



## The History of Infectious Disease in Japan: Origins of the World's Best Hygiene Awareness — The Mysterious Relationship between the Japanese and the God of Pestilence

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The authority of the Emperor of Japan as well as the rituals at Ise Jingu shrine have their beginnings in infectious disease. Today, people in Japan have a high awareness of hygiene. This advantage has contributed much to overcoming the current wave of COVID-19. How did this amazing public health competency develop among the people of Japan? To consider this question, we need to look back at history.

The story starts 1,700 years ago. Emperor Sujin (97–30 BCE) is thought to be the tenth in the imperial line after Emperor Jimmu (660–585 BCE), the first emperor who may actually have existed. This is what Inoue Mitsusada (1917–83), an authority on the ancient history of Japan at the University of Tokyo who compiled the postwar history textbooks, says in *Nihon no rekishi 1: Shinwa kara rekishi e* (Chronology of Japan: from myth to history). According to the *Nihon shoki* (*The Chronicles of Japan*), Emperor Hatsukunishirasu-sumera-mikoto, the first ruler of Japan, may actually refer to both Emperor Jimmu and Emperor Sujin (the 10th emperor). However, the mausoleum of Emperor Jimmu was planned and built in the Edo period. Meanwhile, the mausoleum of Emperor Sujin is an archaeologically ancient tomb (the scallop-shaped Andonyama tomb) that dates to around 300–350 CE.

In the fifth year of the reign of Emperor Sujin, a terrible epidemic struck Japan. During the process of controlling this epidemic, the first sovereignty, referred to as the Miwa sovereignty in academic circles, was formed at the foot of Mt. Miwa in Yamato Province (currently Sakurai City in Nara Prefecture).

Let us read the description in *The Chronicles of Japan*. In Sujin Tenno 5 (93 BCE), “There was much pestilence throughout the country, and more than one half the people died.” That is, the majority of the nation died in an epidemic. In the following year, Sujin Tenno 6, “The people took to vagabondage, and there was rebellion, the violence of which was such that by worth alone it could not be assuaged.” Therefore, the Emperor prayed to the gods from morning until evening.

Previously, both Amaterasu Omikami (the Sun Goddess) and Yamato no Okuni-tama had been worshipped at the palace, but the Emperor feared the power of these two gods and no longer felt secure in the same dwelling. Therefore, he entrusted Amaterasu Omikami to his daughter, who enshrined the goddess outside the palace at Kasanui no mura (Kasanui village).



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This marked the start of the rituals at Ise Jingu shrine where the ancient imperial princesses served and worshipped Amaterasu Omikami away from the Imperial Palace.

However, the epidemic did not end and the Emperor was troubled. Then, Omononushi-no-kami (the god of Mt. Miwa) took the shape of Kami Yamato-totohi-momohime and appeared at the Emperor's bedside saying, "If thou wilt cause me to be worshipped by my child, Otataneko, then will there be peace at once." At long last, the issue was resolved. The Hashika Burial Mound, often referred to as the tomb of Himiko (the shamaness and queen of Yamatai-koku in Wakoku), has been designated the Imperial mausoleum of Yamato-totohi-momohime (according to the Imperial Household Agency). The Bizen Kurumazuka tumulus is another ancient tomb from the same period. Archaeological excavations at the site have unearthed eleven *sankakubuchi shinju-kyo* mirrors (ancient triangular rimmed mirrors decorated with gods and animals), the so-called Mirrors of Himiko. It is deeply interesting that Omiwa Jinja shrine, where Omononushi is enshrined, is located next to this ancient tomb. According to the history of the shrine, the high-ranking Oga Ason, a descendant of Otataneko-no-kami, moved here and established Omiwa Jinja. It is possible that ritual implements passed down from the era of Himiko (first half of third century) were used to ward off pestilence in many areas.

## **Early Settlers, the Construction of Ancient Tombs, and Epidemics**

In the fifth year of the reign of Emperor Sujin (around 300 CE), half a century after Yamataikoku and Himiko, an epidemic spread across the Japanese islands, killing more than half the population. I would like to outline the historical facts of how the authority and rituals linked to the current emperor arose out of the ensuing social unrest.

At the time, a "town" grew at Makimuku at the foot of Mt. Miwa. According to some researchers (Terasawa Kaoru, *Oken tanjo* [The birth of royal authority]), this was the first urban settlement in Japan. Previously, there had been no horses or cattle on the Japanese islands, but harnesses have been found at Makimuku, so there must have been thriving exchanges with the continent. People from many areas coming together to construct the giant tombs must also have had an impact. If an epidemic broke out, the people of the Japanese islands, who lacked immunity, would be helpless in the face of the explosion of infections. It is possible that the work of constructing the ancient tombs killed people.

Cities were developed and giant monuments were built in ancient society, but these societies also experienced mass deaths from infectious diseases. In 430 BCE, the Parthenon in Athens was completed. There were also epidemic outbreaks and mass deaths immediately after preparations for siege warfare involving large numbers of soldiers. In *Parallel Lives*, Plutarch already identified "the 3Cs" (closed spaces, crowded places and close-contact settings) as the cause of outbreaks of infections. "Illnesses occurred when crowds from the countryside gathered in towns." "Even though it was summer, many people were crammed together in small homes and barracks." "Shut in like cattle, they passed viruses to one another." The Greek statesman Pericles (495–429 BCE) also faced mounting criticism over the epidemic.

Later, the Japanese islands were repeatedly struck by infectious diseases as travel to and from the continent increased with the transmission of Buddhism. The siblings of Emperor Bidatsu and Emperor Yomei died from smallpox. Prince Shotoku (574–622) was the son of Emperor Yomei, but his father, mother, consort, and Shotoku himself died in what is thought to have been a smallpox epidemic. The Jōgū royal family, including Prince Shotoku, were “internationally active” and zealous Buddhists. Perhaps this is why they succumbed easily to epidemics.

There was a period of widespread smallpox contagion in the Tenpyō period under Emperor Shōmu (701–756), who built the Great Buddha in Nara. Centralized authoritarian rule was developing with the *ritsuryō* system of centralized government based on the *ritsuryō* code, and goods and people from the countryside were coming together in towns. According to research, (William Wayne Farris, *Population, Disease, and Land in Early Japan, 645–900*), 1 to 1.5 million people, or approximately thirty percent of the total population, died between Tenpyō 7 and 10 (735–38). Four Fujiwara brothers, political rulers at the Imperial court, who were fond of banquets, all fell ill and died in 737. One reason for Emperor Shōmu’s decision to construct the Great Buddha in 752 may have been to bring the epidemic under control.

### “Spells” To Prevent Infectious Disease

At a time when there were no remedies or vaccines, people were powerless in the face of infectious diseases. Therefore, they thought up one spell after another to prevent disease. One such spell is the Kyoto Gion Festival, which is held in July every year. In 2020, the famous Yamaboko Junko procession at the Gion Festival was canceled due to the COVID-19 contagion. However, an amulet called a *chimaki* inscribed with the words “*Somin Shorai no shison nari*” (I am the descendant of Somin Shorai) is distributed at the Festival. It is said that if you hang this amulet in the entranceway to your house, infectious diseases cannot intrude into the home. The reason is that a long time ago, a man called Somin Shorai did a traveler a kindness. That traveler turned out to be the god who controls infectious diseases. The god left the house saying, “I will protect your home from infectious diseases” to show gratitude for the meal and the night’s stay. Predictably, Somin Shorai’s home was safe when many people died during outbreaks of infectious diseases. This anecdote is recounted in the *Bingo-no-kuni fudoki itsubun* (The topographical records of Bingo-no-kuni) and other records. (Today, Bingo-no-kuni is in the northern part of Hiroshima Prefecture and southern part of Okayama Prefecture.) This is why people believed that you were protected from infectious diseases if you hung this amulet in the entranceway to your house.

Since I live in Kyoto, I used to join the whole family every year to help to make the *chimaki* amulets. However, if you think about it, people in Kyoto hang up this amulet even if they don’t believe that they are the descendants of Somin Shorai. In other words, we lie to the gods even though the other party is the god of pestilence. According to the story, we can avoid infectious diseases by simply suggesting that we are descendants of Somin Shorai. There are eight million gods in Japan, but the gods are quite laid back. An analysis of the mythology suggests that the characteristics of this country are that lies are tolerated and the right to inheritance is easily justified.

The existence of reciprocity and collusion between human beings and the god of pestilence is also interesting. That is, if someone shows hospitality to the god of pestilence, the god will exempt that person from infectious disease. The Japanese even pay off the god of pestilence. There is a reciprocal structure where people expect the god of pestilence to exempt them from contagion, but there is also the idea that you can co-exist with the god of pestilence. He is frightening, but if you give the god of pestilence a friendly reception, he is a visiting *marebito* deity, who makes purchases, contracts, and exchanges. The god of pestilence was never an enemy of the Japanese.

## Harigami Instead of Vaccines

In *Ekibyō to fukujin* (Plagues and gods of good fortune), Oshima Tatehiko studies numerous examples of folklore about the god of pestilence and the premodern Japanese. At my workplace, the International Research Center for Japanese Studies, we have the *Illustrations of Strange Phenomena and Yokai (Ghosts, Monsters, Spirits)* database, which allows us to understand how the Japanese have interacted with the god of pestilence. Japanese people have used different kinds of *harigami* (pasted labels) instead of vaccines. For example, in Yamanashi Prefecture, a child's handprint is stamped on a red piece of paper printed with the phrase "*Kichisa-san wa orimasen*" (Kichisa is not here) and hung at the gate. The story is that Yaoya Oshichi set fire to her house out of unrequited love for Kichisaburo (Kichisa). After her death, she became the god of influenza who wanders around peeping into every home looking for Kichisa to kill him. People believed that if you pasted up this red paper, she would leave without looking inside the house because the handprint is not that of Kichisa.

At the time of the Spanish flu in 1918 and 1919, every home around Asamai (currently, Yokote city) in Akita Prefecture had a slip of paper that said "*Kichisa-san orimasen*" hanging upside down in their doorways. Otherwise they believed that they would be possessed by the ghost of Yaoya Oshichi and die (Terada Denichiro's *Ugo Asamaicho kinbo kenbunroku (zoku)* [Sequel to the Records of the Ugo Asamai neighborhood]). In some cases, people also pasted up slips of paper reading "*Kichi-san irazu*" (Kichi-san is not here) in the entrance (Saeki Ryuji, *Minkan-iryō ni kansuru shiryō* [Materials about folk medicine]). In the early Showa years (late 1920s), there were still areas where influenza was considered the work of the ghost of Yaoya Oshichi.

In some villages in Niigata Prefecture, people also pasted slips of paper with a drawing of an ox upside down in the entranceways to their homes. Gozu Tenno, the god of pestilence, had the head of an ox. (The deity is said to be the Indian god Gavagriva.) They believed that when the god of pestilence came, a kick with the raised legs of the ox would send him flying. (Otake Nobuo, "Tenno-sama" *Niigata-ken shi, shiryōhen 22, minzoku 1*).

Rather than harigami, some people also placed objects in the entrance to their homes. People from the Kanto to the Minami-Tohoku region believed that the god of pestilence would pass their homes on February 8 and 10, so the custom was to hang a *mekago* openwork bamboo basket at the gate early in the morning. Otokono-kami, the god of pestilence, was a monster with a giant eye or a single eye. When he arrived, he would "look through every doorway, and write the names of the people he was going to infect with diseases in a notebook before walking away. This is why people

placed a *suino* water bag or a mekago at the entrance to surprise the monster, so that he would run off thinking there was someone with an even bigger eye than his” (Goto Yoshitaka, *Ekibyō ni tsuitemo dampen* (Fragments concerning the god of pestilence), *Minzoku Techo* No. 5). People also said that “you would be taken by infectious disease if you didn’t keep your shoes in the house” on February 8 and December 8 (Ogawa Yoshifumi, Saotome Yoshimasa, *Kanuma no Minzoku* (Kanuma folklore). In addition, people would place a sake bottle filled with cedar needles in the entranceway (Gamo Akira, *Shogatsu no gyōji* [New Year's day events]), while in Toyama Prefecture, they would paste up handprints to ward off colds, dysentery and measles (Mori Takashi, *Toshi no juho* (Urban spells).

In Edo (Tokyo), people placed snakes made from straw in the entranceway. In the Hoei era (1704–11), it occurred to Kihachi, a farmer in Komagome, to fashion snakes out of straw (so-called *soba-hebi*). When he sold them at a religious festival at Fuji Gongen Shrine, many people bought them for their rare craftsmanship. That autumn, an epidemic struck Edo, but the rumor was that nobody fell ill in any of the homes that had bought the snakes. Subsequently, the *soba-hebi* became a specialty of the Fuji Jinja shrine in Komagome (*Edo Chirihirōi*).

Two hundred years ago during an outbreak of an infectious epidemic in Kyoto, people would write “*jo-sake ari*” (we have excellent wine) on a piece of paper and paste it in the entranceway. It was rumored that “an old witch was flogging sake. If you bought the sake, your health would suffer for sure. Even if you didn’t buy anything, it was not good to have her come to the gate. If you wrote “*jo-sake ari*” on a piece of paper and pasted it at the door, the old witch would not come.” Everyone, from the homes of aristocrats to the tenement houses of the poor, pasted up these pieces of paper (Shimizu Hamaomi, *Yukyo manroku* (Essays on trips to the capital).

## Entertaining the God of Pestilence

In the Edo period, the god of pestilence appeared as an old woman who, supposedly, had conversations with actual living persons. One such example is an occurrence at the home of the warrior Nozaki Yasuke in my home town in Okayama Prefecture. “One day, an old beggar woman stood in front of the gate. When my wife gave her some coins, she said that she was the *hoso-jin* (smallpox demon) and that my second son would only have a mild case of the smallpox. The next day, the boy developed a fever, but the illness was trivial.” In the Okayama domain, the household of Kajiura Kansuke also escaped the smallpox. One day, someone who looked like an itinerant monk called out to him. The man said, “I am the *hoso-jin* of Okayama. Let’s wrestle. If I win I will kill you, but if I lose, everyone in your family will escape the smallpox. In the end, Kansuke won and was never infected with smallpox (*Kyourin naiseiroku*, 1836).

In early modern times, the names of people who had obtained an exemption from infectious disease by forcing the god of pestilence into submission, by helping him, or by providing him with a night’s lodging, were circulated. They were, among others, Chinzei Hachiro Tametomo (Minamoto no Tametomo), Minamoto no Yoshie, the bannermen Nikaho Kinshichiro and Sasara Sanpachi, the wealthy merchant Rokurozaemon of Obama in Wakasa, and the fisherman Tsuribune no Seiji. It was a popular custom to write these names on a piece of harigami and paste it in the entranceway. There



are still so-called apology contracts with a written pledge by the god of pestilence saying, “I will not infect your descendants.” There are extant examples in the Medical Library of the Kyushu University Library and in the Araki family archives in the collection at the Kyoto City Library of Historical Documents. Naturally, the slips were not written by the god of pestilence, but by people on his behalf in the Edo period. In “*Ekibyō-shin kantai no denshō*” (Legends of hospitality extended to the god of pestilence) in *Nihon minzokugaku* 138 (Bulletin of the Folklore Society of Japan No. 138), Oshima Tatehiko has researched the means by which people, who entertained the god of pestilence, might obtain some advantage and turn it into an amulet.

However, in the two hundred years since the late Edo period, Japan has developed rational intellectual thought. For example, the poet and fiction writer Ota Nanpo (1749–1823), who knew that people in Kyoto pasted harigami with the phrase “*jo-sake ari*” in their homes, wrote a humorous poem (*kyōshi*, or *kyōka*) that reads, “There is enough sake to fill a lake. There is enough meat to build an embankment. Let’s respectfully apologize to the goblin woman. Please don’t stop by our houses.” Shimizu Hamaomi (1776–1824), a Japanese scholar of *kokugaku* (ancient Japanese literature and culture), lamented, “This is groundless nonsense. Human nature is easy to deceive, and these ephemeral things don’t exist.”

## Knowledge of Epidemiology in Edo

Then, a groundbreaking idea for prevention emerged. A doctor named Hashimoto Hakuju (unknown–1831) explained that quarantining, not spells, prevented contagion, but today he is largely forgotten. In *Dandoku-ron* (Treatise on eliminating poisons, 1810) and *Kokuji dandoku-ron* (Treatise on eliminating poisons, Japanese script version, 1813), Hashimoto wrote about quarantining to prevent smallpox.

The quarantine concept dates to ancient times. In *Kokuji tōshin imashimegusa* (Warning against the spread of the variola virus, Japanese script version, 1806), Ikeda Kinkyō describes quarantines in the Amakusa, Kumamoto, Iwakuni, Kumano and Kiso areas. Smallpox patients were isolated in mountain huts or at requisitioned farms at a distance of four to eight kilometers from human habitation. In the beginning, a doctor would make calls and relatives would provide food without approaching the patients (Akiyama Fusao, “*Shippei yobo* (Disease prevention), *Minzoku eisei* 42-1).

Hashimoto was from Kai (currently, Yamanashi Prefecture), but he had studied Western medicine in Nagasaki. Therefore, he had realized that smallpox, measles, syphilis and scabies were infectious diseases, and had written a manual on prevention by isolation. He clearly used the word *densen* (contagion), explaining that there are three sources of smallpox contagion.

The first one is “contagion by breathing in hot air through the nose when you are close to the disease.” The second one is “contagion by touching objects in the bedroom of an ill person.” The third one is “contagion through food.”

He even pointed out that pathogens survive in food for a time, saying that contagion by foods is “extremely quick,” and that “food is still tainted with the virus after it has been cooled.”

In addition, the manual also explains the importance of educating people about infectious diseases. If there is a rumor about a smallpox epidemic, Hashimoto said to tell children aged three or older, who can understand language, that “smallpox is a terrible disease and that you will be infected and die if you go near it.” He explained that people should not approach anyone with the disease. He also said that people should arrange in advance not to exchange gifts with friends and relations during an epidemic. If you receive a gift, he said to “throw it in the river.” At the time, people believed that there was a *hoso-jin* (smallpox demon) for minor illness and another one for major illness. People thought that if you were infected by someone with the illness in its less severe form, you would not become seriously ill, so people would deliberately tell children to touch the body of people who were not so ill. Hashimoto admonished people and said that they must absolutely not do this.

The concept of sterilization had already emerged. People knew that they would get infected unless they laundered the clothes of a sick person, and that it was better not to buy second-hand clothing. If poor households had no choice, they would soak the clothes in water overnight before laundering. Surprisingly, people also refrained from eating out or congregating in groups. The modern concept of “self-restraint” had already emerged.

1. In a smallpox epidemic, buying and immediately eating sweets and confectionary was strictly banned
2. In a smallpox epidemic, people were asked to prevent infection by not assembling in large groups or attending festivals, theaters, or plays.

But that is not all.

3. In a smallpox epidemic, people were also asked to refrain from leaving the house to attend classes, to study, or to read.

Today, we know this as “refrain from attending class.” We cannot dismiss the scientific knowledge in the late Edo period. Hashimoto had also formed the concept of immunity, even proposing that people who had acquired immunity could contribute by building nursing capacity. Recommending the construction of quarantine huts, he writes the following. “Build a hut in a place that is removed from human habitation, equip the hut with the tools for caring for the sick, and employ people who have already been infected with smallpox to provide nursing and medicines.” Since measles contagion is no different from smallpox, he also said to use the same approach for measles.

Medical science in the Edo period was truly amazing. Hashimoto even petitioned the shogunate to legislate quarantines, but, instead, the shogunate confiscated the printing blocks for *Dandoku-ron*. In the end, quarantines in Edo were organized by people power.

## **Perfunctory Response to the Spanish Flu**

At the time of the Spanish flu (influenza) in the Taisho period (1912–26), the Japanese government, specifically, the Ministry of Home Affairs, adopted a policy that ignored the advice about appropriate distancing. In the United States, the city of Los Angeles “enacted new regulations as part of a package of emergency measures to prohibit all public gatherings including performances, shows, churches,

and schools.” Oyama Ujiro, the Japanese consul posted in the city, quickly translated the regulations and sent the document to the Ministry of Foreign Affairs in Japan. The date was October 12, 1918.

The regulations for Los Angeles were thorough and detailed in light of civil liberties at the time, at any rate. Houses where cases had been found had to post a blue card for influenza and a white card for pneumonia at the entrance. These cards could not be removed without the permission of a health department supervisor. In case of an outbreak at a hotel or an apartment, health department staff could quarantine patients to prevent an epidemic. When a household was quarantined, only one person who had a permit could come and go, no one could enter the room of the patient, and attendants could not touch them. The milkman could not enter the house, but had to leave the sealed bottles in a designated place. Moreover, police officers patrolled and any transgressions were severely punished.

The Ministry of Foreign Affairs forwarded the information “for reference” to Sugiyama Shigoro (1870–1928), the chief of the Hygienic Bureau at the Ministry of Home Affairs. The thinking was that Japan could adopt similar “social distancing strategies” as the United States, but the Ministry of Home Affairs did not react. On January 14, 1920, Kobashi Ichita (1870–1939), the vice minister of Home Affairs, issued the following directions. “I believe that the overall influence of the use of masks, in particular, together with preventive vaccination and recommendations to gargle, is not inconsequential. I would like you to give careful consideration to these practices.” (“Ryukosei kanbo yobo” [Matters relating to influenza prevention], Diplomatic Archives of the Ministry of Foreign Affairs of Japan)

Today we know that the preventive vaccinations available at the time were medically ineffective. In short, the Vice-Minister only said to “wear a mask and to gargle.” The regulations introduced in Los Angeles were problematic from a civil liberties viewpoint, but in Taisho Japan, the government response amounted to no more than an announcement by public health officers at the Police Affairs Bureau of the Ministry of Home Affairs in the newspapers, saying “wherever practicable, avoid places where people gather together.” Quarantines and “social distancing strategies” were not carefully considered. As a result, there were 450,000 fatalities. Yosano Akiko (1878–1942), the author, poet, and social reformer, was insightful. On November 3, 1918, she lamented, “Why did the government not promptly order the temporary closure of places where people come together in large numbers such as large-scale kimono stores, schools, entertainments, large factories, or large exhibitions to prevent this crisis (*Yokohama boeki shinpo* [*Yokohama Trade Journal*, currently *Kanagawa shimbun*]). During the current COVID-19 epidemic as well, the government has been committed to masks. But, regardless of the lifting of the declaration of a state of emergency in three urban prefectures in the Kinki region (Kyoto, Osaka, and Hyogo) on May 21, the “two washable cloth face masks” have yet to be delivered to my home in Kyoto. There are still challenges ahead.

## **Quarantining Relied on the People**

Japan has narrowly overcome the first wave of COVID-19 with the help of perseverance on the ground and a high awareness of hygiene among the people of Japan, rather than through government



measures. However, it will be tough to counter a second wave. It is one thing if a vaccine is made available on time, but most Japanese people are not immune and the waves also come from overseas. The government must defend the borders, carry out rapid examinations, and introduce appropriate quarantine measures that take human rights into consideration. The government must also provide livelihood support to people in quarantine. However, Japanese governments are traditionally weak at quarantining. There is the history of the erroneous quarantining of people with Hansen's disease. At present, the government lacked experience in "social distancing strategies," but the Japanese people have compensated with hygienic behavior that is the best in the world. There is no guarantee that this will be possible next time.

The battle with COVID-19 has only just begun.

*Translated from "kansensho no Nihon-shi"(3): Sekaiichi no 'Eiseikannen' no Genryu — Nihonjin to 'Ekibyō-gami' tonō fushigina kankei (The History of Infectious Disease in Japan III: Origins of the World's Best Hygiene Awareness — The Mysterious Relationship between the Japanese and the God of Pestilence)," Bungeishunju, July 2020, pp. 110-117. (Courtesy of Bungeishunju, Ltd.) [September 2020]*

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