# UrbanScope

# The Struggle to Modernize Community Medicine in Late Nineteenth-Century Japan

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Keywords: community medicine, modernization of medicine, modernization of doctors, Tochigi Prefecture, Shioya District

#### Abstract

Utilizing a series of community medical records of Shioya District in Tochigi Prefecture, this paper examines the post-Restoration effort to modernize medicine on the local level and identifies both continuities and discontinuities in the daily practices of local physicians. In 1874, the Meiji government issued its first comprehensive regulations for medical practitioners, which were designed to promote the Westernization of medicine. At the same time, they undermined the position of Chinese medicine (kanpo), setting the stage for its eventual decline. Despite the implementation of official regulations, however, the effort to modernize community medicine was not immediately successful. The vast majority of the physicians who practiced in Japan before the Restoration were trained in Chinese medicine. As 'previously practicing doctors', the 1874 regulations permitted most to continue operating in their local communities. Under this process of gradual change, how did medical techniques develop on the local level? The medical environment in Shioya after the Restoration was maintained and modernized by the efforts and cooperation of doctors of various social backgrounds, including those who practiced kanpō as well as those trained in Western medicine. Former domain doctors played a leading role in dealing with the prevalence of acute infectious diseases and in forming the Medical Practitioners' Association. In the middle of Meiji period, some Westernstyle hospitals were established in Shioya, both of which had a public character. On the other hand, a kanp $\bar{o}$  physician quietly tried to adapt his practice to the modern medical system. These are the examples which show that in the transitional period in Japan, different kinds of doctors and different levels of medical training coexisted even in one small locality. In Shioya, people handed down the legacy of medical resources from the Edo period and continuously tried to maintain a medical environment throughout the nineteenth and early twentieth centuries.

# Introduction

Throughout the Meiji Restoration era, physicians in towns and villages in Shioya District sought new ways to adapt to the new system of medicine while continuing their daily medical practice.<sup>1</sup> During the Edo period, Shioya District was mainly governed by the lords of Kitsuregawa and Utsunomiya domains. Due to the dismantling of the status system, domain doctors who formerly worked for these domains as vassals lost their support and needed to find new patrons. In towns and villages, physicians of former commoner status also faced the problem of whether, how, and to what extent they should apply Western medical knowledge, which the Meiji government decided to adopt thoroughly, to their daily practices. Some physicians acquired new Western medical knowledge in a variety of ways, while others continued their *kanpō* medical practice as before.

The abundant medical historical materials preserved in Shioya provide a several clues to understand the medical practitioners' struggle to modernize not only community medicine but also themselves in a rural area. In addition, a small circle of local historians and medical doctors are currently accumulating empirical research on the

<sup>1.</sup> Old Shioya District was located in Tochigi Prefecture, part of the northern Kanto region. Today, this area is mostly belonged to Sakura City, Shioya Town, and some other cities of Tochigi Prefecture.

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regional history of medicine in this area.<sup>2</sup> This paper is a preliminary overview of the medical environment of Shioya in the transitional period, based on the examination of archival material and the work of local historians.<sup>3</sup> In contrast to the many studies that examine the modernization of medicine in Japan by focusing on the establishment of national policies of medicine and the medical education system in Tokyo and other cities, this case study in Shioya will shed light on both sides of continuity and discontinuity of medical practice in community medicine through the process of the modernization of medicine in Japan at the regional level.

# I. Meiji Restoration and the Long-Lasting Legacy of 'Medical Environment' of the Edo Period

As historian Umihara Ryō has pointed out, there was no integrated governmental policy on medicine by Tokugawa shogunate during the Edo period.<sup>4</sup> Each domain had their own domain doctors retained as vassals, while town doctors and village doctors provided commoners with medical care. With only a few exceptions, there was no administrative system to regulate the doctors in a domain's territory.<sup>5</sup>

In contrast, the Meiji government urgently promoted the construction of a system for controlling medicine, doctors, and medical education. This also coincided with the Westernization of Japanese medicine. Certainly, the introduction of Western medicine itself can be regarded as 'the modernization of medicine' in Japan. However, as Takaoka Hiroyuki has argued, the 'modernization of doctors' and 'modernization of medical treatment' requires further examination.<sup>6</sup> In order to describe the total situation of early modern community medicine in one region, Umihara uses the concept of 'medical environment'. 'Medical environment' in premodern Japan refers to the complex of medical services which were provided based on the type of medical practitioners (mainly domain doctors and village/town doctors without government regulation), and how patients received medicine in a given community. Applying this concept to the post-Restoration period, it is necessary to examine how the change of medical environment, or the modernization of community medicine, occurred at the regional level in Japan before and after the Meiji Restoration of 1868.

The process of the modernization of doctors began in 1874, when the Meiji government issued its first comprehensive regulations for medical practitioners (the *Isei*). These regulations required would-be physicians to study Western medicine at a modern medical school and obtain a government-issued license. At the same time, only those doctors of Chinese medicine ( $kanp\bar{o}$ ) already working at a clinic were permitted to continue their  $kanp\bar{o}$  medical practice. This meant that the government undermined the position of Chinese medicine, setting the stage for its eventual decline.

By this policy shift, the medical profession after the Meiji Restoration was occupied by an elite group of people who could afford higher education. Accordingly, the modernization of medicine in Japan partly meant the higher academic qualification of doctors.

Despite the implementation of these official regulations, however, the effort to modernize community medi-

<sup>2.</sup> Shioya gunshi ishikai, ed, Bakumatsu meiji taishō-ki no iryō: Shioya no chi kara 'i' o saguru (Medicine through the End of Edo, Meiji, and Taisyo Era: Pursuing 'Medicine' from Shioya) (Tochigi: Shioya gunshi Ishikai, 2016). I am indebted to the authors of this edited volume. I am grateful to Ms. Aoki Masai and Dr. Sano Tetsurō, the owners of historical materials, for their generous permissions to use their family papers. I also greatly appreciate kind assistance of Kotake Hironori, Kimura Mariko, and Kimura Ai, the curators of Sakura City Museum.

<sup>3.</sup> This paper is based on a presentation given at the annual conference of the Association of Asian Studies in March 2017. After this presentation, I presented several papers and published an essay, including some further examination, as a chapter of an edited volume in Japanese. See Hirokawa Waka, "Chiiki iryō no 'kindaika' to meiji ishin (The 'Modernization' of Community Medicine and the Meiji Restoration)", in 'Meiji 150 nen' de kangaeru (Thinking at Meiji 150), eds. Daniel V. Botsman, Tsukada Takashi, and Yoshida Nobuyuki (Tokyo: Yamakawa Shuppansha, 2018).

<sup>4.</sup> Umihara Ryō, Kinsei iryō no shakaishi (A Social History of Medicine in Early Modern Japan) (Tokyo: Yoshikawa Kōbunkan, 2007), p. 11.

<sup>5.</sup> In Saga domain, the domain's official institution of medicine carried out an examination on doctors in their territory and gave a certificate to successful candidates during the end of Edo and the early Meiji periods. See: Aoki Toshiyuki, "Saga han 'igyō mensatsu seimei bo' ni tsuite (On 'The List of Certified Doctors' of Saga Domain)", Saga Daigaku Chiikigaku Rekishi Bunka Kenkyū Sentā Kenkyū Kiyō, 2009, vol. 3.

Takaoka Hiroyuki, "'Ishi no kindaika' to chiikiteki bunpu: 'iryō kankyō no shakaishi' o kangaeru tameni ('The Modernization of Doctors' and the Regional Distribution of Doctors: Toward an Examination of 'Social History of Medical Environment')", *Rekishi Kagaku*, 2009, vol. 199.

cine was not immediately successful. The vast majority of the physicians who practiced in Japan before the Meiji Restoration were trained in Chinese medicine. As so-called 'previously practicing doctors', the 1874 regulations permitted most of these doctors to continue operating in their local communities. The Westernization of community medicine was only fully achieved in the 1920s, when most of the nation's 'previously practicing doctors' retired and were replaced by practitioners of Western medicine trained at modern medical schools (see Table 1). Until then, Chinese medical practitioners maintained a dominant position in the regional communities in which they had traditionally operated.



 Table 1: Transition of Medical Practitioners in Modern Japan
 Source: Takaoka (2009)

Under this process of gradual change, how did medical techniques develop at the local level? By analyzing a series of heretofore overlooked community medical records in an area such as Shioya District, it will be possible to identify the continuities and discontinuities in the daily practices of local physicians. The medical environment in Shioya after the Meiji Restoration was maintained and modernized by the efforts and cooperation of doctors of various social backgrounds, with including those who practiced *kanpō* as well as those trained in Western medicine.

#### II. The Case of a Kanpo Doctor: The Aoki Family of Doshita Village

In Dōshita Village in Shioya, the Aoki family worked as village doctors from the middle of the eighteenth century to the early twentieth century. The Aoki family both farmed and ran a clinic and pharmacy called the Kanrindō; they also served in village leadership positions. The fourth head of the Aoki family, Aoki Taijirō (1835-1911), initially studied Chinese classics at the domain school of Kitsuregawa, then is said to have learned medicine from the domain doctors of Kitsuregawa and Utsunomiya. Taijirō succeeded to the head of the clinic in 1859, so he experienced Meiji Restoration in his 30s as a *kanpō* doctor. He continued his practice as one of the 'previously practicing doctors' after the Restoration.

The Aoki family's medical records were kept in booklets called "*Jumyō-roku*", or life records.<sup>7</sup> These records were partly preserved from 1821 to 1872. According to these records, the Aoki family saw approximately 450-550

<sup>7.</sup> Hirokawa (2018), p. 128; Shioya gunshi ishikai ed. (2016), pp. 343-346.

patients annually during the Edo period, but often recorded a net loss from their medical income and expenditures.<sup>8</sup> This fact indicates that they could not make a living while depending only on the medical profession.

After the Restoration, Taijirō continued his medical practice while also working as a village official. In 1881, Taijirō was appointed as  $koch\bar{o}$ , or mayor, of four villages, including Dōshita Village, after the large-scale merger of villages was ordered in 1878.<sup>9</sup> His diaries as  $koch\bar{o}$  indicate that he was busily occupied with the administrative work for the villages. He submitted his resignation again and again on the grounds that he was too busy to practice his own medical services.<sup>10</sup> In this kind of situation, it would not be realistic for Taijirō to start studying Western medicine in earnest while working as an official.

Through the late Edo and early Meiji period, Aoki doctors mostly prescribed *kanpō* drugs and the medicine prepared from his family recipe, while sometimes offered a healing prayer in addition to the medicine. Healing players could be also seen in their instructional documents for their eyewash, which told users to cast a charm three times before applying the medicine to the eye.<sup>11</sup> In Aoki's practice, medical knowledge and an incantation consistently co-existed. This was quite common in nineteenth century medicine, and as Umihara has argued, they were not diametrical opposites and the incantation in medical practice should not be understood only as 'backwardness' of the early modern medicine in Japan.<sup>12</sup>

After 1876, Taijirō reported the number of his patients and the names of their diseases to the sanitary office of the prefectural government of Tochigi. The descriptions of diseases he used mostly followed the *kanpō* name, sometimes including the symptoms themselves, such as high fever and diarrhea. Later on, his category of diseases partly changed, but the names still basically followed the *kanpō* concept.<sup>13</sup>

The fact that he himself continued medical practice throughout Meiji period shows the continuity of community medicine before and after the Restoration. In addition, it is apparent that his practice based on  $kanp\bar{o}$  did not change drastically after the Restoration. However, the external factors which forced him to report medical data to the local government added the new manner of naming the diseases to his daily practice (see Chapter V).

#### III. Organizing Doctors in Shioya after Meiji Restoration

#### The Role of Domain Doctors

In Shioya District, the role of domain doctors was still important after the Meiji Restoration. Miyawaki Hirou (1832-1881) was born as the son of a domain doctor of Kitsuregawa. He studied Chinese classics at the domain school and later went to Edo to study both Chinese and Western medicine, making him the first among the Kitsuregawa domain doctors to do so.<sup>14</sup> Thus, Miyawaki lived as a domain doctor who possessed Western medical knowledge through both the Edo and Meiji periods.

When the Meiji Government established a compulsory vaccination policy in 1876, Miyawaki was employed as the sanitary official responsible for medicine and public health in Shioya and promoted vaccination eagerly in that area.<sup>15</sup> Before Miyawaki, the domain doctors of Utsunomiya had vaccinated residents in the late 1850s in cooperation with the Aoki family in Dōshita Village.<sup>16</sup> After the Meiji Restoration, Miyawaki supported the doctors in Shioya, such as Aoki Taijirō and Saitō Kuniichirō (1860-1907, see below), as an expert official in the health services

<sup>8.</sup> Shioya gunshi ishikai ed. (2016), pp. 105-110.

<sup>9.</sup> Hirokawa (2018), p. 127.

<sup>10.</sup> Ibid.

<sup>11.</sup> Shioya gunshi ishikai ed. (2016), pp. 346-347.

<sup>12.</sup> Umihara (2007), p. 130.

<sup>13.</sup> Hirokawa (2018), p. 130.

<sup>14.</sup> Shioya gunshi ishikai ed. (2016), pp. 57-62.

<sup>15.</sup> Ibid.

<sup>16.</sup> Shioya gunshi ishikai ed. (2016), pp. 55-57; Ōtake Hiroyoshi, "Utsunomiya han no shutō to meiji ki ni okeru keisyō (Vaccination in Utsunomiya Domain and its Legacy)", in *Kinsei shimotsuke no seigyō, bunka to ryōshu shihai (Occupation, Culture and Feudal Governance in Early Modern Shimotsuke)*, eds. Shimotsuke kinseishi kenkyūkai (Tokyo: Iwata Shoin, 2018).

and public health administration, rather than as a medical practitioner.<sup>17</sup>

Finally, there is Aoki Shinya (1854-1923), the first doctor in Shioya who studied Western medicine in the early Meiji period at modern medical schools such as Daigaku Tōkō (later renamed Tokyo University Medical School) and Juntendō. Shinya was adopted into a different Aoki family in Akutsu Village in Shioya, from the family of the domain doctor in Sakuyama (Sakuyama is the one of the stations of Ōshū Kaidō Road, next to Kitsuregawa). In 1879, Shinya played an important role as a health official by swiftly instituting preventive measures against a cholera epidemic.<sup>18</sup>

These physicians, who came from the domain doctor's family in the transition period between the Edo and Meiji periods, established the foundation of modern community medicine and public health in Shioya, especially in the face of the emerging risk of smallpox and cholera in the beginning of the Meiji period.

#### Forming the Medical Practitioners' Association

In 1883, the Association of Medical Practitioners in Shioya District was formed following an order from the Ministry of Home Affairs, which mandated that each prefectural government organize a medical practitioners' association.<sup>19</sup> As most of the medical practitioners in Japan at this point were still Chinese medical doctors, the Meiji government tried to make them master Western medicine through these associations, especially with regard to treating infectious diseases. Aoki Shinya, who worked hard at the time of the cholera epidemic of 1879, occupied the position of president of the association. His position was then succeeded by Saitō Kuniichirō, the director of Kitsuregawa Hospital (See Chapter IV). Overall, it was those doctors with family backgrounds of former domain doctors who promoted the modernization of medicine in Shioya. These cases indicate not only the prominent role of domains in community medicine and public health in the late Edo period, but also the continuity of their sense of responsibility in people's health.

#### IV. Hospital Management in Shioya District in the Middle of Meiji Period

In the middle of Meiji period, three major Western-style hospitals were established in Shioya. The concept of the hospital itself was of Western origin and was rapidly introduced to people in Japan at a time of crisis, such as the cholera epidemic which broke out during transitional period. Traditional physicians, such as Aoki Taijirō, did not usually possess accommodations for patients, and only visited patients at home.<sup>20</sup> Thus, the establishment of hospitals in Shioya indicated the coming of the serious modernization of medicine.

#### Sakurano Hospital

The first hospital was established in 1887, when Dr. Aoki Shinya, mentioned above, and two wealthy merchants from Shioya formed a charitable organization for poor patients by collecting donations from neighborhoods in Sakurano Village. Aoki Shinya developed the charitable organization into Sakurano Hospital, and became its director in 1900.<sup>21</sup>

#### Kitsuregawa Hospital

The second hospital came in 1894, when some volunteers in Kitsuregawa Shuku (one of the stations of Ōshū Kaidō Road) established the Kitsuregawa Hospital. Initially it did not prove very successful, but after Saitō Kuniichirō was appointed as a director in 1899, the hospital reestablished itself as a modern Western-style hospital.

<sup>17.</sup> Shioya gunshi ishikai ed. (2016), pp. 57-62.

<sup>18.</sup> Shioya gunshi ishikai ed. (2016), pp. 71-76.

<sup>19.</sup> Shioya gunshi ishikai ed. (2016), pp. 125-132.

<sup>20.</sup> For example, see: Shinmura Taku, Kindai nihon no iryō to kanja (Medical Practice and Patients in Modern Japan) (Tokyo: Hōsei Daigaku Shuppankyoku, 2016), p. 206.

<sup>21.</sup> Shioya gunshi ishikai ed. (2016), pp. 169-170.

Kuniichirō's father, Jinjūrō (1837-?), was a domain doctor from Kitsuregawa, who studied Chinese medicine with Miyawaki Hirou's father, and had great success selling pharmaceuticals. Local residents urged Kuniichirō, who graduated from the Medical School of Tokyo University in 1883, to be the director of the hospital. Kuniichiro's father Jinjūrō provided the funds to build a modern hospital facility. They treated more than fifty patients a day, which was an unusually large number for a rural hospital at that time.<sup>22</sup> Kitsuregawa Hospital developed as a representative modern hospital in Shioya in the prewar era.

#### Igarashi Hospital

Finally there was Igarashi Hospital, established in 1899 by the financial support of volunteer residents of Ujiie Village. It was reorganized as Ujiie Kyōritsu [cooperative] Hospital by volunteers following the death of Dr. Igarashi Yoshisada in 1907<sup>23</sup>.

These three hospitals in Shioya District were, in a narrow sense, private hospitals, but each had a public character because all of them were established in order to meet the medical demands of the local community. In addition, these hospitals provided medical education for young doctors from the region before they opened their own clinics. Nakamura Issei's 'community hospital' model, which emphasizes the essential role of community hospitals in prewartime Japan, especially in rural areas where the management of a private hospital could hardly be successful,<sup>24</sup> is relevant to the cases in Shioya. These three hospitals were part of an apparatus which integrated the regional community.

# V. The Modernization of Diagnosis and Treatment by Kanpō Doctors and Western Doctors

If we look closer at Aoki Taijirō's patient records, we find one important change after the Meiji Restoration. That is the struggle to determine the 'name' of diseases. In Aoki's records from the Edo period, he sometimes described symptoms like 'diarrhea', 'fever', 'back pain', 'heart pain', and the 'inflammation of mouth', but he only rarely determined the proper names of diseases. He used clear identifiers like 'measles' and 'smallpox' only when the disease was clearly present, due to the prevalence of those diseases. However, after 1870, he gave the name of the diseases with red ink to about the half of the patients.

The reason he recorded the name of diseases after 1870 is unknown. However, this was probably associated with the administration of public health. In early 1875, the Tochigi Prefectural government ordered the doctors in Tochigi to report the number of patients and their diseases. This was because the national Medical Bureau requested that each prefecture submit data on residents' health when they issued their comprehensive regulations for medical practitioners in 1874. There are copies of these reports in the Aoki Family Papers, and the names of diseases he reported resembles the names written in the patient record with the red ink.<sup>25</sup> Aoki likely used his previous records to train himself in categorizing the diseases after 1875. Thus, a change in government policy led Aoki to make a change to his practices.

Another reason that Taijirō started to list the names of diseases was related to a new task for doctors: to report patients' birth and death. Taijirō received the template for death notifications in 1876, and his earliest surviving death report is dated from 1880.<sup>26</sup> The necessity of determining the cause of death and providing the proper name of the disease led Taijirō to record the names of diseases for other patients.

<sup>22.</sup> Shioya gunshi ishikai ed. (2016), pp. 171-175; 440-456.

<sup>23.</sup> Shioya gunshi ishikai ed. (2016), pp. 175-179.

<sup>24.</sup> Nakamura Issei, "Kindai nihon no nou-sanson ni okeru byōin iryō kyōkyū to chiiki shakai: meibouka kara sangyō kumiai e (Local Communities and the Funding of Medical Care in Early Twentieth Century Rural Japan: The Shift from Local Notables to Agricultural Cooperatives)", *Rekishi to Keizai*, 2017, vol. 234.

<sup>25.</sup> Hirokawa (2018), p. 129-131.

<sup>26.</sup> Ibid.

The most frequent names of diseases written in Taijirō's death reports were 'congestion of the brain' and ' $ky\bar{u}kan$ '. 'Congestion of the brain' is a concept from Western medicine. Where did he learn this concept? He left fragmented notes which indicate that he attended seminars held by doctors' association in Shioya established in 1883 in order to acquire Western medical knowledge.<sup>27</sup> This partly explains why Taijirō began using terms like 'congestion of the brain' or 'pneumonia', which didn't exist in the *kanpō* conception of medicine. However, he diagnosed all of children or infant deaths simply with ' $ky\bar{u}kan$ ', which only meant convulsions of children or infants in the *kanpō* conception.

In contrast, Saitō Kuniichirō, one of his colleagues in Kitsuregawa who studied Western medicine at Tokyo University, used more specific and varied names of the diseases like 'meningitis' or 'hydrocephaly' in his death reports.<sup>28</sup> For Aoki, however, it did not make sense, or was simply impossible, to strictly categorize death by convulsions in children.

These are a few examples which show how in the transitional period in Japan, different kinds of doctors and different levels of medical training coexisted even in one small locality, and that the medical policy and statistics of the government depended on medical practices based on varying concepts.

### Conclusion

Statistically, the number of doctors per capita was declining throughout Tochigi Prefecture at the turn of the twentieth century. Tochigi was among those prefectures that suffered from a shortage of medical resources, especially after the 1930s.<sup>29</sup> Although community medicine in rural Japan tends to be regarded as totally insufficient throughout the premodern and modern periods, in Shioya, at least during the nineteenth century, its medical environment was not poor. This was because not only Western doctors but also both ex-domain doctors and the traditional *kanpō* doctors whose family had practiced medicine since the eighteenth century maintained active practices and adapted to new Western medical knowledge.

As Ikai Shūhei pointed out, however, after the 1920s the number of doctors began decreasing in some regions if the medical environment, which was established by an older generation of doctors, could not be replaced by newly educated doctors from those areas.<sup>30</sup> In Shioya, people handed down the legacy of medical resources from the Edo period and continuously tried to maintain a medical environment through the nineteenth and early twentieth centuries.

The *kanpō* doctor Aoki Taijirō lived as one of the 'previously practicing doctors' based on the *kanpō* methods until he died in 1911. The Meiji government's strategy was to wait for this older generation of doctors to die out and be replaced by a new generation trained in Western medicine. In other words, the government never established a system to teach Western medicine to older doctors. However, these older doctors were not simply allowed to continue their practices unchanged but were required to reform themselves to deal with the new medical system and epidemic crises in each reginal community. This preliminary case study has shed light on both the continuity and discontinuity of community medicine in rural Japan in the process of Japan's modernization.

<sup>27.</sup> Shioya gunshi ishikai ed. (2016), pp. 380; Hirokawa (2018), p. 131.

<sup>28.</sup> Shioya gunshi ishikai ed. (2016), pp. 378-379; Hirokawa (2018), p. 131.

<sup>29.</sup> Takaoka (2009), p. 37, Table 1 and 2.

<sup>30.</sup> Ikai Shūhei, Byōin no seiki no riron (The Theory of the Hospital Century) (Tokyo: Yūhikaku, 2010), p. 152.