2, Mashad Medical Report 1935-36, p. 5.

physicians for its improvement, also giving 12,000 rials and increasing its annual budget.¹⁰⁸ Although I have not found further information about government activities and funding of Mehrab Khan patients, the fact is that there continued to be shrine- and government-supported patients at Mehrab Khan. In 1942 there were 136 lepers in Mehrab Khan and 130 in May 1944, of whom 59 were paid for by the shrine and the other 71 by the Health Department. In August 1944 there were 127 lepers, of whom 57 were supported by the shrine and 70 by the Health Department.¹⁰⁹

Other supporters. The British Empire Leprosy Relief Association continued to supply Alepol, although it is not known until when. The American Mission to Lepers (AML) continued to pay \$1,000/year to buy medicine, food, dressings, etc. In 1932, AML also shipped a large amount of woolen scarves, wristlets, bandages, and gauze, all much needed. These supplies were prepared by women from several churches.¹¹⁰ In 1935, the AML increased its funding to Mehrab Khan and each leper received a good mattress, a pair of mittens, two pairs of socks, a pair of shoes (made of old tires and very serviceable) and those most in need of them were given sheepskins, besides a small monthly allowance.¹¹¹ The grant from the AML supported the hospital and clinic with some money left for overcoats for most and shoes for many. At Christmas special gifts of sugar, tea, woolen socks and mittens were made to the whole colony; the same happened at Easter.¹¹² In 1940, the AML reduced its funding of Mehrab Khan, but due to a better rate of exchange more money became available for the lepers, which made it possible to supply them with more shoes and better food.¹¹³ AML funds continued to support the activities of the American physician to provide the lepers at Mehrab Khan with clothing, sometimes food, and medical care.¹¹⁴

Apart from institutional support, Mehrab Khan also received help from individuals. In 1938, with the help of the foreign community the American missionaries could buy shoes for all of them. There also was a gift of a rice dinner by an Iranian doctor, while the women of the church in Mashhad sewed clothes for women that were given at Christmastime.¹¹⁵ In 1942, aside from gifts of shoes, dark glasses, and overcoats from local friends, the missionaries gave them special rice dinners. The women of the church sewed dresses for the leper women.¹¹⁶ In the fall of 1944, the missionaries realized that the lepers' clothes were in tatters as they had forgotten the usual gifts of overcoats, due to the terribly high cost of cloth. Mr. Irwin helped and the 140

¹⁰⁸RG 91-20-2, Mashad Medical Report 1936–37, p. 4.

¹⁰⁹Adhari-Khakestar 1395, p. 94.

¹¹⁰RG 91-20-2, Mashad Medical Report 1931–32, p. 17.

¹¹¹RG 91-20-2, Mashad Medical Report 1935–36, p. 5.

¹¹²RG 91-20-2, Mashad Medical Report 1937–38, p. 3.

¹¹³RG 91-20-2, Mashad Medical Report 1939–40, p. 3.

¹¹⁴RG 91-20-2, Mashad Medical Report 1940–41, p. 2.

¹¹⁵RG 91-20-2, Mashad Medical Report 1938–39, p. 2.

¹¹⁶RG 91-20-2, Mashad Medical Report 1942–43, p. 2.

inhabitants each got a good sheepskin coat (*pustin*).¹¹⁷ In 1945, the missionaries gave *pustins* to all those who had not received them the previous year, and everybody received shoes and the women new dresses; they also spread the gospel.¹¹⁸

Composition and number of lepers at Mehrab Khan. The lepers in Mehrab Khan village, who had been driven from their villages, came from all over Iran and Afghanistan.¹¹⁹ According to the American missionaries, who treated them, "None of the lepers were true Persians," i.e. Persian speakers. In fact, "about half were Turks from W. Iran, the rest Mongolians, about 20 were not lepers, but had other disfiguring diseases." The so-called Mongolians were also Afghan subjects, not "real" Afghans, but Barbaris, the Khorasani name for the Shiite Hazaras of Afghanistan.¹²⁰

The erection of the new leper hostel in 1928 was one of the most important reasons for the improvement of the lepers' condition. "They now live on dry, light, clean rooms, better than then average homes of 80% of the Persians." These living conditions improved their general health and resistance to disease. Also, the amount and quality of the food had improved somewhat, although it was still insufficient. Moreover, more and better clothes were given and a regular though small allowance of fuel enabled the lepers to better tolerate the long cold winters, although the condition inside their homes was still far from comfortable, according to Dr. Lichtwardt.¹²¹ He was not the only one to think so, because living conditions in the leper village had improved, such that "it is occasionally necessary to turn away non-leprous malingerers who seek admission to the village."¹²² Because of this interest of non-lepers to become members of the Mehrab Khan village population, the shrine official in charge of the lepers required an official diagnosis before he would admit newcomers to the home. Among them "are malingerers, who singe off their eyebrows or irritate their skin sores."¹²³

In 1926, the number of lepers in the village amounted to sixty and thereafter their number grew. According to Adhari-Khakestar, on 12 Mehr 1307 (4 October 1928), the day of the creation of the Anti-Leprosy Society, the leprosarium had twenty-five men, thirty-two women, and six children, a total of eighty-six persons. Later, new arrivals amounted to forty-four men, six women, and five children, a total of fifty-six, or a total of 117 lepers. In March 1929, Dr. Lichtwardt reported that there were 118 lepers and during that year 39 new ones arrived. Also, eleven were dismissed as cured and nine died. According to Dr. Lichtwardt, most lepers came voluntarily after having heard that leprosy sufferers were housed and medically treated in Mashhad. Many

¹¹⁷RG 91-20-2, Mashad Medical Report 1944-45, p. 2.

¹¹⁸RG 91-20-2, Mashad Medical Report 1945-46, p. 2.

¹¹⁹Of the sixty arrivals in 1934, twenty-five were from Afghanistan. Mashad Medical Report 1934-35, p. 3.

¹²⁰RG 231-1-6, pp. 67-8; RG 91-20-2, Mashad Medical Report 1928-29, p. 2; Lichtwardt 1934, pp. 75-6; Mo'tamen 1348, p. 412; Adhari-Khakestar 1395, pp. 80, 90-91.

¹²¹RG 91-20-2, Mashad Medical Report 1929-30, pp. 41-2.

¹²²Presbyterian Church 1930, p. 187.

¹²³RG 231-1-6, p. 67.

came on foot from as far as Tabriz and Van, begging their way. A few were sent by western and Iranian physicians. Barbaris came from Afghanistan, traveling forty days or more. Their number was 140 in 1934, which included sixty new arrivals. However, 25–30 lepers died each year, who were replaced by new cases. In 1934 there were sixty new arrivals and thirty deaths, so that there was a net increase of thirty in that year. In 1936, the leper colony had grown to 200, of whom 184 were lepers. Thereafter, there was an unexplained drop in the number of inhabitants of the leper colony, for in 1939 this number had decreased to 120 lepers. In 1945, the leper village had 140 members.¹²⁴ It was not only the better living conditions that drew more lepers to Mehrab Khan, but also the certainty of regular and sustained medical treatment, which gave rise to great optimism among the leprosy sufferers. One leper said: “For years we had been living in squalid holes like unwanted wild animals, with no one caring whether we died. Now in clean light rooms, we live in comfort, our sores are cleansed, our pains are relieved, our disease is cured.”¹²⁵

A related issue to control the influx of non-leprosy persons into Mehrab Khan was the presence of some healthy women, who lived with their leprous husbands. In the fall of 1934, ‘Ala al-Soltan, the deputy-custodian, and Dr. Lichtwardt decided that in case of death or divorce the healthy person had to leave the leprosarium. It so happened that two healthy women, whose husbands had died or had divorced them, secretly married leprous men in the village. This was not allowed and therefore they were expelled; in order to remain with their wives, the leprous husbands also left Mehrab Khan village.¹²⁶

In 1936, the American missionaries reported that no new Afghan lepers were arriving at Mehrab Khan, because it was reported that Iran barred their coming across the border. The Americans worried about their fate, because these Afghan lepers were “cast off by their relatives and driven out of their villages, and are penniless.”¹²⁷ This was the result of official government policy. The governor-general of Khorasan was worried about lepers walking freely around and pressed the shrine to take steps so that lepers stayed in the leprosarium. He also suggested giving them a piece of land so that they might farm, while he informed the shrine that the police had orders to send lepers back immediately. Orders were also given to the customs officials and border governors not to allow Afghan lepers to enter Iran. The deputy-custodian replied that the lepers of Mehrab Khan had been given their allowance regularly, and even though the budget was tight, bread, clothes, fuel, etc. were assured to them.¹²⁸

¹²⁴Adhari-Khakestar 1395, pp. 84, 90; RG 91-20-2, Mashad Medical Report 1932–33, p. 4; Mashad Medical Report 1929–30, p. 39; Mashad Medical Report 1934–35, p. 3; Mashad Medical Report 1935–36, p. 5; Mashad Medical Report 1938–39, p. 1; Mashad Medical Report 1944–45, p. 2.

¹²⁵RG 91-20-2, Mashad Medical Report 1929–30, p. 39.

¹²⁶Adhari-Khakestar 1395, p. 92. Art. 1123 of the new Iranian civil allowed a man to cancel the marriage “in case his wife had black leprosy (*juzam*) and leprosy (*baras*).” IOR/L/PS/12/3416. The expulsion of the two women very much upset the community of lepers, because in 1938 and 1939 they requested an allowance for them. Adhari-Khakestar 1395, p. 242, doc. 4 (17 Ordibehesht 1317 rec.)

¹²⁷RG 91-20-2, Mashad Medical Report 1936–37, p. 4.

¹²⁸Adhari-Khakestar 1395, p. 93.

Medical treatment. Initially, Dr. Lichtwardt visited the village of Mehrab Khan bi-weekly on Saturday afternoon in a droshky, accompanied by some dressers, the American Hospital's druggist and Ms. Reynolds, the evangelist. With his team he gave the patients injections of the traditional chaulmoogra oil, dressed their mainly foul ulcers as well as giving other treatments and necessary medicines. Ms. Reynolds talked with the women, gave them woolen yarn, taught them to knit socks and mittens and told Bible stories.¹²⁹ Already in 1927, Dr. Lichtwardt made weekly visits, enabled by an increased grant of \$1,000 from the American Mission to Lepers. However, as of 1929 he and his team made visits twice a week, hoping that this more intensive treatment might be more effective. The work pattern remained the same: injections were given, wounds dressed, and medical treatment provided as needed. During the first eighteen months that Dr. Lichtwardt treated lepers he gave them increasing doses of esters of chaulmoogra oil, intramuscularly, with satisfactory results, although in larger doses the injections occasionally caused much discomfort and produced local abscesses. For a second period of eighteen months he used Alepol in the recommended 3 percent and 1 percent solutions, intramuscularly and intravenously, with less annoyance to the patients and with equally good therapeutic results. In increased doses it caused discomfort; therefore, in 1929 he gave Alepol in 6 percent and 2 percent solutions to certain lepers and found that some tolerated this more concentrated solution quite well, but that it caused higher temperatures and an increase in nodules in others. In such cases he returned to the 3 percent and 1 percent solutions. In 64 percent of the cases there was definite improvement, but only three cases were cured. Improvement meant healing of ulcers, except of the nose and throat and "all those who have bacteriological evidence of such ulcers are still liable to disseminate the disease." There was a definite improvement in younger patients, and with old chronic cases the treatment prevented the worsening of the situation. Those who were not cured were relieved, because their living conditions were better than in a normal Iranian village. Unfortunately, most cases in Mehrab Khan were so chronic that longer treatment was needed to achieve a complete cure. Most patients had diagnosed their disease before they came there, so they must have had it for a long time already. The death rate in 1309 (1929–30) was 19 percent due to pneumonia, nephritis, and dysentery, which are diseases difficult to treat in patients weakened by leprosy and other ailments, for many patients also suffered from malaria, syphilis, etc. Moreover, all of them had insufficient food intake. "In spite of their inadequate food-ration of only one and a half pounds of daily bread, plus five krans (50 c) per month to buy extra; many are quite plump and well nourished."

Statistics

Leper men and boys receiving regular treatment now	92
Leper women and girls now receiving regular treatment	14
Leper men (hopeless burnt-out cases) not receiving treatment	15
Leper women (hopeless burnt-out cases) not receiving treatment	11

¹²⁹RG 91-20-2, Mashad Medical Report 1930–31, p. 6; Mashad Medical Report 1936–37, p. 5.

Untainted children of lepers still living in village	8
Total number people still living in village	140
Number of lepers, men and women who have died in past four years (19 percent of all treated)	29
Lepers who have left village improved, not entirely cured	16
Lepers who have left village cured (2 percent of all treated)	3
Total under observation in past four years	188
Total number of lepers receiving treatment in past four years	154
Lepers who have become worse under treatment ... 5 (3 percent)	
Lepers who have remained same as when treatment started ...	18 (12 percent)
Lepers who have shown definite improvement under treatment	99 (64 percent)
Population of leper village when our work started in (95 to 100 in 1922 or [19]24)	1926 81
New lepers admitted in past four years	101
Children born to lepers	6

To give the lepers a sense of normalcy and of self-esteem the Americans encouraged them to work in the fields when they were able to. As a result, they were more cheery than the average non-lepers in a Persian village. They had nicer garden plots than in most Persian villages. There were of course quarrels among them, but they also had happy times, sometimes a traveling minstrel came to entertain them, and they enjoyed singing and chanting. During her weekly visits Ms. Reynolds worked with the women in the village. She usually organized her knitting, reading from the Bible, and other activities outside under the trees; but when it rained, everybody moved into the village mosque, which the Americans found amazing, as “infidels” usually were not allowed in Shiite mosques. Also, the lepers kept their rooms fairly clean, which meant that the allocation of funds for cleaners in 1929 had either been canceled or the cleaners no longer came. To encourage cleanliness, “Large religious pictures from Sunday School picture rolls are given to lepers as rewards for keeping their rooms neat and clean, and they are very anxious to secure them and to tack them on their bare wall.”¹³⁰

In 1931, Dr. Lichtwardt continued his weekly visits treating some 120 out of 150 living in the village with injections; also additional medication was given, as needed, as well as dressing their many ulcers. Most patients showed slow improvement; “several have been cured entirely and will soon return to their villages, and three who were clinically and bacteriologically cured had already gone.” Almost every week one new leper applied for admission; in 1931 some were children from the Afghan border and others were at an advanced stage of the disease and had little hope of cure. When in March 1932 Dr. Lichtwardt was away for three weeks, on his return

¹³⁰RG 91-20-2, Mashad Medical Report 1929–30, pp. 42–4; Mashad Medical Report 1928–29, p. 6; Mashad Medical Report 1938–39, p. 5. On alepol, see Bhandari 1932 and Dikshit 1932. For the treatment with chaumogra oil and treatment in general, see Klingmüller 1930, pp. 676–743. For the 1929 budget allocation for female cleaners, see Adhari-Khakestar 1395, p. 86 (item 6).

lepers begged for treatment, “stating that their pains, ulcers, and swellings had become much worse in even this short interval without treatment.”¹³¹

Dr. Lichtwardt distinguished two types of groups among his leprous patients. Class I of twenty-eight were those without visible signs of the disease; they were well and Alepol worked well with them; over-dosage sometimes did harm. Class II of sixty-four were in the active stage; for them he used intravenous injections of Chaulmoogra oil, for Alepol often stirred up a leprous reaction and made them worse. Class II included the old, burnt-out cases with gnarled stumps of fingers and toes. “Specific treatment here merely discredits the treatment; so we merely dress ulcers and try to relieve their aches and pains, malaria and coughs.”¹³² Sometimes, Dr. Lichtwardt made extra visits, such “as at Christmas and to operate on several poor sufferers.” At the weekly visits bread was given to each person who came for the injection, which did the trick, “for they need little stimulus beyond the vague hope of improvement, especially since the injections are sometimes painful.” Sometimes the Americans gave winter clothes and charcoal, in addition to what the shrine supplied.¹³³

New buildings. In 1931, five new rooms were added, three of which were for treatment and examination of patients; one was used as a store-room, and in one Ms. Reynolds told her Bible stories to the women and children, and taught them to knit and sing simple hymns. “A gramophone [sic] and records have been given to the lepers this year and they enjoy it very much. This new building has enabled us to release three large rooms for the use of new lepers that have arrived. A new, high veranda has been built, extending along one half of the leper rooms.”¹³⁴ By 1935, the leper colony had grown to 200, of whom 184 were lepers. This required the construction of new rooms, which were erected by the Health Department. These rooms were completed and occupied in 1936. Four of the new rooms were allocated to the American physicians to be used as a small nine-bed hospital for the comfort and treatment of the patients. The rooms were screened against flies.¹³⁵ Mrs. Helen Hoffman, the wife of Dr. Hoffman and a nurse herself, worked hard in the fall of 1936 to get three rooms fixed up for use as a hospital in the village. Although the rooms were built by the Health Department, the American missionaries plastered, fixed them up and furnished them with funds from AML. The Shah Reza hospital donated ten old bedsteads, which had to be repaired. In January 1937, the three wards, with three beds each, were opened and as of then the sickest were taken care of in clean beds and fed warm food and milk.¹³⁶ In 1937–38, Mrs. Hoffman supervised the cleaning, plastering and repair of the six rooms in the children’s ward, for which she obtained 3,000 rials from friends

¹³¹RG 91-20-2, Mashad Medical Report 1931–32, p. 16.

¹³²RG 91-20-2, Mashad Medical Report 1932–33, p. 4.

¹³³RG 91-20-2, Mashad Medical Report 1932–33, p. 4.

¹³⁴RG 91-20-2, Mashad Medical Report 1931–32, p. 17.

¹³⁵RG 91-20-2, Mashad Medical Report 1935–36, p. 5; RG 231-1-2, Hoffman to Mother, 04/10/1936.

¹³⁶RG 91-20-2, Mashad Medical Report 1936–37, pp. 3-4; Mashad Medical Report 1935–36, p. 5.

in the local foreign colony. As of then the children lived with their parents who were infectious.¹³⁷

Change of staff, not of treatment. In 1934, Dr. Lichtwardt, who had started the program of medical treatment at Mehrab Khan was transferred to the American Christian Hospital in Hamadan. His work was continued by Dr. Hoffman, who had worked in Mashhad since 1915 and was the head of the American Christian Hospital there. He was assisted by Dr. Adelaide Kibbe, who in April 1935 went on furlough. Her place was filled by Dr. Cochran, who came from Urmiyeh, where the government had closed the American mission station. These changes interfered with the treatment schedule, when there was only one physician at the hospital. After Dr. Kibbe's return in 1936, one doctor's day/week was given again to the lepers. To make life for the lepers more meaningful, boost their morale, and reduce their own workload, the American physicians had begun training interested male leprosy patients as nurses. As a result, by 1936 more and more dressings and injections were done by these leper nurses, who also took care of the nursing in the small hospital. Here they daily dressed ulcers and gave medicines to relieve fever and pain. Consequently, the ailing lepers were being cared for better than ever before.¹³⁸ One of the two American physicians in Mashhad continued with weekly visits accompanied by three helpers. There were also additional visits by Naderi, their male nurse, to see to it that the four lepers that they employed as nurses dressed the many sores and took care of the patients in the little hospital there. To save money, gauze and bandages were washed and re-sterilized as long as they held together.¹³⁹ In addition to the four male nurses, the Americans also employed two women as washerwomen. To make the mullah of the village stop begging from them, the Americans employed him as keeper of the record cards of the lepers, which had the desired effect. In addition, they arranged work for some 25–30 able-bodied lepers in the opium fields as day laborers and other farming jobs nearby.¹⁴⁰

As of 1937, Dr. Cochran made the weekly visit with Naderi, and three helpers to Mehrab Khan. The village mullah handed out the record cards, the doctor checked the patients and prescribed for each one of them, one assistant supervised the injections given by leper nurses, while another supervised the dressing of ulcers and the third dispensed the medicines prescribed for fevers, aches and pains. The nine beds were always occupied, a near 100 percent occupancy, more than in any other hospital. The worst cases lay there screened from flies, were looked after and given hot food, milk and curds by the four leper nurses. Two leper women did the cooking and washing; one nurse was always on night duty. The four nurses also did "the daily dressings of the

¹³⁷Mashad Medical Report 1937–38, p. 3.

¹³⁸RG 91-20-2, Mashad Medical Report 1935–36, p. 5.

¹³⁹RG 91-20-2, Mashad Medical Report 1936–37, p. 3.

¹⁴⁰RG 91-20-2, Mashad Medical Report 1936–37, p.4. It is interesting that in 1942 the work on farms was decried by a local newspaper as "woe betide" the villagers who employed lepers; see Adhari-Khakestar 1395, p. 94. The village mullah probably was called Aziz Khan and was himself a sufferer of leprosy. Mo'tamen 1348, p. 411, note.

many painful sores, always worse in winter because the lepers burn their numb fingers and toes in the scanty fires trying to get warm, and give the injections.” In addition, after the doctor’s visit, Nāderī later came twice per week to Mehrab Khan on his bike to direct the nursing.¹⁴¹ The beds in Mehrab Khan’s small hospital were always occupied by the worst cases. Therefore, in the fall of 1938, three beds were added for female patients. Even then the twelve beds were occupied by the most sick and helpless in the group of 120 lepers throughout the year.¹⁴² As of 1944, the weekly visits were reduced because of lack of time. One hospital worker went there three times per week, while 3–4 went there once a week for special treatments. Dr. Hoffman could go there only once a month as he was the only physician in the Mashhad hospital. By that time, the little hospital had fifteen beds, which usually were all filled. It was repaired under the supervision of Mrs. Hoffman, and, according to Dr. Hoffman, “It is one of the best hospitals in the region.”¹⁴³ After Dr. Hoffman left in 1948, Dr. Cochran was responsible for both the hospital and leprosarium. When in 1949 the number of lepers had grown Dr. Cochran requested the shrine to build new rooms. “At the moment the beds of the hospital of the leprosarium are currently occupied by almost 15 blind lepers, so that there is no place for the other lepers. It is requested to construct two rooms for the hospital.”¹⁴⁴

Between 1943 and 1954, thirty-eight buildings were constructed for the cured lepers and their families. The additional building erected in 1953 and 1954 by the Shrine measured 80 by 70 meters. At its north side it had fourteen rooms for the lepers, and at the south side, which was also the entrance, there were rooms for staff. In 1955, to the southeast a bath-house was constructed with twelve shower stalls, twelve water taps for clothes washing, which was out of use by 1968. By 1955, the number of lepers at the Mehrab Khan Leper House reached 312. In 1957, the supervision of Mehrab Khan was transferred from the shrine to the Ministry of Health (*Vezerat-e Behdari*) and gradually the old buildings were destroyed.¹⁴⁵ It is not known when the Americans stopped working in Mehrab Khan, their reports for the period after 1948 have not been preserved. According to Mo’taman, they still provided support to the leprosarium in the mid-1960s, when the Presbyterian missionaries ended their work in Iran. One thing is clear that around 1960, some French nurses started working at Mehrab Khan. The praiseworthy work of Mary Gabriel Kurot (Corot?), sister Zhaleh, and sister Rahebeh, who came to Mashhad via the World Health Organization (WHO), is mentioned in particular. They lived next to the leprosarium. It is not known when they stopped working there. In the mid-1960s, i.e. after the American hospital had closed, the Department of Health

¹⁴¹RG 91-20-2, Mashad Medical Report 1937–38, p. 2.

¹⁴²RG 91-20-2, Mashad Medical Report 1938–39, p. 2; Mashad Medical Report 1939–40, p. 3; Idem, Mashad Medical Report 1940–41, p. 2; Mashad Medical Report 1944–45, p. 2.

¹⁴³RG 91-20-2, Mashad Medical Report 1945–46, p. 2; Mashad Medical Report 1942–43, p. 2; Mashad Medical Report 1944–45, p. 2.

¹⁴⁴Adhari-Khakestar 1395, p. 89.

¹⁴⁵Azizi and Bahadori 2011, p. 428; Mo’tamen 1348, pp. 412–13. Mo’tamen’s text is copied in Atareidi 1371, vol. 2, pp. 511–13.

funded the visits of an Iranian physician.¹⁴⁶ In 1958, a new asylum with 130 rooms was constructed and the eight hectares of land of the Mehrab Khan Leprosarium was enclosed by a fence. At that time, it was the best equipped leprosarium in Iran. This was because its budget was subsidized by a grant from the shrine, which in 1962 amounted to 20 rials/day per patient. Also, a nursery had been established by the Lepers Aid Association of Mashhad where the fifty children of the by then more than 500 leprosy patients were looked after. In 1962, it was proposed to build a large hospital for the treatment of leprosy in Mashhad.¹⁴⁷ Finally, the Ministry of Health officials dissolved the Mehrab Khan Leprosarium and on its site constructed the Hāshemi-nezhād Hospital, located northeast of Mashhad, which from 1982 was affiliated with the Mashhad University of Medical Sciences.¹⁴⁸ According to Ataredi, the leprosarium was moved to a village near Bojnord.¹⁴⁹

Other Leprosaria

In those provinces where there was no leprosarium, which meant most of Iran, there was no Iranian institutional support for lepers and hardly any medical care, private or public. The only incidental medical care that was available to lepers came from American and European medical institutions, either missionary or government supported. Of the latter, the British dispensary in Bushehr is an excellent example; it treated all kinds of diseases, including that of leprosy. The most modern methods and treatments were introduced as soon as these became available. For example, in 1908, with some pride, the political agent in Bushehr reported the “Successful treatment of leprosy cases by means of the new Nastine treatment inaugurated by Professor Deycke Pasha.”¹⁵⁰ The Nastin treatment was continued and in 1910 “ten patients were treated with encouraging results.”¹⁵¹ Elsewhere, such as in Rasht, Dr. Frame of the American Christian Hospital treated lepers. For those that had no proper housing and were out of town, Frame advised them to go to Mashhad or Tabriz, which each had a leprosarium with the facilities to treat them. However, because most lepers were poor and had no money to travel, they returned to their homes without treatment. Government institutions were of no use, even though “The newly organized health department wants to make a clean sweep of all health problems but has neither the organization, funds nor experience to carry out their program immediately.”¹⁵² Although in modern treatment of leprosy segregation was not necessary or even desirable, there was nevertheless a need for a refuge for leprosy sufferers. However, the situation of such refuges did not look bright.

¹⁴⁶ Adhari-Khakestar 1395, p. 96.

¹⁴⁷ Iran Almanac 1963, p. 379. According to Mo'tamen 1348, p. 413 the shrine paid the Health Department 50,000 rials/month for its work at Mehrab Khan in 1957.

¹⁴⁸ Azizi and Bahadori 2011, p. 428.

¹⁴⁹ Ataredi 1371, vol. 2, p. 513.

¹⁵⁰ Administration Report 1908, p. 12; Das 1911; Anonymous 1909.

¹⁵¹ Administration Report 1910, p. 20.

¹⁵² RG 91-19-9, Resht Medical Report 1930, p. 3.

By 1920, three leper colonies were reported to exist in Iran; one at Mashhad (Mehrab Khan), another at Khalkhal, and a third one at Arpadarrehsi (آرپا دره سی), near Ahar (Azerbaijan).¹⁵³ However, it appears that there was also a leper colony near Senneh, perhaps the one visited by Dr. Vaume.¹⁵⁴ There also seems to have been one in the village of Savüdlüq in the mountainous district of Vanyār (W. Azerbaijan), situated on the road between Tabriz and Ahar. Coming down from their heights the leprous villagers engaged in banditry, attacking travelers, who fled for fear of contact with the leprous bandits, leaving their possessions. This situation lasted till the end of the 1920s and thereafter the Savüdlüq lepers were moved to Bābā Bāghī.¹⁵⁵

Whereas in the early 1920s there were at least three to five leper colonies in Iran (see above), some twenty-five years later the Ministry of Health of Iran only operated two leprosaria with about 400 patients in the provinces.¹⁵⁶ It is not clear whether the village of Payon was discontinued or developed into a leprosarium. In 1921, it was decided to designate the village of Baba Baghi (بابا باغی) as the location where all lepers from Azerbaijan had to be concentrated. The village was located around 15 km northwest from Tabriz; in the nineteenth century the Baba Baghi village had been a royal hunting lodge. However, it was impossible to realize this plan until ten years later, when again it was decided to house there all lepers there from north, west and northwest Iran. However, due to lack of funds and other means it was impossible to prepare the village to house leprosy patients. Two years later, in 1933, the Municipality of Tabriz bought the village for 600 *tumans* and took steps to make the necessary preparations to receive the future leper inhabitants. In that same year, 75 hectares of Baba Baghi lands were transferred to the Public Health Administration and thus a beginning was made with the Baba Baghi leper village.¹⁵⁷ Because the village was surrounded by a 3-meter-high wall it looked like an army barracks. At first, forty mud (*kahgeli*) rooms were built; thereafter the village was gradually expanded and lepers from different parts of Iran settled in Baba Baghi. The first group of patients who came to the Baba Baghi Leprosarium were the lepers from Ārpādarrehsī, of whom there were seventy-five. In the beginning, the neighboring villagers supported these lepers with donations.¹⁵⁸

Because no regular medical treatment was offered at Baba Baghi it was not as yet a real leprosarium. However, the government of Iran wanted to improve the way in which it dealt with leprosy. To that end Dr. Brown of the WHO visited Iran in 1956, and assessed the leprosy situation in the country. Following his visit, the Ministry of Health decided to launch a large-scale leprosy treatment campaign, because there were reportedly some 12,000 lepers under treatment in Iran. The majority of

¹⁵³Gilmour 1924, p. 30; see also Polak 1865, vol. 1, p. 132 (leper colonies in Azerbaijan, Khamsch, and Khalkhal).

¹⁵⁴Rasooli and Allen 1958, pp. 22–3.

¹⁵⁵https://fa.wikipedia.org/wiki/بابا_باغی (accessed June 15, 2018).

¹⁵⁶Andrews 1950, p. 2.

¹⁵⁷<https://www.mehrnews.com/news/1018043/> (accessed June 15, 2018).

¹⁵⁸https://fa.wikipedia.org/wiki/بابا_باغی (accessed June 15, 2018).

the patients were located in Azerbaijan, Kurdistan, Khuzestan, Lorestan, Tavalesh, Gilan, Torkmansahra, Zabol, Bandar Abbas, and Mashhad. There were also a few in Tehran. Many of them lived and were treated in the two leper colonies Bābā Bāghī and Mehrab Khan. In Tehran, lepers were treated in a special ward at the Loghman al-Dowleh Ādham hospital. Despite the government's intention to improve medical services at the two leprosaria, no Iranian physician or nurse wanted to work in the two leper villages. Their refusal led to great controversy and caused much national uproar. Finally, two French nuns offered to help the lepers in Baba Baghi; they were later joined by four Frenchmen, who worked there for several years. Among them was Dr. Alphonse David, who trained his Iranian successors. In 1962, there were 530 patients in the 100-room Baba Baghi leper colony and its annual budget was 6 million rials/year.¹⁵⁹

Despite the establishment in 1957 of the "Society for the Support of Lepers" in Tabriz to help the lepers of the Baba Baghi Leprosarium,¹⁶⁰ living conditions there were very unfavorable. In 1962, their neglect and suffering was highlighted by the documentary "The House is Black" (*Khaneh Siyah Ast*) made by Forugh Farrokhzad (1935–67), a poet and film director.¹⁶¹ Because the government of Iran erected new medical buildings in Baba Baghi, as well as improved living conditions and the medical treatment of its inhabitants, it received assistance from the WHO, so that in 1963 the first batch of medicines for the 600 patients reached Baba Baghi. In the 1970s and thereafter the situation gradually improved under the leadership of Dr. Mohammad Hoseyn Mobayen, who had started his professional career at the Baba Baghi Leprosarium in 1962. One year later he became its director, in which post he remained until 1988. Under his direction the 3-meter wall around the village was taken down, new facilities were constructed and medical care of the lepers was put on a sound scientific foundation. After the Revolution of 1978 further improvements were made to the village (piped drinking water, baths, gas, electricity, asphalt road, etc.). Some eighty medical and administrative staff live in the village as well as about 470 patients, 80 percent of them with their families. Most patients engaged in agriculture and animal husbandry. The Baba Baghi Leprosarium is now affiliated with the Tabriz University of Medical Sciences.¹⁶²

In 1961, a third leprosarium was added, the Behkadeh Raji, now renamed as Behkadeh-ye Razavi, which was established near Birjand, due to the efforts the Health Minister of the time, Dr. Abdol-Hoseyn Raji (1902–72) and the active support of Farah Dībā, the queen of Iran. The Razavi Leprosy Rehabilitation Center was the first modern, economically self-sufficient leprosarium in Iran, complete with a hospital, school, bath-house, cinema, and all administrative services and other modern ame-

¹⁵⁹Iran Almanac 1963, pp. 378–9.

¹⁶⁰Azizi and Bahadori 2011, p. 427.

¹⁶¹Matin 1388, p. 645.

¹⁶²https://fa.wikipedia.org/wiki/بَابَا_بَاغِي (accessed June 15, 2018); <http://www.bartarinha.ir/fa/news/90156/> (accessed June 15, 2018); <http://www.hamshahronline.ir/details/304736> (accessed June 15, 2018).

Table 3. New cases of lepers by sex and age for the stated year

Year	Sex			Age	
	Both sexes	Male	Female	14 years and under	15 years and over
1340/1960–61	123	–	–	–	–
1350/1971–72	320	–	–	–	–
1351/1972–73	375	–	–	–	–
1370/1990–91	191	132	59	37	154
1375/1976–77	112	69	43	13	99
1380/2001–02	96	44	52	3	93
1383/2004–05	93	64	29	0	93
1384/2005–06	89	48	41	5	84
1385/2006–07	71	39	32	0	71
1386/2007–08	37	22	15	1	36
1387/2008–09	38	24	14	0	38

Source: Iran Almanac 1974, p. 407; Iran Statistical Yearbook 1387 (2008–9), Table 16.16, p. 719.

nities. In this modern village, the lepers were treated in accordance with the recommendations of the WHO. In 1968, the government of Iran began a systematic fight against leprosy. It allocated more medical staff, several leprosaria were built (Siyahqol, Kolbar, Reza Khan, Basri) and a number of special clinics were established. At that time, the Mehrab Khan leprosarium had 700 lepers and the Baba Baghi leprosarium housed 573 lepers, while some 232 leprosy patients were treated by other clinics and mobile teams in rural areas.¹⁶³ In 1960, 900 lepers and their 180 healthy children lived in the Behkadeh Raji. By 1977, 400 houses and several educational, professional training, and entertainment centers, as well as six villages near the Behkadeh Raji, were erected by French and German charity foundations. For a number of years it was supervised by the Society for Help to the Lepers in Iran. In 1980, the name of the society changed to the Organization for Fighting against Leprosy, which was supervised by the Ministry of Health. Finally, in the 1980s this rehabilitation center was closed and patients who were cured and their families were transferred to the buildings near the asylum.¹⁶⁴

Since 1364/1985, the number of leprosy patients in Iran has dropped (see Table 3). Therefore, the prospects of the elimination of leprosy in Iran look good, because since 1996 its prevalence has been less than one case per 10,000 persons. In 2016, its prevalence was 0.003 per 10,000 persons and the rate of new cases was 0.22 per 100,000 people. In 2016, only fifteen new cases were reported, of which eleven were

¹⁶³Iran Almanac 1970, p. 496; Matin 1388, p. 645; Pahlavi 2005, p. 143. For leprosy related medical education and research in Iran, see Azizi and Bahador 2011, pp. 428–9.

¹⁶⁴Aziz and Bahadori 2011, p. 428.

Iranian.¹⁶⁵ Let's hope that these are the last sufferers of leprosy in Iran and that its chapter of leprosy may be closed.

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