

【 Research Note 】

The Language Barrier in Healthcare Settings in Regional Japan:  
Assessing the Need for Trained Medical Interpreters

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**Abstract.** To determine the need for trained medical interpreters in regional Japan, this study explored the experience of staff and patients with the language barrier at a medical institution in Aomori Prefecture. Hospitalization and language-related items contained in anonymous tabular data regarding foreign patients at Hospital A, a large general hospital, during a 5-year period were examined. Information concerning currently available volunteer interpreters in Aomori Prefecture was also reviewed. During a 5-year period, 54 foreigners were admitted to the general hospital. In 18 of the 54 hospitalization cases, Japanese was not used by the patient. A total of 17 cases involved the use of an interpreter with the most common language used for interpretation being English, despite 80% of Aomori's foreign population being Asian. While the majority of registered volunteer interpreters (54 of 86) at the Aomori International Exchange Association were English-Japanese interpreters, they lacked the necessary skills for medical interpreting. A correlation was found between the higher ratio of women spouses of Japanese nationals in Aomori Prefecture and the type and length of hospital stays. The highest number of hospitalizations was in the obstetrics department and the longest hospital stays were in the neonatal intensive care unit and in the gynecology and obstetrics departments. Results uncovered the routine use of ad hoc or volunteer interpreters who are untrained in medical interpretation and evidence of a breakdown in communication due to unskilled interpreters was established. Despite the fewer number of registered foreign residents in Aomori Prefecture compared with metropolitan areas, this study confirmed a definite need for trained medical interpreters in regional healthcare settings. In Aomori, there is a specific need for interpreters in the area of women's health.

## INTRODUCTION

The number of registered foreign nationals residing in Japan has nearly doubled in the past 20 years, and reached 2.07 million as of 2011 (International Organization for

Migration, 2014, August). While that number, as well as the number of international students and overseas tourists, markedly dropped soon after the 2011 Great East Japan Earthquake, over the last few years, the upward trend in the number of registered foreign nationals has continued. Although Japanese corporations and the tourism industry are responding to changes associated with globalization, no adequate measures have been taken to address issues associated with foreign patients in the healthcare setting in Japan. The implementation of a healthcare interpreter system for foreign patients lags behind other developed nations.

Communication of accurate and timely information within the healthcare delivery system is crucial to effective health care (Roter, 1983). Furthermore, quality communication between physicians and patients has been linked to patient satisfaction, compliance with treatment regimens, and enhanced recuperative abilities (Query, Wright, Bylund, & Mattson, 2007). Previous studies have shown the benefit of medical interpreter services in bridging the health communication gap between patients and providers (Michalec, Maiden, Ortiz, Bell, & Ehrenthal, 2014) thereby ensuring equal access to medical treatment for foreign patients. The primary role of a medical interpreter is to support and reinforce the relationship between patient and provider by facilitating communication (Lee, 2008). The interpreter plays the role of both message clarifier and cultural clarifier so that the patient is able to make decisions about their health on their own (Lee, 2008). As a message clarifier, it is simply not enough to be fluent in two languages and to interpret from left to right, word for word. The International Medical Interpreters Association (1995) believes that there is a “misconception that anyone with any level of bilingualism is capable of providing effective interpretation. Thus, we see the continued use of children, family members, and auxiliary staff (e.g., clerical, custodial, housekeeping) as interpreters” (p.10). In fact, accurate and culturally appropriate interpretation is much more complicated and requires knowledge and competency in a range of skills in order to achieve effective communication. The essential skill of interpreting requires medical knowledge and familiarity of medical terms to ensure accuracy and completeness of the interpretation. However, The International Medical Interpreters Association (1995) sets out other complimentary skills that are also necessary for interpreter-mediated communication. These skills include: setting the stage; managing the flow of conversation; managing the triadic relationship and assisting in closure activities, such as encouraging the healthcare provider to give follow-up instructions to the patient. As a cultural clarifier, the association states that an interpreter must understand the ways in which culturally based beliefs affect the presentation, course, and outcomes of illnesses as well as perceptions of wellness and treatment. The final component required by interpreters is the knowledge and skills to behave in an ethical manner during the medical encounter. The International Medical Interpreters Association’s (1995) standards of practice asserts that both the provider and patient must be able to trust that the interpreter will not abuse the tremendous amount of power they hold in the relationship, and they must also trust that the interpreter will transmit the information faithfully and unbiased of their individual beliefs and feelings. Thus, the complex role of a medical interpreter can be seen in the knowledge and skills required to

interpret effectively in a healthcare setting.

Nationally, there are non-profit and private organizations that, in cooperation with city and prefectural governments, dispatch medical interpreters to medical institutes. Furthermore, some clinics and hospitals, especially those found in areas with a large manufacturing industry accommodating a high number of foreign workers, such as Yamada Obstetrics & Gynecology Clinic in Nishio, Aichi Prefecture, station medical interpreters at the clinic to provide interpretation. However, currently, there is no system of accreditation or certification, so private organizations train medical interpreters independently. The Japan Times (Suzuki, 2014, November 14) reported that, in 2015 The International Medical Interpreters Association Japan would launch a certification program for medical interpreters similar to those offered in the United States and Canada. The certification of interpreters represents the beginning of an effective system to train interpreters in the knowledge and skills required to create a medical environment in which foreign patients can gain equal access to treatment with ease and without apprehension.

The reality now, however, is that across Japan, particularly in regional areas, foreigners who are not proficient in Japanese often enlist the help of ad hoc interpreters<sup>1)</sup>, also known as lay interpreters. Professionally trained interpreters have knowledge of medical terms and the medical system, and are thought to be more certain to interpret what both patient and physician say more accurately (Rosenberg, Leanza, & Seller, 2007; Ishizaki, Borgman, & Nishino, 2004). On the other hand, studies into the use of informal interpreters advise against using ad hoc or untrained interpreters (Ballard-Reisch, 1990; Elderkin-Thompson, Silver, & Waitzkin, 2001; Nishimura, 2009; Mizuno, 2008). Monroe and Shirazian (2004) state:

communication through untrained interpreters is more likely to include mistranslations or omissions of physicians' questions, truncated or slanted patient responses, interpretive errors, and inadequate information about diagnosis or treatment. Using such alternatives can result in grave consequences for the patient, including misdiagnosis and even death. Trained bilingual (staff, contract, or volunteer) interpreters have been identified as the preferred interpretive solution. (p. 118)

Lindholm, Hargraves, Fergurson, and Reed (2012) claim that ad hoc interpreters can misinterpret or omit up to half of the physician's questions. They also include a higher risk of not mentioning medication side effects, and ignoring embarrassing issues (especially when children are used to interpret) as other problems associated with untrained interpreters.

Progress in terms of training, certification and management of medical interpreters is being made in larger metropolitan areas in Japan. However, similar headway cannot be seen in regional Japan where fewer foreigners reside. No studies have investigated the present use of or need for medical interpreters in non-Metropolitan areas that do not have a large foreign population. To gain insight into the current situation in regional healthcare settings, this study explored the language experiences of foreign patients in Aomori Prefecture. Over the past 5

years, 54 people were admitted to the prefecture's general hospital alone, yet, currently, the prefecture provides no language assistance to patients in need. In order to afford guidance for a better and smoother healthcare system for foreigners living in regional areas, this study identified the languages used by foreign inpatients and the level of linguistic assistance they received during medical consultation or treatment. Knowledge of which language-specific interpreters are in greatest demand and identifying the level of demand could help to establish a clear need for trained professional medical interpreters in regional healthcare settings in Japan.

## METHODS

The number of foreign patients hospitalized at Hospital A, a large general hospital, during a 5-year period was examined (September 6, 2006, to September 30, 2011), together with the languages used and the presence of interpretation assistance. The study period was from October 2011 to November 2011. Hospitalization and language-related items contained in anonymous tabular data regarding foreign patients at Hospital A were screened, and relevant information was subsequently summarized into appropriate tables. The source was official data from the Information Division, Health Information Management Department at Hospital A, from which permission to use these data were obtained. Ethical aspects were taken into consideration; the tabular data did not contain patient names, and individual items were indicated by numbers to protect patient identity. All tabular data were used for research purposes only and kept confidential. The cumulative number of outpatients was considerably higher than that of inpatients (the former was 1.42-fold higher than the latter in 2010), so due to time and resource constraints within the hospital itself, only inpatient data was provided for the study. Additionally, information from the Aomori International Exchange Association, a prefectural organization, was used to ascertain the number of registered language volunteers and interpreters in Aomori currently available to provide interpretation assistance.

## RESULTS

### *Trends in registered foreign residents in Aomori Prefecture*

Aomori Prefecture, in northern Japan, is home to 3,987 foreign residents (Immigration Bureau of Japan, The Ministry of Justice, 2012). A breakdown of registered foreign residents in Aomori Prefecture found the highest number of registered foreign nationals was in Aomori City (1,200) followed by Hachinohe City (819) and Hirosaki City (619)<sup>2</sup>. In Aomori Prefecture, 80% of registered foreign nationals are Asian. Chinese nationals are the largest group (1,403), followed by South and North Korean (1,010), Philippine (568), American (327), and Indonesian (98) nationals. Of the 3,987 foreign nationals registered, 964 were permanent residents, 778 were special permanent residents, and 461 were spouses of Japanese nationals. Table 1<sup>3</sup> identifies the top two statuses of residence in Aomori Prefecture as permanent residents and special permanent residents, and these are identical to those in Japan overall. However, the third-most common status in Aomori is spouse of a Japanese

Table 1: Number of Registered Foreign Nationals in Aomori Prefecture,  
by Status of Residence (Purpose of Stay)

Purpose of stay	Number of registered individuals	Purpose of stay	Number of registered individuals
Permanent resident	964	Spouse of permanent resident, etc.	21
Special permanent resident	778	Religious activities	20
Spouse of Japanese national, etc.	461	Cultural activities	16
Technical intern training (II) (a) and (b)	447	Investor/Business manager	10
Student	397	Intra-company transferee	9
Technical intern training (I) (a) and (b)	240	Trainee	8
Education/instructor	125	Engineer	6
Dependent	114	Researcher	5
Long term residence	101	Medical services	4
Specialist in Humanities /International services	75	Without a status of residence	3
Entertainer	60	Journalist	0
Skilled labour	39	Artist	0
Designated activities	38	Legal/accounting services	0
Temporary visitor	22	Temporary refuge	0
Professor	21	Others	3
		Total	3,987

Source: Immigration Bureau of Japan, The Ministry of Justice (2012); Table 4 of the statistics on registered foreign nationals in Japan. Data as of January 2011 (number of foreign nationals).

Note: Students include both college and pre-college students.

Status of residence is in accordance with the classification set forth by the Immigration Bureau of Japan, The Ministry of Justice. The figures for “Technical intern training I” and “Technical intern training II” are the sum of the (a) and (b) subclasses.

national, whereas nationwide it is students.

### ***Foreign Inpatients***

Table 2 shows that the number of foreign inpatients during the 5-year study period was 54 (1 in 2006, 14 in 2007, 11 in 2008, 11 in 2009, 10 in 2010, and 7 in 2011; as of September 30, 2011). The mean number of foreign inpatients was 10. The number of hospitalizations was highest in the obstetrics department (11 cases), followed by the surgery department (10 cases) and internal medicine department (7 cases). The longest hospital stay was 114 days and the shortest was 1 day: the mean hospital stay was 15 days (Table 2). Hospital stays in the neonatal intensive care unit (NICU) were the longest (mean, 36.8 days), followed by those in the gynecology department (mean, 25.6 days) and the obstetrics department (mean, 24.1 days).

### ***Languages Used by Foreign Inpatients and Interpretation Assistance***

Of the 54 hospitalization cases during the 5-year period, Japanese was used in 34 cases, a different language was used in 18 cases, and in 2 cases the language was not recorded (Table 3). Table 4 shows that an interpreter was used in 17 of the latter two categories (20

Table 2: Number of Foreign Inpatients  
from September 6, 2006, to September 30, 2011

Department	Number of inpatient cases	Longest hospital stay (days)	Shortest hospital stay (days)	Cumulative days of hospital stay (days)	Average hospital stay/case (days)
Neonatal intensive care unit	4	114	8	147	36.8
Gynecology	2	26	25	51	25.6
Obstetrics	11	90	2	265	24.1
Internal medicine	7	92	1	121	17.2
General	1	12	12	12	12.0
Cardiovascular	3	18	2	31	10.3
Pediatrics	5	16	1	46	9.2
Ophthalmology	1	8	8	8	8.0
Surgery	10	21	1	72	7.2
Urology	3	12	1	20	6.6
Otorhinolaryngology (cephalocervical surgery)	6	8	4	38	6.3
Respiratory	1	1	1	1	1.0
Total	54	114	1	812	15.0

(Prepared by the author based on the data managed by the Information Division, Health Information Management Department, Hospital A)

cases), and the presence of an interpreter was not specified in the remaining 3 cases.

Written comments by nursing staff relating specifically to the patient's ability to communicate in Japanese were extracted from the tabular data and are summarized in Table 4.

Table 5 shows the languages used for interpretation. English was the most common (9 cases).

#### ***Language Volunteers and Interpreters in Aomori Prefecture***

The number of registered language volunteers and interpreters and their present use in Aomori Prefecture was examined to determine whether interpretation assistance is available in the healthcare setting. Although interpreters in Aomori Prefecture comprise of independent volunteers and those registered with local municipalities, this study focused on interpreters registered with a prefectural organization, specifically the Aomori International Exchange Association. This association recruits volunteers aged 20 years and over with conversational or higher proficiency in multiple languages for the following four categories: (A) interpreters (for meetings, events, etc.); (B) guides (for sightseeing, company visits, etc.); (C) translators (for documents, correspondence, etc.); and (D) language instructors. The number of language volunteers and interpreters registered with the Aomori International Exchange Association (as of July 2011)<sup>4</sup> is shown in Table 6.

Within the Aomori International Exchange Association, interpreters have higher

Table 3: Languages Used by Foreign Patients

Language used	Number of cases
Japanese	34
Korean	3
Chinese	3
English	11
Cambodian	1
Unspecified	2
Total	54

Data include interpreter-mediated cases (Prepared by the author based on the data managed by the Information Division, Health Information Management Department, Hospital A)

Table 4: Ability of foreign patients to communicate in Japanese

Ability to communicate in Japanese	Number of cases
Able to speak Japanese well	34
Able to speak Japanese, but not very well	4
Unable to speak Japanese	13
Unspecified	3
Total	54

(Prepared by the author based on the data managed by the Information Division, Health Information Management Department, Hospital A)

Table 5: Languages Used in Interpretation

Language	Number of cases
English	9
Korean	3
Chinese	2
Khmer	1
Urdu	1
Others (unspecified)	1
Total	17

(Prepared by the author based on the data managed by the Information Division, Health Information Management Department, Hospital A)

language proficiency than language volunteers; thus, were more likely to take on interpreting in a medical setting. Both language volunteers and interpreters work on a volunteer basis. The majority of registered interpreters (54 of 86) were English-Japanese interpreters, while the number of interpreters for Asian languages was markedly smaller: only 11 and 9 were Chinese-Japanese and Korean-Japanese interpreters, respectively.

In summary, results found that the number one status for foreign residents in Aomori Prefecture was permanent resident (964) and Chinese nationals account for the largest group.

Table 6: Number of Language Volunteers and Interpreters Registered with the Aomori International Exchange Association

Language	Number of registered language volunteers	Number of registered interpreters
English	82	54
Chinese	16	11
Korean	13	9
French	6	3
Russian	7	5
Spanish	3	1
Indonesian	3	1
Vietnamese	1	1
Japanese	16	1
Total	147	86

Number of language volunteers and interpreters registered with the Aomori International Exchange Association (Source: Aomori International Exchange Association, 2011)

During a 5-year period, 54 foreigners were admitted to the general hospital with the highest number of hospitalizations in the obstetrics department (11 cases). A language other than Japanese was used by the patient in 18 of the 54 hospitalization cases. A total of 17 cases involved the use of an interpreter with the most common language used for interpretation being English. The majority of registered interpreters (54 of 86) at the Aomori International Exchange Association were English-Japanese interpreters.

## DISCUSSION

Foreigners in Japan should be assured of equal access to good medical care; however, a language barrier between patient and medical staff can adversely affect this, so without professional medical interpretation, misdiagnosis and medical errors can occur. In many larger cities throughout Japan, foreign residents have a better prospect of accessing professional medical interpreter services than foreigners living in regional areas whom are ordinarily left to fend for themselves due to little awareness and limited availability of trained healthcare interpreters. To establish the level of need for interpretation assistance in regional healthcare settings, this study investigated the current use of medical interpreters and languages spoken by foreign inpatients in Aomori Prefecture by examining tabulated patient data from the general hospital.

This study found that the foreign population in Aomori prefecture is predominately Asian (80%) (Immigration Bureau of Japan, The Ministry of Justice, 2012). Yet, despite Chinese (1,403), South and North Korean (1,010) and Philippine (568) citizens being the top three foreign nationals registered in Aomori, the language most commonly used in interpretation was English (9 out of 17 cases). One might expect that interpreters of Chinese would be in higher demand. There are two possible reasons for this. Firstly, the available data did not specify nationality, only language used, so it was not possible to determine the percentage of patients for each nationality; however, a large proportion of registered Chinese



nationals in Aomori Prefecture were found to be mostly students in their teens and twenties<sup>5)</sup> who are unlikely to have serious underlying health problems requiring treatment at a general hospital or to have started a family. Secondly, a high percentage of registered volunteer interpreters (Table 6) were English-Japanese interpreters, suggesting that access to English-Japanese interpretation was easier.

A further characteristic of the foreign population in Aomori Prefecture is the high number of foreign residents who are spouses of Japanese nationals (Table 1). It is the third top status, after permanent resident and special permanent resident, whereas nationally, the third top status is student. It is generally thought that many foreign wives tend to be located in the Tohoku region because there is a shortage of Japanese women in agricultural areas (Nishimura, 2009). Data confirms this to be true for Aomori Prefecture. This aspect is significant in relation to hospital stays (Table 2). The highest number of hospitalizations was found in the obstetrics department (11). Additionally, the longest hospital (mean, 36.8 days) and second longest (mean, 25.6 days) hospital stays were in the NICU and gynecology departments, respectively. There appears to be an association between the higher number of female spouses of Japanese nationals and the type of hospital stay. Complications during pregnancy and childbirth inherently require longer stays and on-going treatment, thus requiring more contact between the patient and medical staff. Over 60% of patients admitted to the above three departments used a language other than Japanese, most commonly English, to communicate with staff. Several cases in the NICU were patients transferred from the Misawa Air Base. Each time, a volunteer from the base assisted with communications; however, notes on these cases indicated that the volunteers were not trained in medical interpretation. Ito, Iida, Minamitani, and Nakamura (2012) explain that when family, friends or co-workers are used to interpret in medical cases involving serious illness, such as those often associated with the aforementioned departments, it places great mental burden on them and also creates problems with privacy issues and attaining informed consent from the patient. This data identified a higher ratio of foreign female spouses in Aomori along with long hospital stays in departments specific to women's health issues. Furthermore, there is evidence showing that more than half of these patients used an ad hoc interpreter. This information establishes a clear need for trained interpreters who can maintain effective communication while safeguarding confidentiality.

In relation to interpreter use and languages used by foreign patients, results revealed widespread use of lay interpreters and a disproportionate number of available interpreters to foreign nationals, suggesting some patients do not use their native tongue when communicating with medical staff. Of the 54 cases of hospitalization, 18 (Table 3) are known to have used a language other than Japanese to communicate. Of the 18 patients, notes on 17 stated that the patient had limited Japanese ability and used either an ad hoc or volunteer interpreter, demonstrating that interpretation in the healthcare setting in Aomori relies heavily on interpreters who have not been trained in the field. Data retrieved from the hospital confirmed the widespread use of non-professional, self-appointed interpreters; however, the available data did not specify the relationship between the patient and the interpreter,

whether it was a family member, friend or other. As previously mentioned, the use of untrained interpreters can result in harmful mistakes, such as omitted information and mistranslations, which can have disastrous effects on the patient's health and well-being. Often, mistakes are lingual in origin, but lay interpreters also struggle emotionally to interpret in healthcare care settings due to the sensitive and sometimes sad information they must interpret. Nagata, Hamai, and Kanda (2010) provide examples of cases in which untrained interpreters struggle to relay vital information to patients due to the mental burden placed on them. In one case involving a 26-week pregnant woman, the doctor explained that without immediate surgery she would die. The interpreter recalls experiencing great difficulty in being able to communicate such an urgent and serious condition. In another case, the lay interpreter was required to inform the patient that they had cancer but the interpreter states that they really struggled to relay such devastating news to the patient. The issue of mental burden on the interpreter is one of many that they face in the course of medical interpretation; however, this factor is often overlooked when medical staff and patients themselves agree to use an untrained interpreter. Medical institutes need to be more aware of the basic communication problems that can arise when enlisting a non-trained person.

In order to fully assess the need for trained medical interpreters in Aomori Prefecture, the current availability of interpreters was examined. In particular, individuals registered at the Aomori International Exchange Association were reviewed. The association classifies recruits into 2 categories: language volunteers and interpreters, both of which are volunteers. Interpreters were said to have higher-level linguistic skills so this study focused specifically on them. The investigation found that the majority (54 of 86) were English-Japanese interpreters, while the number of interpreters for Asian languages was surprisingly smaller: only 11 and 9 were Chinese-Japanese and Korean-Japanese interpreters, respectively (Table 6). The number of volunteer interpreters and the languages covered are insufficient when considering the number and diversity of registered foreign nationals in Aomori Prefecture (3,987 foreign nationals). In particular, the ratio of interpreters to foreign nationals is low: 11 Chinese-Japanese interpreters to 1,834 registered Chinese nationals, and 9 Korean-Japanese interpreters to 1,144 registered Korean-speaking foreign nationals. It is possible that patients whose first language is not English and also have limited Japanese language skills are forced to communicate in English due to the unavailability of an interpreter in their mother-tongue; however, more detailed data is needed to confirm this. The use of a second language, that is, Japanese to English for a Chinese patient, in itself is a recipe for linguistic disaster. However, another factor is also responsible for miscommunication in medical settings. Cultural knowledge plays an important role in an interpreter's ability to convey information appropriately and accurately. Without specific knowledge of the patient's cultural background as well as Japanese culture, the interpreter may be unable to explain necessary information, or the explanation may be delivered in such a way that causes offence to the patient. Suwa (2006) provides several examples of how a difference in culture can cause problems for a patient. In one case a patient from France returned a prescription for medication and refused

to purchase it because medication is free in France. Similarly, patients from Australia and Brunei, where medical treatment is free, were shocked by how expensive consultation and vaccination fees were. Another commonly seen problem resulting from medical cultural differences is the amount of medication prescribed. For example, in Japan, 3-4 days of medicine is given for a middle-ear infection, whereas, in France, patients receive enough for 8 days, and in the US, patients are given medicine to last 7-10 days. Without knowledge and understanding of these differences, a medical interpreter will not be able to sufficiently explain so that the foreign patient complies with the medical staffs' advice. Data from this study suggests that there are not enough interpreters of Asian languages who could act as a cultural clarifier. In addition, according to the Aomori International Exchange Association's president<sup>6)</sup>, registered volunteers have no specific training preparing them for medical interpreting. Thus, a lack of cultural knowledge serves to exacerbate communication problems experienced by untrained interpreters. As mentioned above, the relationship between the patient and interpreter was not stated in the data provided, so use of volunteer interpreters from the association could not be confirmed. Furthermore, since there is no routine training system for interpreters in the healthcare setting in Aomori Prefecture, nor is there any registration of medical interpreters, it is difficult to estimate how many interpreters are immediate assets<sup>7)</sup>. However, insight into the availability of volunteer interpreters is important in assessing foreigners' potential access to interpreting services available in the prefecture.

It appears that, in Aomori Prefecture, patients find whomever they can to serve as an interpreter when visiting medical institutes. Flores' (2005) review of the impact of medical interpreter services found that patients' quality of care is inferior and more interpreter errors occur with untrained ad hoc interpreters. Indeed, in a note recorded about a patient with limited communication skills in Japanese, one comment specifically stated the failed interpretation of healthcare terms by the accompanying interpreter. Given the specialized language used when conducting medical examinations, obtaining informed consent, and providing information about hospitalization and discharge, it is highly likely that untrained interpreters will fail to interpret skillfully, despite their best intentions.

A broader look at the use of healthcare services by foreigners in a regional area clearly shows the need for a system in which trained interpreters can be dispatched easily to any healthcare setting at any time. For example, a 2013 study (Kawauchi & Ogasawara, 2013) involving 206 people which examined foreign patients who visited a hospital without interpretation assistance found that only 30.6% of patients continued to ask healthcare professionals questions until they gained full understanding, while 26.9% did not ask all of the questions they wanted, 20.2% asked other people questions after the consultation, 11.4% studied and solved unanswered questions by themselves, and 6.7% left with their questions unanswered. Thus, more than 60% of foreign patients left hospitals without having acquired a full understanding of the explanations provided by the healthcare professionals. This same study found that 32.5% of respondents to a questionnaire indicated that, if a medical interpreter were available, they would utilize their service, and a further 51% indicated their

desire to make use of an interpreter depending on conditions<sup>8</sup>). That given, general access to trained medical interpreters would alleviate the language barriers that currently exist.

Foreign patients have the same needs and the same worries as Japanese patients undertaking medical treatment. In fact, foreigners not proficient in Japanese will inevitably feel extremely anxious about communicating with medical staff and being able to understand their own medical condition. Other developed nations, such as Australia (Australian Government Department of Social Services, 2015, February 16) and New Zealand (Auckland District Health Board, 2014, September 29) offer non-native patients access to trained medical interpreters free of charge, and some states in the United States, such as Massachusetts and California mandate the provision of language assistance services (Chen, Youdelman, & Brooks, 2007). It might be argued that the number and diversity of non-native speakers in these countries are far more than Japan; however, long-term foreign residents in Japan pay for medical insurance and are covered by the national health policy so are therefore entitled to equal access to proper medical care.

In further relation to the number of foreign patients, this study was limited to the number of inpatients in a 5-year period at one hospital in the prefecture. Foreign outpatients at the same hospital, and both inpatients and outpatients at all other hospitals and clinics were not investigated. Additionally, if the 5,200 U.S. military personnel assigned to Misawa air force base, their families, and the 300 U.S. civilian employees<sup>9</sup> (The Official Web Site of Misawa Air base, 2015), along with the large number of tourists who visit Aomori each year on cruise ships, are factored in, Aomori's medical institutes may possibly be treating far more foreign patients than one might presume. For foreign patients not covered under medical insurance, access to trained medical interpreters for a fee is still essential to assuring good quality of care. The prefecture, as well as all other non-metropolitan areas in Japan, needs to include trained medical interpreters in their comprehensive medical support plan for all foreigners. Furthermore, the presence of an interpreter capable of and confident in communicating with the patient and medical staff would relieve the burden often placed on staff to communicate in a language they are not proficient in.

The establishment of a system that enables hospitals to accommodate foreign patients by dispatching medical interpreters is necessary in regional healthcare settings. As seen with the introduction of the national certification system for sign language interpreters after many years<sup>10</sup>, training to produce certified healthcare interpreter is vital to ensure the provision of accurate information to foreign patients. Although some municipalities and nonprofit organizations in Japan have set up independent training programs and plans are underway for a certification course to begin, it will take some time to see the spread of such training programs nationwide. Presently, Aomori Prefecture has no plans to establish a system to provide professionally trained medical interpreters. However, Aomori currently has volunteer interpreters eager to help<sup>11</sup>; yet, they lack the necessary language and communication skills required to provide accurate interpretations. With no locally organized medical interpreter training courses, and with little foreseeable prospect of the upcoming certification program

being offered in the area, volunteers have few opportunities to develop their techniques. As an interim solution, training for current volunteer interpreters to improve their language and communication skills could be organized by interested parties, such as NPOs, universities and the prefectural International Affairs Association. Research into the viability and effectiveness of such training workshops is needed. Ultimately, to improve the current situation, wherein medical interpreting relies on ad hoc interpreters and untrained volunteers, professional training of effective healthcare interpreters in all areas of Japan, regardless of foreign population figures, is urgently needed.

## **LIMITATIONS**

One limitation of this study was its focus on foreign patient data from only one hospital in the prefecture. Furthermore, outpatient data were excluded due to time and resource constraints, thus the study was limited to 54 foreign patients over a 5-year period. Both of these aspects may have contributed to an over or underestimation of the types of languages used by patients. Additionally, the available data did not contain information pertaining to patients' nationalities. Broader studies combining data, which include nationalities, from several hospitals around the prefecture are needed to confirm the findings from this study, which concluded that English was the most commonly used language for interpretation despite 80% of the prefecture's registered foreigners being Asian. This study cannot conclude with any certainty as to why English was more prevalently used. Without a connection between nationality and languages used, it is difficult to determine for sure which language-specific interpreters are most needed.

Another limitation is the unknown relationship of the ad hoc interpreter. Establishing whether the lay interpreter is a volunteer interpreter or a family member, friend, colleague or other, could shed light on the use of current volunteer interpreters in medical settings. Future studies should include this factor so as to establish the present trend for types of interpreters enlisted by foreign patients and the reasons why. Understanding this would further assist in determining the extent to which trained medical interpreters are required in the prefecture.

## **CONCLUSION**

Although this study was relatively small in scale, it uncovered the routine use of untrained interpreters in one regional healthcare setting in Japan. In spite of the number of registered foreign nationals in any given area, appropriate access to important information about healthcare and personal medical problems should be available to everyone. With no known trained medical interpreters available and a disproportionate number of English-Japanese volunteer interpreters in Aomori prefecture, patients are turning to untrained lay interpreters for help with the language barrier, and research suggests that this may be negatively affecting their quality of care and outcomes due to miscommunication. Previously, very little research into communication problems faced by foreign patients at medical institutes in regional areas has been done. The issues highlighted in this study are likely to be

common problems in cities with a relatively small proportion of foreign residents, and this should be taken into account in future research aimed at identifying the type and level of language support required by foreign patients in non-metropolitan areas.

## NOTES

- 1) Ad hoc interpreters are untrained interpreters (e.g., family members, friends, and colleagues who accompany foreign patients to hospital) who are called upon to interpret because of their bilingual abilities. Several problems are associated with the use of ad hoc interpreters: confidentiality is not maintained; the accuracy of interpretation is not guaranteed; personal prejudice and interests can affect interpretation; neutrality is not maintained; awareness and explanation of cultural differences and sense of values are insufficient; and the role of interpreters is not correctly understood (Mizuno, 2008, p. 37).
- 2) Based on “The Number of registered foreign nationals in Aomori Prefecture (the end of December, 2011)” released by the Immigration Bureau of Japan, The Ministry of Justice (2012).
- 3) Data corresponding to Aomori Prefecture were extracted from Table 4 (Registered foreign nationals in Japan by status of residence (purpose of stay) in each administrative division of Japan) in the statistics on registered foreign nationals in Japan provided by the Immigration Bureau of Japan, The Ministry of Justice (2012).
- 4) The number of language volunteers registered with the Aomori International Exchange Association as of July 8, 2011. Source: Aomori International Exchange Association (2011) volunteer database.
- 5) A 2013 study (Kawauchi & Ogasawara, 2013) found a high proportion of Chinese residents to be young students.
- 6) Stated by the association’s president during discussions about registered volunteer interpreters.
- 7) Interpreters who are capable of providing accurate and culturally appropriate interpretation in a healthcare setting.
- 8) Conditions included costs, the time it would take and the administration process.
- 9) Misawa Air Base has its own extensive medical facilities; however, in some emergency cases, patients are transferred to the general hospital for specialist care. The authors know of several cases in which infants were admitted to the hospital’s NICU for extended periods of time.
- 10) After initiating a sign language volunteer training program by the then Ministry of Health and Welfare in 1970, sign language courses were held in various places and dispatch of sign language interpreters was started. The need to review the sign language undertakings, which relied on volunteers, became apparent, and the Japanese Federation of the Deaf (2011) set up a committee to investigate implementation of a sign language interpreter system, commissioned by the then Ministry of Health and Welfare. After a three-year study, a campaign to implement a sign language interpreter system was initiated nationwide in 1986. Then, after establishing certification exams for sign language interpreters (Sign Language Interpreter Competency Test) in 1989, the national certification system for sign language interpreters was established.
- 11) A medical interpreter workshop was held in Aomori in 2013. Reasons for attending the workshop included: interested in medical interpretation, felt medical interpreters are necessary, wanted to increase own knowledge and skills in the field, wanted more information about medical interpreters, and wanted to make use of the information/skills in the future.

## REFERENCES

- Aomori International Exchange Association (2011). *The Volunteer Database*. Retrieved May 1, 2011 from <http://www.kokusai-koryu.jp/about/volunteer/list.html>.
- Auckland District Health Board (2014, September 29). *Interpreting Service*. Retrieved March 5, 2015, from <http://www.adhb.govt.nz/Sites-Services/interpreting.htm>
- Australian Government Department of Social Services (2015, February 16). *Free Translating Service*. Retrieved March 7, 2015, from <https://www.dss.gov.au/our-responsibilities/settlement-and-multicultural-affairs/programs-policy/settle-in-australia/help-with-english/free-translating-service>
- Ballard-Reisch, D. (1990). A model of participative decision making for physician–patient interaction. *Health Communication, 2*, 91-104.
- Chen, A. H., Youdelman, M. K., & Brooks, J. (2007). The legal framework for language access

- in healthcare settings: Title VI and beyond. *Journal of General Internal Medicine*, 22(2), 362–367. doi:10.1007/s11606-007-0366-2
- Elderkin-Thompson, V., Silver, R. C., & Waitzkin, H. (2001). When nurses double as interpreters: a study of Spanish-speaking patients in a US primary care setting. *Social Science & Medicine*, 52, 1343-1358.
- Flores, G. (2005). The impact of medical interpreter services on quality of health care: A systematic review. *Medical Care Research and Review*, 62(3), 255-299.
- Immigration Bureau of Japan, The Ministry of Justice (2012). *The Number of Registered Foreign Nationals as of June, 2011*. Retrieved July 12, 2012, from [http://www.moj.go.jp/nyuukokukanri/kouhou/nyuukokukanri04\\_00011.html](http://www.moj.go.jp/nyuukokukanri/kouhou/nyuukokukanri04_00011.html)
- International Medical Interpreters Association (1995). *Medical Interpreting Standards of Practice*. Retrieved from <http://www.imiaweb.org/uploads/pages/102.pdf>
- International Organization for Migration (2014, August). *Japan*. Retrieved March 3, 2015 from <https://www.iom.int/cms/japan>
- Ishizaki, M., Borgman, P., & Nishino, K. (2004). Medical interpreting and LEP patients in the USA. *Interpretation Studies*, 4, 121-138.
- Ito, M., Iida, N., Minamitani, K., & Nakamura, Y. (2012). Present situation and challenges of medical interpreters in Japan: Results of a questionnaire survey. *Journal of International Health*, 27(4), 387-394.
- Kawauchi, K., & Ogasawara, M. (2013). Communication issues in medical settings for foreigners residing in Z prefecture: Examining ways to improve the current state of medical interpreter services. *Kyushu Communication Studies*, 11, 1-18.
- Lee, H. Y. (2008). *Working with Interpreters - Part II* [PDF document]. Retrieved from <http://www.cehd.umn.edu/ssw/ContinuingEd/Documents/Module5/Module-5-Working-with-Interpreters-Part-II.pdf>
- Lindholm, M., Hargraves, J. L., Fergusson, W. J., & Reed, G. (2012). Professional language interpretation and inpatient length of stay and readmission rates. *Journal of General Internal Medicine*, 27(10), 1294-1299.
- Michalec, B., Maiden, K., Ortiz, J., Bell, A., & Ehrenthal, D. (2014). Providers' perceptions of medical interpreter services and limited English proficiency (LEP) patients: Understanding the "bigger picture". *Journal of Applied Social Science. Advanced online publication*. doi: 10.1177/1936724414550247
- Mizuno, M. (2008). *Komyunitii tsuuyaku nyuumon [Introduction to community interpreting]*. Osaka: Osaka Kyouiku Tosho.
- Monroe, A. D., & Shirazian, T. (2004). Challenging linguistic barriers to health care: Students as medical interpreters. *Academic Medicine*, 79(2), 118-122.
- Nagata, A., Hamai, T., & Kanda, K. (2010). Risk of ad hoc interpreters on the medical care services for Brazilian residents in Japan. *Journal of International Health*, 25(3), 161-169.
- Nishimura, A. (2009). *Solution guide to communicate better with your foreign patients*. Tokyo:

Medical View.

- Query, J. L., Wright, K. B., Bylund, C. L., & Mattson, M. (2007). Health communication instruction: Toward identifying common learning goals, course content, and pedagogical strategies to guide curricular development. *Health Communication, 21*(2), 133-41.
- Rosenberg, E., Leanza, Y., & Seller, R. (2007). Doctor–patient communication in primary care with an interpreter: Physician perceptions of professional and family interpreters. *Patient Education and Counseling, 67*(3), 286–292.
- Roter, D. (1983). Physician/patient communication: Transmission of information and patient effects. *Maryland State Medical Journal, 32*, 250-271.
- Suwa, M. (2006). Shounika kara mita yori yoi gaikokujin shinsatsu [A pediatrician's view on better medical examinations for foreigners]. *Chiryō [Medical Treatment], 88*(9), 2387-2394.
- Suzuki, N. (2014, November 14). Medical interpreters discuss goals for 2020 Olympics. *The Japan Times*. Retrieved from <http://www.japantimes.co.jp>
- The Japanese Federation of the Deaf (2011). *Minnade Tsukuru Shuwa Gengohou [Sign Language Act for All]*. Tokyo: Nippon Printing.
- The Official Web Site of Misawa Air Base (2015). *Misawa Newcomers*. Retrieved March 3, 2015, from <http://www.misawa.af.mil/library/newcomerspage.asp>