ソシオネットワーク戦略ディスカッションペーパーシリーズ 第 103 号 2022 年 9 月 RISS Discussion Paper Series No.103 September, 2022

### A Survey on Doctors' Career in Japan Conducted in 2018: Summary of Questionnaire Responses

Takahiro Miura, Rei Goto, Kazuhito Ogawa, Naoki Watanabe

# RISS

文部科学大臣認定 共同利用·共同研究拠点

関西大学ソシオネットワーク戦略研究機構

Research Institute for Socionetwork Strategies, Kansai University Joint Usage / Research Center, MEXT, Japan Suita, Osaka, 564-8680, Japan URL: https://www.kansai-u.ac.jp/riss/index.html e-mail: riss@ml.kandai.jp tel. 06-6368-1228 fax. 06-6330-3304

### A Survey on Doctors' Career in Japan Conducted in 2018: Summary of Questionnaire Responses\*

Takahiro Miura<sup>†</sup>, Rei Goto<sup>†</sup>, Kazuhito Ogawa<sup>§</sup>, Naoki Watanabe<sup>¶</sup>

September 21, 2022

#### Abstract

From the academic year of 2004, the initial clinical training for doctors who obtained the medical license was made mandatory in Japan. In 2003, an algorithm was introduced to match trainee doctors to training hospitals (residency matching). In 2009, regional caps were imposed and the matching algorithm was modified in order to reduce the numbers of trainee doctors allocated in urban areas and increase their numbers in rural areas. This survey was conducted in 2018 for investigating how those reforms made in 2004 and 2010 affected doctors' preferences for their career. This note summarizes the responses of doctors to most part of the questionnaires and serves as the online supplemental material for a working paper written by the authors.

**Keywords**: residency matching, doctors' career, survey research **JEL Classification**: D47, Y10, Y20

<sup>\*</sup>This research was supported by Joint Usage/Research of Research Institute of Socionetwork Strategies at Kansai University in 2017 and 2018 and the MEXT Grant-in-Aid (17H06190).

<sup>&</sup>lt;sup>†</sup>Kansai University, Research Institute for Socionetwork Strategies, Osaka, Japan.

<sup>&</sup>lt;sup>‡</sup>Keio University, Graduate School of Business Administration, Yokohama, Japan

<sup>&</sup>lt;sup>§</sup>Kansai University, Faculty of Sociology, Suita, Japan.

<sup>&</sup>lt;sup>¶</sup>corresponding author: Keio University, Graduate School of Business Administration, 4-1-1 Hiyoshi Kohoku, Yokohama, Kanagawa 223-8526, Japan. Phone: +81-45-564-2039, E-mail: naoki50@keio.jp.

#### 1 Introduction

From the academic year of 2004, the clinical training system for doctors who started their career as medical practitioners was made mandatory in Japan, and an algorithm was introduced to match trainee doctors to training hospitals. The first matching was conducted in 2003. The algorithm was being used in the clinical training system in the United states and it is based on matching theory which has developed exponentially since late 1990s. The Japanese medical system, however, fundamentally differs from that of the United States.

Clinical training in the United States has been implemented for the purpose of the acquisition of skills and knowledge common to all medical specialties, and it is only a preparatory stage for subsequent specialist training programs (fellowships). The issue of the hospital at which to undertake training is thus rarely connected to long-term career choice for young doctors. In the matching, therefore, it is only necessary to consider the effective combination of doctors' order of preference for training hospitals and the overall order of priority for accepting doctors given by training hospitals.

In contrast, Japan constructed its own medical system, whereby doctors' associations known as medical offices (ikyoku in Japanese, centered on university hospitals) played an important role in determining doctors' professional career and intensively managed the provision of doctors to each hospital, including training hospitals in rural area.

By the algorithmic assignment of trainee doctors to training hospitals, major changes to the existing medical system in Japan have started to occur; too many applications by young doctors to urban hospitals and too few applications to rural hospitals. Shortage of doctors occurred in rural areas. The latest medical techniques developed at university hospitals may no longer be being adequately transferred to small and medium-sized hospitals.

From 2009, the Ministry of Health, Labor and Welfare thus imposed regional caps in order to reduce the numbers of trainee doctors allocated in urban areas and increase their numbers in rural areas. The matching algorithm was modified and its result was applied first for the clinical training provided in the academic year 2010. However, the implementation of the regional caps was criticized from the viewpoint of matching theory (Kamada and Kojima, 2015, 2017, 2018, 2019, 2020). The ministry introduced artificial quotas to all regions, which may lead to an inefficient allocation of trainee doctors.

This survey was conducted in 2018 for investigating how those reforms made in 2004 and 2010 affected doctors' preferences for their career.<sup>1</sup> This note serves as the online supplemental material for a working paper written by the authors. The next section summarizes the responses of doctors to most part of the questionnaires. The full set of the questionnaires we used are listed in the Appendix.

#### 2 Summary

Matching trainee doctors and training hospitals in Japan is called residency matching and it is conducted by Japan Residency Matching Program (JRMP).<sup>2</sup> The registration for participation in the program opens in early June, the registration for the order of preference is accepted from mid-September to mid-October, and the matching results are announced in late October. The national examination for medical practitioners is held at the beginning of February of the following year, and those who successfully pass the examination receive the initial clinical training from April as (junior) residents at the training hospitals with which they were matched through JRMP.

This survey was conducted as follows. From February 9 to February 16 in 2018, we showed our request and questionnaires to those who had pre-registered in the respondent pool of PLAMED Plus, and received responses from 1078 participants in the period. PLAMED Plus is a company that supports medical academic research.<sup>3</sup> Respondents were aged from 26 to 69 years old, 87% of those were male and 13% were female. The average age of male respondents is about 38, and that of female respondents is about 44. The age distribution of the respondents is shown in Table 1.

The participants in this survey were asked to answer 18 questions (Q1 to Q18). The questionnaire responses are summarized in what follows, some of which are visualized in heatmap tables. Participants' answers to Q16, Q17, and Q18 are not reported in this note, because the contents of those questions are not directly related to residency matching but are regarding medicines, medical devices, or medical practices.

<sup>&</sup>lt;sup>1</sup>The Ministry of Health, Labor and Welfare reviews the initial clinical training system about every five years. See the summary of discussions made in 2020 at a committee in the Ministry. The URL is https://www.mhlw.go.jp/content/10800000/000683716.pdf (in Japanese).

<sup>&</sup>lt;sup>2</sup>The website of JRMP is at https://www.jrmp.jp (in Japanese).

<sup>&</sup>lt;sup>3</sup>The website of PLAMED Plus is at https://www.plamedplus.co.jp (in Japanese).

Table 1: Age distribution of respondents

age	frequency
26 to 29	109
30 to $39$	327
40 to $49$	328
$50\ {\rm to}\ 59$	257
60 to $69$	57
total	1078

#### Q1. What is your main workplace?

workplace	frequency
Doctor's office or clinic (no beds) Own practice:	122
Doctor's office or clinic (no beds) Hired doctor:	68
Doctor's office or clinic (1 to 19 beds) Own practice:	9
Doctor's office or clinic (1 to 19 beds) Hired doctor:	16
A hospital other than a university hospital (20 to 99 beds):	49
A hospital other than a university hospital (100 to 199 beds):	117
A hospital other than a university hospital (200 to 399 beds):	215
A hospital other than a university hospital (400 to 599 beds):	180
A hospital other than a university hospital (600 to 799 beds):	78
A hospital other than a university hospital (800 or more beds):	29
A university hospital (20 to 99 beds):	1
A university hospital (100 to 199 beds):	0
A university hospital (200 to 399 beds):	8
A university hospital (400 to 599 beds):	21
A university hospital (600 to 799 beds):	54
A university hospital (800 or more beds):	111
Others:	0
total	1078

#### Q2. Where is your main workplace located (prefecture and city/ward/county)?

location	freq	location	freq	location	freq	location	freq
Tokyo	122	Miyagi	21	Ehime	14	Yamaguchi	8
Osaka	108	Ibaraki	21	Tokushima	12	Aomori	8
Hokkaido	75	Okayama	20	Oita	11	Tochigi	8
Aichi	68	Gunma	19	Kagawa	11	Kochi	7
Hyogo	58	Ishikawa	19	Kumamoto	11	Akita	6
Kanagawa	48	Hiroshima	18	Kagoshima	11	Yamagata	6
Fukuoka	38	Nagano	18	Fukui	11	Shimane	4
Saitama	37	Nara	17	Shiga	11	Saga	4
Chiba	34	Toyama	17	Fukushima	10	Tottori	4
Shizuoka	32	Nagasaki	16	Miyazaki	10	Okinawa	4
Kyoto	28	Niigata	15	Wakayama	10	Yamanashi	2
Gifu	22	Mie	15	Iwate	9		

Table 3: Workplace locations of respondents: prefecture

(1078 in total)

#### Q3. Please choose one department as your primary department.

In what follows, the number in parentheses indicates the frequency of respondents.

- General Internal Medicine (Family Medicine, General Medicine, Community Medicine) (107)
- (Neuro)psychiatry (95)
- Orthopedic Surgery (87)
- Pediatrics (62)
- Gastroenterology (59)
- Cardiovascular Medicine (58)
- Ophthalmology (56)

- Dermatology (42)
- Gastroenterological Surgery (41)
- Respiratory Medicine (39)
- Nephrology (36)
- Neurology (35)
- Otorhinolaryngology (33)
- Urology (32)
- Neurosurgery (29)
- Diabetic Medicine (25)
- Hematology (25)
- Anesthesiology (24)
- General Surgery (23)
- Obstetrics and Gynecology (23)
- General Diagnosis and Treatment (20)
- Radiology (20)
- Respiratory Surgery (12)
- Endocrinology (11)
- Cardiovascular Surgery (10)
- Breast Surgery (10)
- Plastic Surgery (9)
- Rehabilitation (8)
- Emergency Medicine (6)

- Metabolism (5)
- Rheumatology (5)
- Pain Clinic (4)
- Infectious Disease (4)
- Connective Tissue Disease (3)
- Psychosomatic Medicine (3)
- Palliative Medicine (2)
- Intensive Care Unit (2)
- Oncology (1)
- Allergology (1)
- Oriental Medicine (1)
- Cosmetic Surgery (1)
- Endocrine Surgery (0)
- Artificial Organ/Transplant Surgery (0)
- Pediatric Surgery (0)
- Geriatrics (0)
- Other (9)

(1078 in total)

Note that the names of medical departments do not correspond to those of specialist qualifications. Recently, medical specialist qualifications in Japan are basically classified into 19 medical specialties (general internal medicine, surgery, etc.) and 24 subspecialties (respiratory internal medicine, digestive surgery, etc.) by the Japanese Board of Medical Specialists (JBMS) which was established in 2014.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup>See the website of the JBMS (https://jmsb.or.jp/ippan#an03, in Japanese).

#### Q4. What are the names of all the specialist qualifications you have, if any?

qualification	frequency
General Internal Medicine	129
Orthopedic Surgery	56
Surgery	42
Pediatrics	33
Psychiatry	29
Ophthalmology	29
Circulation	27
Gastroenterology	19
Dialysis (*)	19
Nephrology	17
Diabetes	17
Dermatology	15
Mental Health (*)	15
Neurology (*)	15
total	462

Table 4: Respondents' specialist qualifications

Doctors who completed specialist training programs after receiving the initial clinical training are called "certified doctors" and they are distinguished from "specialists" who satisfied higher standards for both clinical and research achievements in specialized fields. In the past, many qualifications were accredited by medical societies themselves. (There were no accreditation by an independent third party.) There was some confusion of names and contents of specialist qualifications, before the JBMS defines the standard classification.

- The Japanese Society of Internal Medicine changed the names of the specialist qualification from internal medicine to general internal medicine.
- The gastroenterology is not listed in the JBMS classification, but gastrointestinal internal medicine and gastrointestinal surgery are listed as subspecialties there. Nephrology and Diabetes are listed as subspecialties in the JBMS classification.
- Dialysis, Mental Health, and Neurology are not listed in the JBMS classification.

frequency
58
87
19
78
321
218
157
82
33
7
1060

Table 5: Work hours of respondents in a week

Q5. In an average week, about how many hours do you work?

Note that 18 respondents did not answer to this question appropriately; they probably answered their work hour in an average month.

Q6. If you divide your work activities according to the categories below, about what percentage of your time is spent on each?

activity	mean~(%)
General outpatient care	41.920223
Emergency outpatient care	3.975881
Care in hospital wards	22.069573
Home-visit treatment	1.335807
Surgery	10.282004
Tests	4.775510
Shift duty	5.021336
Education or training	2.782931
Research	3.325603
Administrative work or other	4.511132

 Table 6: Average effort rate

year	frequency
1970 to 1979	16
1980 to $1989$	205
1990 to $1999$	292
2000 to 2009	360
2010 to $2017$	205
total	1078

#### Q7. In what year did you obtain your medical license?

Table 7: Years in which respondents obtained the medical license

As noted at the beginning of this section, the national examination for medical practitioners in Japan is held in February every year, and initial clinical training begins in April.

Q8. How many hospitals where you requested to receive initial clinical training (junior residency) did you visit before obtaining your medical license? (Please respond with a whole number of 1 or more, including the hospital of the school you attended.)

Q9. In what prefecture was the university from which you graduated located? (If it was in Tokyo Prefecture, please specify whether it was in one of the 23 wards of Tokyo or in another municipality.)

Participants' answers to Q9 and Q10 are jointly visualized in heatmap tables.

-	
1	539
2	171
3	162
4	72
5	73
6	16
7	7
8	10
9	3
10	17
12	1
15	3
20	2
35	1
80	1
total	1078

Table 8: Numbers of hospitals to which respondents applied

### Q10. Where was the following medical institution located (prefecture and city/ward/county)?

The hospital where you received initial clinical training (junior residency) (if there was more than one, please put the prefecture of the first hospital. If it is in a town or village, please give only the name of the county.)

Location [prefecture and city/ward/county] ( )

Suppose that you went back to the time when you just obtained your medical license. If you obtained the license before 2010, pretend that the initial clinical training system established in 2004 was already in place and the regional cap introduced in 2010 was virtually in use for matching you with a hospital for your residency. What hospital would you have wished to carry out your (junior) residency at the most? (If it is in a town or village, please give only the name of the county.)

In Q11-2, participants were asked to answer whether their parents had opened doctor's offices or clinics. A preparatory medical training (which developed into the initial clinical training in 2004) was not mandatory for doctors who passed the national examination between 1968 and 2003. In fact, some doctors started their career without receiving the preparatory medical training in such a case that their relatives were private-practice doctors. Accordingly, there were some respondents who obtained the medical license before 2004 and did not receive the preparatory medical training, although those respondents were rare. For those respondents, the first workplaces can be considered as training hospitals at which they received a kind of preparatory medical training. This point is taken into account when we draw heatmap tables of transition ratios depicted in Figures 1 and 3, where the locations are summarized in prefectures and the decimals are rounded off there.



Figure 1: Transition from medical schools to training hospitals



Figure 2: Transition from training hospitals to current workplaces



Figure 3: Transition from medical schools to current workplaces

### Q11. Are you currently a member of a medical office? Select the response below that best matches your situation.

(1) I am currently a member of a medical office (Ikyoku in Japanese): Yes, No

- Yes · · · 693, No · · · 385
- (2) My parents have opened doctor's office or clinic: Yes, No
  - Yes  $\cdots$  135, No  $\cdots$  943

As noted in Section 1, Japan had its own medical system, whereby doctors' associations known as medical offices (centered on university hospitals) intensively managed the provision of doctors to each hospital, including training hospitals. This system is still active.

#### Q12. Do you have a spouse and/or dependent(s)?

- 1. Spouse who is eligible to be a dependent person
  - Yes  $\cdots$  59.0%, No  $\cdots$  41.0%
- 2. Spouse who is not eligible to be a dependent person
  - Yes  $\cdots$  78.0%, No  $\cdots$  22.0%
- 3. Dependent other than spouse who is under 18 years of age dependent(s)

number	percentage
0	47.0
1	18.0
2	23.0
3	10.0
4	1.0
5	0.0

4. Dependent other than spouse who is between 19 and 64 years of age dependent(s)

number	percentage
0	83.0
1	10.0
2	5.0
3	1.0
4	0.0

5. Dependent other than spouse who is aged 65 or older dependent(s)

number	percentage
0	95.0
1	4.0
2	1.0
3	0.0

Q13. Where do you hope to provide or continue providing medical care in the future (name of Prefecture and city/ward/county)? (If it is in a town or village, please give only the name of the county.)

•	In your 30s:	Community	[prefecture and city/ward/county] (	)
•	In your 40s:	Community	[prefecture and city/ward/county] (	)
•	In your 50s:	Community	[prefecture and city/ward/county] (	)
•	In your 60s:	Community	[prefecture and city/ward/county] (	)
•	In your 70s:	Community	[prefecture and city/ward/county] (	)

The locations are summarized in prefectures and the decimals are rounded off there, the heatmap table depicted in Figures 4, 5, 6, 7, and 8.



Figure 4: Current Workplace and Preferred Workplace: 30s



Figure 5: Current Workplace and Preferred Workplace: 40s



Figure 6: Current Workplace and Preferred Workplace: 50s



Figure 7: Current Workplace and Preferred Workplace: 60s



Figure 8: Current Workplace and Preferred Workplace: 70s

Q14. If you were to change jobs to another location in the future, what would be your priorities? Please choose five options from the priorities below. (If you answered 1 or 3 to Q1, skip Q14.)

- There is little overtime work. (550)
- I can take long vacations such as summer vacation. (437)
- It offers a good educational environment for children. (297)
- Medical staff other than doctors are cooperative. (374)
- I can provide medical care to a broad range of local residents. (274)
- I can participate in academic conferences. (258)
- I am exempt from providing care outside my area of expertise. (168)
- It is in a big city. (137)
- It has Internet connectivity. (135)
- It is close to my parents. (129)
- The care environment is equipped with advanced testing equipment. (93)
- I can carry out research. (93)
- It is in a rural area with good public transportation to the big city. (89)
- I can take on a leadership role in the organization. (87)
- I can improve my skills in invasive medical procedures such as endoscopic procedures or surgery. (82)
- It has a good shopping environment for obtaining food, daily necessities, and other goods. (76)
- I have many acquaintances there. (64)

- I can open my own clinic. (53)
- I can participate in training activities for trainees. (25)
- Moving expenses are provided. (25)
- I can provide emergency care. (25)
- Others (28)

Q15. What types of work would you like to increase or reduce in the future?

increase	reduce
460	108
40	296
147	157
33	458
197	84
246	94
24	307
83	213
	increase 460 40 147 33 197 246 24 83

Table 9: Respondents' Preference for types of work

#### **Appendix:** Questionnaires

#### Survey of Doctors' Career: the Current State of Work Conditions and Workplace Preferences

Thank you for participating in this survey. The target of this survey is doctors. Questions are mainly on the following two topics.

- (1) The work-related circumstances for doctors. Based on your responses, we will create basic materials for discussions on a new state of medical care and work style for doctors.
- (2) The state of medical care evidence and medical care that is attainable without health insurance coverage. Based on your responses, we will create a basic document on the current state of medical care.

Your understanding of the purpose of the questionnaire and cooperation would be greatly appreciated.

Use of response data: All opinions received will be statistically processed and no names or other personal information of respondents will be specified. Open-ended responses will also be converted into data so that individual respondents cannot be identified. Please note that the results of the processed data will be published based on the above premises.

Eligibility : Doctors in charge of medical care whose main workplace is a clinic or hospital.

Time required : About 10 minutes

**Deadline for response** : Midnight on Wednesday, February 15, 2018 (starting from Morning on February 9, 2018)

Purpose for use : Publishing

Please only continue with the questionnaire if you agree to participate in the survey.

First, we will ask about your current work conditions.

#### Q1. What is your main workplace?

- 1. Doctor's office, clinic (no beds) Own practice
- 2. Doctor's office, clinic (no beds) Hired doctor
- 3. Doctor's office, clinic (1 to 19 beds) Own practice
- 4. Doctor's office, clinic (1 to 19 beds) Hired doctor
- 5. A hospital other than a university hospital (20 to 99 beds)
- 6. A hospital other than a university hospital (100 to 199 beds)
- 7. A hospital other than a university hospital (200 to 399 beds)
- 8. A hospital other than a university hospital (400 to 599 beds)
- 9. A hospital other than a university hospital (600 to 799 beds)
- 10. A hospital other than a university hospital (800 or more beds)
- 11. A university hospital (20 to 99 beds)
- 12. A university hospital (100 to 199 beds)
- 13. A university hospital (200 to 399 beds)
- 14. A university hospital (400 to 599 beds)
- 15. A university hospital (600 to 799 beds)
- 16. A university hospital (800 or more beds)
- 17. Others

## Q2. Where is your main workplace located (prefecture and city/ward/county)? (If it is in a town or village, please give only the name of the county.)

Location [prefecture and city/ward/county] ( )

#### Q3. Please choose one department as your primary department.

- General Internal Medicine (Family Medicine, General Medicine, Community Medicine) (107)
- 2. General Diagnosis and Treatment
- 3. Gastroenterology
- 4. Cardiovascular Medicine
- 5. Respiratory Medicine
- 6. Infectious Disease
- 7. Endocrinology
- 8. Metabolism
- 9. Diabetic Medicine
- 10. Hematology
- 11. Oncology
- 12. Nephrology
- 13. Neurology
- 14. Connective Tissue Disease
- 15. Allergology
- 16. Psychosomatic Medicine
- 17. Geriatrics

- 18. Rehabilitation
- 19. Pediatrics
- 20. General Surgery
- 21. Gastroenterological Surgery
- 22. Respiratory Surgery
- 23. Cardiovascular Surgery
- 24. Breast Surgery
- 25. Endocrine Surgery
- 26. Artificial Organ/Transplant Surgery
- 27. Pediatric Surgery
- 28. Orthopedic Surgery
- 29. Rheumatology
- 30. Urology
- 31. Neurosurgery
- 32. Obstetrics and Gynecology
- 33. Plastic Surgery
- 34. Cosmetic Surgery
- 35. Anesthesiology
- 36. Intensive Care Unit
- 37. Emergency Medicine
- 38. Pain Clinic
- 39. Palliative Medicine

- 40. Ophthalmology
- 41. Dermatology
- 42. Otorhinolaryngology
- 43. Radiology
- 44. (Neuro)psychiatry
- 45. Oriental Medicine
- 46. Other (

#### Q4. What are the names of all the specialist qualifications you have, if any?

#### Q5. In an average week, about how many hours do you work?

)

Average number of work hours in one week: hours

Q6. If you divide your work activities according to the categories below, about what percentage of your time is spent on each? Please ensure the overall total is 100%.

- 1. General outpatient care ()%
- 2. Emergency outpatient care ( )%
- 3. Care in hospital wards ( )%
- 4. Home-visit treatment ( )%
- 5. Surgery ( )%
- 6. Tests ( )%
- 7. Shift duty ( )%
- 8. Education or training ( )%

10. Administrative work or other ( )%

Total 100%

The following questions are about your background as a doctor.

Q7. In what year did you obtain your medical license?

Q8. How many hospitals where you requested to receive initial clinical training (junior residency) did you visit before obtaining your medical license? (Please respond with a whole number of 1 or more, including the hospital of the school you attended.)

( ) hospital(s)

Q9. In what prefecture was the university from which you graduated located? (If it was in Tokyo Prefecture, please specify whether it was in one of the 23 wards of Tokyo or in another municipality.)

Name of prefecture:

Q10. Where was the following medical institution located (prefecture and city/ward/county)?

The hospital where you received initial clinical training (junior residency) (if there was more than one, please put the prefecture of the first hospital. If it is in a town or village, please give only the name of the county.)

Location [prefecture and city/ward/county] ( )

Suppose that you went back to the time when you just obtained your medical license. If you obtained the license before 2010, pretend that the initial clinical training system established in 2004 was already in place and the regional cap introduced in 2010 was virtually in use for matching you with a hospital for your residency.

What hospital would you have wished to carry out your (junior) residency at the most? (If it is in a town or village, please give only the name of the county.)

Location [prefecture and city/ward/county] ( )

### Q11. Are you currently a member of a medical office? Select the response below that best matches your situation.

- (1) I am currently a member of a medical office (Ikyoku in Japanese): Yes, No
- (2) My parents have opened doctor's office or clinic: Yes, No

The following question is about your background as an ordinary citizen.

#### Q12. Do you have a spouse and/or dependent(s)?

- Spouse who is eligible to be a dependent person (Yes: )
- Spouse who is not eligible to be a dependent person (Yes: )
- Dependent other than spouse who is under 18 years of age dependent(s) (in total: )
- Dependent other than spouse who is between 19 and 64 years of age dependent(s) (in total: )
- Dependent other than spouse who is aged 65 or older dependent(s) (in total: )

The following questions are about your future.

Q13. Where do you hope to provide or continue providing medical care in the future (name of Prefecture and city/ward/county)? (If it is in a town or village, please give only the name of the county.)

•	In your 30s: Community [prefecture and city/ward/county] (	)
•	In your 40s: Community [prefecture and city/ward/county] (	)
•	In your 50s: Community [prefecture and city/ward/county] (	)
•	In your 60s: Community [prefecture and city/ward/county] (	)
•	In your 70s: Community [prefecture and city/ward/county] (	)

Q14. If you were to change jobs to another location in the future, what would be your priorities? Please choose five options from the priorities below. (If you answered 1 or 3 to Q1, skip Q14.)

- You can provide medical care to a broad range of local residents.
- You can improve your skills in invasive medical procedures such as endoscopic procedures or surgery.
- The care environment is equipped with advanced testing equipment.
- You can provide emergency care.
- You can take on a leadership role in the organization.
- Medical staff other than doctors are cooperative.
- You can carry out research.
- You can participate in academic conferences.

- You can participate in training activities for trainees.
- You are exempt from providing care outside your area of expertise.
- You have many acquaintances there.
- There is little overtime work.
- You can take long vacations such as summer vacation.
- It offers a good educational environment for children.
- It is in a big city.
- It is in a rural area with good public transportation to the big city.
- It has a good shopping environment for obtaining food, daily necessities, and other goods.
- It has Internet connectivity.
- It is close to your parents.
- Moving expenses are provided.
- You can open your own clinic.
- Other ( )

#### Q15. What types of work would you like to increase or reduce in the future?

Types of work I would like to increase:

- 1. General outpatient care
- 2. Emergency outpatient care
- 3. Care in hospital wards
- 4. Shift duty

- 5. Education or training
- 6. Research
- 7. Administrative work
- 8. Other ( )

Types of work I would like to reduce:

- 1. General outpatient care
- 2. Emergency outpatient care
- 3. Care in hospital wards
- 4. Shift duty
- 5. Education or training
- 6. Research
- 7. Administrative work
- 8. Other ( )

Q16. There are currently many services available to help doctors change jobs. How do you think these services affect the uneven distribution of doctors throughout the country and the placement of clinicians in each locality? Please choose the statement that best matches your impression. (One response only)

- It accelerates the uneven distribution of clinicians and has a good effect on the placement of doctors in each locality.
- It accelerates the uneven distribution of clinicians and has a bad effect on the placement of doctors in each locality.

- It does not accelerate the uneven distribution of clinicians and has a good effect on the placement of doctors in each locality.
- It does not accelerate the uneven distribution of clinicians and has a bad effect on the placement of doctors in each locality.
- I do not know.

Please answer about evidence in medical care.

Q17. To the best of your memory, how many medicines, medical devices, or medical practices that can be provided by using health insurance are currently still in use in medical practice even though "there is no evidence for them"? (Open-ended, multiple answers allowed)

In this survey, we will distinguish between medicines, medical devices, and medical practices for which studies have found no improvement in prognosis (specifically vital prognosis such as survival rate and functional prognosis such as quality of life or presence or absence of an impairment) and medicines, medical devices, and medical practices that have not been studied adequately.

Medicines, medical devices, and medical practices that remain in use in medical practice even though adequate research has been conducted and the effects have not been shown to improve prognosis.

(Details:

)

Medicines, medical devices, and medical practices that remain in use in medical practice even though adequate research has not been conducted and evidence is insufficient (it is not known if they are effective)

(Details:

)

Q18. To the best of your memory, please tell us, among medicines or medical devices that can be provided by using health insurance, are there commercial products offering the same effects that can be purchased at a pharmacy or other store without using insurance? (Open-ended, multiple answers allowed)

(Details:

)

Thank you for your cooperation.

#### References

- Kamada, Y., Kojima, F. 2015. Efficient Matching under Distributional Constraints: Theory and Applications. American Economic Review 105, 67-99.
- Kamada, Y., Kojima, F. 2017. Stability Concepts in Matching under Distributional Constraints. Journal of Economic Theory 168, 107-142.
- Kamada, Y., Kojima, F. 2018. Stability and Strategy-Proofness for Matching with Constraints: A Necessary and Sufficient Condition. *Theoretical Economics* 13, 761-794.
- Kamada, Y., Kojima, F. 2019. Accommodating Various Policy Goals in Matching with Constraints, Japanese Economic Review 71, 101-133.
- Kamada, Y., Kojima, F. 2020. Fair Matching with Constraints: Theory and Applications. forthcoming in *Review of Economic Studies*.