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## Special Feature Article

### Current Status of Emergency Psychiatric Care in an Area with a Declining Population in Japan

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#### Abstract

In Ishikawa Prefecture, the psychiatric emergency care system was started in 1998 and has become established among the residents. In the prefecture, the number of emergency psychiatric consultations has been declining. In particular, the number of patients treated by Ishikawa Prefectural Hospital of Mental Health has decreased significantly. On the other hand, the number of the reports by police officers and the number of involuntary hospitalizations in the Ishikawa Prefecture are increasing. It is noteworthy that schizophrenic patients account for only a small percentage of the total number of involuntary hospitalizations. Improvement of the local mental health care system could contribute to this situation.

**Keywords:** psychiatric emergency care system, population declining area, Ishikawa Prefecture, report by the police officer, involuntary hospitalization

#### Introduction

In Japan, the psychiatric emergency care system development project was

initiated in 1995. Under this initiative, projects meeting specific criteria, such as securing available beds through a

rotating system or core hospital system and convening liaison and coordination committees, received national subsidies covering half of their operating costs.<sup>1)</sup> In Ishikawa Prefecture, the psychiatric emergency care system liaison and coordination office (discontinued following the 2008 guideline revision) was established at Ishikawa Prefectural Takamatsu Hospital (now Ishikawa Prefectural Mental Health Hospital, hereinafter referred to as this hospital) in April 1998. Concurrently, this hospital became designated as both a core and rotating hospital, initiating the operation of the prefectural psychiatric emergency care system centered on this hospital. Over 20 years have passed since then, and the system is now considered to be fully established in Ishikawa Prefecture. However, several issues requiring future consideration are evident, such as changes in disease patterns and the impact of population decline. This report presents data on the actual state of psychiatric emergency care at our hospital, which primarily serves the Noto region, an area experiencing population decline, and the status of involuntary hospitalization in Ishikawa Prefecture, along with some observations. All statistical data used in this paper were surveyed and published by the Disability Health and Welfare Division, Health and Welfare Department, Ishikawa Prefecture.

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## **I. Population Dynamics and Distribution of Psychiatric Facilities in Ishikawa Prefecture**

For over 1,000 years, the Ōmi River, originating at the southern foot of Mount Hōdatsu in Hōdatsushimizu Town, Hakui District, Ishikawa Prefecture, has formed a boundary between the Kaga and Noto regions. Under the current administrative divisions, the area south of Kahoku City constitutes the Kaga region, and the area north of Hōdatsushimizu Town is the Noto region. Secondary medical service areas, reflecting historical context and transportation conditions, are also designated: the Minami-Kaga Medical Service Area and Ishikawa Central Medical Service Area in the Kaga region, and the Noto Central Medical Service Area and Noto Northern Medical Service Area in the Noto region (Figure 1). In recent years, population decline in the Noto region has been marked. As of October 2020, Ishikawa Prefecture's population was approximately 1.13 million, with 952,000 in the Kaga region and 178,000 in the Noto region. Noto region's population accounts for only 18.7% of the prefecture's total (down from 21.5%

in 1995).<sup>3)</sup> As shown in Figure 2, the populations of Noto Central and Noto North are projected to continue declining. Total population estimates in the Noto region are: 165,000 in 2025, 135,000 in 2035, and 107,000 in 2045.<sup>2)</sup>

Hospitals in Ishikawa Prefecture with psychiatric beds include 15 single-specialty psychiatric hospitals and five general hospitals. The total number of psychiatric beds as of April 2020 was 3,726,<sup>7)</sup> distributed unevenly as shown in Figure 1: Minami-Kaga (589 beds, 16%), Central Ishikawa (2,907 beds, 78%), Central Noto (230 beds, 6%), and Northern Noto (0 beds). For the prefecture as a whole, the standard deviation score for psychiatric beds per capita is 53, indicating a slightly higher number of such beds.<sup>7)</sup>

## II. Ishikawa Prefecture Psychiatric Emergency Care System

Since the inception of the Ishikawa Prefecture psychiatric emergency care system, a combined rotation and core hospital system has been in place: on-call hospitals handle daytime hours (9:00 AM — 5:00 PM) on weekdays and holidays, core hospitals handle nighttime hours (5:00 PM — 9:00 AM the following day), and general hospitals handle cases involving physical complications. The rotating system framework has evolved owing to factors such as physician shortages and ward

closures. Since April 2018, it has been operated by nine facilities south of southern Kanazawa City (including one core hospital) and eight facilities north of northern Kanazawa City (including one core hospital). Since the psychiatric care area covers the entire prefecture, patients south of Kanazawa City may visit hospitals north of the city, and vice versa. However, since fiscal year 2018, the prefecture has separately tallied the number of out-of-hours, holiday, or night-time consultations (emergency cases) for areas south and north of Kanazawa City. Ishikawa Prefecture reports these emergency case numbers to the national government as part of its psychiatric emergency care system development project performance.

Figure 3 shows the number of emergency cases recorded by the prefecture since fiscal year 2012. The correlation coefficient between the fiscal year and patient count was  $-0.623$ , indicating a moderately strong negative correlation, suggesting a decreasing trend in emergency cases. Emergency cases in the area north of northern Kanazawa City since fiscal year 2018 numbered 162, 191, 158, and 170, representing 20.9, 20.4, 16.7, and 20.9% of the total, respectively. Figure 4 shows the cumulative total of emergency cases at our hospital since fiscal year 2010, which also indicates a decreasing trend.

During the 2020 medical fee revision, the requirement for calculating psychiatric emergency hospitalization fees was an annual emergency case volume of 150 or more. We anticipated that it would only be a matter of time before our hospital could no longer meet this requirement. However, the 2022 medical fee revision abolished the psychiatric emergency hospitalization fee, replacing it with a combined fee structure comprising the psychiatric emergency acute-phase medical care hospitalization fee, psychiatric emergency medical care system surcharge, and psychiatric acute-phase physician staffing surcharge. The actual number of emergency cases required was relaxed to 30 or more per year for the Psychiatric Emergency Acute Care Hospitalization Fee and 40 or more per year for the Psychiatric Emergency Care System Surcharge, making it more aligned with our hospital's actual situation.

The primary reason for the decrease in our emergency cases is likely the population decline and aging in the Noto region. However, considering that the decrease is also evident across the entire prefecture, it may indicate that strengthening of the regional mental health and welfare system, through various initiatives such as multidisciplinary discharge support, home-visit nursing, and post-discharge

community support, is proving effective. Our hospital provides comprehensive psychiatric support management, including intensive discharge and post-discharge community support. While readmission rates remain unchanged, the number of days spent living in the community has increased, and we are currently analyzing these data. Furthermore, because all readmissions occur during regular clinic hours, adequate community support could likely prevent these cases from becoming emergencies. Previously, high points were assigned for accepting psychiatric emergency cases in the medical fee schedule. Now, should points be allocated specifically for post-discharge community support? We hope that the newly established: "Continuing Care Support Add-on," introduced in the 2022 medical fee revision, will serve as a catalyst for this shift.

### **III. Status of Involuntary Hospitalization in Ishikawa Prefecture**

Figure 5 shows the number of involuntary and emergency involuntary hospitalizations (involuntary cases) in Ishikawa Prefecture. Ishikawa Prefecture implements psychiatric evaluation for involuntary admissions by two designated physicians whenever possible, even late at night, resulting in few emergency involuntary hospitalizations. The correlation

coefficient between the fiscal year and case count is 0.57, indicating a moderately strong positive correlation, with compulsory cases showing an increasing trend.

Figure 6 shows the number of reports of involuntary hospitalization. The correlation coefficient between the fiscal year and number of reports was 0.87, indicating a strong positive correlation. Typically, in Ishikawa Prefecture, when police officers respond to a scene and case of suspected mental illness, if the family desires the subject to seek medical care, the police often accompany him/her to a hospital without filing a report. Following the March 2018 “Guidelines for the Implementation of Involuntary hospitalization,”<sup>5)</sup> the National Police Agency issued a document, entitled: “Points to Note in the Implementation of Reports Based on Article 23 of the Act on Mental Health and Welfare of Persons with Mental Disorders,”<sup>4)</sup> to all prefectural police departments, demanding strict adherence to the guidelines. The Ishikawa Prefectural Police complied and have since been appropriately issuing police reports.

Figure 7 shows the diagnostic categories for the 257 cases of involuntary hospitalization in Ishikawa Prefecture from fiscal years 2019 to 2021. Furthermore, the proportions of diagnostic categories were compared

with those of 2,992 cases in Saitama Prefecture.<sup>8)</sup> (Figure 8) Since Ishikawa Prefecture's data reflect the diagnosis made by the primary examining physician, while Saitama Prefecture's data include cases where the diagnoses of two examining physicians agreed, statistical testing was not performed; the comparison is shown for reference.

Among the 14 F4 cases in Ishikawa Prefecture, 12 were adjustment disorders. A typical example involves a person pointing a knife at family members or themselves during a nighttime family dispute. Even for F7 or F8/9, these are not narrowly defined psychotic states and have limited pathological features. Designated physicians do not base their necessity-of-treatment judgments solely on the risk of self-harm or harm to others. As reported, 45% of designated physicians feel implicitly pressured by stakeholders to judge that involuntary hospitalization is necessary during psychiatric evaluations for involuntary admission.<sup>6)</sup> This suggests that judgments are more challenging when there are no narrowly defined psychotic states. Therefore, Ishikawa Prefecture decided to hold biannual designated physician training sessions starting in fiscal year 2022, co-hosted by the prefecture and Ishikawa Psychiatric Association. Using actual cases from psychiatric evaluation for involuntary

admission, they conducted group work and planned to eventually include public health nurses and police officers in the training to standardize the judgments of designated physicians.

Ishikawa Prefecture's data cover the last three years, and it will be necessary to monitor future trends. Comparisons with municipalities outside Saitama Prefecture are also needed. However, the trend toward milder schizophrenia and diversification of mental disorders are likely felt by everyone in daily clinical practice. Furthermore, as discussed in relation to the decrease in emergency cases, if regional mental health care and welfare systems are strengthened, involuntary hospitalizations due to psychotic states in the narrow sense may decrease. As Nemoto et al.<sup>6)</sup> also pointed out, it may be time to consider the involuntary hospitalization system, and entire framework of non-consensual admissions including medical protection-based hospitalization, from a broader perspective.

### Conclusion

This report details the current state of psychiatric emergency care in Ishikawa Prefecture and examines psychiatric emergency care and the involuntary hospitalization system. Given that Ishikawa Prefecture's aging population and population decline may foreshadow

Japan's broader demographic trends, we hope that this serves as a useful reference for future developments.

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図1 石川県の二次医療圏と精神病床のある病院の分布

Figure 1: Distribution of hospitals with psychiatric beds by secondary medical care area in Ishikawa Prefecture

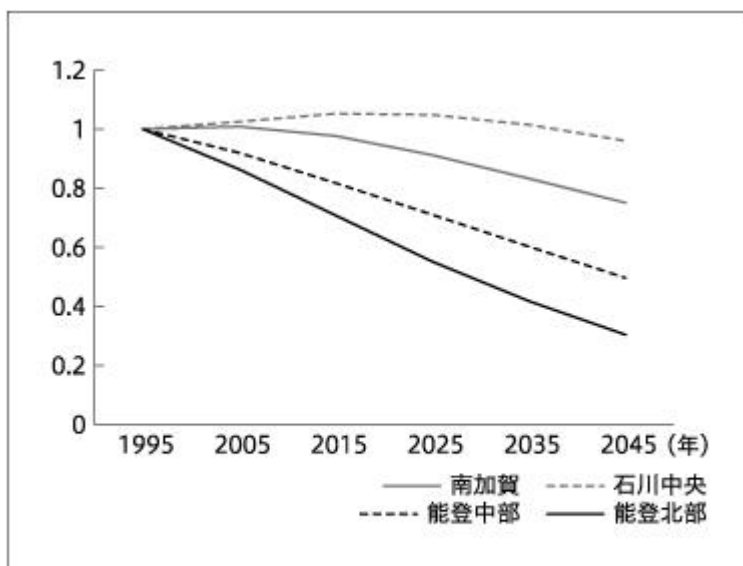


図2 二次医療圏ごとの人口減少率と推計値  
1995年の人口を1としたときの値を示した。

Figure 2: Rate of population decline and projected values by secondary medical care area

Values are shown relative to the 1995 population (set as 1).

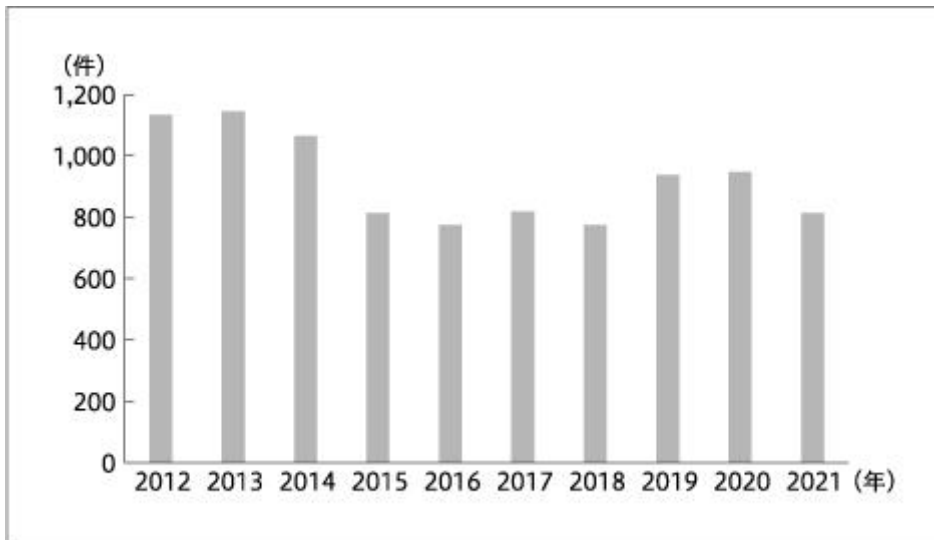


図3 時間外・休日または夜間における診療件数（救急件数）

Figure 3: Numbers of out-of-hours, holiday, and night-time medical consultations (emergency cases)

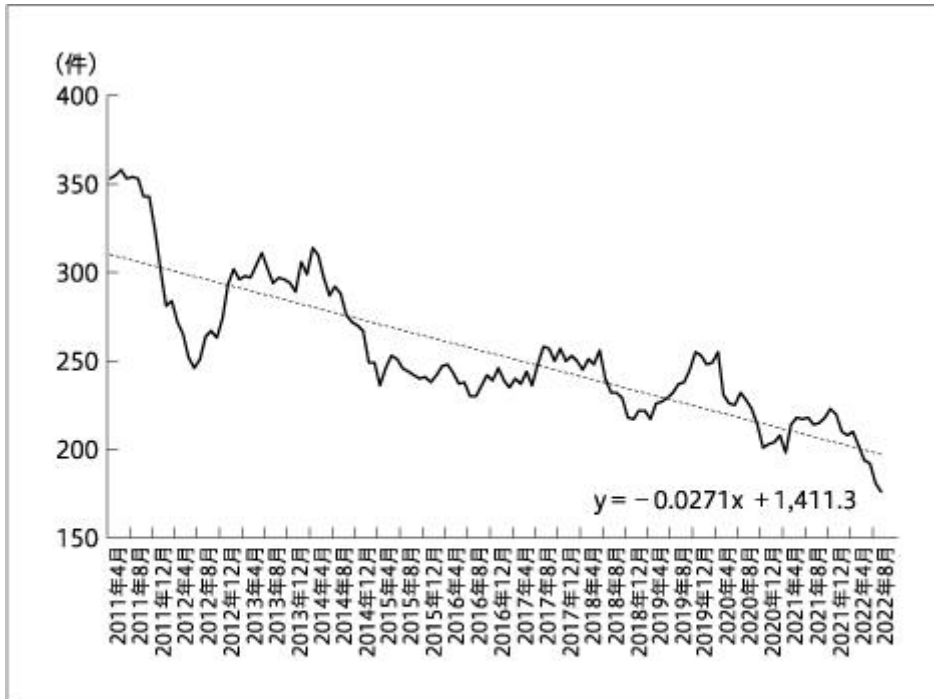


図4 石川県立こころの病院の救急件数の移動累計

実線は、前12カ月の件数の合計を翌月に示したものである。破線はMicrosoft Excelで求めた近似曲線である

Figure 4: Rolling cumulative total of emergency cases at Ishikawa Prefectural Mental Health Hospital

The solid line shows the total number of cases from the previous 12 months in the following month. The dashed line is an approximation curve calculated using Microsoft Excel.

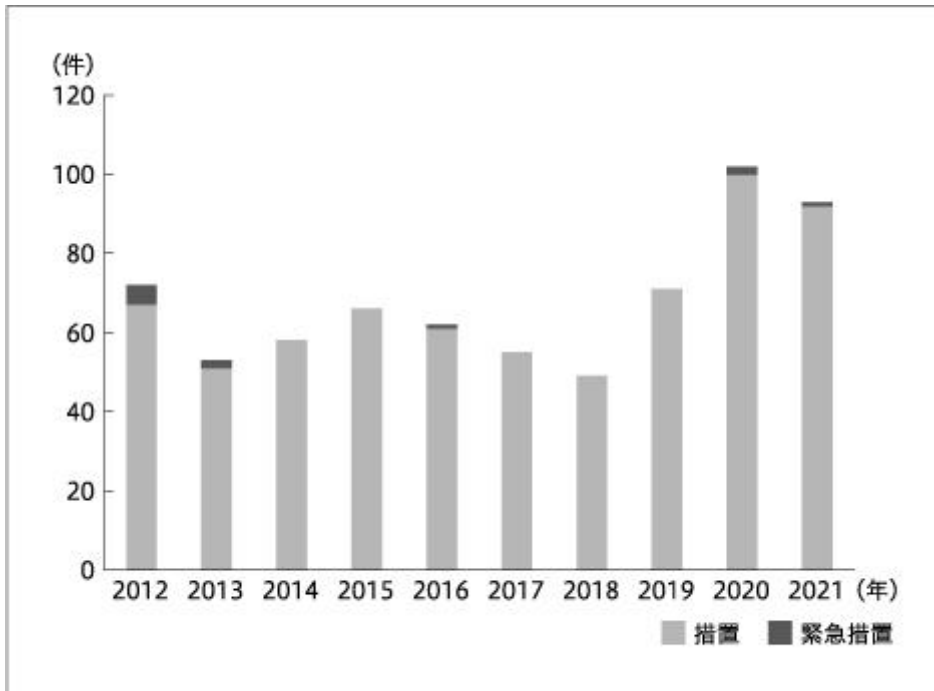


図5 石川県における措置・緊急措置入院件数

Figure 5: Numbers of compulsory and emergency involuntary hospitalizations in Ishikawa Prefecture

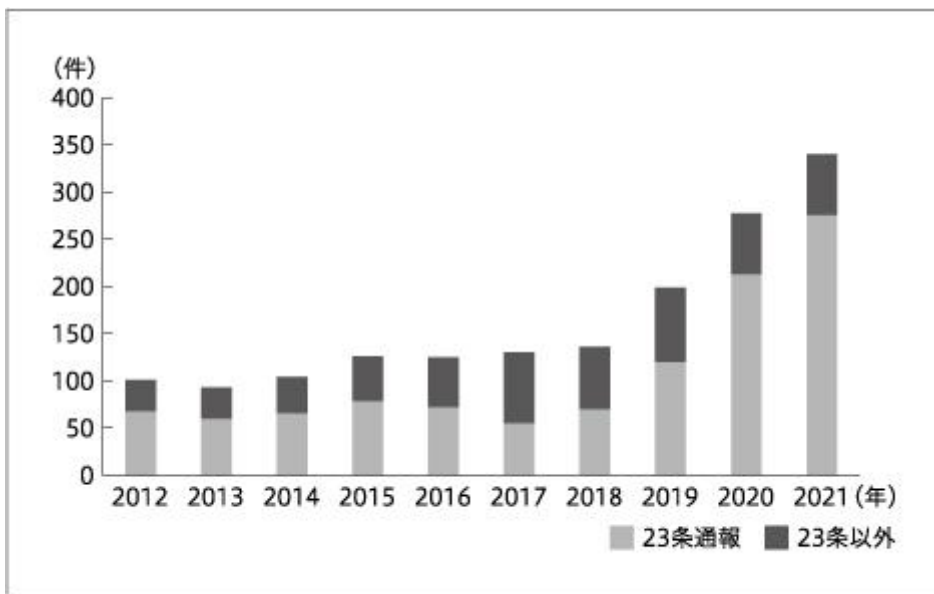


図6 石川県における措置通報件数

Figure 6: Number of involuntary hospitalization reports in Ishikawa Prefecture

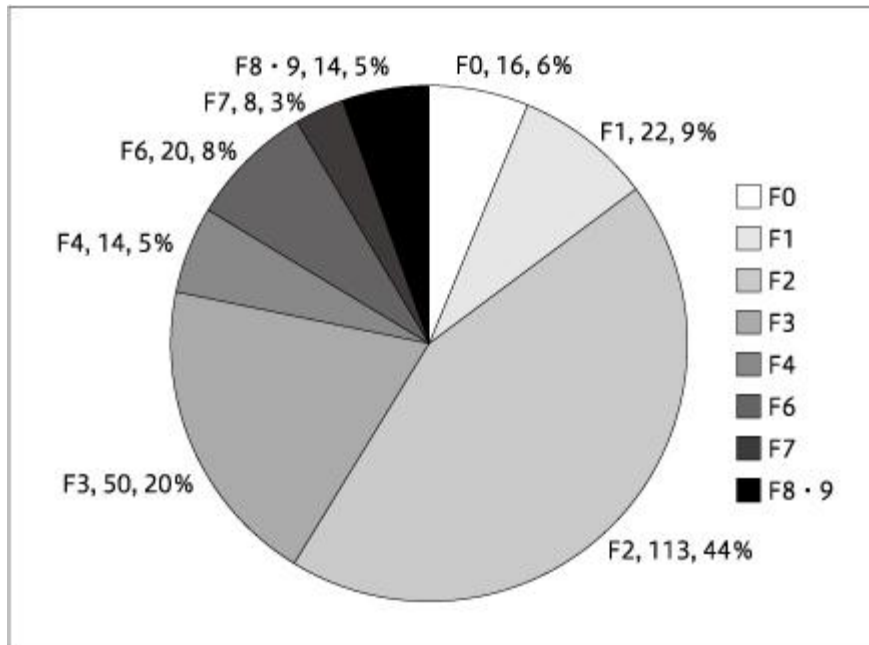


図7 措置入院患者の診断カテゴリー（2019～2021年度）  
値は、診断カテゴリー、件数、パーセントの順で示した

Figure 7: Diagnostic categories for involuntarily hospitalized patients (FY2019–2021)

Values are shown in the order of diagnostic category, number of cases, and percentage.

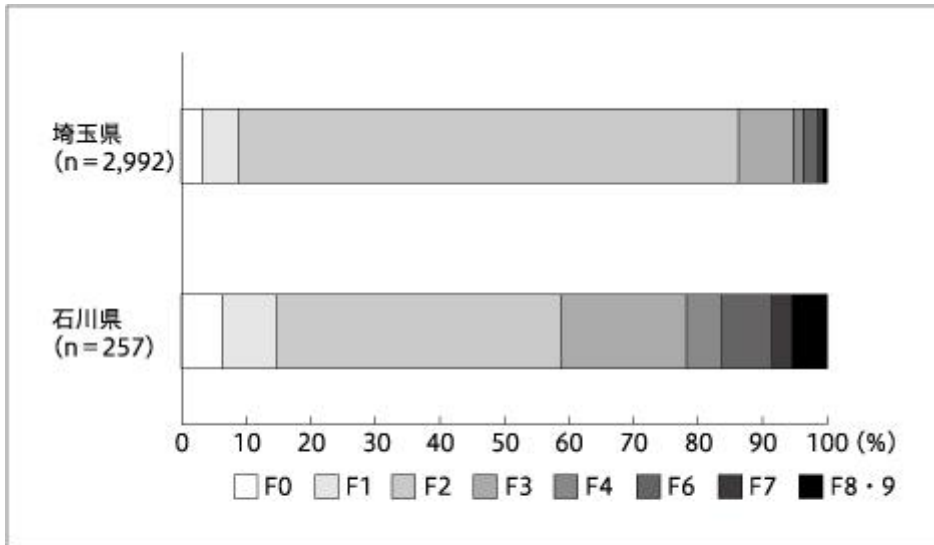


図8 措置入院の診断カテゴリーの比較

石川県は2019～2021年度の257例，埼玉県は文献8による2007～2016年度の2,992例。

Figure 8: Comparison of diagnostic categories for involuntary hospitalization; Ishikawa Prefecture: 257 cases (FY2019–2021); Saitama Prefecture: 2,992 cases (FY2007–2016), according to Reference 8.