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国際シンポジウム事務局(広報・国際連携室)

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2023 Fukushima Medical University International Symposium on the Fukushima Health Management Survey

Secretariat of International Symposium

Office of Public Communications and International Cooperation, Radiation Medical Science Center for the Fukushima Health Management Survey, Fukushima Medical University

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Remote support for affected people following 2011 Fukushima disaster

Telephone intervention combined with Mental Health and Lifestyle Survey

Fukushima Medical University
MAEDA Masaharu, MIURA Itaru

Purpose of MHLS (Mental Health and Lifestyle Survey)

MHLS aims to

➤ Follow mental health and lifestyle-related issues among affected people based on a long-term view

➤ Provide adequate, individually tailored support involving health and welfare service according to results of MHLS



We are conducting telephone support for affected people at risk of physical and/or mental health problems.

Survey population

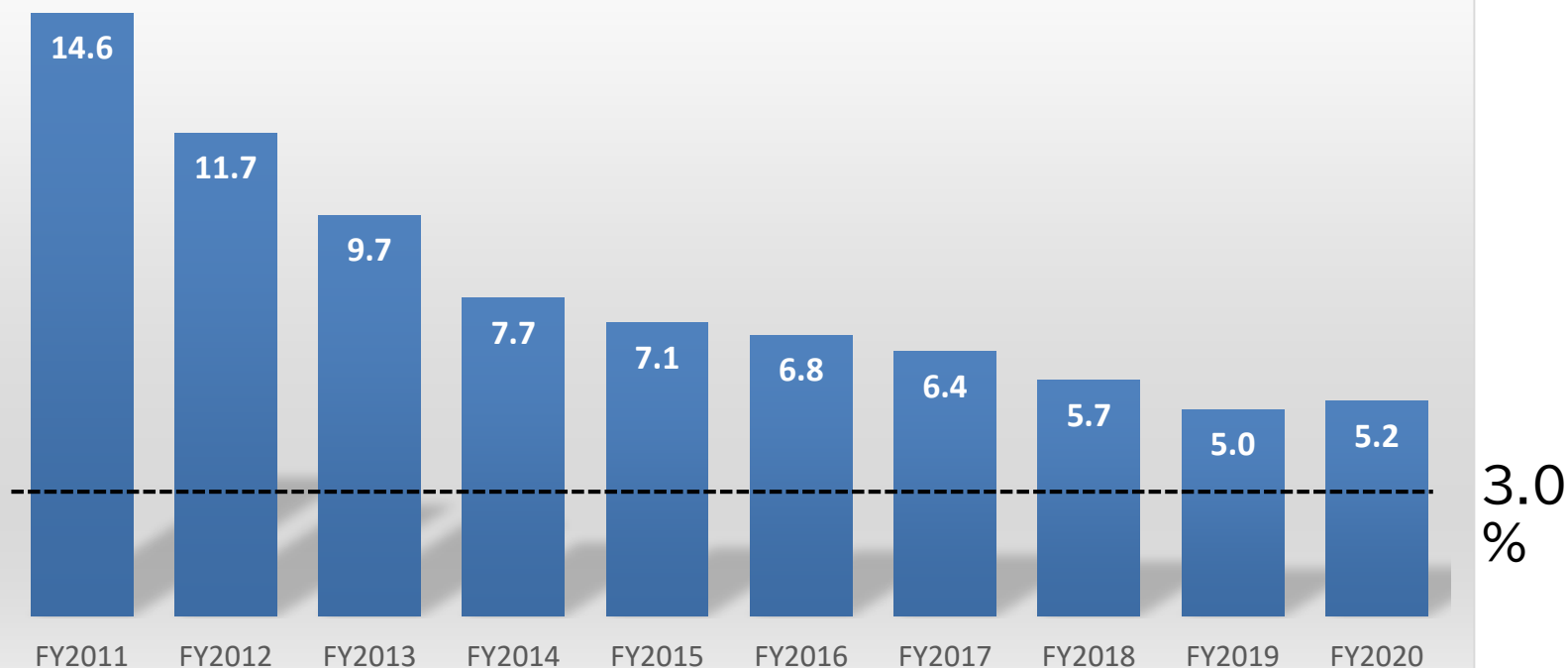
- Approximately 210,000 residents who, at the time of the disaster, were living in 13 municipalities that were designated by the Japanese government for evacuation.
- We divided all the participants into 5 groups according to age.
 - ① Age 0-3 : 4,625
 - ② Age 4-6 : 5,047
 - ③ Primary School(age 7-12) : 11,413
 - ④ Middle School (age 13-15) : 6,023
 - ⑤ Adult (age >15) : 184,507(As of 2013)



This survey has been performed yearly since January 2012.

Proportion of adults at high risk of general mental health problems based on K6

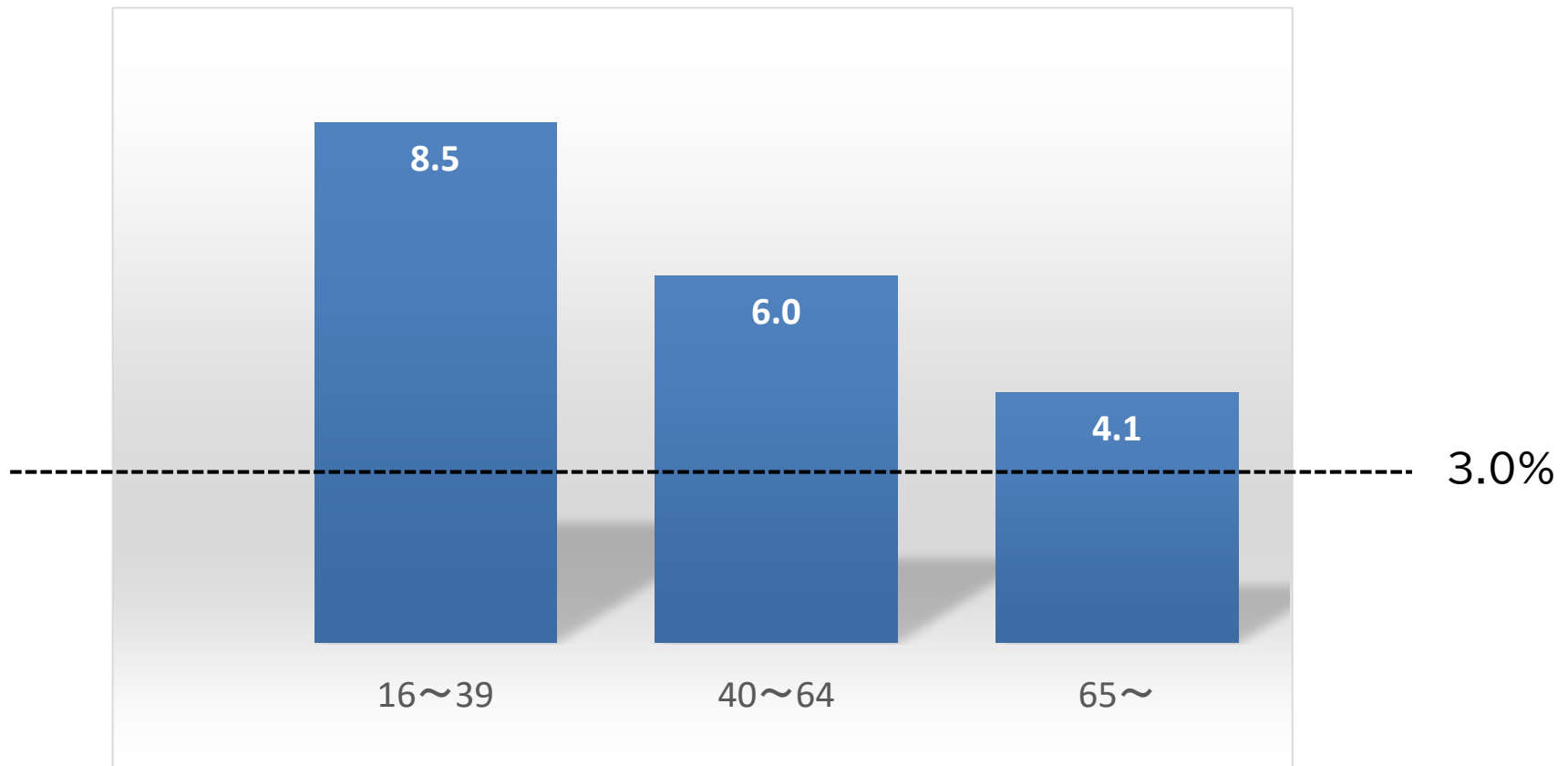
* High-risk proportion among the general population in Japan: approximately 3.0% (Kawakami et al. 2007)



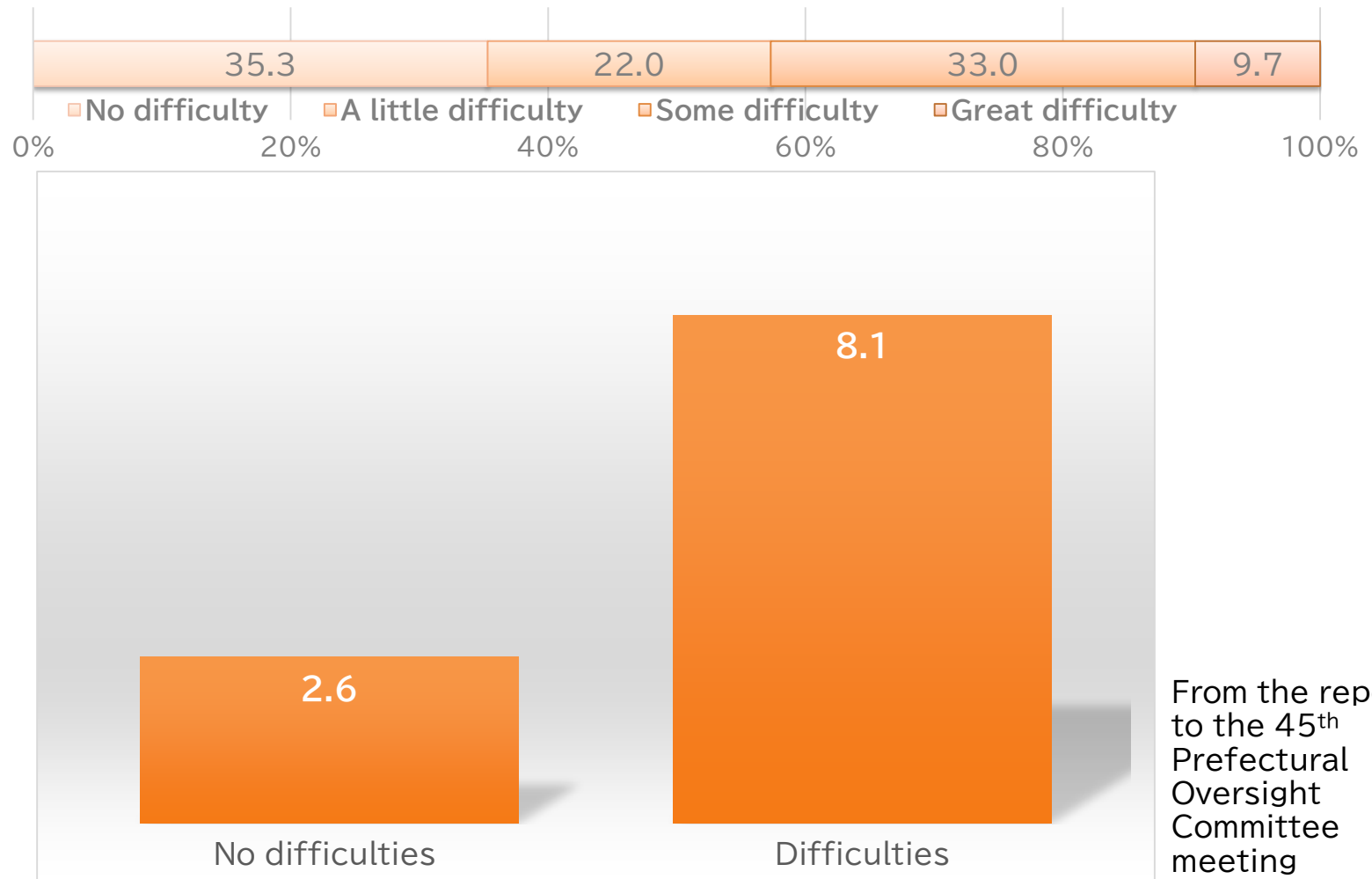
* 日本的一般人口の精神健康リスクの割合
From the report to the 45th Prefectural Oversight Committee meeting

Comparison of high-risk population of general mental health problems in 2021 according to age

*High-risk proportion among the general population in Japan: approximately 3.0% (Kawakami et al. 2007)



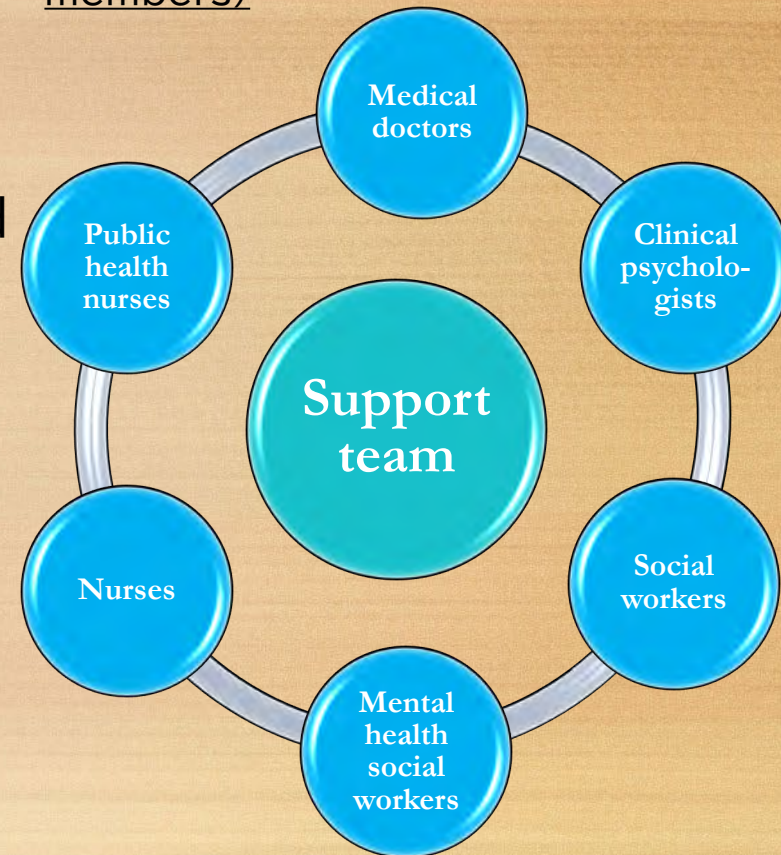
Difficulty in daily life after COVID-19 pandemic and general mental health problems in 2021



Telephone Support

- We provide **outreach telephone support** for the respondents identified as in need of support according to the results of MHLS.
- The telephone support is conducted with active listening and includes secondary screening, suggestions, psychoeducation, and referral to other facilities (clinics, local care centers, etc.) as needed.
- Approximately 37,000 respondents in total have received the support so far.
- On-call service is also available for all the eligible people seeking help, not limited to those at high risk.

Support team (approx.20 members)



Telephone support team



Criteria for support*

Children (≤ 15)

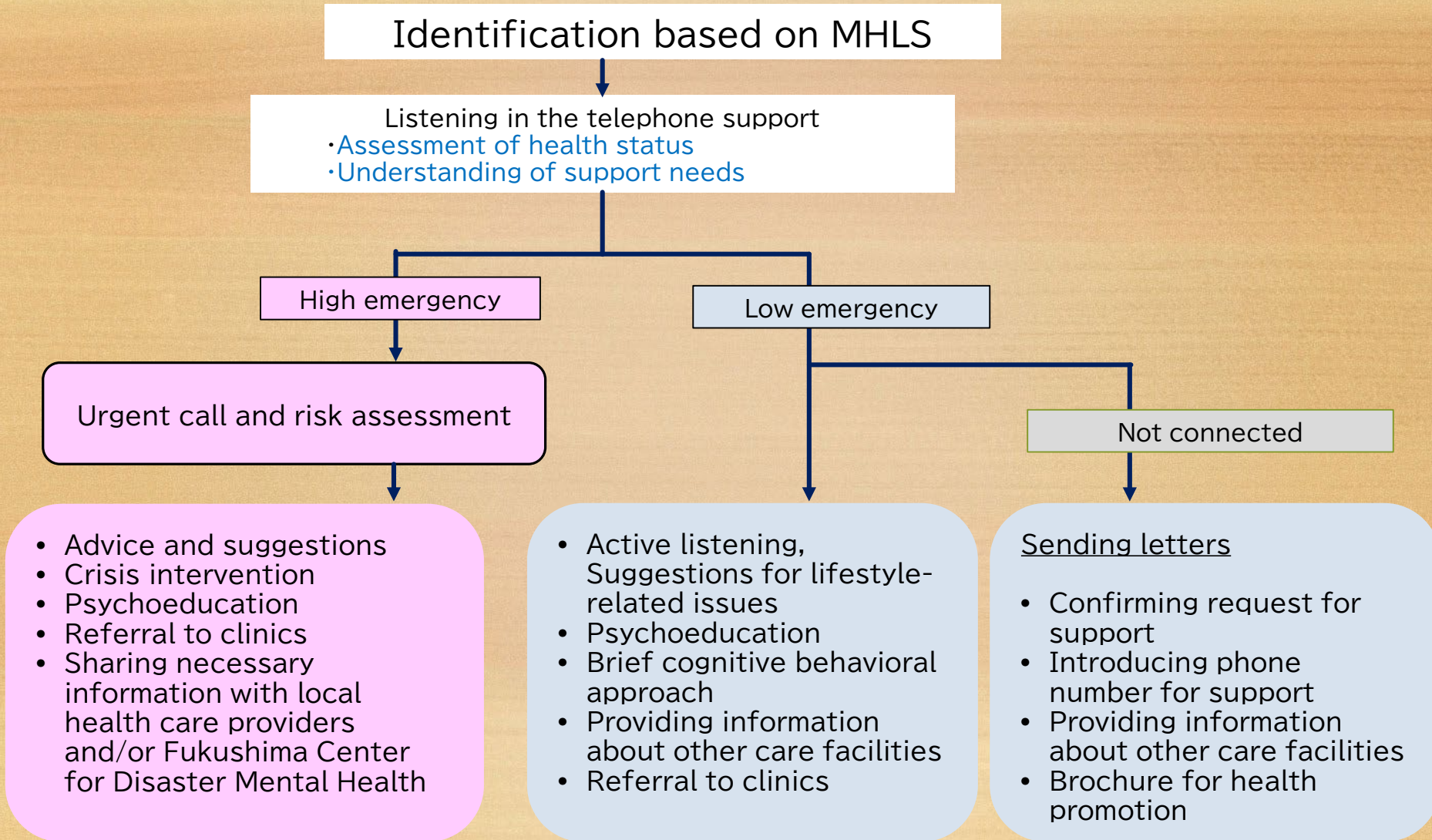
- Emotional and behavioral problems (SDQ)
- Developmental issues
- Someone to consult with
- Problems in school
- Other troubles

Adults (≥ 16)

- General mental health(K6)
- Posttraumatic responses (PCL)
- BMI
- Past and current medical history (Physical and mental issues)
- Sleep
- Smoking
- Problem drinking (CAGE)
- Other troubles

*These criteria may change depending on the survey year.

Flow chart of telephone support



Number of telephone support recipients and their proportion of all respondents

Children

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Number of recipients	1,180	623	473	327	250	181	162	138	112	95
Proportion	6.3%	5.6%	5.0%	4.8%	3.9%	3.7%	3.7%	4.1%	3.6%	3.4%

Adults

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Numbers of recipients	7,642	5,991	3,913	3,053	2,567	2,382	2,202	2,206	1,875	1,968
Proportion	10.4%	10.9%	8.4%	7.0%	5.8%	6.3%	6.0%	6.1%	5.4%	5.5%

Complaints in the support (Children)

FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
No. of Recipients 623	No. of Recipients 473	No. of Recipients 327	No. of Recipients 250	No. of Recipients 181	No. of Recipients 162	No. of Recipients 138	No. of Recipients 112	No. of Recipients 95
Anxiety from disaster/ Radiation 147 (23.6%)	School-life related issues 70 (14.8%)	School-life related issues 49 (15.0%)	School-life related issues 54 (21.6%)	School-life related issues 23 (12.7%)	School-life related issues 29 (17.9%)	School-life related issues 35 (25.4%)	School-life related issues 29 (25.9%)	School-life related issues 25 (26.3%)
School-life related issues 136 (21.8%)	Anger, frustration, violence 52 (11.0%)	Physical problems 29 (8.9%)	Physical problems 15 (6.0%)	Anger, frustration, violence 10 (5.5%)	Physical problems 13 (8.0%)	Physical problems 15 (10.9%)	Anger, frustration, violence 14 (12.5%)	Lifestyle-related issues 18 (18.9%)
Physical problems 102 (16.4%)	Physical issues 32 (6.8%)	Anger, frustration, violence 27 (8.3%)	Sleep problems 9 (3.6%)	Physical issues 9 (5.0%)	Anger, frustration, violence 11 (6.8%)	Dietary habits 12 (8.7%)	Physical problems 9 (8.0%)	Anger, frustration, violence 12 (12.6%)
Anger, frustration, violence 90 (14.4%)	Anxiety from disaster/ radiation 25 (5.3%)	Anxiety from disaster/ radiation 19 (5.8%)	Anger, frustration, violence 8 (3.2%)	Sleep problems 4 (2.2%)	Sleep problems 9 (5.6%)	Sleep problems 11 (8.0%)	Sleep problems 9 (8.0%)	Sleep problems 9 (9.5%)
Depression 83 (13.3%)	Depression 23 (4.9%)	Sleep problems 11 (3.4%)	Dietary habits 4 (1.6%)	Dietary habits 4 (2.2%)	Dietary habits 6 (3.7%)	Anger, frustration, violence 10 (7.2%)	Dietary habits 7 (6.3%)	Physical problems 6 (6.3%) Dietary habits 6 (6.3%)

Details of complaints in 2020 and 2021 (Children)

	0~6y/o	Elementary school	Junior high school
Worries about radiation	Scared of earthquake	Asking “Am I contaminated with radiation?”	Asking “Can I have a baby?”
	Hyperarousal responses	Confusion in an earthquake drill	Always wearing masks
	Asking frequently “can I eat it?” Can I touch it?	Scared of sea or water	Avoiding topics of the earthquake
School-related issues	Nursery avoidance	School avoidance	School avoidance
	Not get used to nursery	Isolation, bullying	Isolation, bullying
		Often forgetting	Worries about next high-grade school
Physical issues	Headache, stomachache, nausea	Diarrhea, irritable colon	Menstruation disturbance, gastroenteritis
	Asthma, urticaria, hyperventilation	Bulimia, anorexia	Bulimia, anorexia
	Night crying, bed wetting, insomnia	Sleep difficulties	Playing games late at night, insomnia
Irritability	Family quarrel	Rebellious, irascible	Rebellious, irascible
	Getting violent		
	Getting into a tantrum		
Depression	Regression, abandonment anxiety	Less smiling than before	Crying frequently
	Fear for dark places, difficulty sleeping alone	Withdrawal	Withdrawal
	Stuttering, finger sucking	Fear of going to the bath or restroom alone	Talking just a little

Complaints in the support (Adults)

FY2012 No. of recipients 5,991	FY2013 No. of recipients 3,913	FY2014 No. of recipients 3,053	FY2015 No. of recipients 2,567	FY2016 No. of recipients 2,382	FY2017 No. of recipients 2,202	FY2018 No. of recipients 2,206	FY2019 No. of recipients 1,875	FY2020 No. of recipients 1.968
Physical problems 2,761 (46.1%)	Physical problems 1,913 (48.9%)	Physical problems 1,279 (41.9%)	Physical problems 1,145 (44.6%)	Physical problems 1,090 (45.8%)	Physical problems 986 (44.8%)	Physical problems 961 (43.6%)	Physical problems 750 (40.0%)	Physical problems 866 (44.0%)
Sleep problems 2,349 (39.2%)	Sleep problems 1,593 (40.7%)	Sleep problems 865 (28.3%)	Sleep problems 798 (31.1%)	Sleep problems 699 (29.3%)	Sleep problems 613 (27.8%)	Sleep problems 603 (27.3%)	Sleep problems 467 (24.9%)	Sleep problems 583 (29.6%)
Depression 1,417 (23.7%)	Depression 765 (19.6%)	Depression 485 (15.9%)	Depression 342 (13.3%)	Depression 231 (9.7%)	Depression 240 (10.9%)	Depression 312 (14.1%)	Depression 235 (12.5%)	Depression 296 (15.0%)
Family relationship 1,058 (17.7%)	Living conditions 751 (19.2%)	Anxieties about the future 342 (11.2%)	Dietary habits 236 (9.2%)	Dietary habits 227 (9.5%)	Anxieties about the future 226 (10.3%)	Anxieties about the future 191 (8.7%)	Exercising 186 (9.9%)	Dietary habits 249 (12.7%)
Living conditions 1,049 (17.5%)	Family relationship 726 (18.6%)	Family relationship 302 (9.9%)	Anxieties about the future 235 (9.2%)	Family relationship 192 (8.1%)	Family relationship 179 (8.1%)	Exercising 172 (7.8%)	Dietary habits 174 (9.3%)	Exercising 245 (12.4%)

Details of complaints in 2020 and 2021 (Adults)

Physical issues	<p>Diabetes, dementia, fatigability</p> <p>Reflux esophagitis, herpes zoster, sudden deafness</p> <p>Body weight loss/increase, gastric pain, headache, back pain, hypertension, an increase of alcohol consumption</p>
Sleep-related issues	<p>Sleep difficulties, bad dreams</p> <p>Insomnia without drinking</p> <p>Taking sleep pills</p>
Depression	<p>Inability to enjoy as previous</p> <p>Mood swing, kick-the-cat</p> <p>Loss of motivation, continuous fatigue</p> <p>Being hopeless/ worries for future</p>
Family-related issues	<p>Less meeting due to radiation fear</p> <p>An increase of marital quarrel</p> <p>Conflict among family members about returning to hometown</p>
Environmental issues	<p>Not getting used to evacuation lives, living alone despite great age</p> <p>Less communication with family and friends</p> <p>Hesitation to talk about own experience as an evacuee, not getting used to new community</p> <p>Poor prospects of future returning, delayed process of taking compensation</p>

COVID-19-related complaints concerning children

- Our kids always fight each other, while their school is closed.
- Kids can't play outside because of closure of many places.
- Kids are reluctant to go to school, though it started again after the school closure.
- We can't take our son to a clinic to treatment for his developmental disorder because we still worry about infection.
- Kids stay home all day long and always space out. What should we do?

COVID-19-related complaints among adults

- I panic just thinking about catching COVID-19.
- I just can't seem to find a job.
- Trips with my family and friends have been canceled due to COVID-19.
- I can't visit a family member in hospital.
- My body weight has increased by 3 kg while I am unwilling to go out.
- A big difference of opinions about infection protection among family members leads us to quarrel.

People not having someone to consult

Those proportion in MHLS : **11.2%**



【Profile】

- ◆40~64: 1.30 (Ref. 16~39 y/o)
- ◆Male: 2.46
- ◆Poor financial state: 2.11
- ◆Living alone: 1.53

It is important to ask if the person has someone to consult with.

	Not having	Having	P value
General mental health K6 \geq 13	16.2%	5.6%	<0.001
Problem drinking CAGE \geq 2	21.5%	13.5%	<0.001

Cooperation with other resources

Municipalities

Fukushima Prefecture

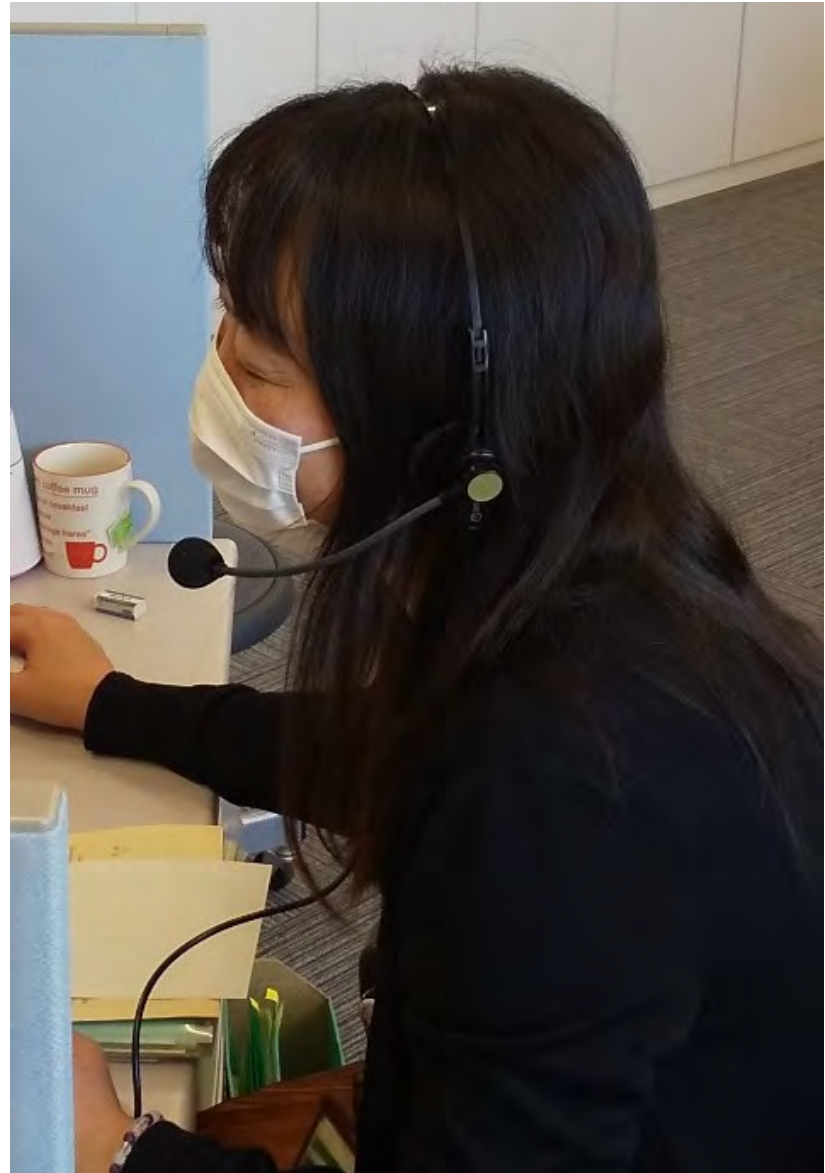
Fukushima Center for Disaster Mental Health

Clinics, hospitals

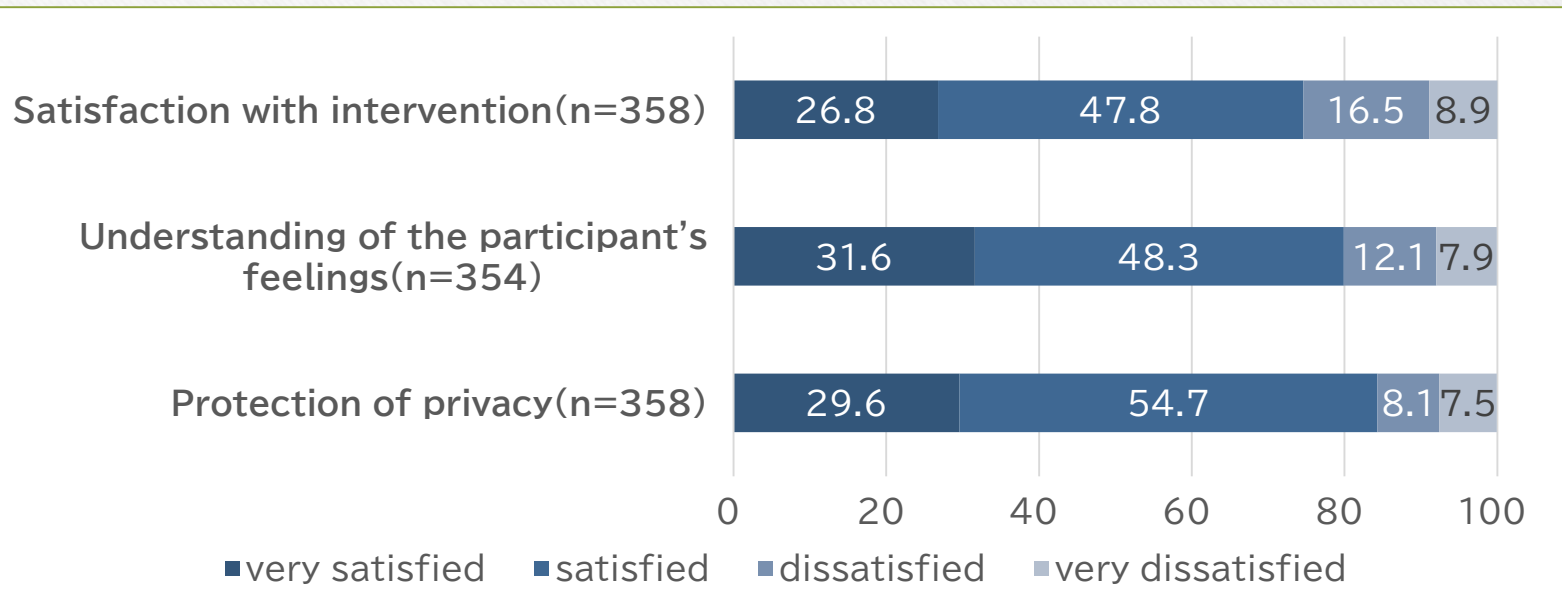
NPO, other care resources

Outreach-style
telephone
support enables
us to:

- Address people who hesitate to seek help.
- Provide support immediately regardless of location and/or cost.



Impressions toward our telephone support



Positive comments recently written in the questionnaire by respondents

- I hope you will continue the survey and watch over our health.
- Thanks to your survey, I was able to sort out my feelings.
- I think the survey should be continued on a long-term basis.
- I hope this survey will contribute to improvement of our health.
- This survey gave me a good opportunity to look back on my daily habits and stressors. Also, I have better awareness of my health and its change, which otherwise I couldn't notice.

Stressors of the support staff and support for them

- Exposure to bottled-up anger of affected people
- Being a survivor while playing a role of supporter
- Specific skills for telephone support as well as skills for ordinary face-to-face support are required.
- A stable pool of human resources is required to provide sustainable care



- Supervision and workshop held regularly
- Individual support provided by supervisor
- Peer support



Summary

- We have been providing various types of support for affected people based on the results of MHLS. Among them, telephone support has been provided for nearly 3,000 respondents yearly; the total number has reached over 37,000.
- As a result of an interview survey for the respondents, satisfaction level towards our telephone support was generally high. Considering that many evacuees relocated far from their original towns – and therefore direct access to services, including visits, is quite limited – our telephone support is thought to have particular effectiveness.
- We need to cooperate with other care resources when our telephone support might be insufficient. To provide more seamless telephone support, we established a care network with other care facilities and affected municipalities.

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