

Infectious disease communication for international students: A survey of association-accredited Japanese language schools in Japan

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Abstract: Japanese language schools are in daily contact with many newly arrived international students, yet little is known about how they obtain and communicate infectious disease information. In February–March 2025, we mailed a newly developed questionnaire to all 103 Japanese language schools accredited by the Association for the Promotion of Japanese Language Education; 38 (36.9%) responded. Of the responding schools, 32/38 (84%) had an infirmary, and 7/38 (18%) had a staff member designated for health matters. In total, 29/38 (76%) collected infectious disease information, mainly from government sources *via* websites (22/29, 76%). Of all schools, 32/38 (84%) provided information to students; among these, 22/32 (69%) used plain Japanese and 18/32 (56%) used students' native languages, most often through explanations during classes (25/32, 78%). Among schools providing information, reported challenges included language barriers (14/32, 44%), cultural differences as perceived by staff (11/32, 34%), and confirming students' understanding (10/32, 31%). These exploratory institutional observations suggest that ready-to-use materials in plain Japanese and students' languages, and closer links with local public health centers, could be considered; their usefulness for students warrants further evaluation.

Keywords: international students, risk communication, health literacy, plain Japanese

1. Why language schools matter for infectious disease communication

During public health crises, foreign language speakers with language barriers are particularly vulnerable to health disparities resulting from information gaps (1). In Japan, the coronavirus disease 2019 (COVID-19) pandemic exposed multiple barriers to healthcare access for foreign residents, including language barriers, lack of awareness of available services, and fear of discrimination (2,3). Multilingual resources developed during the pandemic (4) often faced challenges in reaching their intended audiences (5), and community-based support and volunteer translation helped to fill gaps (6).

Japan has 2,727 Japanese language education institutions and facilities serving 263,170 learners (7). Japanese language schools are in daily contact with many international students, often during their first months in Japan. From the perspective of acculturation theory, which describes how individuals adapt psychologically and socioculturally in a new cultural environment (8), language education institutions can be understood as settings that support not only language acquisition but also broader sociocultural adaptation of newcomers,

including their ability to access and act on health-related information. Previous studies in these schools have addressed tuberculosis screening and outbreaks (9,10), health screening for vaccine-preventable diseases (11), and access to HIV testing (12). Although previous studies have examined selected health issues in Japanese language schools, evidence on how these institutions collect and communicate infectious disease information remains limited. Therefore, we surveyed association-accredited schools to describe, from the institutional perspective, how they obtain and communicate this information and which challenges staff perceive.

2. Survey approach: A postal questionnaire to association-accredited schools

From February 25 to March 17, 2025, we mailed a questionnaire to all 103 Japanese language schools accredited by the Association for the Promotion of Japanese Language Education through its evaluation and accreditation of educational activities, as listed on the Association's website in February 2025. Questionnaires were addressed to each school by name at the address given in the Association's list. When an address was

unclear, it was identified by an internet search. These schools represent a restricted subset of Japanese-language education institutions in Japan (7).

Because no existing instrument addressed this topic, the research team developed a new self-administered questionnaire in Japanese based on study aims, without adapting an existing instrument or using a specific conceptual framework; the draft was reviewed by the co-authors (expert review), and no formal pilot testing was conducted. The 10 items covered institutional characteristics and health resources, collection of infectious disease information, provision of information to students (languages, means, and content priorities), student consultations, and perceived challenges and needs. Plain Japanese (*Yasashii Nihongo*) was presented as a distinct category from standard Japanese in the questionnaire, consistent with its established use in the Japanese language education and multicultural co-existence fields (13,14). As questionnaires were addressed to schools, position of the staff member who completed each one (e.g., teacher, principal, or administrative manager) is unknown. Skip instructions directed only those schools that collected information to the items on sources, methods, frequency, and reasons, and only those schools that provided information to students to the items on languages, means, content priorities, and challenges. The full questionnaire is provided as Supplementary Questionnaire 1 (<https://www.globalhealthmedicine.com/site/supplementaldata.html?ID=134>).

Results are reported descriptively as n/N (%), where N is the item-specific denominator: all 38 responding schools or the subset directed to the item by a skip instruction. Missing responses were not imputed and are reported as a separate category. Complete distributions are provided in Supplementary Tables S1 and S2 (<https://www.globalhealthmedicine.com/site/supplementaldata.html?ID=134>). Analyses were performed using JASP version 0.19.3 (University of Amsterdam, The Netherlands).

For the challenges item, respondents could select one or more of six pre-specified categories and describe the specific situation for each in a free-text field. Free-text responses, all written in Japanese, were analyzed in Japanese. One researcher developed subcodes within each category inductively on the basis of content similarity, and coding was then reviewed by the co-authors; no independent double coding was performed, and revisions arising from the review were agreed by discussion. For reporting, the authors translated illustrative statements into English; the coding framework and these statements, which are condensed English paraphrases rather than verbatim quotations, are presented in Supplementary Table S3 (<https://www.globalhealthmedicine.com/site/supplementaldata.html?ID=134>).

The chairperson of the Ethics Committee for Life Science and Medical Research Involving Human Subjects of the National Institute of Infectious Diseases

determined by e-mail that formal ethical review was not required because the survey concerned institutional practices rather than individuals; no reference number was issued. The survey was conducted for research and publication, with school staff responding on behalf of their institutions; it was not an audit of individual schools or staff. Participation was voluntary, and return of the completed questionnaire was regarded as consent to participate. Schools were asked to provide their name; therefore, responses were identifiable at the institutional level to the research team, but no respondent names or other personal information were requested. School names were removed before analysis, and no institution is identifiable in this report. The study was conducted in accordance with principles of the Declaration of Helsinki (as revised in 2013), consistent with the committee's determination.

3. Principal observations

3.1. Few designated health staff and variable links with medical institutions

Responses were received from 38 of 103 schools (36.9%) in 15 prefectures, including 12 in Tokyo. Median enrolment was 242 students (interquartile range [IQR], 179–340; $n = 37$), and Nepal, China, and Myanmar were the most commonly reported main countries of origin (Supplementary Table S1, <https://www.globalhealthmedicine.com/site/supplementaldata.html?ID=134>). Of responding schools, 32/38 (84%) had an infirmary (*hokenshitsu*) and 7/38 (18%) had a staff member designated for health matters (no, 30/38; missing, 1/38); four of these seven reported a nursing qualification (Table 1). Twenty-two schools (22/38, 58%) had an arrangement with a medical institution for in-person consultation, 15/38 (39%) reported no such arrangement, and 1/38 (3%) did not respond; only 1/38 (3%) reported an online consultation arrangement. Unlike schools defined under Article 1 of the School Education Act, Japanese language schools are not necessarily subject to full requirements of the School Health and Safety Act (15). This regulatory context may be relevant to health staffing; however, our data cannot show whether it explains patterns observed. In other school settings, school health staff have been described as coordinating outbreak responses (16).

3.2. Official sources accessed online, usually at irregular intervals

Of responding schools, 29/38 (76%) collected infectious disease information. Among these, the most common sources were local governments and public health centers (18/29, 62%), national government agencies such as the Ministry of Health, Labour and Welfare (17/29, 59%), and mass media (14/29, 48%); websites were the main method of access (22/29, 76%) (Table 1). Collection was

Table 1. Key institutional and communication findings among the responding schools

Item	n/N (%)
Institutional health resources	
School infirmary	32/38 (84)
Staff member designated for health matters ^a	
Yes	7/38 (18)
No	30/38 (79)
Missing	1/38 (3)
Arrangement with a medical institution for in-person consultation	
Yes	22/38 (58)
No	15/38 (39)
Missing	1/38 (3)
Collection of infectious disease information	
Collected infectious disease information	29/38 (76)
Main sources ^b (N = 29)	
Local governments and public health centers	18/29 (62)
National government agencies (e.g., Ministry of Health, Labour and Welfare)	17/29 (59)
Mass media	14/29 (48)
Association for the Promotion of Japanese Language Education	10/29 (34)
Accessed via websites ^b (N = 29)	22/29 (76)
Frequency of collection (N = 29)	
Irregular	24/29 (83)
Monthly	2/29 (7)
Daily	1/29 (3)
Missing	2/29 (7)
Provision of information to students	
Provided infectious disease information to students	32/38 (84)
Language ^b (N = 32)	
Plain Japanese	22/32 (69)
Students' native languages	18/32 (56)
Standard Japanese	16/32 (50)
Means ^b (N = 32)	
Explanation during classes	25/32 (78)
On-campus notices	24/32 (75)
Messaging applications (e.g., LINE, WeChat)	12/32 (38)
Student consultations on infectious diseases	
Frequency (N = 38)	
At least once a month	2/38 (5)
About once every few months	17/38 (45)
Rarely	16/38 (42)
Never	2/38 (5)
Missing	1/38 (3)
Topics ^b (N = 38)	
How to use medical institutions	28/38 (74)
How to respond when symptoms develop	26/38 (68)
Prevention methods	1/38 (3)

Values are n/N (%), where N is the number of schools to which the item applied: all responding schools (N = 38), schools that collected information (N = 29), or schools that provided information to students (N = 32). Missing responses are shown separately and were not imputed. Complete distributions for all items are given in Supplementary Tables S1 and S2 (<https://www.globalhealthmedicine.com/site/supplementaldata.html?ID=134>).

^aA staff member designated to be responsible for infirmary and health matters; 4 of the 7 reported a nursing qualification (nurse, n = 3; public health nurse, n = 1), and the other 3 did not report a qualification. ^bMultiple responses allowed; percentages do not total 100%. Only the most frequent categories are shown.

irregular in 24/29 (83%) schools, monthly in 2/29 (7%), and daily in 1/29 (3%) (missing, 2/29). Reasons for collection are shown in Supplementary Table S2 (<https://www.globalhealthmedicine.com/site/supplementaldata.html?ID=134>). Whether timing and scope of this information met schools' needs was not assessed.

3.3. Plain Japanese and classroom explanations as main channels

Thirty-two schools (32/38, 84%) provided infectious disease information to students. Among these, 22/32

(69%) used plain Japanese, 18/32 (56%) used students' native languages, and 16/32 (50%) used standard Japanese; 28/32 (88%) used plain Japanese, native languages, or both. Information was delivered mainly through explanations during classes (25/32, 78%), on-campus notices (24/32, 75%), and messaging applications such as LINE or WeChat (12/32, 38%). Prevention methods (27/32, 84%) and how to use medical institutions (22/32, 69%) were most often rated as high priority (4 or 5 on a 5-point scale), and epidemiological statistics least often (4/32, 13%); the item on symptoms and how to respond was left blank

by 20/32 schools (Supplementary Table S2, <https://www.globalhealthmedicine.com/site/supplementaldata.html?ID=134>).

Student consultations about infectious diseases occurred at least monthly in 2/38 (5%) schools, approximately once every few months in 17/38 (45%), rarely in 16/38 (42%), and never in 2/38 (5%) (missing, 1/38). Most common topics were how to use medical institutions (28/38, 74%) and how to respond when symptoms develop (26/38, 68%). These data cannot indicate whether infrequent consultations reflect low need, unmet need, or help-seeking elsewhere.

3.4. Language, perceived cultural differences, and confirming understanding as main reported challenges

Among the 32 schools that provided information, 27 (84%) reported at least one challenge (Figure 1). Language barriers were reported by 14/32 (44%); respondents described difficulty translating medical terminology, limitations of translation applications, and being unable to cover every student's native language. Cultural differences were reported by 11/32 (34%) respondents who perceived differences among students in awareness of prevention, hygiene practices such as handwashing, mask-wearing, and willingness to seek medical care. These statements reflect staff perceptions rather than measured characteristics of any student population. Confirming students' understanding was reported by 10/32 (31%); respondents noted that students might answer "yes" without understanding and that materials were mostly text with few images.

4. Implications for practice: shared materials and local public health links

Several proportionate steps could be considered. First, as responding schools mainly used plain Japanese and

classroom explanations, public health authorities could consider preparing short, illustrated materials in plain Japanese and major student languages that staff can use directly in class. Plain Japanese has been proposed as a practical strategy for conveying health information to people with limited Japanese proficiency (13,14); however, plain Japanese alone may be insufficient for accurately conveying specialized medical terminology, and a shared plain-Japanese glossary of key medical terms may be useful. Second, links between local public health centers and language schools could be considered, for example, by including schools in routine distribution of outbreak notices; public health centers have previously provided tuberculosis screening and health education at language schools (9). Third, remote medical interpreting (17) and simple checks of understanding, such as asking students to explain key points in their own words, may help address staff concerns about comprehension. Whether any of these measures improves students' understanding, care-seeking, or health outcomes was not assessed and warrants further evaluation, ideally incorporating students' own perspectives (18,19).

5. Limitations

This survey has important limitations. Sampling frame was restricted to association-accredited schools, and only 38 of 103 invited schools responded. No information was available on non-responding schools; therefore, direction and magnitude of non-response bias cannot be determined, and the findings should not be generalized beyond responding schools. Each school's responses were provided by a single staff member whose position was not recorded, and self-reported data may reflect intended rather than actual practices. The questionnaire was newly developed and has not been formally validated; some items had substantial missing data, and free-text responses were coded by a single researcher

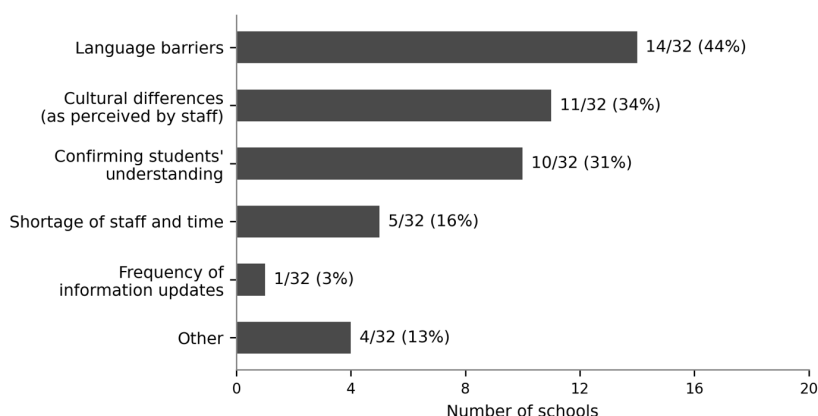


Figure 1. Challenges in providing infectious disease information to international students reported by responding schools that provided such information (N = 32). Note: Schools could select more than one of six pre-specified categories; percentages therefore do not total 100%. Five schools selected no category. "Cultural differences" reflects staff perceptions rather than measured characteristics of students. Subcodes and illustrative statements are presented in Supplementary Table S3 (<https://www.globalhealthmedicine.com/site/supplementaldata.html?ID=134>).

with review by the co-authors. The survey assessed institutional practices only; it did not assess the accuracy of the information provided, students' comprehension, behavioral change, healthcare use, or health outcomes. The findings are therefore descriptive and exploratory.

6. Conclusion

Among the responding association-accredited Japanese language schools, most collected infectious disease information from official online sources and conveyed it to students in plain Japanese or their native languages, mainly through classroom explanations, whereas few had staff designated for health matters. Staff reported challenges related to language, perceived cultural differences, and confirming students' understanding. Ready-to-use materials in plain Japanese and students' languages and closer links with local public health centers should be considered, and their usefulness warrants an evaluation that includes students' perspectives.

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