

Progress Report of Mental Health and Lifestyle Survey

Reported on 6 June 2016

Progress Report of the FY 2015 Survey as of 31 March 2016

1. Responses

Number of responses and response rates

Category	Survey population	Responses	Response rate
Children	25,062	5,602	22.4%
Adults	183,371	39,350	21.5%
Total	208,433	44,952	21.6%

2. Support

2.1 Telephone counseling

Clinical psychiatrists, public health nurses and other professionals provide telephone counseling sessions to respondents who were assessed to require support for mental health or lifestyle problems.

(A) Support based on the scores

Category	Participants requiring support ¹	Proportion ²	Contact attempts to date ³	Proportion	Counseling sessions completed	Proportion
Children	190	3.9%	140	73.7%	77	40.5%
Adults	1,405	4.8%	778	55.4%	492	35.0%
Total	1,595	4.6%	918	57.6%	569	35.7%

1) Number of participants who were assessed to require support

- Children with SDQ (Strength and Difficulties Questionnaire) score ≥ 20
- Adults with K6 (general mental health conditions) score ≥ 15

2) Number of respondents, who were assessed by 31 March to require support, as a percentage of a total of 34,358 entered responses (4,820 children and 29,538 adults)

3) Including respondents who could not be reached for telephone support due to absence, or who did not provide their phone numbers (mail support)

(B) Support based on items other than scores

Category	Participants requiring support ⁴	Contact attempts to date ³	Proportion	Counseling sessions completed	Proportion
Children	1	1	100.0%	1	100.0%
Adults	31	29	93.5%	24	77.4%
Total	32	30	93.8%	25	78.1%

- 3) Including respondents who could not be reached for telephone support due to absence, or who did not provide their phone numbers (mail support)
- 4) Number of participants who met one of the following criteria
- Adults suffering from hypertension or diabetes but not receiving treatment with a BMI ≥ 27.5
 - Adults suffering from hypertension or diabetes and consume, on average, 6 drinks or more a day (42 drinks in total per week)
 - Adults who consume, on average, 6 drinks or more a day (42 drinks in total per week) with a CAGE score of 4
 - Adults suffering from mental disorders and not currently visiting a clinic
 - Children and adults who were identified based on the content of free-answer questions and in urgent need of support

1. Outline of Mental Health and Lifestyle Survey for FY 2014

1.1 Purpose

The Great East Japan Earthquake on 11 March 2011 and the following accident at the Fukushima Daiichi Nuclear Power Plant brought the residents of Fukushima Prefecture psychological distress or post-traumatic stress disorder (PTSD) caused by anxiety, evacuation, loss of property, and fearful experiences. The survey started in FY 2011 to understand the residents' mental health and lifestyle, and provide them with appropriate care.

Since results of the Mental Health and Lifestyle Survey for FY 2011-2013 showed that ongoing care was needed by understanding the residents' mental health and lifestyle changes, we continued to conduct the survey in FY 2014 using survey forms.

1.2. Methods

1.2-1 Survey Respondents

The survey respondents of the FY 2014 survey were residents of nationally designated evacuation zones as of 11 March 2011 and born on or before 1 April 2014. Specifically, there were 212,753 who were registered residents of the following municipalities: Hirono, Naraha, Tomioka, Kawauchi, Okuma, Futaba, Namie, Katsurao, Iitate, Minami-soma, Tamura, Kawamata, and the part of Date (specifically recommended for evacuation).

Ages 0-3 Survey:	3,842 individuals born from 2 April 2011 to 1 April 2014
Ages 4-6 Survey:	5,103 individuals born from 2 April 2008 to 1 April 2011
Primary School Survey:	10,861 individuals born from 2 April 2002 to 1 April 2008
Middle School Survey:	6,066 individuals born from 2 April 1999 to 1 April 2002
Adults Survey:	186,881 individuals born before 1 April 1999

1.2-2 Survey Methods

Based on the classifications above, survey sheets (self-administered or completed by parents) were mailed to the participants.

1.2-3 Data Tabulation Period

Data tabulation period lasted from 6 February 2015 through 31 October 2015.

1.2-4 Number of Respondents and Valid Responses

The numbers of respondents (response rates) were the following: 1,077 (28.0%) for the ages 0-3 survey; 1,478 (29.0%) for the ages 4-6 survey; 2,887 (26.6%) for the primary school survey; 1,376 (22.7%) for the middle school survey; and 43,845 (23.5%) for the general survey.

The numbers of valid responses (valid response rates) were the following: 1,077 (28.0%) for the ages 0-3 survey; 1,478 (29.0%) for the ages 4-6 survey; 2,859 (26.3%) for the primary school survey; 1,324 (21.8%) for the middle school survey; and 43,811 (23.4%) for adults survey.

The results were collected for each item by questionnaire. As there are missing values in each item, the total may not match the abovementioned valid responses. Since the proportions in the report have been rounded to the nearest whole number, there are instances where the total does not add up to 100%.

1.3. Results

1.3-1 Age 0-3 years

- Of 3,842 respondents, there were 1,077 (28.0%) valid responses.
- Regarding the children's health conditions, the result was generally favorable, with 99.0% of responses indicating no particular issues ('very good', 'good', 'normal'), which was similar to the result of FY 2013 (98.8%). However, 1.0% responded indicating that there were issues ('bad', 'very bad').
- Length of sleep was 9 hours and 56 minutes on average, and the average napping time was 1 hour and 53 minutes. These results were almost the same as those of FY 2013 survey (average length of sleep: 9 hours and 59 minutes, average napping time: 1 hour and 53 minutes). The length of sleep was approximately 8 minutes shorter than that of counterparts (3-year-old children) in a national survey² (10 hours and 7 minutes).

1.3-2 Age 4-6 years

- Of 5,103 respondents, there were 1,478 (29.0%) valid responses.
- Regarding the children's health conditions, the result was generally favorable, with 98.7% of responses indicating no particular issues ('very good', 'good', 'normal'), which was almost the same as the FY 2013 survey (98.4%). However, 1.4% had some problems, with 1.3% responding 'bad', and 0.1% responding 'very bad'.
- In the survey on children's emotions and behavior (SDQ Japanese Edition), 13.4% of the 1,475 valid respondents scored 16 or higher, the screening score from the preceding study³, and 5.1% scored 20 or higher, the initial support standard. Compared to the FY 2013 survey (14.2% scoring 16 or higher, 5.4% scoring 20 or higher), the proportion has been declining, although the decline is small.
- For boys, of the 735 valid respondents, 13.6 % scored 16 or higher, and 4.6 % scored 20 or higher, while for girls, of the 740 valid respondents, 13.2 % scored 16 or higher, and 5.5 % scored 20 or higher. Compared to the FY 2013 survey (boys: 16.7% scoring 16 or higher, 6.8% scoring 20 or higher; girls: 11.7% scoring 16 or higher, 4.1% scoring 20 or higher), the proportion of boys in each score group was decreasing, while that of girls was increasing.
- Average length of sleep was 9 hours and 43 minutes, and average length of naps was 1 hour and 37 minutes. Length of sleep and average length of naps were almost the same as the FY 2013 survey (average length of sleep: 9 hours and 44 minutes; average length of naps: 1 hour and 39 minutes). The length of sleep was approximately 10 minutes shorter than that of counterparts (5-year-old children) in a national survey¹ (9 hours and 55 minutes).

1.3-3 Primary School

- Of 10,861 respondents, there were 2,859 (26.3%) valid responses.
- Regarding health conditions, the result was generally favorable, with 98.4% of responses indicating no particular issues ('very good', 'good', 'normal'), which was almost the same as the FY 2013 survey (98.5%). On the other hand, 1.5% indicated issues, responding either 'bad' (1.3%) or 'very bad' (0.2%).
- Regarding SDQ scores, of the 2,856 valid respondents, 15.1% scored 16 or higher and 5.5% scored 20 or higher. Comparing them with the FY 2013 survey (14.7 % scoring 16 or higher, 5.7 % scoring 20 or higher), the proportion of those scored 16 or higher is increasing, while those scored 20 or higher is decreasing, although the decline was small.

Considering boys and girls separately, for boys, of the 1,451 valid respondents, 17.5% scored 16 or higher, and 6.5% scored 20 or higher. Compared to the FY 2013 survey (16.9% scoring 16 or higher, 7.1% scoring 20 or higher), the proportion of those scored 16 or higher increased, but those scored 20 or higher declined. Among the 1,405 valid responses for girls, 12.5 % scored 16 or higher, and 4.4% scored 20 or higher. Compared to the FY 2013 survey (12.3% scoring 16 or higher, 4.1% scoring 20 or higher), the proportion increased. The tendency for girls to score lower is similar to the FY 2013 survey.

- Length of sleep averaged 8 hours and 54 minutes, which was similar to that of FY 2013 survey (8 hours and 54 minutes).
- Regarding exercise habits, 34.3% of respondents answered that they rarely exercise outside of physical education, which is an improvement since the FY 2013 survey (39.3%). However, compared to the report from a national survey², where the group that responded they occasionally or never exercise outside of physical education classes in school consisted of 11.8% of boys and 23.4% of girls, exercise habits are still insufficient.

1.3-4 Middle School

- Of 6,066 participants, there were 1,324 (21.8%) valid responses.
- Regarding health conditions, the result was generally favorable as in FY 2013 (97.0%), with 96.5% of responses indicating no particular issues ('Very good', 'Good', 'Normal'). On the other hand, 3.5% indicated issues, and responded either 'Bad' (3.4%) or 'Very bad' (0.1%).
- Regarding SDQ scores, of the 1,300 valid respondents, 13.0% scored 16 or higher and 5.4% scored 20 or higher. Compared to the FY 2013 survey (13.2% scored 16 or higher and 6.3% scored 20 or higher), the proportion declined, although the decline was small.
- Considering boys and girls separately, for boys, of the 665 valid respondents, 14.3% scored 16 or higher, and 6.3% scored 20 or higher. Compared to the FY 2013 survey (15.9% scored 16 or higher and 7.1% scored 20 or higher), the proportion declined. Among the 635 valid responses for girls, 11.7% scored 16 or higher, which increased from 10.5% in FY 2013, and 4.4% scored 20 or higher, which declined from 5.5% in FY 2013. The proportion was lower amongst girls as in the case of the FY 2013 survey.

- Length of sleep averaged 7 hours and 9 minutes, which was almost the same as the FY 2013 survey (7 hours and 8 minutes).
- Regarding exercise habits, 29.6% responded that they rarely exercise outside of physical education, which was a small improvement from the FY 2013 survey (31.0%).

General Summary of Children

- The SDQ was used as an indicator to evaluate children's mental health. The percentage of people scoring 16 or higher on the SDQ was still higher for all groups compared to the percentage (9.5%) in prior research on the general population in unaffected areas of Japan⁵. Although the proportion of high scores of SDQ declined in age groups of 4-6 years and middle school compared to the FY 2013 survey, the proportion slightly increased among primary school children. Length of sleep was similar to the FY 2013 survey, approaching the length of sleep in the preceding research¹. In regards to exercise habits, the proportion of group that rarely exercises was in a declining tendency.

1.3-5 Adults (people born on or before April 1, 1999)

Mental Health

- General mental health conditions (K6) apply to 3.0% of Japanese regional residents in normal times if the score of ≥ 13 is used as the cut-off value⁴.
- Regarding the K6, 7.7 % scored 13 or higher in the FY 2014. The proportion decreased compared to the FY 2013 survey (9.7%), but were still high compared to the proportion during normal times (3.0%). While 6.9 % of males scored 13 or higher, 8.3% of females scored 13 or higher. The similar tendency was observed in the FY 2013 survey. Considering the age groups differently, age group of 50-59 had the highest proportion of those scored 13 or higher (8.9%), while age group of 15-19 years had the lowest proportion (4.6%). Compared to the FY 2013 survey, the proportion declined in all age groups.
- Since the standards for requiring support provided by the Mental Health Support Team were reduced in FY 2013, telephone support was provided to those with K6 score ≥ 15 and mail support was provided to those with score ≥ 10 .

Lifestyle

- Asked about their own health (subjective sense of well-being), 18.4% of respondents evaluated themselves as being 'Bad' or 'Very bad', and the proportion was similar to the FY 2013 survey (18.5%).
- In comparison with the prior year, 14.6% 'gained 3 kg or more' of body weight, while 9.6% 'lost 3 kg or more.' Compared to the FY 2013 survey (17.6% gained 3 kg or more and 9.7% lost 3 kg or more since the prior year), proportion of those who lost weight was almost the same, whereas the proportion of those who gained weight declined.

- Asked about their sleep, 61.7% of respondents were dissatisfied with their sleep, which was similar to that of the FY 2013 survey (60.3%).
- Regarding exercise habits, 43.8% of respondents rarely exercised, showing that the percentage went up from the FY 2013 survey (46.7%).
- The percentage of current smokers was 17.2%, which was slightly lower than the FY 2013 survey (18.5%). The percentage of current drinkers was 41.5%, which was lower than the FY 2013 survey (44.1%). However, the percentage of heavy drinkers (those who drink at least four drinks or more per day) was 7.9%, which was similar to the FY 2013 survey (7.9%).

References

- 1) Muto Takashi, et al. Report on Home Education from Preschool to Grade 1 (2012) Benesse Education Research and Development Institute.
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- 2) Results and Characteristics of the 2013 National Survey on Physical and Athletic Ability, and Exercise Habits (Primary School) (2013) Ministry of Education, Culture, Sports, Science and Technology
http://www.mext.go.jp/component/a_menu/sports/detail/_icsFiles/afieldfile/2013/12/20/1342603_5.pdf
- 3) Matsushima T, et al. (2008) Scale properties of the Japanese version of the Strengths and Difficulties Questionnaire (SDQ): a study of infant and school children in community samples. *Brain and Development*. 30: 410-415.
- 4) Kawakami Norito. Distribution and Related Factors of Mental Health Conditions Based on K6 Survey in a National Survey. 2006 Health and Labour Sciences Research Grant (Statistical Information Intensive General Research Project) Study on Examining a System to Comprehend and Analyze Statistical Information on Citizens' Health Conditions from the Household. Shared Study

2. Results of Mental Health and Lifestyle Survey for FY 2014

2.1 Purpose

The Great East Japan Earthquake on 11 March 2011 and the following accident at the Fukushima Daiichi Nuclear Power Plant brought the residents of Fukushima Prefecture psychological distress or post-traumatic stress disorder (PTSD) caused by anxiety, evacuation, loss of property, and fearful experiences. The survey started in FY 2011 to understand the residents' mental health and lifestyle, and provide them with appropriate care.

Since results of the Mental Health and Lifestyle Survey for FY 2011-2013 showed that ongoing care was needed by monitoring the residents' mental health and lifestyle changes, we continued to conduct the survey in FY 2014 using survey forms.

2.2. Methods

2.2-1 Survey Respondents

The survey respondents of the FY 2014 survey were residents of nationally designated evacuation zones as of 11 March 2011 and born on or before 1 April 2014. Specifically, there were 212,753 who were registered residents of the following municipalities: Hirono, Naraha, Tomioka, Kawauchi, Okuma, Futaba, Namie, Katsurao, Iitate, Minami-soma, Tamura, Kawamata, and the part of Date (specifically recommended for evacuation).

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2.2-4 Number of Valid Responses

The numbers of respondents (valid response rates) were the following: 1,077 (28.0%) for the ages 0-3 survey; 1,478 (29.0%) for the ages 4-6 survey; 2,887 (26.6%) for the primary school survey; 1,376 (22.7%) for the middle school survey; and 43,845 (23.5%) for the general survey.

The numbers of valid responses (response rate) were the following: 1,077 (28.0%) for the ages 0-3 survey; 1,478 (29.0%) for the ages 4-6 survey; 2,859 (26.3%) for the primary school survey; 1,324 (21.8%) for the middle school survey; and 43,811 (23.4%) for the general survey (Table 1).

The results were collected for each item by questionnaire. As there are missing values in each item, the total may not match the abovementioned valid responses. Since the proportions in the report have

been rounded to the nearest whole number, there are instances where the total does not add up to 100%.

Table 1. Number of participants, respondents and valid responses (%)

	FY 2014	FY 2013	FY 2012		FY 2011	
Participants	0-3 years	3,842	4,164	4,625	Children 1	11,717
	4-6 years	5,103	5,169	5,047		
	Primary school age	10,861	11,167	11,413	Children 2	11,791
	Middle school age	6,066	6,013	6,023	Children 3	6,077
	(Subtotal)	(25,872)	(26,513)	(27,108)	(Subtotal	29,585)
	Adults	186,881	185,859	184,507	Adults	180,604
	Total	212,753	212,372	211,615	Total	210,189
Respondents (%)	0-3 years	1,077 (28.0)	1,635 (39.3)	2,143 (46.3)	Children 1	7,824 (66.8)
	4-6 years	1,478 (29.0)	2,033 (39.3)	2,231 (44.2)		
	Primary school age	2,887 (26.6)	4,005 (35.9)	4,703 (41.2)	Children 2	7,509 (63.7)
	Middle school age	1,376 (22.7)	1,822 (30.3)	2,126 (35.3)	Children 3	3,412 (56.1)
	(Subtotal)	(6,818 (26.4))	(9,495 (35.8))	11,203 (41.3)	(Subtotal	18,745 (63.4))
	Adults	43,845 (23.5)	46,388 (25.0)	55,076 (29.9)	Adults	73,569 (40.7)
	Total	50,663 (23.8)	55,883 (26.3)	66,279 (31.3)	Total	92,314 (43.9)
Valid responses (%)	0-3 years	1,077 (28.0)	1,634 (39.2)	2,143 (46.3)	Children 1	7,818 (66.7)
	4-6 years	1,478 (29.0)	2,032 (39.3)	2,230 (44.2)		
	Primary school age	2,859 (26.3)	3,987 (35.7)	4,683 (41.0)	Children 2	7,464 (63.3)
	Middle school age	1,324 (21.8)	1,820 (30.3)	2,118 (35.2)	Children 3	3,411 (56.1)
	(Subtotal)	(6,738 (26.0))	(9,473 (35.7))	(11,174 (41.2))	(Subtotal	18,693 (63.2))
	Adults	43,811 (23.4)	46,377 (25.0)	55,064 (29.8)	Adults	73,433 (40.7)
	Total	50,549 (23.8)	55,850 (26.3)	66,238 (31.3)	Total	92,126 (43.8)

Results of the FY 2014 Mental Health and Lifestyle Survey (Age group0-3)

Among 3,842 people (age group 0-3) in the Mental Health and Lifestyle Survey, the valid response count was 1,077 (28.0%). The breakdown was 550 (51.1%) boys and 527 (48.9%) girls and the average age was 2.0 years old.

As for the current address, 853 (79.2%) lived within the prefecture and 224 (20.8%) lived outside the prefecture.

1. Health Condition of the Child (Q1)

Breakdown of the health condition was the following: 374 (35.2%) for 'very good'; 459 (43.2%) for 'good'; 219 (20.6%) for 'normal'; 11 (1.0%) for 'bad'; and 0 (0.0%) for 'very bad'.

2. Current Height and Weight of the Child (Q2)

The average height/weight of boys was: 79.5 cm/ 10.5 kg for 1 year olds as of 1 April 2015; 87.5 cm/ 12.4 kg for 2 year olds; and 95.2 cm/14.9 kg for 3 year olds. The average height/weight of girls was: 77.9 cm/9.9 kg for 1 year olds; 87.3 cm/12.5 kg for 2 year olds; and 95.0 cm/14.3 kg for 3 year olds.

3. Currently Treated Diseases (Q3)

For currently treated diseases, 768 (71.8%) answered 'no' while 302 (28.2%) answered 'yes.'

The breakdown of diseases for those who answered 'yes' is shown in Table 2 (multiple answers allowed).

4. Experience of Hospitalization in the Past Year (Q4)

For experience of hospitalization in the past year, 935 (87.4%) answered 'no' while 135 (12.6%) answered 'yes.'

The breakdown of diseases for those who answered 'yes' is shown in Table 3 (multiple answers allowed).

Table 2. Breakdown of currently treated diseases

Disease	Count
Common cold	109
Asthma	50
Atopic dermatitis	48
Otitis media	48
Odontopathy	27
Allergic rhinitis	21
Asthma, atopic dermatitis, allergic conditions other than allergic rhinitis	16
Sinusitis/ empyema	7
Influenza	3
Epilepsy	2
ADHD	0
Other	48

Multiple answers

Table 3. Breakdown of diseases during hospitalization in the past year

Disease	Count
Common cold	50
Respiratory syncytial virus infection	25
Pneumonia	20
Influenza	19
Gastroenteritis	16
Febrile convulsion	14
Asthma	9
Bronchitis	7
Kawasaki disease	4
Rotavirus infection	3
Inguinal hernia	3
Mycoplasma pneumonia	2
Other	27

Multiple answers

5. Sleep Hours and Naps (Q5)

- 1) The average going-to-bed time was 9:11 PM and the average waking time was 7:7 AM. The average sleep hours were 9 hour and 56 minutes.
- 2) For naps (Does your child take naps?), those who answered ‘no’ were 159 (14.9%) and ‘yes’ were 908 (85.1%). The average nap time was 1 hour and 53 minutes.

6. Regular Amount of Exercise (Q6)

Regarding exercise (What is the child’s regular amount of exercise?) for two year olds and above at the time of the survey, those who answered ‘almost every day’ were 382 (53.1%); ‘2-4 times a week’ were 211 (29.3%); ‘once a week’ were 71 (9.9%); and ‘barely exercise’ were 55 (7.6%).

7. Dietary Habits (Q7)

- 1) For breast milk (Does your child drink breast milk?), those who answered ‘yes’ were 159 (15.3%) and ‘no’ were 877 (84.7%).
- 2) See Table 4 for the dietary habits in the past month (among those who were one year old and above at the time of the survey).

Table 4. Dietary habits in the past month

	Yes	No	Valid responses
1. Does your child consume fish more than three days a week?	510 (49.6%)	519 (50.4%)	1,029
2. Does your child consume vegetables other than pickles, seaweed, or mushrooms with almost every meal?	686 (66.5%)	345 (33.5%)	1,031
3. Does your child consume fruit almost every day?	560 (54.3%)	472 (45.7%)	1,032
4. Does your child consume soy products almost every day?	613 (59.5%)	418 (40.5%)	1,031
5. Does your child consume dairy almost every day?	787 (76.3%)	245 (23.7%)	1,032

8. Child Rearing (Q8)

For child rearing (Do you ever lose confidence in child rearing?), those who answered ‘yes’ were 138 (12.9%), ‘no’ were 477 (44.5%), and ‘cannot say’ were 458 (42.7%).

Results of the FY 2014 Mental Health and Lifestyle Survey (Age group 4-6)

Among the 5,103 people for the survey (age group 4-6), there were 1,478 (29.0%) valid responses. The breakdown was 736 (49.8%) boys and 742 (50.2%) girls with an average age of 4.9 years old.

As for the current address, 1,057 (71.5%) lived within the prefecture and 421 (28.5%) lived outside the prefecture.

1. Health Condition of the Child (Q1)

Breakdown of the health condition was the following: 445 (31.2%) for 'very good'; 582 (40.8%) for 'good'; 379 (26.6%) for 'normal'; 18 (1.3%) for 'bad'; and 1 (0.1%) for 'very bad.'

2. Current Height and Weight of the Child (Q2)

The average height/weight of boys was the following: 103.4 cm/ 17.1 kg for 4 year olds as of 1 April 2015, 109.1 cm/18.8 kg for 5 year olds and 116.7 cm/ 21.7 kg for 6 year olds. The average height/weight for girls was the following: 102.2 cm/ 16.5 kg for 4 year olds, 108.7 cm/ 18.6 kg for 5 year olds, and 114.8 cm/ 20.8 kg for 6 year olds.

3. Currently Treated Diseases (Q3)

For currently treated diseases, 941 (63.9%) answered 'no' and 531 (36.1%) answered 'yes'.

The breakdown of diseases for individuals who answered 'yes' is shown in Table 5 (multiple answers allowed).

4. Experience of Hospitalization in the Past Year (Q4)

For experience of hospitalization in the past year, 1,344 (91.4%) answered 'no' and 127 (8.6%) answered 'yes'.

The breakdown of diseases for those who answered 'yes' is shown in Table 6 (multiple answers allowed).

Table 5. Breakdown of currently treated diseases

Disease	Count
Common cold	126
Allergic rhinitis	122
Asthma	107
Atopic dermatitis	102
Odontopathy	101
Otitis media	52
Asthma, atopic dermatitis, allergic conditions other than allergic rhinitis	38
Sinusitis/ empyema	29
Epilepsy	8
Influenza	5
ADHD	5
Other	68

Multiple answers

Table 6. Breakdown of diseases during hospitalization in the past year

Disease	Count
Common cold	55
Influenza	27
Gastroenteritis	18
Asthma	9
Pneumonia	8
Bronchitis	8
Febrile convulsion	6
Mycoplasma pneumonia	5
Kawasaki disease	4
Inguinal hernia	4
Respiratory syncytial virus infection	3
Rotavirus infection	1
Other	32

Multiple answers

5. Sleep Hours and Naps (Q5)

- 1) The average going-to-bed time was 9:9 PM and the average waking time was 6:52 AM. The average sleep hours were 9 hours and 43 minutes.
- 2) For naps (Does your child take naps?), those who answered ‘no’ were 947 (64.9%), and ‘yes’ were 512 (35.1%). The average nap time was 1 hour and 37 minutes.

6. Regular Amount of Exercise (Q6)

For exercise (What is your regular amount of exercise?), those who answered ‘almost every day’ were 801 (54.6%), ‘2-4 times a week’ were 461 (31.4%), ‘once a week’ were 132 (9.0%), and ‘barely exercise’ were 73 (5.0%).

7. Dietary Habits (Q7)

See Table 7 for the dietary habits in the past month.

Table 7. Dietary habits in the past month

	Faster	Normal/ Slower	Valid responses
1. Does your child eat faster than others?	134 (9.1%)	1,341 (90.9%)	1,475
	Yes	No	Valid Responses
2. Does your child drink sugary beverages almost every day?	481 (32.6%)	995 (67.4%)	1,476
3. Does your child consume fish more than three days a week?	619 (42.0%)	856 (58.0%)	1,475

4. Does your child consume vegetables other than pickles, seaweed, or mushrooms with almost every meal?	916 (62.0%)	561 (38.0%)	1,477
5. Does your child consume fruit almost every day?	748 (50.7%)	728 (49.3%)	1,476
6. Does your child consume soy products almost every day?	735 (49.8%)	742 (50.2%)	1,477
7. Does your child consume dairy almost every day?	1,187 (80.5%)	288 (19.5%)	1,475
8. Does your child consume prepared foods almost every day?	170 (11.5%)	1,307 (88.5%)	1,477
9. Does your child eat out almost every day?	5 (0.3%)	1,472 (99.7%)	1,477

8. Child's Emotions and Behavior (Q8)

1) For child's emotions and behavior (SDQ Japanese version), among the 1,475 valid responses, 198 (13.4%) were 16 points and above¹, and 75 (5.1%) were 20 points and above² (Fig. 1). The average total points were 9.6 points.

For boys, among the 735 valid responses, 100 (13.6%) were 16 points and above; 34 (4.6%) were 20 points and above. For girls, among the 740 valid responses, 98 (13.2%) were 16 points and above; and 41 (5.5%) were 20 points and above (Fig. 2). The average total score for boys was 9.9 points while the total score for girls was 9.3.

2) Regarding whether children have any issues in one or more areas (emotions, focus, behavior or interaction with others), those that answered 'no' were 1,112 (75.6%), 'yes (minor issues)' were 304 (20.7%), 'yes (clear issues)' were 42 (2.9%), and 'yes (serious issues)' were 13 (0.9%).

3) Among those who answered 'yes' to the above question, regarding whether or not their child is upset or concerned due to the issue, those who answered 'not at all' were 161 (46.8 %); 'only a little' were 167 (48.5 %); 'very' were 14 (4.1 %); and 'greatly' were 2 (0.6 %).

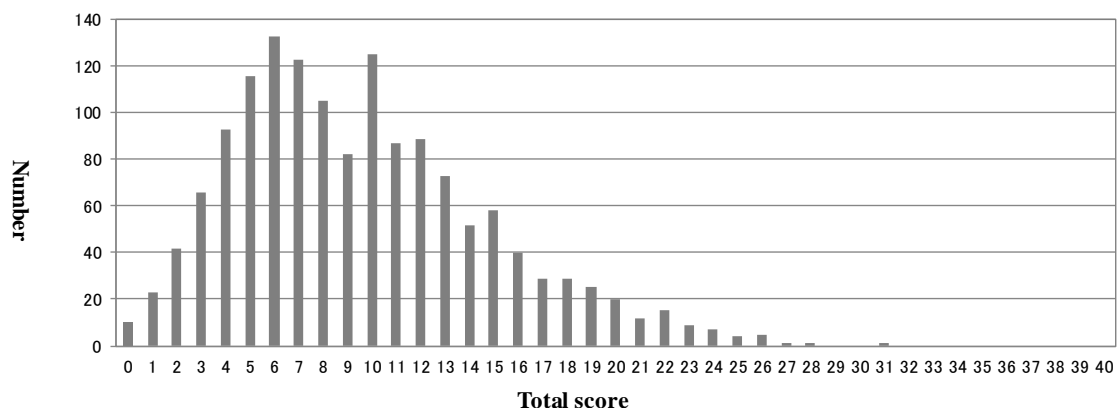


Fig. 1 Children's emotions and behavior for age group 4-6 (SDQ): Overall

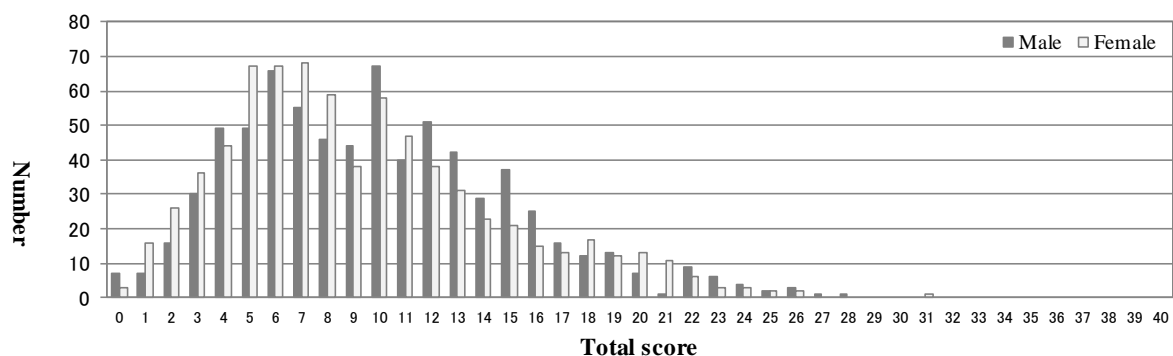


Fig. 2 Children’s emotions and behavior for age group 4-6 (SDQ) by sex

- 1) A standard value indicated by previous research
- 2) A standard established by Fukushima Medical University physicians to provide support

9. Nursery School and Kindergarten (Q9)

When asked if the child would not go to nursery school or kindergarten, 269 (18.3%) said ‘yes,’ 1,131 (77.1%) said ‘no,’ and 67 (4.6%) said ‘the child was not attending nursery school or kindergarten at the moment.’

Results of the FY 2014 Mental Health and Lifestyle Survey (Primary school age)

Among 10,861 people of the Mental Health and Lifestyle Survey (for primary school students), 2,859 (26.3%) provided valid responses. The breakdown was 1,453 (50.8%) boys and 1,406 (49.2%) girls with an average age of 9.4 years old.

As for the current address, 2,154 (75.3%) lived within the prefecture and 705 (24.7%) lived outside the prefecture.

1. Health Condition of The Child (Q1)

Breakdown of the health state was the following: 735 (27.2%) for 'very good'; 1,106 (41.0%) for 'good'; 815 (30.2%) for 'normal'; 36 (1.3%) for 'bad'; and 6 (0.2%) for 'very bad'.

2. Current Height and Weight of the Child (Q2)

The average height/weight of boys was the following: 122.5 cm/ 24.5 kg for 1st graders; 127.8 cm/ 27.4 kg for 2nd graders; 132.8 cm/ 30.5 kg for 3rd graders; 138.6 cm/ 34.9 kg for 4th graders; 144.6 cm/ 40.2 kg for 5th graders; and 151.4 cm/ 44.6 kg for 6th graders. The average height/weight of girls was the following: 120.7 cm/ 23.6 kg for 1st graders; 126.6 cm/ 26.6 kg for 2nd graders; 132.1 cm/ 30.6 kg for 3rd graders; 138.5 cm/33.4 kg for 4th graders; 145.8 cm/38.8 kg for 5th graders; and 150.9 cm/42.9 kg for 6th graders.

3. Currently Treated Diseases (Q3)

For currently treated diseases, 1,802 (63.3%) answered 'no' and 1,045 (36.7%) answered 'yes.'

The breakdown of diseases for those who answered 'yes' is shown in Table 8 (multiple answers allowed).

4. Experience of Hospitalization in the Past Year (Q4)

For experience of hospitalization in the past year, 2,691 (94.4%) answered 'no' and 161 (5.6%) answered 'yes.'

The breakdown of diseases for those who answered 'yes' is shown in Table 9 (multiple answers allowed).

Table 8. Breakdown of currently treated diseases

Disease	Count
Allergic rhinitis	415
Odontopathy	253
Atopic dermatitis	141
Asthma	132
Common cold	123
Asthma, atopic dermatitis, allergic conditions other than allergic rhinitis	80
Sinusitis/ empyema	54
ADHD	38
Otitis media	30
Epilepsy	12
Influenza	7
Other	176

Multiple answers

Table 9. Breakdown of diseases during hospitalization in the past year

Disease	Count
Common cold	80
Influenza	43
Gastroenteritis	28
Asthma	13
Mycoplasma pneumonia	8
Bronchitis	7
Respiratory syncytial virus infection	1
Rotavirus infection	1
Kawasaki disease	1
Pneumonia	0
Febrile convulsion	0
Inguinal hernia	0
Other	37

Multiple answers

5. Sleep Hours and Naps (Q5)

The average going-to-bed time was 9:31 PM and the average waking time was 6:26 AM. The average sleep hours were 8 hours and 54 minutes.

6. Regular Amount of Exercise (Q6)

For exercise (What is the child's regular amount of exercise?), those who answered 'almost every day' were 280 (9.8%); '2-4 times a week' were 904 (31.8%); 'once a week' were 685 (24.1%); and 'barely exercise' were 974 (34.3%).

7. Dietary Habits (Q7)

The dietary habits in the past month are shown in Table 10.

Table 10. Dietary habits in the past month

	Faster	Normal/ Slower	Valid responses
1. Does your child eat faster than others?	399 (14.0%)	2,457 (86.0%)	2,856
	Yes	No	Valid Responses
2. Does your child skip breakfast often?	220 (7.7%)	2,637 (92.3%)	2,857
3. Does your child drink sugary beverages almost every day?	817 (28.6%)	2,039 (71.4%)	2,856
4. Does your child consume fish more than three days a week?	1,284 (45.0%)	1,570 (55.0%)	2,854

5. Does your child consume vegetables other than pickles, seaweed, or mushrooms with almost every meal?	1,878 (65.8%)	978 (34.2%)	2,856
6. Does your child consume fruit almost every day?	1,058 (37.1%)	1,797 (62.9%)	2,855
7. Does your child consume soy products almost every day?	1,420 (49.8%)	1,434 (50.2%)	2,854
8. Does your child consume dairy almost every day?	2,424 (84.8%)	433 (15.2%)	2,857
9. Does your child consume prepared foods almost every day?	221 (7.7%)	2,636 (92.3%)	2,857
10. Does your child eat out almost every day?	11 (0.4%)	2,846 (99.6%)	2,857

8. Child's Emotions and Behavior (Q8)

1) For child's emotions and behavior (SDQ Japanese version), among the 2,856 valid responses, 430 (15.1%) were 16 points and above¹, and 157 (5.5%) were 20 points and above² (Fig. 3). The average total point was 9.2.

For boys, among the 1,451 valid responses, 254 (17.5%) were 16 points and above, and 95 (6.5%) were 20 points and above. For girls, among the 1,405 valid responses, 176 (12.5%) were 16 points and above and 62 (4.4%) were 20 points and above (Fig. 4). The average total score for boys was 9.8 points while the total score for girls was 8.6 points.

2) Regarding whether children have any issues in one or more areas (emotions, focus, behavior or interaction with others), those who answered 'no' were 2,008 (70.5%); 'yes (minor issues)' were 681 (23.9%); 'yes (clear issues)' were 130 (4.6%); and 'yes (serious issues)' were 30 (1.1%).

3) Among those who answered 'yes' for the above questions, regarding whether or not the child is upset or concerned due to the issue: those who answered 'not at all' were 198 (24.7%); 'only a little' were 527 (65.7%); 'very' were 55 (6.9%); and 'greatly' were 22 (2.7%).

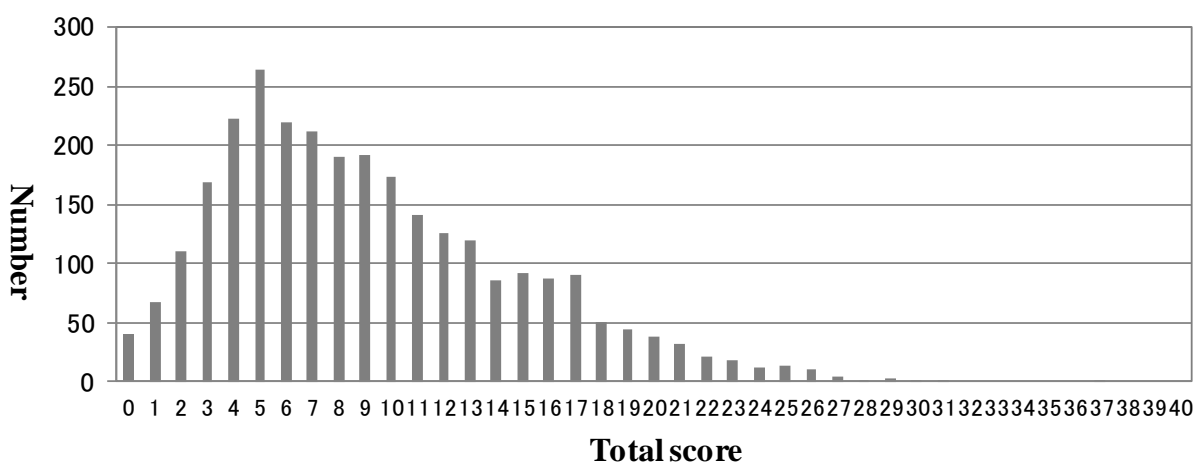


Fig. 3 Children's emotions and behavior among primary school students (SDQ): Overall

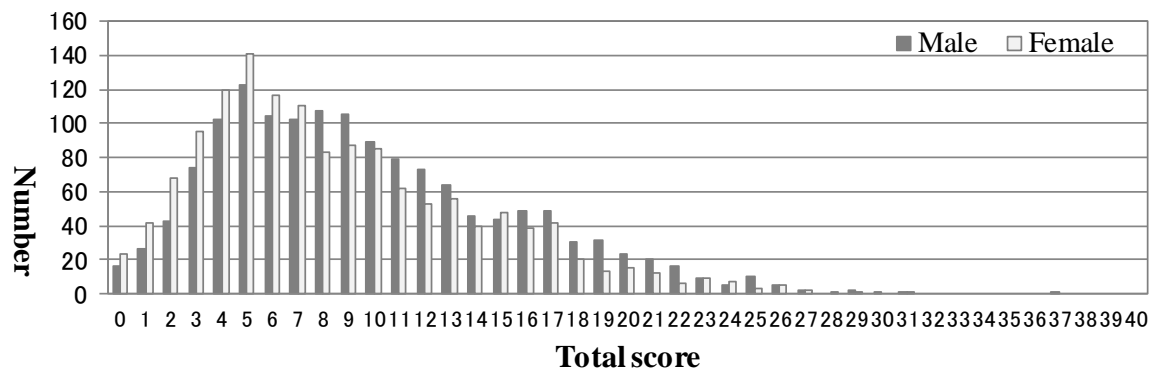


Fig. 4 Children’s emotions and behavior among primary school students (SDQ) by sex

- 1) A standard value indicated by previous research
- 2) A standard established by Fukushima Medical University physicians to provide support.

9. School (Q9)

When asked if the child would not go to school, 342 (12.1%) said ‘yes’ and 2,484 (87.9%) said ‘no.’

Results of the FY 2014 Mental Health and Lifestyle Survey (Middle school age)

Among the 6,066 people for the survey (for middle school students), there were 1,324 (21.8%) valid responses. The breakdown was 680 (51.4%) boys and 644 (48.6%) girls with an average age of 13.9 years old.

As for the current address, 1,052 (79.5%) lived within the prefecture and 272 (20.5%) lived outside the prefecture.

1. Health Condition of the Child (Q1)

Breakdown of the health condition was the following: 239 (28.1%) for 'very good'; 278 (32.7%) for 'good'; 304 (35.7%) for 'normal'; 29 (3.4%) for 'bad'; and 1 (0.1%) for 'very bad'.

2. Current Height and Weight of the Child (Q2)

The average height/weight of boys was the following: 159.9 cm/ 50.0 kg for 7th graders; 164.0 cm/ 53.5 kg for 8th graders; and 168.5 cm/ 60.2 kg for 9th graders. The average height/ weight for girls were the following: 154.1 cm/ 46.6 kg for 7th graders; 155.7 cm/ 49.4 kg for 8th graders; and 156.8 cm/51.1 kg for 9th graders.

3. Sleep (Q3)

- 1) The average sleeping hours were 7 hours and 9 minutes.
- 2) For sleep satisfaction, 365 (42.6%) answered 'sufficient', 400 (46.7 %) answered 'slightly insufficient', and 92 (10.7%) answered 'insufficient'.

4. Regular Amount of Exercise (Q4)

For exercise (What is your regular amount of exercise aside from physical education classes?), those who answered 'almost every day' were 411 (47.7%), '2-4 times a week' were 119 (13.8%), 'once a week' were 76 (8.8%), and 'barely exercise' were 255 (29.6%).

5. Dietary Habits (Q5)

The dietary habits in the past month are as shown in Table 11 (next page).

Table 11. Dietary habits in the past month

	Faster	Normal/ Slower	Valid responses
1. Do you eat faster than others?	177 (20.6%)	682 (79.4%)	859
	Yes	No	Valid responses
2. Do you skip breakfast often?	100 (11.6%)	760 (88.4%)	860
3. Do you go to sleep within 1-2 hours after dinner?	67 (7.8%)	789 (92.2%)	856
4. Do you drink sugary beverages almost every day?	303 (35.3%)	556 (64.7%)	859
5. Do you consume fish more than three days a week?	393 (45.8%)	465 (54.2%)	858
6. Do you consume vegetables other than pickles, seaweed, or mushrooms with almost every meal?	598 (69.5%)	262 (30.5%)	860
7. Do you consume fruit almost every day?	304 (35.3%)	556 (64.7%)	860
8. Do you consume soy products almost every day?	448 (52.1%)	412 (47.9%)	860
9. Do you consume dairy almost every day?	713 (83.0%)	146 (17.0%)	859
10. Do you consume prepared foods almost every day?	122 (14.2%)	738 (85.8%)	860
11. Do you eat out almost every day?	4 (0.5%)	856 (99.5%)	860

6. Currently Treated Diseases (Q6)

For currently treated diseases, 924 (71.3%) answered ‘no’ while 372 (28.7%) answered ‘yes.’

The breakdown of diseases for individuals who answered ‘yes’ is shown in Table 12 (multiple answers allowed).

7. Experience of Hospitalization in the Past Year (Q7)

For experience of hospitalization in the past year, 1,259 (97.1%) answered ‘no’ and 38 (2.9%) answered ‘yes.’

The breakdown of those who answered ‘yes’ is shown in Table 13 (multiple answers allowed).

Table 12. Breakdown of currently treated diseases

Disease	Count
Allergic rhinitis	152
Odontopathy	77
Atopic dermatitis	60
Asthma	34
ADHD	25
Asthma, atopic dermatitis, allergic conditions other than allergic rhinitis	21
Sinusitis/ empyema	15
Common cold	13
Influenza	5
Otitis media	3
Epilepsy	3
Other	83

Multiple answers

Table 13. Breakdown of diseases during hospitalization in the past year

Disease	Count
Common cold	17
Influenza	11
Gastroenteritis	6
Asthma	1
Bronchitis	1
Pneumonia	0
Mycoplasma pneumonia	0
Respiratory syncytial virus infection	0
Rotavirus infection	0
Febrile convulsion	0
Kawasaki disease	0
Inguinal hernia	0
Other	10

Multiple answers

8. Child's Emotions and Behavior (Q8)

1) For child's emotions and behavior (SDQ Japanese version), among the 1,300 valid responses, 169 (13.0%) were 16 points and above¹ and 70 (5.4 %) were 20 points and above² (Fig. 5). The average total point was 8.6.

For boys, among the 665 valid responses, 95 (14.3%) were 16 points and above and 42 (6.3%) were 20 points and above. For girls, among the 635 valid responses, 74 (11.7%) were 16 points and above and 28 (4.4%) were 20 points and above (Fig. 6). The average total score for boys was 9.1 points and the total score for girls was 8.2.

2) Regarding whether children have any issues in one or more areas (emotions, focus, behavior or interaction with others), those who answered 'no' were 866 (66.3%), 'yes (minor issues)' were 323 (24.7%), 'yes (clear issues)' were 96 (7.4%), and 'yes (serious issues)' were 21 (1.6%).

3) Among those that answered 'yes' for the above question, regarding whether or not the child is confused or concerned due to the issue, those who answered 'not at all' were 72 (17.0%), 'only a little' were 282 (66.5%), 'very' were 54 (12.7%), and 'greatly' were 16 (3.8%).

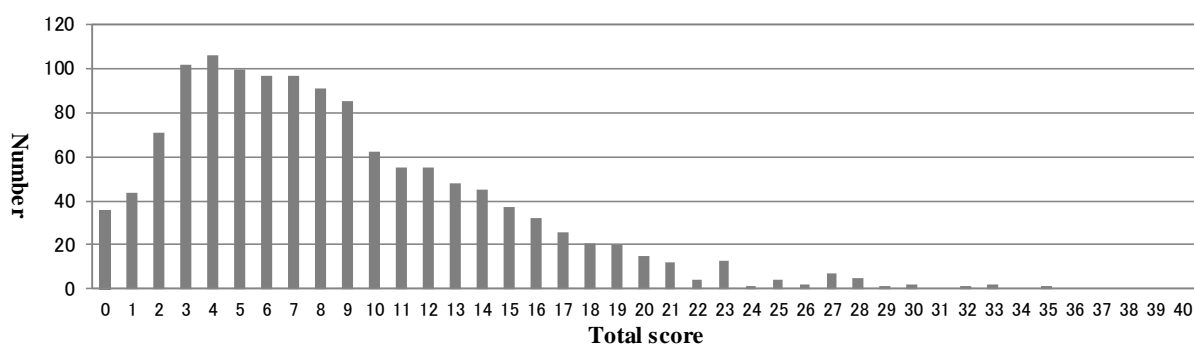


Fig. 5 Children's emotions and behavior for middle school students (SDQ): Overall

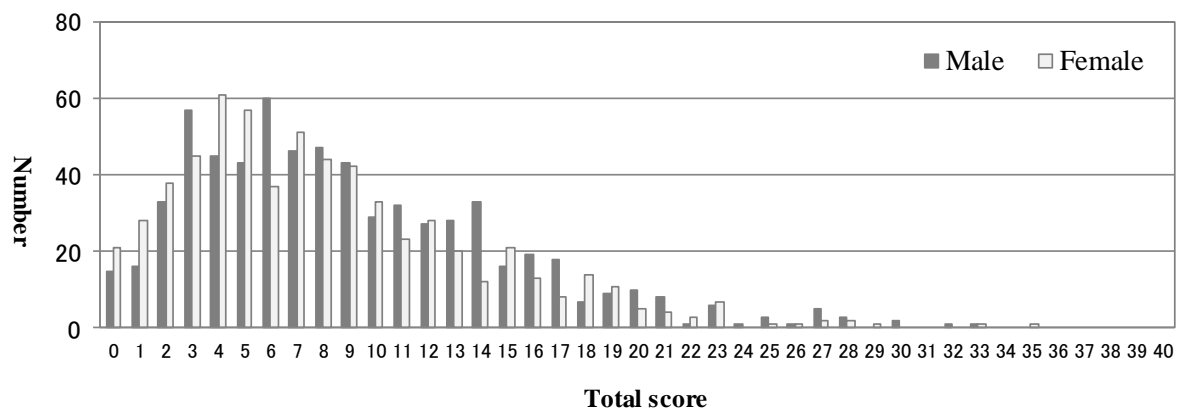


Fig. 6 Children's emotions and behavior for middle school students (SDQ) by sex

- 1) A standard value indicated by previous research
- 2) A standard established by Fukushima Medical University physicians to provide support.

9. School (Q9)

When asked if the child would not go to school, 199 (15.7%) said 'yes' and 1,072 (84.3%) said 'no.'

Results of the FY 2014 Mental Health and Lifestyle Survey (Adults)

Among the 186,881 adults for the Mental Health and Lifestyle Survey, there were 43,811 (23.4%) valid responses. The breakdown was 19,653 (44.9%) males and 24,158 (55.1%) females with an average age of 60.5 years old.

As for the current address, 37,092 (84.7%) lived within the prefecture and 6,719 (15.3%) lived outside the prefecture.

1. Health condition (Q1)

Breakdown of the health condition was the following: 1,478 (4.0%) for 'very good'; 5,909 (15.9%) for 'good'; 22,855 (61.7%) for 'normal'; 6,188 (16.7%) for 'bad'; and 632 (1.7%) for 'very bad'.

2. Height and Weight (Q2)

- 1) The average height/weight of males was 165.7 cm/66.1 kg and the average BMI was 24.0 kg/m². Among males, those with less than BMI 18.5 kg/m² were 701 (3.8%); 18.5 kg/m² and above and less than 25.0 kg/m² were 11,193 (61.1%); 25.0 kg/m² and above and less than 27.5 kg/m² were 3,796 (20.7%); 27.5 kg/m² and above and less than 30.0 kg/m² were 1,686 (9.2%); and 30.0 kg/m² and above were 958 (5.2%).

The average height/weight of females was 153.2 cm/54 kg and the average BMI was 23.0 kg/m². For females, those with a BMI less than 18.5 kg/m² were 1,840 (8.4%); 18.5 kg/m² and above and less than 25.0 kg/m² were 14,392 (65.4%); 25.0 kg/m² and above and less than 27.5 kg/m² were 3,253 (14.8%); 27.5 kg/m² and above and less than 30.0 kg/m² were 1,448 (6.6%); and 30.0 kg/m² and above were 1,074 (4.9%).

- 2) For body weight change (Did you have any body weight change compared to last year?), those who answered 'it increased by 3 kg or more' were 6,071 (14.6%); 'it did not change (± 3 kg)' were 31,435 (75.8%); and 'it decreased by 3 kg or more' were 3,986 (9.6%).

For body weight change for males, those who answered 'it increased by 3 kg or more' were 2,537 (13.6%); 'it did not change (± 3 kg)' were 14,321 (76.7%); and 'it decreased by 3 kg or more' were 1,804 (9.7%).

For body weight change for females, those who answered 'it increased by 3 kg or more' were 3,534 (15.5%); 'it didn't change (± 3 kg)' were 17,114 (75.0%); and 'it decreased by 3 kg or more' were 2,182 (9.6%).

3. Medical History in the Past Year (Q3)

Medical history in the past year (Have you been diagnosed with some of the following diseases in the past year?) is shown in Table 14.

Table 14. Experience of diagnoses by general illness and the state of attending hospital as outpatient

(Upper row is the number of individuals/lower row is proportion)

Name of illness	Valid responses	Diagnosed or not		Currently attending hospital as outpatient ¹	
		No	Yes	Yes	No
Hypertension (Or high blood pressure)	42,200	24,914 (59.0%)	17,286 (41.0%)	15,804 (93.0%)	1,189 (7.0%)
Diabetes (Or high blood sugar)	41,024	35,113 (85.6%)	5,911 (14.4%)	5,155 (89.7%)	590 (10.3%)
Hyperlipidemia (Or having high cholesterol or neutral fat)	41,312	27,454 (66.5%)	13,858 (33.5%)	9,768 (72.9%)	3,633 (27.1%)
Mental disorder	41,532	37,169 (89.5%)	4,363 (10.5%)	3,432 (81.8%)	765* (18.2%)
Cancer (Including leukemia and lymphoma)	41,600	39,883 (95.9%)	1,717 (4.1%)		
Stroke	41,858	40,225 (96.1%)	1,633 (3.9%)		
(Types of stroke) Multiple answers					
Cerebral infarction			1,143		
Cerebral hemorrhage			180		
Subarachnoid hemorrhage			120		
Other			19		
I don't know			195		
Heart disease	42,158	37,026 (87.8%)	5,132 (12.2%)		
(Types of heart disease) Multiple answers					
Myocardial infarction			631		
Angina			1,406		
Arrhythmia			2,606		
Other			693		
I don't know			423		
Pneumonia	42,059	41,334 (98.3%)	725 (1.7%)		
Bone fracture	42,007	40,147 (95.6%)	1,860 (4.4%)		
Thyroid disease	41,726	40,431 (96.9%)	1,295 (3.1%)		
(Types of thyroid disease) Multiple answers					
Hyperthyroidism (Basedow disease)			235		
Hypothyroidism			491		
Other			492		

1) Proportion of the valid responses

* Among these, 312 individuals answered that they were not currently attending hospital as outpatient since they have recovered.

4. Sleep (Q4)

- 1) The average sleep hours were 7 hours and 3 minutes.
- 2) As for sleep satisfaction, those who answered 'sufficient' were 14,094 (38.3%); 'slightly insufficient' were 17,052 (46.3%); 'very insufficient' were 4,705 (12.8%); and 'greatly insufficient or couldn't go to sleep' were 960 (2.6%).
- 3) Experiences related to sleep (Have you experienced the following conditions at least three times a week?) are shown in Table 15.

Table 15. Experiences related to sleep among adults

	Yes	No	Valid responses
1. It takes time to fall sleep at night after going to bed.	15,533 (42.4%)	21,115 (57.6%)	36,648
2. I wake up during the night in the middle of sleep	24,035 (65.2%)	12,828 (34.8%)	36,863
3. I wake up before the time I set and can't go back to sleep.	14,798 (41.1%)	21,235 (58.9%)	36,033
4. Total hour of sleep is not enough.	12,634 (35.8%)	22,637 (64.2%)	35,271
5. I feel depressed during the day.	9,673 (27.7%)	25,298 (72.3%)	34,971
6. My physical and mental activity levels during the day are low.	11,187 (31.6%)	24,241 (68.4%)	35,428
7. I feel sleepy during the day.	17,436 (48.4%)	18,580 (51.6%)	36,016

5. Exercise (Q5)

Those who answered they exercised 'almost every day' were 6,524 (15.3%), '2-4 times per week' were 10,414 (24.4%), 'once a week' were 7,061 (16.5%), and 'almost never' were 18,670 (43.8%).

6. Smoking (Q6)

As for smoking (Do you smoke tobacco or cigarettes except for cigars and pipes?), those who answered 'have never smoked' were 23,400 (57.4%); 'I quit' were 10,315 (25.3%); and 'yes' were 7,019 (17.2%).

Among those who responded 'yes', the average number of cigarettes was 16.3 per day.

7. Alcohol consumption (Q7)

- 1) For alcohol consumption (Do you currently drink alcohol?), those who answered 'no, or barely drink (less than once a month)' were 22,128 (54.4%); 'I quit' were 1,689 (4.2%); and 'yes (at least once a month)' were 16,869 (41.5%).

- 2) Among those who answered ‘yes (at least once per month)’, those who answered ‘one day a week’ were 2,307 (14.7%); ‘two days a week’ were 1,624 (10.3%); ‘three days a week’ were 1,557 (9.9%); ‘four days a week’ were 1,005 (6.4%); ‘five days a week’ were 1,724 (11.0%); ‘six days a week’ were 1,925 (12.2%); and ‘seven days a week’ were 5,591 (35.5%).
- 3) The average alcohol consumption per day was around 198 ml per day. Among the 40,686 valid responses for alcohol consumption (Q7-1), 3,233 (7.9%) consumed excessively (360 ml and above).
- 4) For experience related to alcohol consumption (Answer the following questions about the past 30 days. CAGE screens for alcoholism.), the responses of each item are shown in Table 16. ‘Yes’ was 1 point and the total points of the four items were calculated.
The results by age group are shown in Table 17. Overall, those with 0 points were 9,330 (62.0%); 1 point was 3,333 (22.2%); 2 points were 1,428 (9.5%); 3 points were 674 (4.5%); and 4 points were 279 (1.9%).
For males, those with 0 points were 5,758 (56.5%); 1 point were 2,551 (25.0%); 2 points were 1,111 (10.9%); 3 points were 561 (5.5%); and 4 points were 212 (2.1%). For females, 0 points were 3,572 (73.6%); 1 point were 782 (16.1%); 2 points were 317 (6.5%); 3 points were 113 (2.3%); and 4 points were 67 (1.4%).

Table 16. Experience related to alcohol consumption (Upper row is the number of individuals/lower row is percentage)

		No	Yes	Valid responses
1	Have you ever felt you should cut down on your drinking?	10,431 (68.5%)	4,799 (31.5%)	15,230
2	Have people annoyed you by criticizing your drinking?	13,659 (90.3%)	1,470 (9.7%)	15,129
3	Have you ever felt bad or guilty about your drinking?	13,144 (86.8%)	2,002 (13.2%)	15,146
4	Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (eye-opener)?	13,932 (91.9%)	1,230 (8.1%)	15,162

Since there are missing values for each item, totals may not match.

Table 17. Experience related to alcohol consumption by age group

(Upper row is the number of individuals/lower row is percentage)

	0 points	1 point	2 points	3 points	4 points	Valid responses
20s	521 (78.3%)	82 (12.3%)	37 (5.6%)	18 (2.7%)	7 (1.1%)	665
30s	979 (66.2%)	263 (17.8%)	133 (9.0%)	67 (4.5%)	36 (2.4%)	1,478
40s	1,154 (61.9%)	404 (21.7%)	187 (10.0%)	85 (4.6%)	34 (1.8%)	1,864
50s	1,545 (58.3%)	628 (23.7%)	288 (10.9%)	127 (4.8%)	61 (2.3%)	2,649
60s	2,696 (59.6%)	1,099 (24.3%)	438 (9.7%)	208 (4.6%)	84 (1.9%)	4,525
70s and above	2,435 (63.0%)	857 (22.2%)	345 (8.9%)	169 (4.4%)	57 (1.5%)	3,863
Overall	9,330 (62.0%)	3,333 (22.2%)	1,428 (9.5%)	674 (4.5%)	279 (1.9%)	15,044

8. Appetite (Q8)

When asked about their appetite (How often have you lost appetite in the last two weeks?), 30,250 (75.5%) said zero, 7,595 (19.0%) said a few days, 1,366 (3.4%) said more than a week, and 841 (2.1%) said almost every day.

9. Dietary Habits (Q9)

The dietary habits in the past month are as shown in Table 18.

Table 18. Dietary habits in the past month

	Faster	Normal/ Slower	Valid responses
1. Do you eat faster than others?	11,851 (27.3%)	31,507 (72.7%)	43,358
	Yes	No	Valid responses
2. Do you skip breakfast often?	7,079 (16.3%)	36,243 (83.7%)	43,322
3. Do you tend to eat until you are full?	20,712 (47.9%)	22,533 (52.1%)	43,245
4. Do you eat snacks during daytime or late at night almost every day?	11,141 (25.9%)	31,876 (74.1%)	43,017
5. Do you consume fatty meat more than three times a week?	14,475 (33.7%)	28,492 (66.3%)	42,967
6. Do you consume fish more than three days a week?	25,993 (60.2%)	17,158 (39.8%)	43,151
7. Do you consume more than two bowls of soup a day?	18,371 (42.4%)	24,960 (57.6%)	43,331
8. Do you consume pickles more than twice a day?	16,759 (38.7%)	26,493 (61.3%)	43,252
9. Do you consume vegetables other than pickles, seaweed, or mushrooms with almost every meal?	28,916 (66.8%)	14,363 (33.2%)	43,279
10. Do you consume fruit almost every day?	20,038 (46.3%)	23,194 (53.7%)	43,232
11. Do you consume soy products almost every day?	25,621 (59.1%)	17,750 (40.9%)	43,371
12. Do you consume dairy almost every day?	25,341 (58.5%)	17,983 (41.5%)	43,324
13. Do you consume prepared foods almost every day?	8,759 (20.3%)	34,475 (79.7%)	43,234
14. Do you eat out almost every day?	1,544 (3.6%)	41,685 (96.4%)	43,229

10. Overall mental health (Q10)

1) For overall mental health (K6), among the 36,186 valid responses, the number of those with 13 points and above¹ was 2,776 (7.7%) (Fig. 7). The average points were 4.7 points.

For males, among the 16,300 valid responses, the number of those with 13 points and above was 1,120 (6.9%). For females, among the 19,886 valid responses, 13 points and above were 1,656 (8.3%) (Fig. 8). The average points for males and females were 4.4 and 4.9 points respectively.

Table 19 (next page) shows the data by age group.

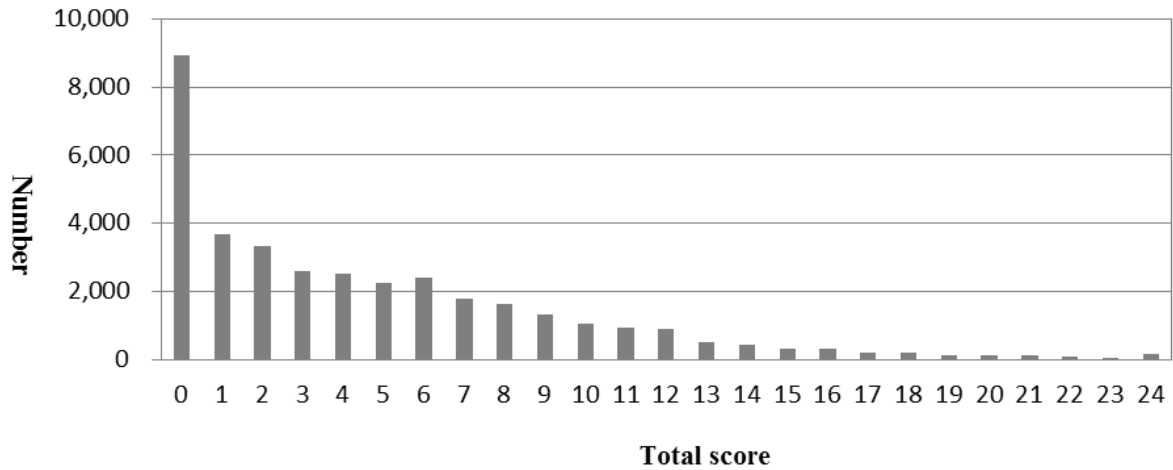


Fig. 7 The general mental health state (K6): Overall

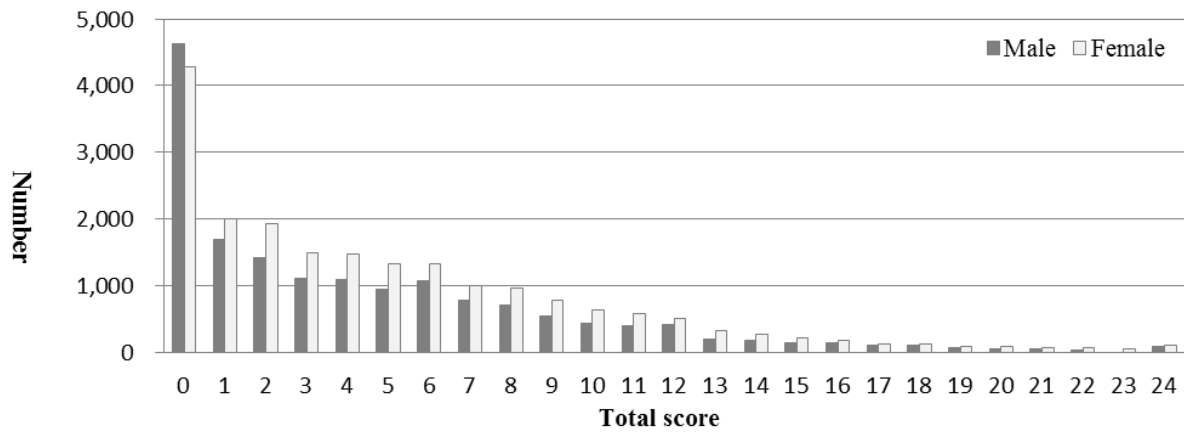


Fig. 8 The general mental health state (K6) by gender

Table 19. General mental health state (K6) by age group

	13 points and above ¹	Valid responses
10s	33 (4.6%)	712
20s	148 (8.4%)	1,769
30s	307 (8.6%)	3,584
40s	317 (8.5%)	3,737
50s	458 (8.9%)	5,175
60s	605 (6.2%)	9,699
70 and above	908 (7.9%)	11,510

1) A standard value indicated by previous research

11. Current Living Conditions (Q11)

- 1) For whether or not one had to live separately from family due to disaster, 14,719 (34.4%) answered 'yes' and 28,123 (65.6%) answered 'no'.
- 2) The number of residents in one household (including self) before the disaster was the following: one (living alone), 2,821 (7.0%); two, 9,210 (23.0%); three, 8,171 (20.4%); four, 6,819 (17.0%); five, 4,954 (12.4%); six, 4,165 (10.4%); seven, 2,483 (6.2%); eight, 964 (2.4%); nine, 364 (0.9%); and ten and above, 158 (0.4%).
The current number of residents in one household was the following: one (living alone), 5,741 (13.7%); two, 14,760 (35.3%); three, 8,648 (20.7%); four, 5,813 (13.9%); five, 3,271 (7.8%); six, 1,993 (4.8%); seven, 1,077 (2.6%); eight, 380 (0.9%); nine, 124 (0.3%); and ten and above, 54 (0.1%).
- 3) For current residence (multiple answers allowed), 9,147 lived in municipally subsidized rental housing, 134 in temporary housing, 14 in restoration public housing, 431 in rented houses or apartments, 322 in relative's houses, 300 in owned houses, and 478 in other kinds of habitats.
- 4) For the form of employment, 11,532 (27.4%) were full-time or self-employed, 3,317 (7.9%) were part-time, and 27,182 (64.7%) were unemployed (including students and homemakers).
- 5) For how one sees their financial circumstances, 4,533 (10.9%) said 'tough,' 9,557 (22.9%) said 'slightly tough,' 24,703 (59.3%) said 'normal,' 2,112 (5.1%) said 'slightly comfortable,' and 768 (1.8%) said 'comfortable.'
- 6) Asked if they (or their spouse) were pregnant before the disaster, or if they were living together with their child who was underage, 7,510 (20.4%) said 'yes,' and 29,296 (79.6%) said 'no.'
Among those who said 'yes,' 592 (7.9%) said they (or their spouse) were pregnant, 3,201 (42.6%) said they were living with their pre-school child, 2,910 (38.7%) said they were living with their primary school child, 1,409 (18.8%) said they were living with their middle school child, 1,927 (25.7%) said they were living with their underage child who has graduated from middle school. (Multiple answers allowed.)
- 7) Asked if they (or their spouse) were currently pregnant, or if they were currently living with their child who was underage, 5,914 (16.4%) said 'yes,' and 30,198 (83.6%) said 'no.'

Among those who said ‘yes,’ 329 (5.6%) said they (or their spouse) were currently pregnant, 2,473 (41.8%) said they were living with their preschool child, 2,447 (41.4%) said they were living with their primary school child, 1,493 (25.2%) said they were living with their middle school child, and 1,425 (24.1%) said they were living with their underage child who has graduated from middle school. (Multiple answers allowed.)

12. Awareness of Health Effects Caused By Radiation (Q12)

- 1) Awareness of health effects caused by radiation is shown in Table 20.

Table 20. Awareness of health effects caused by radiation

(Upper row is the number of individuals/lower row is proportion)

		Possibility is very low	←	→	Possibility is very high	Valid responses
1	How likely do you think health disorders (for example, cancer) will occur in the future due to the current radiation exposure?	12,879 (36.0%)	11,664 (32.6%)	6,522 (18.2%)	4,742 (13.2%)	35,807
2	How likely do you think health disorders will occur in future generations (children or grandchildren) due to the current radiation exposure?	10,273 (29.2%)	11,501 (32.7%)	7,776 (22.1%)	5,577 (15.9%)	35,127

- 2) When asked how frequently they experienced inconveniences in daily life due to the anxieties about radiation for the past month, 2,140 (5.8%) answered ‘frequently,’ 5,580 (15.2%) said ‘sometimes,’ 7,907 (21.5%) said ‘rarely,’ and 21,079 (57.4%) said ‘never.’

13. Sources of advice (Q13)

When asked if they knew anyone or any organization that they can consult regarding mental or physical issues caused by the Great East Japan Earthquake, 27,137 (72.7%) said ‘yes,’ and 10,186 (27.3%) said ‘no.’

Breakdown of sources of advice for those who answered ‘yes’ is shown in Table 21.

Table 21. Break down of sources of advice

	Number
Family/relatives	23,202
Friends/acquaintances	14,963
Colleagues/superiors	3,206
Municipal consultation service (City public health bureau, health center, etc.)	5,870
Prefectural consultation service (Prefectural public health bureau/public health and welfare office, etc.)	1,325
Mental health and welfare center	613
Fukushima Center for Disaster Mental Health	785
Visiting care/nursing care service organizations	1,722
Medical institutions such as psychosomatic medicine/psychiatry/neurology/mental clinics	3,335
Medical institutions other than the above (general internal medicine, surgical department, ophthalmology, otorhinology, orthopedics, obstetrics and gynecology, etc.)	6,046
Facilities related to religion such as temples, shrines, churches, etc.	499
Other	271

(Multiple answers)

Data from the FY 2014 Mental Health and Lifestyle Survey (Age group 0-3)

		Number	Proportion
Sex	(1,077 valid responses)		
(Average age 2.0)			
	• Boys	550	51.1%
	• Girls	527	48.9%
By address	(1,077 valid responses)		
	• Within the prefecture	853	79.2%
	• Outside the prefecture	224	20.8%
Q1 Health condition	(1,063 valid responses)		
	• Very good	374	35.2%
	• Good	459	43.2%
	• Normal	219	20.6%
	• Bad	11	1.0%
	• Very bad	0	0.0%
Q2 Height and weight	(Listed in the main document by sex and age)		
Q3 Currently treated diseases	(1,070 valid responses)		
	• No	768	71.8%
	• Yes	302	28.2%
	(Breakdown is listed in the main document.)		
Q4 Experience of hospitalization in the past year	(1,070 valid responses)		
	• No	935	87.4%
	• Yes	135	12.6%
	(Breakdown is listed in the main document.)		
Q5 Sleep hours and naps			
1) Sleep hours	(1,070 valid responses)		
	• Average sleep hours: 9 h 56 min		
	(1,070 valid responses)		
	• Average sleep time: 9:11 PM		
	(1,071 valid responses)		
	• Average wake-up time: 7:7 AM		
2) Naps	(1,067 valid responses)		
	• No	159	14.9%
	• Yes	908	85.1%
	(883 valid responses)		
	(Average nap time: 1 h 53 min)		
Q6 Regular amount of exercise	(719 valid responses)		
	• Almost every day	382	53.1%
	• 2-4 times a week	211	29.3%
	• Once a week	71	9.9%
	• Rarely	55	7.6%
Q7 Dietary habits			
1) Breast milk	(1,036 valid responses)		
	• Yes	159	15.3%
	• No	877	84.7%
2) Diet in the past month			
	• Listed in the main document		
Q8 Child rearing	(1,073 valid responses)		
	• Yes	138	12.9%
	• No	477	44.5%
	• Not sure	458	42.7%

* Brackets indicate included numbers.

Data from the FY 2014 Mental Health and Lifestyle Survey (Age group 4-6)

			Number	Proportion
Sex	(1,478 valid responses)	• Boys	736	49.8%
(Average age 4.9)		• Girls	742	50.2%
By address	(1,478 valid responses)	• Within the prefecture	1,057	71.5%
		• Outside the prefecture	421	28.5%
Q1 Health condition	(1,425 valid responses)	• Very good	445	31.2%
		• Good	582	40.8%
		• Normal	379	26.6%
		• Bad	18	1.3%
		• Very bad	1	0.1%
Q2 Height and weight		(Listed in the main document by sex and age)		—
Q3 Currently treated diseases	(1,472 valid responses)	• No	941	63.9%
		• Yes	531	36.1%
		(Breakdown is listed in the main document)		
Q4 Experience of hospitalization in the past year	(1,471 valid responses)	• No	1,344	91.4%
		• Yes	127	8.6%
		(Breakdown is listed in the main document)		
Q5 Sleep hours and naps				
1) Sleep hours	(1,471 valid responses)	• Average sleep hours: 9 h 43 min		
	(1,474 valid responses)	• Average sleep time: 9:9 PM		
	(1,471 valid responses)	• Average wake-up time: 6:52 AM		
2) Naps	(1,459 valid responses)	• No	947	64.9%
		• Yes	512	35.1%
	(483 valid responses)	(Average nap time: 1 h 37 min)		
Q6 Regular amount of exercise	(1,467 valid responses)	• Almost every day	801	54.6%
		• 2-4 times a week	461	31.4%
		• Once a week	132	9.0%
		• Rarely	73	5.0%
Q7 Dietary habits		• Listed in the main document		
Q8 SDQ	(1,475 valid responses)	• Average total score: 9.6 points		
1) SDQ	(735 valid responses)	• Male average total score: 9.9 points		
	(740 valid responses)	• Female average total score: 9.3 points		
		• 16 points and above	198	13.4%
		(Male)	(100)	—
		(Female)	(98)	—
		• 20 points and above	75	5.1%
		(Male)	(34)	—
		(Female)	(41)	—
2) Presence or absence of difficult issues	(1,471 valid responses)	• No	1,112	75.6%
		• Yes (minor issues)	304	20.7%
		• Yes (clear issues)	42	2.9%
		• Yes (serious issues)	13	0.9%
3) Level of upset	(344 valid responses)	• Not at all	161	46.8%
		• A little	167	48.5%
		• Very	14	4.1%
		• Greatly	2	0.6%
Q9 The child would not go to nursery school or kindergarten.	(1,467 valid responses)	• Yes	269	18.3%
		• No	1,131	77.1%
		• The child is not attending nursery school.	67	4.6%

* Brackets indicate included numbers.

Data from the FY 2014 Mental Health and Lifestyle Survey (Primary school age)

			Number	Proportion
Sex	(2,859 valid responses)	• Boys	1,453	50.8%
(Average age: 9.4)		• Girls	1,406	49.2%
By address	(2,859 valid responses)	• Within the prefecture	2,154	75.3%
		• Outside the prefecture	705	24.7%
Q1 Health condition	(2,698 valid responses)	• Very good	735	27.2%
		• Good	1,106	41.0%
		• Normal	815	30.2%
		• Bad	36	1.3%
		• Very bad	6	0.2%
Q2 Height and weight		(Listed in the main document by sex and age)		—
Q3 Currently treated diseases	(2,847 valid responses)	• No	1,802	63.3%
		• Yes	1,045	36.7%
		(Breakdown is listed in the main document)		
Q4 Experience of hospitalization in the past year	(2,852 valid responses)	• No	2,691	94.4%
		• Yes	161	5.6%
		(Breakdown is listed in the main document)		
Q5 Sleep hours	(2,841 valid responses)	• Average sleep hours: 8 h 54 min		
	(2,844 valid responses)	• Average sleep time: 9:31 PM		
	(2,842 valid responses)	• Average wake-up time: 6:26 AM		
Q6 Regular amount of exercise	(2,843 valid responses)	• Almost every day	280	9.8%
		• 2-4 times a week	904	31.8%
		• Once a week	685	24.1%
		• Rarely	974	34.3%
Q7 Dietary habits		• Listed in the main document		
Q8 SDQ	(2,856 valid responses)	• Average total score: 9.2 points		
1) SDQ	(1,451 valid responses)	• Male average total score: 9.8 points		
	(1,405 valid responses)	• Female average total score: 8.6 points		
		• 16 points and above	430	15.1%
		(Male)	(254)	—
		(Female)	(176)	—
		• 20 points and above	157	5.5%
		(Male)	(95)	—
		(Female)	(62)	—
2) Presence or absence of difficult issues	(2,849 valid responses)	• No	2,008	70.5%
		• Yes (minor issues)	681	23.9%
		• Yes (clear issues)	130	4.6%
		• Yes (serious issues)	30	1.1%
3) Level of upset	(802 valid responses)	• Not at all	198	24.7%
		• A little	527	65.7%
		• Very	55	6.9%
		• Greatly	22	2.7%
Q9 The child would not go to school.	(2,826 valid responses)	• Yes	342	12.1%
		• No	2,484	87.9%

Data from the FY 2014 Mental Health and Lifestyle Survey (Middle school age)

			Number	Proportion
Sex	(1,324 valid responses)	• Boys	680	51.4%
(Average age: 13.9)		• Girls	644	48.6%
By address	(1,324 valid responses)	• Within the prefecture	1,052	79.5%
		• Outside the prefecture	272	20.5%
Q1 Health condition	(851 valid responses)	• Very good	239	28.1%
		• Good	278	32.7%
		• Normal	304	35.7%
		• Bad	29	3.4%
		• Very bad	1	0.1%
Q2 Height and weight	(Listed in the main document by sex and age)			
Q3 Sleep				
1) Sleep hours	(860 valid responses)	• Average sleep hours: 7 h 9 min		
2) Sleep for the past month	(857 valid responses)	• Sufficient	365	42.6%
		• Slightly insufficient	400	46.7%
		• Insufficient	92	10.7%
Q4 Exercise	(861 valid responses)	• Almost every day	411	47.7%
		• 2-4 times a week	119	13.8%
		• Once a week	76	8.8%
		• Rarely	255	29.6%
Q5 Dietary habits	• Listed in the main document			
Q6 Currently treated diseases	(1,296 valid responses)	• No	924	71.3%
		• Yes	372	28.7%
		(Breakdown is listed in the main document)		
Q7 Experience of hospitalization in the past year	(1,297 valid responses)	• No	1,259	97.1%
		• Yes	38	2.9%
		(Breakdown is listed in the main document)		
Q8 SDQ	(1,300 valid responses)	• Average total score: 8.6 points		
1) SDQ	(665 valid responses)	• Male average total score: 9.1 points		
	(635 valid responses)	• Female average total score: 8.2 points		
		• 16 points and above	169	13.0%
		(Male)	(95)	—
		(Female)	(74)	—
		• 20 points and above	70	5.4%
		(Male)	(42)	—
		(Female)	(28)	—
2) Presence or absence of difficult issues	(1,306 valid responses)	• No	866	66.3%
		• Yes (minor issues)	323	24.7%
		• Yes (clear issues)	96	7.4%
		• Yes (serious issues)	21	1.6%
3) Level of upset	(424 valid responses)	• Not at all	72	17.0%
		• A little	282	66.5%
		• Very	54	12.7%
		• Greatly	16	3.8%
Q9 The child would not go to school.	(1,271 valid responses)	• Yes	199	15.7%
		• No	1,072	84.3%

*Brackets indicate included numbers.

Data from the FY 2014 Mental Health and Lifestyle Survey (Adults)

			Number	Proportion
Sex	(43,811 valid responses)	• Male	19,653	44.9%
(Average age: 60.5)		• Female	24,158	55.1%
By address	(43,811 valid responses)	• Within the prefecture	37,092	84.7%
		• Outside the prefecture	6,719	15.3%
Q1 Health condition	(37,062 valid responses)	• Very good	1,478	4.0%
		• Good	5,909	15.9%
		• Normal	22,855	61.7%
		• Bad	6,188	16.7%
		• Very bad	632	1.7%
Q2 Height and weight		• Listed in the main document		
Q3 Medical history in the past year		• Listed in the main document		
Q4 Sleep				
1) Sleep hours	(42,488 valid responses)	• Average sleep hours: 7 h 3 min		
2) Sleep for the past month	(36,811 valid responses)	• Sufficient	14,094	38.3%
		• Slightly insufficient	17,052	46.3%
		• Very insufficient	4,705	12.8%
		• Greatly insufficient or couldn't get any sleep	960	2.6%
3) Experience related to sleep	—	• Listed in the main document		—
Q5 Exercise	(42,669 valid responses)	• Almost every day	6,524	15.3%
		• 2-4 times a week	10,414	24.4%
		• Once a week	7,061	16.5%
		• Rarely	18,670	43.8%
Q6 Smoking	(40,734 valid responses)	• Have never smoked	23,400	57.4%
		• Quit	10,315	25.3%
		• Yes	7,019	17.2%
		(Average cigarettes per day: 16.3)		
Q7 Alcohol				
1) Alcohol consumption	(40,686 valid responses)	• No/ Rarely	22,128	54.4%
		• Quit	1,689	4.2%
		• Yes (more than once a month)	16,869	41.5%
2) Frequency of consumption	(15,733 valid responses)	• Listed in the main document		
3) Daily alcohol consumption	(14,796 valid responses)	• 198 ml on average		
4) Experiences related to alcohol	(15,044 valid responses)	• Listed in the main document		
Q8 Appetite	(40,052 valid responses)	• 0 days	30,250	75.5%
		• A few days	7,595	19.0%
		• More than a week	1,366	3.4%
		• Almost every day	841	2.1%
Q9 Dietary habits	*Multiple answers	• Listed in the main document		
Q10 Mental health state (K6)	(36,186 valid responses)	• Average score: 4.7 points		
	(16,300 valid responses)	• Male average score: 4.4 points		
	(19,886 valid responses)	• Female average score: 4.9 points		
		• 13 points and above	2,776	7.7%
		(Male)	(1,120)	—
		(Female)	(1,656)	—
		(Listed in the main document by age)		—

*Brackets indicate included numbers.

			Number	Proportion
Q11 Current living conditions				
1) Living conditions with family	(42,842 valid responses)	• Yes	14,719	34.4%
		• No	28,123	65.6%
2) Number of people within household	(40,109 valid responses)	• One (living alone)	2,821	7.0%
Before the disaster		• Two	9,210	23.0%
		• More than three	28,078	70.0%
		*Details are listed in the main document.		
At present	(41,861 valid responses)	• One (living alone)	5,741	13.7%
		• Two	14,760	35.3%
		• More than three	21,360	51.0%
		*Details are listed in the main document.		
3) Current residence	*Multiple answers	• Municipally subsidized rental housing	9,147	—
		• Temporary housing	134	—
		• Restoration public housing	14	—
		• Rented house/apartment	431	—
		• Relative's house	322	—
		• Owned house	300	—
		• Other	478	—
4) Form of employment	(42,031 valid responses)	• Full-time/self-employed	11,532	27.4%
		• Part-time	3,317	7.9%
		• Unemployed (including students and homemakers)	27,182	64.7%
5) Current financial circumstances	(41,673 valid responses)	• Tough	4,533	10.9%
		• Slightly tough	9,557	22.9%
		• Normal	24,703	59.3%
		• Slightly comfortable	2,112	5.1%
		• Comfortable	768	1.8%
6) Lived with a child before the disaster	(36,806 valid responses)	• Yes	7,510	20.4%
		(Pregnant)	(592)	—
		(Preschool child)	(3,201)	—
		(Primary school child)	(2,910)	—
		(Middle school child)	(1,409)	—
		(Minor who graduated from middle school)	(1,927)	—
		• No	29,296	79.6%
7) Currently living with a child	(36,112 valid responses)	• Yes	5,914	16.4%
		(Pregnant)	(329)	—
		(Preschool child)	(2,473)	—
		(Primary school child)	(2,447)	—
		(Middle school child)	(1,493)	—
		(Minor who graduated from middle school)	(1,425)	—
		• No	30,198	83.6%
Q12 Awareness of health effects caused by radiation				
1) Awareness of health effects caused by radiation		• Listed in the main document		
2) Inconveniences in daily life	(36,706 valid responses)	• Frequently	2,140	5.8%
		• Sometimes	5,580	15.2%
		• Rarely	7,907	21.5%
		• Never	21,079	57.4%
Q13 Sources of advice				
	(37,323 valid responses)	• Yes	27,137	72.7%
		• No	10,186	27.3%
		(Breakdown is listed in the main document)		

*Brackets indicate included numbers.