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Foreign Workers and Health Insurance in Japan: The Case of Japanese Brazilians

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Abstract

This is a preliminary analysis of a 2004 survey of Japanese Brazilians conducted by Iwata City in Shizuoka Prefecture. According to the survey results, only 28.3% of Japanese Brazilians are covered by any health insurance. Among them a little more than 30% are covered by the Employer's (Health) Insurance (Shakai Hoken) while only a little more than 40% by the National Health Insurance (Kokumin Kenko Hoken) and a little more than 20% by other types of health insurance. This analysis has revealed that the coverage and type of health insurance affect medical care (health-seeking) behaviors of Japanese Brazilians when they get sick or injured. It has also found that the ability to collect information and to communicate, including fluency in Japanese language, and the necessity for health and medical services (particularly among those with infants and young children) also affect health insurance coverage and medical care behaviors. As previous studies found, this analysis has found that the type of employment (direct or indirect) affects the coverage and type of health insurance, and that the characteristics related to the employment type, including monthly income, housing, work hours, number of job changes, may also affect the ability to collect information and to communicate, and the necessity for health and medical services. Japan's social integration policy for international migrants, including health insurance, medical care and language-teaching programs, should strengthen the linkage between international migration policy and social security policy.

Key Words: Japanese Brazilians, international migrants, health insurance, medical care

Introduction

In Japan, many foreign workers are not covered by health insurance. Most undocumented foreign workers are not covered by the Japanese health insurance program due to their residence status. Even documented foreign workers are not necessarily covered partly because their contribution is collected together with the contribution to the Japanese old-age insurance program, which requires at least a 25-year payment for entitlement to receive pension. The maximum amount of reimbursement when they opt out at the time of returning home is only up to three years' contribution. Foreign workers who expect to stay in Japan for more than 3 years are likely to lose additional returns on their contribution unless they come back to stay and contribute for 25 years in total.

Thus, many foreign workers have an incentive to avoid the contribution to the Japanese old-age insurance program. In doing so, they must unwillingly avoid the contribution to the Japanese health insurance program. Many foreign workers are not covered by health insurance also because their Japanese employers

naturally have an incentive to avoid making a matching contribution for their workers in order to cut labor costs. They can also avoid the matching contribution if the contract of employment is for less than two months, which has increased the number of Japanese and foreign workers on a short-term contract of less than two months. Among foreign workers, Japanese Brazilians are often working on a short-term contract because they are often employed indirectly by subcontracting/outsourcing companies which subcontract workers for work done at a factory on a weekly or monthly basis, instead of being employed directly by the factory or the company owning it. Consequently, many Japanese Brazilians cannot join the Employer's Insurance (Shakai Hoken) Program.

Some subcontracting companies encourage their workers to join the National Health Insurance (Kokumin Kenko Hoken) Program. However, the National Health Insurance Program, which is a municipality-based program and primarily for the self-employed and the non-employed, also requires those covered to pay contributions to the National Pension (Kokumin Nenkin) Program. In addition, the contributions are usually higher than for the Employer's Insurance Program because there is no matching contribution from the employers even though it is subsidized by tax revenue. Due to the Program's deficits, some local municipalities do not permit employees of subcontracting companies (often Japanese Brazilians among foreign workers) to join the Program because they are virtually employed continuously for more than two months by the same company and are supposed to join the Employer's Insurance Program.

A new law to allow the dispatch of non-specialized workers (including factory workers) was implemented in 2004, which may shift some factory workers from subcontracting/outsourcing companies (wherein the subcontracting company manages its workers at the factory) to dispatching companies (wherein the factory manages the workers) and which may also increase the number of workers on a short-term contract. However, its effect on foreign workers is not clear because language and other skills are required to manage them. In any case, there may be no change to the tendency of employers to avoid the matching contribution to the Employer's Insurance Program.

Private medical insurance in Japan only supplements the parts not covered by the patient's Japanese health insurance programs and cannot be used as an alternative. Some short-term foreign workers are enrolled in a travel insurance policy at home or in Japan, but many of them end up being uninsured, putting them at greater health risk. Another problem with the travel insurance is that it does not cover the whole family and the children can be exposed to an even greater health risk.

However, it is not easy to make special legal arrangements for foreign workers under the principle of equality among nationalities. If the Japanese Government tries to enforce contributions from foreign workers and their employers, it may increase underground work even by documented foreign workers, particularly Japanese Brazilians who have a special residence status to stay and work in Japan without any qualification requirements or time limit since the 1989 revision of the immigration control law. Thus, not only the immigration control law, but the labor law should also be coordinated with the social security law to increase the coverage of foreign workers by the health insurance and possibly the old-age and labor accident insurances.

According to the results of a survey

conducted by Iwata City in 2004, only 28.3% of Japanese Brazilians are covered by any health insurance. Among them a little more than 30% are covered by the Employer's (Health) Insurance while only a little more than 40% by the National Health Insurance and a little more than 20% by other types of health insurance. Major problems regarding the medical care of foreigners are broken down into the following two by Ikegami (2002): 1) burden of medical care costs due to non-coverage by health insurance; and 2) communication gap at medical care facilities due to lack of Japanese language fluency.

This study examines the determinants of health insurance coverage, medical care behaviors and troubles with medical care facilities, drawing on micro-data from the 2004 survey of Japanese Brazilians in Iwata City. It tries to derive implications for possible measures to help foreign workers get Japanese health insurance coverage and maintain a healthy life, with a focus on Japanese Brazilians. It also seeks to explore the ways to modify and coordinate immigration control, labor and social security laws without distorting the equality among workers of different nationalities and without endangering the health of foreign workers staying in Japan. This is particularly important for Japanese Brazilians because many of them are likely to stay in Japan more or less permanently.

The present author has been interested in the social integration of international migrants and has conducted both theoretical research (e.g., Kojima 1993) and empirical research (e.g., Kojima 2003, 2005b). This is an extension of Kojima (2005a), which shares with Kojima (2005b) the author's interest in the relationship between migration and health.

Literature Review

There are not too many Japanese empirical studies on the health insurance coverage of foreigners and on health behaviors, while there is an increasing number of studies on these topics in the US and Europe (e.g., LeClere et al. 1994, Ku and Matani 2001, Yu et al. 2004, Prentice et al. 2005, *Migrations: Études* 2002, 2004) due to their policy-oriented interests. The relative lack of Japanese empirical studies is partly due to the limited availability of both micro- and macro-data, particularly those collected for administrative purposes in Japan, and partly due to the limited interests of Japanese scholars studying international migrants. Fukawa (1997) may be the only study showing macro-data for the health insurance coverage of Japanese Brazilians at the prefecture level, which showed a relatively low coverage by the National Health Insurance and the variation among local municipalities. Hochi et al. (1992) may be the first survey-based work on the health and health-related behaviors of Japanese South Americans including Brazilians. Hayashi and Ikegami (1998) drew policy implications from the results of a survey of participants in a medical NGO's free health examination. Unfortunately, these Japanese surveys tend to be too small in scale or tend to use samples too selected for statistical analysis. However, the 2004 Iwata survey had about 500 usable cases, which Kojima (2005a) has conducted a preliminary analysis on health insurance coverage, medical care behaviors and attitudes, while Chitose (2005) and Takenoshita (2005a, 2005b, 2006) analyzed them from a different focus (children and income).

No hypotheses are constructed in advance due to the lack of past empirical studies in Japan. However, this study will broadly draw on the analytical frameworks presented by the (U.S.)

Institute of Medicine (2001: Fig. A.1, 2.2; 2003: Fig. 1.1, 1.2) for the interpretation of the results. This is still a preliminary study in this sense.

Data and Method

Iwata City is located near the western end of Shizuoka Prefecture (near the center of the main island along the Pacific coast), next to the major industrial center of Hamamatsu City and not too far from Toyota City in the eastern part of Aichi Prefecture (capital city: Nagoya). Iwata is also an industrial city itself with manufacturers of machinery including those related to automobiles and motorcycles. It has a population of almost 170,000, of which almost 5% are registered foreigners after the integration of the city with surrounding towns on April 1, 2005. The percentage of foreigners was about 6% at the time the survey was conducted between August and October 2004 even though the total population was nearly one half the current population. More than three quarters of registered foreigners are Brazilians (mostly those of Japanese descent and their family members).

In terms of absolute number, Iwata City had 6,597 registered Brazilians as of June 30, 2005. But the city proper had 3,713 as of March 31, 2004, which is one year before the integration with surrounding towns. The number of Brazilians in 2004 has almost doubled from 1997 (1,875) and has grown by 50% from 2001 (2,566). The proportion of foreigners to the entire population has grown steadily from 0.9% in 1991, 2.0% in 1994, 3.6% in 2000 to 5.3% in 2004. It has declined a little to 4.9% in 2005 after the integration. In terms of percentages among households, however, those headed by foreigners represent 8.2% in 2005.

This study draws on micro-data from the sample survey of Japanese Brazilians conducted by Iwata City in 2004. According to the survey report (Iwata City 2005), the aim of the survey was to collect basic information for the improvement of measures for foreign citizens and to promote multicultural cohesion in its policy planning. The subjects were South Americans (mostly Brazilians of Japanese descent) aged 18 and above living in the city (with usable questionnaires for 497 respondents). The questionnaires in Portuguese were distributed, and the self-enumerated ones were collected between August and October 2004. The items questioned included demographics, work, housing, health insurance and medical care, living conditions and attitudes, language learning, children's education and future plans.

This analysis has applied, to the 2004 Iwata survey data, the binomial logit model with stepwise selection of independent variables constructed from answers to related questions as well as demographic, socioeconomic and cultural characteristics. It has used the SAS/LOGISTIC procedure. The frequency distribution of dependent variables is presented in Appendix 1 and that of independent variables in Appendix 2.

Results

1. Health Insurance Coverage

Table 1 shows the results of the logit model with stepwise selection for determinants of health insurance coverage, type of insurance and reason for non-coverage. The analysis is based on the response to Question 21 which is as follows:

Q21. Are you covered by any type of health insurance?

1) Covered (Circle one that is applicable)

A. National Health Insurance (Kokumin Kenko Hoken)

B. Employer's Insurance (Shakai Hoken)

C. Travel Insurance

D. Others ( )

2) Not covered (Circle all that are applicable) (M.A.)

A. The employer refuses to cover.

B. It is too costly.

C. It is difficult to understand the Japanese insurance system.

D. I plan to return home soon.

E. Others ( )

The last two types of insurance (travel insurance and others) are collapsed into one category, "others" because of the low frequency of each. The first column in the upper panel shows the determinants selected for health insurance coverage. Among Japanese Brazilians, those aged 25-29 or 45+, those with two children, those who first arrived in 1991-92, those who first arrived to visit relatives, those fluent in Japanese and those wishing to study Japanese are more likely to be covered by health insurance. But those employed indirectly, those who never changed jobs or changed jobs once, those living in housing contracted by the employer and those uncertain about obtaining Japanese nationality are less likely to be covered by health insurance.

Table 1 Determinants of Coverage, Type of Insurance (if covered) and Reason for Non-Coverage (if not covered)

Significant Independent Variables	Q21: Coverage	Q21(if covered): Insurance Type		
	Covered by Any Health Insurance	National Health Insurance	Employers' Insurance	Others
Positive Effects	Age: 25-29 Age: 45+ # of Kids: 2 First Arrival: 1991-92 Purpose of 1st Visit: Relatives Speak Japanese: Yes Wish to Study Japanese: Yes	Marital Status: Single First Arrival: 2003-04 Housing: Private Apt Housing: Public Japanese-Speaking Kid: Yes	Kid's Age: 0-2 Years in Iwata: 3 Type of Employment: Direct Community Assoc: Member Speak Japanese: Yes	Kid's Age: 15-17 Kid's Age: 18+ First Arrival: 1991-92 Daily Work Hours: 11+ Housing: Company Dorm/Apt
Negative Effects	Type of Employment: Indirect # of Job Change: 0 # of Job Change: 1 Housing: Company Contract Apt Plan for Japanese Nationality: Undecided	Type of Employment: Indirect	Marital Status: Single Contact with Japanese: Consulting	Living with: Kids

Significant Independent Variables	Q21 (if not covered) Reason for Non-Coverage (M.A.):			
	Refusal by Employer	Too High Cost	Difficulty to Understand Insurance System	Plan to Return Soon
Positive Effects	Type of Employment: Indirect Daily Work Hours: 9-10 Kid's Schooling: Brazilian C Care	First Arrival: 2001-02 First Arrival: 1995-96 Contact with Japanese: Consulting Contact with Japanese: None Info Source: Brazilian Paper Kid's Schooling: Brazilian Sch	Kid's Age: 15-17	Age: 40-44 Age at 1st Arrival: 15-19 Years in Iwata: 1 # of Job Change: 0 Info Source: Brazilian Paper Kid's Schooling: Brazilian Sch
Negative Effects	Marital Status: Single	Wish to Study Japanese: Yes	Housing: Public Speak Japanese: Yes Plan for Japanese Nationality: No	Living with: Kids

(Source) Microdata from the Iwata City Survey of Brazilians (2004).

As mentioned qualitatively in previous studies, indirect employment has a negative effect on health insurance coverage. Japanese Brazilians who speak Japanese fluently seem to be in a better position to negotiate with the employer for coverage. Those with two children should have greater needs for health insurance coverage to insure their children, particularly when they are small.

When we look more closely at the factors affecting whether the respondent is covered by each kind of health insurance in the following three columns in the upper panel, the following points become clearer. As for the determinants selected for coverage by the National Health Insurance (Kokumin Kenko Hoken) in the second column, single Japanese Brazilians, those who first arrived in 2003-2004, those living in a private apartment or public housing, and those with Japanese-speaking children are more likely to be covered. Those employed indirectly are less likely to be covered, which may be less readily understandable than if covered by the Employer's Insurance (Shakai Hoken). Perhaps it implies that those directly employed are more likely to be covered by the National Health Insurance even if they could not be covered by the Employer's Insurance.

The third column shows the determinants selected for coverage by the Employer's Insurance. Japanese Brazilians with children aged 0-2, those living in Iwata for 3 years, those employed directly, those who joined the community association (Chonai-kai), and those fluent in Japanese are more likely to be covered, while single Japanese Brazilians and those contacting Japanese for consultation are less likely. As expected, those employed directly, those fluent in Japanese and those with greater needs are more likely to be covered by the Employer's Insurance.

The fourth column presents the determinants selected for coverage by other types of insurance, including travel insurance. Japanese Brazilians with children aged 15+, those who first arrived in 1991-92, those working for 11 hours or more per day, and those living in company dormitory or apartment are more likely to be covered, while those living with children are less likely. This seems to imply that older Japanese Brazilians who came to Japan alone are more likely to be covered by other types of insurance.

The lower panel of Table 1 shows the results for reasons of non-coverage among Japanese Brazilians who are not covered by any type of health insurance. The first column presents the determinants selected for refusal by the employer as a reason for non-coverage. Japanese Brazilians employed indirectly, those working for 9-10 hours per day, and those sending their children to a Brazilian childcare center are more likely to be not covered by health insurance due to the refusal by the employer, possibly because they have less negotiation power. Single Japanese Brazilians are less likely to be not covered for this reason, probably because they are more likely to be covered by the National Health Insurance as shown by the second column in the upper panel.

The second column in the lower panel shows the determinants selected for high cost as a reason for non-coverage. Japanese Brazilians who first arrived in 1995-96 or 2001-2002, those contacting Japanese for consultation or those who have never contacted them, those for whom Brazilian papers are their information source, and those sending their children to a Brazilian school are more likely to be not covered by health insurance due to the high cost, possibly because they are more interested in saving money for their life in Brazil. Japanese Brazilians wishing

to study Japanese are less likely to be not covered for the cost reason, probably because they are more likely to be covered by whatever health insurance as shown by the first column in the upper panel.

The third column presents the determinants selected for difficulty to understand the Japanese insurance system as a reason for non-coverage. Japanese Brazilians with children aged 15-17 are more likely to be not covered for this reason possibly because their children who have not received Japanese education cannot help their parents understand the system. Japanese Brazilians living in public housing, those fluent in Japanese, and those not planning to obtain Japanese nationality are less likely to be not covered for this reason probably because the first two groups are more likely to be covered by one of the two major insurances as shown in the upper panel.

The last column presents the determinants selected for plan to return soon as a reason for non-coverage. Japanese Brazilians aged 40-44, those who first arrived at ages 15-19, those living in Iwata for one year, those without job changes, those for whom Brazilian papers are their information source, and those sending their children to a Brazilian school are more likely to be not covered for this reason possibly because many of them are new-comers migrating to Japan just to work for a short period. Japanese Brazilians living with children are less likely to be not covered for this reason possibly because they are covered by the National Health Insurance or the Employer's Insurance or they are not covered for other reasons as shown by the rest of Table 1.

Table 2 Determinants of Medical Care Behaviors

Significant Independent Variables	Q22: Behavior in Case of Desease or Injury		
	Go to Doctor	Buy Medicine	Others
Positive Effects	Age: 45+ Housing: Public	Years in Iwata: 0 Monthly Income: <100k yen Health Insurance: None Health Insurance: Others	# of Kids: 2 First Arrival: 1993–94 First Arrival: 2001–02 First Arrival: 2003–04 Years in Iwata: 0 Purpose of 1st Visit: Work Housing: Private Apt Plan for Permanent Res: Undecided
Negative Effects	First Arrival: 1993–94 Age at 1st Arrival: 40+ Years in Iwata: 0 Health Insurance: None	Kid's Schooling: Brazilian Sch	Visa: Long Term Res # of Job Change: 2

(Source) Microdata from the Iwata City Survey of Brazilians (2004).

2. Medical Care Behaviors

Table 2 shows the results of the logit model with stepwise selection for determinants of medical care (health-seeking) behaviors in case of sickness or injury, partly to examine the effects of health insurance coverage. The analysis is based on the response to Question 22 which is as follows:

Q22. What would you do if you get sick or injured? (Circle one that is applicable)
1) I would go to the doctor immediately.
2) I would buy medicine to take.
3) I would wait and see.
4) Don't know.
5) Others (   )

The last three choices are collapsed into one category "others" because of low frequency of each. The first column shows the determinants selected for going to the doctor immediately in case of sickness or injury. Japanese Brazilians aged 45+ and those living in public housing are more likely, possibly because the first group is older and more concerned about health. Japanese Brazilians who first arrived in 1993-94, those who arrived at ages 40+, those living in Iwata for less than one year, and those not covered by health insurance are less likely. As expected, those without health insurance coverage are discouraged from going to the doctor immediately. Those living in Iwata for less than one year are less likely to go to the doctor immediately and are more likely to buy medicine (as shown in the second column) probably because they are not knowledgeable about medical care facilities in Iwata.

The second column presents the determinants selected for buying medicine to take in case of sickness or injury. Japanese Brazilians living in Iwata for less than one year, those earning less than 100,000 yen per month, those not covered by health insurance, and those covered by other types of insurance (including travel insurance) are more likely, possibly because they are discouraged from going to the doctor due to the lack of information or financial resources. Japanese Brazilians sending their children to a Brazilian school are less likely.

The third column show the determinants selected for other responses in case of sickness or injury. Japanese Brazilians with two children, those who first arrived in 1993-94 or 2001-2004, those living in Iwata for less than one year, those who first arrived to work, those living in a private apartment, and those uncertain about obtaining permanent residence are more likely to choose other responses, while those with a long term (Teijusha) residence status and those having changed jobs twice are less likely. It is difficult to interpret these results due to the diversity of choices included.

3. Troubles at Medical Care Facilities

Table 3 shows the results of the logit model with stepwise selection for determinants of experience with troubles at medical care facilities and type of trouble if any. The analysis is based on the response to Question 23 which is as follows:

Q23. Have you ever had trouble at medical care facilities?
1) Yes. (Circle all that are applicable) (M.A.)
   A. Medical care fees are high.
   B. It is difficult to communicate with doctors.
   C. I have never got medical care.
   D. It is difficult to know where to get medical care.
   E. Others (   )

2) No.

The first column shows the determinants selected for the experience with troubles at medical care facilities. Japanese Brazilians living alone or with children, those who changed jobs 6 times or more, those living in a private apartment, those covered by other types of health insurance (including travel insurance), those for whom Brazilian stores are their information source, and those wishing to study Japanese are more likely to have experienced troubles at medical care facilities. Japanese Brazilians who first arrived at ages 40+, those who first arrived to visit relatives, those covered by the Employer's Insurance, those fluent in Japanese, those sending children to a (Japanese) primary school or a Brazilian school are less likely to have experienced troubles at medical care facilities. As expected, those covered by the Employer's Insurance are less likely to have troubles at medical care facilities, while those covered by other types of insurance are more likely.

Table 3 Determinants of Troubles at Medical Care Facilities

Significant Independent Variables	Q23: Troubles at Medical C F	Q23 (if yes) Type of Troubles (M.A.)			
	Yes	High Fees	Communication Problems	Never Got Medical Care	Difficulty to Know Where
Positive Effects	Living with: None Living with: Kids # of Job Change: 6+ Housing: Private Apt Health Insurance: Others Info Source: Brazilian Store Wish to Study Japanese: Yes	Generation: 3rd–4th Marital St: Married to Brazilian Living with: Kids Age at 1st Arrival: 20–24 Age at 1st Arrival: 35–39 Daily Work Hours: 7–8 # of Job Change: 6+ Info Source: Friend/Relative	Visa: Spouse/Kid Visa: Long Term Res Living with: None Living with: Kids First Arrival: 1995–96 # of Job Change: 6+ Health Insurance: National Health Insurance: Other Info Source: Brazilian Store Wish to Study Japanese: Yes	Age: 35–39 Visa: Permanent Resident Type of Employment: Direct # of Job Change: 0	Kid's Age: 3–5 First Arrival: 1993–94 Age at 1st Arrival: 40+ Years in Iwata: 0 # of Job Change: 6+ Plan for Japanese Nationality Yes
Negative Effects	Age at 1st Arrival: 40+ Purpose of 1st Visit: Relatives Health Insurance: Employer's Speak Japanese: Yes Kid's Schooling: Primary Sch Kid's Schooling: Brazilian Sch	# of Job Change: 0 Health Insurance: National Health Insurance: Employer's Kid's Schooling: Primary Sch	Age at 1st Arrival: 40+ # of Visits to Japan: Twice Purpose of 1st Visit: Work # of Job Change: 0 Info Source: Japanese Paper Speak Japanese: Yes	Daily Work Hours: 7–8 Housing: Public Info Source: Brazil Magazine	Generation: 1st–2nd

(Source) Microdata from the Iwata City Survey of Brazilians (2004).

The following four columns show the determinants selected for whether the respondent experienced each type of trouble at medical care facilities. "Others" (other troubles) have not been analyzed because of its low frequency and the difficulty to interpret the results. The second column presents the determinants selected for whether the respondent has experienced the trouble of high fees. Japanese Brazilians of 3rd or 4th generation, those married to a Brazilian, those living with children, those who first arrived at ages 20-24 or 35-39, those working for 7-8 hours per day, those who changed jobs 6 times or more, and those for whom friends or relatives are their information source are more likely to have experienced the trouble of high fees. Japanese Brazilians who have never changed jobs, those covered by the National Health Insurance or the Employer's Insurance, and those sending children to a (Japanese) primary school are less likely. As expected, those covered by the National Health Insurance or the Employer's Insurance are less likely to have experienced the trouble of high fees at medical care facilities because they only have to pay 20-30% of the actual costs.

The third column shows the determinants selected for whether the respondent has

experienced communication problems at medical care facilities. Japanese Brazilians with the following residence statuses--spouse/child of a Japanese national or long term residence status, those living alone or with children, those who first arrived in 1995-96, those who changed jobs 6 times or more, those covered by the National Health Insurance or other kinds of insurance, those for whom Brazilian stores are their information source, and those wishing to study Japanese are more likely to have experienced communication problems at medical care facilities. Japanese Brazilians who first arrived at ages 40+, those who visited Japan twice, those who first arrived to work, those who have never changed jobs, those for whom Japanese papers are their information source, and those fluent in Japanese are less likely to have experienced communication problems. Those covered by the National Health Insurance or other types of insurance are more likely to have experienced communication problems, possibly because they are more likely to visit medical care facilities thanks to the insurance, but because, unlike those covered by the Employer's Insurance, the medical care facilities or the Brazilian patients cannot easily seek the help of somebody fluent in both Portuguese and Japanese.

The fourth column presents the determinants selected for whether the respondent has ever been treated at medical care facilities. While the substantive meaning of this choice is not clear, Japanese Brazilians aged 35-39, those with permanent residence status, those employed directly, and those who have never changed jobs are more likely. Japanese Brazilians working for 7-8 hours per day, those living in public housing, and those for whom Brazilian magazines are their information source are less likely. This choice has nothing to do with the coverage by health insurance, possibly because of the difficulty to understand the substantive meaning of this choice.

The fifth column shows the determinants selected for whether the respondent has experienced difficulties in finding where to go for medical care. Japanese Brazilians with children aged 3-5, those who first arrived in 1993-94, those who first arrived at ages 40+, those living in Iwata for less than one year, those who changed jobs 6 times or more, and those planning to obtain Japanese nationality are more likely to have experienced difficulties in finding where to go, while those of first or second generation are less likely. This choice has nothing to do with the coverage by health insurance, possibly because it is more directly related to knowledge rather than financial situation.

Conclusion

This analysis has revealed that the coverage and type of health insurance affect medical care (health-seeking) behaviors of Japanese Brazilians when they get sick or injured. It has also found that the ability to collect information and to communicate, including fluency in Japanese language, and the necessity for health and medical services (particularly among those with infants and young children) also affect health insurance coverage and medical care behaviors. As previous studies found, this analysis has found that the type of employment (direct or indirect) affects the coverage and type of health insurance, and that the characteristics related to the employment type, including monthly income, housing, work hours, number of job changes, may also affect the ability to collect information and to communicate, and the necessity for health and medical services. Japan's social integration policy for international migrants, including health insurance, medical care and

language-teaching programs, should strengthen the linkage between international migration policy and social security policy.

As reconfirmed by this study, the low coverage rate of Japanese Brazilians by the Employer's Insurance Program is caused by both the subcontracting companies' needs to hire enough Japanese Brazilians at a lower cost by avoiding the payment of matching contribution to the insurance program and the Japanese Brazilians' resistance to receive a lower take-home pay after contribution to the virtually non-refundable old-age insurance program which is inseparable from the health insurance program (Ikegami 2002:169-170). This situation continues in spite of efforts by the Social Insurance Agency and local governments (Suzuki 2004:39). Tanno (2001:106), in considering Japanese Brazilians as a target group, proposes the following three recommendations: 1) those establishments being supplied labor force in the form of indirect employment through subcontracting should be required to accept workers only from subcontracting companies which pay matching contributions to the Employer's Insurance Program (both health and old-age insurances); 2) the total amount of contribution to the Employer's Insurance Program should be paid by employers for the workers on a short-term contract; and 3) the total amount of Employment Insurance should be paid by employers. They seem to be difficult to realize in terms of the consistency between laws and the principle of non-discrimination, but they seem to include effective propositions for the improvement of the working conditions of both Japanese and foreign workers.

"The Saõ Paulo-Londrina Declaration" adopted by the Brazilian-Japanese Association of Comparative Law in 2002 includes propositions for 1) effective control by the authorities with strict punishment on violators; 2) automatic coverage of workers by the Employer's Insurance and the Labor Insurance immediately after the conclusion of contracts; and 3) bilateral agreement to sum up the pension contribution periods in the two countries to attain the minimum contribution period required for the receipt of pension in Brazil by Japanese Brazilian workers, with increment for the contribution period in Japan (Ozaki 2002:8). While stricter control may be feasible, the revision of laws and the conclusion of bilateral agreements require consensus among the interested and are time-consuming even when consensus can be reached.

According to the results of the 2004 Iwata City survey, even though the percentage of respondents choosing, as the reason for non-coverage by any health insurance, "it is difficult to understand the Japanese insurance system" (18.8%) is smaller than the percentage choosing "it is too costly" (31.6%), it is larger than the percentage choosing "the employer refuses to cover" (16.4%). Therefore, the city's monthly paper with some Portuguese-language articles can be better utilized for giving Japanese Brazilians precise knowledge on insurance programs including the merits and demerits of being covered, particularly because the survey proved the paper's small effectiveness in communicating administrative information about the social security system, except for the National Health Insurance Program (Kokumin Kenko Hoken) and the National Pension Program (Kokumin Nenkin).

Another feasible measure with possible effectiveness is to help Japanese Brazilians, particularly those with greater needs for health and medical services, to improve the ability to collect information and to communicate including fluency in Japanese, which can also be

useful for other purposes. Another possible measure, which could be implemented as a part of family policy, is to lower or waiver the fees for the health and medical services with interpreters for pregnant women, infants and children. The health and medical services for adults could be provided, as a part of industrial and public health policies, in the form of increased frequency of free medical examinations and consultations with interpreters to promote preventive care. However, there should be constraints in the budget, manpower and facilities at the local municipality level, requiring the support of the prefectural and central governments, the business circle and NGOs.

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Appendix 1 Frequency Distribution of Dependent Variables

Dependent Variables	Categories	Freq. (%)
Q21Health Insurance Coverage	Yes	28.3
	No	71.7
Q21National Health Insurance	Yes	11.6
	Others	88.4
Q21Employer's Insurance	Yes	9.6
	Others	90.4
Q21Other Type of Insurance	Yes	6.7
	Others	93.4
Q21Reasons for Non-Coverage	Employer's Refusal	16.7
	Others	83.3
	Too High Cost	31.6
	Others	68.4
	Difficulty to Understand	18.8
	Others	81.2
	Plan to Return Soon	8.5
	Others	91.5
Q22 Medical Care Behaviors	Go to Doctor	77.7
	Others	22.3
	Buy Medicine	12.9
	Others	87.1
	Other Response	9.4
	Others	90.6
Q23 Troubles at Medical Care	Yes	64.7
Facilities	No	35.3
Q23 Type of Troubles	High Fees	34.1
	Others	65.9
	Communication Problems	37.2
	Others	62.8
	Never Got Medical Care	9.2
	Others	90.9
	Difficulty to Know Where	4.8
	Others	95.2

(Source) Microdata from the Iwata City Survey of Brazilians (2004).

Appendix 2 Frequency Distribution of Independent Variables

Independent Var	Category	Freq. (%)	Independent Var	Category	Freq. (%)
Q3 Age	< 25	19.6	Q12 Education	Br Primary Educ	28.2
	25–29	21.4		Br Secondary Educ	50.8
	30–34	17.0		Br Higher Educ	9.2
	35–39	15.0		Japanese Educ	6.8
	40–44	9.6	Q13 Employment	Directly Employed	6.4
	45+	10.8	Type	Indirectly Employed	80.4
Q2 Generation	1st/2nd Generation	35.8		Hm Maker (No Work)	5.6
	3rd/4th Generation	47.8	Q14 Daily Work	7–8 hours	35.8
Q3 Sex	Female	47.6	Hours	9–10 hours	24.2
Q4 Visa Status	Permanent Resident	9.0		11+ hours	29.0
	Spouse/Child of Jap	29.6	Q15 Monthly	< ¥100,000	7.2
	Long Term Resid	47.8	Income	¥100,000–199,999	38.6
Q5 Marital	Married to Brazilian	20.0		¥200,000–299,999	36.4
Status	Married to Japanese	47.0		¥300,000+	7.0
	Never-Married	30.0	Q16 # of Job	None	23.4
Q6 # of Children	No Child	32.2	Changes	Once	16.4
	1 Child	34.0		Twice	11.0
	2 Children	22.2		3 times	17.0
	3+ Children	11.6		4 times	9.6
Q6 Child's Age	0–2 years	9.0		5 times	6.6
	3–5 years	16.2		6+ times	6.4
	6–8 years	14.0	Q19 Housing	Private Apartment	6.0
	9–11 years	10.6	Type	Public Housing	39.2
	12–14 years	4.0		Empl Contract Apt	47.4
	15–17 years	6.0		Empl Dorm/Apt	5.4
	18+ years	7.2		Employer's Housing	52.8
Q7 Living with	None	17.4	Q27 Contact with	Greetings	26.4
	Children	43.0	Japanese	Chat	43.0
	Parents	8.6		Consultation etc.	16.8
	Siblings	9.2		None	9.0
	Others	40.2	Q30 Community Assoc	Member	13.2
Q8 Year of 1st	In 2003–2004	15.6	Q34 Info Source	Br Newspaper	65.4
Arrival	In 2001–2002	8.8		Brazilian TV	64.0
	In 1999–2000	10.4		Br Magazine	38.2
	In 1997–1998	12.4		J Newspaper	8.6
	In 1995–1996	13.2		Japanese TV	22.0
	In 1993–1994	7.4		Friends/Relatives	37.6
	In 1991–1992	17.4		Brazilian Store	35.2
	In 1990 or Before	13.0		Internet	44.2
Q8+Q3 Age at	< 15	5.0		Paper "IWATA"	8.4
1st Arrival	15–19	21.6	Q43 Fluency in Jap	Yes	44.6
	20–24	26.4	Q44 Wish to Study Jap	Yes	69.6
	25–29	17.4	Q45 Child's School	Primary School	9.8
	30–34	9.2		High School	2.6
	35–39	6.0		Brazilian School	18.2
	40+	6.4		Nursery/Kinder	7.6
Q9 Years Living	0 year	27.8		B. Childcare Ctr	9.8
in Iwata	1 year	15.0	Q46 Kid's Fluency Jap	Yes	17.4
	2 years	9.6	Q51 Plan for	Yes	43.0
	3 years	11.2	Permanent Res	No	18.8
	4 years	7.0		Own	12.2
	5 years	6.0		Don't Know	23.8
	6 years	4.6	Q52 Plan for Jap Nat	Yes	6.6
	7+ years	17.0		No	52.4
Q10 # of Visits	Once	37.0		Don't Know	36.0
to Japan	Twice	38.0	Q21 Health Insurance	None	69.4
	3+ times	22.0		National Health Ins	11.2
Q11 Purpose of	Saving	70.4		Employer's Ins	9.2
1st Visit	Work	8.8		Other Insurance	6.4
	Visit Relatives	10.4			

(Source) Microdata from the Iwata City Survey of Brazilians (2004).