

Referral to mental health specialists

History of referral to mental health specialists during the previous 6 months was surveyed from medical records after the consultation day for all patients evaluated as having any mood disorder using the PHQ described below.

Depressive disorders and other psychiatric comorbidities

We used the Japanese version of the Patient Health Questionnaire (PHQ) to assess depressive disorders [14]. The PHQ is a self-report version of the Primary Care Evaluation of Mental Disorders (PRIME-MD) [15] that was developed as a primary care screening tool for common mental disorders, including major depressive disorder and probable alcohol abuse or dependence [16,17]. The PHQ has been used in studies all over the world [18,19]. The Japanese PHQ was developed and its validity was assessed using the Mini-International Neuropsychiatric Interview-Plus [14]. We used a 9-item depression module of the Japanese PHQ to assess major depressive disorder and other depressive disorders. Clinical significance of major depressive disorder and other depressive disorders was assessed using a categorical algorithm for the PHQ depressive module. Patients were assessed as having major depressive disorder if they responded "more than half the days" or higher to five or more of the nine items (Questions 1a-1i). Question 1i was included in this total if their response was at least "several days." In addition, the five items had to include either Question 1a or 1b. A patient was considered to have another depressive disorder if they responded with at least "more than half the days" to two, three, or four of the nine items. Again, Question 1i was included in the total items if it received at least "several days", and one of the items had to include either Question 1a or 1b. Patients were considered to have "any mood disorder" when evidence for both major depressive disorder and another depressive disorder was present. The sensitivity and specificity of major depressive disorder were 84% and 95%, respectively [14]. The sensitivity and specificity of any mood disorder were 75% and 94%, respectively (unpublished data analyzed from the data set used in the reference [14]). The severity of depressive disorder was assessed using the summary score (0-27) of each item of the depressive module of the PHQ.

As additional information, we assessed three psychiatric comorbidities: panic disorder, alcohol-related disorder, and generalized anxiety disorder. We used the panic disorder module of the brief PHQ, a simplified version of the PHQ, to assess panic disorder [16]. Although a Japanese version of the brief PHQ has been developed by reverse translation, the validity data have not been reported. We used the probable alcohol abuse or dependence module of the PHQ to assess alcohol-related disorder. The sensitivity and specificity of probable alcohol

abuse or dependence in Japanese were 100% and 95%, respectively [14]. We used the Japanese version of the 7-item generalized anxiety disorder scale (GAD-7) to assess generalized anxiety disorder. The GAD-7 is a brief self-report questionnaire used as a screening tool for GAD in clinical practice [20]. Similar to the PHQ, the Japanese version GAD-7 has been developed by reverse translation. Sensitivity and specificity of the Japanese version GAD-7 are 88% and 82%, respectively [21].

Analysis

We calculated the prevalence and 95% confidence intervals of major depressive disorder and any mood disorder. The recognition rate of mood disorder by physicians and the prescription rate of psychotropic medicine were each calculated as a ratio among patients evaluated as having major depressive disorder and any mood disorder using the PHQ.

We assessed the relationship between the severity of depressive disorder evaluated by the PHQ and the severity of mental disorders based on the physician's judgment using Pearson's correlation coefficient. A two-sided *P*-value < 0.05 was considered significant. We performed statistical analyses using SPSS version 17.0J (SPSS Japan Inc.)

Results

Characteristics of the patients who participated in the present study

Among the 312 patients, 193 (61.9%) were female. The median (range) and mean (SD) age were 75 (21-98) and 72.9 (12.5) years. The most common diagnosis of primary illness was hypertension, followed by hyperlipidemia and diabetes (Table 1). Five patients consulted the physician only for mental disorders.

The number and prevalence of patients with major depressive disorder and any mood disorder as assessed by the PHQ are shown in Table 2. The number and prevalence of patients diagnosed with panic disorder, alcohol-related disorder, and GAD were 3 (1.0%), 23 (7.4%), and 16 (5.2%), respectively.

The number and prevalence of patients with major depressive disorder comorbid with panic disorder, alcohol-related disorders, and GAD were 2 (7.7%), 1 (4.0%), and 5 (19.2%), respectively. For patients with any mood disorder comorbid with panic disorder, alcohol-related disorders, and GAD, the number and prevalence were 2 (4.0%), 3 (6.4%), and 9 (18.4%), respectively.

Recognition of mental disorders by physicians

Physicians clinically diagnosed 85 patients as having a mental disorder. The clinical psychiatric diagnoses (number of patients) made by the physicians included the following: mood disorder (15), anxiety disorder (17),

Table 1: Clinical diagnosis of primary illness (n = 312).

Diagnosis	n	% of patients
Hypertension	165	52.9
Hyperlipidemia	37	11.9
Diabetes	33	10.6
Reflux Esophagitis	17	5.4
Gastritis/Gastric ulcer	14	4.5
Other	132	42.3

Multiple clinical diagnoses were allowed for each patient. The total number of clinical diagnosis for all patients was 398. Five mental disorders as the primary illness are included in "Other".

alcohol-related disorder (5), insomnia (48), dementia (6), other (13) and uncategorizable (4).

Among the 27 patients identified with major depressive disorder using the PHQ, physicians recognized 21 patients (77.8%) as having a mental disorder. The clinical psychiatric diagnoses made by the physicians for these 21 patients are shown in Table 3. Among the 27 patients with major depressive disorder, only three patients (11.1%) were correctly recognized by physicians as having a mood disorder. Many patients with major depressive disorder were clinically diagnosed with insomnia by physicians.

Meanwhile, among the 52 patients diagnosed with any mood disorder using the PHQ, physicians recognized 31 patients (59.6%) as having a mental disorder. The clinical psychiatric diagnoses made by the physicians for these 31 patients are shown in Table 4. Among the 52 patients with any mood disorder, physicians recognized only seven patients (13.5%) as having a mood disorder.

Among the 85 patients who were recognized by physicians as having a mental disorder, the physicians judged the severity of the mental disorders (number of patients) as follows: extremely severe (1), moderately severe (7), moderate (20), moderately mild (30), or mild (24). The severity scores for three patients were blank.

Among patients identified with any mood disorder using the PHQ, the relationship between depression

Table 2: Prevalence of depressive disorders.

	n	%	95% CI
Major depressive disorder	27	8.7	5.5-11.8
Any mood disorder	52	16.7	12.5-20.8

Major depressive disorder and any mood disorder, which was defined to include both major depressive disorder and other depressive disorders, were assessed by the PHQ.

CI: confidence interval

severity using the PHQ summary score and the severity of the mental disorder as judged by the physician was significant (Pearson's correlation coefficient $r = 0.346$, $p = 0.012$). Among the 27 patients with major depressive disorder, 12 patients had moderately severe depression (summary score of the PHQ: 15-19) or severe depression (20-27). Among these, physicians judged seven patients (58.3%) as having a moderately mild or a mild mental disorder, or no mental disorders. In short, physicians underestimated the severity of their disorders.

Prescription of psychotropic medicine by physicians

The survey of psychotropic prescription history showed that 13 (4.2%) patients were prescribed any antidepressant including sulpiride, which is permitted by insurance as a drug for depression in the Japanese health system, and 72 (23.1%) were prescribed an anxiolytic or hypnotic. Two patients had been prescribed an antiepileptic. The numbers (%) of psychotropic medicine prescriptions in patients identified with major depressive disorder and any mood disorder using the PHQ are shown in Table 5. Among the 27 patients with major depressive disorder, only one patient had been prescribed an antidepressant by a physician and another patient was prescribed an antidepressant by another outpatient clinic (orthopedic department) in the same hospital. In addition to the two patients prescribed antidepressants by physicians, one patient had been prescribed an antidepressant from another hospital. As a result, only three patients with major depressive disorder had received any antidepressants.

Even among those who were clinically diagnosed as having mood disorders by physicians irrespective of the PHQ depression score ($n = 15$: three with major depressive disorder, four with other depressive disorder, and eight without any mood disorder), only four (26.7%) were prescribed an antidepressant.

Additionally, according to medical records, none of the patients identified with any mood disorder using the PHQ had been referred to a mental health specialist.

Discussion

PHQ results from patients visiting a general internal medicine outpatient clinic of a rural hospital showed that the prevalence of major depressive disorder and any mood disorder were 8.7% and 16.7%, respectively, in this population. However, among the patients with major depressive disorder, the physician recognition rate of mood disorder was 11.1%. The prescription rate of antidepressants to patients with major depressive disorder was 7.4%. Even in patients who were clinically diagnosed by physicians as having a mood disorder, the prescription rate of antidepressants was only 26.7%.

Prevalence

In a survey performed nearly 20 years ago using the Composite International Diagnostic Interview (CIDI) at general internal medicine outpatient clinics in Japanese general hospitals, the prevalence of depression was 3.0% [9]. The prevalence of major depressive disorder in the present study was higher than that in the previous study. The previous survey included patients 15-65 years old, while most of the participants in this study were older (mean age: 72.9 years old). In addition, the study sites of the previous survey were located in medium-sized cities in Nagasaki Prefecture, but the present study was performed in a rural hospital. These differences in patient characteristics and hospital settings may partly explain the higher prevalence of depression in the present study.

A meta-analysis of several studies in other countries showed that the prevalence of depression in primary care settings for people aged 65 or older is 15.9% [22]. The prevalence of major depressive disorder in this study was 8.7%, lower than in other countries. This may be partially due to a difference in medical systems because patients can directly consult mental health specialists in Japan rather than being required to consult primary care physicians, as is common in other countries. Meanwhile, in a previous epidemiological study of people in a Japanese community, the 12-month prevalence of major depressive disorder was 2.9% [23]. The lower prevalence in the community may be reflective of the lower prevalence of depression diagnosed in a general internal medicine outpatient clinic. Although a direct comparison is limited by differences in response rate, age distribution, and survey method, the prevalence of depression in a general internal medicine outpatient clinic of a rural hospital in the present study was higher than the prevalence in the community. This is consistent with results reported from the US and UK showing the prevalence of depression in primary care settings is higher than in the community [22,24]. This means that depressed patients who have not received appropriate treatment have consulted general internists in spite of Japan's medical system that allows direct consultation to specialists. It is important that physicians appropriately recognize depressed patients and treat and/or refer them to mental health specialists. These physicians can play a role in gatekeeping unrecognized and untreated depressed patients to provide them with appropriate care.

Recognition

The recognition rate (11.1%) of major depressive disorder in the present study was lower than the rate of depression reported in the previous Japanese study (19.3%) [9]. Hospitals in the previous study had their own psychiatric units, and thus physicians in those hospitals may have frequently examined patients with psychiatric disorders

and become proficient in diagnosing depression. However, the hospital in the present study did not have a psychiatry department and no mental health services were provided by mental health specialists. Despite this difference between the Japanese studies, both recognition rates in Japan were much lower than those in other countries as shown by a meta-analysis (47.3%) [22]. Therefore, as a first step, it is necessary to increase the recognition rate of depressed patients by physicians in Japan. Effective screening of depression [18,19] may be a key activity for improving depression care.

A simulation in the meta-analysis suggested that when the prevalence is 10%, there are more false positives ($n = 16.8$) than either missed ($n = 5$) or identified cases ($n = 5$) for every 100 unselected cases seen in primary care. There was concern that false positives would increase as the prevalence decreased [22]. In the present study, not only the physician recognition rate of depressed patients was low, but also the false positive rate of was low (3.1%). This may mean that physicians do not pay attention to depressive disorder. General internists may think that care of depression is not "their business" in the Japanese medical system and that depressed patients should directly consult mental health specialists. To introduce an effective screening system, education to increase awareness and to change physician attitudes toward depression may be important.

Although the severity of mental disorders judged by physicians correlated with the severity of depression assessed by the PHQ (Pearson's correlation coefficient $r = 0.346$, $p = 0.012$), more than half of the patients with severe depression were misjudged as having depression of mild to moderate severity, or having no mental disorder (58.3%). This result suggests that appropriate care for depression was not provided even to severely depressed patients who really needed care. In addition to constructing and implementing a system of screening for depression, a referral system to mental health specialists and/or an increase in physician diagnostic and treatment skills is needed.

Many patients identified with major depressive disorder using the PHQ were recognized as having a mental disorder by physicians, but physicians often clinically diagnosed the disorder as insomnia, which is a common symptom of depressive disorders. The higher physician recognition rate of any mental disorder, such as insomnia, may be useful in prompting the suspicion of depression. When a physician notes insomnia and/or a mental disorder in a patient, they should at least screen for depression using a validated screening tool. This step will increase the recognition rate of probable depression by physicians.

Of patients with major depressive disorder, only two were prescribed antidepressants and many were prescribed anxiolytics or hypnotics. This may be creating a

Table 3: Recognition of mental disorders by physicians among patients with major depressive disorder (n = 27) as evaluated by the PHQ.

Recognition by physician	Clinical diagnosis by physician	n	% of patients with major depressive disorder	n	% of patients with major depressive disorder
Any mental disorder		21	77.8		
	Mood disorder			3	11.1
	Anxiety disorder			3 ^a	11.1
	Alcohol-related disorder			1	3.7
	Insomnia			14 ^b	51.9
	Dementia			1	3.7
	Other			4	14.8
	Uncategorizable			2	7.4
No mental disorder		6	22.2		

Because multiple answers were allowed in the clinical psychiatric diagnosis, the total number of diagnoses was 28 and the number of diagnoses per patient was 1.33 for patients with major depressive disorder. Also, the numbers for anxiety and insomnia include patients diagnosed with a mood disorder: ^a1, ^b2.

further significant problem of likely dependence on the medication. In addition, no patients were referred to mental health specialists. These results seem consistent with the higher rate of insomnia clinically diagnosed by physicians, the lower rate of correct clinical diagnosis of depression, and the lower estimate of the severity of mental disorders. Even for patients judged by physicians as having a mood disorder, the prescription rate of antidepressants by physicians was low (26.7%). Although it is controversial whether antidepressants should be prescribed to patients with mild depression in primary care settings [3,25], the results of the present study suggest

that appropriate care may not always be provided for depressed patients even when physicians become able to accurately diagnose depression. Given such a situation, physicians must at least recognize and monitor depressive disorders to judge the necessity of care and referral to mental health specialists.

Advantages of the study

No prior study has surveyed recent data of depression prevalence and physicians' recognition rate of depression at a general internal medicine outpatient clinic in Japan.

Table 4: Recognition of mental disorders by physicians among patients with any mood disorder (n = 52) as evaluated by the PHQ

Recognition by physician	Clinical diagnosis by physician	n	% of patients with any mood disorder	n	% of patients with any mood disorder
Any mental disorder		31	59.6		
	Mood disorder			7	13.5
	Anxiety disorder			5 ^a	9.6
	Alcohol-related disorder			2	3.8
	Insomnia			18 ^a	34.6
	Dementia			1	1.9
	Other			6	11.5
	Uncategorizable			2	3.8
No mental disorder		21	40.4		

Because multiple answers were allowed in the clinical psychiatric diagnosis, the total number of diagnoses was 41 and the number of diagnoses per patient was 1.32 for patients with any mood disorder. Also, the numbers for anxiety and insomnia include patients diagnosed with a mood disorder: ^a3.

Table 5: Prescription of psychotropic medicine by physicians.

	Major depressive disorder n = 27		Any mood disorder n = 52	
	n	%	n	%
Antidepressant (including sulpiride)	2	7.4	5	9.6
Anxiolytic/Hypnotic	16	59.3	22	42.3
No psychotropic medicine	11	40.7	29	55.8

% is in patients with depressive disorder evaluated by the PHQ.

Patients prescribed both antidepressant and anxiolytic/hypnotic: Major depressive disorder (2), any mood disorder (4).

One patient with major depressive disorder who was prescribed an antidepressant from another hospital was not included.

In addition, this is the first study reporting prescription rates of antidepressants to all consulted patients.

The present study was performed in a hospital located in a rural area where the proportion of the elderly is high. Generally, medical resources are poorer in rural areas than in urban areas, and elderly people have more chronic physical illnesses. Thus, general internal medicine in a rural area has an important primary care role in the community, especially for the elderly. In fact, most participants in the present study were geriatric patients. The findings are useful for constructing an effective intervention model to care for depressed patients in rural areas in Japan.

The rate of patients who did not participate in a similar survey performed in a rural French area using the PHQ was 14.1% (11.4% refused to participate, and 2.7% did not have enough time to answer) [26]. The rate of patients who did not participate in the present study was half (7.1%) that of the French study. This suggests that the bias caused by refusal to participate in the present study may be smaller than that of the previous study. Furthermore, the rate of patients who did not participate in the survey using the Structured Clinical Interview for DSM-IV (SCID) was more than 40% [27]. Use of the PHQ instead of a semi-structured interview is one reason for the increased rate of participants. However, the bias from using the PHQ, which is a self-administered questionnaire, instead of a semi-structured interview may be unavoidable, as discussed in the following section.

Limitations of the study

The present study has several limitations. First, as discussed above, we used self-administered questionnaires (the PHQ and the GAD-7) to evaluate depressive disorders and comorbid psychiatric disorders. The PHQ addresses symptoms only for a two-week period and may include bereavement reactions, mood disorders caused by physical disorders or medications, and/or depressive episodes of bipolar disorders. Although the Japanese PHQ has high sensitivity and specificity for major depres-

sive disorder, evaluation using a diagnostic interview, such as the semi-structured clinical interview for DSM-IV, will increase the validity of the results. Second, we surveyed only five physicians in one hospital. To increase the generalizability of the present results, a study including multiple hospitals or clinics is needed. Third, we judged cognitive impairment based on brief semi-structured interviews of patients or accompanying persons. Sometimes it is difficult to discriminate between depression and cognitive impairments caused by dementia in the geriatric population. A study using a screening or diagnostic tool with higher performance to exclude cognitive impairment is needed. Finally, we surveyed a history of psychotropic medicine prescription on the consultation day. However, the prescription may be reflected behavior by previous physicians rather than the one carrying out the current diagnosis.

Conclusions

The prevalence of depression at a general internal medicine outpatient clinic was higher in the present study than in the Japanese community. Thus, general internists can play a role as gatekeepers for diagnosing untreated depressed patients in the community. However, physicians did not recognize depressed patients, even in severe cases. The prescription rate of antidepressants to depressed patients and the referral rate of depressed patients to mental health specialists were also low. In addition, the prescription rate of antidepressants to patients whom physicians diagnosed as having a mood disorder was also low.

There are multiple barriers to providing appropriate care for patients with depression, such as recognition of depression, judgment of its severity, prescription of antidepressants and referral to mental health specialists. Collaborative care models developed and shown to be effective in the US and UK [5] to care for depressed patients by general practitioners and primary care physicians cannot be applied directly to the Japanese medical system.

Physicians can recognize insomnia comorbid with depression and can judge the presence of a mental disorder in depressed patients. Thus, an important step is to change physicians' attitude to depression into "it is our business" to find depression. The additional step is to perform screening and then to monitor the screening-positive patients and to refer them to mental health specialists. In addition to constructing a screening and monitoring system of depression, an educational intervention for physicians is key for improving the quality of life of depressed patients at general internal medicine outpatient clinics and of missed depressed patients in the community.

Competing interests

MI received speaking fees from Eli Lilly.

Authors' contributions

All authors have read and approved the final version of the manuscript. MI was the principal investigator and developed the original idea for the study. TO, MI, YO, and MK designed the study. TO, MI, YO, MK, and AS performed the survey. KM developed several Japanese questionnaires used in our survey. TO and MI analyzed data and prepared the manuscript. MY was a supervisor.

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References

1. World Health Organization: *The global burden of disease 2004 update* WHO, Geneva; 2008.
2. Von Korff M, Goldberg D: Improving outcomes in depression. *BMJ* 2001, **323**:948-949.
3. Tylee A: Identifying and managing depression in primary care in the United Kingdom. *J Clin Psychiatry* 2006, **67**(Suppl 6):41-45.
4. Wolf NJ, Hopko DR: Psychosocial and pharmacological interventions for depressed adults in primary care: a critical review. *Clin Psychol Rev* 2008, **28**:131-161.
5. Gilbody S, Bower P, Fletcher J, Richards D, Sutton AJ: Collaborative care for depression: a cumulative meta-analysis and review of longer-term outcomes. *Arch Intern Med* 2006, **166**:2314-2321.
6. Kawakami N: Study on World Mental Health Japan Survey (Kokoro no kenko ni suite no ekigakuchosa ni kansuru kenkyu [in Japanese]). In *2004-2006 A Report for the Health Labour Sciences Research Grant* The Ministry of Health Labour and Welfare; 2007.
7. Naganuma Y, Tachimori H, Kawakami N, Takeshima T, Ono Y, Uda H, Hata Y, Nakane Y, Nakane H, Iwata N, et al.: Twelve-month use of mental health services in four areas in Japan: findings from the World Mental Health Japan Survey 2002-2003. *Psychiatry Clin Neurosci* 2006, **60**:240-248.
8. Government of Japan: *The comprehensive suicide prevention initiative* Government of Japan, Tokyo; 2007.
9. Nakane Y, Michitsuji S: Results from the Nagasaki Center. In *Mental Illness in General Health Care: An International Study* Edited by: Ustun TB, Sartorius N. Chichester, UK: John Wiley & Sons; 1995:193-209.
10. Ministry of Health, Labour and Welfare: *The Patient Survey*. In *Statistical Surveys conducted by Ministry of Health, Labour and Welfare* Ministry of Health, Labour and Welfare, Tokyo; 2008.
11. Huang CQ, Dong BR, Lu ZC, Yue JR, Liu QX: Chronic diseases and risk for depression in old age: A meta-analysis of published literature. *Ageing Res Rev* 2010, **9**:131-141.
12. Ministry of Internal Affairs and Communications: *2005 Population Census*. In *The Population Census* Ministry of Internal Affairs and Communications; 2005.
13. First MB, Spitzer RL, Gibbon M, Williams JBW: *Structured Clinical Interview for DSM-IV Axis I Disorders (SCID), Clinical Version* Washington DC: American Psychiatric Press; 1997.
14. Muramatsu K, Miyaoka H, Kamijima K, Muramatsu Y, Yoshida M, Otsubo T, Gejyo F: The patient health questionnaire, Japanese version: validity according to the mini-international neuropsychiatric interview-plus. *Psychol Rep* 2007, **101**:952-960.
15. Spitzer RL, Williams JB, Kroenke K, Linzer M, deGruy FV, Hahn SR, Brody D, Johnson JG: Utility of a new procedure for diagnosing mental disorders in primary care. The PRIME-MD 1000 study. *JAMA* 1994, **272**:1749-1756.
16. Spitzer RL, Kroenke K, Williams JB: Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. *Primary Care Evaluation of Mental Disorders. Patient Health Questionnaire*. *JAMA* 1999, **282**:1737-1744.
17. Kroenke K, Spitzer RL, Williams JB: The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med* 2001, **16**:606-613.
18. Wittkamp KA, Naeije L, Schene AH, Huyser J, van Weert HC: Diagnostic accuracy of the mood module of the Patient Health Questionnaire: a systematic review. *Gen Hosp Psychiatry* 2007, **29**:388-395.
19. Gilbody S, Richards D, Brealey S, Hewitt C: Screening for depression in medical settings with the Patient Health Questionnaire (PHQ): a diagnostic meta-analysis. *J Gen Intern Med* 2007, **22**:1596-1602.
20. Spitzer RL, Kroenke K, Williams JB, Lowe B: A brief measure for assessing generalized anxiety disorder: the GAD-7. *Arch Intern Med* 2006, **166**:1092-1097.
21. Muramatsu K, Muramatsu Y, Miyaoka H, Fuse K, Yoshimine Fi, Hosaka M, Katagiri A, Kutsumi R: Validation and utility of a Japanese version of the GAD-7. *PANMINERVA MEDICA 20th World Congress on Psychosomatic Medicine Abstracts Book 2009*, **51**(Suppl 1 to No 3):79.
22. Mitchell AJ, Vaze A, Rao S: Clinical diagnosis of depression in primary care: a meta-analysis. *Lancet* 2009, **374**:609-619.
23. Kawakami N, Takeshima T, Ono Y, Uda H, Hata Y, Nakane Y, Nakane H, Iwata N, Furukawa TA, Kikkawa T: Twelve-month prevalence, severity, and treatment of common mental disorders in communities in Japan: preliminary finding from the World Mental Health Japan Survey 2002-2003. *Psychiatry Clin Neurosci* 2005, **59**:441-452.
24. Kessler RC, Berglund P, Demler O, Jin R, Koretz D, Merikangas KR, Rush AJ, Walters EE, Wang PS, National Comorbidity Survey Replication: The epidemiology of major depressive disorder: results from the National Comorbidity Survey Replication (NCS-R). *JAMA* 2003, **289**:3095-3105.
25. Fournier JC, DeRubeis RJ, Hollon SD, Dimidjian S, Amsterdam JD, Shelton RC, Fawcett J: Antidepressant drug effects and depression severity: a patient-level meta-analysis. *JAMA* 2010, **303**:47-53.
26. Norton J, De Roquefeuil G, Boulenger JP, Ritchie K, Mann A, Tylee A: Use of the PRIME-MD Patient Health Questionnaire for estimating the prevalence of psychiatric disorders in French primary care: comparison with family practitioner estimates and relationship to psychotropic medication use. *Gen Hosp Psychiatry* 2007, **29**:285-293.
27. Lyness JM, Caine ED, King DA, Cox C, Yoediono Z: Psychiatric disorders in older primary care patients. *J Gen Intern Med* 1999, **14**:249-254.

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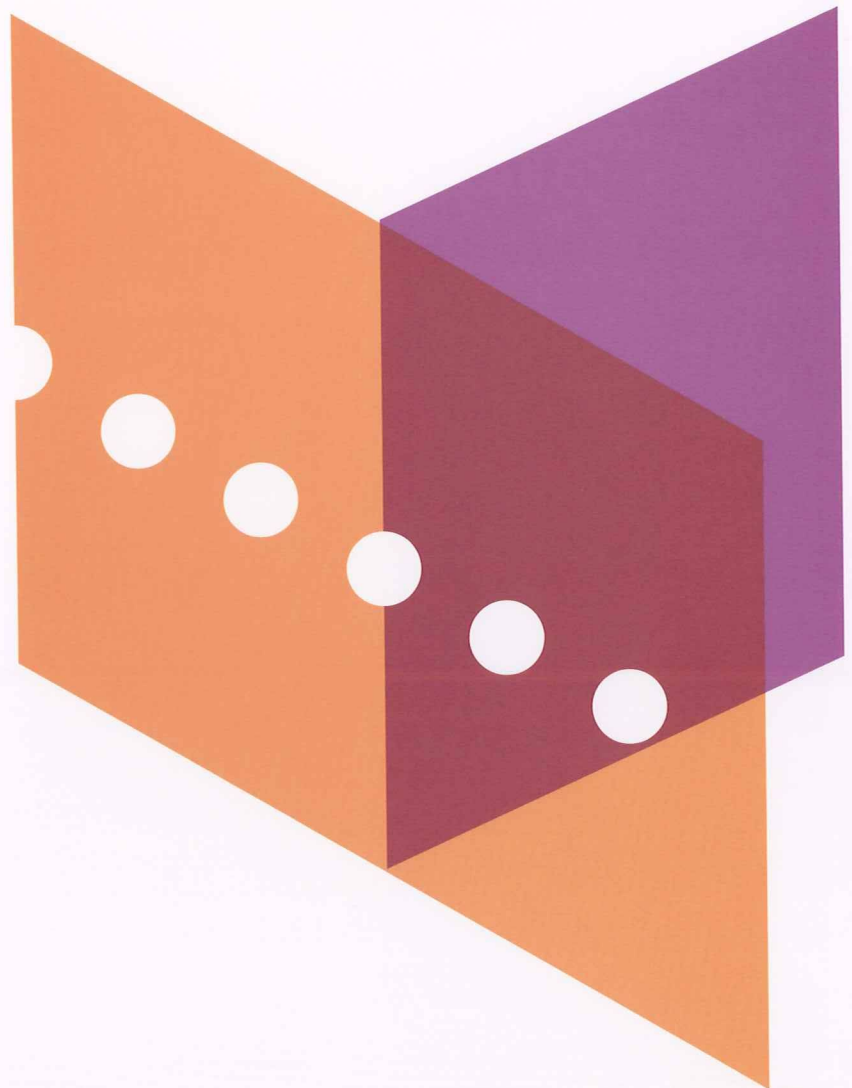
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ニュージーランド 自殺予防戦略 2006-2016

ニュージーランド政府健康省



ブックレット刊行にあたって

わが国の自殺による死亡者数は、平成 10 年に 3 万人を超え、以後その水準で推移しており、自殺死亡率は欧米の先進諸国に比べても突出して高い状態となっております。さらに、自殺未遂者や遺された家族や知人等、自殺の問題で深刻な影響を受ける方々を含めると、自殺の問題はわが国の直面する大きな課題となっております。

国立精神・神経センター精神保健研究所自殺予防総合対策センターは、自殺予防に向けての政府の総合的な対策を支援するために平成 18 年 10 月 1 日に開設されました。当センターにおきましては、情報の収集・発信等を通して、その役割を果たしてまいりますが、その一環として、自殺対策の推進に特に重要と思われることをブックレットとして刊行することにいたしました。

本書が広く活用され、自殺対策の推進につながることを期待しております。

平成 19 年 2 月

国立精神・神経センター精神保健研究所
自殺予防総合対策センター

ブックレット No.3 刊行にあたって

わが国では2007年6月に自殺予防総合対策大綱が閣議決定されました。自殺は様々な要因が関連し、自殺予防には総合的な対策が必要とされています。これまでに諸外国では様々な自殺予防対策が行われており、2006年に発表されたニュージーランドの自殺予防戦略は、わが国の自殺予防対策を推進するうえでも非常に参考になる点が多く、本ブックレットを通じて広く紹介され、参照・活用されることを期待します。

ニュージーランドの自殺予防戦略は、Public Healthの理念や手法を活用し、それまでに蓄積された知見（エビデンス）に基づき作成され、その戦略の根拠が明示されています。また、公共政策実施のための根拠が明確でない領域ではエビデンス構築の必要性が意識されています。そして、実施した戦略の評価法の開発に加えて、評価の結果に基づき戦略そのものを修正する必要性が明記されており、評価のための枠組みが既に決められていることが特徴として挙げられます。

わが国でも自殺予防対策がエビデンスに基づき総合的に推進されることにより、画期的な効果を挙げることを期待しています。

国立精神・神経センター精神保健研究所
自殺予防総合対策センター
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ニュージーランド

自殺予防 戦略

2006-2016



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表紙説明

Paua（訳者注：鮑の一種、ヘリトリアワビ）の貝殻は、個人、家族 /whanau（訳者注：マオリ族の言語で拡大家族を意味する）、そして地域コミュニティを養育し支援する保護的構造を象徴する

Associate Minister of Health, 2006.
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緒 言

愛する人の自殺後の苦悶と絶望は抗し難い。なぜ、そして、どうすれば引き止めることができたか、という二つの質問を、幾度も幾度も問う。国家レベルでは、ある年齢集団の自殺率が他の国よりも高いという事実が、再び先の質問を投げかける；なぜ、そして、国として何ができるのか、と。

この質問に取り組むための計画を提示することが、この国家的戦略の役割です。New Zealand Youth Suicide Prevention Strategy（ニュージーランド青少年自殺予防戦略）の発表から8年が過ぎました。この戦略は、この国の青少年の間の自殺問題に取り組むための最初の包括的な計画であり、画期的なものでした。

8年が経過し、男性の自殺率は1998年以来、最も低い状態にある等非常に評価できるものです。現在では多くのサービスを提供可能であり、最良の実践ガイドラインや情報源を持ち、自殺行動について理解の進んだ地域コミュニティが存在し、ニュージーランドおよび国際的な意義ある研究成果が得られつつあります。

我々の研究や評価は、これまでの取り組みがニュージーランド青少年自殺予防戦略の全体的なアプローチに沿うものであったことを示しますが、今こそ、我々の自殺予防の努力を全年齢の自殺および自殺行動への取り組みへと拡大する時です。

我々が達成したことにある程度の満足感を持つべきですが、それでもまだ更に取り組むべきことがあります。自殺予防は複雑で、簡単な解決方法はありません。多くの部門間で調和のとれた、多くのレベルでの持続的な活動が必要とされます。役立つと分かっていることを構築し、更に注意を払うことが必要な領域に対して我々の努力を集約することにより、この新たな戦略の発表が自殺および自殺行動の予防のために協働するための刷新された努力を動員することが望まれます。

自殺予防の多面性を考慮し、このNew Zealand Youth Suicide Prevention Strategy（ニュージーランド自殺予防戦略 2006-2016）は、今後10年間の様々な自殺予防のための努力を組織化し調和させるための枠組みを詳説しています。本戦略を実現可能かつ具体的な活動へと変換することを保障するために、実施に向けた5年毎の活動計画の進展を行っていきます。

本戦略が、ニュージーランド国民全員の生活に対して、真の成果を上げることを期待しています。

Hon Jim Anderton
Associate Minister of Health（ニュージーランド政府健康省副大臣）

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本戦略の発展に貢献した多くの人に感謝します：自殺の危険のある人々に支援を提供する人、研究者、地域コミュニティ組織、出資者、健康サービスおよび社会サービスの提供者、希死念慮を経験した、もしくは自殺行動をとった人々、そして愛する人を自殺で失った人々に感謝します。

自殺行動に関する個人や専門家の経験を有する多くの人や組織からの支援無くして本戦略の構築はありえませんでした。包括的かつ協働的であるようにと絶えず意図してきました。

この複雑な問題の無数の前途に取り組むことは難題であり、この過程で頂いた支援、励まし、援助に対して感謝します。

本戦略の結果、実行したアプローチを人々が自らの成果だと感じ、各自の役割が他のアプローチとも調和し、自殺予防のための協調性を発揮することを期待します。

本戦略の発展の様々な段階での行われた貢献について以下に述べます：

- The New Zealand Youth Suicide Prevention Strategy (ニュージーランド青少年自殺予防戦略) の評価
- 国際的自殺予防戦略のレビュー
- 危険要因と予防要因に関するエビデンスのレビューおよび効果的介入法の示唆 (Beautrais et al 2005)
- ニュージーランドの自殺についての社会的説明に関するレビュー (Collings と Beautrais 2005)
- ニュージーランド社会における自殺による損失の解析 (O'Dea と Tucker 2005)
- 戦略の起草段階における協議、The New Zealand Suicide Prevention Strategy: A life Worth Living (ニュージーランド自殺予防戦略:生きがいのある生活) (3 センターでの hui and fono を含む 20 の会議)
- Hui 協議での報告
- 106 の提示案のレビューと要約 (健康省 2005)
- 国内外の自殺予防に造詣の深い専門家による草案のレビュー
- 自殺予防に関する省庁間委員会からの助言と忠告
- 自殺予防外部諮問グループからの助言と忠告
- 自殺予防に関する内閣府委員会からの助言と忠告

目次

緒言	iii
謝辞	iv
ニュージーランド自殺予防戦略の概要	1
展望	1
目的	1
原則	1
到達目標	1
パート1：序説	3
本戦略のアプローチ	3
実現のために	3
定義と範囲	3
問題の程度	3
年次推移	4
マオリ族の自殺傾向	5
ニュージーランドにおける太平洋沿岸地域の自殺の傾向	5
ニュージーランドにおけるアジアの人々の自殺の傾向	5
予防のための計画	6
健康に関する多くの決定要素における不平等についての取り組み	6
多部門アプローチ	6
リーダーシップおよび本戦略の実施	7
全国レベル	7
地域レベル	8
進行状況のモニタリングと評価	8
モニタリング	8
レビューと評価	8
背景状況	9
過去のイニシアティブを基に	9
国際的な進展	9
自殺予防とマオリ族	9
マオリ族の健康の不平等	9
マオリ族への対応	10
部門間の繋がり	11
他の政策的戦略との連結	12
パート2：戦略の枠組み	13
展望	13
目的	13
原則	13

エビデンスに基づく	13
安全で効果的である	13
iii マオリ族に対応する	13
vi 多様性を認め、尊重する	14
f 調和した多部門アプローチを反映する	14
f 持続可能性と長期間のコミットメントを示す	14
f 全ての人々が自殺予防の役割を持っていると認識する	14
f 不平等の解消にコミットメントを持つ	14
パート 3：エビデンスの要約	15
8 自殺行動に至る過程	15
8 自殺行動の影響	17
8 Maturanga whakairo(honoured knowledge：名誉のある知識)	18
パート 4：人口集団の問題	19
8 年齢に関連する問題	19
8 性差にかかわる問題	19
8 マオリ族の問題	20
8 太平洋沿岸地域の人々の問題	21
8 アジア人種における問題	21
8 性指向に関連する問題	22
8 難民と移民に関する問題	22
パート 5：7つの目標	23
8 7つの目標の実施	28
参考文献	29
図のリスト	
8 図 1：ニュージーランドの自殺予防戦略の枠組み	2
8 図 2：年代による自殺率 1948 年から 2003 年	4
8 図 3：民族による自殺率 2000 年から 2003 年	5
8 図 4：マオリ族とマオリ族以外の自殺率 1996 年から 2003 年	6
8 図 5：自殺予防のための多部門によるアプローチ	7
8 図 6：本戦略と他の政府戦略との関わり	12
8 図 7：自殺行動に至る過程	16
8 図 8：自殺行動に潜在した有害な結果	17
8 図 9：人口集団と性差による自殺率 2003	20

ニュージーランド自殺予防戦略の概要

New Zealand Suicide Prevention Strategy 2006-2016（ニュージーランド自殺予防戦略 2006年-2016年）は、自殺予防のために多部門による活動を如何に相応させるかについて理解するための枠組みを提供し、今後10年以上の我々の国家的な行動についての指針となる。図1にその枠組みが概説されている。本戦略は New Zealand Youth Suicide Prevention Strategy（ニュージーランド青少年自殺予防戦略）“In Our Hands”（私たちの手に）（訳者注：<http://www.moh.govt.nz/moh.nsf/pagesmh/4415?Open>）と“Kia Piki te Ora o te Taitamariki”（青少年の福祉増進。ニュージーランド青少年自殺予防戦略のマオリ族に特化した内容）（訳者注：<http://www.tpk.govt.nz/publications/docs/Kiapiki.pdf>）を改変し、自殺および自殺予防についてのこれまでに得られた知識に基づき作成されている。

■ 展望

全ての人以下のように感じる社会が、本戦略の着想である。

- 自分には価値があり、社会から育まれている
- 自分自身の人生に価値がある
- 困難を経験しても、支えられ強められている
- 自己の生命を脅かしたり、危害を加えたいとは思わない

■ 目的

本戦略の総合的な目的は以下である。

- 自殺と自殺行動を減少させる
- 家族 /whanau（訳者注：マオリ族の言語で拡大家族を意味する）、友人、社会全体への有害な効果・影響を減らす
- 自殺と自殺行動における不平等を減少させる

■ 原則

本戦略は以下の原則に従い実施される。

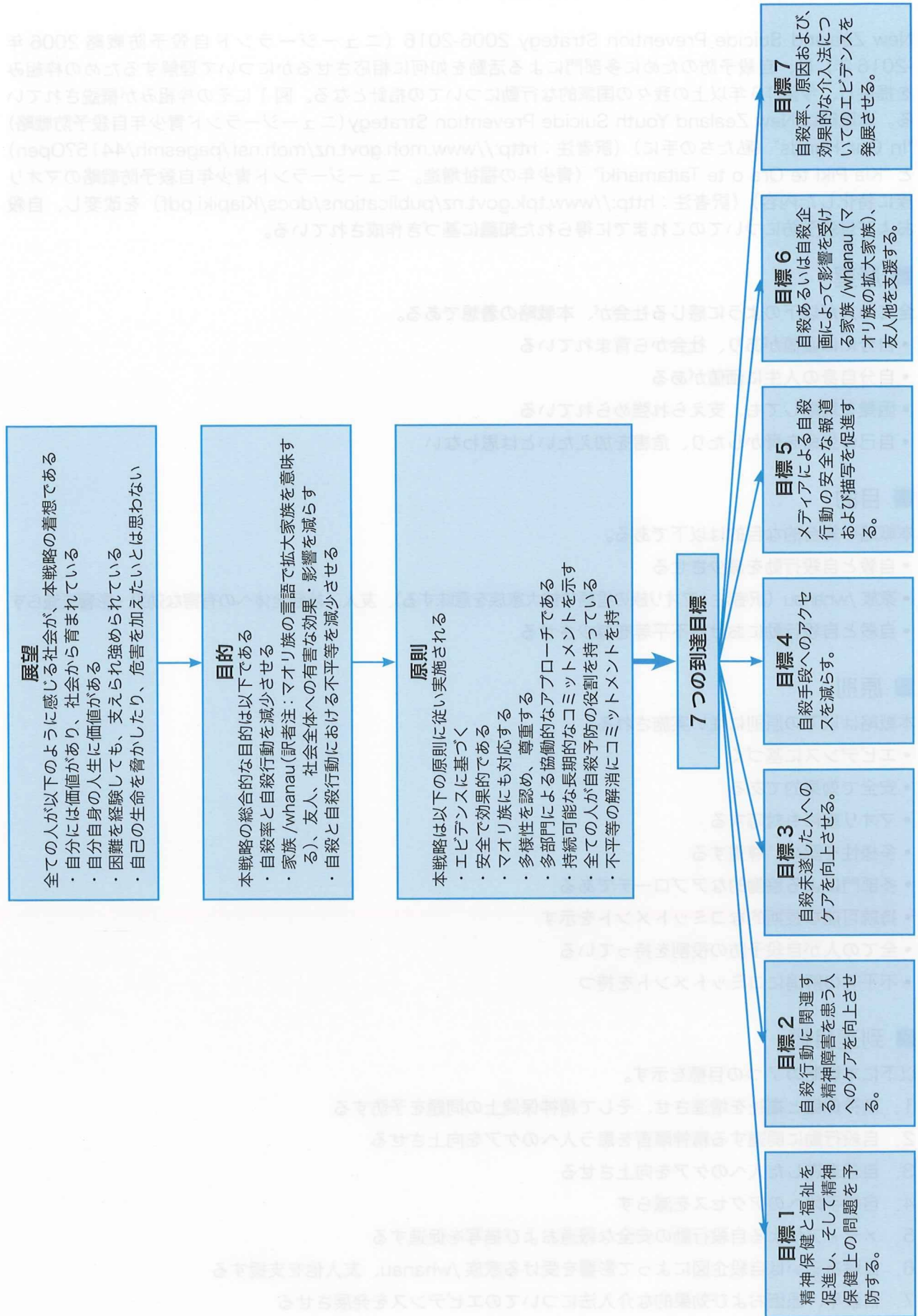
- エビデンスに基づく
- 安全で効果的である
- マオリ族にも対応する
- 多様性を認め、尊重する
- 多部門による協働的なアプローチである
- 持続可能な長期的なコミットメントを示す
- 全ての人々が自殺予防の役割を持っている
- 不平等の解消にコミットメントを持つ

■ 到達目標

以下に本戦略の7つの目標を示す。

1. 精神保健と福祉を増進させ、そして精神保健上の問題を予防する
2. 自殺行動に関連する精神障害を患う人へのケアを向上させる
3. 自殺未遂した人へのケアを向上させる
4. 自殺手段へのアクセスを減らす
5. メディアによる自殺行動の安全な報道および描写を促進する
6. 自殺あるいは自殺企図によって影響を受ける家族 /whanau、友人他を支援する
7. 自殺率、原因および効果的な介入法についてのエビデンスを発展させる

図1：ニュージーランドの自殺予防戦略の枠組み



パート1：序説

■ 本戦略のアプローチ

自殺は、健康上あるいは社会的に深刻な問題であり、私たちの社会にとって重大な損失を意味する。自殺は住民の精神保健と社会福祉の指標である。

この政府の自殺予防戦略は、私たちが協働で真の効果が得られるように全てのニュージーランド国民に信任を委託するよう意図したアプローチである。

本戦略は全てのニュージーランド国民に向けられたものであり、以下を目的として進展してきた。

- ・ 機関や出資のあり方には関係なく、ニュージーランドの自殺予防活動を導く単一の方向性を示す。
- ・ 自殺予防における政府が実行中の投資を支援していく。
- ・ 新たな投資が必要とされる部分の特定を補助する。
- ・ 政府と非政府のサービス供給者、個人、研究者とコミュニティーが、より緊密に協働できるように援助し、それぞれが自殺予防の全範囲の中で、適している領域についての共通理解を得ていく。

■ 実現のために

本戦略は、様々な領域で行う。5年の活動計画は本戦略がいつまでに誰によって実施されるかについて、より詳細な情報を提供できるように、それぞれの計画が立案される。これらの活動計画は、優先度、個々の活動を実現させる部門あるいは機関、運営管理・モニタリング・実施の見直しについてのプロセスを定めるものである。

■ 定義と範囲

国際的にも、自殺行動を説明する際に使われる用語については多くの討議と論争があった。本戦略は以下の定義を用いる。

- 1 自殺とは、意図的に自分自身を死に至らしめる行為を意味する。ニュージーランドでの自殺の分類は、検死の結果に基づく。
- 2 自殺企図とは、人々が致命的ではない自殺を企てたことに関連する行動である。
- 3 故意の自傷とは、重篤な障害であろうとなかろうと、致命を意図しない行為を意味する。
- 4 自殺念慮とは、自殺についての考えを意味する。

なお本戦略は、倫理的、法的、実践上意見の相違のある医師による自殺幫助あるいは安楽死の問題を取り上げない。

■ 問題の程度

毎年およそ500人のニュージーランド国民が自殺によって死亡している。交通事故による死亡数よりも多く、約5倍もの人が、自殺企図によって入院することが予想されている（健康省）。

国際的にも、ニュージーランド国民の自殺率は高い。これは15-24歳の若者において顕著であり、この世代の死因の第2位が自殺となっている。その上、自殺企図による入院も、この世代に最も多く見られる。自殺は若い世代に不均衡に影響を与えている一方、自殺の80%が25歳とそれ以上の年代に生じている（Beautraisら2005）。ニュージーランドにおける最貧困地域に住んでいる人は、最も富裕な地域に住んでいる人よりも自殺率および自殺企図による入院率が高い。さらに男性よりも女性のほうが自殺企図によって入院する人が多いのにもかかわらず、女性よりも男性のほうが自殺で死ぬ人が多いといった性差による不均衡もある（健康省）。

医学的（身体的）な重篤さにかかわらず全ての自殺行動は、深刻な精神的苦痛、不幸そして/あるいは精神疾患の存在を示す。さらに、どの自殺行動も他者に甚大な影響を与えうる。ニュージーランドのように小さい国では、たった一人の自殺でも、彼らの家族/whanau（訳者注：マオリ族の拡大家族）や友人そしてより広い地域コミュニティーに長く続く永続的で重大な影響を与えうる。マオリ族の内部では、whakapapa（訳者注：マオリ族の家系）を超えてhapu（訳者注：マオリ族の準部族）とiwi（訳者注：マオリ族の部族）

にまで自殺の悲しみと衝撃がおよび、単なる悲劇というだけではなく hapu（訳者注：マオリ族の準部族）と iwi（訳者注：マオリ族の部族）の起源である whakapapa（訳者注：マオリ族の家系）の存続にとっての損失としてとらえられる。

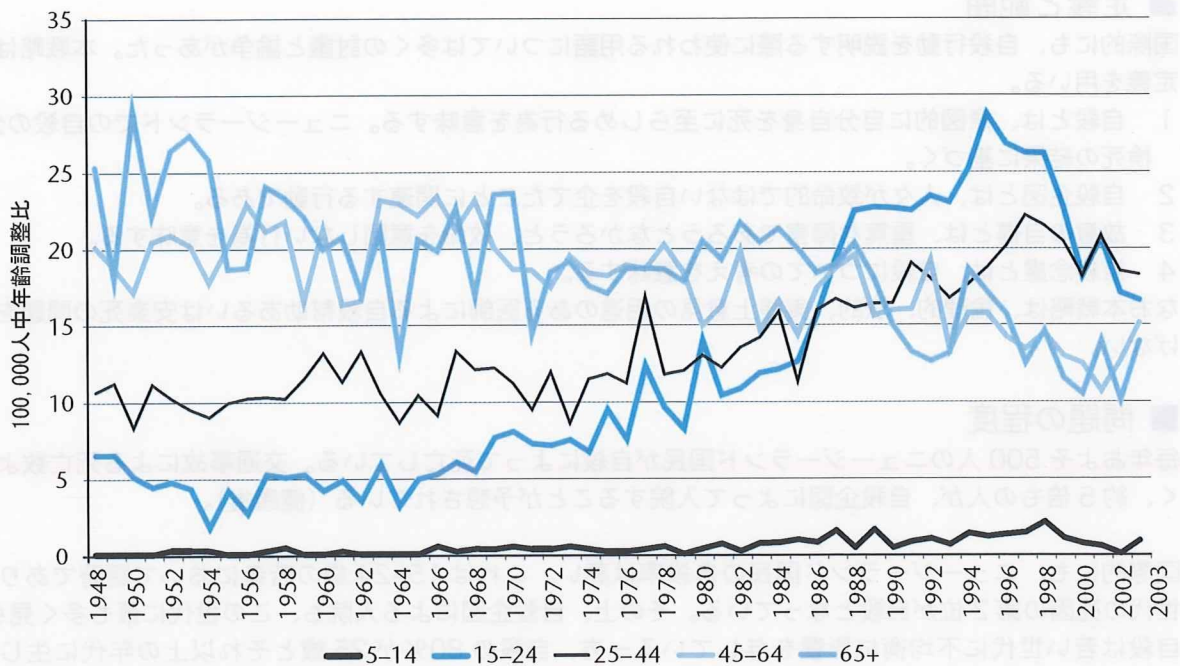
社会にとっての自殺の損失は高い。悲しみ、家族、whanau（訳者注：マオリ族の拡大家族）そして友人の死別、可能性のある人生の損失というような「無形の損失」だけではなく、自殺によって生じる実質的な経済的損失も高い。ニュージーランド社会において自殺行動による年間の経済的損失は、全体で 1,381,492,000 ドル、年間 14 億ドル近くに見積もられる（O' Dea and Tucker 2005）。

■ 年次推移

ニュージーランドにおける自殺率は、1948 年から 1980 年代の中頃までは比較的安定した状態を保ち、1980 年代中頃から 90 年代の後半まで上昇傾向となった（図 2）。最近では、ここ 50 年のピークであった 1998 年の 14.3（10 万人単位）という自殺者率から、2003 年には 11.5（10 万人単位）と減少し始めた。この減少は、他国（たとえばオーストラリア）での現象と平行している。

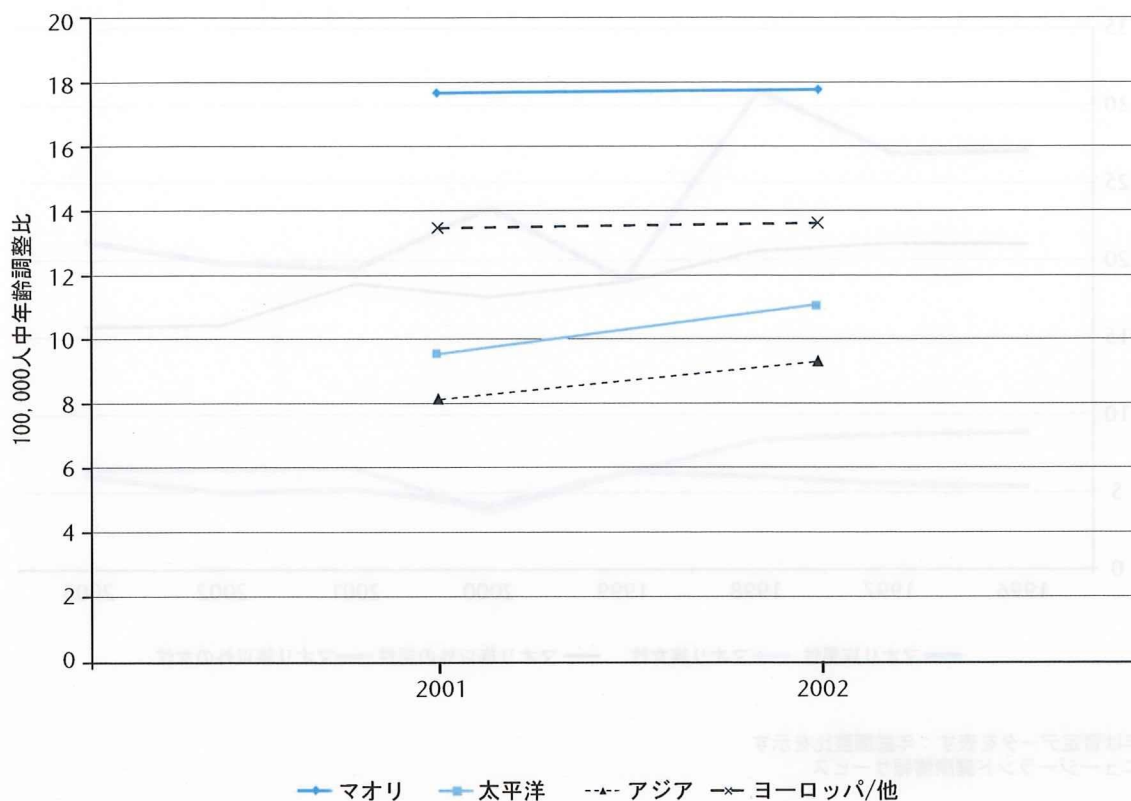
1980 年代半ばから 15-24 歳の若者の自殺率は劇的に上昇し、1996 年にピークに達した。それ以来、若者の自殺率は 25% にまで減少した。現在では 25 歳から 44 歳までの世代の自殺率が、最も高い。65 歳以上の世代の自殺率は 1950 年代から減少している。15 歳以下の世代の自殺率は非常に低いが、しかしながら、この年代の集団が自殺をするという事実は重大事である。さらに 1980 年代と 1990 年代を通じて自殺率は、マオリ族がマオリ族ではない人たちよりも、めざましく上昇していた（Ajwani et al 2003）。

図 2：年代による自殺率 1948 年から 2003 年



注：2003 年は暫定データを表す；年齢調整比を示す
元データ：ニュージーランド健康情報サービス

図3：民族による自殺率 2000年から2003年



注：2003年は暫定データを表す；年齢調整比を示す
元データ：ニュージーランド健康情報サービス

■ マオリ族の自殺傾向

図3は、2000年から2003年までの間の年代で標準化した自殺率が、他の民族集団よりも（ヨーロッパあるいは他国が続くが）マオリ族において継続的に高かったことを示している。

マオリ族の自殺は、45歳以上の年代ではそれほど頻度が高くなく、35歳以下の年代における重要なパターンに特徴がある。（ニュージーランドにおける）標準的な人口集団と類似して、マオリ族で自殺企図をした人の入院率は15-24歳の年代において最も高い（健康省）。

マオリ族の男性は、マオリ族以外の男性よりも自殺率が高く、自殺企図による入院も多い（図4）。それとは対照的に、マオリ族の女性とマオリ族ではない女性の自殺率は、ほとんど違いがない。しかしながらマオリ族の女性は、マオリ族ではない女性よりも自殺企図による入院率が非常に高い。実際にマオリ族の女性は、他のどの集団よりも入院率が高い（健康省 出版準備中）。

■ ニュージーランドにおける太平洋沿岸地域の自殺の傾向

太平洋沿岸地域に住む人々の自殺率および自殺企図による入院率は、他の人種民族と比べると第3番目である（図3）。特定の集団ごと（例えば年代）による傾向は、人数が少数であるために正確な報告ができない。

■ ニュージーランドにおけるアジアの人々の自殺の傾向

アジアの人口は、マオリ・ヨーロッパあるいは / そして他の太平洋の少数民族と比較して、自殺率および自殺企図による入院率が最も低い（図3）。