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The 60th Oversight Committee for the Fukushima Health Management Survey

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2-1	60_2-1_ML_Report on the Results of Mental Health and Lifestyle Survey for FY2024
2-2	60_2-2_ML_Mental Health and Lifestyle Survey_FY2026 Implementation Plan(Draft)
2-3	60_2-3_ML(EN) Questionnaire_Adult 16 and older
3-1	60_3-1_TUE_Report on the TUE Full-Scale Survey (6th-round_survey)
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Report on the Basic Survey (External Radiation Dose Estimates) of the Fukushima Health Management Survey

1. Summary of Survey

1.1 Purpose

Considering possible radiation effects of the Fukushima Daiichi Nuclear Power Plant accident caused by the Great East Japan Earthquake, we aim to estimate external exposure doses of Fukushima residents from their behavior records and inform them of the results for their future health management.

1.2 Survey Population

A. Those who were registered as residents of Fukushima Prefecture from March 11 to July 1, 2011.
B. Those who lived or stayed in Fukushima without being registered as residents and who commuted to Fukushima from outside for work, school, or other reasons (hereafter, “Temporary Residents”). We sent them Basic Survey questionnaires when requested.

2. Response Rates and Radiation Dose Estimates

2.1 Response Rates of Residents

As of March 31, 2026, responses had been received from 570,019 out of 2,055,239 eligible individuals of the Basic Survey, representing a response rate of 27.7%. Of these respondents, 75,883 (*1) responded with the simplified questionnaires (Table 1).

During FY2025 (April 1, 2025 to March 31, 2026), we received 120 responses, comprising 23 original questionnaires and 97 simplified questionnaires.

Table 1 Response rate to the Basic Survey

As of March 31, 2026

Survey Population	2,055,239		Response Rate*2
Original Questionnaire	494,136	*1 (23)	24.0%
Simplified Questionnaire	75,883	(97)	3.7%
Total Responses	570,019	(120)	27.7%

*1 The numbers in parentheses () indicate the number of responses in FY2025.

*2 The response rate has been rounded for each response category.

(1) The number of submissions using the simplified questionnaire may change because we might ask some respondents who used the simplified version to resubmit with the original questionnaire, depending on their responses.

Table 2 shows the response rates for each age group.

Table 2 Response rate by age group

As of March 31, 2026

Age at the time of disaster	0 - 9	10 - 19	20 - 29	30 - 39	40 - 49	50 - 59	60 and older	Total
Response Rate	46.9%	36.4%	18.2%	24.9%	22.5%	23.0%	27.9%	27.7%

*Percentages have been rounded

2.2 Radiation Dose Estimates and Results Notification

Out of 570,019 total responses, 555,902 were accepted as valid. Others had incomplete or invalid responses, from which movements and/or location history were inadequately documented for dose estimation (*2). Among the valid responses, dose estimates have been completed for 555,847 respondents, and individual result reports have been sent to 555,659 respondents. (Table 3) (*3).

Table 3 Basic Survey response, dose estimation and notification summary by region

As of March 31, 2026

Region	Survey population a	Responses b	Response rate c=b/a	Valid response d	Valid response rate e=d/a	Estimates completed f	Completion rate g=f/d	Results notified h	Notification rate i=h/d
Kenpoku	504,015	152,599	30.3%	149,676	29.7%	149,660	100.0%	149,608	100.0%
Kenchu	557,176	137,471	24.7%	134,373	24.1%	134,360	100.0%	134,348	100.0%
Kennan	152,226	35,712	23.5%	34,904	22.9%	34,895	100.0%	34,885	99.9%
Aizu	267,198	58,517	21.9%	56,315	21.1%	56,310	100.0%	56,301	100.0%
Minamiaizu	30,788	6,434	20.9%	6,127	19.9%	6,127	100.0%	6,126	100.0%
Soso	195,594	90,312	46.2%	87,602	44.8%	87,601	100.0%	87,509	99.9%
Iwaki	348,242	88,974	25.5%	86,905	25.0%	86,894	100.0%	86,882	100.0%
Total	2,055,239	570,019	27.7%	555,902	27.0%	555,847	100.0%	555,659	100.0%

* The above figures include preliminary survey data (Yamakiya District of Kawamata Town, Namie Town, and Iitate Village).
* Refer to Appendix 1 for the results of each municipality. (*3)
* Percentages have been rounded

(*2) Incomplete or invalid responses are those in which additional information was necessary for dose estimation (e.g., by soliciting details of their behavior through direct contact, etc.), but was not obtained because the respondents' contact information was not available or because respondents declined to participate in the survey (including those informed through our Call Center).

(*3) The number of responses, valid responses, dose estimates completed, and results returned in Table 3, Table 4, and Appendix 1 include data from responses that did not contain behavior records for the full four months after March 11, which is the period favored for dose estimation.

2.3 Response rates and dose estimates for temporary residents

We have been estimating doses for non-residents who visited or stayed in Fukushima Prefecture at the time of the accident (Table 4). (*3)

Table 4 Summary of temporary residents' response status

As of March 31, 2026

Questionnaires sent a	Reponses b	Reponse rate c=b/a	Valid responses d	Valid response rate e=d/a	Estimates completed f	Completion rate g=f/d	Results notified h	Notification rate i=h/d
4,240	2,214	52.2%	2,204	52.0%	2,204	100.0%	2,204	100.0%

*Percentages have been rounded

3. Results of Radiation Dose Estimates

Table 5 shows the breakdown of dose estimates from Table 3, excluding those with an estimation period of less than four months.

Radiation doses for a total of 477,104 residents have been estimated to date. Results for 467,882 respondents (excluding radiation workers) suggest that about 87% of the respondents in Kenpoku and about 92% in Kenchu were exposed to <2 mSv. The doses for approximately 88% of the respondents in Kennan and more than 99% of those in Aizu and Minamiaizu were <1 mSv. Furthermore, the doses for about 77% of respondents in Soso and more than 99% of respondents in Iwaki were also <1 mSv.

Table 5 Summary of estimated effective dose distribution

As of March 31, 2026

Effective dose (mSv)	Total	Excluding radiation workers				Summary by region, excluding radiation workers													
						Kenpoku (*4)		Kenchu		Kennan		Aizu		Minamiaizu		Soso (*5)		Iwaki	
< 1	296,954	291,220	62.2%	93.8%	99.8%	24,995	19.9%	58,688	51.5%	26,483	88.2%	46,400	99.3%	4,993	99.3%	55,936	77.3%	73,725	99.1%
< 2	150,188	147,838	31.6%			84,041	67.0%	46,563	40.8%	3,532	11.8%	312	0.7%	37	0.7%	12,716	17.6%	637	0.9%
< 3	26,221	25,847	5.5%	5.8%		15,761	12.6%	8,322	7.3%	18	0.1%	25	0.1%	0	—	1,691	2.3%	30	0.0%
< 4	1,587	1,504	0.3%			473	0.4%	429	0.4%	0	—	1	0.0%	0	—	597	0.8%	4	0.0%
< 5	551	505	0.1%	0.2%		40	0.0%	5	0.0%	0	—	0	—	0	—	459	0.6%	1	0.0%
< 6	442	390	0.1%		0.2%	19	0.0%	3	0.0%	0	—	0	—	0	—	367	0.5%	1	0.0%
< 7	270	231	0.0%	0.1%		10	0.0%	1	0.0%	0	—	1	0.0%	0	—	219	0.3%	0	—
< 8	155	116	0.0%			1	0.0%	0	—	0	—	0	—	0	—	115	0.2%	0	—
< 9	118	78	0.0%	0.0%		1	0.0%	0	—	0	—	0	—	0	—	77	0.1%	0	—
<10	73	41	0.0%			0	—	0	—	0	—	0	—	0	—	41	0.1%	0	—
<11	70	37	0.0%	0.0%	0.0%	0	—	1	0.0%	0	—	0	—	0	—	36	0.0%	0	—
<12	52	30	0.0%			1	0.0%	0	—	0	—	0	—	0	—	29	0.0%	0	—
<13	37	13	0.0%	0.0%		0	—	0	—	0	—	0	—	0	—	13	0.0%	0	—
<14	36	12	0.0%			0	—	0	—	0	—	0	—	0	—	12	0.0%	0	—
<15	27	6	0.0%	0.0%		0	—	0	—	0	—	0	—	0	—	6	0.0%	0	—
≥15	323	14	0.0%		0.0%	0	—	0	—	0	—	0	—	0	—	14	0.0%	0	—
Total	477,104	467,882	100.0%	100.0%	100.0%	125,342	100%	114,012	100%	30,033	100%	46,739	100%	5,030	100%	72,328	100%	74,398	100%
Max	66mSv	25mSv				11mSv		10mSv		2.6mSv		6.0mSv		1.9mSv		25mSv		5.9mSv	
Mean value	0.9mSv	0.8mSv				1.4mSv		1.0mSv		0.6mSv		0.2mSv		0.1mSv		0.7mSv		0.3mSv	
Median	0.6mSv	0.6mSv				1.4mSv		0.9mSv		0.5mSv		0.2mSv		0.1mSv		0.5mSv		0.3mSv	

(*4) Includes the Preliminary survey responses and results of Yamakiya district, Kawamata Town

(*5) Includes the Preliminary survey responses and results of Namie Town and Iitate Village

*Percentages have been rounded to one decimal place

*The summary data is calculated excluding those estimation periods were less than four months

・Distribution of estimated external doses by area, by age group, by gender, and by municipality (Appendix 2, 3-1, 3-2, and 4, respectively).

4. Evaluation of the effective dose estimation results

The latest effective radiation dose estimates show similar trends to those observed thus far in prior years. Since previous epidemiological studies indicate no significant health effects at doses ≤100 mSv[1)], we concluded that radiation doses estimated so far are unlikely to cause adverse effects on health. However, this conclusion is based on external radiation doses estimated only for the first four months following the accident.

Reference

1) Sources and Effects of Ionizing Radiation, United Nations Scientific Committee on the Effects of Atomic Radiation, UNSCEAR 2008 Report, Volume 2, submitted to the General Assembly, with scientific annexes.

5. Questionnaire Response Guidance Sessions

In FY2025, we held 30 response guidance sessions in total, at Thyroid Ultrasound Examination venues in 7 regions in the prefecture as follows.

First half of the fiscal year:	11 times between July 25, 2025, and September 28, 2025
Second half of the fiscal year:	19 times between October 26, 2025, and March 26, 2026

In addition, the Center continues to provide opportunities for individuals who wish to learn about their radiation exposure dose by accepting requests for reissuance of the Basic Survey questionnaire through its website and call center. Information leaflets on the Basic Survey are also available at municipal government offices, ensuring that access to information and support remains available to those seeking to understand their individual radiation exposure doses.

Appendix 1

Response rates to the Basic Survey by municipality

(Entire prefecture data including preliminary survey)

As of March 31, 2026

Region & Municipalities		Survey population a	Total responses b	Response rate c=b/a	Valid responses d	Valid response rate e=d/a	Estimates completed f	Completion rate g=f/d	Results sent h	Notified rate i=h/d	Remarks
Kenpoku	Fukushima	295,632	94,149	31.8%	92,639	31.3%	92,625	100.0%	92,593	100.0%	
	Nihonmatsu	60,854	16,949	27.9%	16,584	27.3%	16,584	100.0%	16,582	100.0%	
	Date	67,574	18,332	27.1%	17,867	26.4%	17,867	100.0%	17,855	99.9%	
	Motomiya	31,759	9,123	28.7%	8,954	28.2%	8,952	100.0%	8,951	100.0%	
	Koori	13,207	3,886	29.4%	3,777	28.6%	3,777	100.0%	3,777	100.0%	
	Kunimi	10,316	3,030	29.4%	2,942	28.5%	2,942	100.0%	2,942	100.0%	
	Kawamata	15,883	5,191	32.7%	5,018	31.6%	5,018	100.0%	5,013	99.9%	
	Otama	8,790	1,939	22.1%	1,895	21.6%	1,895	100.0%	1,895	100.0%	
	Total	504,015	152,599	30.3%	149,676	29.7%	149,660	100.0%	149,608	100.0%	
Kenchu	Koriyama	339,671	87,531	25.8%	85,765	25.2%	85,757	100.0%	85,752	100.0%	
	Sukagawa	80,156	17,360	21.7%	16,924	21.1%	16,924	100.0%	16,924	100.0%	
	Tamura	41,723	10,598	25.4%	10,234	24.5%	10,231	100.0%	10,228	99.9%	
	Kagamiishi	13,109	2,924	22.3%	2,861	21.8%	2,861	100.0%	2,861	100.0%	
	Tenei	6,469	1,259	19.5%	1,228	19.0%	1,228	100.0%	1,228	100.0%	
	Ishikawa	17,489	4,256	24.3%	4,152	23.7%	4,152	100.0%	4,152	100.0%	
	Tamakawa	7,333	1,516	20.7%	1,468	20.0%	1,468	100.0%	1,467	99.9%	
	Hirata	7,053	1,667	23.6%	1,611	22.8%	1,611	100.0%	1,611	100.0%	
	Asakawa	7,163	1,533	21.4%	1,498	20.9%	1,498	100.0%	1,497	99.9%	
	Furudono	6,321	1,329	21.0%	1,294	20.5%	1,294	100.0%	1,294	100.0%	
	Miharu	18,989	4,884	25.7%	4,788	25.2%	4,787	100.0%	4,786	100.0%	
	Ono	11,700	2,614	22.3%	2,550	21.8%	2,549	100.0%	2,548	99.9%	
	Total	557,176	137,471	24.7%	134,373	24.1%	134,360	100.0%	134,348	100.0%	
Kennan	Shirakawa	65,428	16,261	24.9%	15,931	24.3%	15,927	100.0%	15,923	99.9%	
	Nishigo	20,088	5,093	25.4%	4,976	24.8%	4,973	99.9%	4,972	99.9%	
	Izumizaki	6,931	1,445	20.8%	1,406	20.3%	1,406	100.0%	1,405	99.9%	
	Nakajima	5,306	1,027	19.4%	1,002	18.9%	1,001	99.9%	1,001	99.9%	
	Yabuki	18,341	4,143	22.6%	4,037	22.0%	4,037	100.0%	4,036	100.0%	
	Tanagura	15,384	3,085	20.1%	3,020	19.6%	3,020	100.0%	3,020	100.0%	
	Yamatsuri	6,491	1,489	22.9%	1,442	22.2%	1,442	100.0%	1,440	99.9%	
	Hanawa	10,061	2,343	23.3%	2,292	22.8%	2,291	100.0%	2,290	99.9%	
	Samegawa	4,196	826	19.7%	798	19.0%	798	100.0%	798	100.0%	
	Total	152,226	35,712	23.5%	34,904	22.9%	34,895	100.0%	34,885	99.9%	
Aizu	Aizuwakamatsu	127,814	29,925	23.4%	28,950	22.7%	28,946	100.0%	28,945	100.0%	
	Kitakata	53,199	11,162	21.0%	10,734	20.2%	10,734	100.0%	10,729	100.0%	
	Kitashiobara	3,276	613	18.7%	590	18.0%	590	100.0%	590	100.0%	
	Nishiaizu	7,725	1,464	19.0%	1,362	17.6%	1,362	100.0%	1,362	100.0%	
	Bandai	3,888	796	20.5%	778	20.0%	778	100.0%	777	99.9%	
	Inawashiro	16,271	3,672	22.6%	3,540	21.8%	3,540	100.0%	3,539	100.0%	
	Aizubange	17,881	3,336	18.7%	3,192	17.9%	3,192	100.0%	3,192	100.0%	
	Yugawa	3,513	750	21.3%	717	20.4%	716	99.9%	716	99.9%	
	Yanaizu	4,077	734	18.0%	702	17.2%	702	100.0%	702	100.0%	
	Mishima	2,029	377	18.6%	343	16.9%	343	100.0%	343	100.0%	
	Kaneyama	2,544	631	24.8%	575	22.6%	575	100.0%	575	100.0%	
	Showa	1,569	354	22.6%	327	20.8%	327	100.0%	327	100.0%	
	Aizumisato	23,412	4,703	20.1%	4,505	19.2%	4,505	100.0%	4,504	100.0%	
	Total	267,198	58,517	21.9%	56,315	21.1%	56,310	100.0%	56,301	100.0%	
Minamiaizu	Shimogo	6,649	1,261	19.0%	1,203	18.1%	1,203	100.0%	1,203	100.0%	
	Hinoemata	614	144	23.5%	135	22.0%	135	100.0%	135	100.0%	
	Tadami	5,030	1,152	22.9%	1,090	21.7%	1,090	100.0%	1,090	100.0%	
	Minamiaizu	18,495	3,877	21.0%	3,699	20.0%	3,699	100.0%	3,698	100.0%	
	Total	30,788	6,434	20.9%	6,127	19.9%	6,127	100.0%	6,126	100.0%	
Soso	Soma	37,365	13,335	35.7%	12,828	34.3%	12,828	100.0%	12,809	99.9%	
	Minamisoma	70,013	30,323	43.3%	29,523	42.2%	29,523	100.0%	29,502	99.9%	
	Hirono	5,165	2,244	43.4%	2,154	41.7%	2,154	100.0%	2,152	99.9%	
	Naraha	7,963	4,192	52.6%	4,034	50.7%	4,034	100.0%	4,026	99.8%	
	Tomioka	15,749	8,649	54.9%	8,433	53.5%	8,433	100.0%	8,424	99.9%	
	Kawauchi	2,996	1,543	51.5%	1,489	49.7%	1,489	100.0%	1,489	100.0%	
	Okuma	11,473	6,092	53.1%	5,868	51.1%	5,868	100.0%	5,867	100.0%	
	Futaba	7,051	3,953	56.1%	3,853	54.6%	3,853	100.0%	3,846	99.8%	
	Namie	21,334	12,997	60.9%	12,703	59.5%	12,703	100.0%	12,688	99.9%	
	Katsurao	1,541	825	53.5%	768	49.8%	768	100.0%	768	100.0%	
	Shinchi	8,356	2,713	32.5%	2,614	31.3%	2,613	100.0%	2,610	99.8%	
	Iitate	6,588	3,446	52.3%	3,335	50.6%	3,335	100.0%	3,328	99.8%	
	Total	195,594	90,312	46.2%	87,602	44.8%	87,601	100.0%	87,509	99.9%	
Iwaki	Iwaki	348,242	88,974	25.5%	86,905	25.0%	86,894	100.0%	86,882	100.0%	
Grand Total		2,055,239	570,019	27.7%	555,902	27.0%	555,847	100.0%	555,659	100.0%	

Appendix 2

Basic Survey

Estimation Period - 4 months (from March 11, 2011 to July 11, 2011)

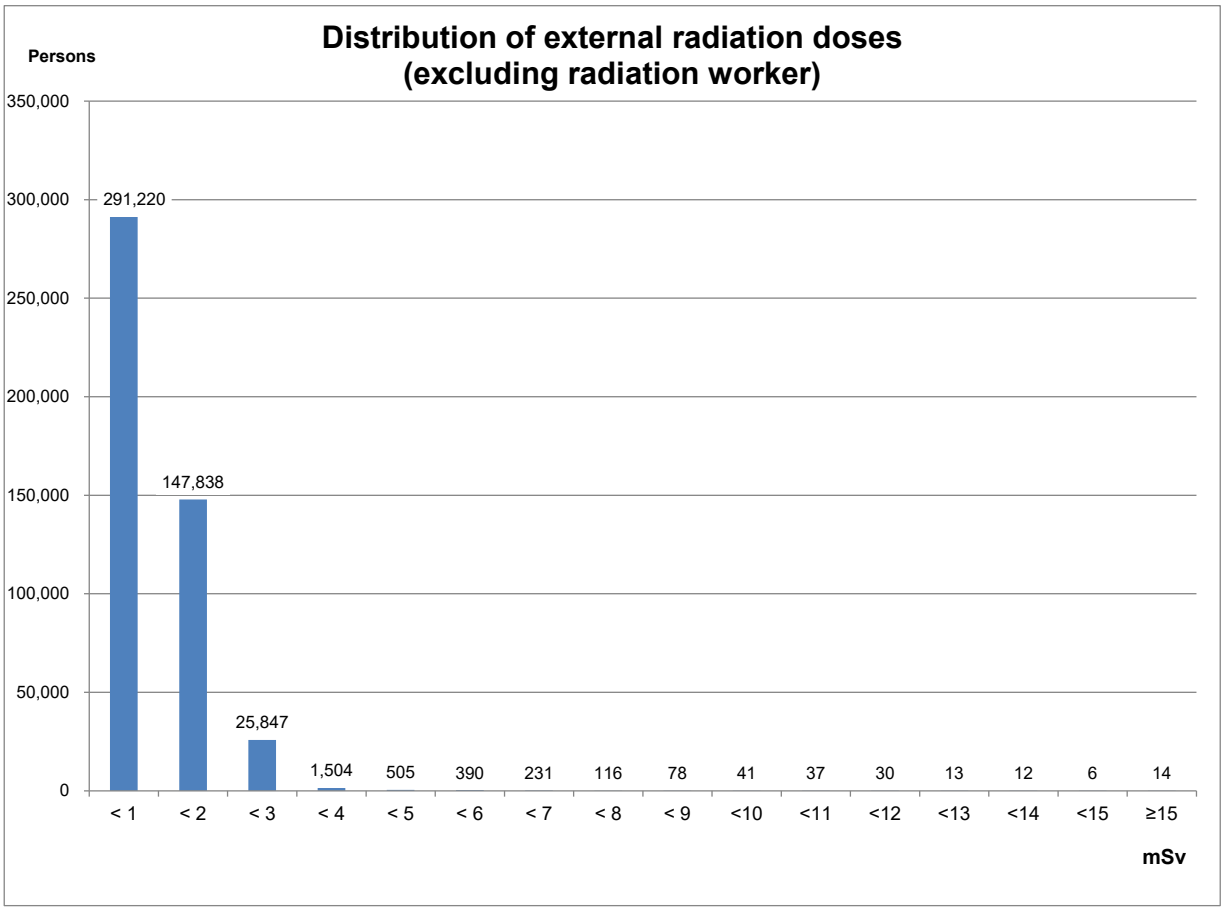
As of March 31, 2026

(Entire prefecture data including preliminary survey)

Distribution of estimated external radiation doses by region

Estimated dose (mSv)	Total	Excluding radiation workers	Breakdown by region							Proportion (%)		
			Kenpoku	Kenchu	Kennan	Aizu	Minami aizu	Soso	Iwaki			
< 1	296,954	291,220	24,995	58,688	26,483	46,400	4,993	55,936	73,725	62.2	93.8	99.8
< 2	150,188	147,838	84,041	46,563	3,532	312	37	12,716	637	31.6		
< 3	26,221	25,847	15,761	8,322	18	25	0	1,691	30	5.5	5.8	
< 4	1,587	1,504	473	429	0	1	0	597	4	0.3		
< 5	551	505	40	5	0	0	0	459	1	0.1	0.2	
< 6	442	390	19	3	0	0	0	367	1	0.1		0.2
< 7	270	231	10	1	0	1	0	219	0	0.0	0.1	
< 8	155	116	1	0	0	0	0	115	0	0.0		
< 9	118	78	1	0	0	0	0	77	0	0.0	0.0	
<10	73	41	0	0	0	0	0	41	0	0.0		
<11	70	37	0	1	0	0	0	36	0	0.0	0.0	0.0
<12	52	30	1	0	0	0	0	29	0	0.0		
<13	37	13	0	0	0	0	0	13	0	0.0	0.0	
<14	36	12	0	0	0	0	0	12	0	0.0		
<15	27	6	0	0	0	0	0	6	0	0.0	0.0	
≥15	323	14	0	0	0	0	0	14	0	0.0	0.0	0.0
Total	477,104	467,882	125,342	114,012	30,033	46,739	5,030	72,328	74,398	100.0	100.0	100.0
Max	66	25	11	10	2.6	6.0	1.9	25	5.9			
Mean Value	0.9	0.8	1.4	1.0	0.6	0.2	0.1	0.7	0.3			
Median	0.6	0.6	1.4	0.9	0.5	0.2	0.1	0.5	0.3			

*Percentages have been rounded and may not total to 100%.



Appendix 3-1

Estimation Period - 4 months (From March 11, 2011, to July 11, 2011)

As of March 31, 2026

Distribution of estimated external radiation doses by age group (excluding radiation workers)

Estimated Dose (mSv)	Age at the time of the disaster (years-old)									Total
	0 - 9	10 - 19	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 and older	
< 1	48,650	45,604	21,448	34,532	28,838	32,918	36,338	25,736	17,156	291,220
< 2	23,222	22,015	10,183	18,397	16,729	18,560	19,499	12,294	6,939	147,838
< 3	6,529	4,330	1,143	2,356	2,253	2,975	3,425	1,996	840	25,847
< 4	253	161	81	158	154	230	233	164	70	1,504
< 5	19	47	35	39	75	95	81	76	38	505
< 6	14	13	29	34	47	86	73	66	28	390
< 7	3	7	10	22	24	45	52	47	21	231
< 8	4	4	8	9	13	35	22	14	7	116
< 9	2	6	2	7	8	16	16	12	9	78
<10	0	1	2	3	3	12	11	5	4	41
<11	1	1	2	2	6	11	5	6	3	37
<12	0	0	1	3	0	5	8	11	2	30
<13	0	0	0	0	1	6	4	1	1	13
<14	0	0	1	1	1	4	3	2	0	12
<15	0	0	0	0	0	3	3	0	0	6
≥15	0	0	0	0	2	3	6	1	2	14
Total	78,697	72,189	32,945	55,563	48,154	55,004	59,779	40,431	25,120	467,882

Appendix 3-2

Estimation Period - 4 months (From March 11, 2011, to J

As of March 31, 2026

Distribution of estimated external doses by gender (excluding radiation workers)

Estimated dose (mSv)	By gender				Total	Proportion (%)
	Male	Proportion (%)	Female	Proportion (%)		
< 1	129,814	60.6	161,406	63.6	291,220	62.2
< 2	68,459	32.0	79,379	31.3	147,838	31.6
< 3	14,034	6.6	11,813	4.7	25,847	5.5
< 4	955	0.4	549	0.2	1,504	0.3
< 5	282	0.1	223	0.1	505	0.1
< 6	199	0.1	191	0.1	390	0.1
< 7	130	0.1	101	0.0	231	0.0
< 8	64	0.0	52	0.0	116	0.0
< 9	49	0.0	29	0.0	78	0.0
<10	24	0.0	17	0.0	41	0.0
<11	23	0.0	14	0.0	37	0.0
<12	16	0.0	14	0.0	30	0.0
<13	6	0.0	7	0.0	13	0.0
<14	8	0.0	4	0.0	12	0.0
<15	3	0.0	3	0.0	6	0.0
≥15	11	0.0	3	0.0	14	0.0
Total	214,077	100.0	253,805	100.0	467,882	100.0

*Percentages have been rounded and may not total to 100%.

Basic Survey

Appendix 4

Summary of estimated external radiation dose results (Estimation period for 4 months from March 11, 2011, to July 11, 2011)

Distribution of estimated external doses by municipality (excluding radiation workers)

As of March 31, 2026

Region	Municipality	Mean dose	Estimated cumulative doses)																Total
			< 1	< 2	< 3	< 4	< 5	< 6	< 7	< 8	< 9	< 10	< 11	< 12	< 13	< 14	< 15	≥ 15	
Kenpoku	Fukushima	1.4	16,213	52,756	9,422	151	13	10	4	0	0	0	0	0	0	0	0	0	78,569
	Nihonmatsu	1.6	1,318	8,684	3,545	91	1	0	0	0	0	0	0	0	0	0	0	0	13,639
	Date	1.3	4,397	9,111	1,136	147	8	2	3	1	1	0	0	0	0	0	0	0	14,806
	Motomiya	1.5	747	5,468	1,261	24	1	0	0	0	0	0	0	0	0	0	0	0	7,501
	Koori	1.3	315	2,754	66	2	0	1	0	0	0	0	0	0	0	0	0	0	3,138
	Kunimi	1.0	968	1,437	12	0	0	0	0	0	0	0	0	0	0	0	0	0	2,417
	Kawamata	1.2	643	2,754	186	56	17	6	3	0	0	0	0	1	0	0	0	0	3,666
	Otama	1.3	394	1,077	133	2	0	0	0	0	0	0	0	0	0	0	0	0	1,606
Subtotal		1.4	24,995	84,041	15,761	473	40	19	10	1	1	0	0	1	0	0	0	0	125,342
Kenchu	Koriyama	1.3	24,121	40,958	7,866	419	5	3	1	0	0	0	0	0	0	0	0	0	73,373
	Sukagawa	0.7	10,903	3,233	339	4	0	0	0	0	0	0	0	0	0	0	0	0	14,479
	Tamura	0.4	7,709	684	24	3	0	0	0	0	0	0	0	0	0	0	0	0	8,420
	Kagamiishi	0.5	2,372	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,448
	Tenei	1.2	405	590	60	1	0	0	0	0	0	0	0	0	0	0	0	0	1,056
	Ishikawa	0.3	3,214	39	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3,255
	Tamakawa	0.3	1,190	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1,212
	Hirata	0.3	1,301	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,336
	Asakawa	0.3	1,236	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,251
	Furudono	0.3	1,077	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1,093
	Miharu	0.7	3,131	817	24	2	0	0	0	0	0	0	1	0	0	0	0	0	3,975
	Ono	0.3	2,029	83	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2,114
Subtotal		1.0	58,688	46,563	8,322	429	5	3	1	0	0	0	1	0	0	0	0	0	114,012
Kennan	Shirakawa	0.7	12,544	1,289	9	0	0	0	0	0	0	0	0	0	0	0	0	0	13,842
	Nishigo	0.9	2,250	2,055	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4,308
	Izumizaki	0.4	1,165	21	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1,187
	Nakajima	0.4	846	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	860
	Yabuki	0.4	3,396	83	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3,480
	Tanagura	0.4	2,582	28	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2,613
	Yamatsuri	0.1	1,164	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,173
	Hanawa	0.2	1,881	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,904
	Samegawa	0.3	655	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	666
Subtotal		0.6	26,483	3,532	18	0	0	0	0	0	0	0	0	0	0	0	0	0	30,033
Aizu	Aizuwakamatsu	0.2	23,947	161	13	0	0	0	1	0	0	0	0	0	0	0	0	0	24,122
	Kitakata	0.3	8,993	56	3	1	0	0	0	0	0	0	0	0	0	0	0	0	9,053
	Kitashiobara	0.4	481	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	485
	Nishiaizu	0.1	1,023	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,025
	Bandai	0.3	657	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	667
	Inawashiro	0.2	2,863	31	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2,897
	Aizubange	0.3	2,687	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,702
	Yugawa	0.4	612	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	616
	Yanaizu	0.2	558	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	563
	Mishima	0.2	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250
	Kaneyama	0.1	407	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	410
	Showa	0.2	245	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	246
	Aizumisato	0.3	3,677	23	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3,703
Subtotal		0.2	46,400	312	25	1	0	0	1	0	0	0	0	0	0	0	0	0	46,739
Minamiaizu	Shimogo	0.1	973	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	978
	Hinoemata	0.1	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105
	Tadami	0.1	882	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	887
	Minamiaizu	0.1	3,033	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,060
Subtotal		0.1	4,993	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,030
Soso	Soma	0.6	10,046	467	87	20	5	0	0	0	0	2	0	0	0	0	0	0	10,627
	Minamisoma	0.7	19,150	6,231	514	99	35	3	7	4	1	0	0	1	0	0	0	0	26,045
	Hirono	0.3	1,847	59	2	0	0	0	1	0	1	0	0	0	0	0	0	0	1,910
	Naraha	0.3	3,404	131	13	2	0	1	1	0	0	0	0	0	0	0	0	0	3,552
	Tomioka	0.5	5,838	1,108	100	18	3	2	1	3	2	0	0	1	0	0	0	0	7,076
	Kawauchi	0.6	963	350	16	1	0	1	1	1	0	0	0	0	0	0	0	0	1,333
	Okuma	0.8	3,374	1,284	112	17	6	4	4	3	0	2	2	1	0	4	0	1	4,814
	Futaba	0.6	2,676	468	77	19	6	4	3	6	2	1	0	2	0	0	0	1	3,265
	Namie	0.8	5,769	2,119	383	68	40	17	12	13	9	6	11	7	5	4	3	8	8,474
	Katsurao	0.7	502	162	24	4	0	1	0	0	0	0	0	0	0	0	0	0	693
	Shinchi	0.5	2,181	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,201
	Iitate	4.0	186	317	363	349	364	334	189	85	62	30	23	17	8	4	3	4	2,338
Subtotal		0.7	55,936	12,716	1,691	597	459	367	219	115	77	41	36	29	13	12	6	14	72,328
Iwaki	Iwaki	0.3	73,725	637	30	4	1	1	0	0	0	0	0	0	0	0	0	0	74,398
Total (A)		0.8	291,220	147,838	25,847	1,504	505	390	231	116	78	41	37	30	13	12	6	14	467,882
Proportion (%)			62.2	31.6	5.5	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
			93.8		5.8		0.2	0.1		0.0			0.0		0.0		0.0	0.0	100.0
			99.8					0.2					0.0					0.0	100.0
Temporary visitors (B)			1,629	286	18	2	0	0	0	0	0	0	0	0	0	0	0	1	1,936
Total (A) + (B)			292,849	148,124	25,865	1,506	505	390	231	116	78	41	37	30	13	12	6	15	469,818

*Percentages have been rounded and may not total to 100%.

Report on the Results of Mental Health and Lifestyle Survey for FY2024

1. Purpose

The Great East Japan Earthquake of March 11, 2011, the subsequent accident at the Fukushima Daiichi Nuclear Power Plant, and life under prolonged evacuation have caused great anxiety and psychological distress among Fukushima residents. The objectives of the Mental Health and Lifestyle Survey are to properly assess our residents' physical, psychological, and lifestyle conditions and provide them with appropriate care and social support.

2. Methods

2-1 Eligible persons

- Those who were registered as residents in covered areas* from March 11, 2011, to April 1, 2012 (even after moving from those areas)
- Those who were registered as residents of municipalities designated as evacuation zones as of April 1, 2024
- Others, as warranted, based on Basic Survey results, even if the above conditions are not met

The total number of eligible persons: 187,994 (as of October 31, 2025)

Ages 0–3 Survey: born from April 2, 2021, to April 1, 2024	1,931 persons
Ages 4–6 Survey: born from April 2, 2018, to April 1, 2021	2,400 persons
Elementary School Students Survey: born from April 2, 2012, to April 1, 2018	6,314 persons
Junior High School Students Survey: born from April 2, 2009, to April 1, 2012	4,938 persons
Adults Survey: born on April 1, 2009, or before	172,411 persons

* Covered areas: Municipalities designated as evacuation zones by the Government of Japan in 2011. Hirono Town, Naraha Town, Tomioka Town, Kawauchi Village, Okuma Town, Futaba Town, Namie Town, Katsurao Village, Iitate Village, Minamisoma City, Tamura City, Kawamata Town, and parts of Date City (including specific spots recommended for evacuation)

2-2 Survey details

A. Survey sheets

We mailed survey sheets for each age group to eligible individuals. Addressees answered the Adult Survey sheets, and addressees' parents/guardians answered the other survey sheets (Junior High School Students Survey and surveys for younger age groups). The Junior High School Students Survey also contains questions to be answered by the addressees themselves.

B. Mailing dates

Survey sheets were mailed out in order on January 28, 2025.

C. Response Method

Responses were returned either by post or online.
(Online responses were accepted from the day the survey sheets were delivered through April 30, 2025.)

2-3 Data tabulation period

Responses received from the start through October 31, 2025, were tabulated.

3. Summary of Survey Results

The results were tabulated by age group, including children (Ages 0–3, Ages 4–6, Elementary School Students, Junior High School Students) and adults. Because some items were not reported, totals may not match the number of valid responses. Percentages in this text and tabulation results are rounded, so they may not add up to 100%.

To mark yearly trends, the first survey year for FY2011 (or the second year for FY2012), the fifth year for FY2015, and the tenth year for FY2020, FY2021, FY2022, FY2023, and the survey year of FY2024 — excluding questions about 'COVID-19 influences on daily lives' — and this year's results are indicated in their respective graphs and figures.

3-1 Results of the Children's Surveys (Ages 0 – 3, Ages 4 – 6, Elementary School Students, and Junior High School Students Surveys)

A. Number of respondents (and rates)

Total responses (and response rates) to the surveys on children (Ages 0–3, Ages 4–6, Elementary School, and Junior High School) in FY2024 are as indicated in Table 1 and Figure 1.

The percentages of online responses in FY2024 were 61.2% for those aged 0 to 3, 51.5% for those aged 4 to 6, 53.7% for elementary school students, and 48.2% for junior high school students; these were the highest percentages ever.

Table 1: FY2024 Number of total responses and valid responses (response rates)

Age group	Respondents	Response Rate	Valid responses	Response Rate
0-3	183	(9.5)	183	(9.5)
4-6	194	(8.1)	194	(8.1)
Elementary school students	514	(8.1)	514	(8.1)
Junior high school students	479	(9.7)	479	(9.7)
Total	1,370	(8.8)	1,370	(8.8)

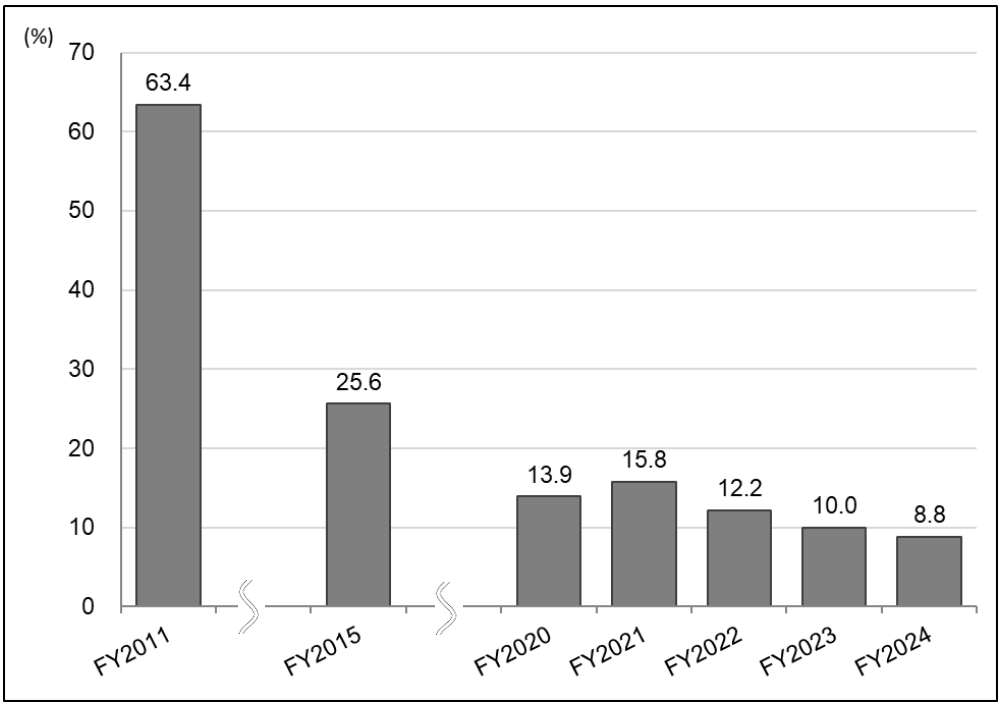


Figure 1: Changes in response rates for the children's surveys

B. Frequency of daily exercise

In the FY2024 survey, “Rarely” was the response of 0.0% in ages 2-3, 3.1% in ages 4-6, 33.3% for elementary school students, and 38.6% for junior high school students (see Figures 2 – 5).

According to a national survey on school children conducted in FY2023*1, the proportions of those who exercise for less than 60 minutes per week (excluding PE classes at school) were 9.1% of elementary school (5th grade) boys and 16.0% of elementary school (5th grade) girls, 9.7% of junior high school (8th grade) boys and 21.8% of junior high school (8th grade) girls. Although the national survey results are not directly comparable to our survey since the respondents, questions, and response method differ from the National Survey, they need attention and action.

*1 Sports Agency “FY2024 National Survey on Physical Fitness, Athletic Performance, and Exercise Habits” Chapter 1. Summary of the Survey Results
https://www.mext.go.jp/sports/content/20241217-spt_sseisaku02-000039139_02.pdf

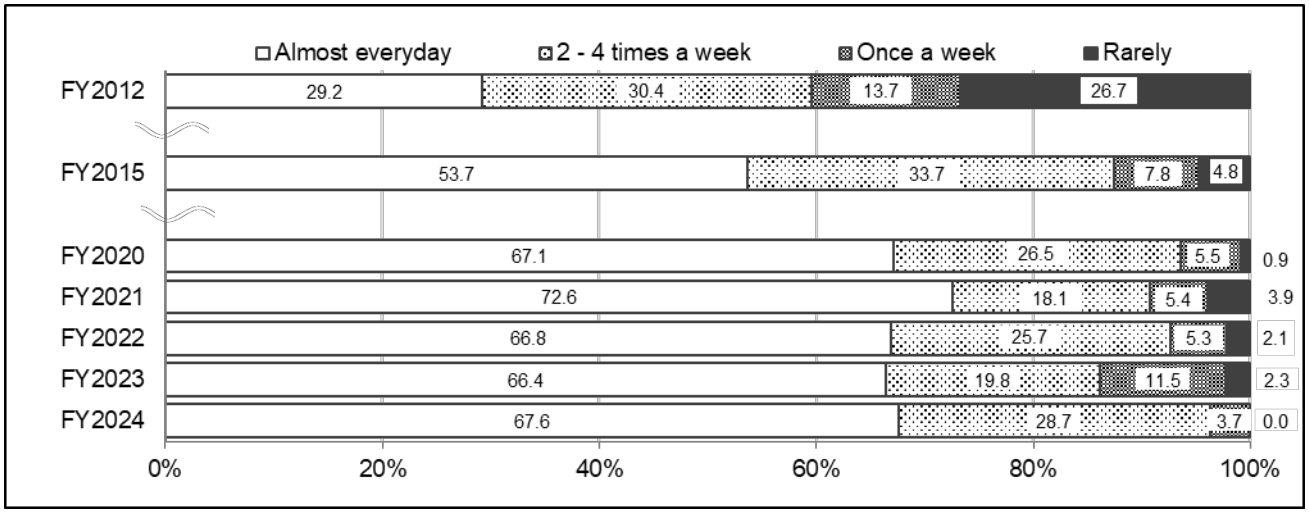


Figure 2: Changes in frequency of exercise: ages 2–3

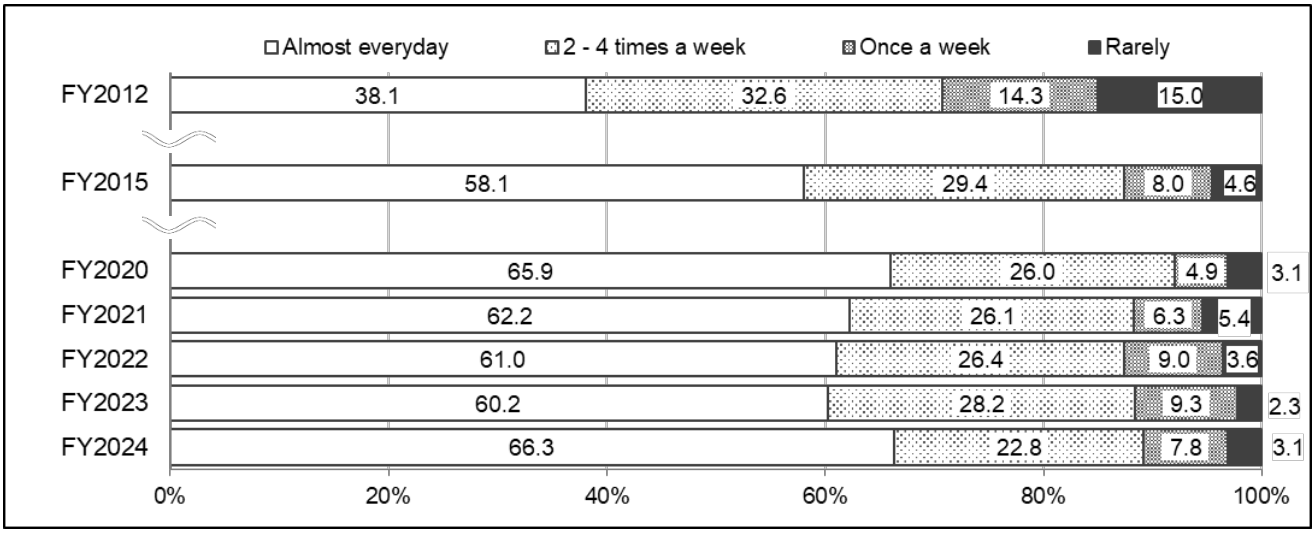


Figure 3: Changes in frequency of exercise: ages 4–6

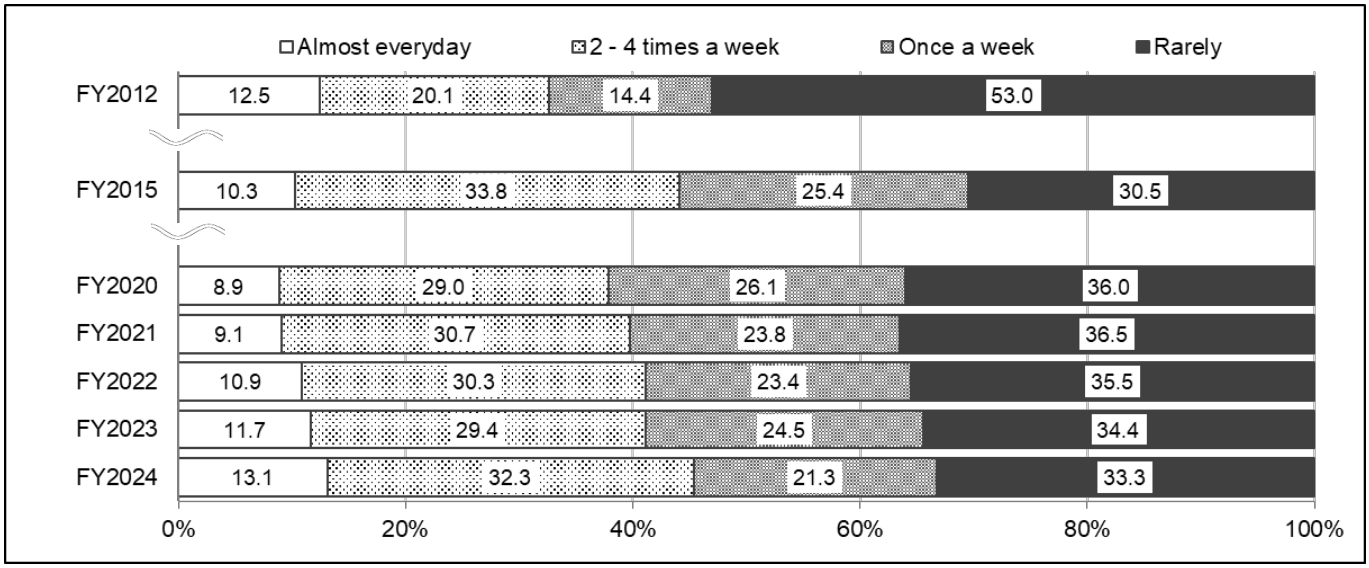


Figure 4: Changes in frequency of exercise: elementary school students

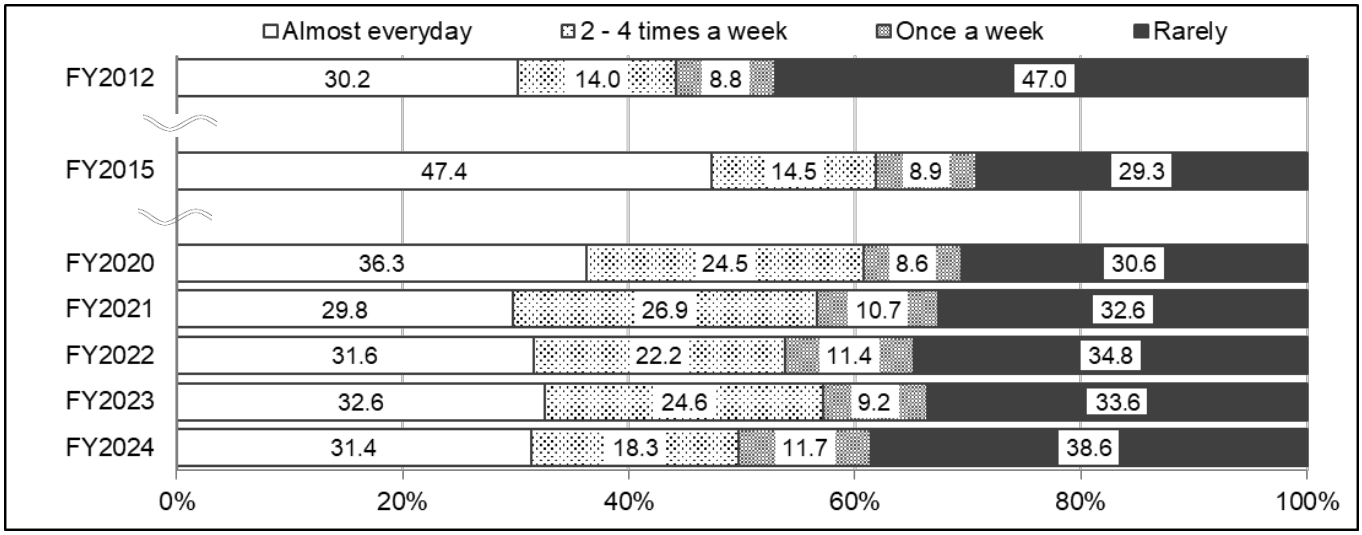


Figure 5: Changes in frequency of exercise: junior high school students

C. Proportion of those scoring 16 points or higher on SDQ

(assessment of children's emotions and behavior)

Children's emotions and behaviors were surveyed using the SDQ (Strengths and Difficulties Questionnaire, with a cutoff value of 16 based on previous studies). In FY2024, the proportion of children with high-risk scores (SDQ score of 16 or higher) who had certain emotional or behavioral problems was 11.4% among children ages 4 to 6, 10.6% among elementary school students, and 9.6% among junior high school students (Figure 6).

Compared with the 9.5% with high-risk scores in a survey covering children who were not affected by the disaster (*2), the proportion of children with high-risk scores was higher for all age groups in FY2011, especially among children aged 4 to 6 (24.4%). The percentage subsequently declined across all age groups and improved to levels comparable to those reported in previous studies, although differences and changes were observed across age groups and fiscal years (Figure 6). Refer to Figure 10 for results by residential location at the time of the survey.

[About SDQ]

The SDQ consists of 25 questions related to children's emotions and behaviors, which are to be answered by the child's parent/guardian according to the extent each question applies to the child's behavior over the past six months. Scores of 16 or higher are considered to have certain emotional or behavioral problems that warrant expert support.

*2 Matsuishi 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.

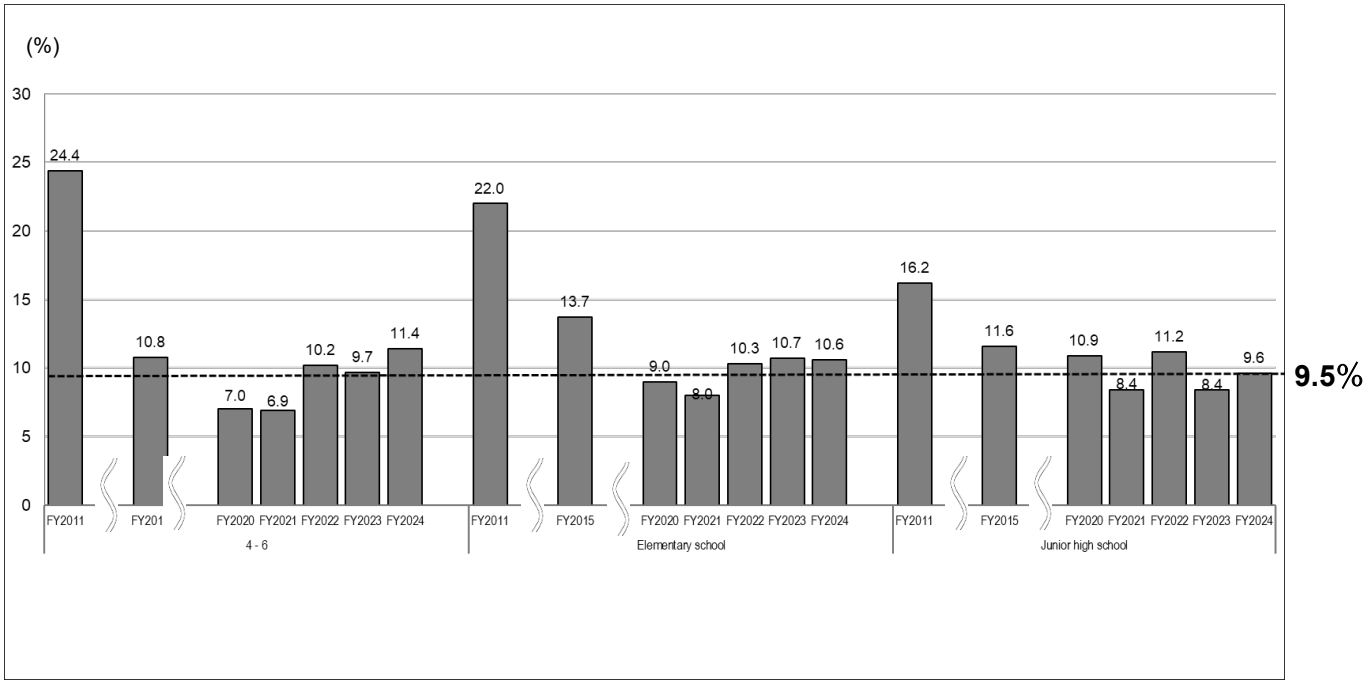


Figure 6: Changes in the proportion of those scoring 16 points or higher on the SDQ: all age groups

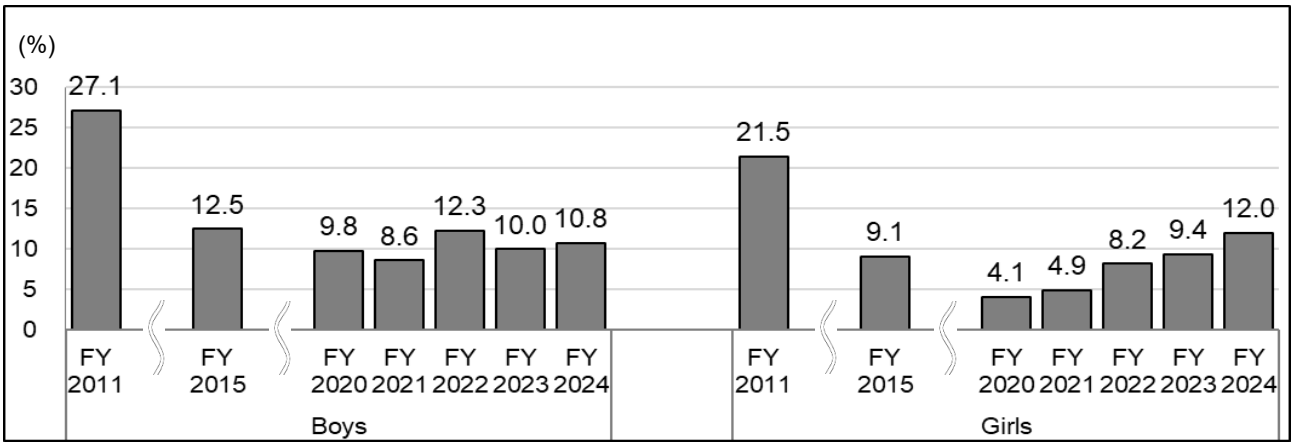


Figure 7: Changes in the proportion of those scoring 16 points or higher on the SDQ: ages 4–6

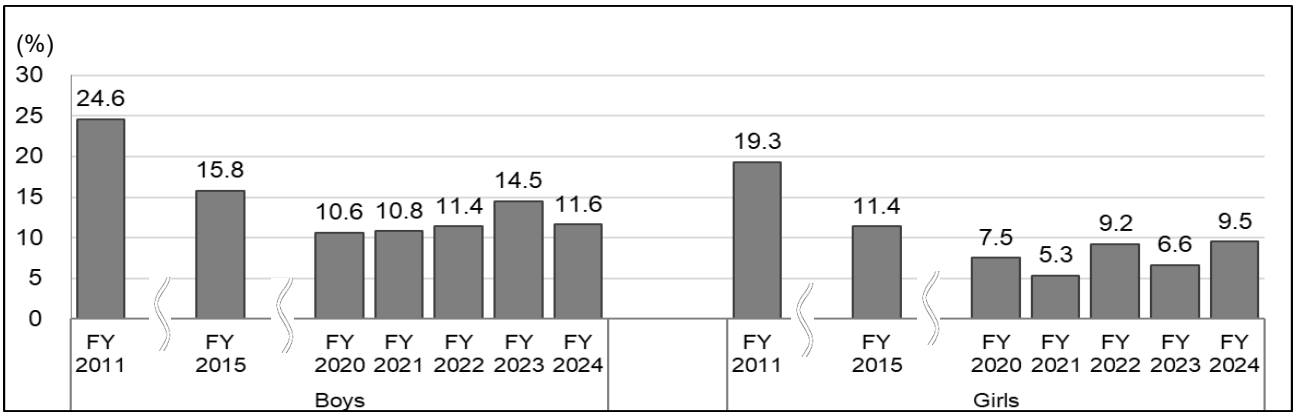


Figure 8: Changes in the proportion of those scoring 16 points or higher on the SDQ: elementary school students

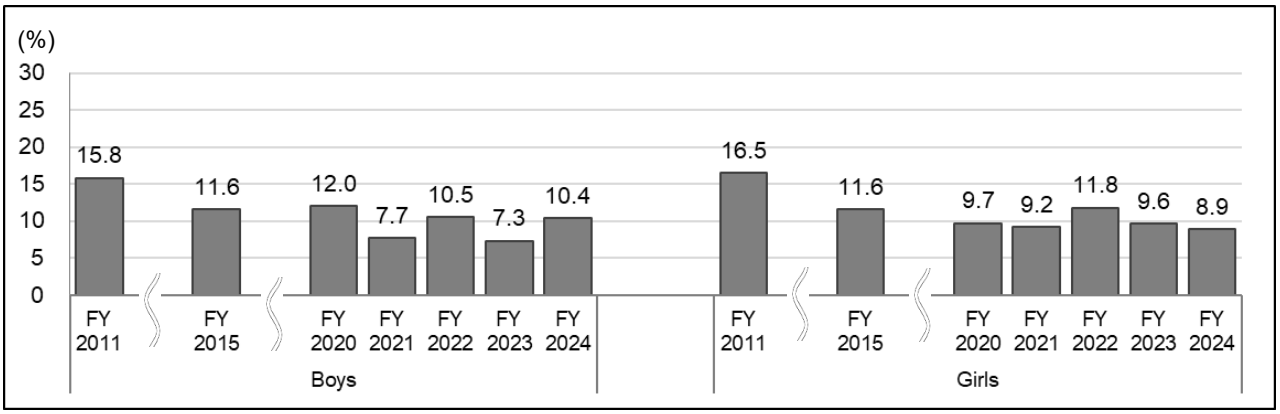


Figure 9: Changes in the proportion of those scoring 16 points or higher on the SDQ: junior high school students

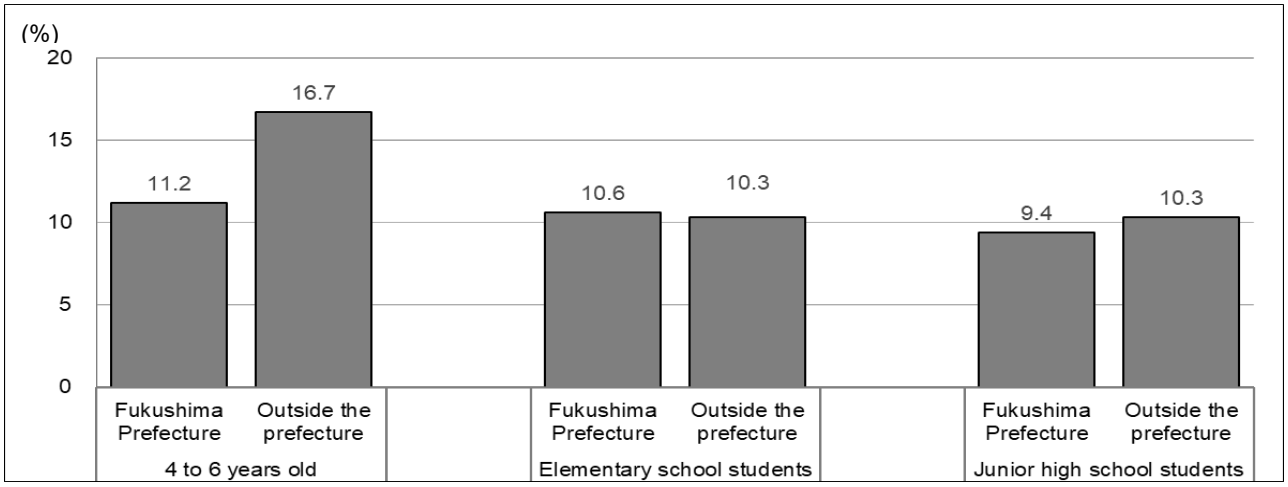


Figure 10: Changes in the proportion of those scoring 16 points or higher on the SDQ by residential location at the time of the FY2024 survey.

D. Influence on daily life due to the spread of COVID-19

In the FY2024 survey, those who responded that COVID-19 exerted influence on their daily life "To some extent" or "Significantly" accounted for 19.1% of those ages 0 to 3, 11.4% of those ages 4 to 6, 11.2% of elementary school students, 16.9% of junior high school students themselves, and 11.3% of the guardians of junior high school students (*). Generally, the percentage of children affected was lower than the previous year (Figure 11).

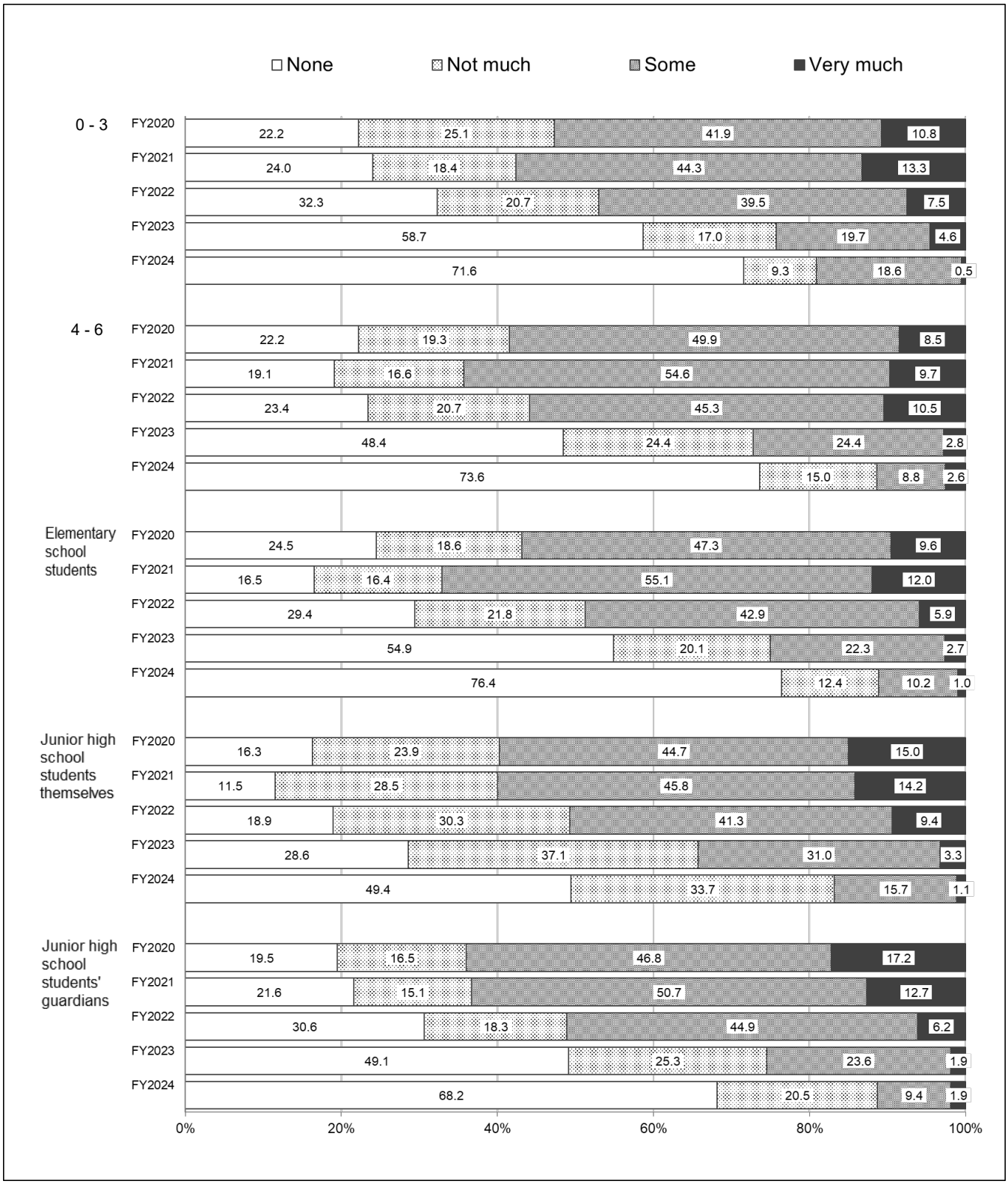


Figure 11: Influence on daily life by the COVID-19 epidemic (*From the standpoint of parents/guardians)

3-2 Results of the Adults Survey (ages 16 or older)

A. Number of respondents (response rate)

In the FY2024 survey, the number of adult respondents (ages 16 and older) was 28,861 (response rate 16.7%), with 28,795 valid responses (valid response rate 16.7%) (Figure 12). By age group, the number of respondents (response rate) was 3,271 (7.0%) for those ages 16 to 39, 7,470 (12.6%) for those ages 40 to 64, and 18,120 (27.4%) for those ages 65 and older (Figure 13). An online response system was introduced in FY2016, and the percentage of online responses was the highest ever in FY2024, at 25.4%.

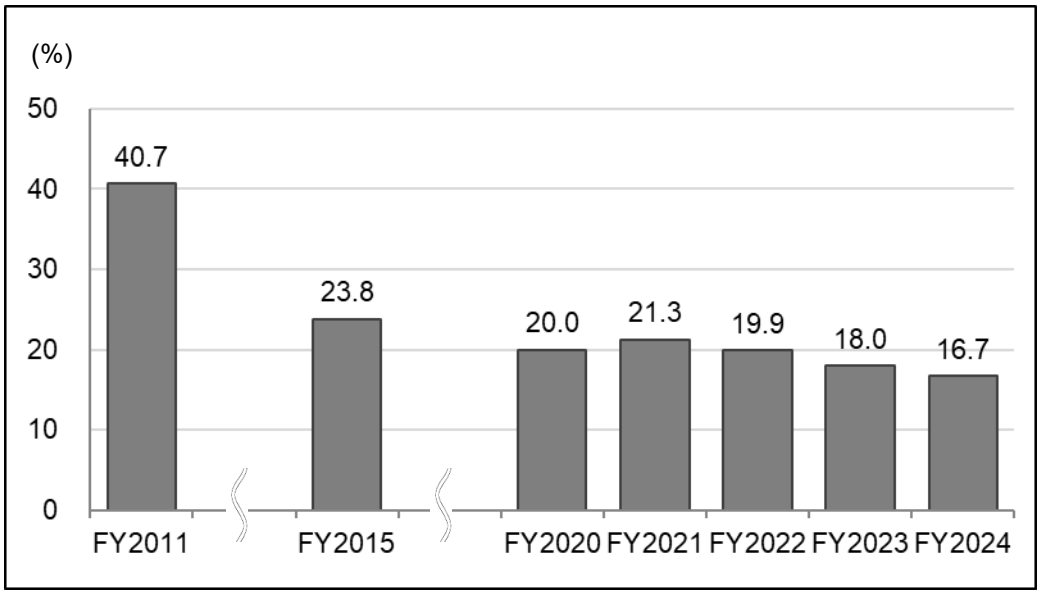


Figure 12: Changes in the response rates in the Adults Survey

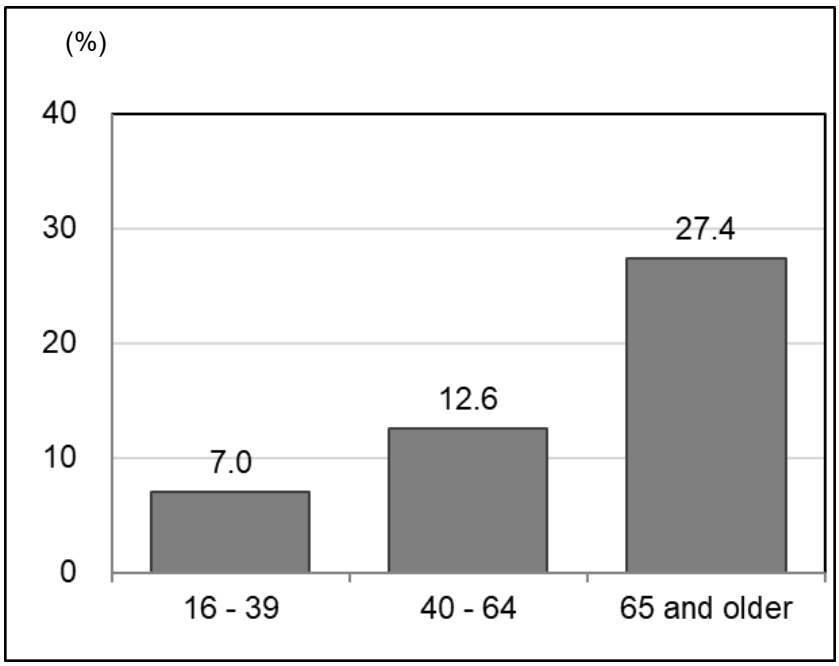


Figure 13: Response rates in the FY2024 Adults Survey, by age group

B. Subjective health condition

Regarding self-reported health conditions in FY2024, "Very good" or "Good" answers reached 29.6% (Figure 14). By age group, the proportion of those who answered "Very good" or "Good" was higher among younger generations: 23.6% for ages 65 and older, and 53.0% for ages 16 to 39 (Figure 15).

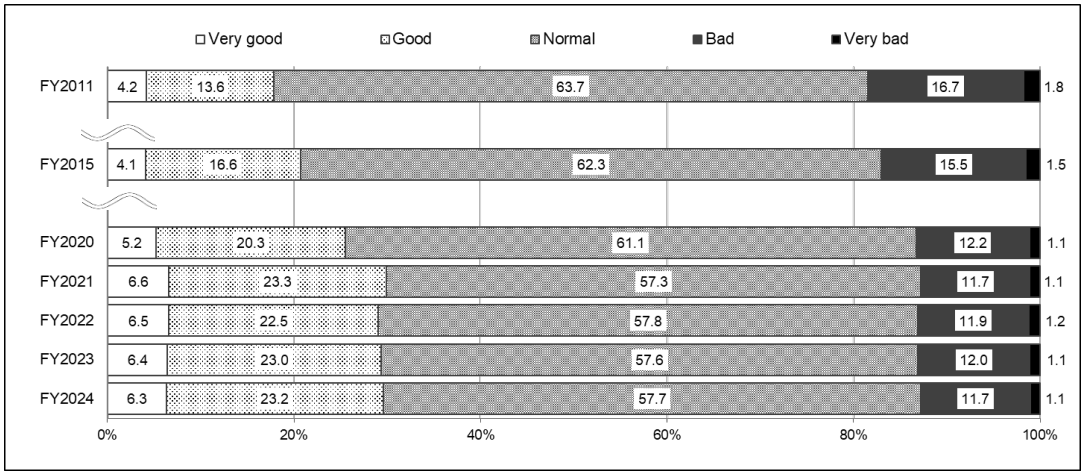


Figure 14: Changes in subjective health condition

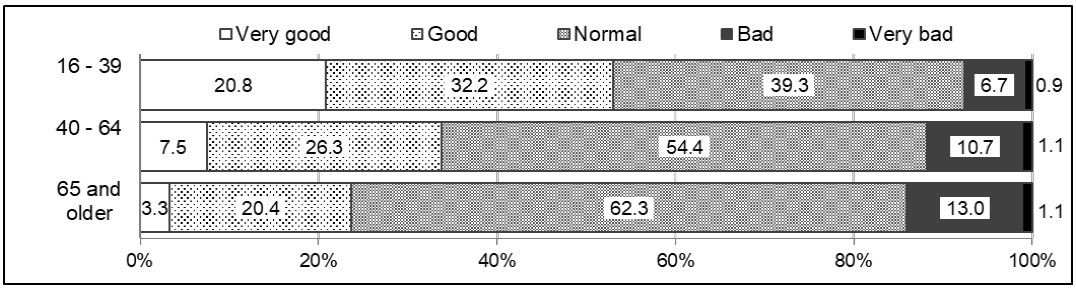


Figure 15: Subjective health condition by age group in the FY2024 Adults Survey

C. Sufficiency of sleep

In the FY2024 survey, 38.8% of respondents reported that their sleep was “Sufficient.” In contrast, 13.4% reported that their sleep was “Very insufficient” or “Greatly insufficient,” or that they were unable to sleep at all (Figure 16).

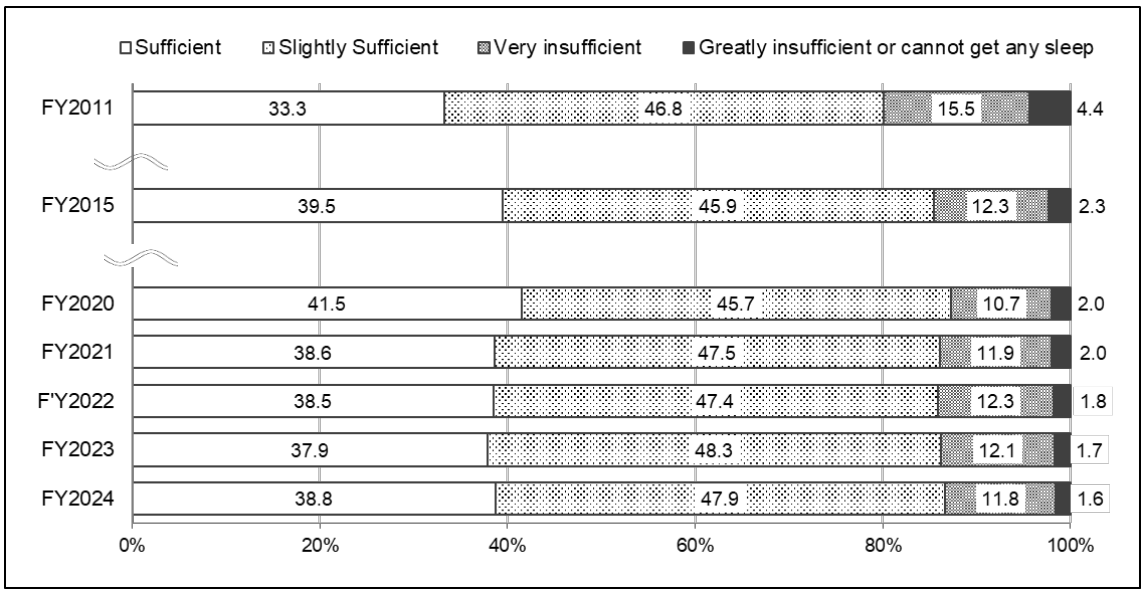


Figure 16: Changes in the degree of sleep sufficiency in adults

D. Frequency of exercise

In the FY2024 Survey, exercise frequency of "Almost every day" and "2-4 times a week" was 43.8% (Figure 17). A national survey (*3) showed 46.5% for those 20 years and older who exercised more than 2 days a week. However, national survey results are not directly comparable; exercise habits reported in our survey were similar to those in Japan overall. By residential location at the time of the survey, those living in Fukushima Prefecture tended to exercise more frequently than those living outside the prefecture (Figure 18).

*3 FY2024 National Health and Nutrition Survey, Ministry of Health, Labour and Welfare
https://www.mhlw.go.jp/content/001675213.pdf

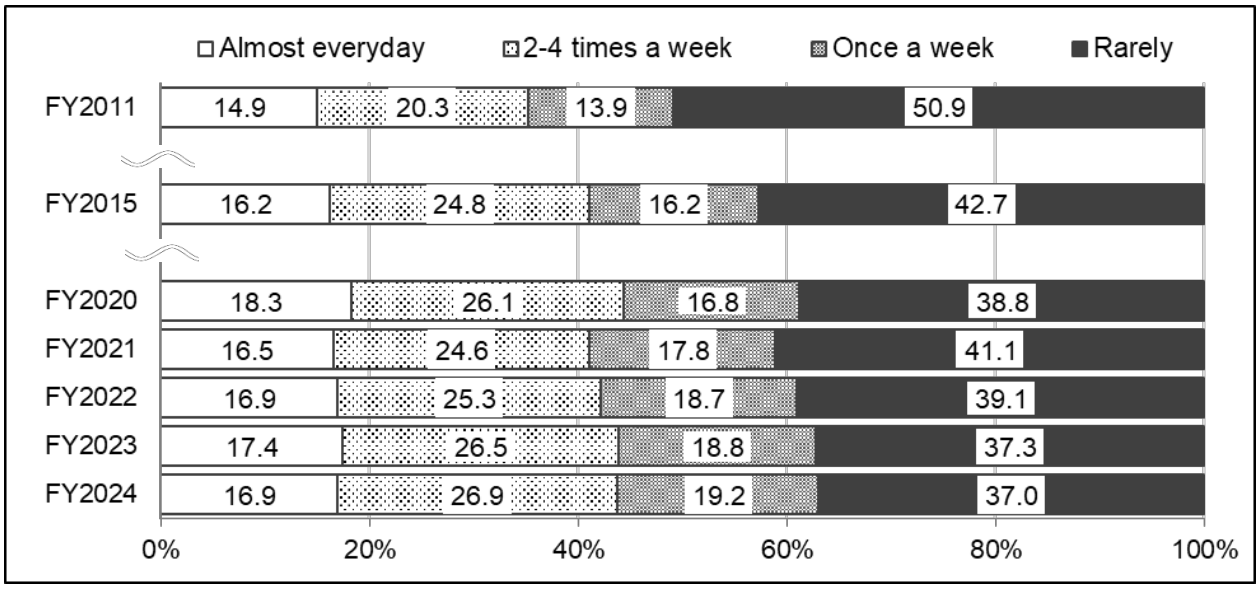


Figure 17: Changes in the frequency of exercise in adults

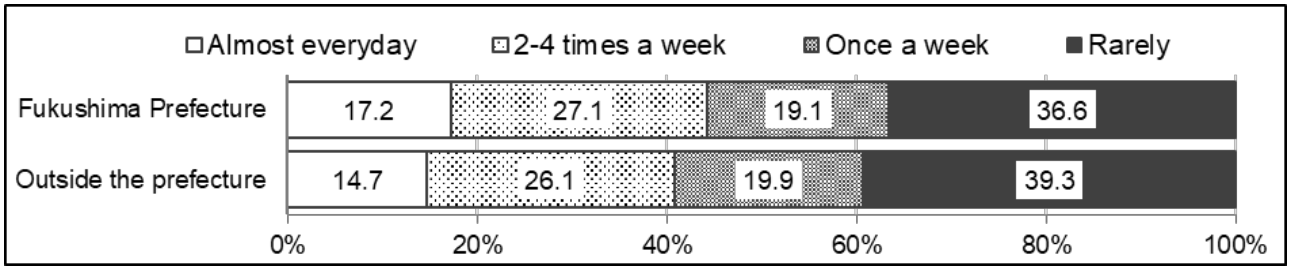


Figure 18: Frequency of exercise by location of residence at the time of the survey (in Fukushima or other prefectures) in the FY2024 Adults Survey

E. Prevalence of smoking

In the FY2024 survey, the proportion of smokers was 20.8% among males and 5.9% among females, for an overall proportion of 13.1% (Figure 19). Achieving the 12% target of Healthy Japan 21 (Phase 2) will require further efforts.

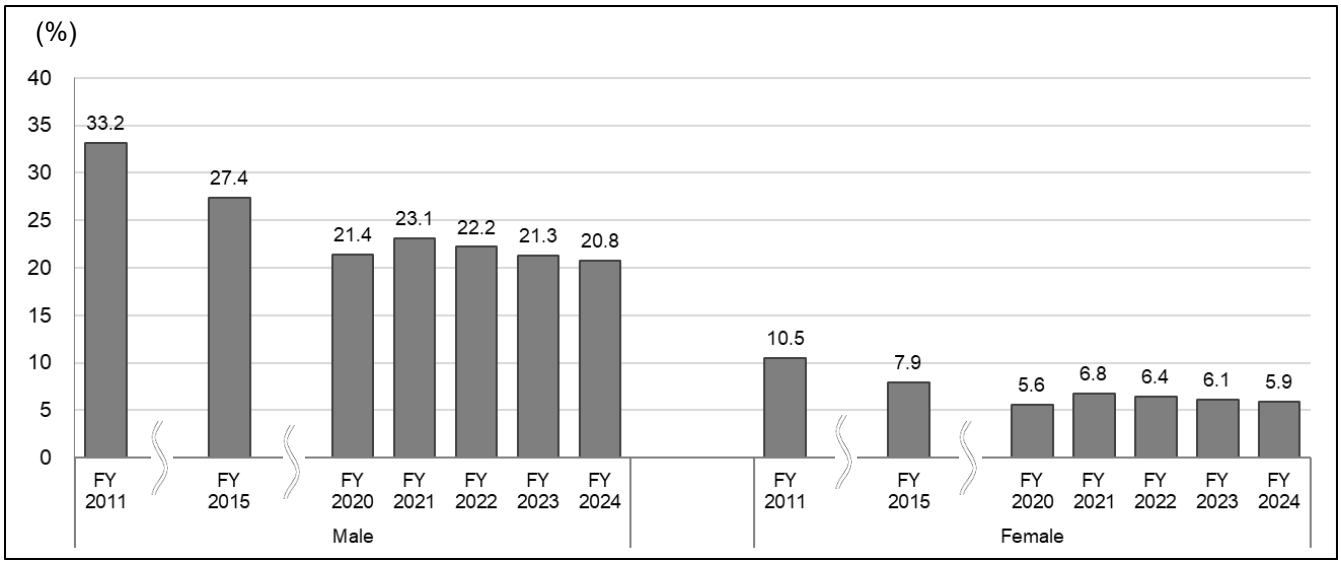


Figure 19: Changes in the prevalence of smoking, by gender

F. Proportion of those suspected of problematic drinking (CAGE score 2 points or higher)

Problematic drinking behaviors were examined using the CAGE questionnaire (with a cutoff value of 2 points based on previous studies).

In the FY2024 Survey, the proportion of those with high-risk scores (CAGE score of 2 points or higher) was 13.0% among males and 6.0% among females, part of a downward trend for both, but the female proportion slightly increased (Figure 20). When looked at by age groups and gender, the percentage was the highest among ages 40 to 64 for males, and ages 20 to 39 for females (Figure 21). When compared by residential location at the time of the survey (in or outside the prefecture), the percentage was higher among those living outside the prefecture for both males and females (Figure 22).

[About CAGE]

The CAGE questionnaire consists of 4 questions about drinking behaviors over the past 30 days, with "yes" (1) or "no" (0) answers. Those scoring 2 points or higher are considered likely to have problematic drinking.

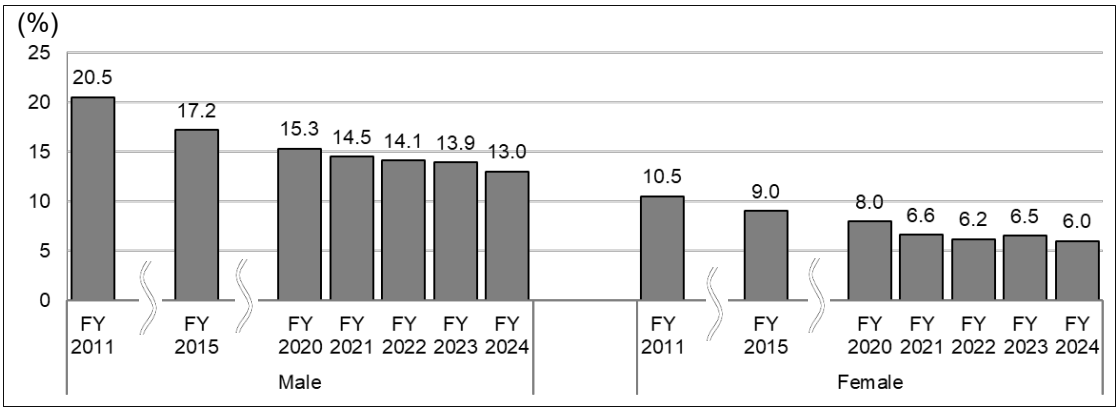


Figure 20: Changes in the proportion of those disclosing evidence of problematic drinking (2 points or higher on the CAGE), by gender

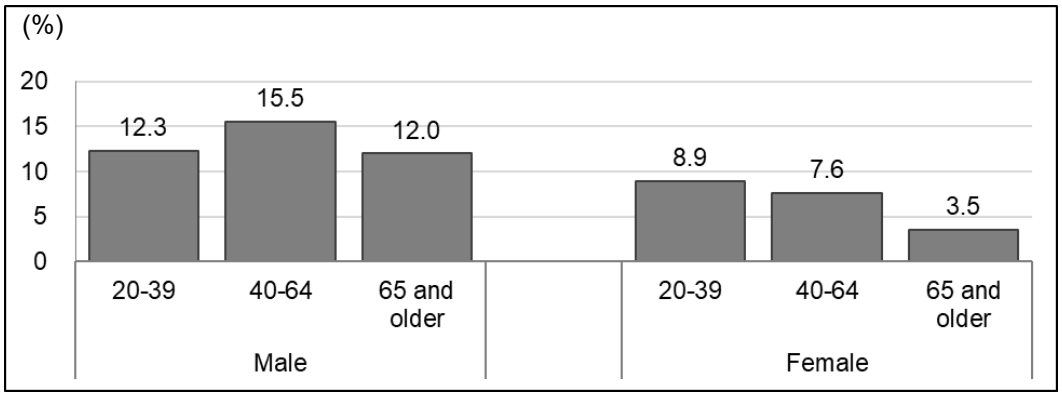


Figure 21: The proportion of those disclosing evidence of problematic drinking (2 points or higher on the CAGE) in the FY2024 Survey, by age group and by gender

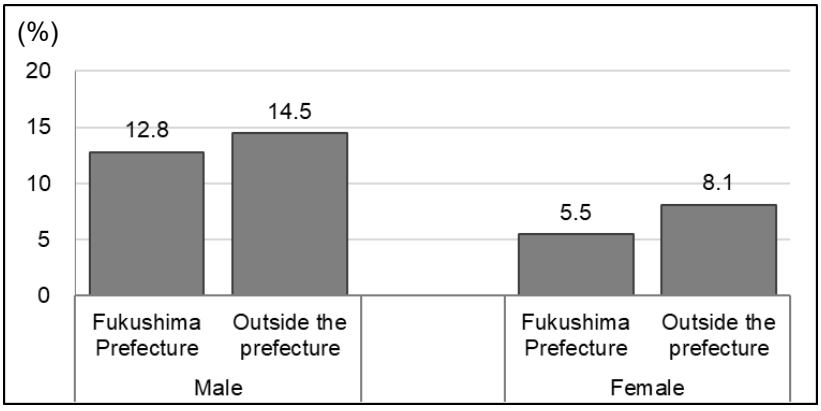


Figure 22: The proportion of those disclosing evidence of problematic drinking (2 points or higher on the CAGE) in the FY2024 Survey, by residential location and by gender

G. Proportion of those judged to need support for depression or anxiety

General mental health and the possibility of a mood disorder (e.g., depression) or anxiety disorder were examined using the K6 Distress Scale (with a cutoff value of 13 based on previous studies).

In the FY2024 survey, the proportion of those with high-risk scores (K6 score of 13 points or higher) for mood disorder or anxiety disorder was 5.3% overall (Figure 23). However, the percentage is still high in Fukushima compared to the result of 3% from a previous study covering members of the public who were not affected by the disaster. (*4) By gender, the percentage was higher among females (5.6%) than among males (5.1%) (Figure 24). The comparison by age group showed that the percentage was higher among younger people than among older people (Figure 25). The comparison by residential area at the time of the survey (in or outside Fukushima Prefecture) showed that 5.1% of those living in the prefecture, versus 7.0% of those living outside the prefecture, were at high risk (Figure 26).

[About K6]

The K6 Distress Scale consists of 6 questions about how often feelings and behaviors related to depression and anxiety occurred during the past 30 days. A score of 13 or more is considered to indicate a possible mood or anxiety disorder.

*4 Norito Kawakami, Toshiaki Furukawa, Distribution of mental health status and its related factors based on the K6 Distress Scale in a national survey (part of a research project on a system for grasping and analyzing statistical information on the health status of Japanese people from the perspective of households) supported by a FY2007 Health and Labor Science Research Grant (for research projects on advanced utilization of statistical information).

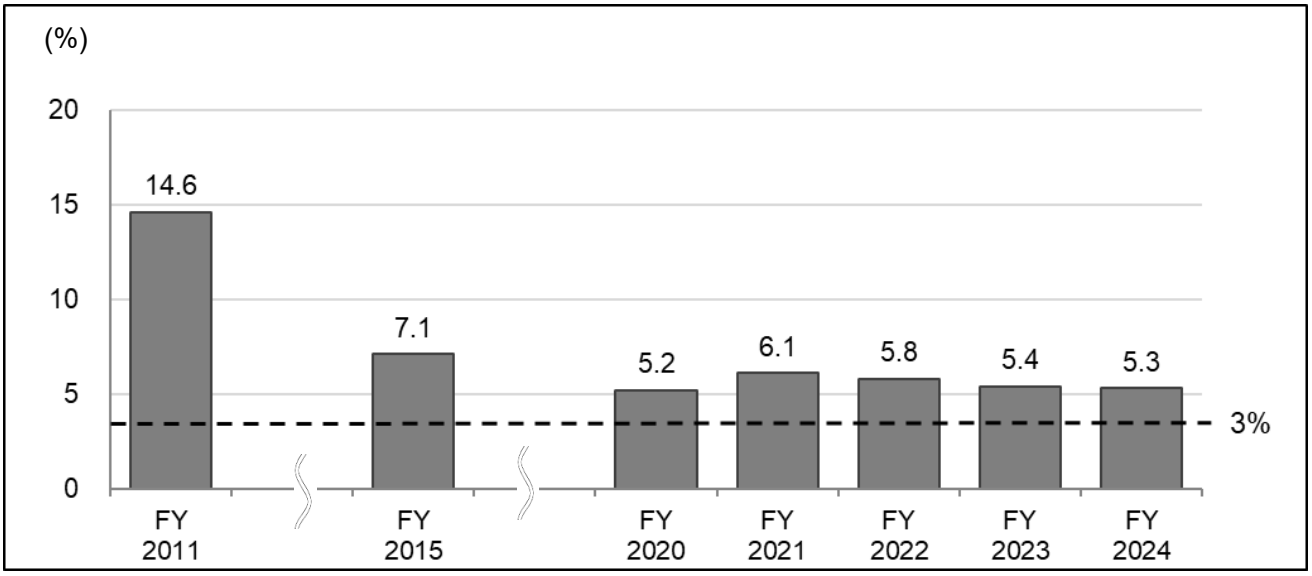


Figure 23: Changes in the proportion of those scoring 13 or higher on K6

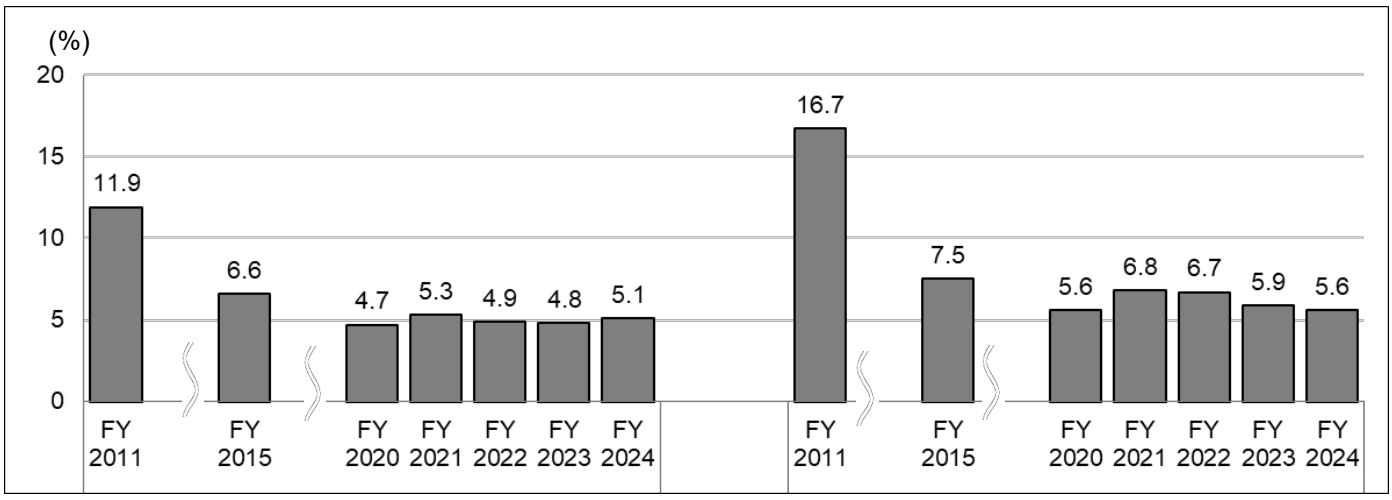


Figure 24: Changes in the proportion of those scoring 13 points or higher on K6, by gender

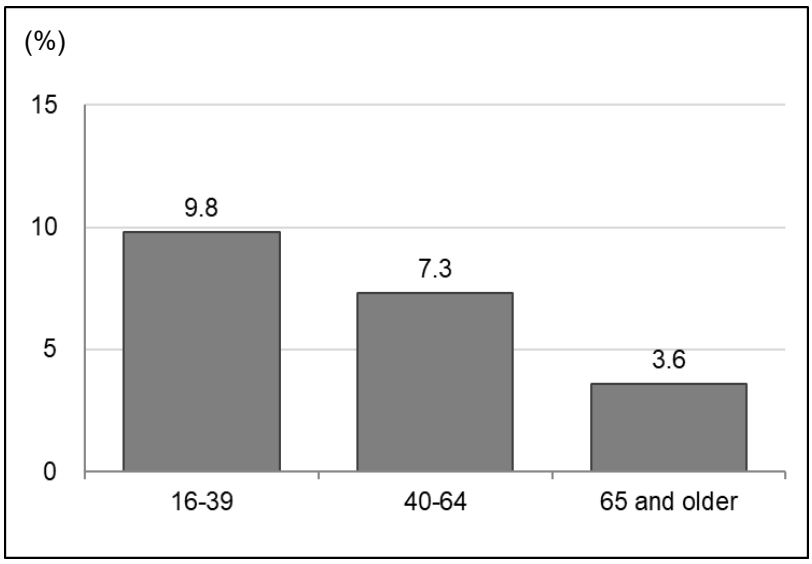


Figure 25: The proportion of those scoring 13 points or higher on K6 in the FY2024 Survey, by age group

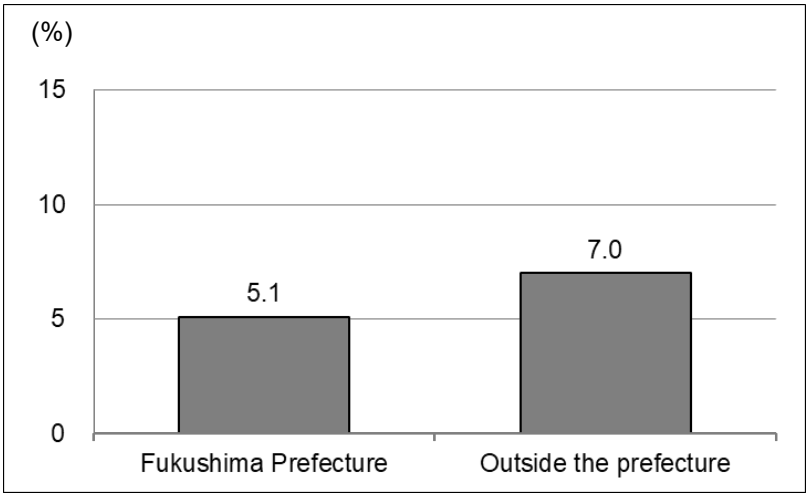


Figure 26: The proportion of those scoring 13 points or higher on K6 in the FY2024 Survey, by location of residence at the time of the survey

H. Influence on daily life due to the COVID-19 pandemic

In the FY2024 survey, those who responded that COVID-19 exerted influence on their daily life "Significantly" or "To some extent" (the affected group) accounted for 20.8%, which decreased compared with the last year (Figure 27). By gender, the affected group accounted for 20.5% among males and a slightly higher 21.0% among females (Figure 28). By age group, the affected group accounted for 18.7% among those ages 16 to 39, 22.6% among those ages 40 to 64, and 20.4% among those ages 65 and older (Figure 29).

On the other hand, comparing the percentages of those scoring 13 points or higher on K6 between the group of people who were affected by COVID-19 “To some extent” or “Significantly” and the group of people who were not affected or not much affected by COVID-19, the relevant percentages were considerably higher for the former group (Figure 30), showing substantial differences in mental health conditions between these groups

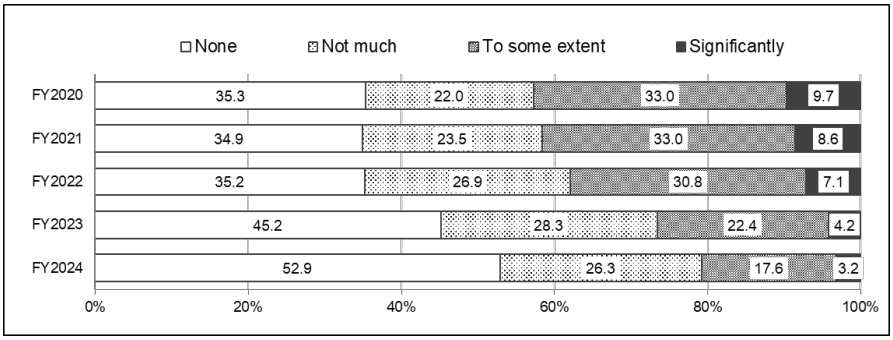


Figure 27: Influence on daily life due to the spread of COVID-19: overall

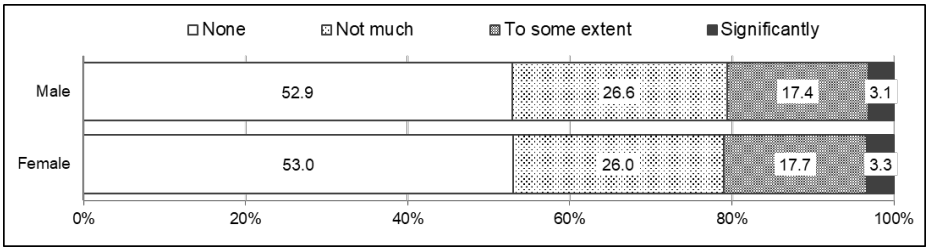


Figure 28: FY2024 Influence on daily life due to the spread of COVID-19: by gender

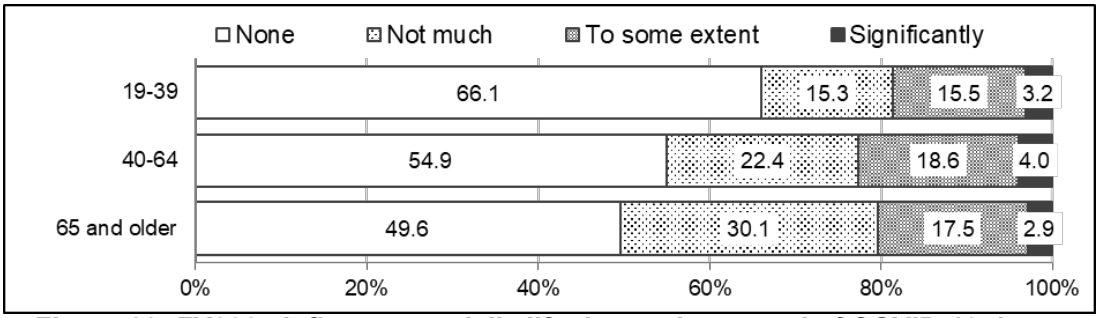


Figure 29: FY2024 Influence on daily life due to the spread of COVID-19: by age group

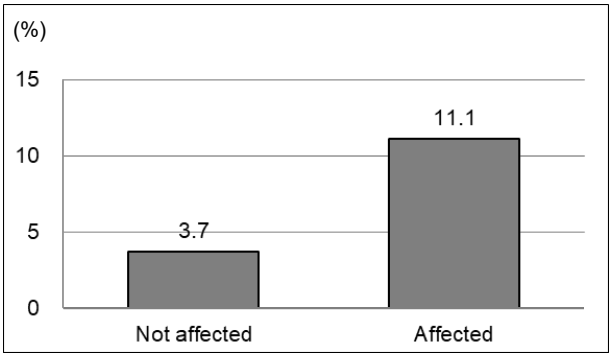


Figure 30: FY2024 Percentage of those scoring 13 points or higher on K6 by level of influence on daily life due to the spread of COVID-19

I. Risk perception of health effects of radiation

Regarding possible effects on the next generation, 18.9% responded that they think effects on the next generation are likely to occur (“Possibilities are high” and “Possibilities are very high” combined) in the FY2024 survey, continuing a downward trend (Figure 31). In a comparison by residential location at the time of the survey (in or outside the prefecture), risk perception was higher among those living outside the prefecture (Figure 32).

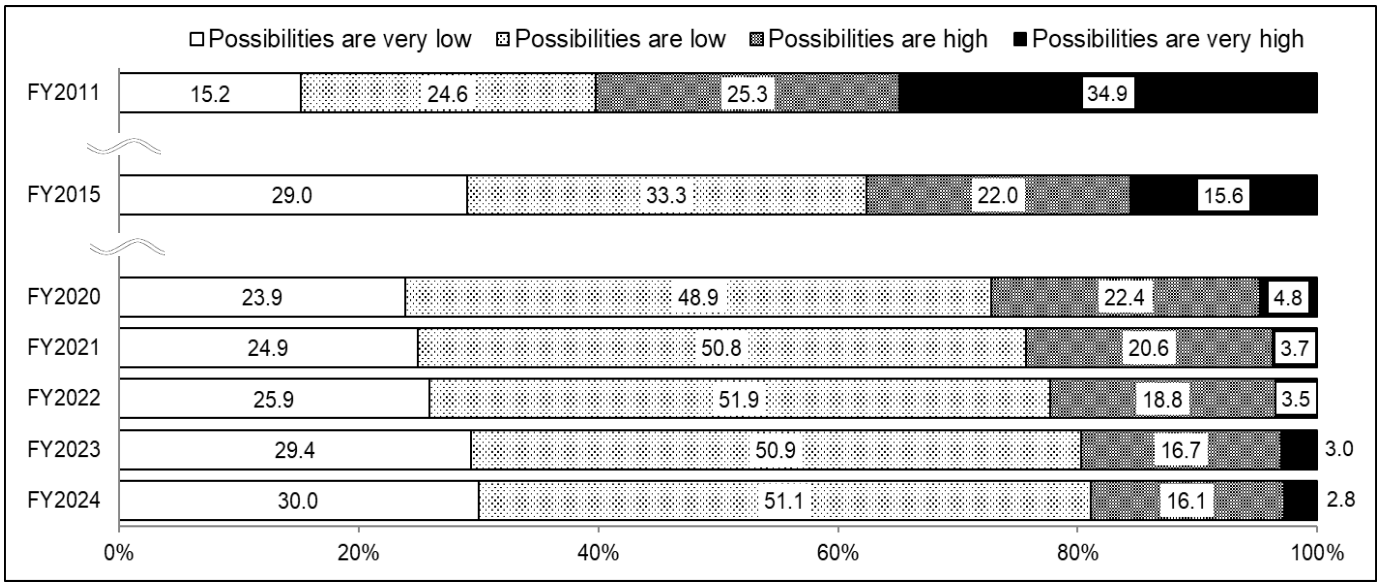


Figure 31: Changes in the proportion of risk perception of radiation effects to the next generation (risk perception)

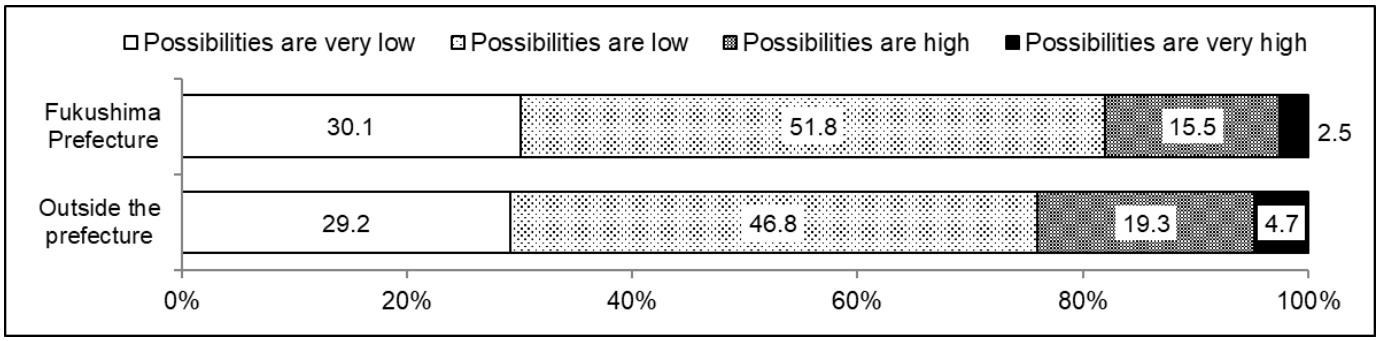


Figure 32: FY2024 Changes in the proportion of risk perception of radiation effects on the next generation, by location of residence at the time of the survey (risk perception)

J. Availability of consultation resources

The FY2024 survey asked, “Do you know anyone or any organization you can consult with when you have physical or mental problems?” A total of 4,790 participants (17.0%) answered “No.”

3-3 Conclusions

Among children, the survey results indicate that the proportion of children who are likely to have emotional or behavioral difficulties, as assessed by the Strengths and Difficulties Questionnaire (SDQ), has improved to a level comparable to the proportion of high-risk children reported in previous studies. The increase in the number of children surveyed who had not experienced the disaster may have contributed to this improvement; however, these trends will need to be monitored closely in the future.

Among adults aged 16 years and older, exercise habits have continued to improve, possibly reflecting a reduction in disruptions to daily life associated with the COVID-19 pandemic. The proportion of individuals with problematic alcohol use also showed a gradual decline among both men and women. Meanwhile, the tendency for younger people and those living outside Fukushima Prefecture to have a higher proportion of individuals at high risk according to the K6 scale has persisted. Regarding overall mental health as assessed by the K6, although the proportion at high risk showed a slight improvement compared with FY2023, it remains higher than that observed in the general population unaffected by the disaster. Concerning the health effects of radiation, more than 80% of residents responded that the possibility of health effects on future generations due to radiation exposure was either “low” or “very low" in FY2024; the proportion of residents concerned about such effects has continued to decline.

4. Outline of post-survey support

As part of the Mental Health and Lifestyle Survey, we fed back individual results that can be useful to residents for better mental and physical health management, and we offer support to those judged to need counseling or support regarding their mental health or lifestyle habits, to ascertain their circumstances, to provide advice for improvements, and to connect them to health or medical facilities.

4-1 Coverage of support

Of those who responded to the FY2024 Mental Health and Lifestyle Survey, those judged to need counseling or support by telephone or mail were covered as support candidates.

This report tabulates those who responded by October 31, 2025, and to whom we provided support by December 31, 2025.

4-2 Individual result reports

We sent individual result reports in July and September to those who responded by August 31, 2025, to help them understand mental health and lifestyle issues and better manage their health.

Table 2 shows the numbers and contents of the result report.

Table 2: FY2024 number of individual result reports sent out

Type of survey sheet	Number of result reports sent	Contents
For children ages 0 - 3	183	Height, weight, fitness habits (children ages 2 or older)
For children ages 4 - 6	194	Height, weight, dietary habits, fitness habit, bedtime, and mental and behavioral stress reaction (SDQ score)*1
For elementary school students	514	
For junior high school students	477	
For adults	28,644	Body mass index (BMI)*2, fitness habit, sleep, and mental stress reaction (K6 score)*3

*1 Strengths and Difficulties Questionnaire, a mental health and behavioral screening scale for children

*2 Body mass index, calculated based on height and weight as written in the survey forms

*3 Psychological distress scale, which screens for general mental illnesses such as depression and anxiety
In the result reports for children, standard height and weight by age in months as of the day of filling in the survey form were provided for reference.

4-3 Criteria to identify those in need of support and methods of providing support

A. Criteria to assess the need for support

Per the level of significance and urgency, the following criteria were set to identify those in need of support (Tables 3 and 4)

Table 3: FY2024 criteria to assess the need for support regarding issues for children

		Moods and behavior (SDQ)	Whether or not having any person or organization to consult with / problems concerning growth	Remarks / Free comment
Selection criteria	Criteria I	1) SDQ: 20 or higher	Having worries concerning growth and having no person or organization to consult with.	The urgency level should be judged by an expert.
	Criteria II	3) SDQ: 16 or higher		

Table 4: FY2024 criteria to assess the need for support regarding personal issues for adults

		Mental health	Physical health	Sleep disorder	Mental disorder	Smoking and drinking	Free comment
Selection criteria	Criteria I	1) K6: 13 points or higher	1) With hypertension or diabetes but not seeing a doctor, and (i) with BMI of 27.5 or higher or (ii) not having taken health check for a year.				The urgency level should be judged by an expert.
	Criteria II	2) K6: 10 points or higher	2) Falling under 1) above, but (i) and (ii) are not applicable	Having no mental disorder, and being very unsatisfied with sleep.	Having mental disorder, but not seeing a doctor, or making no reply to the relevant question		
	Criteria III		3) Other than 1) and 2) above, with BMI higher than 25, and not having taken health checks for a year			CAGE score 2 points or higher	

* Smoking cessation calls for smokers

B. Methods of providing support

(i) Support for those meeting Criteria I

For those who met Criteria I, our “Mental Health Support Team” of clinical psychologists, public health nurses, clinical nurses, etc., made phone calls and provided counseling. The team asked about support recipients' health conditions, assessed current problems, and recommended further examination at health/medical facilities when necessary. In addition, individuals for whom no telephone number was available or who could not be reached by telephone were sent a postcard to confirm their interest in receiving telephone support. Those who indicated their preference for telephone support on the returned postcard were subsequently contacted by telephone.

(ii) Support for those meeting Criteria II

For those who met Criteria II, we sent reply-paid postcards to confirm their intention whether or not to receive telephone counseling. We provided telephone counseling to those who expressed their intention to receive support or who were judged to need support based on the content of their replies. For those having any problems with “physical and mental health” and “sleep disorders,” we also enclosed and sent “The Mental Health and Lifestyle Habits Self-Support Book” that we created, along with the results report.

(iii) Support for those meeting Criteria III

For those who met Criteria III, we sent “The Mental Health and Lifestyle Habits Self-Support Book.”

5. Summary of results of post-survey support

5-1 Telephone counseling

A. Support for issues concerning children

(i) Number of support candidates and recipients

Figure 33 shows the number of children eligible for support under Criteria I and II, as well as the number of support providers. Note that most telephone support was provided to the parents/guardians of eligible children. A total of 62 individuals received telephone support, accounting for 4.5% of the respondents.

For the 17 individuals who did not return the postcard to confirm their interest in telephone support, the "Self-Support Booklet for Mental Health and Lifestyle" was sent to them.

Tables 5 and 6 show the breakdown of telephone support providers by gender and residential location at the time of the survey.

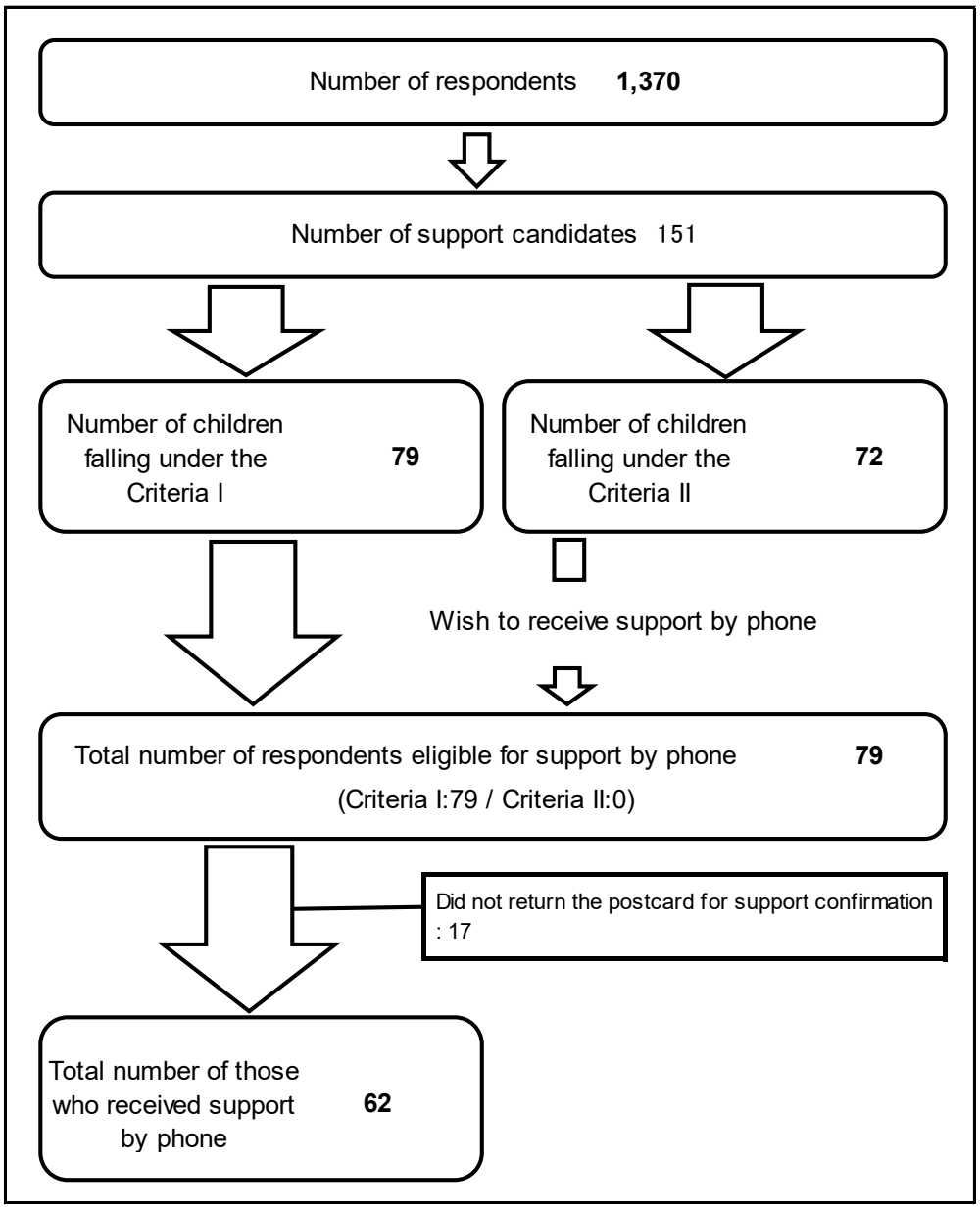


Figure 33: FY2024 numbers of support candidates and recipients for issues regarding children

Table 5: FY2024 support recipients by gender (children)

Classification	Boys		Girls		Total
Overall	42	(67.7%)	20	(32.3%)	62
Ages 0-3	2	(66.7%)	1	(33.3%)	3
Ages 4-6	7	(77.8%)	2	(22.2%)	9
Elementary school students	22	(64.7%)	12	(35.3%)	34
Junior high school students	11	(68.8%)	5	(31.3%)	16

Table 6: FY2024 support recipients by place of residence (children)

Classification	Fukushima prefecture		Outside the prefecture		Total
Overall	57	(91.9%)	5	(8.1%)	62
Ages 0-3	3	(100.0%)	0	(0.0%)	3
Ages 4-6	8	(88.9%)	1	(11.1%)	9
Elementary school students	32	(94.1%)	2	(5.9%)	34
Junior high school students	14	(87.5%)	2	(12.5%)	16

B Results of support

The Mental Health Support Team made phone calls to responders (mostly parents or guardians) and asked about current issues, based on survey responses. Table 7 shows the children's issues identified through telephone counseling. Table 8 shows the specific counseling contents for FY2024.

Table 7: Telephone counseling contents (children)

Persons / %

FY2012	FY2015	FY2020	FY2021	FY2022	FY2023	FY2024
Anxiety caused by the disaster, radiation, or exposure	School life related issues	School life related issues	School life related issues	School life related issues	School life related issues	School life related issues
147 (23.6%)	54 (21.6%)	25 (26.3%)	38 (35.5%)	35 (29.7%)	22 (32.4%)	12 (19.4%)
School life related issues	Physical health	Daily life	Behavioral issues (anger, irritation, or violence)	Physical health	Daily life	Daily life
136人 (21.8%)	15 (6.0%)	18 (18.9%)	15 (14.0%)	15 (12.7%)	9 (13.2%)	6 (9.7%)
Physical health	Sleep	Behavioral issues (anger, irritation, or violence)	Daily life	Daily life	Physical health	Concerns about the future
102 (16.4%)	9 (3.6%)	12 (12.6%)	14 (13.1%)	13 (11.0%)	6 (8.8%)	5 (8.1%)
Behavioral issues (anger, irritation, or violence)	Behavioral issues (anger, irritation, or violence)	Sleep	Anxiety over the future	Behavioral issues (anger, irritation, or violence)	Sleep	Physical health
90 (14.4%)	8 (3.2%)	9 (9.5%)	9 (8.4%)	11 (9.3%)	6 (8.8%)	4 (6.5%)
Depression	Dietary habit	Physical health Dietary habit	Sleep	Sleep	Concerns about the future	Behavioral issues (anger, irritation, or violence)
83 (13.3%)	4 (1.6%)	6 each (6.3%)	8 (7.5%)	8 (6.8%)	5 (7.4%)	4 (6.5%)

*The data for FY2011 is not included because the tabulation method was different from other years. Therefore, Table 7 starts from FY2012.
*Contents of the total consultation cases.

Table 8: FY2024 details of telephone counseling topics (children)

School life related issue	(Elementary school students) ・Class changes in the spring cause emotional instability ・Received a developmental disorder diagnosis and became more stable after being placed in a support class (Junior high school students) ・Often forget to hand in printouts and other assignments
Daily life	(Ages 0-3) ・Potty training doesn't go smoothly (Elementary and junior high school students) ・Game addiction
Physical health	(Ages 4-6, Elementary school students) ・Tendency to be careless, resulting in frequent injuries (Elementary school students) ・Mood swings, sometimes causing them to skip school (Junior high school students) ・Frequent headaches due to anxiety about entrance exams
Sleep	(Elementary school students) ・Tendency to skip school and stay up late (Elementary and junior high school students) ・Unable to stop watching videos at night, resulting in late bedtimes
Concerns about the future	(Ages 0-3) ・The child's speech and language development seems to be slower than expected, so I would like to consult at the next infant health checkup. (Ages 4-6) ・The child experienced significant anxiety about starting elementary school, which sometimes caused stomach problems. (Elementary school students) ・Lack of concentration and is worried about keeping up with others
Others	(Ages 4-6) ・Sensitive to the earthquakes (Elementary school students) ・Has lost appetite and cries alone due to the shock of losing a family member

Telephone counseling included listening, medical consultation recommendations, lifestyle guidance, and psychoeducation. Table 9 shows the situation at the time of initial telephone counseling. Because of telephone counseling, the reasons for continuing the support were the child's condition (both physical and mental), school maladjustment, and the guardian's condition (both physical and mental).

Table 9: FY2024 status of the initial telephone counseling

Persons (%)

Classification	Continuous support needed	One time support	Details unknown	Support declined	Total
Overall	7 (11.3%)	47 (75.8%)	4 (6.5%)	4 (6.5%)	62
Ages 0-3	2 (66.7%)	1 (33.3%)	0 (0.0%)	0 (0.0%)	3
Ages 4-6	0 (0.0%)	7 (77.8%)	1 (11.1%)	1 (11.1%)	9
Elementary school students	2 (5.9%)	29 (85.3%)	2 (5.9%)	1 (2.9%)	34
Junior high school students	3 (18.8%)	10 (62.5%)	1 (6.3%)	2 (12.5%)	16

・Continuous support needed:
Those who were judged to need continuous support, including those with poor physical conditions, gravely affected by the disaster, unable to adapt to society or school, experiencing isolation, or having other ongoing concerns. Continued support includes recommending consultations with specialists at healthcare/medical facilities and providing their information to other support organizations.

・One-time support:
Those judged to be self-sufficient because they had seen some improvement in their physical condition or living environment, or were already in contact with support resources.

・Details unknown:
No details were obtained (for various reasons).

・Support declined:
Those who turned down offers of support by questionnaires or return postcard

B. Support for adults

(i) Number of support candidates and recipients

Figure 34 shows the number of support candidates and recipients based on Criteria I and II. A total of 1,659 individuals received telephone support, accounting for 5.7% of the respondents.

The “Mental Health and Lifestyle Self-Support Book” was sent to 41 individuals who were unavailable by telephone, 445 individuals who did not return the postcard confirming their preference for telephone support, and 22 individuals classified as “other.”

Table 10 shows the distribution of support recipients by gender and age groups. Table 11 shows the proportion of support recipients in total responses. Table 12 indicates support recipients by location of residence at the time of the survey.

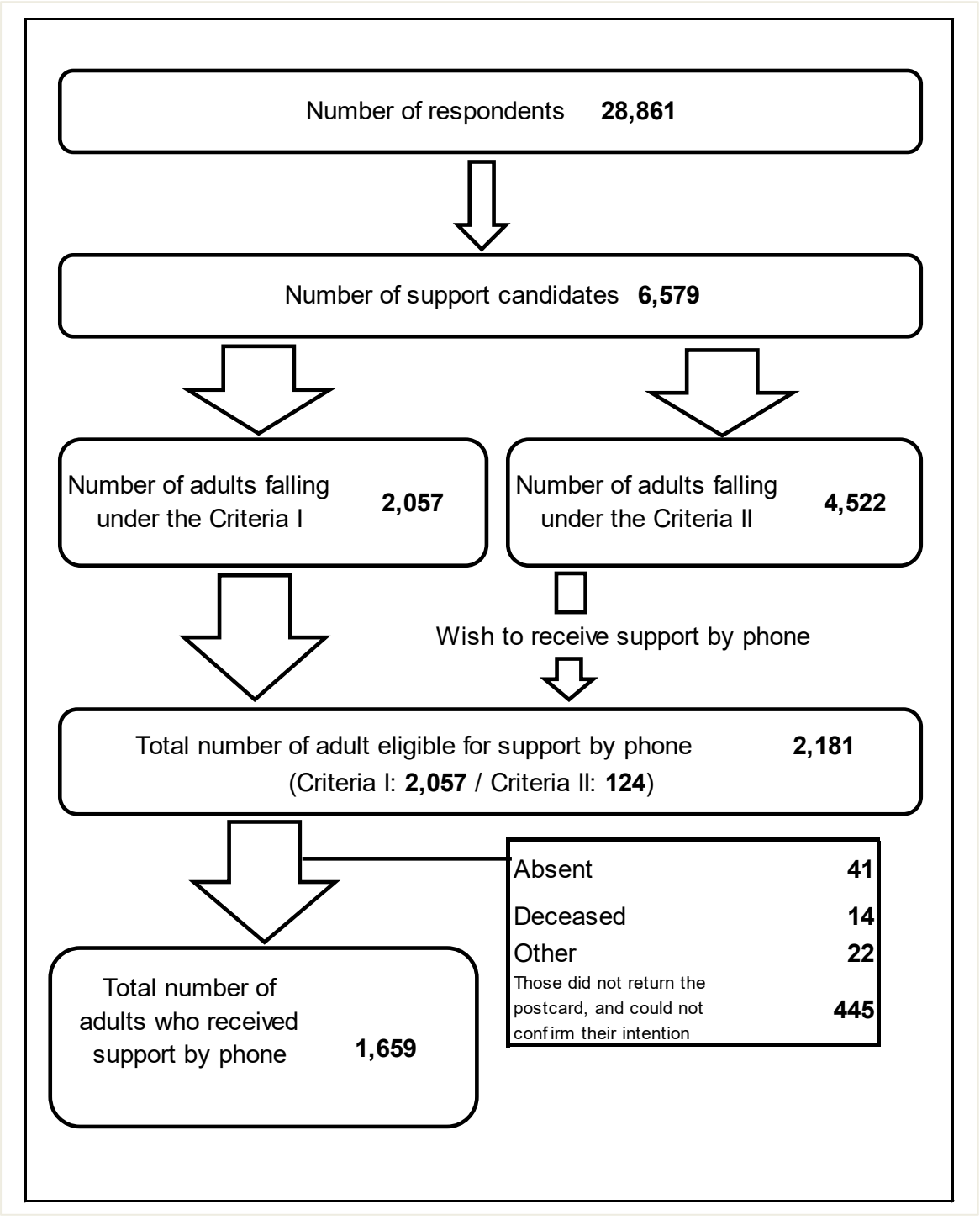


Figure 34: FY2024 number of support candidates and recipients for personal issues of adults

Table 10: FY2024 telephone support recipients by gender (adult)

Classification	16 - 39	40 - 64	65 and older	Total
Overall	229 (13.8%)	535 (32.2%)	895 (53.9%)	1,659
Mental Health Survey				
Male	84 (13.2%)	227 (35.7%)	324 (51.0%)	635
Female	120 (17.3%)	200 (28.8%)	374 (53.9%)	694
Life Style Survey				
Male	17 (8.2%)	70 (33.8%)	120 (58.0%)	207
Female	8 (6.5%)	38 (30.9%)	77 (62.6%)	123

Table 11: FY2024 telephone support recipients by age group (adult)

Number of respondents	16 - 39 3,271	40-64 7,470	65 and older 18,120	Total 28,861
Those who received the support	229	535	895	1,659
(%)	(7.0%)	(7.2%)	(4.9%)	(5.7%)

Table 12: FY2024 support recipients by the place of residence at the time of the survey (adult)

Classification	Fukushima prefecture		Outside the prefecture		Total
Overall	1,356	(81.7%)	303	(18.3%)	1,659
Mental Health Survey	1,078	(81.1%)	251	(18.9%)	1,329
Life Style Survey	278	(84.2%)	52	(15.8%)	330

(ii) Results of support

Based on the survey responses, the Mental Health Support Team provided telephone counseling and inquired about current issues. Table 13 shows the telephone counseling topics. Table 14 shows the details for FY2024.

Table 13: Contents of the telephone support topics (adult)

FY2012	FY2015	FY2020	FY2021	FY2022	FY2023	FY2024
Physical health 2,761 (46.1%)	Physical health 1,145 (44.6%)	Physical health 866 (44.0%)	Physical health 1,233 (48.1%)	Physical health 1,086 (46.6%)	Physical health 831 (42.5%)	Physical health 599 (36.1%)
Sleep 2,349 (39.2%)	Sleep 798 (31.1%)	Sleep 583 (29.6%)	Sleep 680 (26.5%)	Sleep 551 (23.6%)	Sleep 436 (22.3%)	Sleep 273 (16.5%)
Depression 1,417 (23.7%)	Depression 342 (13.3%)	Depression 296 (15.0%)	Depression 451 (17.6%)	Depression 371 (15.9%)	Depression 268 (13.7%)	Depression 171 (10.3%)
Family relationships 1,058 (17.7%)	Dietary habits 236 (9.2%)	Dietary habits 249 (12.7%)	Exercise habit 333 (13.0%)	Exercise habit 293 (12.6%)	Exercise habit 243 (12.4%)	Exercise habit 141 (8.5%)
Living environment 1,049 (17.5%)	Anxiety over the future 235 (9.2%)	Exercise habits 245 (12.4%)	Dietary habits 272 (10.6%)	Dietary habits 270 (11.6%)	Dietary habits 238 (12.2%)	Dietary habits Anxiety over the future 116 each (7.0%)

* FY2011 is not included because the tabulation method was different from that for other years; the table starts with FY2012

*Contents of the total consultation cases.

Table 14: FY2024 detailed contents of the telephone support (adult)

Physical health	・The physician treating the respondent for hypertension has advised them to reduce their alcohol consumption, but they find it difficult to do so. ・The respondent has experienced lower back pain since childbirth and would like to know effective ways to relieve the pain. ・The respondent sought psychiatric care after experiencing health problems related to difficulties in relationships with colleagues at work.
Sleep	・The frequency of waking during the night has gradually increased with age. ・The respondent is sometimes awakened during the night while caring for a family member and finds it difficult to sleep because of concerns about this. ・The respondent wakes up early in the morning and does not feel that they have had a good night's sleep
Depression	・The respondent developed depression due to work-related stress and is currently on leave from ・The respondent feels depressed every winter, with symptoms improving as the weather becomes warmer. ・The respondent recently moved and has no acquaintances in the neighborhood, which has been contributing to a low mood.
Exercise habits	・The respondent stopped walking during the winter and subsequently gained weight ・The respondent and their spouse participate together in exercise sessions held at their housing complex ・The respondent has been physically inactive since retirement and would like advice on what type of exercise would be appropriate.
Dietary habits	・The respondents currently lives alone. They purchase prepared side dishes for dinner but do not eat many vegetables ・The respondent tends to eat more snacks when feeling stressed and was recently advised at a health checkup to pay more attention to their diet.
Anxiety over the future	・The respondent has been living alone, apart from their family, since the disaster and sometimes feels anxious, thinking, "What would happen if something happened to me?" ・The respondent is currently taking time off work due to illness and feels anxious about how long this situation will continue.

Telephone support included encouraging medical visits, providing lifestyle guidance, and offering psychoeducation. Table 15 shows the initial situation at the first telephone support session. Among the reasons for continuing support following telephone consultations, poor mental health was the most common (61 people), followed by poor physical health (60 people).

For further actions taken after the support, there was a case in which we shared information with municipalities and the Fukushima Center for Disaster Mental Health, and sent referral forms to see a registered physician.

Table 15: FY2024 results of the first telephone support for personal issues of adults

Classification		Continuous support needed		One time support		Details unknown		Support declined		Total
Overall		110	(6.6%)	1,391	(83.8%)	12	(0.7%)	146	(8.8%)	1,659
	Mental Health Survey	108	(8.1%)	1,110	(82.8%)	10	(0.8%)	111	(8.4%)	1,329
	Life Style Survey	2	(0.6%)	291	(88.2%)	2	(0.6%)	35	(10.6%)	330

・Continuous support needed

Those judged to need continuous support for poor physical condition, being gravely affected by the disaster, being unable to adapt to society or school, seeming isolated, or other concerns. Continuous support includes recommending consultation at healthcare/medical facilities and providing personal information to other support organizations.

・ One-time support:

Those for whom some improvements were seen in their physical conditions or living environment, and/or they were already in contact with support resources.

・Details unknown: No details were obtained (for various reasons).

・Declined support: Individuals who indicated that they did not require support through the survey questionnaire or the postcard returned.

5-2 Support by sending information brochures

For 1,504 participants (physical and mental health: 697, drinking problems: 807) who met Criteria III, we sent “The Mental Health and Lifestyle Habits Self-Support Book.”

5-3 Consultation by incoming call

During the support period in FY2024, there were 723 incoming calls to the "KOKOKARA CHOUSA Dial." The breakdown of incoming calls (857 in total) was as follows: 352 were returned calls from support candidates who were not available at the time of telephone support, 137 were consultations, 307 were inquiries about the survey, and 61 were for other reasons.

Regarding inquiries about the survey, most of them pertained to changes in basic information or instructions for completing the survey, the same as in FY2023, consistent with the previous year. Additionally, there were incoming calls for consultation throughout the year, regarding personal relationships at work and among friends or family.

5-4 Conclusions

In children’s support, telephone support was provided to 62 children in FY2024, accounting for 4.5% of respondents. The most common topics of consultation were “school-related concerns,” “daily life and habits,” and “anxiety about the future,” showing a trend similar to that of the previous fiscal year. Based on the results of the initial telephone support, continued support was deemed necessary for seven children (11.3%) because concerns remained regarding their physical or mental health, difficulties with school adjustment, or other issues.

In adult support, telephone support was provided to 1,659 individuals in FY2024, accounting for 5.7% of respondents. The most common topics of consultation were “physical health,” “sleep,” and “depression,” showing a trend similar to that of the previous fiscal year. Based on the results of the initial telephone support, continued support was deemed necessary for a total of 110 individuals (6.6%), comprising 108 individuals who received mental health telephone support and two who received lifestyle-related telephone support.

For both children and adults, when continued support was deemed necessary or requested by the individual, ongoing follow-up by telephone and information on available social resources were provided. When telephone support could not be provided, for example, because the individual could not be reached, the Center sent the Self-Support Book for Mental Health and Healthy Lifestyle, developed by the Center. The book encouraged individuals to self-check their physical and mental health and provided information on the dedicated telephone line for the survey and other consultation services.

6. FY2024 Mental Health and Lifestyle Survey
6-1 Ages 0 to 3

				Persons		Persons	Percentage
Response method			(Valid responses:	183)	・Paper	71	38.8%
					・Online	112	61.2%
Gender			(Valid responses:	183)	・Boys	90	49.2%
(Average age: 1.9 years old)					・Girls	93	50.8%
Residential location at the time of survey			(Valid responses:	183)	・Fukushima prefecture	177	96.7%
					・Outside the prefecture	6	3.3%
Q1 Health condition			(Valid responses:	183)	・Very good	104	56.8%
					・Good	56	30.6%
					・Fair	23	12.6%
					・Unsatisfactory	0	0.0%
					・Very unsatisfactory	0	0.0%
Q2 Height and weight							
Height	Boys	Age 1	(Valid responses:	27)	Average height	78.2 cm	
		Age 2	(Valid responses:	24)	Average height	87.6 cm	
		Age 3	(Valid responses:	32)	Average height	95.2 cm	
	Girls	Age 1	(Valid responses:	34)	Average height	77.1 cm	
		Age 2	(Valid responses:	29)	Average height	86.0 cm	
		Age 3	(Valid responses:	27)	Average height	92.7 cm	
weight	Boys	Age 1	(Valid responses:	31)	Average weight	10.4 kg	
		Age 2	(Valid responses:	25)	Average weight	12.2 kg	
		Age 3	(Valid responses:	33)	Average weight	14.6 kg	
	Girls	Age 1	(Valid responses:	35)	Average weight	9.8 kg	
		Age 2	(Valid responses:	29)	Average weight	11.9 kg	
		Age 3	(Valid responses:	28)	Average weight	13.7 kg	
Q3 Frequency of exercising			(Valid responses:	108)	・Almost everyday	73	67.6%
					・2-4 times a week	31	28.7%
					・Once a week	4	3.7%
					・Rarely	0	0.0%
Q4 Loss of confidence in child-rearing			(Valid responses:	183)	・Yes	31	16.9%
					・No	88	48.1%
					・Neither yes nor no	64	35.0%
Q5 Have concerns about child-rearing			(Valid responses:	183)	・Yes	25	13.7%
					・No	125	68.3%
					・Neither yes nor no	33	18.0%
Q6 Availability of consultation resource			(Valid responses:	183)			
Have someone to consult with about child rearing?					・Yes	177	96.7%
					・No	6	3.3%
					(Have no one or organization to consult)		
Q7 Influence of the COVID-19 pandemic			(Valid responses:	183)	・Not at all	131	71.6%
Did the COVID-19 affect your daily life?					・Not much	17	9.3%
					・To some extent	34	18.6%
					・Very much	1	0.5%

6-2 Ages 4 to 6

			Persons		Persons	Percentage
Response method		(Valid responses:	194)	・Paper	94	48.5%
				・Online	100	51.5%
Gender		(Valid responses:	194)	・Boys	93	47.9%
(Average age: 4.8 years old)				・Girls	101	52.1%
Residential location at the time of survey		(Valid responses:	194)	・Fukushima prefecture	188	96.9%
				・Outside the prefecture	6	3.1%
Q1 Health condition		(Valid responses:	193)	・Very good	99	51.3%
				・Good	62	32.1%
				・Fair	32	16.6%
				・Unsatisfactory	0	0.0%
				・Very unsatisfactory	0	0.0%
Q2 Height and weight						
Height Boys	Age 4	(Valid responses:	32)	Average height	102.7 cm	
	Age 5	(Valid responses:	28)	Average height	108.7 cm	
	Age 6	(Valid responses:	26)	Average height	115.7 cm	
Girls	Age 4	(Valid responses:	35)	Average height	102.2 cm	
	Age 5	(Valid responses:	37)	Average height	107.5 cm	
	Age 6	(Valid responses:	25)	Average height	115.2 cm	
Weight Boys	Age 4	(Valid responses:	33)	Average weight	16.4 kg	
	Age 5	(Valid responses:	28)	Average weight	18.4 kg	
	Age 6	(Valid responses:	29)	Average weight	22.1 kg	
Girls	Age 4	(Valid responses:	35)	Average weight	16.8 kg	
	Age 5	(Valid responses:	38)	Average weight	18.6 kg	
	Age 6	(Valid responses:	25)	Average weight	21.6 kg	
Q3 Frequency of exercising		(Valid responses:	193)	・Almost everyday	128	66.3%
				・2-4 times a week	44	22.8%
				・Once a week	15	7.8%
				・Rarely	6	3.1%
Q4 Child's emotion and behavior (SDQ)						
1) SDQ		(Valid responses:	193)	・Average score	9.2 point	
		(Valid responses:	93)	・Average score (Boys)	9.7 point	
		(Valid responses:	100)	・Average score (Girls)	8.6 point	
				・≥ 16 points	22	11.4%
				(Boys)	10	10.8%
				(Girls)	12	12.0%
		(Valid responses:	187)	(Fukushima prefecture)	21	11.2%
		(Valid responses:	6)	(Outside the prefecture)	1	16.7%
2) Developmental/psychological proble		(Valid responses:	192)	Yes	29	15.1%
				No	163	84.9%
Q5 Availability of consultation resources		(Valid responses:	193)			
Do you have someone to consult with about child rearing?				・Yes	185	95.9%
				・No (Have no one or organization to consult)	8	4.1%
Q6 Influence of the COVID-19 pandemic		(Valid responses:	193)	Not at all	142	73.6%
Is the COVID-19 affecting your daily life?				Not much	29	15.0%
				To some extent	17	8.8%
				Very much	5	2.6%

6-3 Elementary school students

			Persons		Persons	Percentage
Response method		(Valid responses:	514)	・Paper	238	46.3%
				・Online	276	53.7%
Gender		(Valid responses:	514)	・Boys	269	52.3%
(Average age: 9.4 years old)				・Girls	245	47.7%
Residential location at the time of survey		(Valid responses:	514)	・Fukushima prefecture	485	94.4%
				・Outside the prefecture	29	5.6%
Q1 Health condition		(Valid responses:	510)	・Very good	221	43.3%
				・Good	170	33.3%
				・Fair	112	22.0%
				・Unsatisfactory	7	1.4%
				・Very unsatisfactory	0	0.0%
Q2 Height and weight						
Height Boys	Grade 1	(Valid responses:	28)	Average height	122.7 cm	
	Grade 2	(Valid responses:	47)	Average height	126.1 cm	
	Grade 3	(Valid responses:	52)	Average height	133.3 cm	
	Grade 4	(Valid responses:	51)	Average height	138.7 cm	
	Grade 5	(Valid responses:	41)	Average height	146.2 cm	
	Grade 6	(Valid responses:	37)	Average height	151.1 cm	
Girls	Grade 1	(Valid responses:	35)	Average height	120.7 cm	
	Grade 2	(Valid responses:	36)	Average height	128.9 cm	
	Grade 3	(Valid responses:	35)	Average height	132.4 cm	
	Grade 4	(Valid responses:	46)	Average height	140.8 cm	
	Grade 5	(Valid responses:	43)	Average height	144.4 cm	
	Grade 6	(Valid responses:	39)	Average height	150.8 cm	
Weight Boys	Grade 1	(Valid responses:	28)	Average weight	24.8 kg	
	Grade 2	(Valid responses:	47)	Average weight	27.0 kg	
	Grade 3	(Valid responses:	52)	Average weight	32.3 kg	
	Grade 4	(Valid responses:	51)	Average weight	36.1 kg	
	Grade 5	(Valid responses:	41)	Average weight	42.3 kg	
	Grade 6	(Valid responses:	38)	Average weight	43.1 kg	
Girls	Grade 1	(Valid responses:	34)	Average weight	23.0 kg	
	Grade 2	(Valid responses:	36)	Average weight	27.9 kg	
	Grade 3	(Valid responses:	37)	Average weight	29.6 kg	
	Grade 4	(Valid responses:	46)	Average weight	35.4 kg	
	Grade 5	(Valid responses:	44)	Average weight	39.4 kg	
	Grade 6	(Valid responses:	39)	Average weight	43.9 kg	
Q3 Frequency of exercising		(Valid responses:	511)	・Almost everyday	67	13.1%
				・2-4 times a week	165	32.3%
				・Once a week	109	21.3%
				・Rarely	170	33.3%
Q4 Child's emotion and behavior (SDQ)						
1) SDQ		(Valid responses:	511)	Average score	8.1 point	
		(Valid responses:	268)	Average score (Boys)	8.5 point	
		(Valid responses:	243)	Average score (Girls)	7.6 point	
				・≥ 16 points	54	10.6%
				(Boys)	31	11.6%
				(Girls)	23	9.5%
		(Valid responses:	482)	(Fukushima prefecture)	51	10.6%
		(Valid responses:	29)	(Outside the prefecture)	3	10.3%
2) Developmental/psychological problems		(Valid responses:	509)	・Yes	88	17.3%
				・No	421	82.7%
Q5 Availability of consultation resources		(Valid responses:	510)			
Do you have someone to consult with about child rearing?				・Yes	491	96.3%
				・No (Have no one or organization to consult)	19	3.7%
Q6 Influence of the COVID-19 pandemic		(Valid responses:	509)	Not at all	389	76.4%
Is the COVID-19 affecting your daily life?				Not much	63	12.4%
				To some extent	52	10.2%
				Very much	5	1.0%

6-4 Junior high school students

				Persons)		Persons	Percentage
Response method			(Valid responses:	479)	・Paper	248	51.8%
					・Online	231	48.2%
Gender			(Valid responses:	479)	・Boys	226	47.2%
(Average age: 14.0 years old)					・Girls	253	52.8%
Residential location at the time of survey			(Valid responses:	479)	・Fukushima prefecture	379	79.1%
					・Outside the prefecture	100	20.9%
Q1 Health condition			(Valid responses:	348)	・Very good	117	33.6%
					・Good	111	31.9%
					・Fair	115	33.0%
					・Unsatisfactory	4	1.1%
					・Very unsatisfactory	1	0.3%
Q2 Height and weight							
Height	Boys	1年生	(Valid responses:	50)	Average height	158.8 cm	
		2年生	(Valid responses:	53)	Average height	163.1 cm	
		3年生	(Valid responses:	51)	Average height	169.2 cm	
	Girls	1年生	(Valid responses:	52)	Average height	153.9 cm	
		2年生	(Valid responses:	64)	Average height	155.9 cm	
		3年生	(Valid responses:	79)	Average height	155.7 cm	
Weight	Boys	1年生	(Valid responses:	49)	Average weight	48.9 kg	
		2年生	(Valid responses:	52)	Average weight	52.3 kg	
		3年生	(Valid responses:	51)	Average weight	57.2 kg	
	Girl	1年生	(Valid responses:	52)	Average weight	46.2 kg	
		2年生	(Valid responses:	64)	Average weight	49.1 kg	
		3年生	(Valid responses:	79)	Average weight	49.0 kg	
Q3 Frequency of exercising			(Valid responses:	350)	・Almost everyday	110	31.4%
					・2-4 times a week	64	18.3%
					・Once a week	41	11.7%
					・Rarely	135	38.6%
Q4 Influence of the COVID-19 pandemic			(Valid responses:	350)	・Not at all	173	49.4%
Is the COVID-19 affecting your daily life?					・Not much	118	33.7%
(From the perspective of the respondents)					・To some extent	55	15.7%
					・Very much	4	1.1%
Q4 Child's emotion and behavior (SDQ)							
1) SDQ			(Valid responses:	470)	Average score	7.6 point	
			(Valid responses:	222)	Average score (Boys)	8.1 point	
			(Valid responses:	248)	Average score (Girls)	7.3 point	
					・≥ 16 points	45	9.6%
					(Boys)	23	10.4%
					(Girls)	22	8.9%
			(Valid responses:	373)	(Fukushima prefecture)	35	9.4%
			(Valid responses:	97)	(Outside the prefecture)	10	10.3%
2) Developmental/psychological problems			(Valid responses:	466)	Yes	71	15.2%
					No	395	84.8%
Q5 Availability of consultation resources			(Valid responses:	468)			
Do you have someone to consult with about child rearing?					・Yes	448	95.7%
					・No	20	4.3%
					(Have no one or organization to consult)		
Q4 Influence of the COVID-19 pandemic			(Valid responses:	468)	・Not at all	319	68.2%
Is the COVID-19 affecting your daily life?					・Not much	96	20.5%
(From the perspective of the parents/gordians)					・To some extent	44	9.4%
					・Very much	9	1.9%

6-5 Adults

			Persons			Persons	Percentage
Response method		(Valid responses:	28,795)	・Paper		21,473	74.6%
				・Online		7,322	25.4%
Gender		(Valid responses:	28,795)	・Male		13,758	47.8%
(Average age: 64.9 years old)				・Female		15,037	52.2%
Residential location at the time of survey		(Valid responses:	28,795)	・Fukushima prefecture		24,674	85.7%
				・Outside the prefecture		4,121	14.3%
Q1 Health condition		(Valid responses:	26,514)	・Very good		1,676	6.3%
				・Good		6,162	23.2%
				・Fair		15,287	57.7%
				・Unsatisfactory		3,103	11.7%
				・Very unsatisfactory		286	1.1%
	Ages 16 - 39	(Valid responses:	2,878)	・Very good		600	20.8%
				・Good		926	32.2%
				・Fair		1,132	39.3%
				・Unsatisfactory		194	6.7%
				・Very unsatisfactory		26	0.9%
	Ages 40 - 64	(Valid responses:	7,119)	・Very good		535	7.5%
				・Good		1,873	26.3%
				・Fair		3,871	54.4%
				・Unsatisfactory		760	10.7%
				・Very unsatisfactory		80	1.1%
	65 and older	(Valid responses:	16,517)	・Very good		541	3.3%
				・Good		3,363	20.4%
				・Fair		10,284	62.3%
				・Unsatisfactory		2,149	13.0%
				・Very unsatisfactory		180	1.1%
Q2 Height and weight							
Height	Male	(Valid responses:	13,614)	Average height		166.6	cm
	Female	(Valid responses:	14,705)	Average height		153.7	cm
Weight	Male	(Valid responses:	13,608)	Average weight		67.2	kg
	Female	(Valid responses:	14,734)	Average weight		54.5	kg
BMI	Male	(Valid responses:	13,574)	Average BMI		24.2	kg/m^2
	Female	(Valid responses:	14,626)	Average BMI		23.1	kg/m^2
Q3 Past Medical history							
1) Hypertension (or high blood pressure)		(Valid responses:	27,917)	・No		14,605	52.3%
				・Yes		13,312	47.7%
					(Currently under treatment)	12,098	91.7%
					(Not under treatment)	1,097	8.3%
2) Diabetes (or uncontrolled blood sugar)		(Valid responses:	27,461)	・No		22,486	81.9%
				・Yes		4,975	18.1%
					(Currently under treatment)	4,567	93.0%
					(Not under treatment)	344	7.0%
3) Mental disorder		(Valid responses:	27,468)	・No		24,760	90.1%
				・Yes		2,708	9.9%
					(Currently under treatment)	1,991	74.9%
					(Currently not under treatment as symptoms have improved)	436	16.4%
					(Not under treatment)	232	8.7%
4) Health check history for the past year		(Valid responses:	27,908)	・Yes		21,512	77.1%
				・No		6,396	22.9%

		Persons		Persons	Percentage
Q4 Sleeping habits	(Valid responses:	26,361)	・Sufficient	10,219	38.8%
(Sleep satisfaction level)			・Slightly Sufficient	12,620	47.9%
			・Very insufficient	3,113	11.8%
			・Greatly insufficient	409	1.6%
Q5 Frequency of exercising	(Valid responses:	28,330)	・Almost everyday	4,775	16.9%
			・2-4 times a week	7,632	26.9%
			・Once a week	5,448	19.2%
			・Rarely	10,475	37.0%
Fukushima prefecture	(Valid responses:	24,255)	・Almost everyday	4,176	17.2%
			・2-4 times a week	6,569	27.1%
			・Once a week	4,638	19.1%
			・Rarely	8,872	36.6%
Outside the prefecture	(Valid responses:	4,075)	・Almost everyday	599	14.7%
			・2-4 times a week	1,063	26.1%
			・Once a week	810	19.9%
			・Rarely	1,603	39.3%
Q6 Living conditions					
1) Current place of residence	(Valid responses:	28,419)	・Fukushima prefecture	24,111	84.8%
			・Outside the prefecture	4,308	15.2%
2) Do you currently live alone?	(Valid responses:	28,396)	・Yes	5,341	18.8%
			・No	23,055	81.2%
2) Do you currently work?	(Valid responses:	28,335)	・Yes (have work/under employment)	11,444	40.4%
			・No (incl. students, homemakers, etc.)	16,891	59.6%
Q7 Smoking	(Valid responses:	27,351)	・Never smoked	15,569	56.9%
			・Quit	8,198	30.0%
			・Yes	3,584	13.1%
	(Valid responses:	13,277)	(Male)	2,757	20.8%
	(Valid responses:	14,074)	(Female)	827	5.9%

		Persons		Persons	Percentage
Q8 Alcohol					
1) Drinking habit	(Valid responses:	27,179)	・No, or rarely	14,623	53.8%
			・I quit	1,542	5.7%
			・Yes (Once a month or more)	11,014	40.5%
2) Experiences related to alcohol					
1. Have you ever felt the necessity of cut back on drinking?			・No	7,672	73.6%
	(Valid responses:	10,429)	・Yes	2,757	26.4%
2.Have you ever felt offended because others accused you of drinking？			・No	9,806	94.1%
	(Valid responses:	10,419)	・Yes	613	5.9%
3. Have you felt guilty about drinking？			・No	9,454	90.7%
	(Valid responses:	10,418)	・Yes	964	9.3%
4. Have you ever had another drink in the morning to cure a hangover?			・No	9,879	94.8%
	(Valid responses:	10,416)	・Yes	537	5.2%
			・CAGE2点以上	1,126	10.9%
	(Valid responses:	7,181)	(Male)	935	13.0%
	(Valid responses:	3,182)	(Female)	191	6.0%
Male	(Valid responses:	447)	(Ages 20 - 39)	55	12.3%
	(Valid responses:	2,056)	(Ages 40 - 64)	318	15.5%
	(Valid responses:	4,678)	(65 snd older)	562	12.0%
Female	(Valid responses:	492)	(Ages 20 - 39)	44	8.9%
	(Valid responses:	1,292)	(Ages 40 - 64)	98	7.6%
	(Valid responses:	1,398)	(65 snd older)	49	3.5%
Male	(Valid responses:	6,245)	(Fukushima prefecture)	799	12.8%
	(Valid responses:	936)	(Outside the prefecture)	136	14.5%
Female	(Valid responses:	2,550)	(Fukushima prefecture)	140	5.5%
	(Valid responses:	632)	(Outside the prefecture)	51	8.1%
Q9 General mental health status: Kessler psychological distress scale (K6)					
	(Valid responses:	25,285)	Average score	3.9 point	
	(Valid responses:	12,217)	Average score (Male)	3.7 point	
	(Valid responses:	13,068)	Average score (Female)	4.2 point	
			・≥ 13 points	1,351	5.3%
	(Valid responses:	12,217)	(Male)	624	5.1%
	(Valid responses:	13,068)	(Female)	727	5.6%
	(Valid responses:	2,872)	(Ages 20 - 39)	281	9.8%
	(Valid responses:	7,053)	(Ages 40 - 64)	513	7.3%
	(Valid responses:	15,360)	(65 snd older)	557	3.6%
	(Valid responses:	21,650)	(Fukushima prefecture)	1,095	5.1%
	(Valid responses:	3,635)	(Outside the prefecture)	256	7.0%

		Persons		Persons	Percentage
Q10	Influence of the COVID-19 pandemic				
	Impact on daily life	(Valid responses 27,621)	・Not at all	14,622	52.9%
			・Not much	7,259	26.3%
			・To some extent	4,850	17.6%
			・Very much	890	3.2%
	Male	(Valid responses 13,321)	・Not at all	7,041	52.9%
			・Not much	3,545	26.6%
			・To some extent	2,317	17.4%
			・Very much	418	3.1%
	Female	(Valid responses 14,300)	・Not at all	7,581	53.0%
			・Not much	3,714	26.0%
			・To some extent	2,533	17.7%
			・Very much	472	3.3%
	Ages 16 - 39	(Valid responses 3,249)	・Not at all	2,147	66.1%
			・Not much	496	15.3%
			・To some extent	502	15.5%
			・Very much	104	3.2%
	Ages 40 - 64	(Valid responses 7,371)	・Not at all	4,049	54.9%
			・Not much	1,654	22.4%
			・To some extent	1,373	18.6%
			・Very much	295	4.0%
	65 and older	(Valid responses 17,001)	・Not at all	8,426	49.6%
			・Not much	5,109	30.1%
			・To some extent	2,975	17.5%
			・Very much	491	2.9%
	K6 13点以上	(Valid responses 19,409)	・Not at all / Not much	715	3.7%
		(Valid responses 5,053)	・To some extent / Very much	561	11.1%
	Interfering event during COVID-19 pandemic		・Deterioration of health status	4,433	-
	*Multiple answers allowed		・Deterioration of a family member's health status	3,308	-
			・Nursing care for a family member	1,312	-
			・Got divorced/separated from the partner	123	-
			・Started living apart from the family	268	-
			・Death of a family member	709	-
			・Death of a loved one other than family members	1,294	-
			・Started working or changed jobs	230	-
			・Lost a job	172	-
			・Retired or quit a job	221	-
			・Worsening financial conditions	2,254	-
			・Increased interpersonal problems	664	-
			・Other significant event	743	-

			Persons	Persons	Percentage
Q11	Risk perception of radiation health effects				
1) Risk perception of radiation health effects		(Valid responses: 25,921)			
How will current radiation exposure affect future generations?			・Very low	7,770	30.0%
			・Low	13,247	51.1%
			・High	4,168	16.1%
			・Very high	736	2.8%
	Fukushima prefecture	(Valid responses: 22,204)	・Very low	6,684	30.1%
			・Low	11,506	51.8%
			・High	3,452	15.5%
			・Very high	562	2.5%
	Outside the prefecture	(Valid responses: 3,717)	・Very low	1,086	29.2%
			・Low	1,741	46.8%
			・High	716	19.3%
			・Very high	174	4.7%
2) Interference with daily life		(Valid responses: 26,119)	・Frequently	381	1.5%
In the past month, how often have you had trouble with daily life because of radiation concerns?			・Sometimes	1,363	5.2%
			・Rarely	2,949	11.3%
			・Never	21,426	82.0%
Q12	Availability of consultation resources	(Valid responses: 28,206)	・Yes	23,416	83.0%
Do you have someone to consult with or talk about you mental/physical problems			・No (Have no one or organization to consult)	4,790	17.0%

FY2026 Mental Health and Lifestyle Survey (*KOKOKARA Survey*) of the Fukushima Health Management Survey, Implementation Plan (Draft)

1 Purpose

To monitor changes in mental health and lifestyle, a questionnaire survey will be conducted, and support will be provided by telephone, etc., to respondents who are considered to be in need. Effective support will be provided in cooperation with municipalities and other institutions.

2 Eligible Persons

- Those who were registered as residents in the area (*) from March 11, 2011, to April 1, 2012 (even after moving out of the area)
- Those who were registered as residents in the area (*) as of April 1, 2026
- In addition to the above, those deemed necessary, based on results of the Basic Survey

Number of eligible persons: 205,518 (as of July 1, 2026)

*Covered areas: Municipalities designated as evacuation zones in 2011

Hirono Town, Naraha Town, Tomioka Town, Kawauchi Village, Okuma Town, Futaba Town, Namie Town, Katsurao Village, Iitate Village, Minamisoma City, Tamura City, Kawamata Town, and part of Date City (areas where evacuation is recommended)

3 Implementation Plan

The same detailed survey will be conducted as was conducted from FY2021 to FY2024.

3-1 Survey method

a. Questionnaire: Answers by the respondents or their guardians (self-administered)

Survey Classification

Classification	Eligible persons	Remarks
0-3 years old	Those born between April 2, 2023, and April 1, 2026	Answered by Parent/Guardian
4 to 6 years old	Those born between April 2, 2020, and April 1, 2023	Answered by Parent/Guardian
Elementary school students	Those born between April 2, 2014, and April 1, 2020	Answered by Parent/Guardian
Junior high school students	Those born between April 2, 2011, and April 1, 2014	Parent/Guardian (partially by themselves)
General	Those born before April 1, 2011	Themselves

b. Date of survey: Sent sequentially from the end of January 2027

c. Method of survey response: By mail or online (PC, smartphone, etc.)

3-2 Main survey items

a. Current mental and physical health status

b. Lifestyle habits (diet, sleep, exercise, smoking, drinking, etc.)

4 Support efforts

4-1 The responses will be evaluated and analyzed by doctors and other professionals of Fukushima Medical University (hereinafter referred to as "FMU"). If it is determined that consultation and support are necessary from a mental health and lifestyle perspective, the *KOKOKARA Health Support Team*, consisting of professionals such as certified psychologists, public health nurses, etc., will provide telephone support.

4-2 If it is determined through telephone support that a doctor's consultation is necessary, the team will refer the patient to a registered doctor (**) at a medical institution in the prefecture (**Refer to "About Registered Doctors"). In cases where continuous support is necessary, the team will consider and provide necessary support in cooperation with the respective municipality.

4-3 If the registered doctor determines that further mental health care is necessary, FMU and/or other institutions will respond to the request.

4-4 If the *KOKOKARA Health Support Team* receives a consultation on radiation, follow-up with a relevant specialist is recommended. The radiation health consultation team, consisting of FMU faculty members, will respond to the request. Additionally, in cases where a direct examination is required during health consultations related to the effects of radiation, consider responding with doctors or other professionals.

4-5 Survey respondents are sent an “Individual Results Report” providing information to help them understand their mental health and lifestyle status and manage their own health.

Information on the dedicated telephone helpline established by FMU for the Mental Health and Lifestyle Survey (*KOKOKARA Survey*) is also provided when the survey is announced and when individual results are sent. The helpline provides consultations on mental and physical health, as well as information on available consultation services for mental health concerns, anxiety, loneliness, alcohol-related issues, family problems, and child-rearing. These efforts aim to enhance the consultation and support environment for health-related concerns among Fukushima residents.

** About registered physicians

If, based on the Mental Health and Lifestyle Survey, it is determined that consultation with a psychiatrist, pediatrician, or other specialist is necessary, appropriately registered doctors provide the consultation.

<Credentials and conditions required for registration>

Conditions include that the doctors must have completed a training course organized by or accredited by FMU or a recognized credentialing authority.

<Number of registrations>

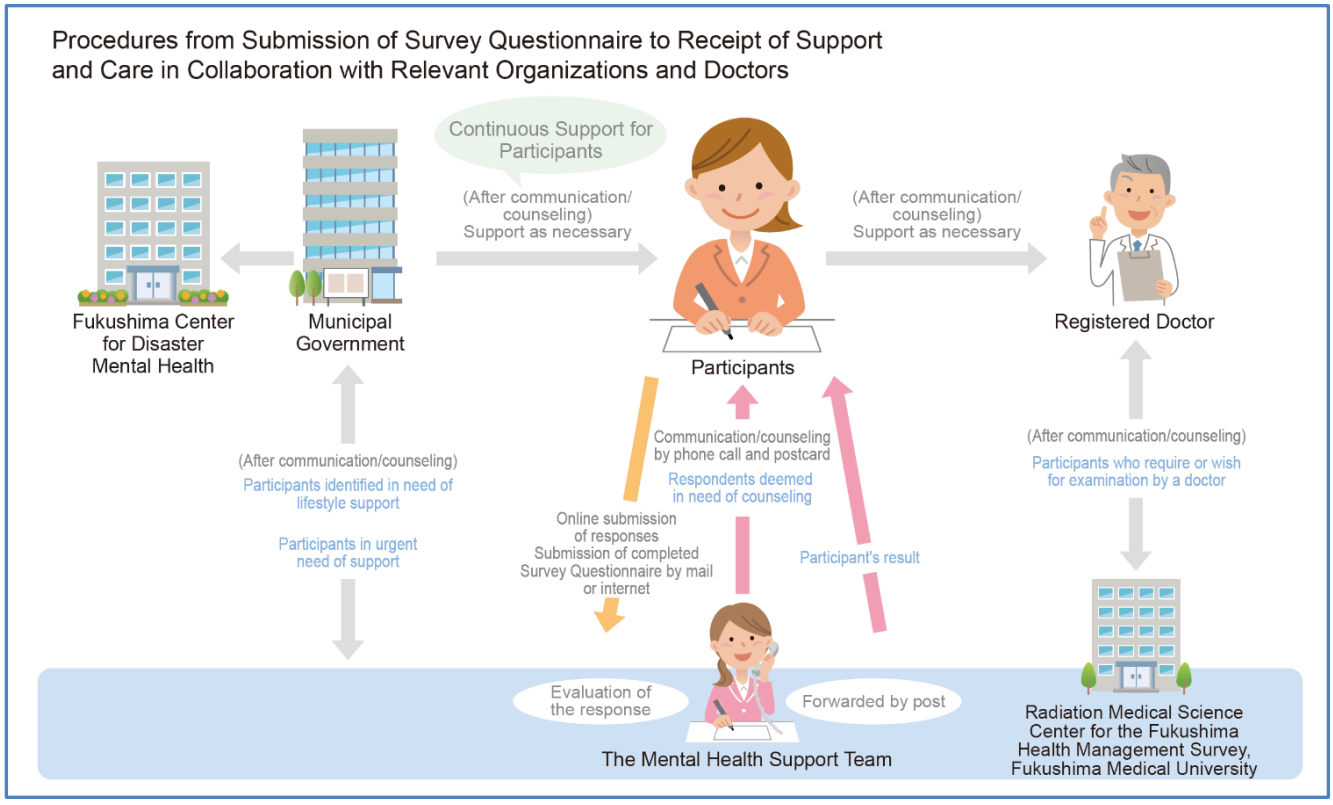
111 doctors (75 medical institutions) (as of July 1, 2026)

5 Draft Schedule

Description	2027										
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Sending out questionnaires		→									
Collecting questionnaires and data entry		→	→	→	→	→	→	→	→	→	→
Sending out personal results (those who responded by August 2027)							→	→	→		
Provide consultation		→	→	→	→	→	→	→	→	→	→

6 Process flow of the survey and support

The figure below shows the process flow of the Survey and the support



7 Reference

The methods used in the Mental Health and Lifestyle Survey (*KOKOKARA Survey*) are described below.

Descriptions	Measurement tool	How each tool operates	Examples (questions or descriptions)
Depression or the degree of anxiety (general mental health)	K6	- The respondents are asked to answer how often they felt depressed or anxious in the past 30 days for each of the six items related to mood swings and anxiety. - The questions are for those aged 16 years and older [general]. -The scores of the six items related to mood disorder and anxiety are evaluated to assess whether or not they interfere with the daily life of the respondents. - If the score is 13 or more, the possibility of a mood or anxiety disorder is considered to be present.	- Did you feel irritable? - Do you feel hopeless?
Drinking	CAGE	- Respondents were asked to answer either "Yes" or "No" to four items related to their drinking habits in the past 30 days. -The questions are for those aged 20 and older. - The questions assess whether the respondents have experienced problematic drinking behavior. - A score of 2 or more points indicates the possibility of high-risk drinking.	- Have you ever felt the need to reduce drinking? - Have you ever been bothered by others' criticism of your drinking?
Children's Mental Health	SDQ	- The respondents are asked to indicate the degree to which each of the 25 items relates to their children's emotional and behavioral status over the past six months. - The questions are for children aged 4 to 15 (4-6 years old, elementary school students, and junior high school students). - The scores of the respondents are used to determine whether or not they need professional support. - Scores of 16 or higher are considered to indicate the need for specialized support.	(Answered by parents/guardians) -Sensitive to other people's feelings. -Restless. -Cannot stay still.

FY2026 Mental Health and Lifestyle Survey (*KOKOKARA Survey*) of the Fukushima Health Management Survey Questionnaires (Draft)

Description	Remarks
[Draft Questionnaire] Ages 0 - 3	No English version is available
[Draft Questionnaire] Ages 0 - 3	No English version is available
[Draft Questionnaire] Elementary School Student	No English version is available
[Draft Questionnaire] Junior High School Student	No English version is available
[Draft Questionnaire] Adults (ages 16 and older)	Available in English for reference purposes only.

FY2026 Fukushima Health Management Survey

Mental Health and Lifestyle Survey

(*KOKOKARA* Survey)

(for ages 16 and older)

Fukushima Medical University,
Fukushima Prefecture

Thank you for your participation in this Survey

A To respond online via the internet, please use the two-dimensional code on the right ➡

B To respond using this form, please fill it out below.

⬇ ＊ Please choose response methods A or B.

Online response is also available

Please fill in the fields below and put a check ✔ in any box □ that applies.

Date of Entry: (MM/DD/YY)	Respondent: 1☐ Self 2☐ Representative (Relationship)
Name	Gender: 1☐ Male 2☐ Female
Date of birth: (MM/DD/YY)	
Parent/Guardian Signature (If the participant is under 18 years old, please provide the guardian's signature and information in the consent to this survey.) (Signature of parent/guardian) _____ Relationship to the participant: 1☐ Mother 2☐ Father 3☐ Grandparent 4☐ Other ( ) Parent/guardian's date of birth: (MM/DD/YY)	
(Change of mailing address) *Results notifications will also be sent to the above address. If you wish to change your address, please fill in this field. Postal Code Address:	
Contact information Please provide a number that is easy to reach during the daytime, as our support team may contact you. Telephone number: _____	

Please answer the following questions.

Q1. How is your current health condition? (check one)

1□ Very Good 2□ Good 3□ Normal 4□ Poor 5□ Very bad

Q2. Please tell us about your current height and weight.

Height cm Weight kg

Q3. Have you ever been <u>diagnosed by a doctor</u> with any of the following diseases?

1) Hypertension (or high blood pressure)

1□ No 2□ Yes → Are you currently under medical care? 1☐ Yes 2□ No

2) Diabetes (or high blood sugar)

1□ No 2□ Yes → Are you currently under medical care? 1☐ Yes 2□ No

3) Mental health conditions
(as diagnosed by a doctor, e.g., depression, sleep disorder, panic disorder, schizophrenia, etc.)

1□ No 2□ Yes → Are you currently under medical care?
1□ Yes
2□ No, because I am currently improving
3□ No

4) Have you had any medical checkups (physical examinations or health checkups) or comprehensive physical examinations in the past year?

1□ Yes 2□ No

Q4 Questions about your sleeping habits.

During the past month, have you been satisfied with the quality of your sleep (regardless of how long you sleep)? (check one)

1□ Satisfied 2□ Slightly dissatisfied 3□ Fairly dissatisfied 4□ Very dissatisfied or no sleep at all

Q5 Do you exercise regularly? (check one)

1□ Almost every day 2□ 2-4 times a week

3□ About once a week 4□ Rarely

Q6 Questions about your current living situation.

1) Please answer the following questions about your current residence. (check one)

$_1$☐ In Fukushima Prefecture $_2$☐ Outside Fukushima Prefecture

2) Do you live alone?

$_1$☐ Yes $_2$☐ No

3) Are you currently employed?

$_1$☐ Yes (Employed)

$_2$☐ No (Unemployed, including students and housewives/househusbands)

↓

Please answer questions 7-8 below only if you are 20 years old or older.
<u>If you are under 20 years old, please go to Q9.</u>

Q7 Do you smoke (including e-cigarettes)? (check one)

$_1$☐ Never smoked $_2$☐ I quit $_3$☐ I smoke

Q8 Questions about alcohol consumption.

1) Do you drink alcohol? (check one)

$_1$☐ No, I don't drink (or less than once in a month $_2$☐ Quit

↓ ↓

Go to Q9.

$_3$☐ Yes, I drink more than once in a month

↓

Go to 2).

2) Looking back over the past 30 days, please answer the following

		No	Yes
1	Have you ever felt the need to reduce your alcohol consumption?	$_1$☐	$_2$☐
2	Have you ever been bothered by others criticizing your drinking?	$_1$☐	$_2$☐
3	Have you ever felt bad or sorry about your drinking?	$_1$☐	$_2$☐
4	Have you ever had a drink in the morning to calm your nerves or cure a hangover?	$_1$☐	$_2$☐

Q9 In the past 30 days, how often did you experience any of the following? Please circle the number that applies.

		Never	Rarely	Sometimes	Often	Always
1	Did you feel nervous?	0	1	2	3	4
2	Did you feel hopeless?	0	1	2	3	4
3	Did you feel fidgety or restless?	0	1	2	3	4
4	Did you feel down and depressed?	0	1	2	3	4
5	Did you feel tired of doing anything?	0	1	2	3	4
6	Did you feel you were worthless?	0	1	2	3	4

Q10 Questions about your thoughts on the effects of radiation.

It is said that in the case of a disaster caused by something like radiation, which we cannot sense with our five senses, how we perceive possible health risks will greatly affect our mental health.

1) How do you feel (think) about the effects of radiation on your health? Please circle the number that best fits your perception.

	A: Very unlikely B: Low possibility C: High possibility D: Very likely	A	B	C	D
1	How likely do you think it is that the radiation exposure you are currently receiving will cause health problems (such as cancer) later in life?	1	2	3	4
2	How much do you think that current radiation exposure will affect the health of future generations (your children and grandchildren, etc.)?	1	2	3	4

2) During the past month, how often have you found difficulties in your daily life due to concerns about radiation? (check one)

$_1$□ Often $_2$□ Sometimes $_3$□ Rarely $_4$□ Never

Q11 Do you have a person or organization you can go to when you're having mental or physical problems?

$_1$□ Yes $_2$□ No, there is no person or organization I can consult.

Please write below if you have any comments about your health, concerns, or opinions about the survey. We will use this information as a reference for future health care and surveys.

[ ]

This concludes the questionnaire. Thank you very much for your cooperation.

Report on the TUE Full-Scale Survey (sixth-round survey)

As of March 31, 2026

1. Summary

1.1 Purpose

To monitor the long-term health of children, we are continuing the Full-Scale Survey (sixth-round survey), following the Preliminary Baseline Survey for initial assessment of thyroid glands, and prior Full-Scale Surveys (from the second-round survey to the fifth-round survey) to continuously assess thyroid gland status.

1.2 Eligible persons

All Fukushima residents who were approximately 18 years old or younger at the time of the earthquake (those born between April 2, 1992, and April 1, 2012).

1.3 Implementation Period

FY2023 and FY2024, starting in April 2023:

1.3-1 For those 18 years old or younger

The examination was carried out for 2 years: FY2023 and FY2024.

1.3-2 For those 19 years old or older

The examination was conducted on an age-group basis (i.e., school grade).

FY2023: those born between FY2000 to FY2003

FY2024: those born in FY2004

1.3-3 For those 25 years old or older

Those older than 20 are recommended to receive the examination every 5 years at the ages of 25, 30, and so on (Age 25 and Age 30 Surveys).

FY2023: those born in FY1993 and FY1998

FY2024: those born in FY1994 and FY1999

Results of the survey for those 25 years and older will be reported separately.

1.4 Implementing Organizations (number of medical facilities with agreements for the implementation of thyroid examinations as of March 31, 2026)

Fukushima Prefecture commissioned Fukushima Medical University (FMU) to survey in cooperation with organizations inside and outside Fukushima for the convenience of participants.

1.4-1 Primary examination facilities

In Fukushima Prefecture	83 medical facilities
Outside Fukushima Prefecture	162 medical facilities

1.4-2 Confirmatory examination facilities

In Fukushima Prefecture	7 medical facilities, including FMU
Outside Fukushima Prefecture	47 medical facilities

1.5 Methods

1.5-1 Primary examination

Ultrasonography of the thyroid gland.

Assessments are made by specialists based on the following criteria:

- Grade A

A1: No nodules/cysts

A2: Nodules ≤ 5.0 mm or cysts ≤ 20.0 mm

- Grade B

B: Nodules ≥ 5.1 mm or cysts ≥ 20.1 mm

Some A2 results may be reclassified as B results when clinically indicated.

-Grade C

C: Urgent need for confirmatory examination, judging from the condition of the thyroid gland.

1.5-2 Confirmatory examination

Ultrasonography of the thyroid gland, blood and urine tests, and fine needle aspiration cytology (FNAC) if needed for those with B or C test results.

Priority is given to those in urgent clinical need. A medical follow-up may be recommended based on confirmatory exam results.

1.5-3 Flow chart

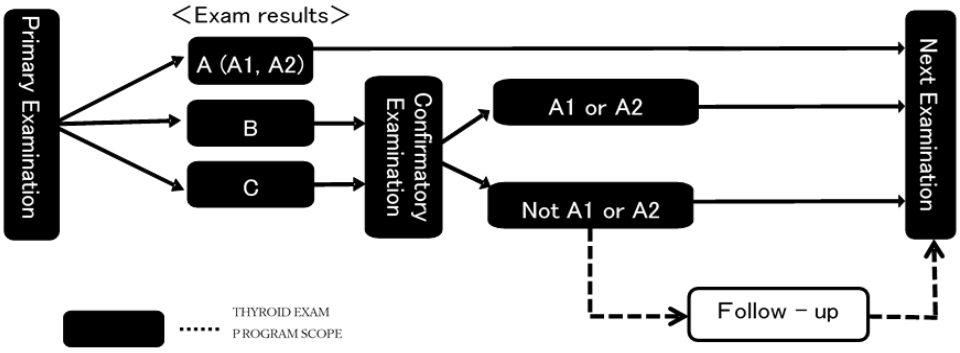


Figure 1: Flow chart

1.6 Municipalities Surveyed

The municipalities where examinations (for those 18 years old or younger) were carried out in FY2023 and FY2024 are as follows:

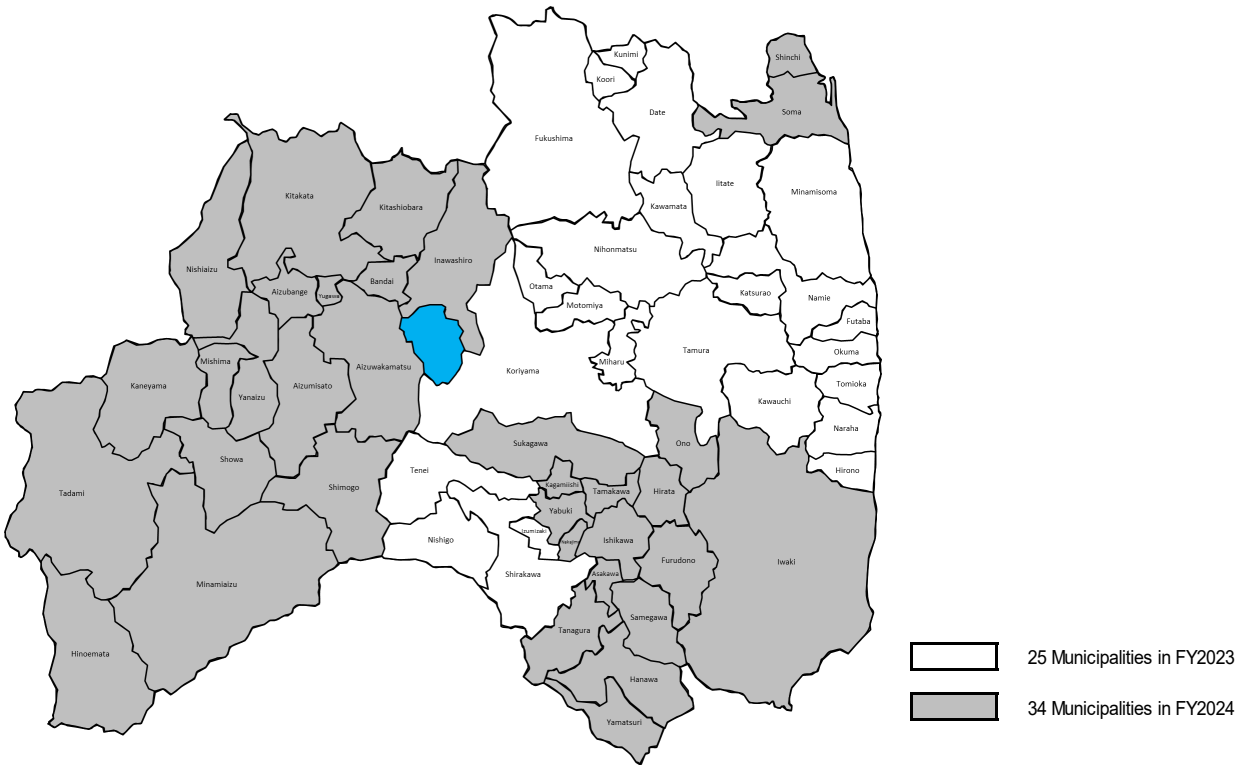


Figure 2: Municipalities covered for primary examinations in FY2023 and FY2024

2. Results as of March 31, 2026

2.1 Results of the Primary Examination

2.1-1 Implementation status

The primary examination was completed for 69,032 participants (32.6%) by March 31, 2026. (Refer to Appendix 1 for the status by municipalities in Fukushima, and Appendix 2 for prefectures outside Fukushima.)

The results for 69,025 (100.0%) participants have been finalized, and individual reports have been sent to them. (Refer to Appendix 3 for the primary examination results by municipality.)

Of these, 18,512 (26.8%) had Grade A1 results, 49,523 (71.7%) had Grade A2, 990 (1.4%) had Grade B, and none had Grade C.

Table 1: Progress and results of the primary examination

	Eligible persons	Participants (persons)			Participants with finalized results (persons)									
			Participation rate (%)	Those who participated outside Fukushima		Judgment rate (%)	Details by grade (%)							
							A				Those referred to confirmatory exam			
							A1		A2		B		C	
	a	b	(b/a)		c	(c/b)	d	(d/c)	e	(e/c)	f	(f/c)	g	(g/c)
FY2023	121,816	41,757	(34.3)	3,144	41,754	(100.0)	11,235	(26.9)	29,952	(71.7)	567	(1.4)	0	(0.0)
FY2024	90,112	27,275	(30.3)	1,401	27,271	(100.0)	7,277	(26.7)	19,571	(71.8)	423	(1.6)	0	(0.0)
Total	211,928	69,032	(32.6)	4,545	69,025	(100.0)	18,512	(26.8)	49,523	(71.7)	990	(1.4)	0	(0.0)

Table 2: Number and proportion of participants with nodules/cysts (See Appendix 4 for details.)

	Participants with finalized results	Participants with nodules / cysts (%)							
		Nodules				Cysts			
		≥ 5.1mm		≤ 5.0mm		≥ 20.1mm		≤ 20.0mm	
	a	b	(b/a)	c	(c/a)	d	(d/a)	e	(e/a)
FY2023	41,754	563	(1.3)	275	(0.7)	4	(0.0)	30,283	(72.5)
FY2024	27,271	420	(1.5)	211	(0.8)	3	(0.0)	19,795	(72.6)
Total	69,025	983	(1.4)	486	(0.7)	7	(0.0)	50,078	(72.6)

- Proportions are rounded to a lower decimal place. This applies to other tables as well.
- Those who receive the examination at 5-year intervals (born between FY1992 and FY1999) are excluded. The results of examinations at 5-year intervals (Age 25 and Age 30 Surveys) will be reported separately.
- Examinations for those born in FY1993 (approx. 22,000) and FY1998 (approx. 21,000) took place in FY2023. Examinations for those born in FY1994 (approx. 22,000) and FY1999 (approx. 20,000) were carried out in FY2024.

2.1-2 Participation rate by age group

Table 3 shows the participation rate for each age group as of April 1 of each fiscal year.

Table 3: Participation rates by age group

			Total	Age group		
FY2023	Age group*			11 years old	12 to 17 years old	18 to 24 years old
	Eligible persons	(a)	121,816	8,422	58,639	54,755
	Participants	(b)	41,757	5,192	33,158	3,407
	Participation rate (%)	(b/a)	34.3	61.6	56.5	6.2
FY2024	Age group*				12 to 17 years old	18 to 24 years old
	Eligible persons	(a)	90,112		41,674	48,438
	Participants	(b)	27,275		23,576	3,699
	Participation rate (%)	(b/a)	30.3		56.6	7.6
Total	Eligible persons	(a)	211,928	8,422	100,313	103,193
	Participants	(b)	69,032	5,192	56,734	7,106
	Participation rate (%)	(b/a)	32.6	61.6	56.6	6.9

* Age groups are based on ages as of April 1 of each fiscal year.

2.1-3 Comparison of the fifth- and sixth-round survey results

Table 4 compares the results of the two Full-Scale Surveys (fifth- and sixth-round surveys).

Among 61,484 (sum of *1) participants with Grade A1 and A2 results in the fifth-round survey, 61,019 (sum of *2, 99.2%) had Grade A results, and 465 (sum of *3, 0.8%) had Grade B results in the sixth-round survey.

Among 513 participants with Grade B results in the fifth-round survey, 112 (sum of *4, 21.8%) had Grade A results, and 401 (78.2%) had Grade B results in the sixth-round survey.

Table 4: Comparison of the fifth- and sixth-round surveys

			Results of the fifth-round survey*	Results of the sixth-round survey**			
				A		B	C
			a (%)	A1 b (b/a)	A2 c (c/a)	d (d/a)	e (e/a)
Results of the fifth-round survey	A	A1	*1 16,866 (100.0)	*2 12,124 (71.9)	*2 4,660 (27.6)	*3 82 (0.5)	0 (0.0)
		A2	*1 44,618 (100.0)	*2 4,358 (9.8)	*2 39,877 (89.4)	*3 383 (0.9)	0 (0.0)
	B		513 (100.0)	*4 10 (1.9)	*4 102 (19.9)	401 (78.2)	0 (0.0)
	C		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Did not participate		7,028 (100.0)	2,020 (28.7)	4,884 (69.5)	124 (1.8)	0 (0.0)
Total			69,025 (100.0)	18,512 (26.8)	49,523 (71.7)	990 (1.4)	0 (0.0)

* The figures in the upper row indicate the number of participants whose results from the sixth-round survey correspond to their results from the fifth-round survey; they do not represent a breakdown of all results from the fifth-round survey.

** The upper row shows the distribution of the sixth-round survey results in relation to the fifth-round survey results (number of participants). The lower row shows the corresponding proportions (%).

2.2 Results of the Confirmatory Examination

2.2-1 Implementation status

By March 31, 2026, of 990 eligible persons, 819 (82.7%) had participated in the confirmatory examination, and 799 (97.6%) had completed the entire procedure.

Of those 799 participants, 58 (A1: 2, A2: 56) (7.3%) were confirmed to meet A1 or A2 diagnostic criteria by primary examination standards (including those with other thyroid conditions). After the detailed examination, 741 (92.7%) were confirmed to fall outside the A1 or A2 criteria.

Table 5: Progress and results of the confirmatory examination

	Those referred to confirmatory exams	Participants (persons)		Those with finalized results (persons)									
			Participation rate (%)		Determination rate (%)	A1		A2		Other than A1 or A2			
												FNAC	
	a	b	(b/a)	c	(c/b)	d	(d/c)	e	(e/c)	f	(f/c)	g	(g/f)
FY2023	567	472	(83.2)	461	(97.7)	1	(0.2)	36	(7.8)	424	(92.0)	30	(7.1)
FY2024	423	347	(82.0)	338	(97.4)	1	(0.3)	20	(5.9)	317	(93.8)	26	(8.2)
Total	990	819	(82.7)	799	(97.6)	2	(0.3)	56	(7.0)	741	(92.7)	56	(7.6)

2.2-2 Results of fine needle aspiration cytology (FNAC)

Among those who underwent FNAC, 24 participants were diagnosed with lesions that were malignant or suspicious for malignancy: 6 were male, and 18 were female. Participants' ages at the confirmatory examination ranged from 12 to 23 years (mean age: 17.6 ± 2.9 years). The tumor diameters ranged from 8.2 mm to 20.3 mm (mean tumor diameter: 14.1 ± 3.7 mm).
Of these 24 participants, 14 had Grade A (A1: 5, A2: 9), 5 had Grade B results in the fifth-round survey, and the remaining 5 did not participate. Among the 9 participants with Grade A2, 7 met the nodule criteria, and 2 met both the cyst and nodule criteria.

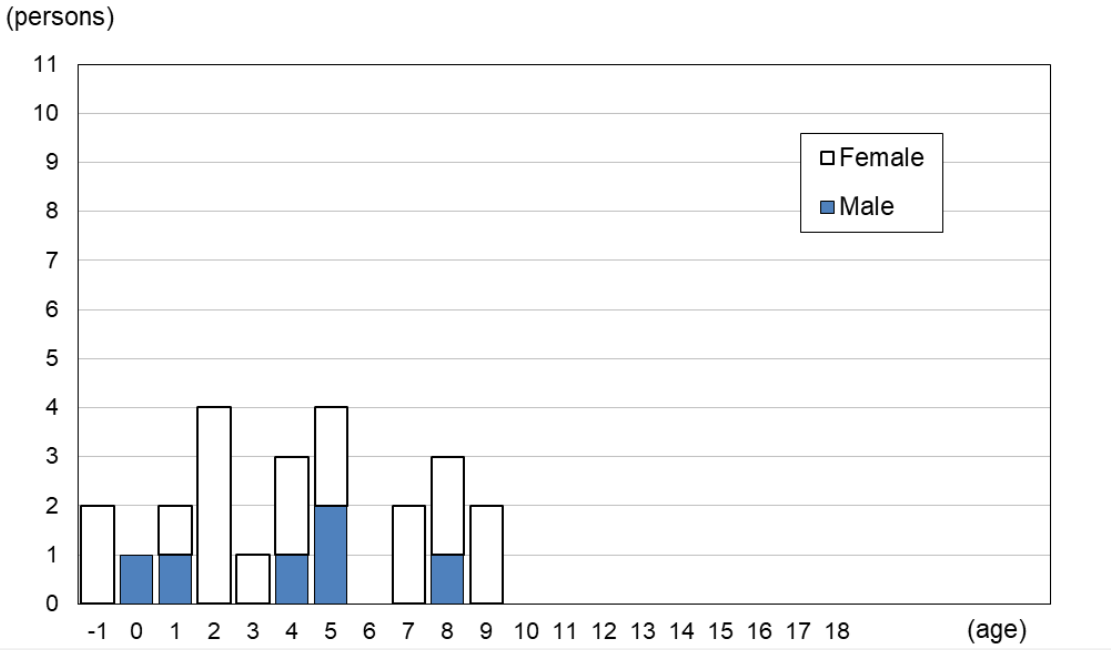
Table 6: Results of FNAC
(The mean age and mean tumor size in parentheses indicate the range.)

1. FY2023: Those referred to confirmatory examination at the sixth-round survey
   - Malignant or suspicious for malignancy 15*
   - Male to female ratio 6:9
   - Mean age ± SD (min-max) 17.8 ± 2.9 (12–21)
     4.8 ± 2.7 (0–9) at the time of the earthquake
   - Mean tumor size ± SD (min-max) 12.9 ± 3.8 mm (8.2–20.3 mm)
2. FY2024: Those referred to confirmatory examination at the sixth-round survey
   - Malignant or suspicious for malignancy 9*
   - Male to female ratio 0:9
   - Mean age ± SD (min-max) 17.2 ± 3.2 (13–23)
     3.2 ± 3.2 (0–9) at the time of the earthquake
   - Mean tumor size ± SD (min-max) 16.0 ± 2.9 mm (11.3–20.1 mm)
3. Total
   - Malignant or suspicious for malignancy 24*
   - Male to female ratio 6:18
   - Mean age ± SD (min-max) 17.6 ± 2.9 (12–23)
     4.2 ± 3.0 (0–9) at the time of the earthquake
   - Mean tumor size ± SD (min-max) 14.1 ± 3.7 mm (8.2–20.3 mm)

*Refer to Appendix 5 for surgical cases.

2.2-3 Age distribution of malignant or suspected malignant cases diagnosed by FNAC

Figure 3 shows the age distribution of 24 participants with malignant or suspected malignant nodules based on their age as of March 11, 2011. Figure 4 shows the age distribution based on age at the time of the confirmatory examination.



Note: Those aged 11 to 18 at the time of the disaster are not included among the sixth-round survey participants.
The horizontal axis begins at -1, including those born between April 2, 2011, and April 1, 2012.
*Those born between March 12 and April 1, 2011, are included in age 0.

Figure 3: Age distributions as of March 11, 2011

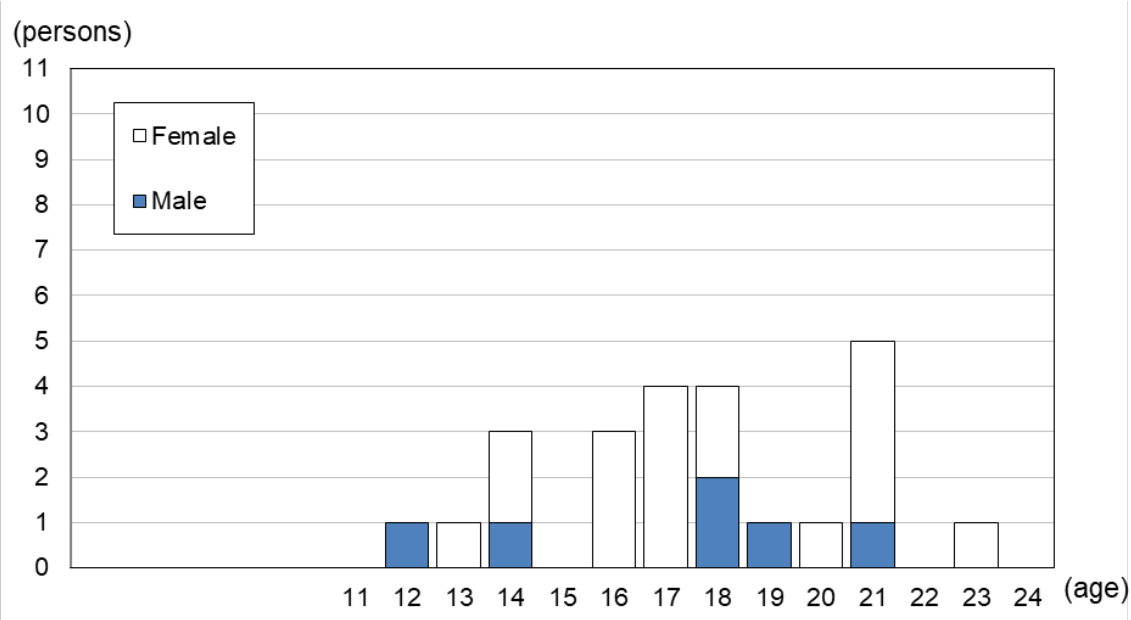


Figure 4: Age distributions as of the date of confirmatory examination

2.2-4 Basic Survey results for cases deemed malignant or suspicious for malignancy by FNAC

Of those 24 people with malignant or suspicious findings, 19 (79.2%) had participated in the Basic Survey (for external radiation exposure dose estimation), and all 19 participants received their results. The highest effective dose documented was 1.9 mSv.

Table 7: A breakdown of dose estimates for Basic Survey participants

Effective dose (mSv)	Age at the time of the earthquake									
	0–5		6–10		11–15		16–18		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
< 1	1	7	1	3	0	0	0	0	2	10
< 2	2	2	0	3	0	0	0	0	2	5
< 5	0	0	0	0	0	0	0	0	0	0
< 10	0	0	0	0	0	0	0	0	0	0
< 20	0	0	0	0	0	0	0	0	0	0
≥ 20	0	0	0	0	0	0	0	0	0	0
Total	3	9	1	6	0	0	0	0	4	15

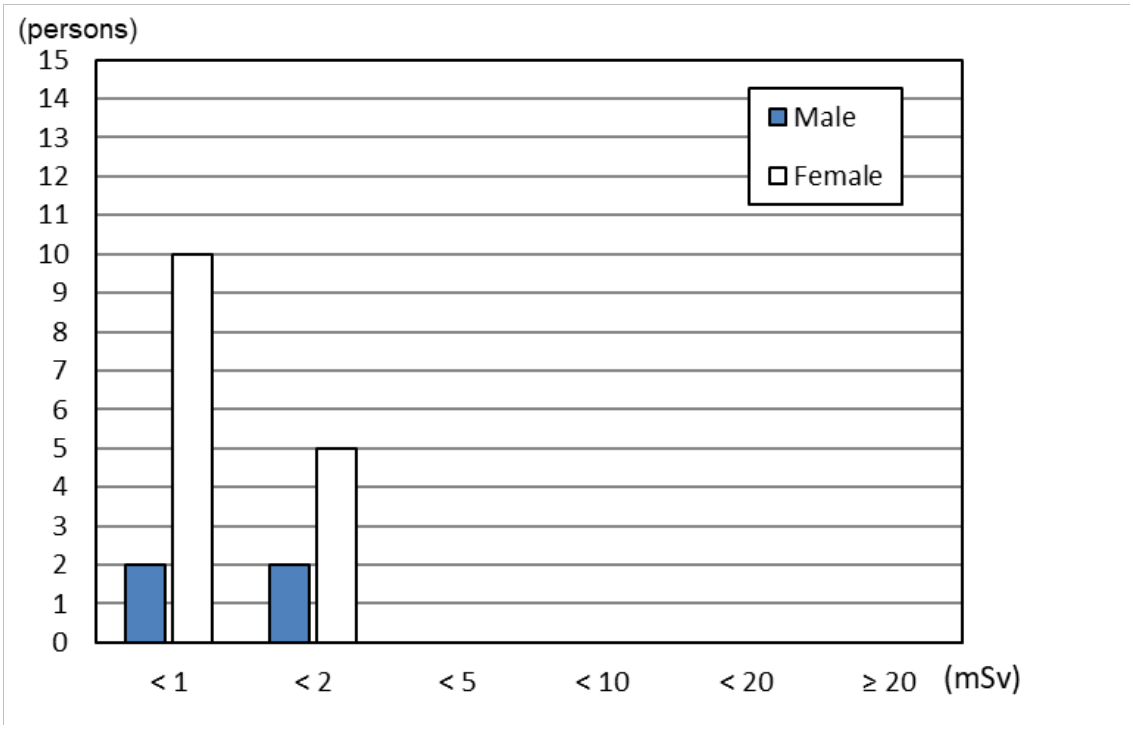


Figure 5: Effective dose distribution of the Basic Survey participants

2.2-5 Blood test and urinary iodine test results

Table 8: Blood test results

	FT4[1] (ng/dL)	FT3[2] (pg/mL)	TSH[3] (μIU/mL)	Tg[4] (ng/mL)	TgAb[5] (IU/mL)	TPOAb[6] (IU/mL)
Reference Range	0.95–1.74[7]	2.13–4.07[7]	0.340–3.880[7]	≤ 33.7	< 28.0	< 16.0
Malignant or suspicious : 24	1.2±0.2 (4.2%)	3.4±0.5 (25.0%)	2.1±2.4 (8.3%)	28.5±28.5 (37.5%)	25.0%	29.2%
Other : 679	1.3±0.2 (6.5%)	3.6±0.5 (7.2%)	1.3±1.9 (9.4%)	29.2±128.8 (15.2%)	9.7%	11.8%

Table 9: Urinary iodine test results [8]

(μg/day)

	Minimum	25th percentile	Median	75th percentile	Maximum
Malignant or suspicious : 18	78	129	279	415	757
Other : 362	32	115	186	342	5,521

1) FT4: free thyroxine, thyroid hormone binding 4 iodines; higher among patients with thyrotoxicosis (such as Graves' disease) and lower with hypothyroidism (such as Hashimoto's thyroiditis).
2) FT3: free triiodothyronine, thyroid hormone binding 3 iodines; higher among patients with thyrotoxicosis (such as Graves' disease) and lower with hypothyroidism (such as Hashimoto's thyroiditis).
3) TSH: thyroid-stimulating hormone; higher among patients with Hashimoto's disease and lower with Graves' disease.
4) Tg: thyroglobulin; higher when thyroid tissue is destroyed or when neoplastic tissue produces thyroglobulin.
5) TgAb: anti-thyroglobulin antibody; higher among patients with Hashimoto's disease or Graves' disease.
6) TPOAb: anti-thyroid peroxidase antibody; higher among patients with Hashimoto's disease or Graves' disease.
7) Reference intervals vary according to age.
8) Due to a temporary unavailability of reagents, urinary iodine tests had been suspended from March 8, 2024, to January 19, 2025, but resumed on January 20, 2025.

3. Mental health care

We provide the following support for thyroid examination participants.

3.1 Support for Primary Examination participants

After the examination, medical doctors offer person-to-person explanations of examination results, showing ultrasound images in private consultation booths at examination venues set up in public facilities.

Consultation booths were set up at all venues for examinations conducted in and after April 2023; as of March 31, 2026, all 1,573 participants (100%) have visited these consultation booths.

3.2 Outreach programs (on-site lectures and information sessions at the sixth-round survey)

To help examination participants deepen their understanding of the Thyroid Ultrasound Examination, we conduct on-site educational sessions. From April 2023 to the end of March 2025, we delivered 13 on-site sessions (5 at elementary schools, 6 at junior high schools, and 2 at high schools) for 1,257 students. In total, 16,950 people have participated since these sessions began.

3.3 Support for Confirmatory Examination participants

Fukushima Medical University has established a support team to provide mental health support to those undergoing the confirmatory (secondary) examination, address their concerns and anxiety, and answer questions and provide guidance via web consultation.

Since the start of the sixth-round survey, 269 participants (92 males and 177 females) have received support as of March 31, 2026. The total number of support sessions, including telephone counseling, was 419. Of these, 269 (64.2%) received support during their first examination, and 150 (35.8%) during subsequent examinations.

For those who proceed to regular insured medical care, the support team continues to provide support in cooperation with teams of medical staff at hospitals.

Appendix 1: Implementation status of the TUE primary examination by municipality

As of March 31, 2026

	Number of eligible persons	Participants (persons)		Participation rate (%)	Number of participants and participation rate by age group[2)]			Participants living outside Fukushima	%
	a	b	Participated outside Fukushima[1)]	b/a	11	12–17	18–24	c[3)]	c/b
Municipalities surveyed in FY2023									
Kawamata	1,282	400	10	31.2	29 7.3	331 82.8	40 10.0	12	3.0
Namie	2,063	550	100	26.7	29 5.3	391 71.1	130 23.6	112	20.4
Iitate	620	185	6	29.8	10 5.4	142 76.8	33 17.8	5	2.7
Minamisoma	7,560	2,082	305	27.5	163 7.8	1,570 75.4	349 16.8	342	16.4
Date	6,096	2,322	91	38.1	201 8.7	1,791 77.1	330 14.2	98	4.2
Tamura	3,783	1,307	34	34.5	108 8.3	1,029 78.7	170 13.0	34	2.6
Hirono	538	168	10	31.2	10 6.0	124 73.8	34 20.2	14	8.3
Naraha	766	212	17	27.7	4 1.9	157 74.1	51 24.1	19	9.0
Tomioka	1,640	434	60	26.5	17 3.9	317 73.0	100 23.0	58	13.4
Kawauchi	192	58	2	30.2	1 1.7	42 72.4	15 25.9	3	5.2
Okuma	1,521	424	69	27.9	14 3.3	316 74.5	94 22.2	72	17.0
Futaba	718	139	19	19.4	4 2.9	104 74.8	31 22.3	21	15.1
Katsurao	126	34	2	27.0	3 8.8	22 64.7	9 26.5	3	8.8
Fukushima	31,364	11,210	855	35.7	666 5.9	9,026 80.5	1,518 13.5	892	8.0
Nihonmatsu	5,779	2,085	97	36.1	167 8.0	1,687 80.9	231 11.1	107	5.1
Motomiya	3,566	1,253	46	35.1	105 8.4	979 78.1	169 13.5	47	3.8
Otama	951	403	5	42.4	28 6.9	321 79.7	54 13.4	9	2.2
Koriyama	38,694	13,280	1,169	34.3	282 2.1	10,927 82.3	2,071 15.6	1,187	8.9
Koori	1,139	480	20	42.1	48 10.0	354 73.8	78 16.3	23	4.8
Kunimi	827	293	11	35.4	16 5.5	227 77.5	50 17.1	10	3.4
Tenei	621	195	8	31.4	9 4.6	155 79.5	31 15.9	7	3.6
Shirakawa	7,161	2,644	145	36.9	120 4.5	2,131 80.6	393 14.9	144	5.4
Nishigo	2,410	844	41	35.0	36 4.3	692 82.0	116 13.7	37	4.4
Izumizaki	759	222	4	29.2	7 3.2	189 85.1	26 11.7	1	0.5
Miharu	1,640	533	18	32.5	18 3.4	434 81.4	81 15.2	18	3.4
Subtotal	121,816	41,757	3,144	34.3	2,095 5.0	33,458 80.1	6,204 14.9	3,275	7.8

*1) The number of participants who received the examination at facilities outside Fukushima (as of February 28, 2026).

*2) Split cells show the number of participants above the corresponding percentage.

*3) The number of participants who have resident registration outside Fukushima.

・Age groups are based on participants' age at the Full-Scale Survey (sixth-round survey). This applies to other tables as well.

	Number of eligible persons	Participants (persons)	Participated outside Fukushima[1]	Participation rate (%)	Number of participants and participation rate by age group[2]			Participants living outside Fukushima	%
	a	b		b/a	11	12–17	18–24	c[3]	c/b
Municipalities surveyed in FY2024									
Iwaki	35,488	11,339	759	32.0	18	8,691	2,630	708	6.2
					0.2	76.6	23.2		
Sukagawa	8,982	2,827	114	31.5	7	2,286	534	111	3.9
					0.2	80.9	18.9		
Soma	4,020	1,009	102	25.1	9	809	191	108	10.7
					0.9	80.2	18.9		
Kagamiishi	1,550	502	16	32.4	0	413	89	15	3.0
					0.0	82.3	17.7		
Shinchi	827	249	16	30.1	1	183	65	16	6.4
					0.4	73.5	26.1		
Nakajima	586	153	0	26.1	0	136	17	1	0.7
					0.0	88.9	11.1		
Yabuki	1,975	617	19	31.2	2	509	106	13	2.1
					0.3	82.5	17.2		
Ishikawa	1,535	494	12	32.2	2	417	75	12	2.4
					0.4	84.4	15.2		
Yamatsuri	564	199	13	35.3	0	166	33	11	5.5
					0.0	83.4	16.6		
Asakawa	768	232	11	30.2	0	188	44	9	3.9
					0.0	81.0	19.0		
Hirata	692	225	5	32.5	0	192	33	4	1.8
					0.0	85.3	14.7		
Tanagura	1,707	542	18	31.8	2	459	81	11	2.0
					0.4	84.7	14.9		
Hanawa	866	248	14	28.6	1	204	43	9	3.6
					0.4	82.3	17.3		
Samegawa	385	119	1	30.9	1	106	12	3	2.5
					0.8	89.1	10.1		
Ono	1,044	311	6	29.8	1	265	45	5	1.6
					0.3	85.2	14.5		
Tamakawa	774	209	6	27.0	1	167	41	2	1.0
					0.5	79.9	19.6		
Furudono	571	212	8	37.1	0	168	44	5	2.4
					0.0	79.2	20.8		
Hinoemata	58	5	0	8.6	0	5	0	0	0.0
					0.0	100.0	0.0		
Minamiaizu	1,483	374	10	25.2	0	328	46	10	2.7
					0.0	87.7	12.3		
Kaneyama	90	27	0	30.0	0	21	6	0	0.0
					0.0	77.8	22.2		
Showa	89	22	1	24.7	0	20	2	1	4.5
					0.0	90.9	9.1		
Mishima	106	27	0	25.5	0	21	6	0	0.0
					0.0	77.8	22.2		
Shimogo	527	115	2	21.8	0	101	14	3	2.6
					0.0	87.8	12.2		
Kitakata	4,942	1,380	35	27.9	2	1,173	205	33	2.4
					0.1	85.0	14.9		
Nishiaizu	491	127	5	25.9	0	109	18	4	3.1
					0.0	85.8	14.2		
Tadami	401	119	4	29.7	1	103	15	4	3.4
					0.8	86.6	12.6		
Inawashiro	1,467	429	16	29.2	1	359	69	13	3.0
					0.2	83.7	16.1		
Bandai	357	110	5	30.8	0	88	22	6	5.5
					0.0	80.0	20.0		
Kitashiobara	324	106	2	32.7	0	92	14	3	2.8
					0.0	86.8	13.2		
Aizumisato	1,953	579	11	29.6	0	479	100	11	1.9
					0.0	82.7	17.3		
Aizubange	1,671	470	12	28.1	2	389	79	11	2.3
					0.4	82.8	16.8		
Yanaizu	326	89	0	27.3	0	82	7	1	1.1
					0.0	92.1	7.9		
Aizuwakamatsu	13,118	3,681	176	28.1	8	2,984	689	182	4.9
					0.2	81.1	18.7		
Yugawa	375	128	2	34.1	0	98	30	2	1.6
					0.0	76.6	23.4		
Subtotal	90,112	27,275	1,401	30.3	59	21,811	5,405	1,327	4.9
					0.2	80.0	19.8		
Total	211,928	69,032	4,545	32.6	2,154	55,269	11,609	4,602	6.7
					3.1	80.1	16.8		

Appendix 2: Implementation status of the TUE primary examination by prefecture

As of March 31, 2026

Prefecture	Number of medical facilities	Participants (persons) *Note
Hokkaido	7	**113**
Aomori	3	**56**
Iwate	4	**103**
Miyagi	2	**1,097**
Akita	1	**77**
Yamagata	3	**177**
Ibaraki	6	**252**
Tochigi	9	**333**
Gunma	2	**68**
Saitama	5	**238**
Chiba	5	**124**
Tokyo	25	**822**
Kanagawa	10	**296**
Niigata	3	**164**
Toyama	2	**10**
Ishikawa	2	**6**

Prefecture	Number of medical facilities	Participants (persons) *Note
Fukui	1	**12**
Yamanashi	2	**39**
Nagano	4	**71**
Gifu	2	**16**
Shizuoka	3	**44**
Aichi	6	**84**
Mie	1	**9**
Shiga	1	**7**
Kyoto	4	**21**
Osaka	10	**60**
Hyogo	3	**56**
Nara	4	**16**
Wakayama	1	**2**
Tottori	1	**0**
Shimane	1	**4**
Okayama	3	**25**

Prefecture	Number of medical facilities	Participants (persons) *Note
Hiroshima	2	**15**
Yamaguchi	1	**5**
Tokushima	2	**5**
Kagawa	1	**6**
Ehime	4	**11**
Kochi	2	**8**
Fukuoka	4	**28**
Saga	1	**2**
Nagasaki	3	**12**
Kumamoto	1	**11**
Oita	1	**13**
Miyazaki	1	**11**
Kagoshima	2	**3**
Okinawa	1	**13**
Total	162	**4,545**

*Note: The number of participants examined at medical facilities outside Fukushima Prefecture (as of February 28, 2026).

Appendix 3: TUE primary examination results by the municipality

As of March 31, 2026

	a. Number of participants (persons)	b. Those with finalized results (persons)	Number of participants by grade (persons)				Number of participants with nodules (persons)		Number of participants with cysts (persons)	
			Percentages by grade (%)							
			A		B	C	Percentage (%)		Percentage (%)	
		b/a (%)	A1	A2			≥5.1mm	≤5.0mm	≥20.1mm	≤20.0m
Municipalities surveyed in FY2023										
Kawamata	400	400	95	298	7	0	7	3	0	303
		100.0	23.8	74.5	1.8	0.0	1.8	0.8	0.0	75.8
Namie	550	550	155	388	7	0	6	9	1	389
		100.0	28.2	70.5	1.3	0.0	1.1	1.6	0.2	70.7
Iitate	185	185	46	136	3	0	3	0	0	139
		100.0	24.9	73.5	1.6	0.0	1.6	0.0	0.0	75.1
Minamisoma	2,082	2082	544	1505	33	0	33	12	0	1,526
		100.0	26.1	72.3	1.6	0.0	1.6	0.6	0.0	73.3
Date	2,322	2,322	581	1,713	28	0	28	21	0	1,728
		100.0	25.0	73.8	1.2	0.0	1.2	0.9	0.0	74.4
Tamura	1,307	1,307	365	927	15	0	15	8	0	935
		100.0	27.9	70.9	1.1	0.0	1.1	0.6	0.0	71.5
Hirono	168	168	51	113	4	0	4	1	0	115
		100.0	30.4	67.3	2.4	0.0	2.4	0.6	0.0	68.5
Naraha	212	212	55	155	2	0	2	2	0	154
		100.0	25.9	73.1	0.9	0.0	0.9	0.9	0.0	72.6
Tomioka	434	434	115	314	5	0	5	4	0	319
		100.0	26.5	72.4	1.2	0.0	1.2	0.9	0.0	73.5
Kawauchi	58	58	17	40	1	0	1	0	0	41
		100.0	29.3	69.0	1.7	0.0	1.7	0.0	0.0	70.7
Okuma	424	424	122	293	9	0	9	4	0	297
		100.0	28.8	69.1	2.1	0.0	2.1	0.9	0.0	70.0
Futaba	139	139	38	101	0	0	0	1	0	100
		100.0	27.3	72.7	0.0	0.0	0.0	0.7	0.0	71.9
Katsurao	34	34	8	26	0	0	0	0	0	26
		100.0	23.5	76.5	0.0	0.0	0.0	0.0	0.0	76.5
Fukushima	11,210	11,208	3,075	7,984	149	0	147	64	2	8,067
		100.0	27.4	71.2	1.3	0.0	1.3	0.6	0.0	72.0
Nihonmatsu	2,085	2,085	631	1,426	28	0	28	10	0	1,447
		100.0	30.3	68.4	1.3	0.0	1.3	0.5	0.0	69.4
Motomiya	1,253	1,253	355	883	15	0	15	6	0	891
		100.0	28.3	70.5	1.2	0.0	1.2	0.5	0.0	71.1
Otama	403	403	112	280	11	0	11	2	0	286
		100.0	27.8	69.5	2.7	0.0	2.7	0.5	0.0	71.0
Koriyama	13,280	13,280	3,509	9,591	180	0	179	81	1	9,706
		100.0	26.4	72.2	1.4	0.0	1.3	0.6	0.0	73.1
Koori	480	480	133	339	8	0	8	4	0	344
		100.0	27.7	70.6	1.7	0.0	1.7	0.8	0.0	71.7
Kunimi	293	293	90	193	10	0	10	2	0	199
		100.0	30.7	65.9	3.4	0.0	3.4	0.7	0.0	67.9
Tenei	195	194	44	148	2	0	2	2	0	149
		99.5	22.7	76.3	1.0	0.0	1.0	1.0	0.0	76.8
Shirakawa	2,644	2,644	663	1,949	32	0	32	22	0	1,961
		100.0	25.1	73.7	1.2	0.0	1.2	0.8	0.0	74.2
Nishigo	844	844	232	601	11	0	11	9	0	609
		100.0	27.5	71.2	1.3	0.0	1.3	1.1	0.0	72.2
Izumizaki	222	222	62	157	3	0	3	2	0	159
		100.0	27.9	70.7	1.4	0.0	1.4	0.9	0.0	71.6
Miharu	533	533	137	392	4	0	4	6	0	393
		100.0	25.7	73.5	0.8	0.0	0.8	1.1	0.0	73.7
Subtotal	41,757	41,754	11,235	29,952	567	0	563	275	4	30,283
		100.0	26.9	71.7	1.4	0.0	1.3	0.7	0.0	72.5

	a. Number of participants (persons)	b. Those with finalized results (persons)	Number of participants by grade (persons)				Number of participants with nodules (persons)		Number of participants with cysts (persons)	
			Percentages by grade (%)							
			A		B	C	Percentage (%)		Percentage (%)	
		b/a (%)	A1	A2			≥5.1mm	≤5.0mm	≥20.1mm	≤20.0m
Municipalities surveyed in FY2024										
Iwaki	11,339	11,336	3,137	8,025	174	0	173	83	1	8,112
		100.0	27.7	70.8	1.5	0.0	1.5	0.7	0.0	71.6
Sukagawa	2,827	2,826	746	2,026	54	0	54	17	0	2,060
		100.0	26.4	71.7	1.9	0.0	1.9	0.6	0.0	72.9
Soma	1,009	1,009	268	722	19	0	19	12	0	731
		100.0	26.6	71.6	1.9	0.0	1.9	1.2	0.0	72.4
Kagamiishi	502	502	126	371	5	0	5	0	0	375
		100.0	25.1	73.9	1.0	0.0	1.0	0.0	0.0	74.7
Shinchi	249	249	68	174	7	0	7	2	0	177
		100.0	27.3	69.9	2.8	0.0	2.8	0.8	0.0	71.1
Nakajima	153	153	44	109	0	0	0	1	0	109
		100.0	28.8	71.2	0.0	0.0	0.0	0.7	0.0	71.2
Yabuki	617	617	174	434	9	0	9	3	0	439
		100.0	28.2	70.3	1.5	0.0	1.5	0.5	0.0	71.2
Ishikawa	494	494	122	362	10	0	9	6	1	366
		100.0	24.7	73.3	2.0	0.0	1.8	1.2	0.2	74.1
Yamatsuri	199	199	47	151	1	0	1	5	0	152
		100.0	23.6	75.9	0.5	0.0	0.5	2.5	0.0	76.4
Asakawa	232	232	60	169	3	0	3	2	0	171
		100.0	25.9	72.8	1.3	0.0	1.3	0.9	0.0	73.7
Hirata	225	225	54	166	5	0	5	3	0	170
		100.0	24.0	73.8	2.2	0.0	2.2	1.3	0.0	75.6
Tanagura	542	542	136	398	8	0	8	4	0	404
		100.0	25.1	73.4	1.5	0.0	1.5	0.7	0.0	74.5
Hanawa	248	248	73	173	2	0	2	5	0	173
		100.0	29.4	69.8	0.8	0.0	0.8	2.0	0.0	69.8
Samegawa	119	119	37	80	2	0	2	1	0	82
		100.0	31.1	67.2	1.7	0.0	1.7	0.8	0.0	68.9
Ono	311	311	76	229	6	0	6	2	0	233
		100.0	24.4	73.6	1.9	0.0	1.9	0.6	0.0	74.9
Tamakawa	209	209	60	145	4	0	4	2	0	147
		100.0	28.7	69.4	1.9	0.0	1.9	1.0	0.0	70.3
Furudono	212	212	57	151	4	0	4	1	0	154
		100.0	26.9	71.2	1.9	0.0	1.9	0.5	0.0	72.6
Hinoemata	5	5	2	3	0	0	0	1	0	3
		100.0	40.0	60.0	0.0	0.0	0.0	20.0	0.0	60.0
Minamiaizu	374	374	107	261	6	0	6	3	0	266
		100.0	28.6	69.8	1.6	0.0	1.6	0.8	0.0	71.1
Kaneyama	27	27	8	19	0	0	0	0	0	19
		100.0	29.6	70.4	0.0	0.0	0.0	0.0	0.0	70.4
Showa	22	22	9	13	0	0	0	0	0	13
		100.0	40.9	59.1	0.0	0.0	0.0	0.0	0.0	59.1
Mishima	27	27	4	23	0	0	0	0	0	23
		100.0	14.8	85.2	0.0	0.0	0.0	0.0	0.0	85.2
Shimogo	115	115	33	81	1	0	1	1	0	80
		100.0	28.7	70.4	0.9	0.0	0.9	0.9	0.0	69.6
Kitakata	1,380	1,380	339	1,025	16	0	16	14	0	1,025
		100.0	24.6	74.3	1.2	0.0	1.2	1.0	0.0	74.3
Nishiaizu	127	127	20	105	2	0	2	1	0	107
		100.0	15.7	82.7	1.6	0.0	1.6	0.8	0.0	84.3
Tadami	119	119	23	93	3	0	3	2	0	94
		100.0	19.3	78.2	2.5	0.0	2.5	1.7	0.0	79.0
Inawashiro	429	429	129	294	6	0	5	1	1	296
		100.0	30.1	68.5	1.4	0.0	1.2	0.2	0.2	69.0
Bandai	110	110	29	80	1	0	1	1	0	80
		100.0	26.4	72.7	0.9	0.0	0.9	0.9	0.0	72.7
Kitashiobara	106	106	23	82	1	0	1	1	0	82
		100.0	21.7	77.4	0.9	0.0	0.9	0.9	0.0	77.4
Aizumisato	579	579	166	405	8	0	8	6	0	408
		100.0	28.7	69.9	1.4	0.0	1.4	1.0	0.0	70.5
Aizubange	470	470	123	335	12	0	12	6	0	343
		100.0	26.2	71.3	2.6	0.0	2.6	1.3	0.0	73.0
Yanaizu	89	89	27	62	0	0	0	0	0	62
		100.0	30.3	69.7	0.0	0.0	0.0	0.0	0.0	69.7
Aizuwakamatsu	3,681	3,681	905	2,727	49	0	49	25	0	2,756
		100.0	24.6	74.1	1.3	0.0	1.3	0.7	0.0	74.9
Yugawa	128	128	45	78	5	0	5	0	0	83
		100.0	35.2	60.9	3.9	0.0	3.9	0.0	0.0	64.8
Subtotal	27,275	27,271	7,277	19,571	423	0	420	211	3	19,795
		100.0	26.7	71.8	1.6	0.0	1.5	0.8	0.0	72.6
Total	69,032	69,025	18,512	49,523	990	0	983	486	7	50,078
		100.0	26.8	71.7	1.4	0.0	1.4	0.7	0.0	72.6

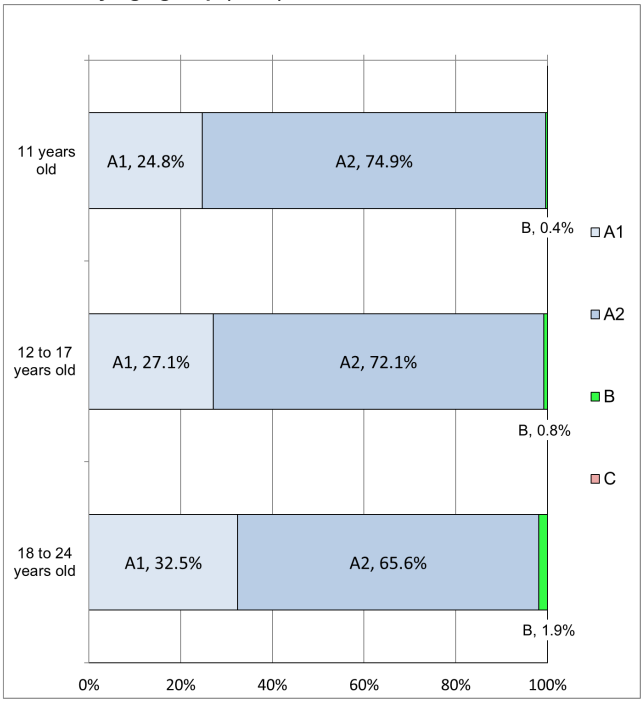
Appendix 4-1: TUE examination results by age and gender

As of March 31, 2026

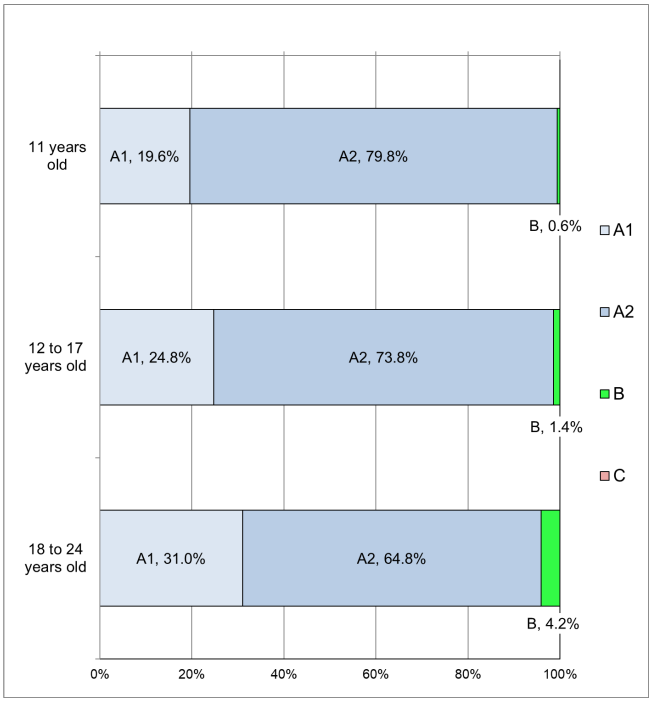
(persons)

Result / Gender / Age group	A						B			C			Total		
	A1			A2											
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
11 years old	278	202	480	841	823	1,664	4	6	10	0	0	0	1,123	1,031	2,154
12 to 17 years old	7,667	6,690	14,357	20,401	19,898	40,299	234	379	613	0	0	0	28,302	26,967	55,269
18 to 24 years old	1,681	1,994	3,675	3,399	4,161	7,560	100	267	367	0	0	0	5,180	6,422	11,602
Total	9,626	8,886	18,512	24,641	24,882	49,523	338	652	990	0	0	0	34,605	34,420	69,025

Results by age group (Male)



Results by age group (Female)

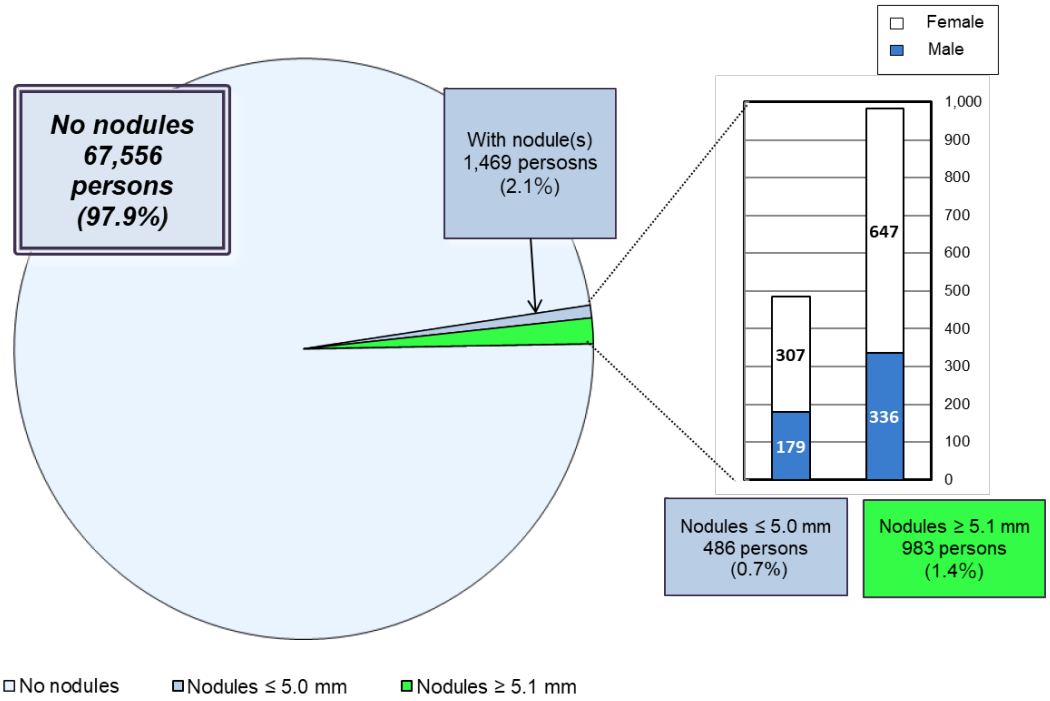


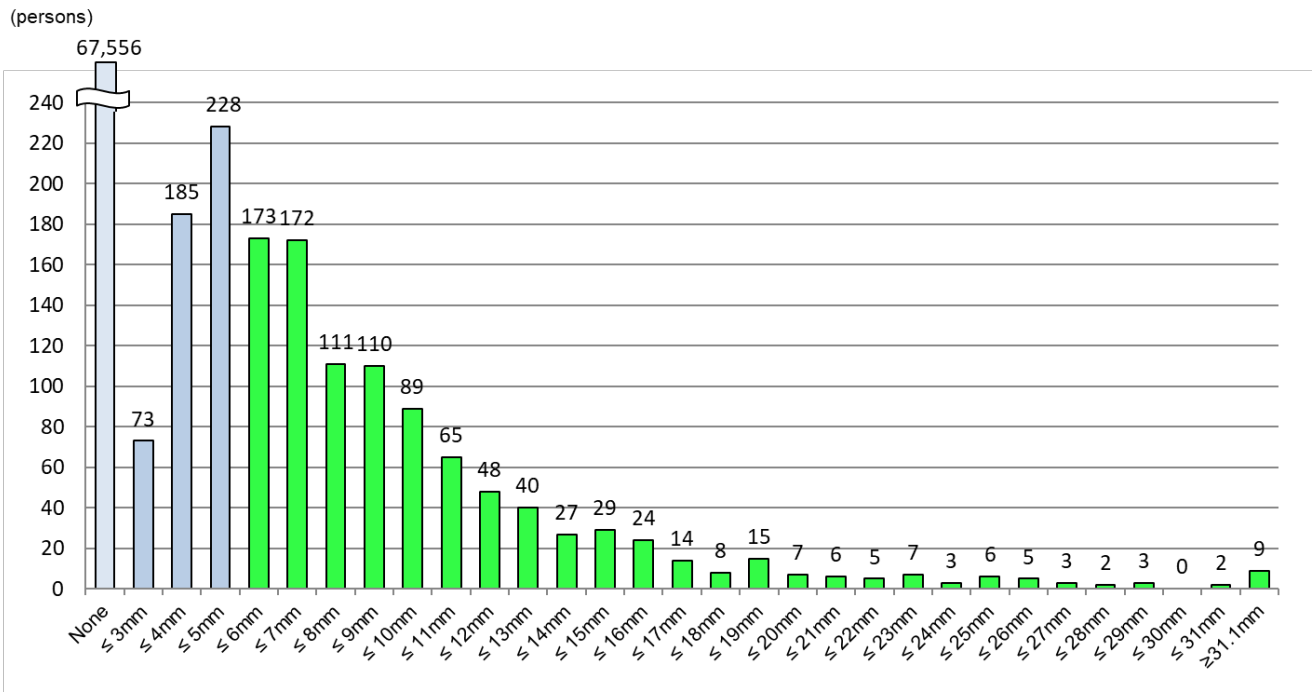
Appendix 4-2: Nodule characteristics

As of March 31, 2026

(persons)

Nodule size	Total	Male	Female	Grade	
None	67,556	34,090	33,466	A1	97.9%
≤ 3.0mm	73	31	42	A2	0.7%
3.1–5.0mm	413	148	265		
5.1–10.0mm	655	244	411	B	1.4%
10.1–15.0mm	209	60	149		
15.1–20.0mm	68	20	48		
20.1–25.0mm	27	8	19		
≥ 25.1mm	24	4	20		
Total	69,025	34,605	34,420		



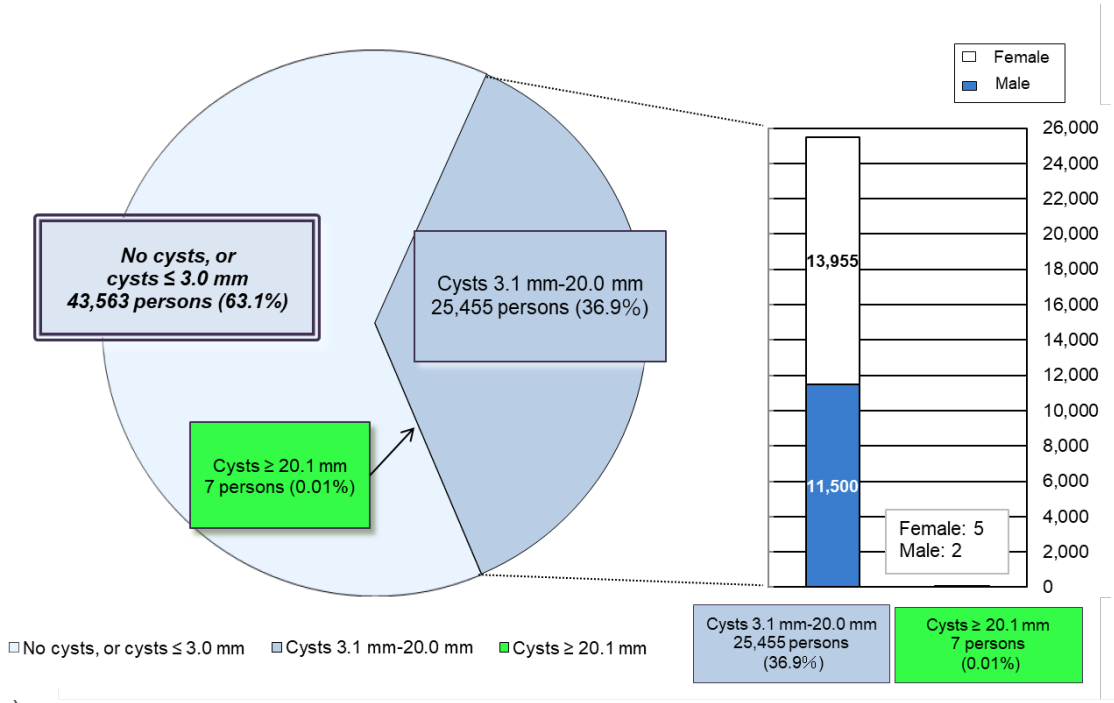


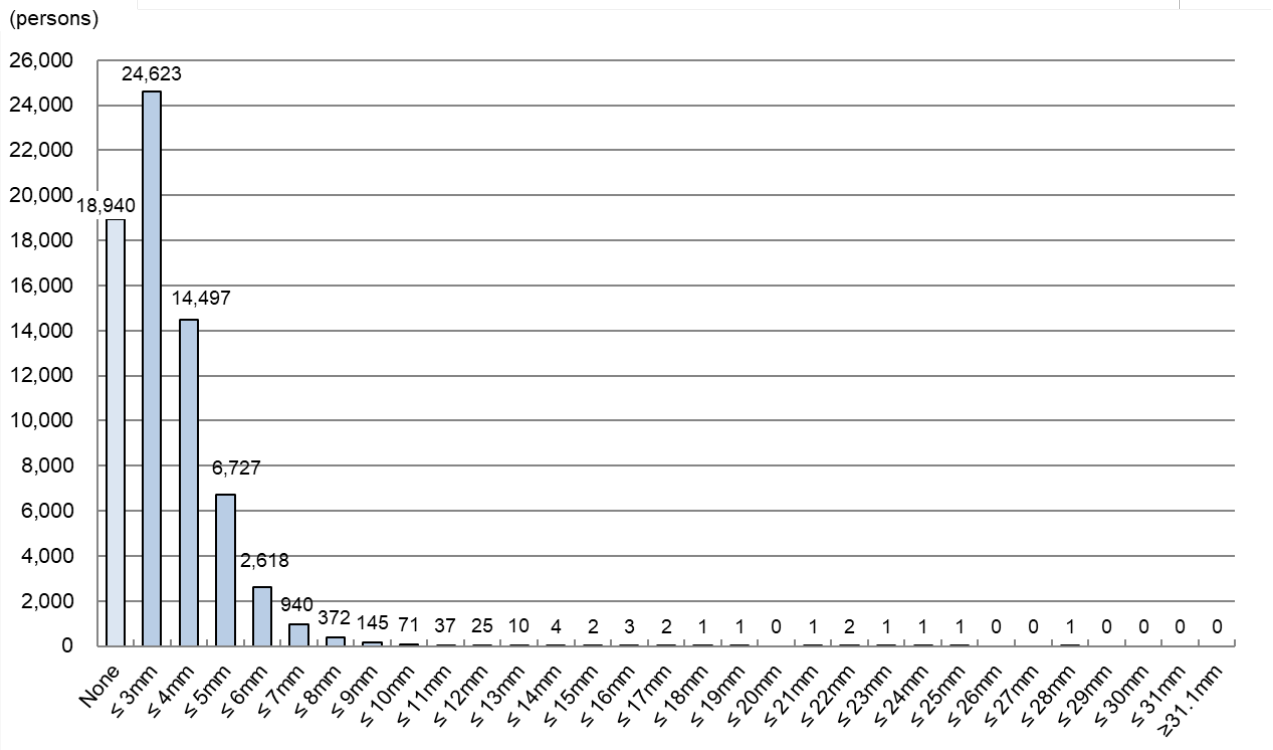
Appendix 4-3: Cyst characteristics

As of March 31, 2026

(persons)

Cyst size	Total	Male	Female	Grade	
None	18,940	9,784	9,156	A1	63.1%
≤ 3.0mm	24,623	13,319	11,304	A2	36.9%
3.1–5.0mm	21,224	9,951	11,273		
5.1–10.0mm	4,146	1,530	2,616		
10.1–15.0mm	78	17	61		
15.1–20.0mm	7	2	5		
20.1–25.0mm	6	2	4	B	0.01%
≥ 25.1mm	1	0	1		
Total	69,025	34,605	34,420		





Appendix 5: Surgery for cases malignant or suspicious for malignancy

1. Municipalities for FY2023 Examination
   Malignant or suspicious for malignancy: 15 (surgical cases: 12, papillary thyroid carcinomas: 12)
2. Municipalities for FY2024 Examination
   Malignant or suspicious for malignancy: 9 (surgical cases: 7, papillary thyroid carcinomas: 7)
3. Total of 1 and 2
   Malignant or suspicious for malignancy: 24 (surgical cases: 19, papillary thyroid carcinomas: 19)

Report on the TUE Full-Scale Survey (seventh-round survey)

As of March 31, 2026

1. Summary

1.1 Purpose

To monitor the long-term health of children, we are continuing the Full-Scale Survey (seventh-round survey), following the Preliminary Baseline Survey for initial assessment of thyroid glands, and prior Full-Scale Surveys (from the second-round survey to the sixth-round survey) to continuously assess the status of thyroid glands.

1.2 Eligible persons

All Fukushima residents who were approximately 18 years old or younger at the time of the earthquake (those born between April 2, 1992, and April 1, 2012).

1.3 Implementation Period

FY2025 and FY2026, starting in April 2025:

1.3-1 For those 18 years old or younger

The examination was carried out for 2 years: FY2025 and FY2026.

1.3-2 For those 19 years old or older

The examination was conducted on an age-group basis (i.e., school grade).
Those born from FY2002 to FY2006

1.3-3 For those 25 years old or older

Those older than 20 are recommended to receive the examination every 5 years at the ages of 25, 30, and so on (Age 25 and Age 30 Surveys).
FY2025: those born in FY1995 and FY2000
FY2026: those born in FY1996 and FY2001
Results of the survey for those 25 years and older will be reported separately.

1.4 Implementing Organizations (number of medical facilities with agreements for the implementation of thyroid examinations as of March 31, 2026)

Fukushima Prefecture commissioned Fukushima Medical University (FMU) to survey in cooperation with organizations in and outside Fukushima for the convenience of participants.

1.4-1 Primary examination facilities

In Fukushima Prefecture	83 medical facilities
Outside Fukushima Prefecture	162 medical facilities

1.4-2 Confirmatory examination facilities

In Fukushima Prefecture	7 medical facilities, including FMU
Outside Fukushima Prefecture	47 medical facilities

1.5 Methods

1.5-1 Primary examination

Ultrasonography of the thyroid gland.
Assessments are made by specialists based on the following criteria:
- Grade A
  A1: No nodules/cysts
  A2: Nodules ≤ 5.0 mm or cysts ≤ 20.0 mm

- Grade B

B: Nodules ≥ 5.1 mm or cysts ≥ 20.1 mm

Some A2 results may be re-classified as B results when clinically indicated.

-Grade C

C: Urgent need for confirmatory examination, judging from the condition of the thyroid gland.

1.5-2 Confirmatory examination

Ultrasonography of the thyroid gland, blood and urine tests, and fine needle aspiration cytology (FNAC) if needed for those with B or C test results.

Priority is given to those in urgent clinical need. A medical follow-up may be recommended based on confirmatory exam results.

1.5-3 Flow chart

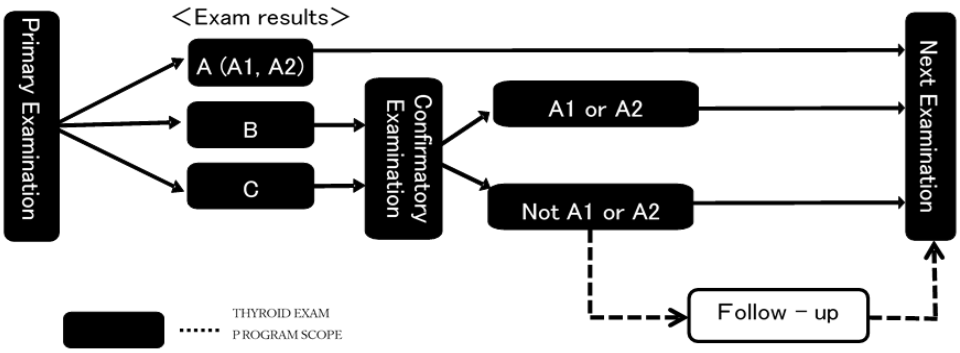


Figure 1: Flow chart

1.6 Municipalities Surveyed

The municipalities where examinations (for those 18 years old or younger) were carried out in FY2025 and FY2026 are as follows:

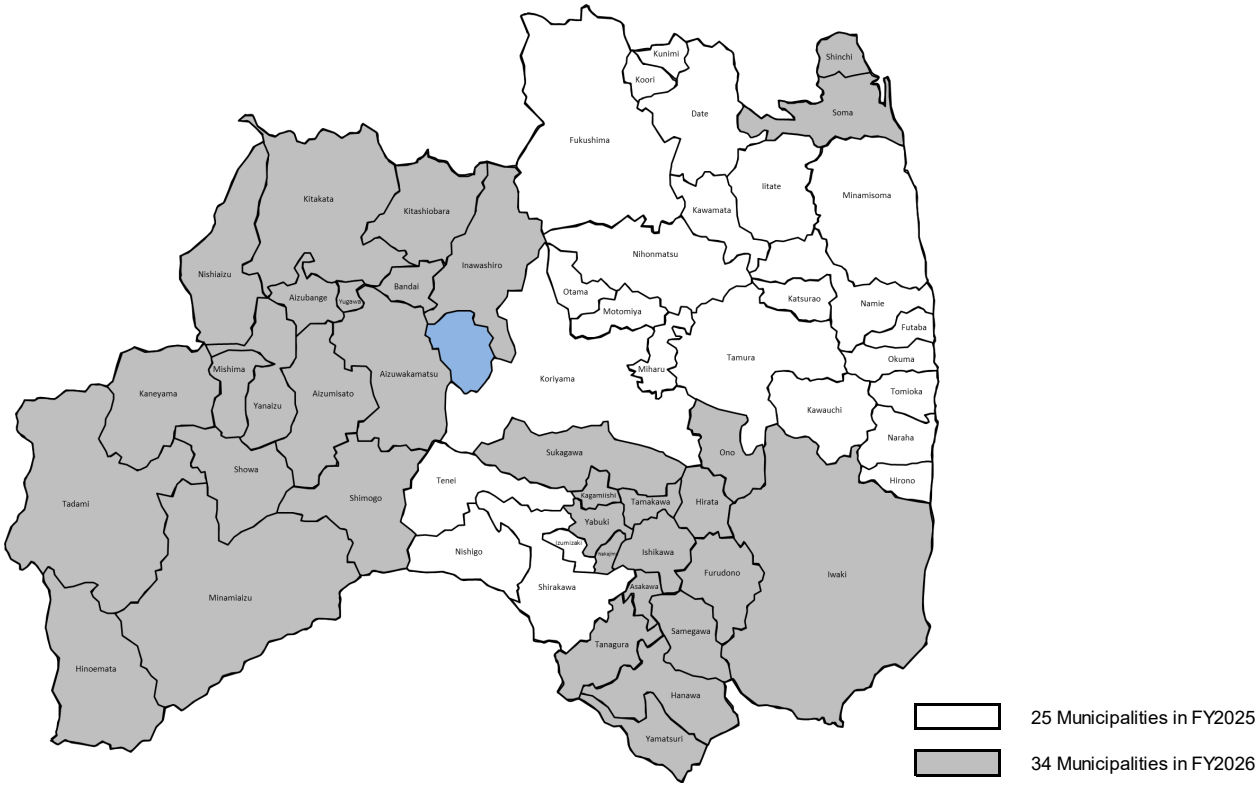


Figure 2: Municipalities covered for primary examinations in FY2025 and FY2026

2. Results as of March 31, 2026

2.1 Results of the Primary Examination

2.1-1 Implementation status

The primary examination was completed for 24,935 participants (14.5%) by March 31, 2026.
The results for 24,597 participants (98.6%) have been finalized, and individual reports have been sent to them.
Of these, 6,428 (26.1%) had Grade A1 results, 17,723 (72.1%) had Grade A2 results, 446 (1.8%) had Grade B results, and none had Grade C.

Table 1: Progress and results of the primary examination

	Eligible persons	Participants (persons)			Participants with finalized results (persons)									
							Details by grade (%)							
							A				Those referred to confirmatory exam			
							A1		A2		B		C	
	a	b	(b/a)		c	(c/b)	d	(d/c)	e	(e/c)	f	(f/c)	g	(g/c)
		Participation rate (%)		Those who participated outside Fukushima		Judgment rate (%)								
FY2025	99,002	22,055	(22.3)	1,415	21,840	(99.0)	5,653	(25.9)	15,807	(72.4)	380	(1.7)	0	(0.0)
FY2026	72,962	2,880	(3.9)	202	2,757	(95.7)	775	(28.1)	1,916	(69.5)	66	(2.4)	0	(0.0)
Total	171,964	24,935	(14.5)	1,617	24,597	(98.6)	6,428	(26.1)	17,723	(72.1)	446	(1.8)	0	(0.0)

Table 2: Number and proportion of participants with nodules/cysts (See Appendix 1 for details.)

	Participants with finalized results	Participants with nodules / cysts (%)							
		Nodules				Cysts			
		≥ 5.1mm		≤ 5.0mm		≥ 20.1mm		≤ 20.0mm	
	a	b	(b/a)	c	(c/a)	d	(d/a)	e	(e/a)
FY2025	21,840	380	(1.7)	209	(1.0)	0	(0.0)	16,023	(73.4)
FY2026	2,757	66	(2.4)	38	(1.4)	0	(0.0)	1,947	(70.6)
Total	24,597	446	(1.8)	247	(1.0)	0	(0.0)	17,970	(73.1)

- Proportions are rounded to a lower decimal place. This applies to other tables as well.
- Those who receive the examination at 5-year intervals (born between FY1992 and FY2001) are excluded. The results of examinations at 5-year intervals (Age 25 and Age 30 Surveys) will be reported separately.
- Examinations for those born in FY1995 (approx. 21,000) and FY2000 (approx. 20,000) have been carried out in FY2025. Examinations for those born in FY1996 (approx. 21,000) and FY2001 (approx. 20,000) will be carried out in FY2026.

2.1-2 Participation rate by age group

Table 3 shows the participation rate for each age group as of April 1 of each fiscal year.

Table 3: Participation rates by age group

			Total	Age group	
FY2025	Age group*			13 to 17 years old	18 to 24 years old
	Eligible persons	(a)	99,002	46,950	52,052
	Participants	(b)	22,055	20,772	1,283
	Participation rate (%)	(b/a)	22.3	44.2	2.5
FY2026	Age group*			13 to 17 years old	18 to 24 years old
	Eligible persons	(a)	72,962	26,982	45,980
	Participants	(b)	2,880	1,491	1,389
	Participation rate (%)	(b/a)	3.9	5.5	3.0
Total	Eligible persons	(a)	171,964	73,932	98,032
	Participants	(b)	24,935	22,263	2,672
	Participation rate (%)	(b/a)	14.5	30.1	2.7

* Age groups are based on ages as of April 1 of each fiscal year.

2.1-3 Comparison of the sixth- and seventh-round survey results

Table 4 compares the results of two Full-Scale Surveys (the sixth- and seventh-round surveys).

Among 20,886 (sum of *1) participants with Grade A1 and A2 results in the sixth-round survey, 20,704 (sum of *2, 99.1%) had Grade A results, and 182 (sum of *3, 0.9%) had Grade B results in the seventh-round survey.

Among 216 participants with Grade B results in the sixth-round survey, 31 (sum of *4, 14.4%) had Grade A results, and 185 (85.6%) had Grade B results in the seventh-round survey.

Table 4: Comparison of the sixth- and seventh-round surveys

			Results of the sixth-round survey*	Results of the seventh-round survey**			
				A		B	C
			a (%)	A1 b (b/a)	A2 c (c/a)	d (d/a)	e (e/a)
Results of the sixth-round survey	A	A1	*1 5,282 (100.0)	*2 3,942 (74.6)	*2 1,312 (24.8)	*3 28 (0.5)	0 (0.0)
		A2	*1 15,604 (100.0)	*2 1,528 (9.8)	*2 13,922 (89.2)	*3 154 (1.0)	0 (0.0)
	B		216 (100.0)	*4 2 (0.9)	*4 29 (13.4)	185 (85.6)	0 (0.0)
	C		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Did not participate		3,495 (100.0)	956 (27.4)	2,460 (70.4)	79 (2.3)	0 (0.0)
Total			24,597 (100.0)	6,428 (26.1)	17,723 (72.1)	446 (1.8)	0 (0.0)

* The figures in the upper row indicate the number of participants whose results from the seventh-round survey match those from the sixth-round survey; they do not represent a breakdown of all sixth-round survey results.

** The upper row shows the distribution of the seventh-round survey results in relation to the sixth-round survey results (number of participants). The lower row shows the corresponding proportions (%).

2.2 Results of the Confirmatory Examination

2.2-1 Implementation status

By March 31, 2026, of 446 eligible persons, 225 (50.4%) had participated in the confirmatory examination, and 164 (72.9%) had completed the entire procedure.

Of those 164 participants, 19 (A1: 0, A2: 19) (11.6%) were confirmed to meet A1 or A2 diagnostic criteria by primary examination standards (including those with other thyroid conditions). After the detailed examination, 145 (88.4%) were confirmed to fall outside the A1 or A2 criteria.

Table 5: Progress and results of the confirmatory examination

	Those referred to confirmatory exams	Participants (persons)		Those with finalized results (persons)									
			Participation Rate (%)		Determination rate (%)	A1		A2		Other than A1 or A2			
												FNAC	
	a	b	(b/a)	c	(c/b)	d	(d/c)	e	(e/c)	f	(f/c)	g	(g/f)
FY2025	380	191	(50.3)	143	(74.9)	0	(0.0)	18	(12.6)	125	(87.4)	6	(4.8)
FY2026	66	34	(51.5)	21	(61.8)	0	(0.0)	1	(4.8)	20	(95.2)	1	(5.0)
Total	446	225	(50.4)	164	(72.9)	0	(0.0)	19	(11.6)	145	(88.4)	7	(4.8)

2.2-2 Results of fine needle aspiration cytology (FNAC)

Among those who underwent FNAC, 3 participants were diagnosed with lesions that were malignant or suspicious for malignancy: 2 were male, and 1 was female.

Table 6: Results of FNAC

1. FY2025: Those referred to confirmatory examination
   - Malignant or suspicious for malignancy 2
   - Male to female ratio 2:0
2. FY2026: Those referred to confirmatory examination
   - Malignant or suspicious for malignancy 1
   - Male to female ratio 0:1
3. Total
   - Malignant or suspicious for malignancy 3
   - Male to female ratio 2:1

3. Mental Health Care

We provide the following support for thyroid examination participants.

3.1 Support for Primary Examination Participants

After the examination, medical doctors offer person-to-person explanations of examination results, showing ultrasound images in private consultation booths at examination venues set up in public facilities.

Consultation booths were set up at all venues for examinations conducted in and after April 2025; as of March 31, 2026, all 491 participants (100%) have visited these consultation booths.

3.2 Outreach Programs (on-site lectures and information sessions at the seventh-round survey)

To help examination participants deepen their understanding of the Thyroid Ultrasound Examination, we conducted on-site educational sessions. From April 2025 to March 31, 2026, we delivered 5 on-site sessions (4 at junior high schools and 1 at a high school) for 346 students. In total, 17,296 people have participated since these sessions began.

3.3 Support for Confirmatory Examination Participants

Fukushima Medical University has established a support team to provide mental health support to those undergoing the confirmatory (secondary) examination, address their concerns and anxiety, and answer questions and provide guidance via web consultation.

Since the start of the seventh-round survey, 116 participants (42 males and 74 females) have received support as of March 31, 2026. The total number of support sessions, including telephone counseling, was 175. Of these, 116 (66.3%) received support during their first examination, and 59 (33.7%) during subsequent examinations.

For those who proceed to regular insured medical care, the support team continues to provide support in cooperation with teams of medical staff at hospitals.

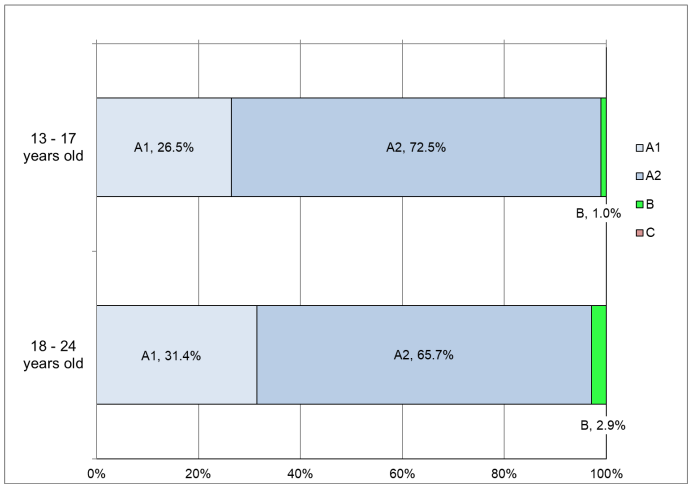
Appendix 1: TUE examination results by age and gender

As of March 31, 2026

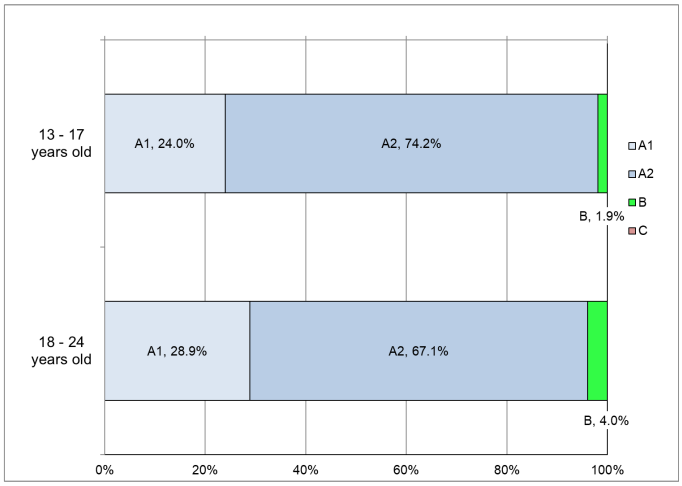
(person)

Result / Gender / Age group	A						B			C			Total		
	A1			A2											
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
13 to 17 years old	2,757	2,338	5,095	7,543	7,233	14,776	108	183	291	0	0	0	10,408	9,754	20,162
18 to 24 years old	646	687	1,333	1,350	1,597	2,947	60	95	155	0	0	0	2,056	2,379	4,435
Total	3,403	3,025	6,428	8,893	8,830	17,723	168	278	446	0	0	0	12,464	12,133	24,597

Results by age group (Male)



Results by age group (Female)

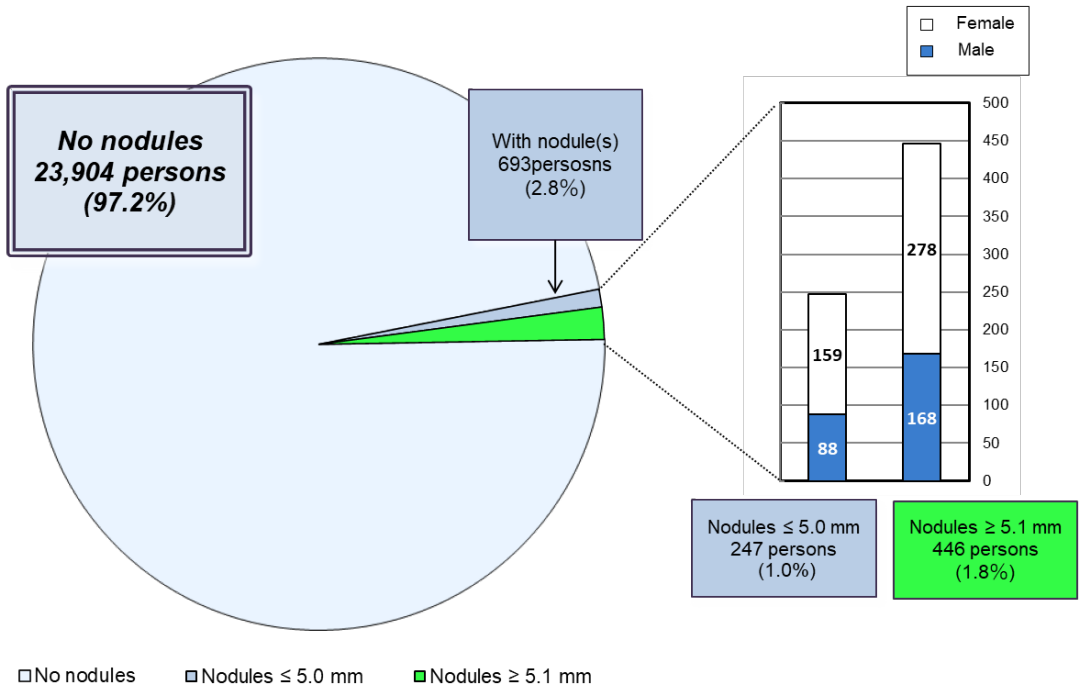


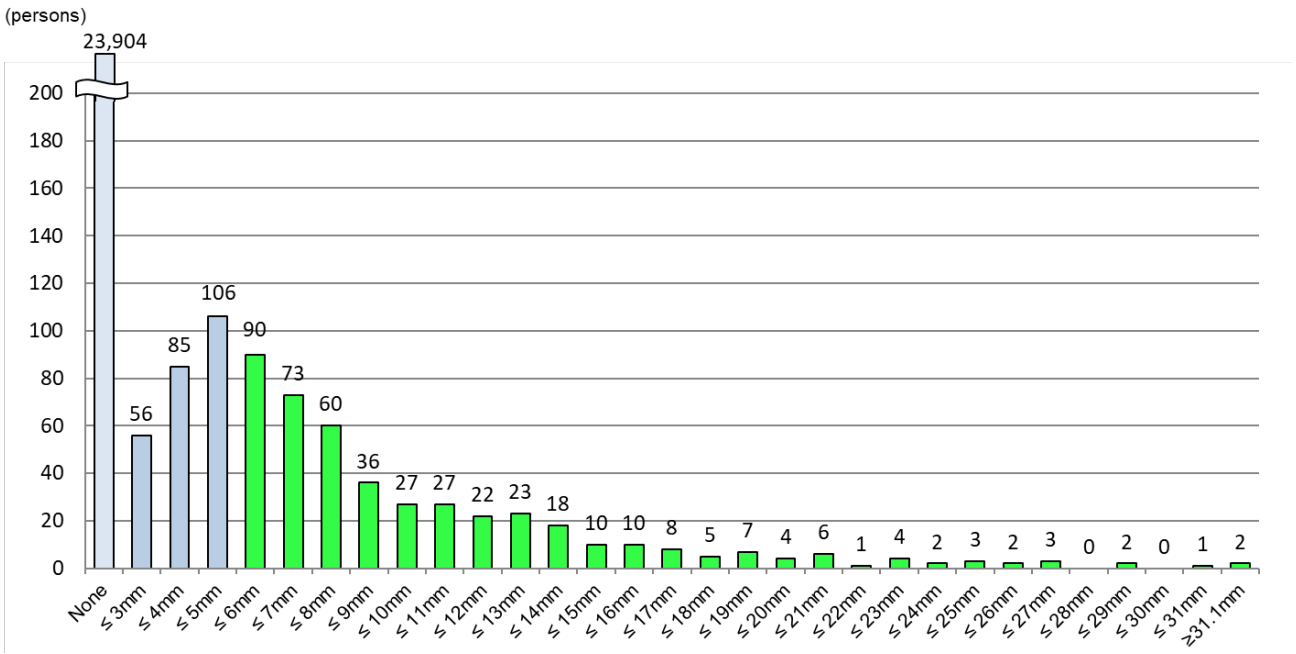
Appendix 1-2: Nodule characteristics

As of March 31, 2026

(persons)

Nodule size	Total	Male	Female	Grade	
None	23,904	12,208	11,696	A1	97.2%
≤ 3.0mm	56	17	39	A2	1.0%
3.1–5.0mm	191	71	120		
5.1–10.0mm	286	112	174	B	1.8%
10.1–15.0mm	100	39	61		
15.1–20.0mm	34	10	24		
20.1–25.0mm	16	3	13		
≥ 25.1mm	10	4	6		
Total	24,597	12,464	12,133		



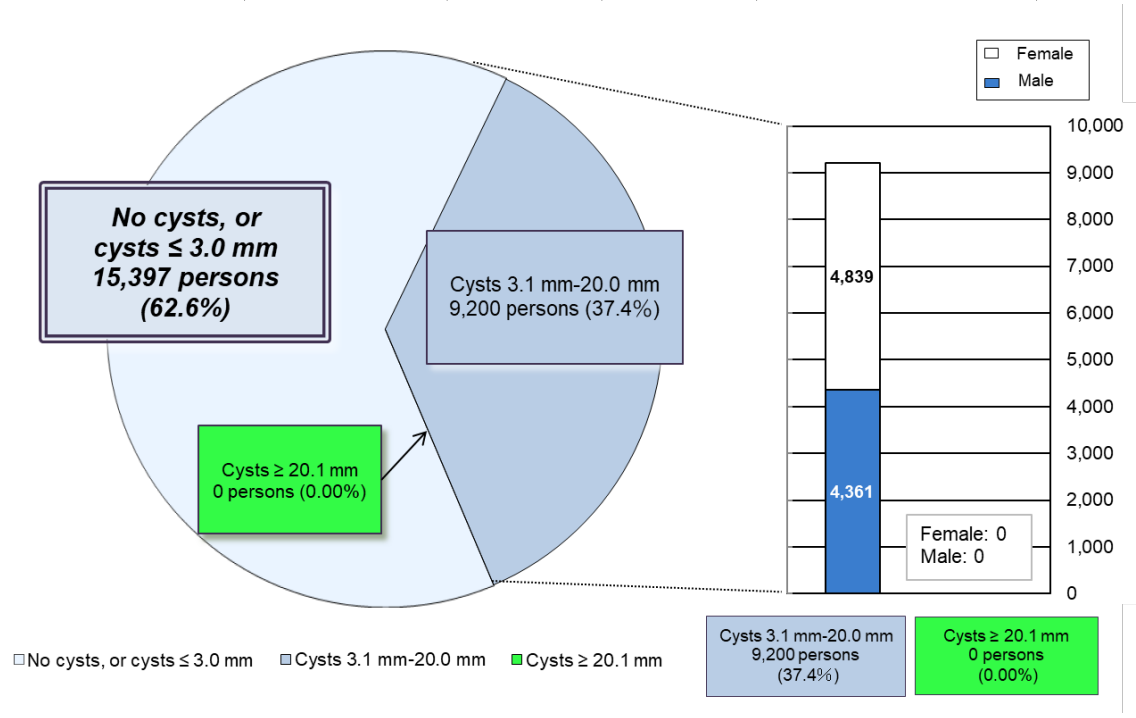


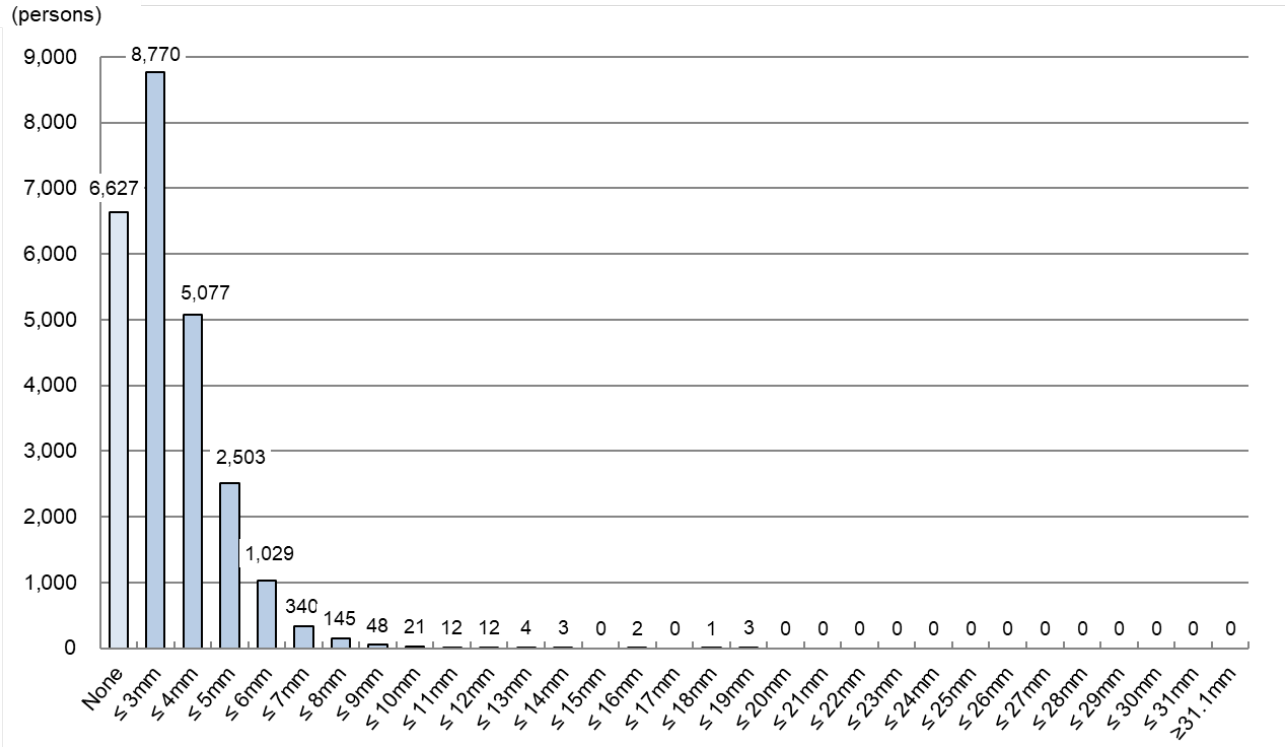
Appendix 1-3: Cyst characteristics

As of March 31, 2026

(persons)

Cyst size	Total	Male	Female	Grade	
None	6,627	3,484	3,143	A1	62.6%
≤ 3.0mm	8,770	4,619	4,151	A2	37.4%
3.1–5.0mm	7,580	3,733	3,847		
5.1–10.0mm	1,583	617	966		
10.1–15.0mm	31	10	21		
15.1–20.0mm	6	1	5		
20.1–25.0mm	0	0	0	B	0.00%
≥ 25.1mm	0	0	0		
Total	24,597	12,464	12,133		





Report on the TUE Full-Scale Survey (Survey for Age 25)

As of March 31, 2026

1. Summary

1.1 Eligible Persons

Among Fukushima residents 18 years old or younger at the time of the disaster (those born between April 2, 1992, and April 1, 2012), those who turn 25 years old during each fiscal year, including those who moved out of Fukushima Prefecture, are invited to receive a thyroid ultrasound examination (TUE).

This report includes the Survey status of those born from FY1992 to FY2000 (those born between April 2, 1992, and April 1, 2001).

*For those who were born in FY 2000, only the results of the primary examination are reported because the number of examinees is limited.

1.2 Implementation Period

The Survey for Age 25 (hereinafter “Age 25 Survey”) started in FY2017 for those who turned 25 years old during each fiscal year. Suppose residents are unable to receive the examination in the year they turn 25. In that case, they are entitled to one at any time through the fiscal year before the year they turn 30. (See Figure 1 for the implementation schedule of the Age 25 Survey.)

Year of exam / Birth year of examinees	FY2017 Age	FY2018 Age	FY2019 Age	FY2020 Age	FY2021 Age	FY2022 Age	FY2023 Age	FY2024 Age	FY2025 Age
FY1992	25★	26	27	28	29	30★	31	32	33
FY1993	24	25★	26	27	28	29	30★	31	32
FY1994	23	24	25★	26	27	28	29	30★	31
FY1995	22	23	24	25★	26	27	28	29	30★
FY1996	21	22	23	24	25★	26	27	28	29
FY1997	20	21	22	23	24	25★	26	27	28
FY1998	19	20	21	22	23	24	25★	26	27
FY1999	18	19	20	21	22	23	24	25★	26
FY2000	17	18	19	20	21	22	23	24	25★

Figure 1: Implementation schedule for the Age 25 Survey

- The examinations are offered to those who turn 25 in each fiscal year.
- Invitations for the examination will be sent to those who turn 25 in the fiscal year marked with ★.

2. Overview of the Age 25 Survey as of March 31, 2026

2.1 Results of the Primary Examination

2.1-1 Implementation status

Primary examinations for the Age 25 Survey started in May 2017 for those who turned 25 years old (those born between FY1992 and FY2000), of whom 14,195 persons (7.5%) participated. (See Appendix 1 and Appendix 2 for implementation status by areas inside and outside Fukushima Prefecture, respectively.)

Results for 14,080 participants (99.2%) have been finalized, and individual reports have been sent. (See Appendix 3 for details by area.)

Of these, 5,940 (42.2%) had Grade A1 results, 7,343 (52.2%) had Grade A2 results, 797 (5.7%) had Grade B results, and none had Grade C.

Table 1: Progress and results of the primary examination

	Eligible persons	Participants (persons)			Participants with finalized results (persons)									
							Details by grade (%)							
							A				Those referred to confirmatory exam			
			Participation rate (%)	Those who participated outside Fukushima		Judgment rate (%)	A1		A2		B		C	
	a	b	(b/a)		c	(c/b)	d	(d/c)	e	(e/c)	f	(f/c)	g	(g/c)
Born in FY1992	22,650	2,343	(10.3)	770	2,343	(100.0)	980	(41.8)	1,258	(53.7)	105	(4.5)	0	(0.0)
Born in FY1993	21,888	2,348	(10.7)	858	2,348	(100.0)	1,069	(45.5)	1,160	(49.4)	119	(5.1)	0	(0.0)
Born in FY1994	22,093	1,974	(8.9)	757	1,974	(100.0)	832	(42.1)	1,035	(52.4)	107	(5.4)	0	(0.0)
Born in FY1995	21,056	2,095	(9.9)	774	2,095	(100.0)	875	(41.8)	1,090	(52.0)	130	(6.2)	0	(0.0)
Born in FY1996	21,019	1,893	(9.0)	683	1,887	(99.7)	786	(41.7)	979	(51.9)	122	(6.5)	0	(0.0)
Born in FY1997	20,299	1,439	(7.1)	535	1,431	(99.4)	588	(41.1)	755	(52.8)	88	(6.1)	0	(0.0)
Born in FY1998	20,838	939	(4.5)	341	934	(99.5)	374	(40.0)	503	(53.9)	57	(6.1)	0	(0.0)
Born in FY1999	20,113	912	(4.5)	344	906	(99.3)	375	(41.4)	475	(52.4)	56	(6.2)	0	(0.0)
Born in FY2000	20,039	252	(1.3)	50	162	(64.3)	61	(37.7)	88	(54.3)	13	(8.0)	0	(0.0)
Total	189,995	14,195	(7.5)	5,112	14,080	(99.2)	5,940	(42.2)	7,343	(52.2)	797	(5.7)	0	(0.0)

Table 2: Numbers and percentages of participants with nodules/cysts (See Appendix 4 for details.)

	Participants with finalized results (persons)	Participants with nodules / cysts (%)							
		Nodules				Cysts			
		≥ 5.1mm		≤ 5.0mm		≥ 20.1mm		≤ 20.0mm	
	a	b	(b/a)	c	(c/a)	d	(d/a)	e	(e/a)
Born in FY1992	2,343	104	(4.4)	53	(2.3)	1	(0.0)	1,305	(55.7)
Born in FY1993	2,348	119	(5.1)	42	(1.8)	0	(0.0)	1,209	(51.5)
Born in FY1994	1,974	107	(5.4)	39	(2.0)	0	(0.0)	1,094	(55.4)
Born in FY1995	2,095	128	(6.1)	38	(1.8)	2	(0.1)	1,147	(54.7)
Born in FY1996	1,887	121	(6.4)	37	(2.0)	1	(0.1)	1,030	(54.6)
Born in FY1997	1,431	87	(6.1)	22	(1.5)	1	(0.1)	800	(55.9)
Born in FY1998	934	56	(6.0)	21	(2.2)	1	(0.1)	526	(56.3)
Born in FY1999	906	56	(6.2)	26	(2.9)	0	(0.0)	506	(55.8)
Born in FY2000	162	13	(8.0)	6	(3.7)	0	(0.0)	94	(58.0)
Total	14,080	791	(5.6)	284	(2.0)	6	(0.0)	7,711	(54.8)

・Percentages are rounded to a lower decimal place. This applies to other tables as well.
・The numbers and results of the Age 25 Survey participants are and will be presented by birth year (fiscal year), not by survey year. Moving forward, respective participants will be added and reported for each fiscal year.

2.1-2 Comparison with previous examination results

Table 3 compares the results of the Age 25 Survey and the previous survey.

Among 8,049 participants (sum of *1) with Grade A1 or A2 results in the previous survey, 7,844 (sum of *2, 97.5%) had Grade A1 or A2 results, and 205 (sum of *3, 2.5%) had Grade B results in the Age 25 Survey.

Among 304 participants with Grade B results in the previous survey, 69 (sum of *4, 22.7%) had Grade A (A1 or A2) results, and 235 (77.3%) had Grade B results in the Age 25 Survey.

Table 3: Comparison with the previous Survey results

			Results of the previous survey*	Results of the Age 25 survey**			
				A		B	C
				A1	A2		
			a (%)	b (b/a)	c (c/a)	d (d/a)	e (e/a)
Results of the previous survey	A	A1	*1 3,227 (100.0)	*2 2,614 (81.0)	*2 583 (18.1)	*3 30 (0.9)	0 (0.0)
		A2	*1 4,822 (100.0)	*2 816 (16.9)	*2 3,831 (79.4)	*3 175 (3.6)	0 (0.0)
	B		304 (100.0)	*4 8 (2.6)	*4 61 (20.1)	235 (77.3)	0 (0.0)
	C		0 0.0	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Did not participate		5,727 (100.0)	2,502 (43.7)	2,868 (50.1)	357 (6.2)	0 (0.0)
Total			14,080 (100.0)	5,940 (42.2)	7,343 (52.2)	797 (5.7)	0 (0.0)

* Results of the previous survey, just from the Age 25 Survey participants, with finalized results
** Results of the Age 25 Survey participants diagnosed for each grade in the previous survey. The lower figures are proportions (%).

2.2 Results of the Confirmatory Examination

2.2-1 Implementation status

Of those 784 eligible persons, 663 (84.6%) participated, of whom 653 (98.5%) completed the entire process of the confirmatory examination.

Of the 653 participants, 48 (7.4%) were confirmed to meet Grade A diagnostic criteria by primary examination standards (A1: 7, A2: 41) (including those with other thyroid conditions). The remaining 605 (92.6%) were confirmed to be outside the A1/A2 criteria.

Table 4: Progress of the Confirmatory Examination

	Those referred to confirmatory exams (persons)	Participants (persons)		Those with finalized results (%)									
			Participation Rate (%)		Judgment rate (%)	A1		A2		Other than A1 or A2			
												FNAC	
	a	b	(b/a)	c	(c/b)	d	(d/c)	e	(e/c)	f	(f/c)	g	(g/f)
Those born in FY1992	105	88	(83.8)	85	(96.6)	0	(0.0)	4	(4.7)	81	(95.3)	8	(9.9)
Those born in FY1993	119	104	(87.4)	104	(100.0)	1	(1.0)	9	(8.7)	94	(90.4)	10	(10.6)
Those born in FY1994	107	87	(81.3)	86	(98.9)	2	(2.3)	8	(9.3)	76	(88.4)	7	(9.2)
Those born in FY1995	130	116	(89.2)	114	(98.3)	0	(0.0)	4	(3.5)	110	(96.5)	12	(10.9)
Those born in FY1996	122	106	(86.9)	106	(100.0)	3	(2.8)	7	(6.6)	96	(90.6)	12	(12.5)
Those born in FY1997	88	69	(78.4)	69	(100.0)	0	(0.0)	7	(10.1)	62	(89.9)	5	(8.1)
Those born in FY1998	57	46	(80.7)	45	(97.8)	1	(2.2)	1	(2.2)	43	(95.6)	3	(7.0)
Those born in FY1999	56	47	(83.9)	44	(93.6)	0	(0.0)	1	(2.3)	43	(97.7)	2	(4.7)
Total	784	663	(84.6)	653	(98.5)	7	(1.1)	41	(6.3)	605	(92.6)	59	(9.8)

2.2-2 Results of fine needle aspiration cytology (FNAC)

Among those who underwent FNAC, 27 were classified as malignant or suspicious for malignancy: 4 were male, and 23 were female. Participants' age at the time of the confirmatory examination ranged from 24 to 29 years (mean age: 25.7 ± 1.2 years). The minimum and maximum tumor diameters were 5.3 mm and 49.9 mm (mean tumor diameter: 13.7 ± 9.8 mm).

Of these 27 participants, 6 had Grade A results (A1: 1, A2: 5), and 5 had Grade B results in the previous survey. The remaining 16 persons did not participate in the previous survey. Of those 5 participants with Grade A2 results, 2 had nodules, and 3 had cysts.

Table 5. Results of FNAC

(After mean age and mean tumor size, numbers in parentheses indicate ranges.)

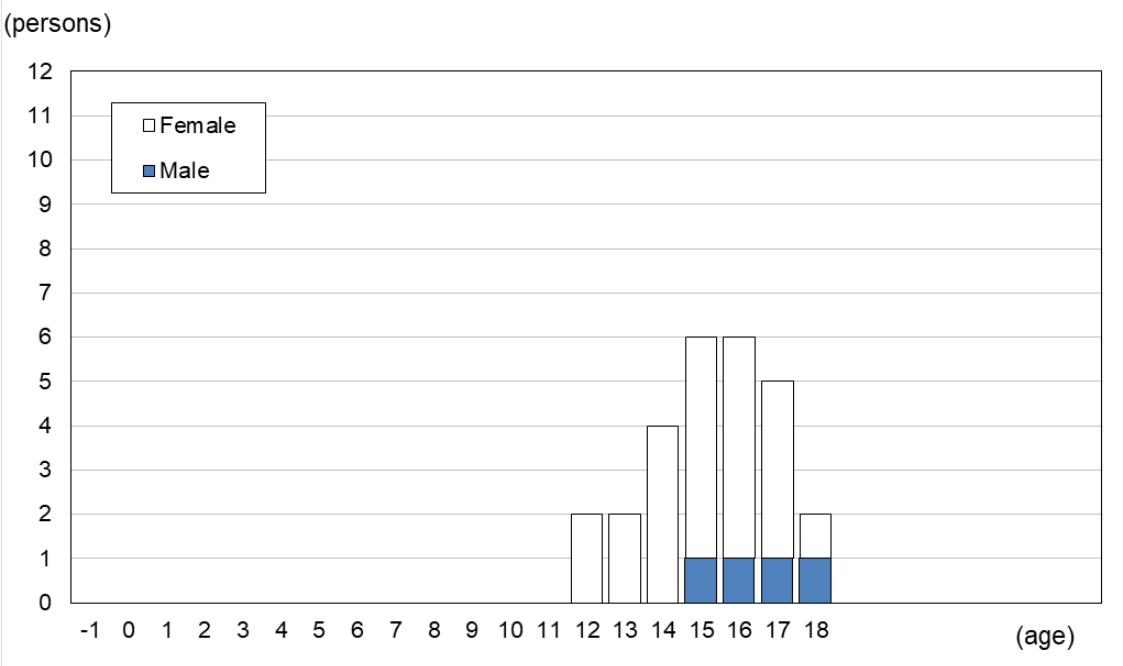
Among those who underwent the Age 25 Survey:

- Malignant or suspicious for malignancy: 27*
- Male to female ratio: 4:23
- Mean age ± SD (min-max): 25.7 ± 1.2 (24–29),
  15.3 ± 1.7 (12–18) at the time of the earthquake
- Mean tumor size ± SD (min-max): 13.7 ± 9.8 mm (5.3–49.9 mm)

*Appendix 5 shows surgery cases.

2.2-3 Age distribution of malignant or suspected malignant cases diagnosed by FNAC

Age distribution of those 27 participants with malignant or suspicious nodules based on their age as of March 11, 2011, is shown in Figure 2, and age distribution based on their age at the time of confirmatory examination is shown in Figure 3.



* Ages -1 to 9 are not included in the Age 25 Survey for those born between FY1992 and FY1999.
Age -1 covers those born between April 2, 2011, and April 1, 2012.
Those who were born between March 12, 2011, and April 1, 2011, are included as age 0.

Figure 2: Age as of March 11, 2011

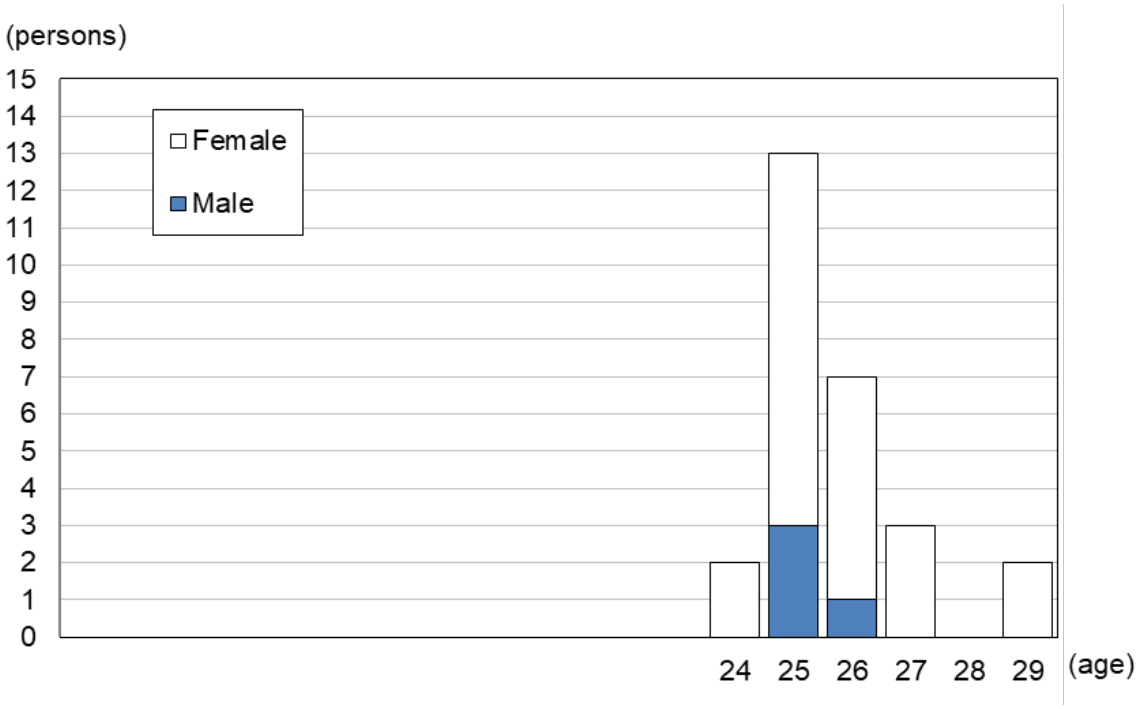


Figure 3: Age at the time of confirmatory examination

2.2-4 Basic Survey results of those with malignant or suspicious nodules by FNAC

Of the 27 people with malignant or suspicious nodules, 16 (59.3%) had participated in the Basic Survey (for external radiation dose estimation), and all 16 received their results. The highest effective dose documented was 1.9 mSv.

Table 6: A breakdown of dose estimates for Basic Survey participants

Effective dose (mSv)	Age at the time of the disaster									
	0-5		6-10		11-15		16-18		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
< 1	0	0	0	0	0	6	1	4	1	10
< 2	0	0	0	0	1	2	1	1	2	3
< 5	0	0	0	0	0	0	0	0	0	0
< 10	0	0	0	0	0	0	0	0	0	0
< 20	0	0	0	0	0	0	0	0	0	0
≥ 20	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	8	2	5	3	13

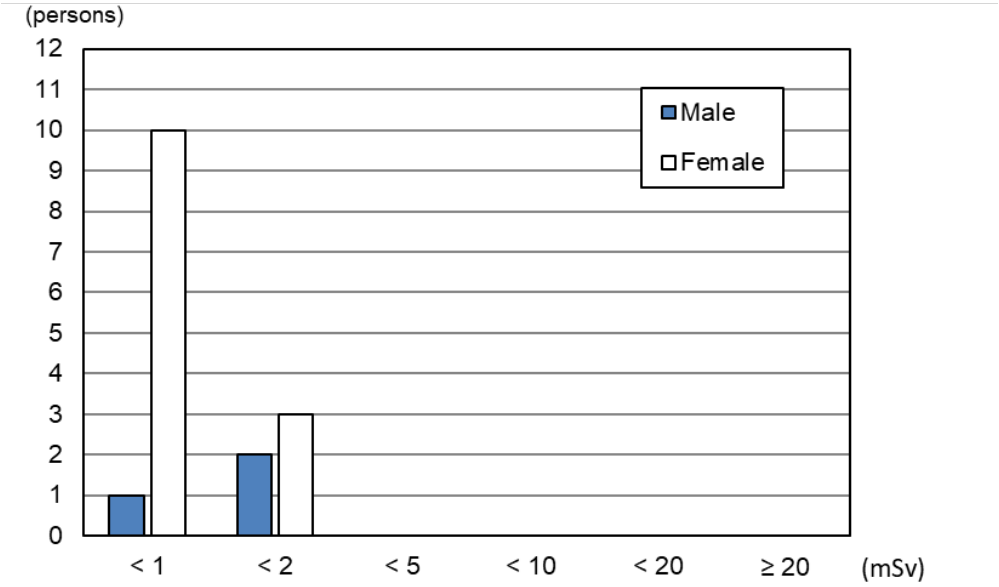


Figure 4: Effective doses of the Basic Survey participants

2.2-5 Blood and urinary iodine test results

Table 7: Blood test results

	FT4[1] (ng/dL)	FT3[2] (pg/mL)	TSH[3] (μIU/mL)	Tg[4] (ng/mL)	TgAb[5] (IU/mL)	TPOAb[6] (IU/mL)
Reference Range	0.95–1.74[7]	2.13–4.07[7]	0.340–3.880[7]	≤ 33.7	< 28.0	< 16.0
Malignant or suspicious : 27	1.2±0.1 (3.7%)	3.2±0.4 (11.1%)	1.5±1.5 (18.5%)	34.3±35.2 (37.0%)	14.8%	14.8%
Other : 597	1.2±0.2 (7.0%)	3.3±0.4 (7.4%)	1.2±0.7 (7.4%)	69.0±530.5 (20.4%)	11.2%	11.1%

Table 8: Urinary iodine test results [8]

(μg/day)

	Minimum	25th percentile	Median	75th percentile	Maximum
Malignant or suspicious : 25	65	101	185	315	2,834
Other : 526	29	121	185	347	11,060

1) FT4: free thyroxine, thyroid hormone binding 4 iodines; higher among patients with thyrotoxicosis (such as Graves' disease) and lower with hypothyroidism (such as Hashimoto's thyroiditis).
2) FT3: free triiodothyronine, thyroid hormone binding 3 iodines; higher among patients with thyrotoxicosis (such as Graves' disease) and lower with hypothyroidism (such as Hashimoto's thyroiditis).
3) TSH: thyroid-stimulating hormone; higher among patients with Hashimoto's disease and lower with Graves' disease.
4) Tg: thyroglobulin; higher when thyroid tissue is destroyed or when neoplastic tissue produces thyroglobulin.
5) TgAb: anti-thyroglobulin antibody; higher among patients with Hashimoto's disease or Graves' disease.
6) TPOAb: anti-thyroid peroxidase antibody; higher among patients with Hashimoto's disease or Graves' disease.
7) Reference interval varies according to age.
8) Due to the temporary inavailability of reagents, the urinary iodine tests had been suspended from March 8, 2024, to January 19, 2025, but resumed on January 20, 2025.

3 Mental Health Care

3.1 Support for Primary Examination Participants

Since April 2017, medical doctors have offered person-to-person explanations of examination results, showing ultrasound images in private consultation booths at examination venues in public facilities. As of March 31, 2026, 1,426 (99.9%) of the 1,427 participants visited these consultation booths.

3.2 Support for Confirmatory Examination Participants

Fukushima Medical University has established a support team to provide psychological support and address the anxieties and concerns of confirmatory examination participants during the examination. The team also answers questions and offers counseling via our website.

Since the start of the Age 25 survey, 167 participants (38 males and 129 females) have received support as of March 31, 2026. The total number of support sessions was 317. Of these, 167 sessions (52.7%) occurred during participants' first examinations, and 150 (47.3%) took place at subsequent examinations.

For those who proceed to regular health insurance medical care, the support team continues to provide support in cooperation with teams of medical staff at hospitals.

Appendix 1: Implementation status of the Age 25 Survey by area

As of March 31, 2026

	Eligible persons	Participants (persons)		Participation rate (%)	Participants living outside the prefecture (persons)	Proportion of participants living outside the prefecture (%)
			Those who participated outside Fukushima [1]			
	a	b		b/a	c[2]	c/b
Number of eligible persons for Age 25 Survey (Those born in from FY1992 to FY2000)						
13 municipalities[3]	25,191	1,959	739	7.8	747	38.1
Nakadori[4]	101,486	7,730	2,748	7.6	2,497	32.3
Hamadori[5]	36,550	3,133	1,140	8.6	1,082	34.5
Aizu[6]	26,768	1,373	485	5.1	467	34.0
Total	189,995	14,195	5,112	7.5	4,793	33.8

1) The number of those who received examinations at medical facilities outside the prefecture (as of February 28, 2026)
2) The number of those whose place of residence is outside the prefecture
3) Tamura City, Minamisoma City, Date City, Kawamata Town, Hirono Town, Naraha Town, Tomioka Town, Kawauchi Village, Okuma Town, Futaba Town, Namie Town, Katsurao Village, Iitate Village
4) Fukushima City, Koriyama City, Shirakawa City, Sukagawa City, Nihonmatsu City, Motomiya City, Koori Town, Kunimi Town, Otama Village, Kagamiishi Town, Tenei Village, Nishigo Village, Izumizaki Village, Nakajima Village, Yabuki Town, Tanagura Town, Yamatsuri Town, Hanawa Town, Samegawa Village, Ishikawa Town, Tamakawa Village, Hirata Village, Asakawa Town, Furudono Town, Miharu Town, Ono Town
5) Iwaki City, Soma City, Shinchi Town
6) Aizuwakamatsu City, Kitakata City, Shimogo Town, Hinoemata Village, Tadami Town, Minamiaizu Town, Kitashiobara Village, Nishiaizu Town, Bandai Town, Inawashiro Town, Aizubange Town, Yugawa Village, Yanaizu Town, Mishima Town, Kaneyama Town, Showa Village, Aizumisato Town

Appendix 2: Implementation status of the survey by prefecture

As of March 31, 2026

Prefecture	No. of medical facilities	Participants (persons) *Note
Hokkaido	7	**87**
Aomori	3	**22**
Iwate	4	**63**
Miyagi	2	**545**
Akita	1	**21**
Yamagata	3	**66**
Ibaraki	6	**239**
Tochigi	9	**248**
Gunma	2	**55**
Saitama	6	**313**
Chiba	5	**240**
Tokyo	25	**2,147**
Kanagawa	10	**475**
Niigata	3	**93**
Toyama	2	**8**
Ishikawa	2	**6**

Prefecture	No. of medical facilities	Participants (persons) *Note
Fukui	1	**4**
Yamanashi	2	**16**
Nagano	4	**32**
Gifu	2	**8**
Shizuoka	3	**52**
Aichi	6	**89**
Mie	1	**4**
Shiga	1	**10**
Kyoto	4	**37**
Osaka	10	**84**
Hyogo	3	**34**
Nara	4	**4**
Wakayama	1	**7**
Tottori	1	**3**
Shimane	1	**1**
Okayama	3	**10**

Prefecture	No. of medical facilities	Participants (persons) *Note
Hiroshima	2	**18**
Yamaguchi	1	**3**
Tokushima	2	**3**
Kagawa	1	**3**
Ehime	4	**3**
Kochi	2	**3**
Fukuoka	4	**27**
Saga	1	**2**
Nagasaki	3	**2**
Kumamoto	1	**7**
Oita	1	**3**
Miyazaki	1	**4**
Kagoshima	2	**3**
Okinawa	1	**8**
Total	**163**	**5,112**

*Note: The number of those who received examinations at medical facilities outside Fukushima Prefecture (as of February 28, 2026).

Appendix 3: Primary Survey results by area

As of March 31, 2026

	Number of participants (persons)	Those with finalized results (persons)	Number of participants by final result (persons) Details by grade (%)				Those with nodules (persons) (%)		Those with cysts (persons) (%)	
	a	b b/a (%)	A		B	C	≥ 5.1mm	≤ 5.0mm	≥ 20.1mm	≤ 20.0mm
			A1	A2						
Number of eligible persons for Age 25 Survey (Those born in from FY1992 to FY2000)										
13 municipalities 1)	1,959	1,946	829	1,006	111	0	110	40	1	1,055
		99.3	42.6	51.7	5.7	0.0	5.7	2.1	0.1	54.2
Nakadori 2)	7,730	7,682	3,244	4,023	415	0	413	152	2	4,221
		99.4	42.2	52.4	5.4	0.0	5.4	2.0	0.0	54.9
Hamadorl 3)	3,133	3,094	1,325	1,593	176	0	175	59	1	1,665
		98.8	42.8	51.5	5.7	0.0	5.7	1.9	0.0	53.8
Aizu 4)	1,373	1,358	542	721	95	0	93	33	2	770
		98.9	39.9	53.1	7.0	0.0	6.8	2.4	0.1	56.7
Total	14,195	14,080	5,940	7,343	797	0	791	284	6	7,711
		99.2	42.2	52.2	5.7	0.0	5.6	2.0	0.0	54.8

1) Tamura City, Minamisoma City, Date City, Kawamata Town, Hirono Town, Naraha Town, Tomioka Town, Kawauchi Village, Okuma Town, Futaba Town, Namie Town, Katsurao Village, Iitate Village
2) Fukushima City, Koriyama City, Shirakawa City, Sukagawa City, Nihonmatsu City, Motomiya City, Koori Town, Kunimi Town, Otama Village, Kagamiishi Town, Tenei Village, Nishigo Village, Izumizaki Village, Nakajima Village, Yabuki Town, Tanagura Town, Yamatsuri Town, Hanawa Town, Samegawa Village, Ishikawa Town, Tamakawa Village, Hirata Village, Asakawa Town, Furudono Town, Miharu Town, Ono Town
3) Iwaki City, Soma City, Shinchi Town
4) Aizuwakamatsu City, Kitakata City, Shimogo Town, Hinoemata Village, Tadami Town, Minamiaizu Town, Kitashiobara Village, Nishiaizu Town, Bandai Town, Inawashiro Town, Aizubange Town, Yugawa Village, Yanaizu Town, Mishima Town, Kaneyama Town, Showa Village, Aizumisato Town

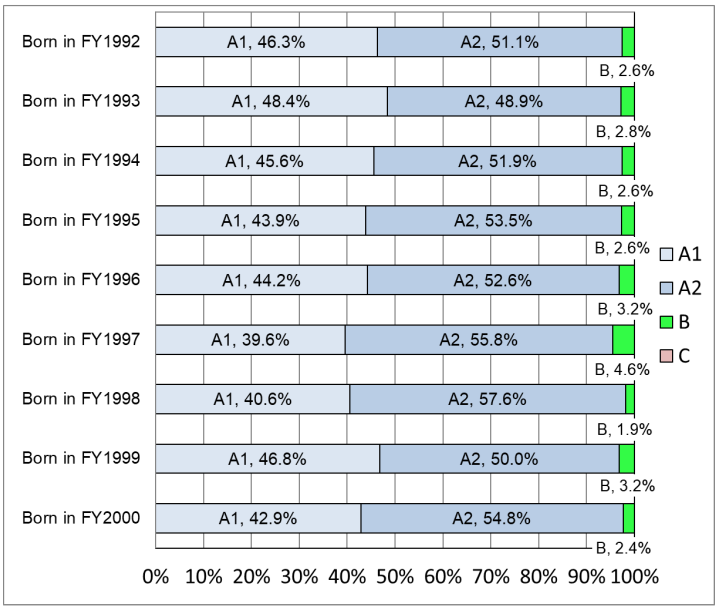
Appendix 4-1: Summary for participants with finalized results, by gender

As of March 31, 2026

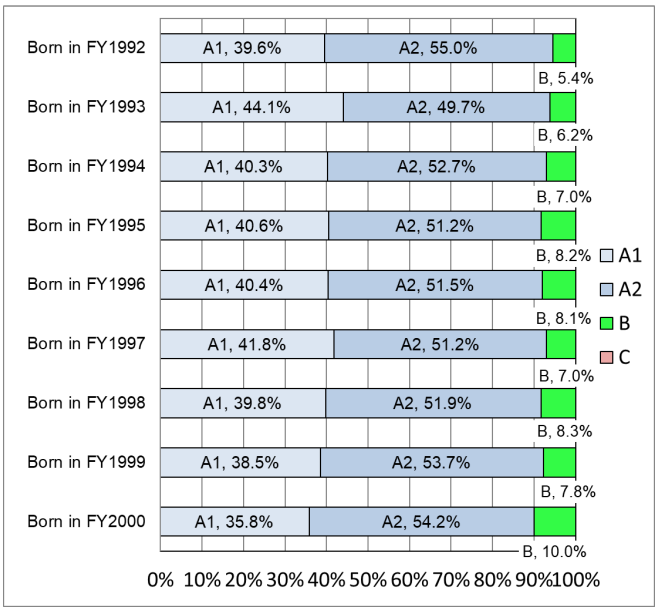
(persons)

Grade / Gender / Participants	A						B			C			Total		
	A1			A2											
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Those born in FY1992	360	620	980	397	861	1,258	20	85	105	0	0	0	777	1,566	2,343
Those born in FY1993	383	686	1,069	387	773	1,160	22	97	119	0	0	0	792	1,556	2,348
Those born in FY1994	318	514	832	362	673	1,035	18	89	107	0	0	0	698	1,276	1,974
Those born in FY1995	333	542	875	406	684	1,090	20	110	130	0	0	0	759	1,336	2,095
Those born in FY1996	275	511	786	327	652	979	20	102	122	0	0	0	622	1,265	1,887
Those born in FY1997	191	397	588	269	486	755	22	66	88	0	0	0	482	949	1,431
Those born in FY1998	131	243	374	186	317	503	6	51	57	0	0	0	323	611	934
Those born in FY1999	147	228	375	157	318	475	10	46	56	0	0	0	314	592	906
Those born in FY2000	18	43	61	23	65	88	1	12	13	0	0	0	42	120	162
Total	2,156	3,784	5,940	2,514	4,829	7,343	139	658	797	0	0	0	4,809	9,271	14,080

Examination results by age group (Male)



Examination results by age group (Female)

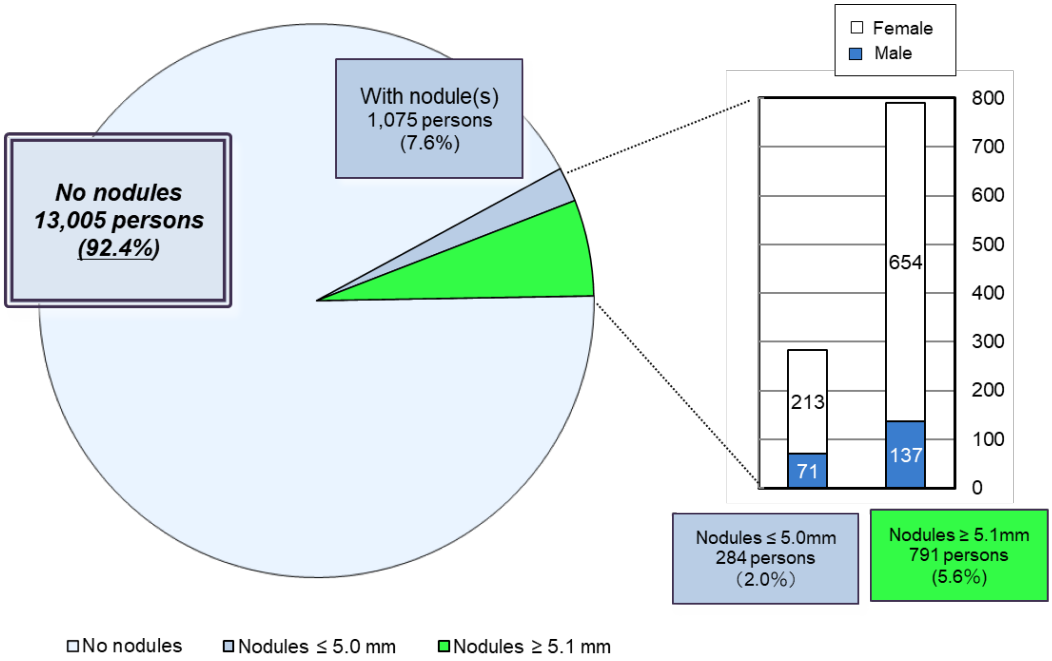


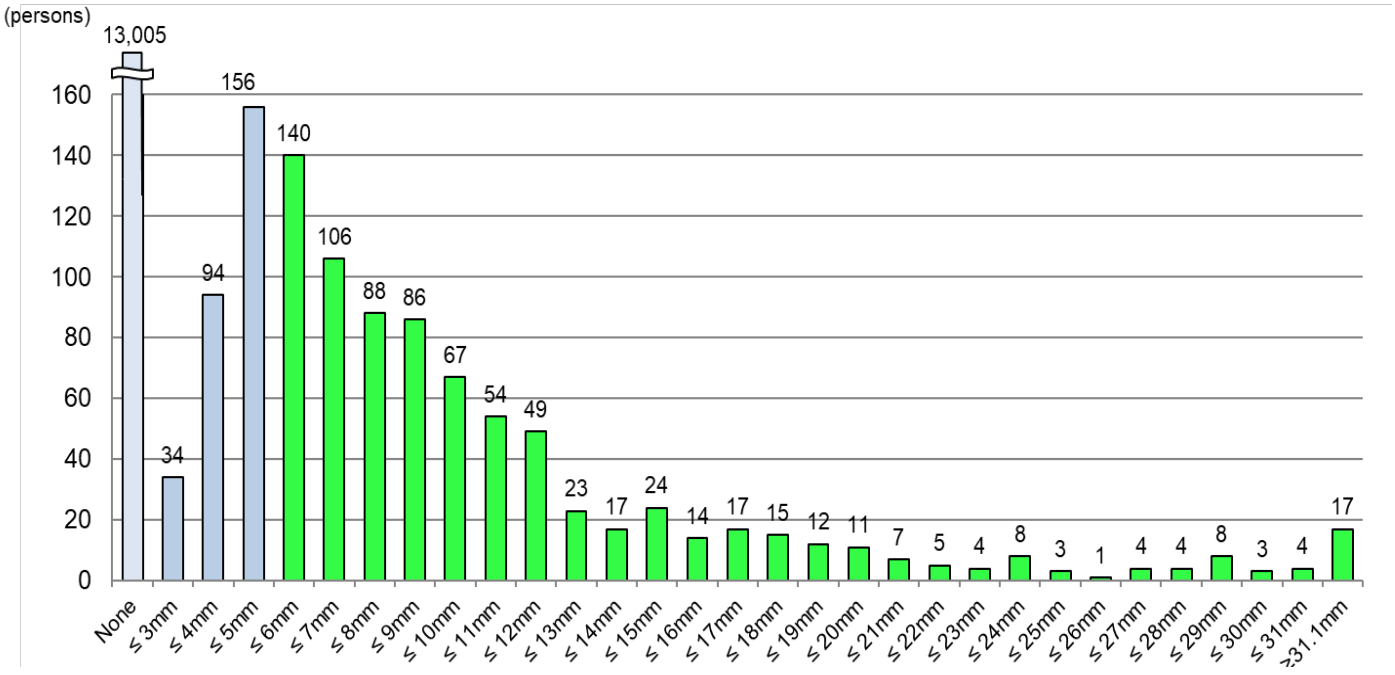
Appendix 4-2: **Nodule characteristics**

As of March 31, 2026

(persons)

Nodule size	Total	Male	Female	Grade	
None	13,005	4,601	8,404	A1	92.4%
≤ 3.0mm	34	8	26	A2	2.0%
3.1–5.0mm	250	63	187		
5.1–10.0mm	487	91	396	B	5.6%
10.1–15.0mm	167	30	137		
15.1–20.0mm	69	10	59		
20.1–25.0mm	27	3	24		
≥ 25.1mm	41	3	38		
Total	14,080	4,809	9,271		



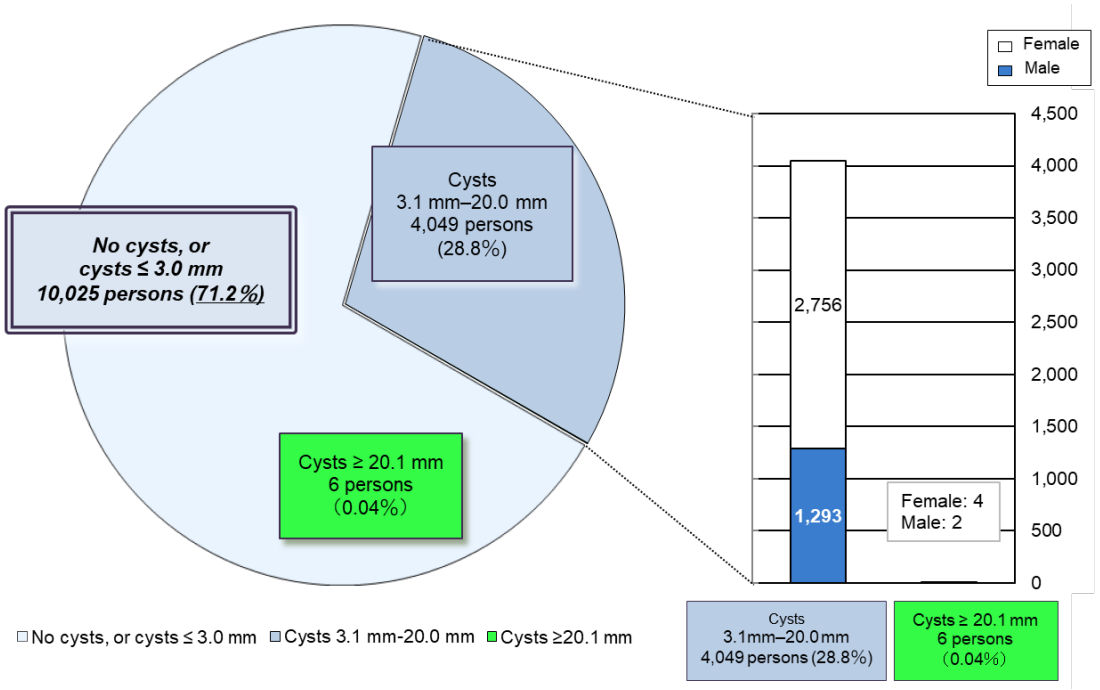


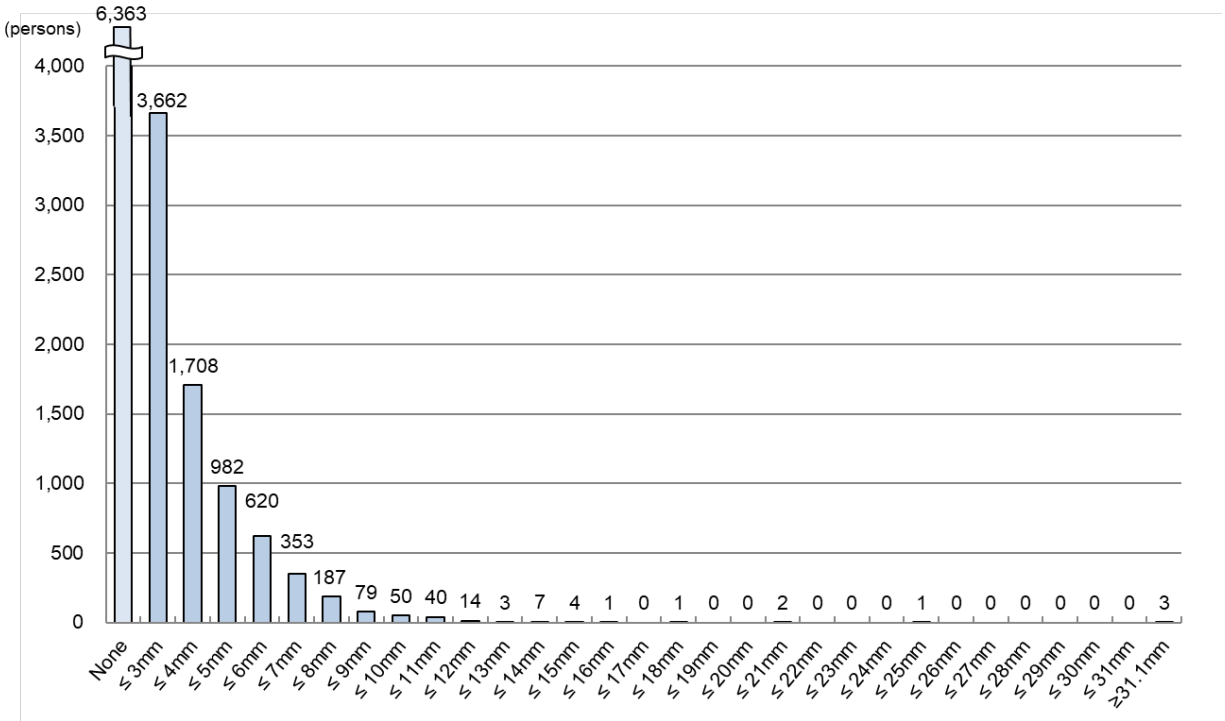
Appendix 4-3: Cyst characteristics

As of March 31, 2026

(persons)

Cyst size	Total	Male	Female	Grade	
None	6,363	2,241	4,122	A1	71.2%
≤ 3.0mm	3,662	1,273	2,389	A2	28.8%
3.1–5.0mm	2,690	917	1,773		
5.1–10.0mm	1,289	361	928		
10.1–15.0mm	68	14	54		
15.1–20.0mm	2	1	1		
20.1–25.0mm	3	0	3	B	0.04%
≥ 25.1mm	3	2	1		
Total	14,080	4,809	9,271		





Appendix 5: Surgical cases for malignancy or suspicion of malignancy

Among those who underwent the Age 25 Survey:

- Malignant or suspicious for malignancy 27
  - Surgical cases 20
  - Papillary thyroid carcinomas 19
  - Follicular thyroid carcinomas 1

Report on the TUE Full-Scale Survey (Survey for Age 30)

As of March 31, 2026

1. Summary

1.1 Eligible Persons

Among Fukushima residents 18 years old or younger at the time of the disaster (those born between April 2, 1992, and April 1, 2012), those who turn 30 years old during each fiscal year are invited to receive a thyroid ultrasound examination (TUE).
This report summarizes the results for those born from FY1992 to FY1995 (born between April 2, 1992, and April 1, 1996).
*For those who were born in FY 1995, only the results of the primary examination are reported because the number of examinees is limited.

1.2 Implementation Period

The Survey for Age 30 (hereinafter “Age 30 Survey”) started in FY2022 for those who turn 30 years old during each fiscal year. Suppose residents cannot receive the examination in the year they turn 30. In that case, they are entitled to one any time during the fiscal year before the year they turn 35 (see Figure 1 for the implementation schedule of the Age 30 Survey).

Year of exam / Birth year of examinees	FY2022 Age	FY2023 Age	FY2024 Age	FY2025 Age	FY2026 Age	FY2027 Age	FY2028 Age
FY1992	30★	31	32	33	34	35★	36
FY1993	29	30★	31	32	33	34	35★
FY1994	28	29	30★	31	32	33	34
FY1995	27	28	29	30★	31	32	33

Figure 1: Implementation Schedule for the Age 30 Survey

- The examinations are offered to those who turn 30 years old in each fiscal year.
- Invitations for the examination will be sent to those who turn 30 in the fiscal year marked with ★.

2. Overview of the Age 30 Survey as of March 31, 2026

2.1 Results of the Primary Examination

2.1-1 Implementation status

Primary examinations for the Age 30 Survey started in April 2022 for those who turned 30 years old (those born in FY1992 and FY1995), of whom 4,642 (5.3%) participated. (See Appendix 1 and Appendix 2 for implementation status by areas inside and outside Fukushima Prefecture, respectively.)

Results for 4,397 (94.7%) participants have been finalized, and individual reports have been sent. (See Appendix 3 for The Survey results by area.)

Of these, 1,925 (43.8%) had Grade A1 results, 2,082 (47.4%) had Grade A2, 390 (8.9%) had Grade B, and none had Grade C.

Table 1: Progress and results of the primary examination

	Eligible persons	Participants (persons)			Participants with finalized results (persons)									
							Details by grade (%)							
			Participation rate (%)	Those who participated outside Fukushima		Judgment rate (%)	A				Those referred to confirmatory exam			
							A1		A2		B		C	
	a	b	(b/a)		c	(c/b)	d	(d/c)	e	(e/c)	f	(f/c)	g	(g/c)
Born in FY1992	22,625	1,675	(7.4)	625	1,668	(99.6)	745	(44.7)	771	(46.2)	152	(9.1)	0	(0.0)
Born in FY1993	21,864	1,494	(6.8)	615	1,489	(99.7)	618	(41.5)	734	(49.3)	137	(9.2)	0	(0.0)
Born in FY1994	22,053	1,232	(5.6)	506	1,219	(98.9)	553	(45.4)	568	(46.6)	98	(8.0)	0	(0.0)
Born in FY1995	21,010	241	(1.1)	12	21	(8.7)	9	(42.9)	9	(42.9)	3	(14.3)	0	(0.0)
Total	87,552	4,642	(5.3)	1,758	4,397	(94.7)	1,925	(43.8)	2,082	(47.4)	390	(8.9)	0	(0.0)

Table 2: Number and percentage of participants with nodules/cysts (See Appendix 4 for details.)

	Participants with finalized results (persons)	Participants with nodules / cysts (%)							
		Nodules				Cysts			
		≥ 5.1mm		≤ 5.0mm		≥ 20.1mm		≤ 20.0mm	
	a	b	(b/a)	c	(c/a)	d	(d/a)	e	(e/a)
Born in FY1992	1,668	151	(9.1)	65	(3.9)	1	(0.1)	841	(50.4)
Born in FY1993	1,489	137	(9.2)	57	(3.8)	0	(0.0)	775	(52.0)
Born in FY1994	1,219	97	(8.0)	41	(3.4)	1	(0.1)	621	(50.9)
Born in FY1995	21	3	(14.3)	0	(0.0)	0	(0.0)	11	(52.4)
Total	4,397	388	(8.8)	163	(3.7)	2	(0.0)	2,248	(51.1)

・Percentages are rounded to a lower decimal place. This applies to other tables as well.
・The number and results of the Age 30 Survey participants are, and will be, presented by birth year (fiscal year), not by survey year.

2.1-2 Comparison with previous examination results

Table 3 compares the results of the Age 30 Survey and the Age 25 Survey.

Among 2,385 participants (sum of *1) with Grade A1 or A2 results in the Age 25 Survey, 2,283 (sum of *2, 95.7%) had Grade A1 or A2 results, and 102 (sum of *3, 4.3%) had Grade B results in the Age 30 Survey.

Among 141 participants with Grade B results in the Age 25 Survey, 26 (sum of *4, 18.4%) had Grade A (A1 or A2) results, and 115 (81.6%) had Grade B results in the Age 30 Survey.

Table 3: Comparison with the Age 25 Survey results

			Results of the Age 25 Survey*	Results of the Age 30 Survey**			
				A		B	C
				A1	A2		
			a (%)	b (b/a)	c (c/a)	d (d/a)	e (e/a)
Results of the Age 25 Survey	A	A1	*1 1,013 (100.0)	*2 814 80.4	*2 178 17.6	*3 21 2.1	0 0.0
		A2	*1 1,372 (100.0)	*2 254 18.5	*2 1,037 75.6	*3 81 5.9	0 0.0
	B		141 (100.0)	*4 6 4.3	*4 20 14.2	115 81.6	0 0.0
	C		0 (0.0)	0 0.0	0 (0.0)	0 (0.0)	0 (0.0)
	Did not participate		1,871 (100.0)	851 45.5	847 45.3	173 9.2	0 0.0
Total			4,397 (100.0)	1,925 43.8	2,082 47.4	390 8.9	0 0.0

* Results of the Age 25 Survey participants with finalized results.

** Results of the Age 30 Survey participants diagnosed for each grade in the Age 25 Survey. The lower figures are their proportion (%).

2.2 Results of the Confirmatory Examination

2.2-1 Implementation status

Of 387 eligible persons, 327 (84.5%) participated, and 319 (97.6%) completed the entire confirmatory examination process.

Of the 319 participants, 23 (7.2%) met Grade A diagnostic criteria by primary examination standards (A1:6, A2:17) (including those with other thyroid conditions). The remaining 296 (92.8%) were confirmed to be outside the A1/A2 criteria.

Table 4: Progress of the Confirmatory Examination

	Those referred to confirmatory exams (persons)	Participants (persons)		Those with finalized results (%)									
			Participation Rate (%)		Judgment rate (%)	A1		A2		Other than A1 or A2			
												FNAC	
	a	b	(b/a)	c	(c/b)	d	(d/c)	e	(e/c)	f	(f/c)	g	(g/f)
Those born in FY1992	152	130	(85.5)	128	(98.5)	1	(0.8)	7	(5.5)	120	(93.8)	17	(14.2)
Those born in FY1993	137	113	(82.5)	110	(97.3)	3	(2.7)	8	(7.3)	99	(90.0)	8	(8.1)
Those born in FY1994	98	84	(85.7)	81	(96.4)	2	(2.5)	2	(2.5)	77	(95.1)	9	(11.7)
Total	387	327	(84.5)	319	(97.6)	6	(1.9)	17	(5.3)	296	(92.8)	34	(11.5)

2.2-2 Results of fine needle aspiration cytology (FNAC)

Among those who underwent FNAC, 10 participants (male: 2, female: 8) were classified as malignant or suspicious for malignancy. Participants' age at the confirmatory examination ranged from 29 to 31 years (mean age: 30.0 ± 0.5 years), and the minimum and maximum tumor diameters were 9.8 mm and 19.0 mm (mean tumor diameter: 12.7 ± 3.7 mm).

Of these 10 participants, 5 had a Grade A result (A1:1, A2:4), 1 had a Grade B result in the Age 25 Survey, and 4 did not participate in the Age 25 Survey. Among the 4 participants with A2, 1 met the nodule criteria, and 3 met the cyst criteria.

Table 5. Results of FNAC

(The numbers in the parentheses indicate the ranges of mean age and mean tumor size.)

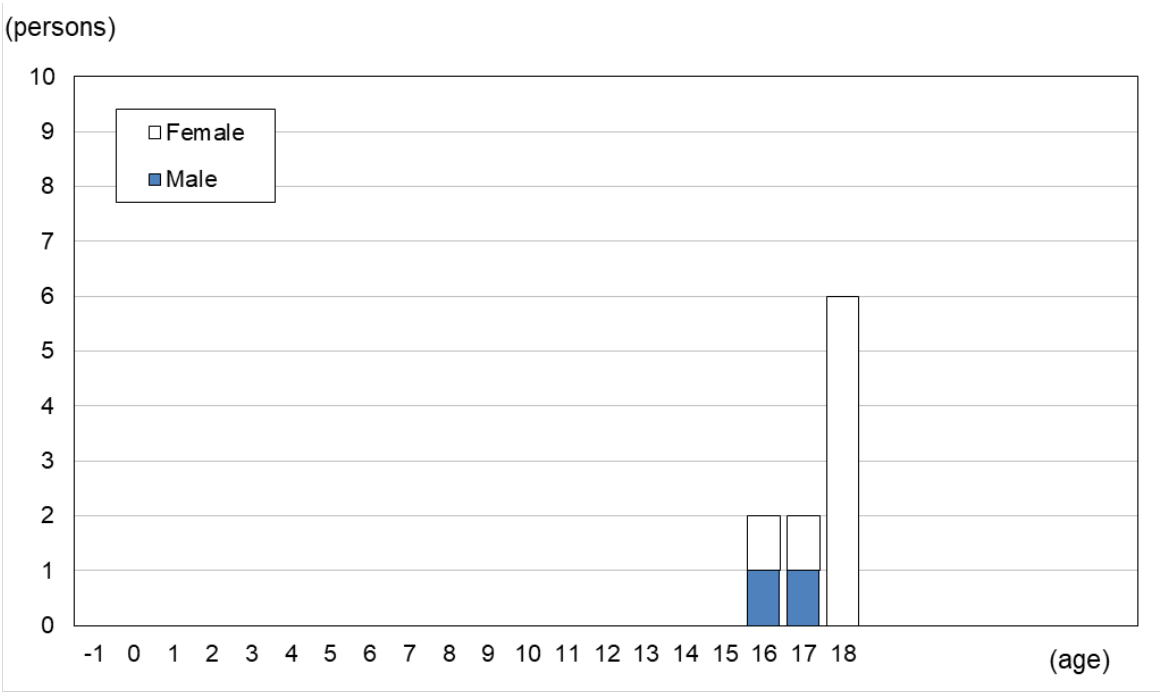
Among those who underwent the Age 30 Survey:

- Malignant or suspicious for malignancy: 10*
- Male to female ratio: 2:8
- Mean age ± SD (min-max): 30.0 ± 0.5 (29–31),
  17.4 ± 0.8 (16–18) at the time of the earthquake
- Mean tumor size ± SD (min-max): 12.7 ± 3.7 mm (9.8–19.0 mm)

*Appendix 5 shows surgery cases.

2.2-3 Age distribution of malignant or suspected malignant cases diagnosed by FNAC

The age distribution of the 10 participants with malignant or suspicious nodules, as of March 11, 2011, is shown in Figure 2, and the age distribution based on their age at the time of confirmatory examination is shown in Figure 3.



*Ages -1 to 14 are not included in the Age 30 Survey for those born between FY1992 and FY1994.
Age -1 covers those born between April 2, 2011, and April 1, 2012.
Those who were born between March 12, 2011, and April 1, 2011, are included as age 0.

Figure 2: Age as of March 11, 2011



Figure 3: Age at the time of confirmatory examination

2.2-4 Basic Survey results of participants with malignant or suspicious nodules by FNAC

Of the 10 participants with malignant or suspicious nodules, 7 (70.0%) had participated in the Basic Survey (for external radiation dose estimation), and all 7 received their results. The highest effective dose documented was 1.3 mSv.

Table 6: A breakdown of dose estimates for Basic Survey participants

Effective dose (mSv)	Age at the time of the disaster									
	0-5		6-10		11-15		16-18		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
< 1	0	0	0	0	0	0	0	5	0	5
< 2	0	0	0	0	0	0	1	1	1	1
< 5	0	0	0	0	0	0	0	0	0	0
< 10	0	0	0	0	0	0	0	0	0	0
< 20	0	0	0	0	0	0	0	0	0	0
≥ 20	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	6	1	6

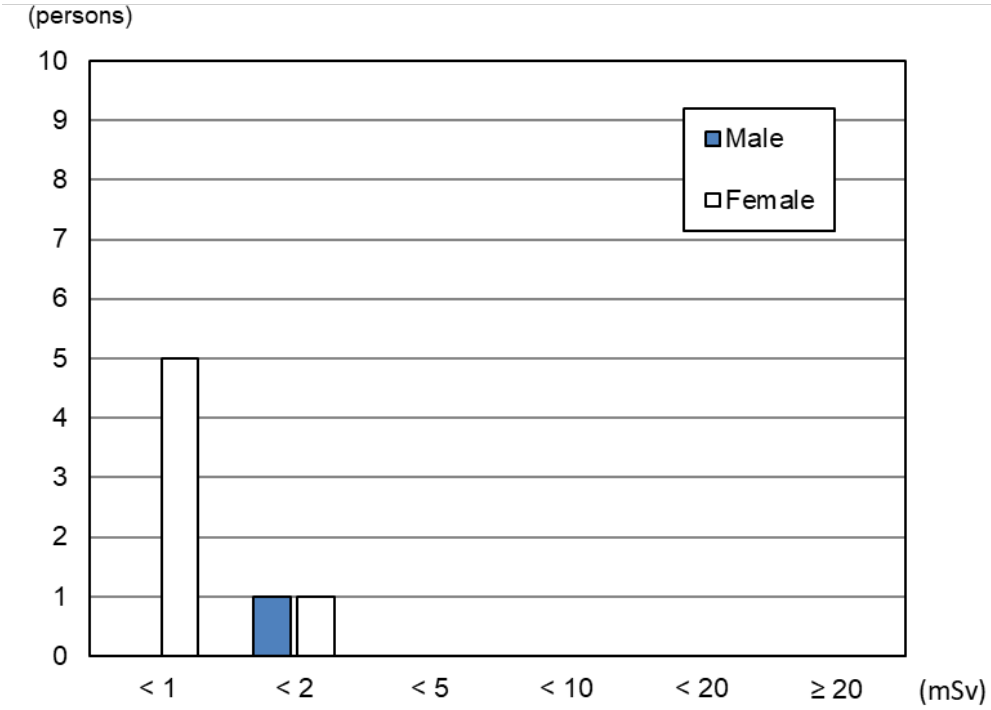


Figure 4: Effective doses of the Basic Survey participants

2.2-5 Blood and urinary iodine test results

Table 7: Blood test results

	FT4[1] (ng/dL)	FT3[2] (pg/mL)	TSH[3] (μIU/mL)	Tg[4] (ng/mL)	TgAb[5] (IU/mL)	TPOAb[6] (IU/mL)
Reference Range	0.95–1.74[7]	2.13–4.07[7]	0.340–3.880[7]	≤ 33.7	< 28.0	< 16.0
Malignant or suspicious : 10	1.3 ± 0.3 (10.0%)	3.4 ± 0.4 (10.0%)	1.3 ± 1.0 (10.0%)	38.6 ± 55.8 (20.0%)	10.0%	20.0%
Other : 295	1.2 ± 0.2 (7.8%)	3.3 ± 0.4 (6.4%)	1.3 ± 1.0 (11.2%)	25.3 ± 42.6 (16.6%)	16.6%	16.9%

Table 8: Urinary iodine test results [8]

(μg/day)

	Minimum	25th percentile	Median	75th percentile	Maximum
Malignant or suspicious : 7	86	94	195	201	565
Other : 203	46	134	213	390	7,252

1) FT4: free thyroxine, thyroid hormone binding 4 iodines; higher among patients with thyrotoxicosis (such as Graves' disease) and lower with hypothyroidism (such as Hashimoto's thyroiditis).
2) FT3: free triiodothyronine, thyroid hormone binding 3 iodines; higher among patients with thyrotoxicosis (such as Graves' disease) and lower with hypothyroidism (such as Hashimoto's thyroiditis).
3) TSH: thyroid-stimulating hormone; higher among patients with Hashimoto's disease and lower with Graves' disease.
4) Tg: thyroglobulin; higher when thyroid tissue is destroyed or when neoplastic tissue produces thyroglobulin.
5) TgAb: anti-thyroglobulin antibody; higher among patients with Hashimoto's disease or Graves' disease.
6) TPOAb: anti-thyroid peroxidase antibody; higher among patients with Hashimoto's disease or Graves' disease.
7) Reference interval varies according to age.
8) Due to the temporary unavailability of reagents, the urinary iodine tests were suspended from March 8, 2024, to January 19, 2025, but resumed on January 20, 2025.

3 Mental Health Care

3.1 Support for Primary Examination Participants

At examination venues, we set up consultation booths where our medical doctors offer consultations and explain examination results using ultrasonographic images. As of March 31, 2026, all 613 examinees (100%) have visited the booths.

3.2 Support for Confirmatory Examination Participants

A support team has been set up within Fukushima Medical University to offer psychological support to address the anxieties and concerns of confirmatory examination participants during the examination. The team also answers questions and offers counseling via our website.

Since the start of the Age 30 Survey, 78 participants (20 males and 58 females) have received support as of March 31, 2026. The number of support sessions provided was 142 in total. Of these, 78 sessions (54.9%) were offered at the participants' first examination, and 64 (45.1%) at subsequent examinations.

For those who proceed to regular health insurance medical care, the support team continues to provide support in cooperation with teams of medical staff at hospitals.

Appendix 1: Implementation status of the Age 30 Survey, by area

As of March 31, 2026

	Eligible persons	Participants (persons)		Participation rate (%)	Participants living outside the prefecture (persons)	Proportion of participants living outside the prefecture (%)
			Those who participated outside Fukushima [1]			
	a	b		b/a	c[2]	c/b
Number of eligible persons for Age 30 Survey (Those born from FY1992 to FY1995)						
13 municipalities[3]	11,800	644	226	5.5	236	36.6
Nakadori[4]	46,435	2,602	978	5.6	947	36.4
Hamadori[5]	16,736	936	381	5.6	381	40.7
Aizu[6]	12,581	460	173	3.7	174	37.8
Total	87,552	4,642	1,758	5.3	1,738	37.4

1) The number of those who received examinations at medical facilities outside the prefecture (as of February 28, 2026)
2) The number of those whose place of residence is outside the prefecture
3) Tamura City, Minamisoma City, Date City, Kawamata Town, Hirono Town, Naraha Town, Tomioka Town, Kawauchi Village, Okuma Town, Futaba Town, Namie Town, Katsurao Village, Iitate Village
4) Fukushima City, Koriyama City, Shirakawa City, Sukagawa City, Nihonmatsu City, Motomiya City, Koori Town, Kunimi Town, Otama Village, Kagamiishi Town, Tenei Village, Nishigo Village, Izumizaki Village, Nakajima Village, Yabuki Town, Tanagura Town, Yamatsuri Town, Hanawa Town, Samegawa Village, Ishikawa Town, Tamakawa Village, Hirata Village, Asakawa Town, Furudono Town, Miharu Town, Ono Town
5) Iwaki City, Soma City, Shinchi Town
6) Aizuwakamatsu City, Kitakata City, Shimogo Town, Hinoemata Village, Tadami Town, Minamiaizu Town, Kitashiobara Village, Nishiaizu Town, Bandai Town, Inawashiro Town, Aizubange Town, Yugawa Village, Yanaizu Town, Mishima Town, Kaneyama Town, Showa Village, Aizumisato Town

Appendix 2: Implementation status of the survey by prefecture

As of March 31, 2026

Prefecture	No. of medical facilities	Participants (persons) *Note
Hokkaido	7	**26**
Aomori	3	**14**
Iwate	4	**16**
Miyagi	2	**179**
Akita	1	**8**
Yamagata	3	**24**
Ibaraki	6	**87**
Tochigi	9	**78**
Gunma	2	**28**
Saitama	5	**129**
Chiba	5	**58**
Tokyo	25	**760**
Kanagawa	10	**147**
Niigata	3	**21**
Toyama	2	**3**
Ishikawa	2	**2**

Prefecture	No. of medical facilities	Participants (persons) *Note
Fukui	1	**1**
Yamanashi	2	**7**
Nagano	4	**15**
Gifu	2	**2**
Shizuoka	3	**11**
Aichi	6	**34**
Mie	1	**1**
Shiga	1	**2**
Kyoto	4	**8**
Osaka	10	**43**
Hyogo	3	**9**
Nara	4	**3**
Wakayama	1	**1**
Tottori	1	**2**
Shimane	1	**0**
Okayama	3	**6**

Prefecture	No. of medical facilities	Participants (persons) *Note
Hiroshima	2	**7**
Yamaguchi	1	**1**
Tokushima	2	**1**
Kagawa	1	**1**
Ehime	4	**1**
Kochi	2	**2**
Fukuoka	4	**6**
Saga	1	**3**
Nagasaki	3	**2**
Kumamoto	1	**3**
Oita	1	**1**
Miyazaki	1	**2**
Kagoshima	2	**1**
Okinawa	1	**2**
Total	**162**	**1,758**

*Note: The number of those who received examinations at medical facilities outside Fukushima Prefecture (as of February 28, 2026)

Appendix 3: Primary Survey results by area

As of March 31, 2026

	Number of participants (persons)	Those with finalized results (persons)	Number of participants by final result (persons) Details by grade (%)				Those with nodules (persons) (%)		Those with cysts (persons) (%)	
	a	b b/a (%)	A		B	C	≥ 5.1mm	≤ 5.0mm	≥ 20.1mm	≤ 20.0mm
			A1	A2						
Number of eligible persons for Age 30 Survey (Those born from FY1992 to FY1995)										
13 municipalities 1)	644	618	297	265	56	0	56	23	0	296
		96.0	48.1	42.9	9.1	0.0	9.1	3.7	0.0	47.9
Nakadori 2)	2,602	2,460	1,033	1,203	224	0	222	103	2	1,294
		94.5	42.0	48.9	9.1	0.0	9.0	4.2	0.1	52.6
Hamadorl 3)	936	885	411	403	71	0	71	26	0	427
		94.6	46.4	45.5	8.0	0.0	8.0	2.9	0.0	48.2
Aizu 4)	460	434	184	211	39	0	39	11	0	231
		94.3	42.4	48.6	9.0	0.0	9.0	2.5	0.0	53.2
Total	4,642	4,397	1,925	2,082	390	0	388	163	2	2,248
		94.7	43.8	47.4	8.9	0.0	8.8	3.7	0.0	51.1

1) Tamura City, Minamisoma City, Date City, Kawamata Town, Hirono Town, Naraha Town, Tomioka Town, Kawauchi Village, Okuma Town, Futaba Town, Namie Town, Katsurao Village, Iitate Village

2) Fukushima City, Koriyama City, Shirakawa City, Sukagawa City, Nihonmatsu City, Motomiya City, Koori Town, Kunimi Town, Otama Village, Kagamiishi Town, Tenei Village, Nishigo Village, Izumizaki Village, Nakajima Village, Yabuki Town, Tanagura Town, Yamatsuri Town, Hanawa Town, Samegawa Village, Ishikawa Town, Tamakawa Village, Hirata Village, Asakawa Town, Furudono Town, Miharu Town, Ono Town

3) Iwaki City, Soma City, Shinchi Town

4) Aizuwakamatsu City, Kitakata City, Shimogo Town, Hinoemata Village, Tadami Town, Minamiaizu Town, Kitashiobara Village, Nishiaizu Town, Bandai Town, Inawashiro Town, Aizubange Town, Yugawa Village, Yanaizu Town, Mishima Town, Kaneyama Town, Showa Village, Aizumisato Town

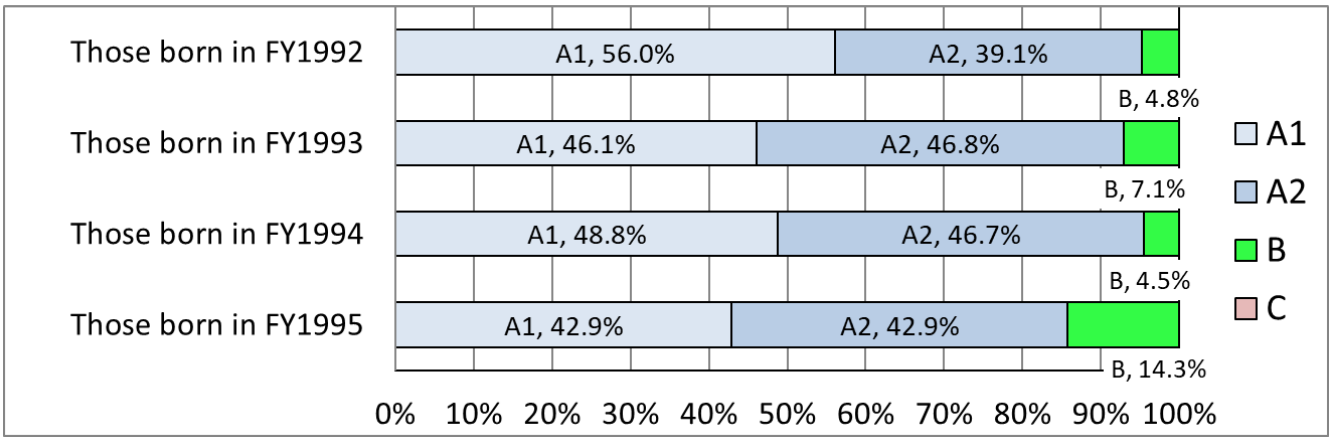
Appendix 4.1: Summary for participants with finalized results, by gender

As of March 31, 2026

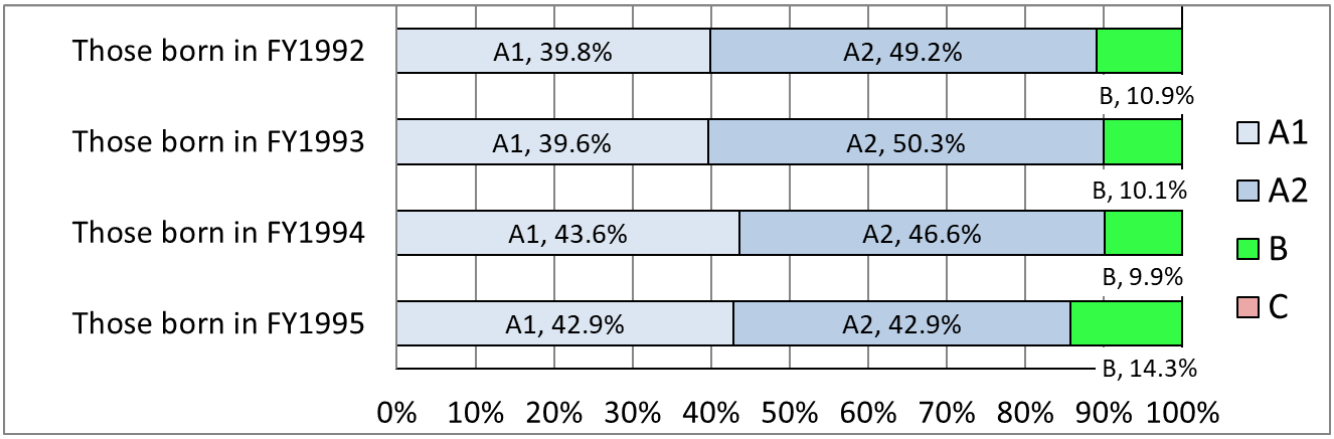
(persons)

Grade / Gender / Participants	A						B			C			Total		
	A1			A2											
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Those born in FY1992	278	467	745	194	577	771	24	128	152	0	0	0	496	1,172	1,668
Those born in FY1993	202	416	618	205	529	734	31	106	137	0	0	0	438	1,051	1,489
Those born in FY1994	205	348	553	196	372	568	19	79	98	0	0	0	420	799	1,219
Those born in FY1995	3	6	9	3	6	9	1	2	3	0	0	0	7	14	21
Total	688	1,237	1,925	598	1,484	2,082	75	315	390	0	0	0	1,361	3,036	4,397

Examination results by age group (Male)



Examination results by age group (Female)

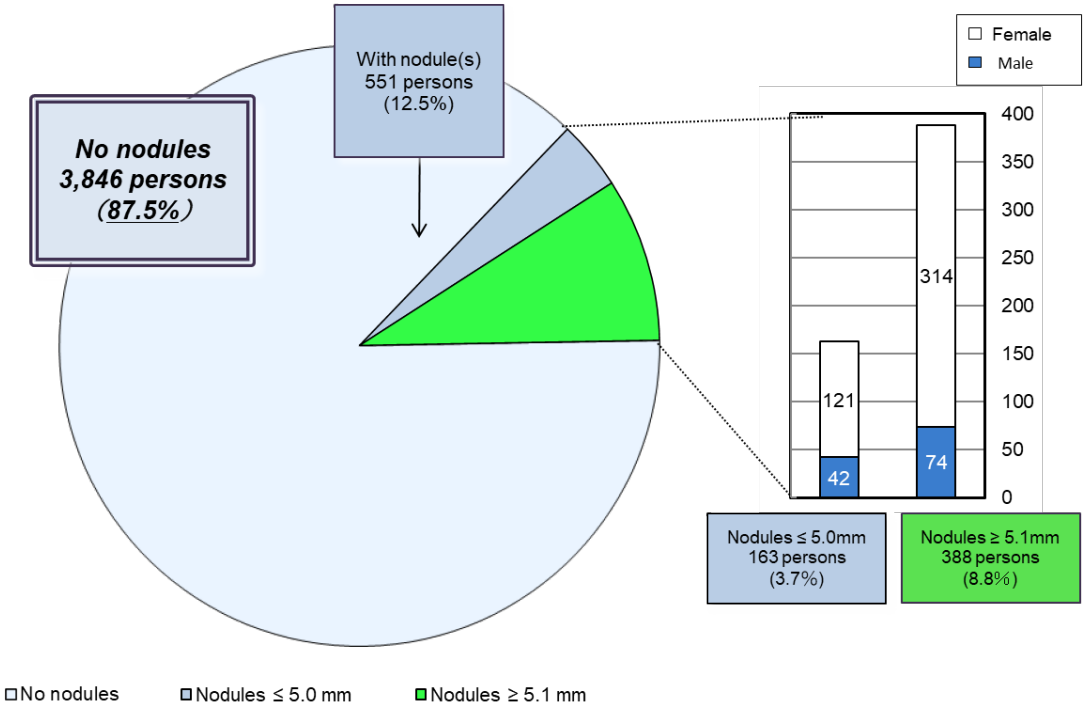


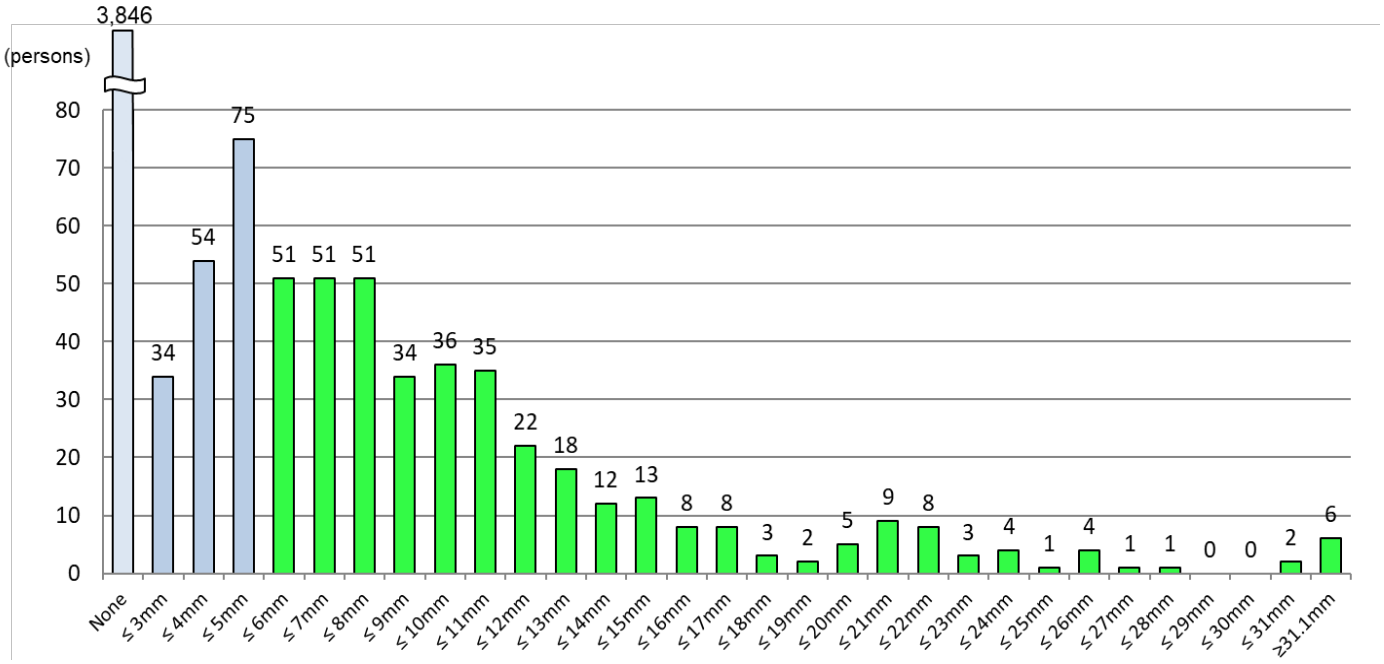
Appendix 4.2: Nodule characteristics

As of March 31, 2026

(persons)

Nodule size	Total	Male	Female	Grade	
None	3,846	1,245	2,601	A1	87.5%
≤ 3.0mm	34	9	25	A2	3.7%
3.1–5.0mm	129	33	96		
5.1–10.0mm	223	49	174	B	8.8%
10.1–15.0mm	100	15	85		
15.1–20.0mm	26	5	21		
20.1–25.0mm	25	2	23		
≥ 25.1mm	14	3	11		
Total	4,397	1,361	3,036		

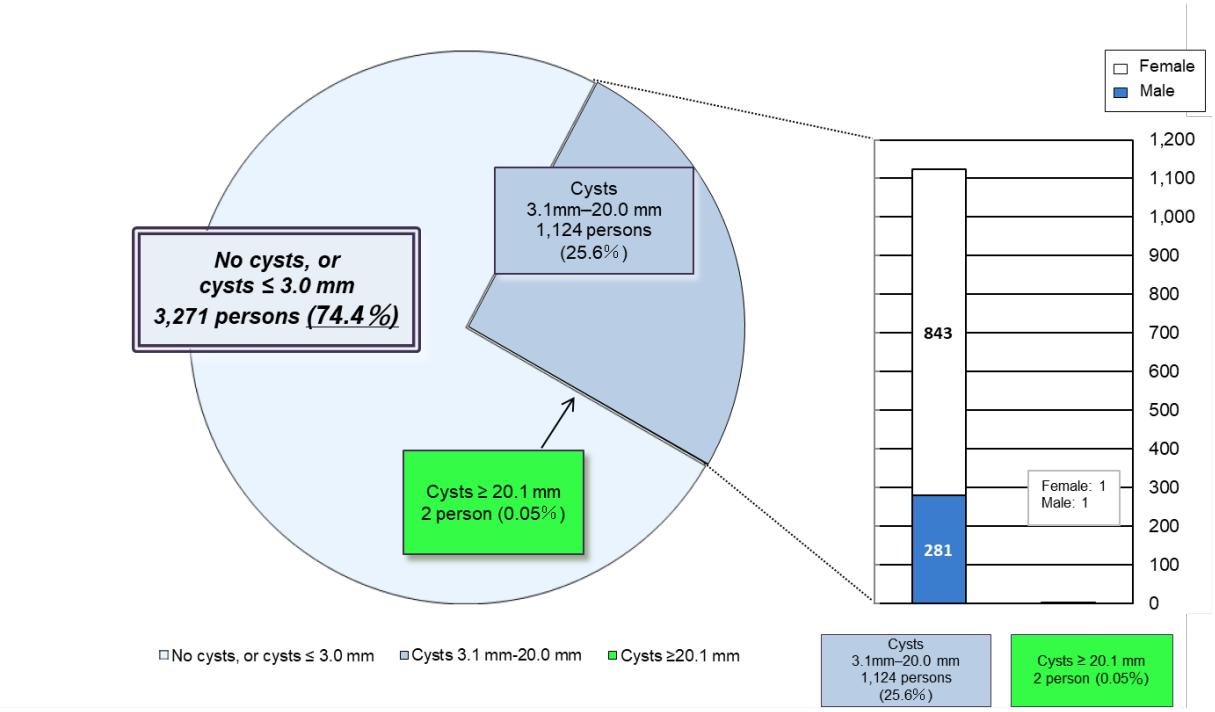


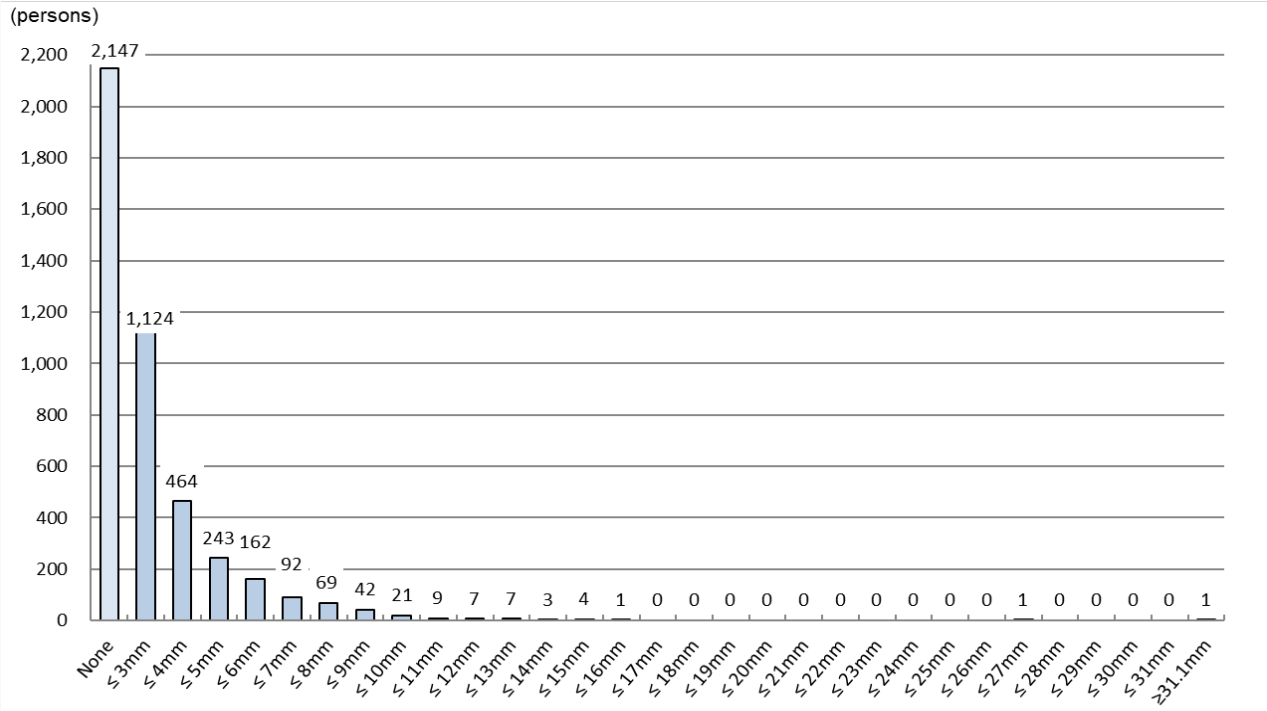


Appendix 4.3: Cyst characteristics

As of March 31, 2026
(persons)

Cyst size	Total	Male	Female	Grade	
None	2,147	743	1,404	A1	74.4%
≤ 3.0mm	1,124	336	788	A2	25.6%
3.1–5.0mm	707	192	515		
5.1–10.0mm	386	87	299		
10.1–15.0mm	30	2	28		
15.1–20.0mm	1	0	1		
20.1–25.0mm	0	0	0	B	0.05%
≥ 25.1mm	2	1	1		
Total	4,397	1,361	3,036		





Appendix 5: Surgical cases for malignancy or suspicion of malignancy

Among those who underwent the Age 30 Survey:

- Malignant or suspicious for malignancy 10
  - Surgical cases 5
  - Papillary thyroid carcinomas 5

July 30, 2026
Materials for the 60th Oversight Committee Meeting

Assessment of the Thyroid Ultrasound Examination Support Program (Report)

Fukushima Medical University (FMU) School of Medicine
Department of Thyroid and Endocrinology
FURUYA Fumihiko

The Department of Thyroid and Endocrinology, FMU School of Medicine, conducted the following study with approval from the FMU Ethics Committee (Approval No. General 2023-127) and hereby reports the results.

[Study Title]

Assessment of the Actual Condition of Thyroid Cancer among Individuals Eligible for the Fukushima Prefecture Thyroid Examination Support Program under the Fukushima Health Management Survey

[Significance and Objectives]

Since July 2015, Fukushima Prefecture has implemented the Fukushima Prefecture Thyroid Examination Support Program (hereinafter referred to as the “Support Program”) to provide financial support for medical expenses incurred following the Fukushima Health Management Survey (FHMS) Thyroid Ultrasound Examination (TUE) and to utilize medical care information in the FHMS. In this study, Fukushima Prefecture provided information on both individuals eligible for the Support Program and individuals diagnosed with malignancy or suspected malignancy through the TUE. The study examined thyroid-related conditions among individuals eligible for the Support Program. In addition, by comparing these individuals with TUE results, the study evaluated Support Program utilization and the extent to which TUE identified thyroid cancers. Through these analyses, the study aimed to provide useful information for utilizing the FHMS to contribute to the maintenance and promotion of the health of Fukushima Prefecture residents.

As in the previous study reported in materials submitted to the 48th Oversight Committee Meeting on the FHMS (hereinafter referred to as the “previous study”), this study employed the same analytical framework to examine changes over time in the characteristics of the study population and in the utilization of the Support Program.

[Study Population]

The study included individuals who met either or both of the following criteria:

- Individuals who received financial support under the Support Program between July 1, 2020, and March 31, 2023 (hereinafter referred to as the “Support Program group”).
- Individuals who were diagnosed with malignancy or suspected malignancy during the confirmatory examination of the TUE between October 2011 and March 31, 2023 (hereinafter referred to as the “TUE group”).

[Methods]

As in the previous study, information obtained through the Support Program and the TUE was examined to determine the overlap between the populations covered by the two programs. The status of TUE participation and other relevant factors were also examined for each group. The data analyzed in this study had been processed to exclude information that could be used to identify specific individuals.

[Results]

1. Overview of the Data Analyzed
   (1) Information from the “Support Program Group” and the “TUE Group” was linked in advance using medical care and examination information obtained through the respective programs. The linked data were then cross-referenced, and a dataset with information that could identify specific individuals was removed and provided by Fukushima Prefecture.
   (2) The total number of individuals was 407, comprising 182 individuals in the “Support Program Group” and 316 individuals in the “Thyroid Examination Group,” with 91 individuals included in both groups (Figure 1).

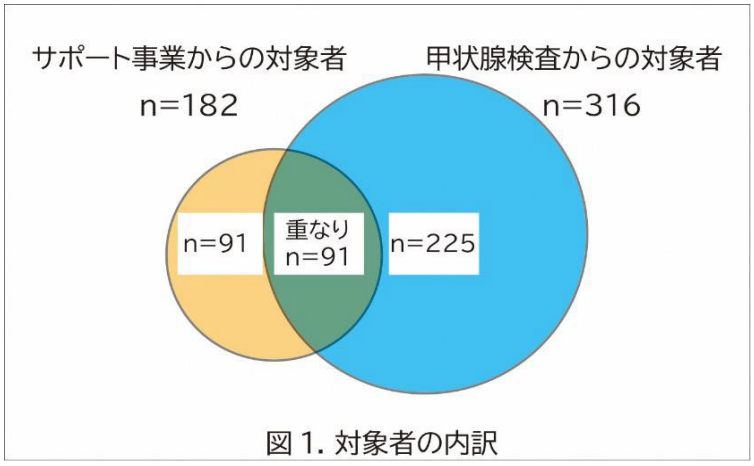


Figure 1

2. Characteristics of “Participants from the Support Program Group”
   The study included 182 individuals (see Figure 1).

   (1) Age Distribution (Age at the Time of Examination and Age at the Time of the Disaster)

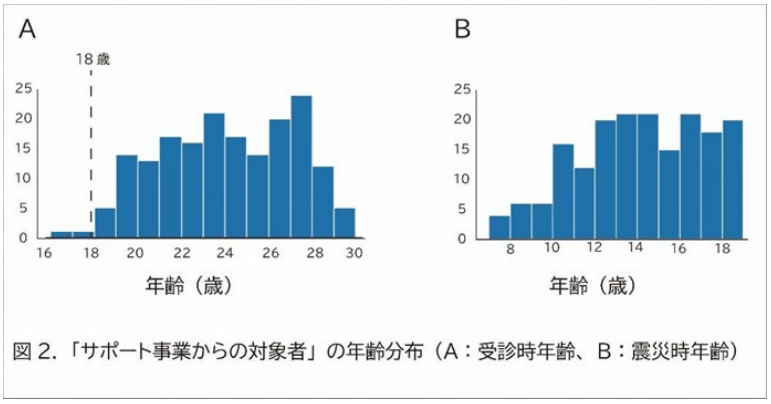


Figure 2

The term “age at the time of examination” refers to the age as of April 1 of the examination year. Regarding age at the time of examination, 178 participants (97.8%) were aged 18 or older, 2 (1.1%) were under 18, and 2 were unknown.

(2) Address at the Time of Examination (Within the Prefecture or Outside the Prefecture)

Within the Prefecture	Outside the Prefecture	Unknown
153 persons (84.1%)	27 persons (14.5%)	2 persons (1.1%)

The address referred to here is the address registered as the mailing address for documents such as the “Information on TUE.”

(3) History of Primary Examination Participation and Results

<table>
<tr><td rowspan="2">History of primary examination participation</td><td colspan="4">Yes</td><td>None</td></tr>
<tr><td colspan="4">180 persons (98.9%)</td><td rowspan="3">2 persons (1.1%)</td></tr>
<tr><td rowspan="2">Results</td><td>A1</td><td>A2</td><td>B</td><td>C</td></tr>
<tr><td>3 persons (1.6%)</td><td>8 persons (4.4%)</td><td>169 persons (92.9%)</td><td>None</td></tr>
</table>

(4) History of Confirmatory Examination Participation

Yes	Have not participated
167 persons	15 persons

Of the 169 individuals who received Grade B at least once in the primary examination, 167 (98.8%) underwent a confirmatory examination at least once.

(5) Whether Fine-Needle Aspiration Cytology (FNAC) was Performed in the 167 Individuals who Underwent the Confirmatory Examination

FNAC performed	No FNAC
126 persons (of whom 83 had malignancy and 8 were suspected of having malignancy)	41

(6) Pathological Diagnosis at Initial Surgery (61 patients)

Papillary carcinoma	Follicular carcinoma	Follicular adenoma	Adenomatous goiter
50	2	1	8

3. Characteristics of Participants in the “Support Program Group” Excluding Those Identified Through the “TUE Group”

The number of eligible individuals is 91 (see Figure 1)

(1) History of Primary Examination and Results

<table>
<tr><td rowspan="2">History of Primary Examination</td><td colspan="4">Yes</td><td>None</td></tr>
<tr><td colspan="4">89 persons (97.8%)</td><td rowspan="3">2 persons (2.2%)</td></tr>
<tr><td rowspan="2">Result</td><td>A1</td><td>A2</td><td>B</td><td>C</td></tr>
<tr><td>3 persons (3.3%)</td><td>8 persons (8.8%)</td><td>78 persons (85.7%)</td><td>None</td></tr>
</table>

(2) History of Confirmatory Examination

Yes	No history
76 persons	13 persons

Of the 78 cases with a grade B result at least once in the primary examination, 76 (97.4%) underwent confirmatory examination at least once.

(3) Whether Fine-needle Aspiration Cytology (FNAC) was performed in the 76 patients who underwent confirmatory examination

FNAC performed	No FNAC
35 persons (of whom 0 had malignancy and 0 were suspected of having malignancy)	41 persons

(4) Pathological Diagnosis at the Time of Initial Surgery (23 persons)

Papillary carcinoma	Follicular carcinoma	Follicular adenoma	Adenomatous goiter
13	2	1	7
(Reference) Pathological diagnoses among participants who were identified through both the “Support Program Group” and “TUE Group” (38 people)			
37	0	0	1

4. Characteristics of participants identified through “TUE Group” Excluding Those Identified Through the “Support Program Group”

The study included 225 participants (see Figure 1).

(1) Age Distribution (Age at the time of the confirmatory examination and age at the time of the earthquake)

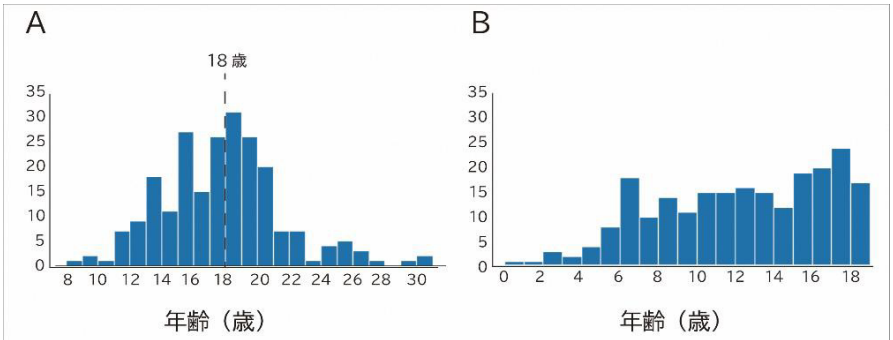


図 3.「甲状腺検査からの対象者」のうちで「サポート事業からの対象者」を除外した対象者の年齢分布（A：二次検査時年齢、B：震災時年齢）

At the time of the confirmatory examination, 117 participants (52.0%) were under 18, and 108 (48.0%) were aged 18 or older.

(2) Address at the Time of Examination (Within or outside the prefecture)

Within the prefecture	Outside the prefecture
205 people (91.1%)	20 people (8.9%)

The address referred to here is the address registered as the mailing address for documents such as the “Notice of the examination.”

(3) Primary Examination

Have undergone the TUE 225 people (all)

Grade B 225 people (all)

(4) Confirmatory Examination

Has a history of TUE 225 people (all)

(5) FNAC Performed 225 people (all)

FNAC results 200 malignant, 25 suspected malignant

(6) Surgical Status and Pathological Diagnosis

Since surgical information is not linked to the TUE data, this information is unknown for all cases.

[Discussion]

The Support Program assists with medical expenses incurred following TUE and contributes to the collection of medical information from the Fukushima Health Management Survey

(https://www.pref.fukushima.lg.jp/sec/21045b/kenkocyosa-kojyosen-support-shinsei.html)

Fukushima Prefecture has regularly reported on the results of the Support Program to date to the Oversight Committee. In this study, we cross-referenced data from the Support Program with the results of the TUE from the Fukushima Health Management Survey to examine their relationship. The significance of this study lies in the fact that, through information on participants in the Support Program, it is possible to evaluate the subsequent clinical course following TUE.

As a general rule, receiving financial assistance under the Support Program requires that the recipient has undergone TUE. However, in cases where an individual was unable to undergo the examination for unavoidable reasons, the program operates with flexibility, taking individual circumstances into account. In fact, 180 (98.9%) of the 182 program participants had a history of undergoing a thyroid examination, while 2 (1.1%) had not undergone TUE but were still granted financial assistance.

Furthermore, since the Support Program provides grants within the limits of out-of-pocket expenses for insurance-covered medical care, individuals residing in Fukushima Prefecture who are “under 18 years of age as of the end of March of the fiscal year in which they turn 18” incur no out-of-pocket expenses under the “Child Medical Expense Subsidy”; therefore, in principle, the program is limited to those aged 18 and older. In this survey as well, those aged 18 and older accounted for 178 (97.8%), while those under 18 numbered only 2 (1.1%) (Figure 2) These results suggest that the Support Program is being operated generally appropriately in accordance with its guidelines. It is presumed that the two individuals under 18, for some reason, did not have their medical expenses fully subsidized by other public programs, resulting in out-of-pocket costs for which they applied to the Support Program.

Since residents outside the prefecture accounted for 15.0% of the program’s beneficiaries, it appears that the program is being utilized to a certain extent by non-residents as well. On the other hand, among the 225 individuals who were identified through TUE but were not eligible for the Support Program, 117 (52.0%) were under the age of 18. It is highly likely that these individuals were not eligible because they did not incur any out-of-pocket costs. As for the remaining 108 people aged 18 and older (48.0%), while they were technically eligible to apply under the system, the reasons why they did not apply are not clear from this survey. Although they did not apply during the data period covered by this study (July 2020 to the end of March 2023), it is possible that they had already applied during the data period covered by previous studies (October 2015 to the end of June 2020). It is also possible that multiple other factors were involved, such as delays in filing applications or relatively low out-of-pocket costs during follow-up observation; however, the specific circumstances of each individual could not be ascertained.

To further examine the relationship between TUE and the Support Program, we analyzed 91 individuals who were not eligible for TUE but were eligible for the Support Program. Eighty-nine individuals underwent the initial screening, and 78 of them (85.7%) received a “B” classification. Of the 78 individuals with grade B, 76 (97.4%) underwent a secondary examination, and 35 underwent FNAC. Although no cases were diagnosed as malignant or suspected malignant based on FNAC, ultimately, 23 individuals underwent surgery, and pathological diagnoses revealed malignancy in 15 cases and benign in 8.

These results suggest that many participants in the Support Program received medical care for thyroid nodules as a result of the TUE and that their care continued even after transitioning to insurance-covered medical care. In other words, even when a final diagnosis is not reached within the framework of the screening program, TUE is considered to contribute to continuous monitoring through the transition to insurance-covered medical care. Furthermore, the findings suggest that the Support Program may play a role not only in supporting the treatment of cases diagnosed as malignant or suspected of being malignant but also in broadly supporting the management of thyroid nodules deemed necessary following a TUE.

It should be noted that the information collected through the Support Program is obtained based on applications from participants, and the analysis of this survey using such data does not provide sufficient clinical detail to be considered complete medical records. There is also a limitation in that the specific course of individual cases cannot be ascertained.

When compared with previous studies, no significant changes were observed in the basic characteristics of participants in the Support Program, including their age distribution, history of TUE, and the mechanism by which TUE leads to referral for insured medical care. These results suggest that the relationship between the Support Program and TUE has been operated under a generally consistent framework over time.

[Conclusion]

In this study, we analyzed the results of the Support Program in conjunction with those of TUE. We categorized the 407 participants into groups such as those who received only the Support Program (91 individuals) and those who underwent only TUE (225 individuals), and examined the characteristics of each group.

The results suggest that, consistent with previous studies, the Support Program not only assists in the management of cases diagnosed as malignant or suspected of being malignant through TUE, but also, maintains a system that broadly supports the management of thyroid nodules that transitioned to insurance-covered medical care as a result of the screening.

Furthermore, it was considered that even in cases where a final diagnosis was not reached within the framework of the TUE program, the mechanism for transitioning to insurance-covered medical care contributed to the ongoing monitoring of the prefecture’s residents.

Implementation Status of the Thyroid Ultrasound Examination Support Program under the Fukushima Health Management Survey

July 30, 2026
Citizens Healthcare Survey Division
Fukushima Prefecture

1. Program Overview

1-1 Purpose

- To provide financial support for economic burdens incurred following the Thyroid Ultrasound Examination under the Fukushima Health Management Survey (FHMS).
- To use medical information related to insured medical care covered by health insurance as basic data for the FHMS, thereby contributing to the long-term maintenance and promotion of the health of the Fukushima residents. (Program launched in July 2015.)

1-2 Program Details

- Provide financial support to eligible individuals.
- Information on treatment and other medical care of eligible individuals following the Thyroid Ultrasound Examination is utilized to contribute to the maintenance and promotion of the health of Fukushima residents.

1-3 Eligibility

- Individuals who meet all the conditions below are eligible:
  - Those who are eligible for the Thyroid Ultrasound Examination.
  - Those who underwent the Thyroid Ultrasound Examination.
  - Those receiving medical care under the national health insurance system for thyroid nodules or other nodular lesions detected through the examination

  Those who receive full coverage of their medical expenses under other public assistance programs (e.g., medical expense subsidies for children, public assistance, or exemptions from copayments for residents of areas designated as difficult-to-return-to areas) are not eligible.

1-4 Expenses to be supported

a. Actual patient copayment expenses for insured medical care related to thyroid nodules or other nodular lesions

b. Expenses incurred in applying for financial support, including fees for preparing medical information forms and fees for issuing certified copies of family registers.

2. Implementation Status

The following summarizes information from applications received under this program from its launch on July 10, 2015, through March 2026.

2-1 Financial Support Payments

a. Number of payments: 1,207 payments (cumulative)

FY2015: 121
FY2016: 104
FY2017: 88
FY2018: 85
FY2019: 101
FY2020: 104
FY2021: 83
FY2022: 102
FY2023: 123
FY2024: 146
FY2025: 150
Total 1,207

b. Number of recipients

547 (actual number of individuals)
Male: 167
Female: 380

c. Age at the time of the subsidy payment

15–33 years
(Age at the time of the Disaster: 1–18 years)

d. Place of residence at the time of the subsidy payouts after the Disaster

Hamadori: 94
Nakadori: 338
Aizu: 54
Evacuation-designated areas and other areas*: 61

* Tamura City, Minamisoma City, Date City, Kawamata Town, Hirono Town, Naraha Town, Tomioka Town, Kawauchi Village, Okuma Town, Futaba Town, Namie Town, Katsurao Village, and Iitate Village

2-2 Cases Involving Surgery

a. Number of payments involving surgery

270 payments (257 actual number of individuals)

FY2015: 42

FY2016: 25

FY2017: 16

FY2018: 19

FY2019: 21

FY2020: 27

FY2021: 17

FY2022: 22

FY2023: 34

FY2024: 20

FY2025: 27

b. Gender of recipients

Male: 85

Female: 172

c. Age at the time of surgery

16–31 years

(Age at the time of the Great East Japan Earthquake: 3–18 years)

d. Pathological diagnoses

(a) Thyroid cancer: 224 cases

Papillary thyroid carcinoma:	215
Poorly differentiated thyroid carcinoma:	1
Follicular thyroid carcinoma:	8

(b) Other than thyroid cancer: 33 cases

(e.g., follicular adenoma)

Report of the 26th Meeting of the Thyroid Examination Evaluation Subcommittee

1. Date and Time: Friday, May 22, 2026, 13:30 - 15:00
2. Location: Grand Park Excel Fukushima Ebisu, * Both on-site and online
3. Attendees: 8 subcommittee members
4. Election of the Chair and appointment of the Vice Chair

   Committee member Dr. Suzuki was elected (re-elected) as the Chair by mutual vote. The Chair appointed Committee member Dr. Minamitani as Vice Chair.

5. Agenda and Discussion

(1) Overview of Thyroid Ultrasound Examination (TUE), etc.

Fukushima Medical University provided an overview of the TUE (Document 1-1) and a summary of results for each examination round (Document 1-2).

< Opinions of Committee Members.>

· Regarding the TUE participation rate, there is some doubt as to whether participants fully understand the purpose and results of the examination. Rather than viewing the decline in the participation rate itself as a problem, we should focus on ensuring that participation remains voluntary.

(2) Matters Discussed by the Thyroid Examination Evaluation Subcommittee

The secretariat explained the summary report (Ref Material 3) compiled during the previous term, covering the period from the preliminary baseline survey to the full-scale surveys (the 5th round). In addition, an overview of the questionnaire survey (Ref Material 4) was presented in relation to the summary report prepared by the Subcommittee.

Furthermore, the Subcommittee members reviewed the items for consideration by the Thyroid Examination Evaluation Subcommittee (Document 2-1), as approved at the 57th Prefectural Oversight Committee meeting held on November 20, 2025.

The results of a preliminary consultation conducted by the Secretariat with Subcommittee members regarding future analyses and related matters (Document 2-2) were also shared. The members discussed a review of the analytical methods used to date, validation from a clinical perspective, and the content of the next summary to be prepared by the Subcommittee.

< Opinions of Subcommittee Members >

· For analyses utilizing data from regional cancer registries and the National Cancer Registry, data for fiscal year 2023, and potentially fiscal year 2024, may be available for analysis based on publicly released figures.

· I believe that one of this subcommittee's responsibilities is to conduct multi-layered analyses to disseminate information in a manner that is easier for residents to understand.

· As the number of cases increases further, the analyses conducted to date are expected to yield more stable results. In particular, previous discussions have highlighted substantial regional differences in thyroid examination practices, which can considerably affect the results of region-specific analyses. These analyses currently have wide confidence intervals; therefore, it is

important to obtain more stable estimates as the number of cases increases.

- There has been discussion regarding whether the high biopsy rate during the pilot screening program introduced a bias. In the first year of the pilot, the rate of patients referred for biopsy was high at around 60 percent; over the course of two to three years, this rate declined to the 40–30 percent range, and since the full-scale screening program began, it has stabilized at around 10 percent. In that sense, there is a possibility that overdiagnosis was more likely to occur during the pilot screening, and I believe this is an aspect that continues to affect the analysis even now. As the number of cases increases, I think we are entering a phase where we can examine these issues from multiple angles.
- Even in cases of external exposure, young people are highly sensitive to radiation and have a higher risk of cancer. Compared to those aged 10 and older, the risk for children aged 5 and under is several times higher. In fact, following the Chornobyl nuclear accident, it was reported that there was a significant increase in radiation-induced cancers among children who were 5 years old or younger at the time of the accident; therefore, analyses that take age into account will also be important in the case of Fukushima. Until now, the detection rate of thyroid cancer in children under 5 has not naturally increased because they have not yet reached junior high or high school age; however, this group will soon reach the age at which such cancers are typically detected. In that sense, I believe future screening will be crucial.

(3) Other

Fukushima Medical University presented an overview of a paper (Document 3) examining risk factors for recurrence in thyroid cancer among young patients, focusing on recurrence risk associated with surgical cases and pathological findings.

<Main Opinions of Committee Members>

- Among young patients, certain subtypes of papillary carcinoma—such as the diffuse sclerosing type—are known to be associated with a high rate of metastatic recurrence. Furthermore, cases with frequent RET gene rearrangements are said to be more common in children and prone to recurrence; however, since the paper does not provide data on whether the Fukushima cases in this study fell into this category, I believe this will require further review.
- Last year, the guidelines were revised. Previously, the general approach for N1b cases was to perform a total thyroidectomy followed by radioactive iodine therapy; however, the current guidelines no longer stipulate that a total thyroidectomy is mandatory, and the approach has shifted to allow for hemithyroidectomy with unilateral lymph node dissection. This change is based on several domestic studies showing that, regardless of whether ablation is performed, there is little difference in recurrence rates or life expectancy.

60_6_Report of the 26th Meeting of the Thyroid Examination Evaluation Subcommittee

Overview of the Thyroid Ultrasound Examination (TUE) on the Fukushima Health Management Survey (FHMS)

Among the health effects caused by radiation that became apparent following the Chornobyl nuclear accident, cases of thyroid cancer in children due to internal exposure to radioactive iodine have been reported. Although the radiation dose from radioactive iodine in Fukushima Prefecture is considered to be lower than that in Chornobyl, TUEs are conducted to assess the condition of children's thyroids and monitor their health over the long term.

1. Examination Period and Covered Population

	Examination Categories	Period	Covered Population
First-round Completed	Preliminary Baseline Survey (PBLS) (Assess the condition of the thyroid gland)	October 2011 – March 2014	Individuals aged 0 to 18 or younger who were residing in Fukushima Prefecture at the time of the disaster [Approx. 368,000 people] (Those born between April 2, 1992 to April 1, 2011)
Second-round To Six-round Completed	Full-scale Survey (Monitor the condition of the thyroid gland over time)	April 2014 – March 2025	In addition to the "Individuals Eligible for PBLS listed above, those born between April 2, 2011 – April 1, 2012 [Approx. 381,000 people TUE is implemented every two years until the age of 20, and thereafter at five-year intervals—such as at ages 25 and 30 (Do not allow more than five-year intervals to elapse between examinations up to age 25)
Seventh-round Ongoing		April 2025 – March 2027	

Note: Due to the impact of the COVID-19 pandemic, the fifth-round survey was conducted over three years, from 2020 to 2022

2. Examination Locations

Region	Age (Age reached in each fiscal year)		Main Screening Venues
Within the Prefecture	Up to age 6 (Preschoolers)	*Starting in 2018 No eligible children	Examination facilities within the prefecture*1 General venues such as public facilities, etc. *2
	Ages 7–18 (equivalent to elementary, junior high, and high school students)	*Starting in 2024 No elementary school students	Each school*3
	Ages 19 and older		Examination facilities within the prefecture 1 General venues such as public facilities *2
Outside the prefecture	All ages		Examination facilities outside the prefecture*1

*1 Examination facilities (number of agreements in effect as of March 31, 2026)

	Examination Facilities Within the Prefecture	Examination Facilities Outside the Prefecture	Remarks
Primary Examination	83	162	
Confirmatory Examination	7*	47	*Including Fukushima Medical University

Note 2: Examination is conducted at public facilities and other general venues in the seven regions of the prefecture (including holidays and evenings).
*3 Began in November 2011 at the request of municipalities and boards of education

3. Method of Obtaining Consent

When a person undergoes a TUE, the advantages and disadvantages are explained to the individual or their guardian in writing (or via a web screen for online appointments), and the screening is conducted only after obtaining consent.

In addition, to supplement these explanations, consultation opportunities are provided through a call center for general inquiries, a dedicated medical hotline for medical questions, and online consultations.

[Reference] Requirement for the Handwritten Signature of the Participant or Guardian

	Under 16 years of age*1	Aged 16 or older Under 18 years of age*2	18 years or older
Guardian's Name (Handwritten Signature)	Required	Required	Not required
Name of Participant (Handwritten)	Not required	Required	Required

*1 Minors who have not completed the junior high school curriculum and are under 16 years of age

*2 Minors who have completed the junior high school curriculum or are 16 years or older

4. Informing Individuals About the Advantages and Disadvantages of the Examination

Because individuals should decide whether to undergo the TUE only after understanding its advantages and disadvantages, we provide the following information.

(1) Notice Regarding TUE

Based on discussions within the Fukushima Prefectural Oversight Committee for the FHMS (hereinafter referred to as the Oversight Committee) and the Thyroid Evaluation Subcommittee, the notification letter for TUE was revised starting in 2020. A booklet titled "Advantages and Disadvantages of the Examination" (including explanatory documents for elementary and junior high school students) is now enclosed.

(2) Public Awareness via the Website

On the "Advantages and Disadvantages of the Examination" page, we have made the contents available for review via a booklet (PDF) and a video.

(3) Publicizing Information via the "Thyroid Newsletter"

To provide various information regarding TUEs, the "Thyroid Newsletter" has been published since fiscal year Heisei 24 and is mailed to all individuals eligible for screening.

The "Thyroid Newsletter" features articles explaining that TUE is voluntary and that the examination has both advantages and disadvantages.

(4) Explanations Through Outreach Classes

A presentation (by a physician) provides easy-to-understand explanations of thyroid function and an overview of the TUE, as well as the advantages and disadvantages of the examination.

(5) Use of Explanatory Videos (Animations)

We are making every effort to raise awareness by utilizing every available opportunity—such as incorporating explanatory videos (animations) that clearly explain the background and purpose of TUE, how to undergo the examination, its advantages and disadvantages, and the support system—into outreach sessions and at general TUE venues.

(6) Other Initiatives

We are raising awareness through events hosted by Fukushima Medical University and prefectural government information programs.

1) Awareness Campaign at the "Iki-Iki Health Forum"

We set up a panel display explaining the advantages and disadvantages of the TUE and played the explanatory animation video.

2) Utilization of Prefectural Government Public Information Programs

On prefectural government public information programs, we explained the overview of the TUE as well as its advantages and disadvantages, and conveyed the message that we hope residents will decide whether or not to undergo the examination based on a full understanding of the information.

(Fukushima TV: "SATAFUKU" "Fukushima Field Investigation Team," broadcast on June 18, 2022)

5. Examination Method

(1) Primary Screening

The TUE is performed using an ultrasound imaging device.

The examination results are evaluated by multiple specialists based on the following criteria.

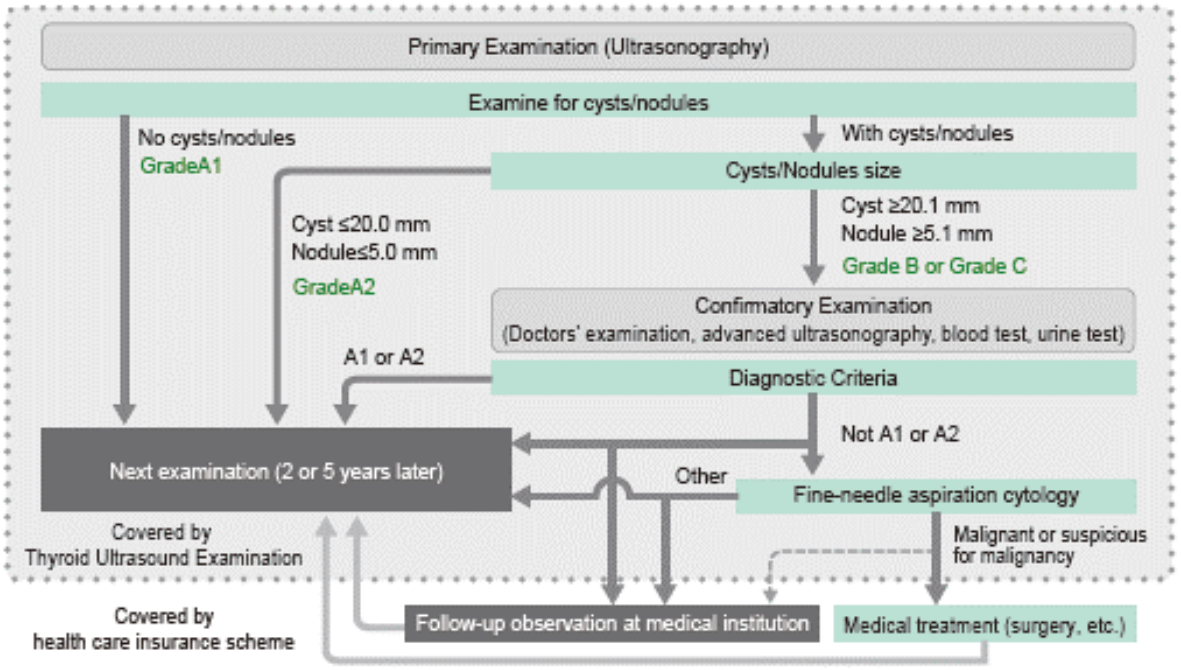
Grade A (A1): No cysts or nodules were detected
(A2): When cysts of 20.0 mm or less or nodules of 5.0 mm or less are detected.
Grade B : Cysts 20.1 mm or larger or nodules 5.1 mm or larger were detected
(Includes cases where, even with an A2 classification, a confirmatory examination is deemed necessary based on the condition of the thyroid, etc.)
Grade C : Cases where, based on the condition of the thyroid or other factors, a secondary examination is required immediately

(2) Confirmatory Examination

If the results of the primary examination are classified as Grade B or C, the participant is eligible for a confirmatory examination. The confirmatory examination includes a detailed ultrasound examination, blood tests, and urine tests; fine-needle aspiration cytology (FNAC) is performed as necessary. Patients deemed to require prompt medical attention will be given priority for the primary examination.

Please note that some individuals may be scheduled for medical treatment based on the results of the confirmatory examination.

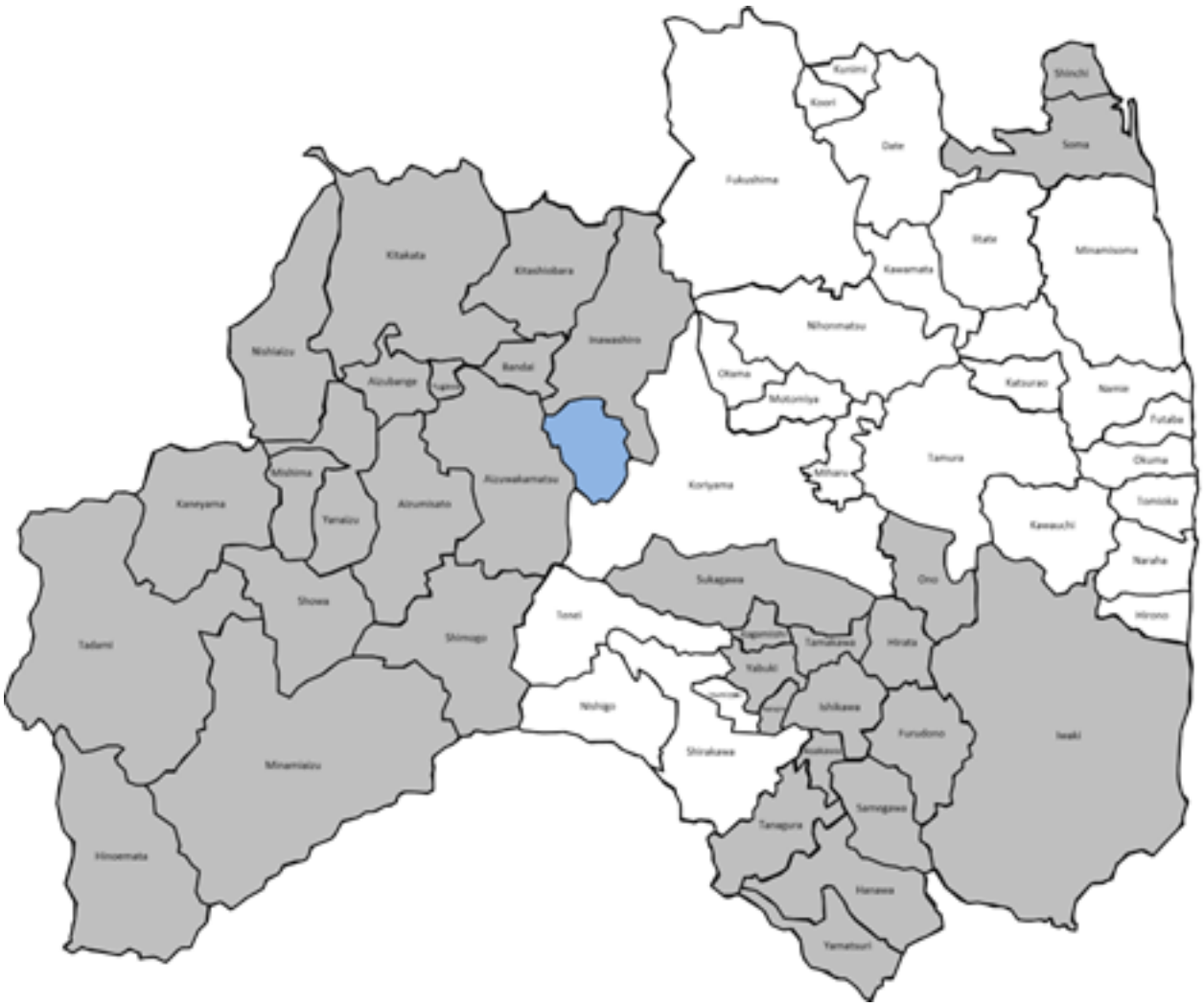
(3) Examination Process



6. Municipalities by Fiscal Year of Implementation

The municipalities covered by the 7th round survey (FY2025 – 2026) are as follows.

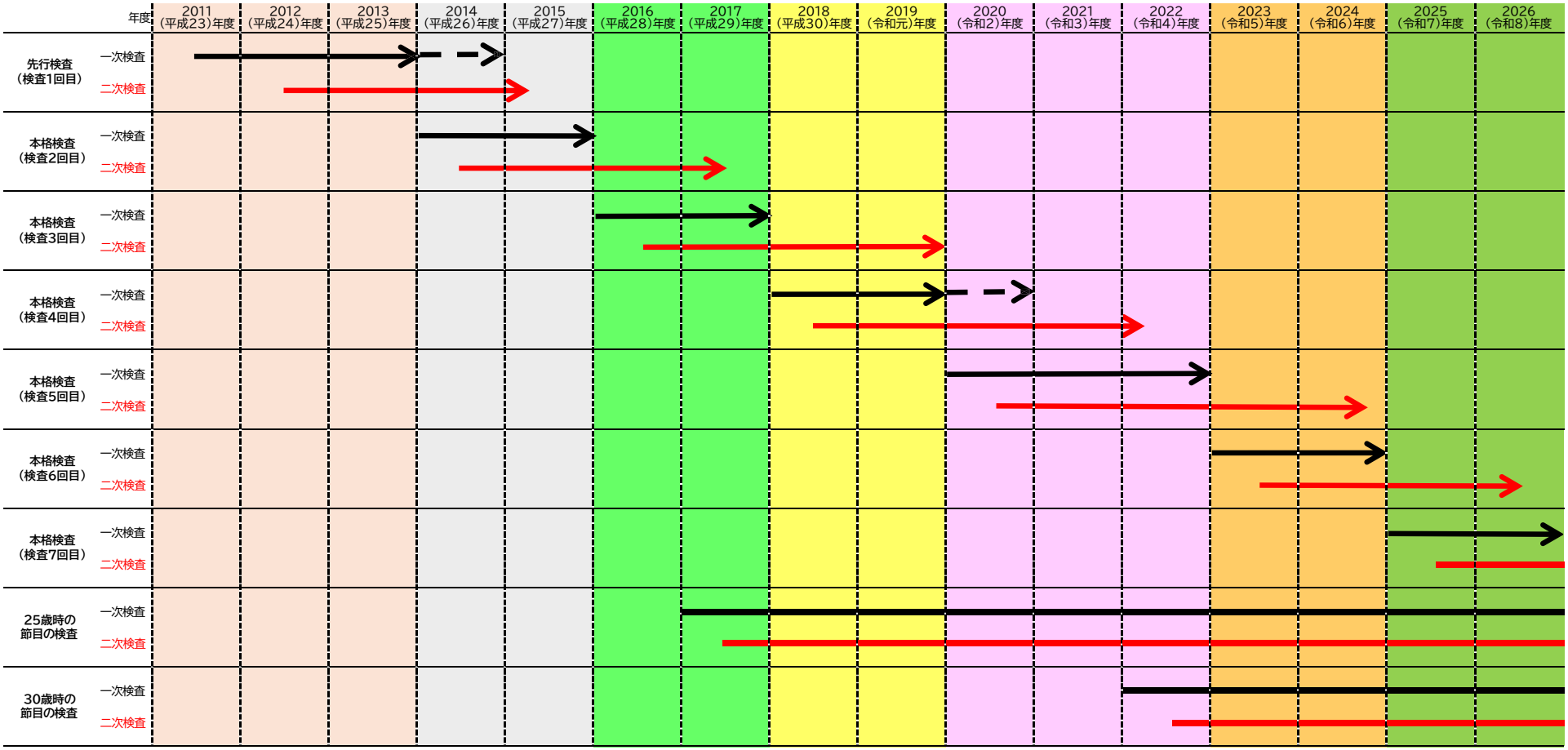
(Participants generally aged 18 or younger)



25 Municipalities in FY2025

34 Municipalities in FY2026

Reference [Progress of TUE]



60_6_Report of the 26th Meeting of the Thyroid Examination Evaluation Subcommittee

Summary of Results from the TUE on the Fukushima Health Management Survey

As of December 31, 2025

			先行検査（検査１回目） 2018（平成30）年3月31日現在	本格検査（検査２回目） 2021（令和３）年3月31日現在	本格検査（検査３回目） 2021（令和３）年3月31日現在	本格検査（検査４回目） 2022（令和４）年6月30日現在	本格検査（検査５回目） 2024（令和６）年12月31日現在	本格検査（検査６回目） 2025（令和７）年12月31日現在	本格検査（検査７回目） 2025（令和７）年12月31日現在	25歳時の節目の検査 2025（令和７）年9月30日現在	30歳時の節目の検査 2025（令和７）年9月30日現在	計
一次検査	検査実施年度		2011（平成23）年度～2013（平成25）年度	2014（平成26）年度～2015（平成27）年度	2016（平成28）年度～2017（平成29）年度	2018（平成30）年度～2019（令和元）年度	2020（令和２）年度～2022（令和４）年度	2023（令和５）年度～2024（令和６）年度	2025（令和７）年度～2026（令和８）年度	2017（平成29）年度～	2022（令和４）年度～	
	対象者数（人）		367,637	381,237	336,667	294,228	252,936	211,928	171,962	169,956	66,542	–
	受診率		81.7%	71.0%	64.7%	62.3%	45.1%	32.6%	12.5%	8.2%	6.5%	–
	判定結果	A１	51.5%	40.2%	35.1%	33.6%	28.8%	26.8%	26.8%	42.3%	43.8%	–
		A２	47.8%	59.0%	64.2%	65.6%	70.0%	71.7%	71.4%	52.1%	47.4%	–
		B	0.8%	0.8%	0.7%	0.8%	1.2%	1.4%	1.8%	5.6%	8.8%	–
		C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	–
二次検査	対象者数（人）		2,293	2,230	1,502	1,394	1,346	989	–	779	383	–
	受診率		92.9%	84.2%	73.5%	74.3%	82.9%	82.2%	–	83.7%	81.7%	–
	悪性・悪性疑い（人）［細胞診の結果］		116	71	31	39	50	23	–	27	10	367
保険診療	手術実施者数（人）		102	56※	29	34	46	18	–	20	5	310
	病理診断（人）	乳頭癌	100	55※	29	34	45	18	–	19	5	305
		その他	1（良性） 1（低分化癌）	1※（その他）	0	0	1（その他）	0	–	1（濾胞癌）	0	5

*As of March 31, 2022

Items for Discussion by the Thyroid Examination Evaluation Subcommittee of the Oversight Committee

May 22, 2026

(1) Analysis and Evaluation of Thyroid Ultrasound Examination Results

(2) Analysis Utilizing Regional and National Cancer Registry Data

(3) Other Matters Directed by the Review Committee

60_6_Report of the 26th Meeting of the Thyroid Examination Evaluation Subcommittee

Opinions and Comments Regarding the Agenda for the 26th Meeting of the Thyroid Examination Evaluation Subcommittee

1. Opinions and Questions Regarding Previous Analyses, etc.

1) As the number of cases has increased, in addition to the Kaplan-Meier method used in survival time analyses, should we consider conducting Cox regression analysis, which allows for adjustment for confounding factors, or sensitivity analyses that vary the number of controls per case?
2) To determine whether the high biopsy rate in the preliminary screening is introducing bias, should we conduct a case-control study using only cases from the full-scale survey?

2. Other (Additional Comments, etc.)

1) Fifteen years have passed since the nuclear accident, and the population undergoing TUE is aging. An analysis of the cumulative detection rates by age group at the time of the disaster revealed a trend in which the cumulative detection rate of thyroid cancer increases with age. Therefore, it is necessary to carefully monitor trends in the cumulative detection rates among the generation of infants and young children at the time of the accident, who were highly sensitive to radiation and received relatively high doses of radiation to the thyroid. We hope that the analysis included in the subcommittee's summary will incorporate these results for the generation of infants and young children at the time of the accident.

A Prospective Cohort Study of Factors Associated with Recurrence in Young Patients with Thyroid Cancer

Fukushima Medical University
Department of Thyroid and Endocrinology

■ Background: Previous Treatments and New Trends

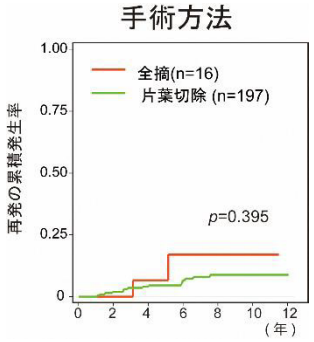
While thyroid cancer in children and young adults is considered to have a favorable prognosis, the recurrence rate has been reported to reach approximately 20%, making long-term management crucial (Rivkees et al., *Endocrine Reviews* 2011; Kuhlen et al., *Endocrine-Related Cancer* 2025). Lymph node metastasis, extrathyroidal extension, multiple lesions, and vascular or lymphatic invasion are known risk factors for recurrence, and total thyroidectomy has often been selected from the perspective of preventing recurrence. On the other hand, in recent years, the American Thyroid Association (ATA) has also advocated for the concept of reduced-scope surgery, including hemithyroidectomy, in low-risk cases (2025 ATA Guidelines).

At the Department of Thyroid and Endocrine Surgery, Fukushima Medical University Hospital, we have performed thorough preoperative ultrasound examinations to carefully assess the extent of the cancer. To reduce the physical burden on young patients, we have opted for hemithyroidectomy—removing only the affected lobe—in cases where it is feasible. Furthermore, we have previously reported that most complications associated with thyroid surgery are minor and that long-term complications are rarely observed (Matsumoto et al., *Thyroid* 2024).

In this study, we examined the postoperative outcomes of cases operated on between 2012 and 2021.

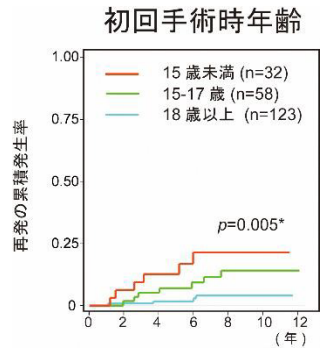
■ Result 1: No difference in recurrence rates was observed based on surgical method

In this study, over an approximately 8-year follow-up period, recurrence was observed in 17 of 213 patients (approximately 8%). Furthermore, when comparing “total thyroidectomy,” in which the entire thyroid gland is removed, with “hemithyroidectomy,” in which only the affected lobe is removed, no significant difference in recurrence rates was observed between the two procedures.



■ Result 2: Younger patients (especially those younger than15 years old) have a higher risk of recurrence

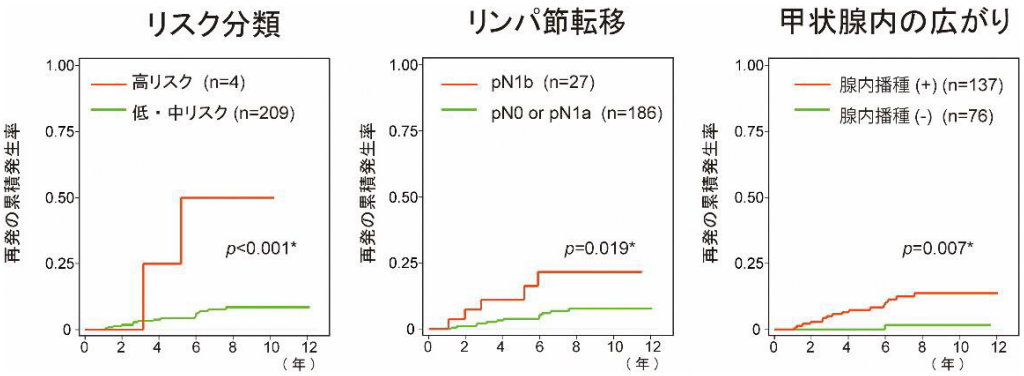
“Age” was the factor most strongly associated with recurrence, and it was found that the risk of recurrence is particularly high in patients younger than 15 years old. In younger patients, lymph node metastasis or microscopic tumor spread is often already present at the time of diagnosis, and this was suggested to be associated with recurrence.



■ Result 3: Pathological progression is associated with recurrence

The findings showed that recurrence rates were significantly higher in patients with multiple lesions, advanced disease (based on risk classification), or lymph node metastasis, particularly extensive metastasis (pN1b). Here, pN1b indicates widespread metastasis, such as to the lateral neck lymph nodes, and reflects a more advanced disease state compared to pN1a, which is confined to the central region, or pN0, which has no metastasis.

In addition, the recurrence rate was high in cases with microscopic spread of cancer cells within the thyroid gland, and these findings suggest a link to recurrence.



■ Significance of this study: Balancing minimally invasive treatment with a favorable prognosis

In this study, although the recurrence rate was relatively low in cases detected by TUE, the proportion of lesions confined to the thyroid in this cohort was 35.4%, which was not higher than the proportion of cancer registry cases in the same age group in Fukushima Prefecture (45.2%) (Kimura-Tsuchiya et al., *Cancer Medicine* 2025).

The recurrence rate was significantly higher in patients with multiple lesions, advanced-stage disease, or extensive lymph node metastasis. Although there are guidelines recommending total thyroidectomy for pediatric thyroid cancer, this study showed that the recurrence rate after hemithyroidectomy was equivalent to that after total thyroidectomy, suggesting the validity of the surgical approach currently practiced in Fukushima. Furthermore, reoperation and additional treatment are possible even for recurrent cases, and a favorable prognosis can be expected even when minimally invasive surgery is chosen.

On the other hand, given the high risk of recurrence in younger patients, meticulous and continuous postoperative follow-up is considered essential.

Authors: Koki Shio et al. (Shio K et al.)

Published in: Journal of the Endocrine Society, March 25, 2026; 10(4)

60_6_Report of the 26th Meeting of the Thyroid Examination Evaluation Subcommittee

Thyroid Ultrasound Examination (TUE) on the Fukushima Health Management Survey

Advantages and Disadvantages of the Examination

Please read this booklet carefully to understand the benefits and potential drawbacks of the Thyroid Examination before deciding whether to give your consent for the examination. This decision should be made by eligible individuals and their parents or guardians.

You can also watch a video explaining the advantages and disadvantages of the examination

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Supplementary Explanation 2
Previous Examination Results 3
The Fukushima Health Management Survey:TUE(For Junior High School Students).. 5

●**Contact Information**
If you have any questions regarding "TUE: Advantages and Disadvantages," please contact the following:

Radiological Medicine Prefectural Health Management Center, Fukushima Medical University
Call Center: 81-24-549-5130 (9:00 a.m. – 5:00 pm
excluding Saturdays, Sundays, national holidays, and December 29 through January 3)
Email Address: kenkan@fmu.ac.jp *Please be careful not to dial the wrong number.

Fukushima Prefecture
Fukushima Medical University

Published in
March 2026

Thyroid Ultrasound Examination (TUE) of the The Fukushima Health Management Survey

Thyroid examinations using ultrasound have both advantages and potential disadvantages. For this reason, routine thyroid ultrasound screening has not generally been conducted for adults who have not been exposed to radiation. However, Fukushima Prefecture and Fukushima Medical University initiated thyroid examinations in response to concerns that thyroid cancer might increase as a result of the TEPCO Fukushima Daiichi Nuclear Power Plant accident. Undergoing thyroid examinations also has both potential benefits and disadvantages. The items considered by the Fukushima Health Management Survey Oversight Committee and the Thyroid Examination Evaluation Subcommittee are presented below for your reference when completing the thyroid examination consent form.

< Advantages and Disadvantages of TUE>

Advantages

(1) If the examination reveals no abnormalities in the thyroid, this may provide peace of mind for those concerned about the health effects of radiation and could lead to an improvement in their quality of life (→ Supplementary Explanation 1).
(2) Early diagnosis and treatment may reduce the risk of surgical complications, treatment-related side effects, and recurrence (→ Supplementary Explanations 2, 3, and 4)
(3) By analyzing the TUE results, we can provide information regarding the presence or absence of radiation effects not only to the individual and their family but also to residents of the prefecture and people outside the prefecture.

Disadvantages

(1) There is a possibility that cancers which would not have caused symptoms or led to cancer-related death in the future may be diagnosed and treated (Supplementary Explanations 3)
(2) If cancer or a suspected malignant lesion is diagnosed at an early stage, the prolonged duration of treatment or follow-up may lead to increased psychological burden and social and economic disadvantages.
(3) Since nodules and cysts that do not require treatment may also be detected (Supplementary Explanation 5), and even if a nodule is ultimately found to be benign, confirmatory examination or cytology may still be recommended, this can place a burden on the body and cause anxiety for the patient and their family.

We are implementing the following measures to address the disadvantages mentioned above.

◆ Disadvantage (1)

In the TUE, measures are taken to minimize the diagnosis of lesions that are unlikely to require treatment. Nodules measuring 5.0 mm or smaller are not eligible for confirmatory examinations. For nodules measuring 5.1 mm or larger, the decision to perform fine-needle aspiration biopsy (FNAB) is made based on their ultrasound features, in accordance with the guidelines of the Japan Association of Breast and Thyroid Sonology.

◆ Disadvantage (2)

Fukushima Prefecture provides financial support through the Thyroid Examination Support Program under the Fukushima Health Management Survey to help cover medical expenses for treatment and follow-up monitoring after examinations.

◆ Disadvantage (2) & (3)

At Fukushima Medical University and other institutions, specialized staff from the mental health care and support team provide support to those undergoing confirmatory examinations, addressing their concerns and anxieties with care and understanding. In addition, a dedicated medical consultation hotline is available to answer questions about the examination results, thyroid conditions, and mental health concerns. Information sessions are also held at schools and other locations.

● **Supplementary Explanation**

1. In Fukushima Prefecture's Full-Scale Survey (the fifth round), 1.2% of participants received a Grade B result, indicating that a confirmatory examination (secondary examination) was recommended. The remaining 98.8% did not require a confirmatory examination. Please refer to "Previous Examination Results" on the next page.
   As of March 31, 2025, 5.6% of participants in the Age 25 survey and 8.8% of participants in the Age 30 Survey received a Grade B result, indicating that the proportion varies with age.
2. In Japan, surgery that removes only part of the thyroid is generally chosen for thyroid cancer cases that are not advanced. As a result, surgical complications are known to be less common in Japan than in Europe or the United States.
   Although the following comparison does not represent Japan as a whole, it illustrates the differences between 220 cases of thyroid cancer in children and young adults who underwent surgery at Fukushima Medical University Hospital (hereafter, "FMU Hospital") and thyroid cancer cases in Belarus following the Chornobyl nuclear accident.

   - Rate of hypothyroidism: 8.7% vs. 57.6%
   - Rate of hypoparathyroidism: 0.9% vs. 12.3%
   - Rate of recurrent laryngeal nerve paralysis: 0.5% vs. 6.8%

   Note: In each pair of figures, the first value represents FMU Hospital and the second represents Belarus.
   Note: Data are based on 125 cases.

3. It has not been scientifically established whether detecting thyroid cancer by ultrasound before symptoms appear can reduce the death rate from thyroid cancer.
4. Thyroid cancer generally grows slowly and has a low mortality rate. In most cases, it can be successfully treated, except when it is detected at an advanced stage.
   Treatment is primarily surgical. However, for small thyroid cancers, active surveillance without surgery may be an option
5. Nodules measuring 5.0 mm or smaller and cysts measuring 20.0 mm or smaller are classified as Grade A2. In the Preliminary Baseline Survey, 47.8% of participants received an A2 result, compared with 70.0% in the Full-Scale Survey (the fifth round).
   Participants with Grade A2 do not need a confirmatory examination (secondary examination).
   A cyst is a sac-like structure filled with fluid. Cysts are commonly found in healthy individuals and are usually benign. Because cysts contain fluid rather than cells, they do not become cancerous.
   A nodule, also called a lump, is an area where the density of thyroid cells has changed. Nodules can be benign or malignant (cancerous), but most are benign.

Previous examination results

○ Evaluation of Results from Preliminary Baseline Survey Through the Full-Scale Survey (5th round)

In July 2025, the 25th Thyroid Examination Evaluation Subcommittee finalized its assessment of the results from the Preliminary Baseline Screening through the Full-Scale Thyroid Examination (the fifth round). The assessment was reported to the 56th Fukushima Health Management Survey Oversight Committee in the same month, as follows:

As a summary of the analyses conducted to date:

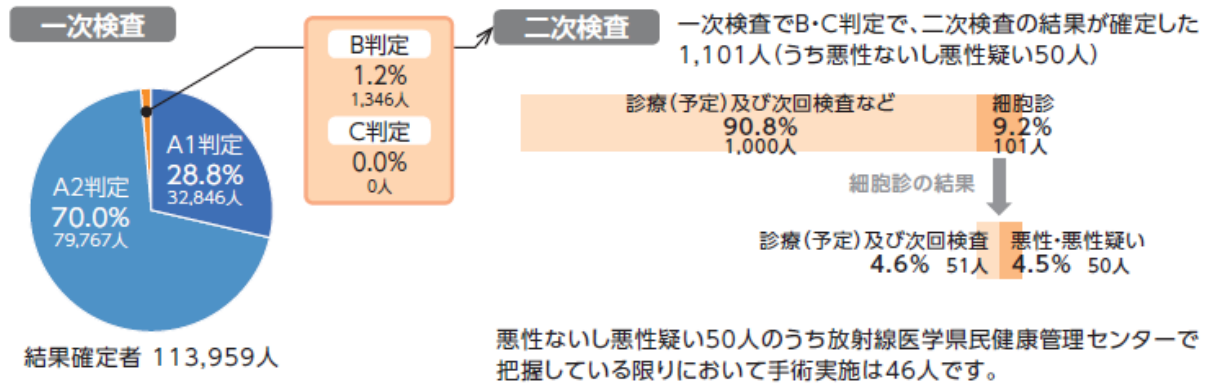
- "No consistent relationship (dose–response relationship) was observed between radiation exposure dose and the detection rate of malignant or suspected malignant lesions from the Preliminary Baseline Survey through the fifth-round survey. Specifically, the detection rate did not consistently increase with increasing radiation exposure dose.
Therefore, no association between thyroid cancer and radiation exposure was identified from the Preliminary Baseline Survey through the fifth-round survey."
- "Given that more multifaceted and comprehensive analyses could be conducted than those performed for the previous evaluation through the fourth-round survey, this conclusion can be considered clearer than the conclusion reached at that stage."

Regarding future TUE, the committee also stated that "examinations should be conducted in a way that enables Fukushima residents to make informed decisions based on sufficient information, including clear explanations of the advantages and disadvantages of the examinations, as well as the evaluation and findings from the latest review."

Source: The 56th Oversight Committee Meeting Material 5-2

Full-scale survey (the 5th-round survey) (FY2020 – FY2022)

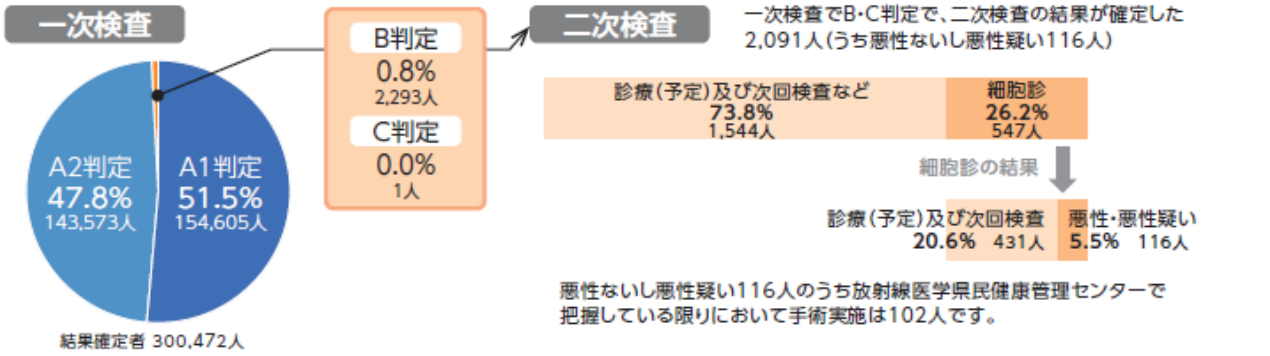
Source: Prepared based on Document 2-1 of the 55th Oversight Committee Meeting





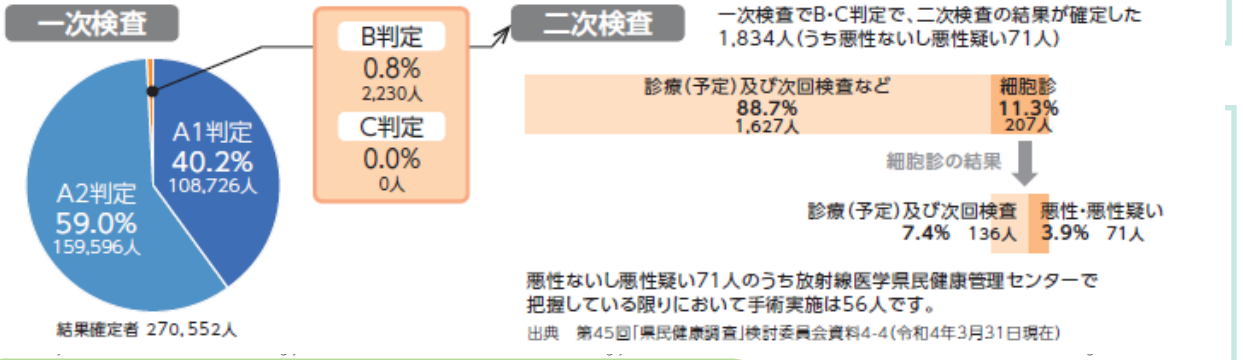
Preliminary Baseline Survey (Fiscal Years: 2011 - 2013)

Source: Prepared based on Document 3-1 of the 31st[t] Oversight Committee Meeting (as of March 31, 2018)



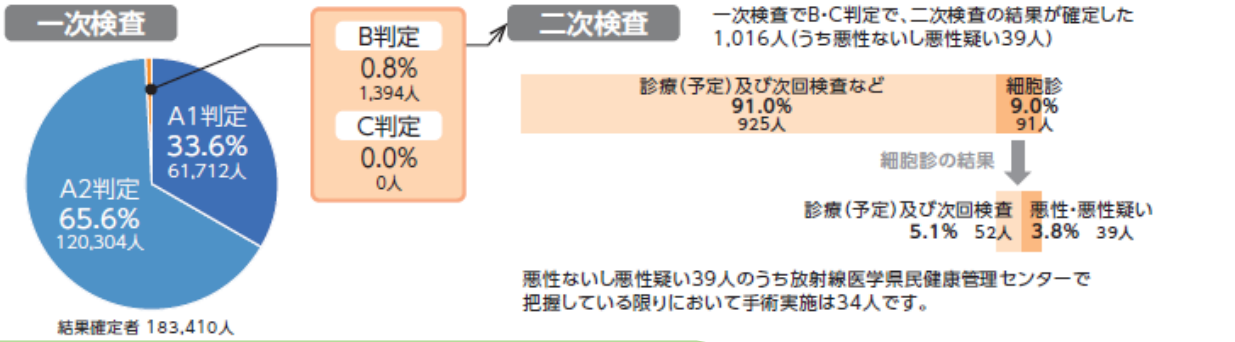
The 2nd- round Full-scale survey (Fiscal Years: 2014 - 2015)

Source: Prepared based on Document 5-2 of the 42nd[d] Oversight Committee Meeting (as of March 31, 2021)



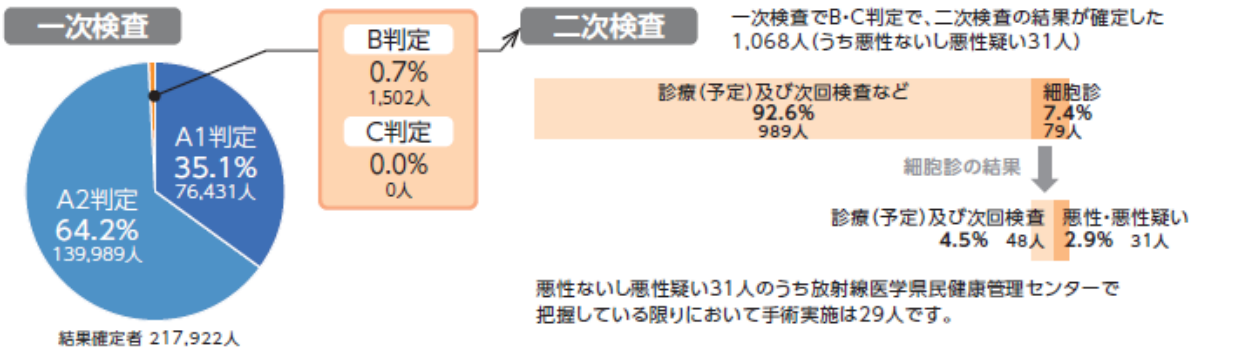
The 3rd- round Full-scale survey (Fiscal Years: 2016 - 2017)

Source: Prepared based on the Material 5-3 of the 42nd Oversight Committee Meeting (as of March 31, 2021)



The 4th-round Full-scale survey (Fiscal Years: 2018 - 2019)

Source: Prepared based on the Material 1-1 of the 46th Oversight Committee Meeting (as of June 30, 2022)



【判定結果の説明】

A判定	A1	結節やのう胞を認めなかったもの。
	A2	5.0㎜以下の結節や20.0㎜以下ののう胞を認めたもの。
B判定		5.1㎜以上の結節や20.1㎜以上ののう胞を認めたもの。
C判定		甲状腺の状態等から判断して、直ちに二次検査を要するもの。

For Junior High School Students

The FHMS About Thyroid Ultrasound Examination

Many people were worried that thyroid cancer might increase after the Fukushima Daiichi Nuclear Power Plant accident. To address these concerns, Fukushima Prefecture and Fukushima Medical University started the Thyroid Ultrasound Examination program.

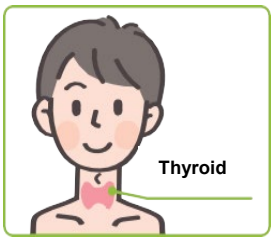
The examination uses ultrasound to check the thyroid gland.

The examination has both benefits and disadvantages. It is voluntary, so please read this information carefully before deciding whether to take part.

Characteristics of Thyroid Cancer

Thyroid cancer usually has no symptoms at first. If it grows, it may cause neck swelling or difficulty swallowing. It usually grows slowly, and the risk of death is low. Ultrasound can find thyroid cancer even in people with no symptoms.

Most thyroid cancers are treated with surgery, but some can be monitored without immediate surgery. After surgery, most people can live as they did before.



Thyroid Ultrasound Examination has both advantages and disadvantages.
Please discuss with your family whether to have the examination.

Advantages

Normal examination results may provide reassurance to individuals concerned about the health effects of radiation.

Early diagnosis and treatment may reduce the risk of complications, side effects, and recurrence.

Thyroid examinations provide information about possible radiation effects to individuals, their families, and the public in and outside Fukushima.

Disadvantages

The examination may find and lead to treatment for cancers that would never affect daily life or survival.

Early detection of cancer or suspected cancer may lead to long-term treatment and affect daily life.

The examination may find nodules or cysts that do not need treatment. Further examinations may also cause worry for individuals and their families.

Measures to reduce the disadvantages of thyroid examinations
- Measures are taken to avoid diagnosing abnormalities that do not require treatment.
- The Mental Health Support Team provides support and telephone consultations for those who feel anxious about confirmatory examinations.

60_6_Report of the 26th Meeting of the Thyroid Examination Evaluation Subcommittee

Status of Thyroid Ultrasound Examination Results of the FHMS

1. Preliminary Baseline Survey (As of March 31, 2018) [Implementation:FY2011-2013]

Primary examination

- Number of eligible persons 367,637 persons
- Number of participants 300,472 persons (participation rate:81.7%)
- Number of results finalized 300,472 persons (assessment rate: 100%)
- Breakdown by Grade
  - Grade A (A1) 154,605 persons (51.5%)
  - (A2) 143,573 persons (47.8%)
  - Grade B 2,293 persons (0.8%)
  - Grade C 1 person (0.0%)

Confirmatory examination

- Number of eligible persons 2,293 persons
- Number of participants 2,130 persons (participation rate:92.9%)
- Number of results finalized 2,091 persons (assessment rate:98.2%)

Of these, 547 underwent FNAC (Fine Needle Aspiration Cytology)

Summary of FNAC Results

・Malignant or suspected malignancy: 116

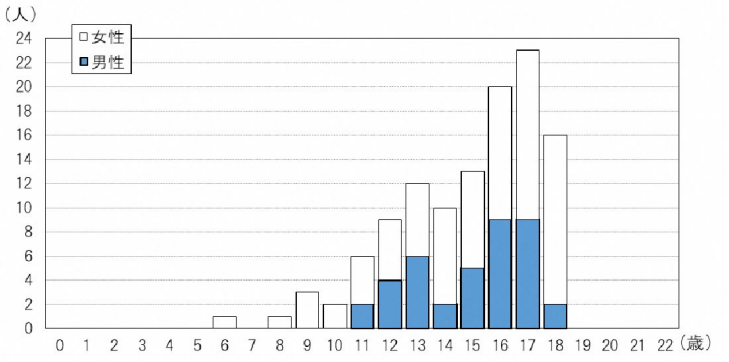
・Male: Female:39 males; 77 females

・Mean age:17.3 ± 2.7 years (8–22)
14.9 ± 2.6 years (6–18) at the time of the earthquake

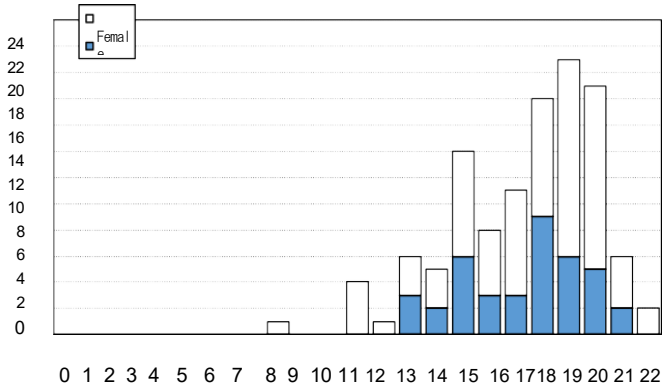
・Mean tumor diameter: 13.9 ± 7.8 mm (5.1–45.0 mm)

◇ Age and gender distribution of the 116 patients with cytological findings of malignancy or suspected malignancy

[Age distribution as of March 11, 2011]



[Age distribution at the time of confirmatory examination]



2. Full-Scale Survey (Second-round) (As of March 31, 2021) [Implementation:FY2014-2015]

Primary examination

- Number of eligible persons 381,237 persons
- Number of participants 270,552 persons (participation rate: 71.0%)
- Number of results finalized 270,552 persons (assessment rate: 100%)
- Breakdown by Grade

Grade A (A1)	108,726 persons	(40.2%)
(A2)	159,596 persons	(59.0%)
Grade B	2,230 persons	(0.8%)
Grade C	0	(0.0%)

Confirmatory examination

- Number of eligible persons 2,230 persons
- Number of participants 1,877 persons (participation rate:84.2%)
- Number of results finalized 1,834 persons (assessment rate:97.7%)

Of these, 207 underwent FNAC (Fine Needle Aspiration Cytology)

Summary of FNAC Results

・Malignant or suspected malignancy: 71

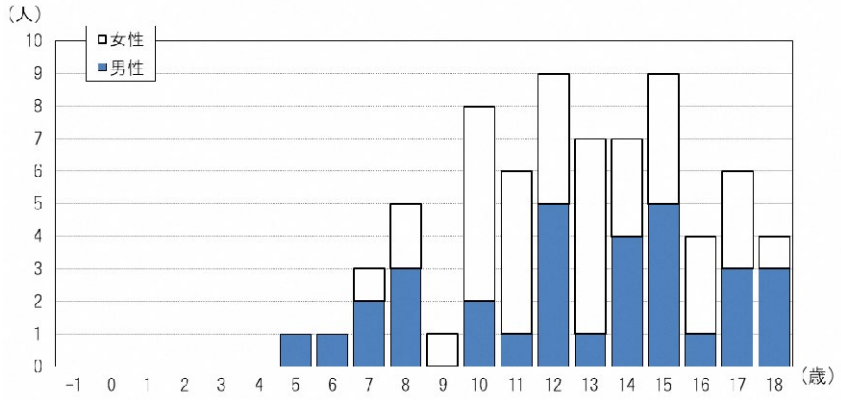
・Male: Female: 32 males:39 females

・Mean age:16.9 ± 3.2 years (9–23)
12.6 ± 3.2 years (5–18) at the time of the earthquake

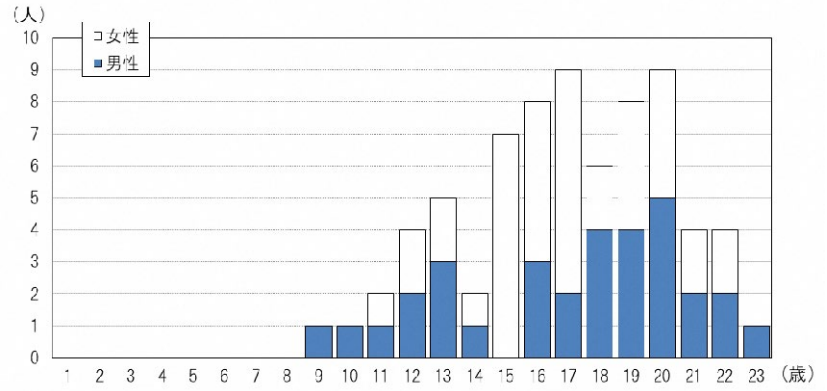
・Mean tumor diameter: 11.1 ± 5.6 mm (5.3–35.6 mm)

◇ Age and gender distribution of the 71 patients with cytological findings of malignancy or suspected malignancy

[Age distribution as of March 11, 2011]



[Age distribution at the time of the confirmatory examination]



3. Full-scale Survey (Third-round) (As of March 31, 2021) [Implementation:FY2016-2017]

Primary examination

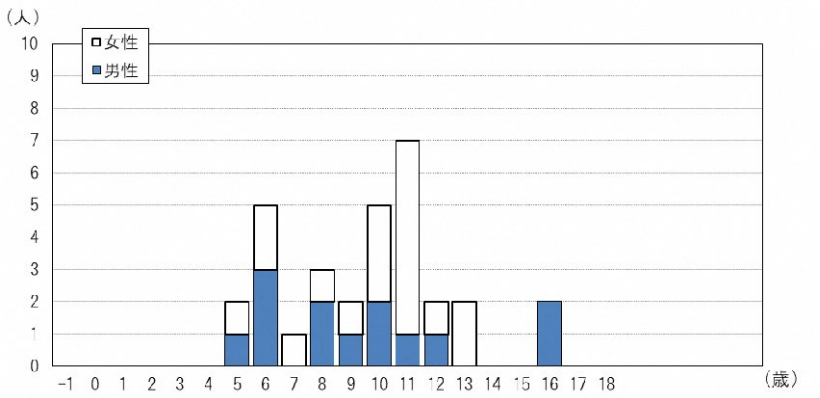
- Number of eligible persons 336,667 persons
  (Excluding those who were born in FY1992 and FY1993, eligible for the Age 25 survey)
- Number of participants 217,922 persons (participation rate: 64.7%)
- Number of results finalized 217,922 persons (assessment rate: 100%)
- Breakdown by Grade
  Grade A (A1) 76,431 persons (35.1%)
  (A2) 139,989 persons (64.2%)
  Grade B 1,502 persons (0.7%)
  Grade C 0 (0.0%)

Confirmatory examination

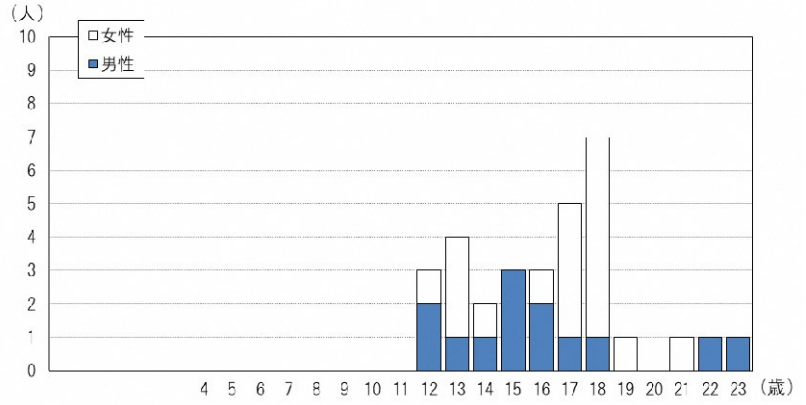
- Number of eligible persons 1,502 persons
- Number of participants 1,104 persons (participation rate:73.5%)
- Number of results finalized 1,068 persons (assessment rate:96.7%)
  Of these, 79 underwent FNAC (Fine Needle Aspiration Cytology)
  Summary of FNAC Results
  ・Malignant or suspected malignancy: 31
  ・Male: Female: 13 males:18 females
  ・Mean age:16.3 ± 2.9 years (12–23)
  9.6 ± 2.9 years (5–16) at the time of the earthquake
  ・Mean tumor diameter: 12.9 ± 6.4 mm (5.6–33.0 mm)

◇ Age and gender distribution of the 31 patients with cytological findings of malignancy or suspected malignancy

[Age distribution as of March 11, 2011]



[Age distribution at the time of the confirmatory examination]



4. Full-scale Survey (Fourth-round) (As of June 30, 2022)　[Implementation:FY2018-2019]

Primary examination

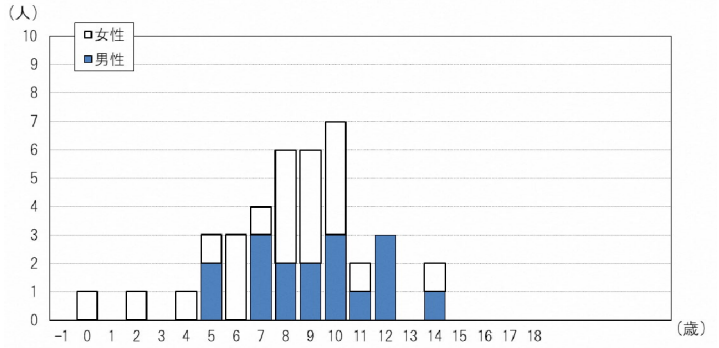
- Number of eligible persons　294,228 persons
  (Excluding those who were born between FY1992 and FY1995, eligible for the Age 25 survey)
- Number of participants　183,410 persons (participation rate: 62.3%)
- Number of results finalized　183,410 persons (assessment rate: 100%)
- Breakdown by Grade
  Grade A (A1)　61,712 persons (33.6%)
  (A2)　120,304 persons (65.6%)
  Grade B　1,394 persons (0.8%)
  Grade C　0 (0.0%)

Confirmatory examination

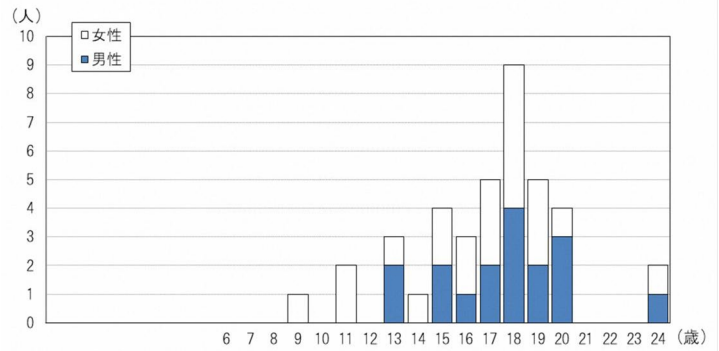
- Number of eligible persons　1,394 persons
- Number of participants　1,036 persons (participation rate:74.3%)
- Number of results finalized　1,016 persons (assessment rate:98.1%)
  Of these, 91 underwent FNAC (Fine Needle Aspiration Cytology)
  Summary of FNAC Results
  ・Malignant or suspected malignancy: 39
  ・Male: Female: 17 males:22 females
  ・Mean age:17.0 ± 3.1 years (9–24)
  8.3 ± 2.9 years (0–14) at the time of the earthquake
  ・Mean tumor diameter: 13.1 ± 6.3 mm (6.1–29.4 mm)

◇ Age and gender distribution of the 39 patients with cytological findings of malignancy or suspected malignancy

[Age distribution as of March 11, 2011]



[Age distribution at the time of the confirmatory examination]



5. Full-scale survey (Fifth-round) (As of December 31, 2024)　[Implementation:FY2020-2022]

Primary examination

- Number of eligible persons　252,936 persons

(Excluding those who were born between FY1992 and FY1997, eligible for the Age 25 and Age 30 survey)

- Number of participants　113,959 persons (participation rate: 45.1%)
- Number of results finalized　113,959 persons (assessment rate: 100%)
- Breakdown by Grade

Grade A (A1)　32,846 persons (28.8%)
(A2)　79,767 persons (70.0%)
Grade B　1,346 persons (1.2%)
Grade C　0 (0.0%)

Confirmatory examination

- Number of eligible persons　1,346 persons
- Number of participants　1,116 persons (participation rate:82.9%)
- Number of results finalized　1,011 persons (assessment rate:98.7%)

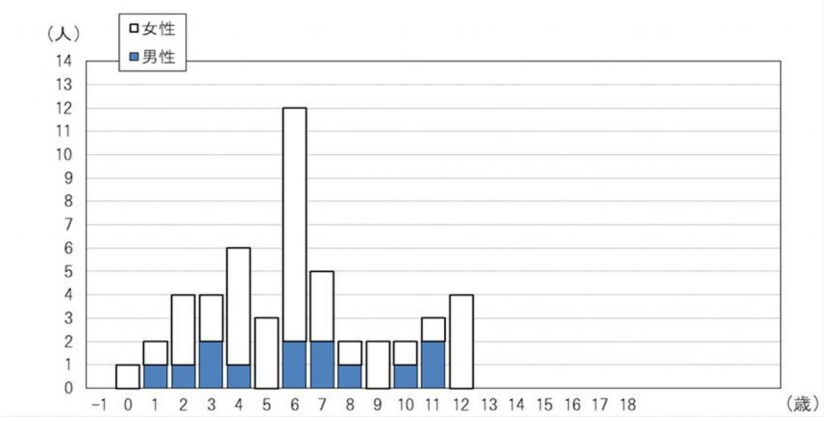
Of these, 101 underwent FNAC (Fine Needle Aspiration Cytology)

Summary of FNAC Results

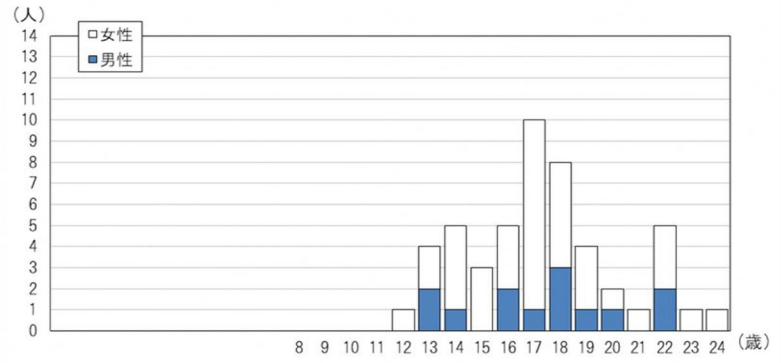
・Malignant or suspected malignancy: 50
・Male: Female: 13 males:37 females
・Mean age:17.3 ± 2.9 years (12–24)
6.1 ± 3.2 years (0–12) at the time of the earthquake
・Mean tumor diameter: 14.0 ± 8.2 mm (5.4–46.7 mm)

◇ Age and gender distribution of the 50 patients with cytological findings of malignancy or suspected malignancy

[Age distribution as of March 11, 2011]



[Age distribution at the time of confirmatory examination]



6. Full-Scale survey (Sixth-round) (As of December 31, 2025) [Implementation:FY2023-2024]

Primary examination

- Number of eligible persons 211,928 persons

(Excluding those who were born between FY1992 and FY1999, eligible for the Age 25 and Age 30 survey)

- Number of participants 69,022 persons (participation rate: 32.6%)
- Number of results finalized 69,019 persons (assessment rate: 100%)
- Breakdown by Grade

Grade A (A1) 18,510 persons (26.8%)
(A2) 49,520 persons (71.7%)
Grade B 989 persons (1.4%)
Grade C 0 (0.0%)

Confirmatory examination

- Number of eligible persons 989 persons
- Number of participants 813 persons (participation rate:82.2%)
- Number of results finalized 788 persons (assessment rate:96.9%)

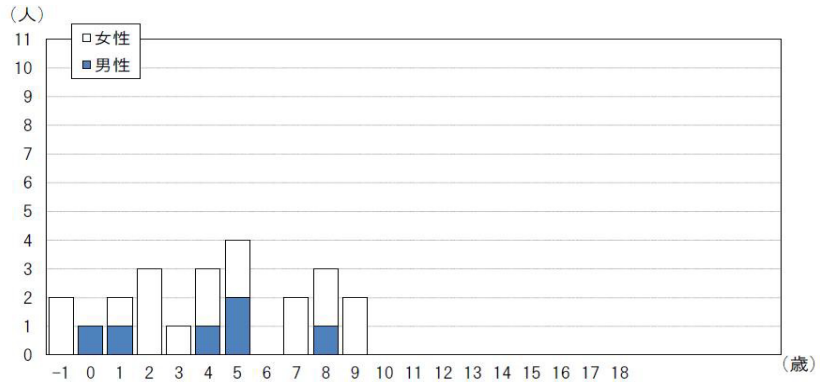
Of these, 54 underwent FNAC (Fine Needle Aspiration Cytology)

Summary of FNAC Results

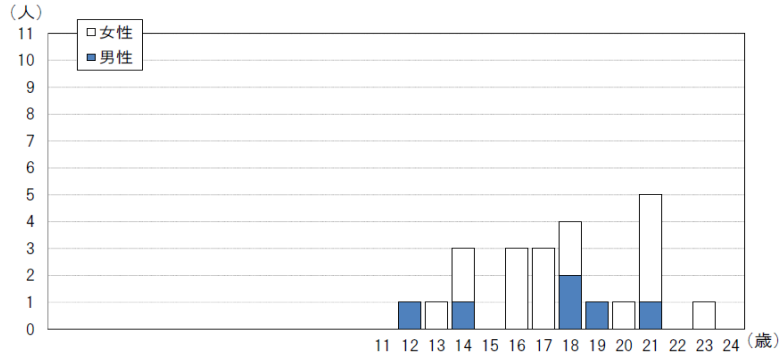
・Malignant or suspected malignancy: 23
・Male: Female: 6 males:17 females
・Mean age:17.6 ± 3.0 years (12–23)
4.3 ± 3.0 years (0–9) at the time of the earthquake
・Mean tumor diameter: 14.1 ± 3.8 mm (8.2–20.3 mm)

◇ Age and gender distribution of the 23 patients with cytological findings of malignancy or suspected malignancy

[Age distribution as of March 11, 2011]



[Age distribution at the time of the confirmatory examination]



7. Full-scale survey (Seventh-round) (As of December 31, 2025) [Implementation: FY2025-2026]

Primary examination

- Number of eligible persons 171,962 persons

(Excluding those who were born between FY1992 and FY2001, eligible for the Age 25 and Age 30 survey)

- Number of participants 21,469 persons (participation rate: 12.5%)
- Number of results finalized 17,553 persons (assessment rate: 81.8%)
- Breakdown by Grade

Grade A (A1)	4,701 persons	(26.8%)
(A2)	12,540 persons	(71.4%)
Grade B	312 persons	(1.8%)
Grade C	0	(0.0%)

8. The Age 25 survey (As of September 30, 2025) [Implementation:FY2017 and onward]

Primary examination

- Number of eligible persons 169,956 persons (Those born between FY1992 and FY1999)
- Number of participants 13,887 persons (participation rate: 8.2 %)
- Number of results finalized 13,880 persons (assessment rate: 99.9 %)
- Breakdown by Grade

Grade A (A1)	5,867 persons	(42.3 %)
(A2)	7,234 persons	(52.1 %)
Grade B	779 persons	(5.6%)
Grade C	0	(0.0%)

Confirmatory examination

- Number of eligible persons 779 persons
- Number of participants 652 persons (participation rate:83.7%)
- Number of results finalized 641 persons (assessment rate:98.3%)

Of these, 57 underwent FNAC (Fine Needle Aspiration Cytology)

Summary of FNAC Results

・Malignant or suspected malignancy: 27

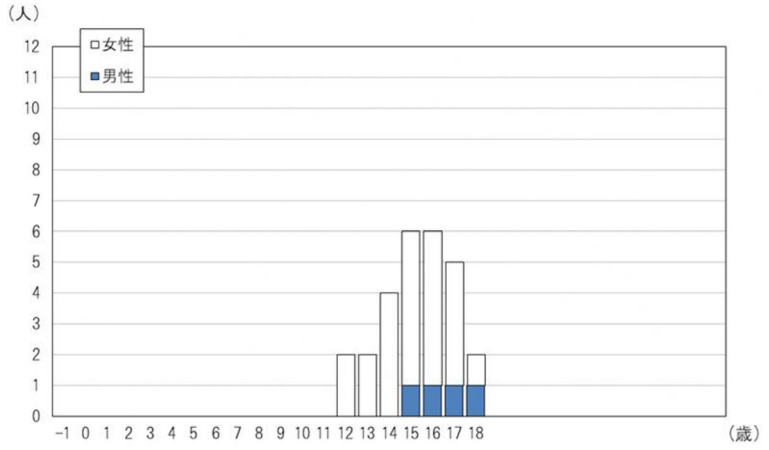
・Male: Female: 4 males:23 females

・Mean age:25.7 ± 1.2 years (24-29)
15.3 ± 1.7 years (12–18) at the time of the earthquake

・Mean tumor diameter: 13.7 ± 9.8 mm (5.3–49.9 mm)

◇ Age and gender distribution of the 27 patients with cytological findings of malignancy or suspected malignancy

[Age distribution as of March 11, 2011]



[Age distribution at the time of secondary screening]



9. The Age 30 survey (As of September 30, 2025) [Implementation:FY2022 and onward]

Primary examination

- Number of eligible persons 66,542 persons (Those born between FY1992 and FY1994)
- Number of participants 4,343 persons (participation rate: 6.5 %)
- Number of results finalized 4,339 persons (assessment rate: 99.9 %)
- Breakdown by Grade

Grade A (A1)	1,900 persons	(43.8 %)
(A2)	2,056 persons	(47.4 %)
Grade B	383 persons	(8.8 %)
Grade C	0	(0.0 %)

Confirmatory examination

- Number of eligible persons 383 persons
- Number of participants 313 persons (participation rate:81.7%)
- Number of results finalized 293 persons (assessment rate:93.6%)

Of these, 30 underwent FNAC (Fine Needle Aspiration Cytology)

Summary of FNAC Results

・Malignant or suspected malignancy: 10

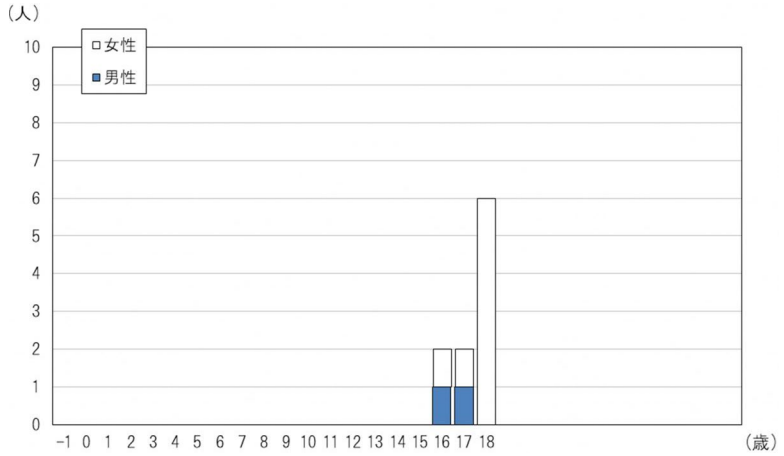
・Male: Female: 2 males:8 females

・Mean age:30.0 ± 0.5 years (29-31)
17.4 ± 0.8 years (16–18) at the time of the earthquake

・Mean tumor diameter: 12.7 ± 3.7 mm (9.8–19.0 mm)

◇ Age and gender distribution of the 10 patients with cytological findings of malignancy or suspected malignancy

[Age distribution as of March 11, 2011]



[Age distribution at the time of confirmatory examination]



(Reference) Number of individuals diagnosed as malignant or suspected malignancy, and cases requiring surgery, etc.

Status from the preliminary baseline survey through the full-scale surveys (6th round) and up to the Age 25 and Age 30 surveys.

Number of individuals assessed as malignant or with suspected malignancy: 367

Of these, underwent surgery: 310

(Benign nodule:1, papillary carcinoma:305, poorly differentiated carcinoma:1, follicular carcinoma:1, other thyroid cancers:2)

Preliminary Baseline Survey as of March 31, 2018 [Implementation years: FY2011 – FY2013]

Total 116 persons (39 males:77 females)

(102 underwent surgery: 1 benign nodule, 100 papillary thyroid carcinoma,1 poorly differentiated thyroid carcinoma)

Full-scale survey (2nd round) as of March 31, 2022 [Implementation years: FY2014 – FY2015]

Total 71 persons (32 males:39 females)

(56 underwent surgery: 55 papillary thyroid carcinoma,1 other thyroid cancer)

Full-scale survey (3rd round) as of March 31, 2021 [Implementation years: FY2016 – FY2017]

Total 31 persons (13 males:18 females)

(29 underwent surgery: 29 papillary thyroid carcinoma)

Full-scale survey (4th round) as of June 30, 2022 [Implementation years: FY2018 – FY2019]

Total 39 persons (17 males:22 females)

(34 underwent surgery: 34 papillary thyroid carcinoma)

Full-scale survey (5th round) as of December 31, 2024 [Implementation years: FY2020 – FY2022]

Total 50 persons (13 males:37 females)

(46 underwent surgery: 45 papillary thyroid carcinoma, 1 other thyroid cancer)

Full-scale survey (6th round) as of December 31, 2025 [Implementation years: FY2023 – FY2024]

Total 23 persons (6 males:17 females)

(18 underwent surgery: 18 papillary thyroid carcinoma)

Age 25 survey as of September 30, 2025 [Implementation years: FY2017 and onward]

Total 27 persons (4 males:23 females)

(20 underwent surgery: 19 papillary thyroid carcinoma, 1 follicular carcinoma)

Age 30 survey as of September 30, 2025 [Implementation years: FY2022 and onward]

Total 10 persons (2 males:8 females)

(5 underwent surgery: 5 papillary thyroid carcinoma)

◇ **Examination Results**

Survey / Description		Preliminary Baseline Survey (1st round)	Full-scale survey 1 (2nd round)	Full-scale survey 2 (3rd round)	Full-scale survey 3 (4th round)	Full-scale survey 4 (5th round)	Full-scale survey 5 (6th round)	Full-scale survey 6 (7th round)	Age 25 survey	Age 30 survey
		FY2011–2013	FY2014–2015	FY2016–2017	FY2018–2019	FY2020–2022	FY2023–2024	FY2025–2026	FY2017–	FY2022–
Eligible Participants (persons)		367,637	381,237	336,667	294,228	252,936	211,928	171,962	169,956	66,542
Participation rate		81.7%	71.0%	64.7%	62.3%	45.1%	32.6%	12.5%	8.2%	6.5%
Result	A1	51.5%	40.2%	35.1%	33.6%	28.8%	26.8%	26.8%	42.3%	43.8%
	A2	47.8%	59.0%	64.2%	65.6%	70.0%	71.7%	71.4%	52.1%	47.4%
	B	0.8%	0.8%	0.7%	0.8%	1.2%	1.4%	1.8%	5.6%	8.8%
	C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		As of March 31, 2018	As of March 31, 2021	As of March 31, 2021	As of June 30, 2022	As of Dec 31, 2024	As of Dec 31, 2026	As of Dec 31, 2026	As of Sep 30, 2025	As of Sep 30, 2025

Summary of Results for the Thyroid Ultrasound Examination from the Preliminary Baseline Survey and Full-scale Surveys (through the Fifth-round Survey)

July 2025
Thyroid Examination Evaluation Subcommittee,
Fukushima Prefectural Oversight Committee
for the Fukushima Health Management Survey

The Thyroid Examination Evaluation Subcommittee of the Fukushima Prefectural Oversight Committee for the Fukushima Health Management Survey (hereinafter referred to as the "Evaluation Subcommittee") evaluated Preliminary Baseline Survey results. The "Interim Summary on the Thyroid Ultrasound Examination" concluded in March 2015 that "the results are unlikely to be attributed to radiation exposure."

After evaluating results from the first Full-scale Survey (Second-round Survey), the Evaluation Subcommittee produced a "Summary Report of the Evaluation Subcommittee on the Results of the Full-Scale Survey (Second-round Survey)" (hereinafter called the "Second Summary") in June 2019. In this Second Summary, an analysis was performed using provisional age- and municipality-specific UNSCEAR estimated thyroid absorbed doses to examine the relationship between dose and thyroid cancer detection rates. The results showed that no consistent relationship (dose-effect relationship) was observed, such as increased detection rates with higher doses. Therefore, it was concluded that "at this point, no association has been identified between thyroid cancer detected in the Thyroid Ultrasound Examination (Second-round Survey) and radiation exposure."

After evaluating results from the Preliminary Baseline Survey and Full-scale Surveys (through the Fourth-round Survey), a "Summary of Results from the Preliminary Baseline Survey to the Full-scale Survey (Fourth-round Survey)" (hereinafter referred to as the "Summary to the Fourth-round Survey") was reported in July 2023. In this Summary of the Fourth-round Survey, based on perspectives outlined in the Second Summary, the committee conducted analyses using accumulated examination results, regional and national cancer registry data, and analyses using more detailed thyroid radiation dose estimates. Based on these analyses, which were considered the best available at the time, no consistent relationship (dose-effect relationship) was observed between increased radiation exposure and increased detection rates. Therefore, it was concluded that "no association between thyroid cancer and radiation exposure was identified from the Preliminary Baseline Survey to the Fourth-round Full-scale Survey."

At the 49th Fukushima Prefectural Oversight Committee for the Fukushima Health Management Survey (hereinafter referred to as the "Oversight Committee") meeting held on November 24, 2023, it was agreed to convene an Evaluation Subcommittee to continue analyzing and evaluating the results of Thyroid Ultrasound Examinations and conducting analyses utilizing regional and national cancer registry data.

In response, the 22nd Evaluation Subcommittee Meeting was held on March 22, 2024, and through four deliberations up to the 25th Evaluation Subcommittee Meeting on July 4, 2025, subcommittee members reviewed the analysis methods and procedures proposed in the Summary to the Fourth-round Survey, taking into account the opinions of subcommittee members regarding future analyses and other matters presented at the 22nd Evaluation Subcommittee Meeting. In addition to the analyses used in the Summary to the Fourth-round Survey, including confirmation of the detection history in cancer registry data and temporal analysis of cumulative detection rates using the concept of observation years, which had not been previously employed, the Evaluation Subcommittee conducted multi-dimensional and multi-layered analyses.

Based on discussions to date, the Evaluation Subcommittee presents the following views on results from the Preliminary Baseline Examination to the Full-scale Survey (Fifth-round Full-scale Survey) (hereinafter referred to as "Fifth-round Survey"), as well as future issues for consideration.

1. Scope of this summary

Similar to the summary report up to the Fourth-round Survey, this analysis utilizes examination results and cancer registry data from the Preliminary Baseline Survey to the Fifth-round Full-scale Survey to assess the cancer detection status of consenting Survey participants. The examinations and other procedures included in this summary are as follows:

1-1 Thyroid Ultrasound Examinations covered

Examination Category	Examination Year
Preliminary Baseline Survey	FY2011 - FY2013
Full-scale Survey (Second-round Survey)	FY2014 - FY2015
Full-scale Survey (Third-round Survey) (Including Age 25 Survey (for those born in FY1992)	FY2016 - FY2017
Full-scale Survey (Fourth-round Survey) (Including Age 25 Survey (for those born in FY1993 and FY1994)	FY2018 - FY2019
Full-scale Survey (Fifth-round Survey) (Including Age 25 Survey (for those born in FY1995 to FY1997) and Age 30 Survey (for those born in FY1992)) *Due to measures to prevent COVID-19 infection, the examination schedule was changed from two to three years.	FY2020 - FY2022

1-2 Analysis utilizing regional and national cancer registry data

(Hereafter, “cancer registry” refers collectively to both.)

Thyroid cancers (256 cases) in the regional cancer registry of Fukushima Prefecture from 2012 to 2015, and in the national cancer registry from 2016 to 2019, were matched with THYROID ULTRASOUND EXAMINATION cases where fine-needle aspiration cytology (FNAC) was performed by the end of December 2019 for cases where malignant or suspected malignant lesions were detected in the Fourth-round Survey (241 cases). This showed that 47 only appeared as cancer registry cases. Additionally, the number of days between FNAC in cases detected through Thyroid Ultrasound Examination and the diagnosis date in cancer registry cases was less than 180 days in over 90% of cases.

When comparing the stage of cancer progression, 21 intraepithelial or localized lesions (44.7%) only appeared as cancer registry cases, while 75 cases (35.9%) were also recorded as Thyroid Ultrasound Examination cases. This indicates that cases only recorded in the cancer registry were more likely to have undergone surgery for less advanced stages.

When comparing the circumstances of detection among cases recorded only in the cancer registry, "under observation for other diseases, other, or unknown" accounted for 34 cases (72.3%), while among cases also recorded in the Thyroid Ultrasound Examination, "cancer screening, health checkup, or complete medical checkups" accounted for 201 cases (96.2%). It should be noted that even among cases recorded only in the cancer registry, there was a high likelihood that they had a history of at least one Thyroid Ultrasound Examination through the Fukushima Health Management Survey, were transferred to insurance-covered medical care during follow-up after the examination, and were subsequently registered as "under observation for other diseases, other, or unknown."

By confirming the number of days between FNAC in cases detected through Thyroid Ultrasound Examination and a diagnosis date recorded in the cancer registry, as well as the detection history and participation history in the Thyroid Ultrasound Examination, it can be said that the validity of combining cases registered only in the cancer registry for analysis is ensured. Among the cases registered only in the cancer registry, those for which radiation exposure doses could be estimated were included in the analyses described in the following sections: "2-2 Analysis using estimated individual radiation exposure doses" and "3 Results of temporal analysis of cumulative detection rates."

Furthermore, because of the aging of participants in the Thyroid Ultrasound Examination, a decline in participation is expected. Therefore, it is important to continue analyzing cancer registry data to accurately identify subjects and maintain statistical detection capabilities.

2. Results of epidemiological analysis

2-1 Analysis using estimated exposure doses by region

As with the "Summary to the Fourth-round Survey," to analyze accumulated examination results, we tracked individuals who had undergone the Preliminary Baseline Survey, were not diagnosed with malignancy or suspicion of malignancy, and who underwent the Second to Fifth-round surveys. Among them, we looked for any association between the detection rate of newly diagnosed cases of malignancy or suspicion of malignancy and radiation exposure doses.

For radiation exposure doses, we utilized age-specific and municipality-specific estimated thyroid absorbed doses published in the UNSCEAR 2020/2021 report, as done for the "Summary to the Fourth-round Survey." However, there are several issues with relying on these age- and municipality-specific estimated doses, including that they do not account for evacuation behaviors, leading to larger discrepancies compared to individual estimated radiation doses. Additionally, it is unclear whether the cases of malignancy or suspicion of malignancy identified through examinations are influenced by radiation exposure or regional differences within municipalities.

On the other hand, the subjects in the analysis described in "2-2 Analysis using estimated individual exposure doses" are limited to those who completed the behavioral record questionnaire in the Basic Survey, which accounts for about half of the total population. Therefore, it is important to note that, to maintain a sufficient number of subjects for analysis, it is necessary to use the age- and municipality-specific estimated thyroid absorbed doses despite these limitations.

After adjusting for confounding factors that may influence detection rates, such as gender, age, examination year, and examination interval, the analysis found no consistent dose-response relationship between radiation exposure and the detection of malignant or suspicious lesions in any of the analyses.

2-2 Analysis using estimated individual exposure doses

Similar to the "Summary to the Fourth-round Survey," we examined the relationship between estimated individual radiation exposure doses and findings of malignancy or suspicion of malignancy in cases detected through Thyroid Ultrasound Examination and cases registered solely in the cancer registry. Our analysis focused on individuals with behavioral records from the Basic Survey, and it was conducted as a case-control study within the cohort.

Regarding radiation exposure doses, as in the "Summary to the Fourth-round Survey," we used combined values of estimated internal and external exposure doses, based on realistic inhalation exposure estimates. These estimates were derived from comparing a radionuclide concentration database generated through atmospheric dispersion simulation with behavioral record data from the Basic Survey, as well as estimates of oral exposure doses from tap water consumption. Note that these individual estimated exposure doses were also used in a Kaplan-Meier analysis detailed in the subsequent section, "3. Results of temporal analysis of cumulative detection rates."

As confounding factors, gender, age, examination year, and examination patterns were analyzed using multiple matching models. Regarding adjustments for these factors, it is important to note that in the "Summary to the Fourth-round Survey," regional variations in the examination year, participation rate, and implementation rate of FNAC, as well as their fluctuations, were found to be associated with dose, and it was suggested that these factors could not be adequately controlled in analyses not limited to specific regions. Based on these findings, although the number of cases was small, we also conducted an analysis limited to evacuation areas or three Hamadori municipalities not designated as evacuation areas, where the estimated individual radiation exposures ranged widely from less than 3 mSv to 10 mSv or more, to avoid the influence of the examination year and implementation status at the regional level, as in the "Summary to the Fourth-round Survey."

In an analysis limited to cases detected by Thyroid Ultrasound Examination without regional limitations, a relationship (dose-effect relationship) between an increase in radiation exposure doses and an increase in detection rates was suggested, although it was not statistically significant. In the analysis limited to evacuation areas, there was no trend toward an increase in detection rates with increasing radiation exposure doses. On the other hand, in the analysis limited to Hamadori, a significant relationship was observed between radiation exposures of 10 mSv or more and detection rates compared to those of 3 mSv or less. In addition, an analysis was conducted to increase statistical detectability by adding cases registered only in the cancer registry and increasing the number of subjects analyzed, and in the analysis, not limited to specific regions, the trend of an increase in the detection rate with increasing radiation exposure was weaker than in the analysis limited to cases detected by Thyroid Ultrasound Examinations. Similarly, in the analysis limited to Hamadori, this relationship was also weakened.

Based on these analyses, no consistent relationship (dose-effect relationship) was observed

between radiation exposure and thyroid cancer detected in the Preliminary Baseline Survey to the Fifth-round Full-scale Survey, nor in cases registered only in the cancer registry up to 2019.

3. Results of temporal analysis of cumulative detection rates

It has been approximately 12 years since examinations began, and the follow-up period has become longer. In addition to complementing the aforementioned epidemiological analyses, a temporal analysis of cumulative detection rates was conducted.

The following specific methods were employed:

-Confirmation of cumulative detection rates by age group at the time of the disaster, using the concept of person-years of observation.

-Confirmation of cumulative detection rates by subject characteristics such as gender and estimated radiation exposure using the Kaplan-Meier method, which is primarily used in survival time analyses.

In the Chornobyl nuclear accident, there was a significant increase in childhood thyroid cancer. Within 4–5 years after the accident, the number of cases started to rise, reaching more than ten times the original rate by 10 years later. According to the Fourth-round Survey summary, it is crucial to closely monitor the health of those who were infants at the time of the accident. However, when cumulative detection rates were examined by age group at the time of the nuclear accident, no increase in cumulative detection rates was observed among those aged four years or younger at the time of the 3.11 disaster. This suggests that the trend differs from what was seen after the Chornobyl nuclear power plant accident, which was linked to radiation exposure.

In addition, a region-specific analysis was conducted in Hamadori in the aforementioned case-control study, where a significant association was observed. Estimated radiation doses were analyzed using the Kaplan-Meier method, and no significant relationship was found in either the analysis of cases detected by Thyroid Ultrasound Examination alone or in an analysis that included cases found only in the cancer registry.

Furthermore, in a sensitivity analysis that excluded cases detected by the Preliminary Baseline Survey, the upward trend in detection rates became more gradual, suggesting that high participation in confirmatory examinations and FNAC may have influenced cumulative detection rates.

4. Summary

4-1 Summary of previous analyses

As stated in sections 2 and 3 above, no consistent relationship (dose-effect relationship) was observed between radiation exposure dose and the detection of malignant or suspected malignant lesions from the Preliminary Baseline Survey to the Fifth-round Survey, regardless of the analysis method used.

Consequently, the Preliminary Baseline Survey to the Fifth-round Survey did not reveal any association between thyroid cancer and radiation exposure.

This conclusion is clearer than the Summary up to the Fourth-round Survey, as it incorporates additional analyses that were not included in the previous summary. These additional analyses include a more comprehensive and multi-layered analysis that confirmed the detection history of cases registered only in the cancer registry and included a temporal analysis of cumulative detection rates.

However, region-specific analyses in case-control studies may not be consistent due to factors such as the possibility of a small number of participants. Therefore, it is important to base judgments on the results of ongoing follow-up analyses.

4-2 Detected thyroid cancer (including suspected cases)

In the summary up to the Fourth-round Survey, it was stated that "the results of the detailed ultrasound examinations conducted on a broad population of asymptomatic individuals may reflect either an overdiagnosis of cancers that do not threaten life expectancy or cause symptoms, or the early detection of cancers that may cause symptoms in the future, or both," and "At present, it is impossible to determine the relative proportions of these effects, and further retrospective verification by specialized academic societies is necessary." This assessment remains unchanged at this time.

In addition, the rise in detection rates becomes more gradual when analyzing cases that were not detected in previous surveys. Furthermore, there is a significant increase in detection rates in the Age 25 and Age 30 Surveys. These results suggest that the Survey itself affects detection rates.

4-3 Future examinations and information dissemination to residents

No consistent association between thyroid cancer and radiation exposure was observed from the Preliminary Baseline Survey to the Fifth-round Survey. Given the trend in cumulative detection rates, the overall low radiation exposure levels, and the fact that the detection rate among children aged 10 years or younger at the time of the disaster did not exceed the detection rate among those who were 15 years or older at the time of the disaster, it is likely that the characteristics of the increase in childhood thyroid cancer due to radiation exposure differ from those observed in the Chornobyl nuclear accident. This can be confirmed more definitively by analyzing the results of ongoing Full-scale Surveys (e.g., the Seventh-round Survey) and increasing the number of participants analyzed.

Furthermore, the Thyroid Ultrasound Examination is conducted according to the preference of residents who wish to undergo the examination to monitor children's long-term health. In a survey conducted by Fukushima Prefecture in fiscal year 2023, residents' intentions regarding examination participation were also confirmed. Given these intentions, it is important to continue providing opportunities for examinations. To appropriately respect the intentions and opinions of residents, it is necessary to continue conducting surveys.

Conversely, the Summary up to the Fourth-round Survey was summarized as follows: "In addition to the advantages of examinations, such as peace of mind and improved quality of life, there are also potential disadvantages, such as physical and mental burdens caused by examinations, or the possibility of diagnosing and treating cancers that may not cause symptoms or death in the future. Therefore, it is important to obtain the understanding and consent of the participants while ensuring their voluntary participation." This point is reiterated once again. Ensuring the voluntary nature of this process requires effective dissemination of pertinent information. This includes not only informing the public about the advantages and disadvantages of examinations, but also communicating the evaluations and insights gained from this summary, so that residents can make informed decisions based on sufficient information.

Taking into account the findings and public awareness obtained through this survey, the methods for conducting the examinations should continue to be discussed by the Oversight Committee.

*Refer to the Appendix for the analysis results.

The 25th Thyroid Evaluation Subcommittee Meeting (July 4, 2025) Document 2 | **Appendix**

UNSCEAR 2020 Estimated thyroid absorbed dose and the association with the detection rate of malignant or suspected malignant lesions in the Full-scale Survey (cumulation of the Full-scale Survey)

Table 1 Association between UNSCEAR 2020 estimated thyroid absorbed dose [*1] and the detection rate of malignant or suspicious for malignancy findings in Full-scale Survey [*2] (cumulation of the Full-scale Survey)

	First quartile 0.5–2.6 mGy	Second quartile 2.7–4.3 mGy	Third quartile 4.5–7.0 mGy	Fourth quartile 7.0–15.0 mGy
Female (%)	50.5	50.2	49.2	49.7
examination interval: Age at time of disaster (mean age)	8.4	9.3	6.7	7.8
Examination interval *4(%)				
Less than 4 years	33.2	26.4	18.1	17.8
4 years or more but less than 5 years	5.7	13.8	8.4	12.3
5 years or more but less than 6 years	24.3	7.9	11.8	5.0
6 years or more but less than 7 years	4.8	19.2	13.0	19.4
7 years or more	32.0	32.7	48.7	45.5
Number of malignant or suspicious for malignancy cases (persons)	34	58	58	57
Detection rate (per 100,000 people)	71.3	88.8	81.5	78.3
Detection rate (per 100,000 person-years *5)	12.8	15.4	12.2	12.0

*1: UNSCEAR 2020 Report, Annex A, ATTACHMENT A-14, Table A-14.1 (age 15 and older at the time of the disaster), Table A-14.2 (age 6 to 14 at the time of the disaster), Table A-14.3 (age under 6 at the time of the disaster) estimated average total thyroid absorbed dose (total; mean) and ATTACHMENT A-18, Table A-18.4 (for those aged 15 years and older at the time of the disaster), Table A-18.5 (for those aged 6 to 14 years at the time of the disaster), and Table A-18.6 (for those under 6 years of age at the time of the disaster). When multiple estimated doses are presented for the same municipality, the weighted average value based on the utilization rate of evacuation scenarios indicated in previous studies (Sci Rep. 2020, Ohba et al.) indicates the proportion of evacuation scenarios used, and the weighted average value based on that proportion was used. For Kawauchi Village, where no values were provided, the values for Koriyama City were used. After applying the municipal-level exposure doses to individuals, the entire population eligible for thyroid examinations was classified into quartiles based on exposure doses. Note that the thyroid absorbed dose in the UNSCEAR 2020 report is the sum of external exposure doses in the first year after the accident plus thyroid absorbed doses from food (including tap water) plus inhalation exposure dose (mGy).
*2: Any of the Full-scale Surveys from the Second-round to the Fifth-round Survey.
*3: Among residents within the prefecture at the time of the disaster who underwent the Preliminary Baseline Survey and were not diagnosed with malignancy or suspicion of malignancy. Among these, those who underwent any of the Full-scale Surveys from the second round to the fifth round were included in the analysis.
*4: The interval between the date of the Preliminary Baseline Survey and the date of the most recent survey. However, for those diagnosed with malignancy or suspicion of malignancy, the interval is calculated from the date of the examination where the diagnosis was made.
*5: Person-years are calculated based on the examination interval [*4].
*Based on data as of December 31, 2024.

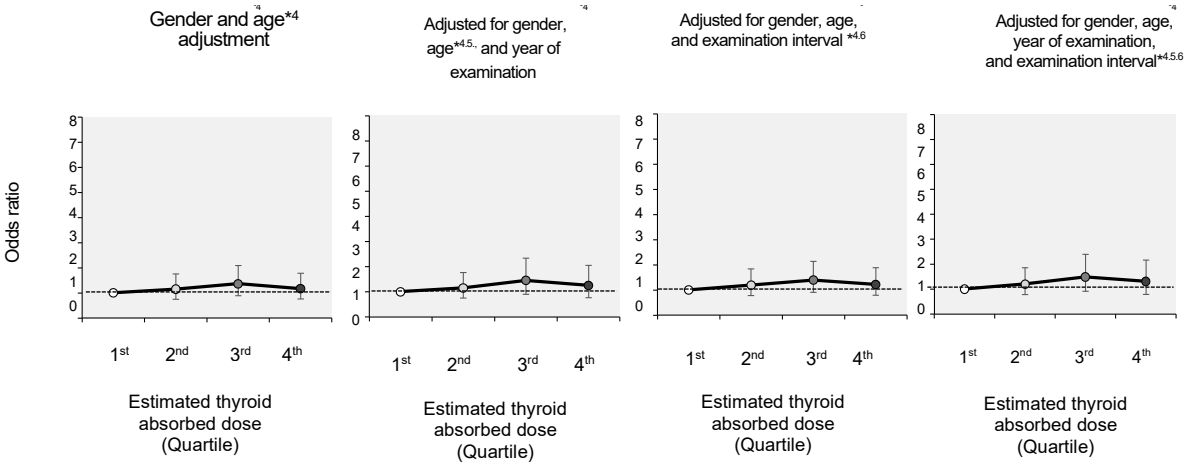


Figure 1: Odds ratio*3 of malignancy or suspicion of malignancy diagnosed in a Full-scale Survey*2 among all subjects classified, based on UNSCEAR 2020 estimated thyroid absorbed dose *1(vertical lines indicate 95% confidence intervals)

*1: According to the UNSCEAR 2020 Report, Annex A, ATTACHMENT A-14, Table A-14.1 (for individuals aged 15 and older at the time of the disaster), Table A-14.2 (for those aged 6 to 14), and Table A-14.3 (for those under 6), the estimated average total thyroid absorbed dose (mean) is provided. Additionally, ATTACHMENT A-18, Tables A-18.4 (for those aged 15 and older), A-18.5 (for those aged 6 to 14), and A-18.6 (for children under 6) present similar data. When multiple estimated doses are available for the same municipality, a weighted average based on the evacuation scenario utilization rates from previous studies (Sci Rep. 2020, Ohba et al.) is used, reflecting the proportion of each scenario. In the case of Kawauchi Village, where no specific values were provided, data from Koriyama City was used. After adjusting for municipal-level exposure doses, the entire population eligible for thyroid examinations was divided into quartiles according to their exposure levels. It is important to note that in the UNSCEAR 2020 report, the thyroid absorbed dose is calculated as the sum of external doses in the first year after the accident, doses from food (including tap water), and inhalation exposure (mGy).

*2: Any of the Full-scale Surveys from the Second-round to the Fifth-round Survey.

*3: The odds ratio was calculated using logistic regression analysis with the first quartile group as the reference group.

*4: Age adjustment used the age at the time of the disaster as a continuous variable.

*5: For adjusting the examination year, three categories are used: undergoing the Second-round Full-scale Survey in FY2014, undergoing examination in 2015 or later, or not being examined. Note that the examination year for the Full-scale Survey (Third- to Fifth-round Survey) is not used because it is strongly correlated with the examination year of the Second-round Survey.

*6: For adjusting the examination interval, the interval from the date of the primary examination of the Preliminary Baseline Survey to the date of the primary examination of the most recent examination (the Fourth-round and Fifth-round Surveys) is one of the following five: less than 4 years, 4 years or more but less than 5 years, 5 years or more but less than 6 years, 6 years or more but less than 7 years, and 7 years or more. However, for participants diagnosed with malignancy or suspicion of malignancy, the interval is defined as the period from the primary examination date on which the diagnosis was made.

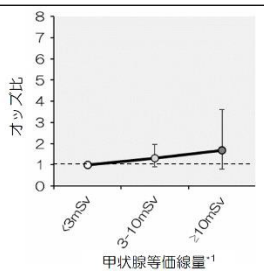
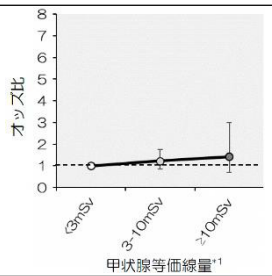
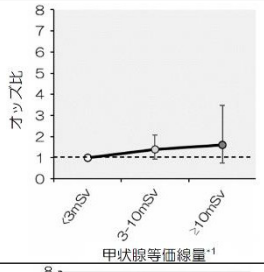
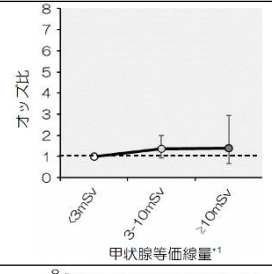
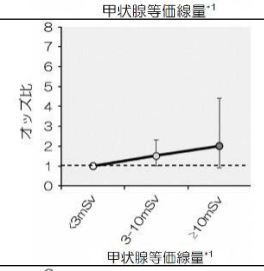
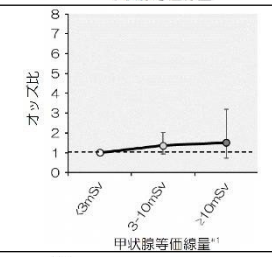
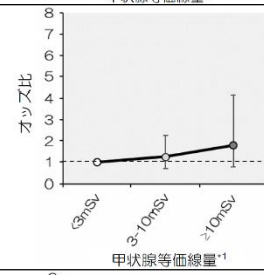
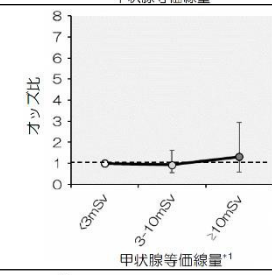
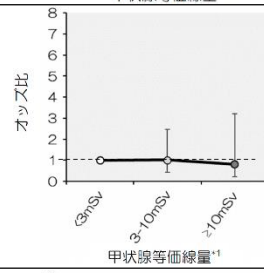
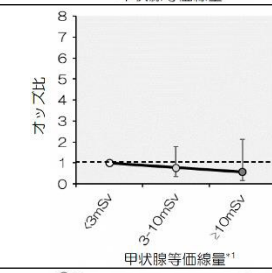
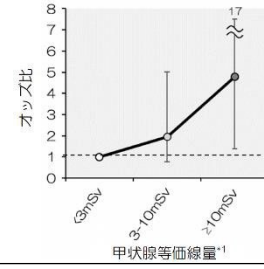
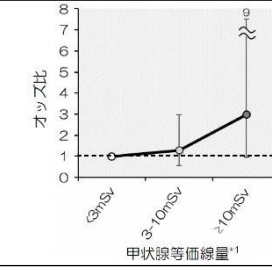
Consideration of possible association between individual internal and external radiation exposure doses and malignancy or suspicion of malignancy detected in a cohort-based case-control study

Table Matching model used in the cohort-based case-control study

Number	Gender & birth year	Examination Year *1	Pattern *2	Cancer Registry cases (cases not registered in TUE*3)	Remarks
Thyroid Ultrsound Examination cases only					
5-1	○	Only at the examination, when detected/diagnosed.	Only at the examination, when detected/diagnosed.	Excluded	Matching model 1
5-2	○	Only at the examination, when detected/diagnosed.	Last two examinations prior to detection	Excluded	Matching Model 2
5-3	○	All examinations prior to detection	All examinations prior to detection	Excluded	Matching model 3
5-4	○	Only at the examination, when detected/diagnosed.	Last two examinations prior to detection	Excluded	Matching Model 2 (Evacuation zone + Hamadori)
5-5	○	Only at the examination, when detected/diagnosed.	Last two examinations prior to detection	Excluded	Matching Model 2 (Evacuation zone only)
5-6	○	Only at the examination, when detected/diagnosed.	Last two examinations prior to detection	Excluded	Matching Model 2 (Hamadori only)
Thyroid Ultrsound Examination cases and cancer registry cases					
5-7	○	Only at the examination, when detected/diagnosed.	Only at the examination, when detected/diagnosed.	Included	Matching model 1
5-8	○	Only at the examination, when detected/diagnosed.	Last two examinations prior to detection	Included	Matching Model 2
5-9	○	All examinations prior to detection	All examinations prior to detection	Included	Matching model 3
5-10	○	Only at the examination, when detected/diagnosed.	Last two examinations prior to detection	Included	Matching Model 2 (Evacuation zone + Hamadori)
5-11	○	Only at the examination, when detected/diagnosed.	Last two examinations prior to detection	Included	Matching Model 2 (Evacuation zone only)
5-12	○	Only at the examination, when detected/diagnosed.	Last two examinations prior to detection	Included	Matching Model 2 (Hamadori only)

*1 (Thyroid Ultrasound Examination cases): Matched cases where both cases in each pair were diagnosed as malignant (including suspicious for malignancy cases) during the examination round, including the year of the primary examination.
(Cases only in the cancer registry): Matched based on whether the individual underwent the primary examination in the year of thyroid cancer diagnosis (Year X) and the previous year (Year X-1) (*).
*Example: For a case where the primary examination of the Third-round Full-scale Survey was the only examination received in Year X, and the participant was diagnosed with cancer not by TUE and registered in the cancer registry in the same year, the control was matched with a participant who received an examination in Year X and did not receive an examination in Year X-1.
*2 Matched based on whether the primary examination was conducted (year of examination not specified) at each examination (including Age 25 Survey, for those born from FY1992 to FY1997, and Age 30 Survey, for those born in FY1992). However, for cancer registry cases, "examination when detected" refers to the examination conducted in the year of primary examination when the participant was diagnosed with thyroid cancer.
*3 TUE: Thyroid Ultrasound Examination of the Fukushima Health Management Survey

Matching model and region-specific odds ratios in the cohort-based case-control study

	TUE Cases Only	TUE cases and cancer registry cases
Matching model 1		
Matching model 2		
Matching model 3		
Matching model 2 (Evacuation zone + Hamadori)		
Matching model 2 (Evacuation zone only)		
Matching model 2 (Hamadori only)		

*Excerpted from Documents 5-1 to 5-12 of the 25th Thyroid Examination Evaluation Subcommittee Meeting
*TUE: Thyroid Ultrasound Examination of the Fukushima Health Management Survey

Cumulative detection rate by age at the time of detection
(by age group at the time of the disaster)

Cases registered only in the cancer registry and participated in the Thyroid Ultrasound examination

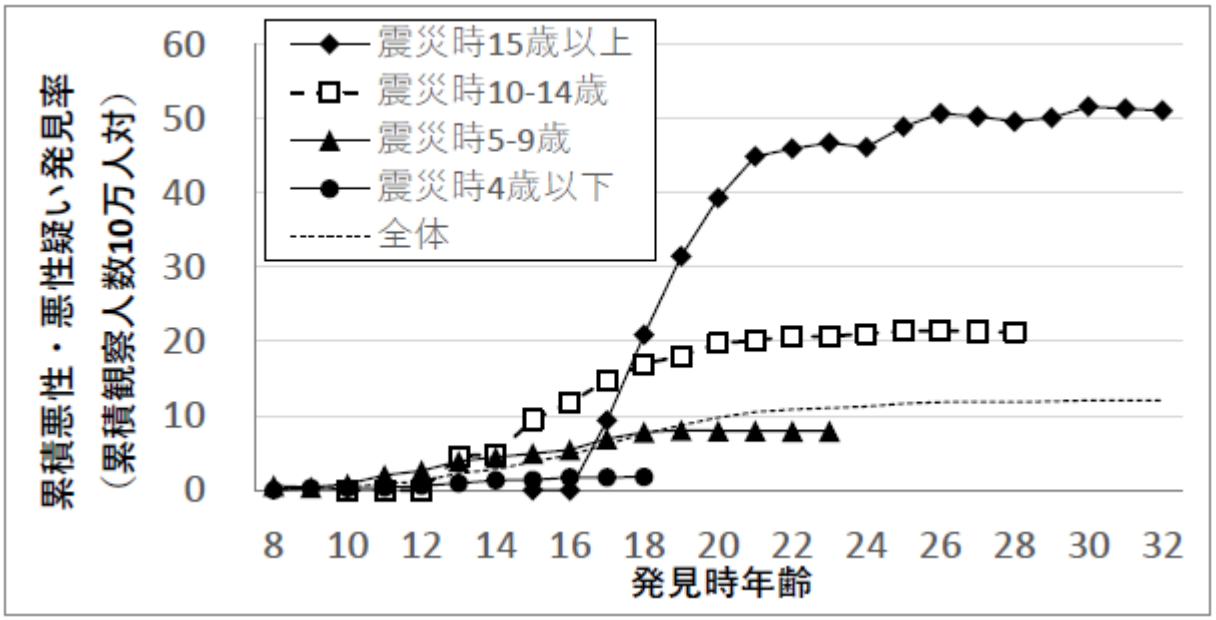


Figure 4-2-1 Cumulative detection rates (per 100,000 cumulative observed persons) for cases detected through preliminary and full-scale screenings, as well as cases registered only in the cancer registry [*1]

*1: Cancer registry cases diagnosed between 2011 and 2019

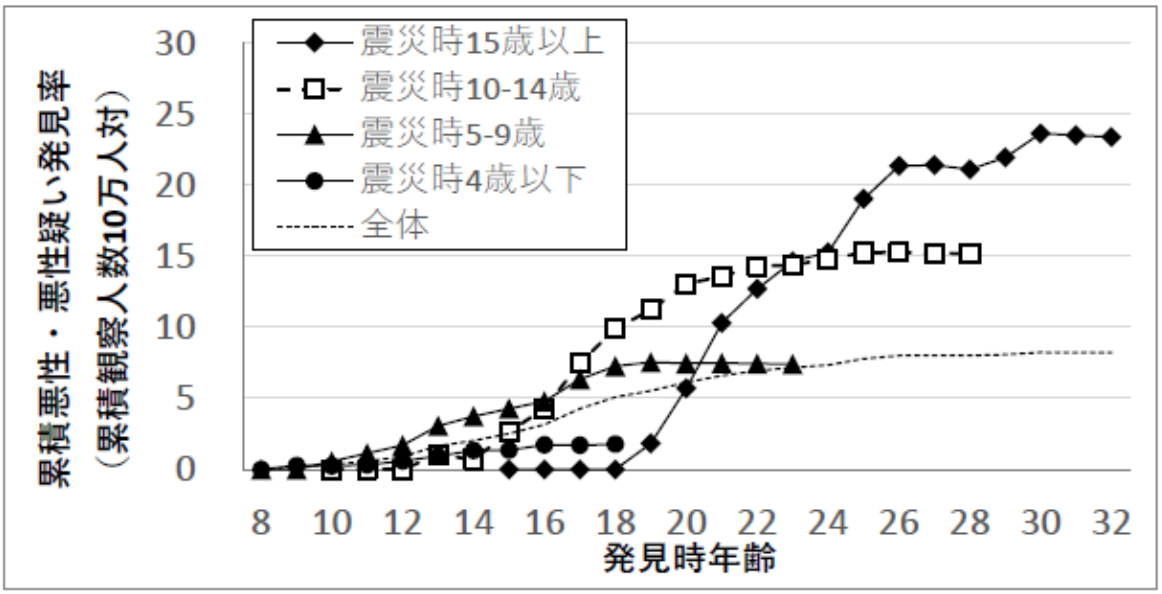


Figure 4-2-2 Cumulative detection rate for cases detected through comprehensive screening and cases registered only in the cancer registry [*2](per 100,000 cumulative observed population)

*2: Cancer registry cases diagnosed between 2014 and 2019

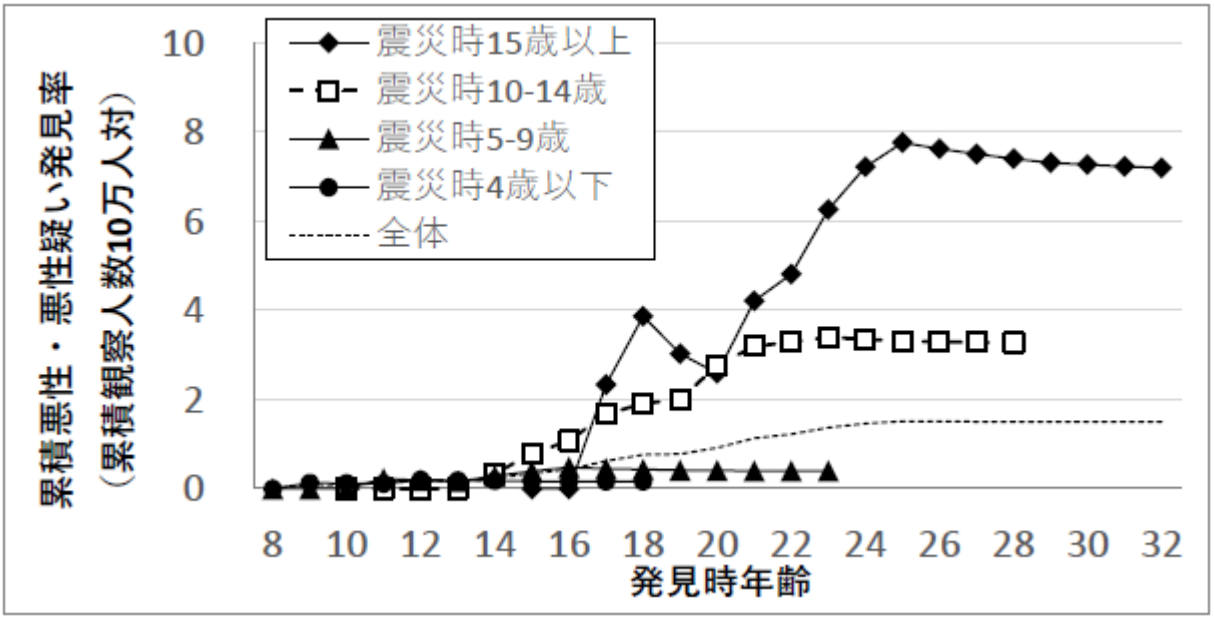


Figure 4-2-3　Cumulative detection rate for cases registered only in the cancer registry [*3](per 100,000 cumulative observed population)

*3: Regardless of history of TUE

*In calculating the detection rate for malignant and suspected malignant cases, the numerator is the total number of cases detected up to the relevant age,
the denominator is the total number of individuals observed at each age (in 1-year increments) up to the age for which the detection rate is being calculated. The end date of observation was defined as the earliest of the following:

（1）The date of diagnosis recorded in the cancer registry or the date of the follow-up examination for the screening round in which a malignant (including suspected) result was determined (priority is given to the date of diagnosis recorded in the cancer registry)

（2）Data cutoff date (December 31, 2024; however, this applies only to those who underwent their fifth screening and milestone screenings during the same period)

（3）The date of the final screening (either the date of the primary screening, the date of the secondary screening, or the date of the cytology examination)

*Data were provided under the Act on the Promotion of Cancer Registration, etc., and were independently compiled and processed.

Cumulative detection rate of malignancy or suspicion of malignancy (Kaplan-Meier method: categorized by residential area at the time of disaster and thyroid equivalent dose into three zones)

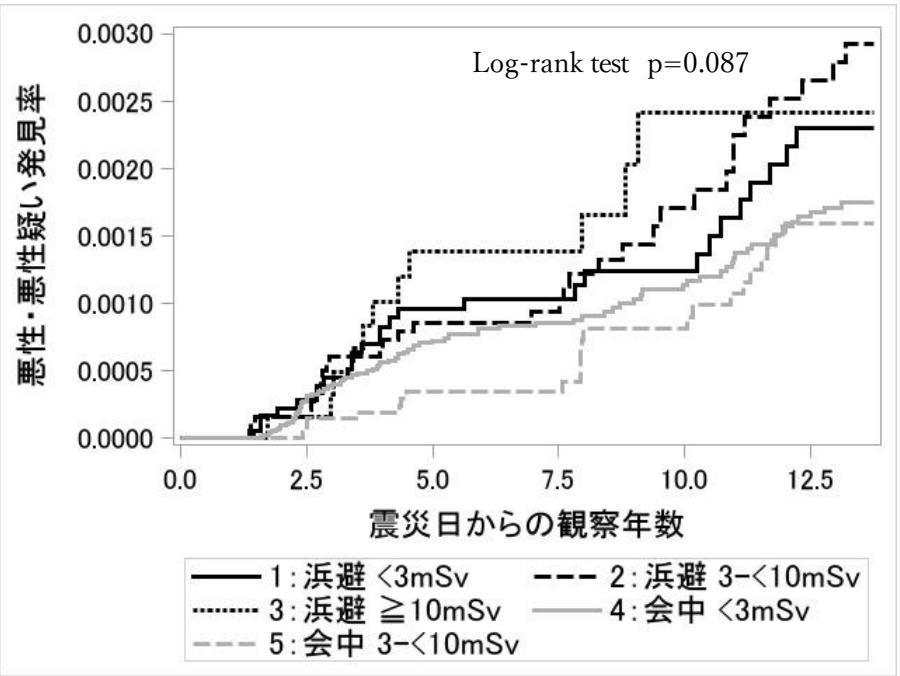


Figure 6-4-1 Cases detected in the Preliminary Baseline Survey and Full-scale Surveys (excluding cases registered only in the cancer registry)

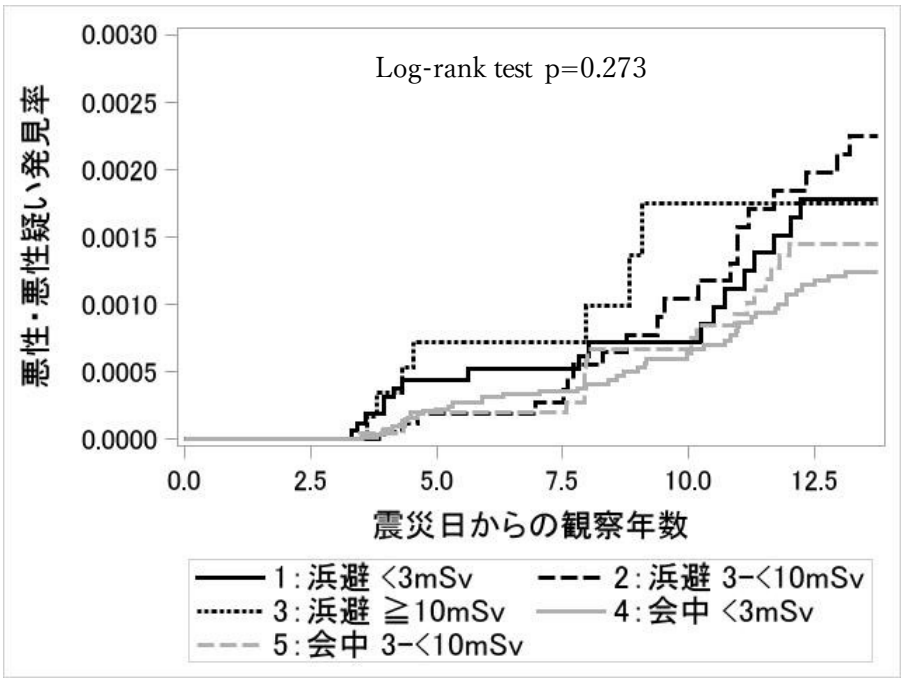


Figure 6-4-2 Cases detected in the Full-scale Surveys (excluding cases registered only in the cancer registry)

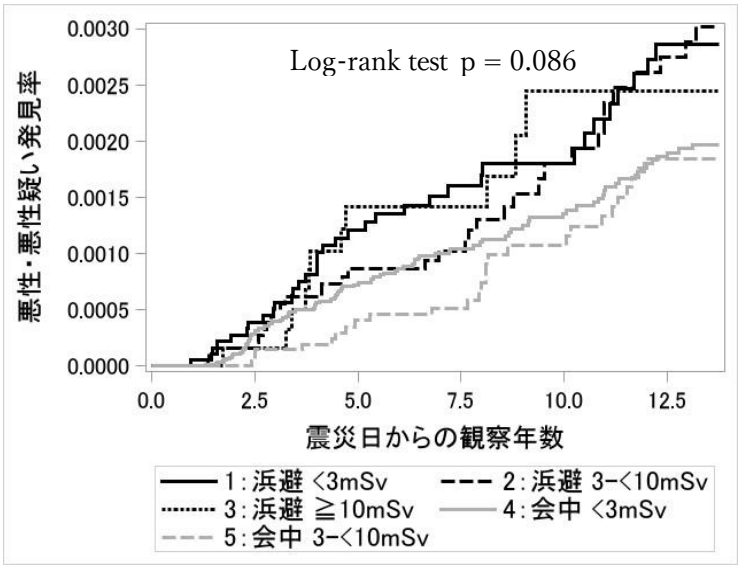


Figure 6-4-3 Cases detected in the Preliminary Baseline Survey, Full-scale Surveys, and cases registered only in the cancer registry [*1]

*1: Cancer registry cases diagnosed between 2011 and 2019

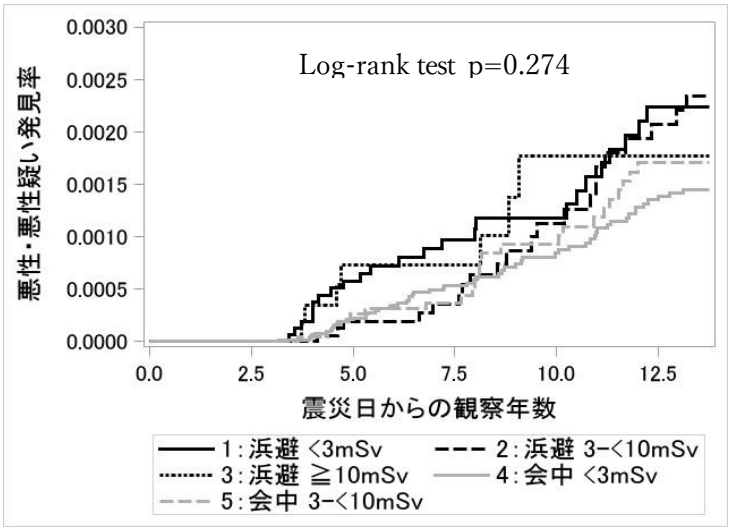


Figure 6-4-4 Cases detected in Full-scale Surveys and cases registered only in the cancer registry [*2]

*2: Cancer registry cases with a diagnosis year from 2014 to 2019

* *浜避*: Hamadori+Evacuation Area (13 municipalities), *会中*: Aizu+Nakadori

* When calculating the detection rate of malignant or suspicious for malignancy cases, the end date of observation was determined as the earliest of the following dates:
  - I. The date of FNAC conducted during the examination round in which a malignant (including suspected malignant) diagnosis was made
  - II. (2) Data cutoff date (December 31, 2024, but only for participants who underwent the Fifth-round Survey or concurrent Age 25 or Age 30 Surveys)
  - III. (3) Final examination date (either the date of the primary examination, the date of the confirmatory examination, or the date of FNAC)

* The information was provided based on the Act on the Promotion of Cancer Registration, etc., and was created and processed independently.

*Thyroid equivalent dose (mSv) was calculated as the sum of internal and external exposure doses. The internal thyroid equivalent dose was estimated as the sum of the thyroid equivalent dose from tap water intake during the 14 days following the nuclear accident and the thyroid equivalent dose from inhalation exposure, based on the detailed version of the behavioral questionnaire covering March 12–25, 2011. The external thyroid equivalent dose was calculated by multiplying the dose (effective dose) estimated in the Basic Survey by a thyroid equivalent dose conversion factor of 1.1.

The 25th Thyroid Evaluation Subcommittee Document 6-5 (July 4, 2025)

Cumulative detection rate of malignancy or suspicion of malignancy
(Kaplan-Meier method: three thyroid equivalent dose categories in the Hamadori)

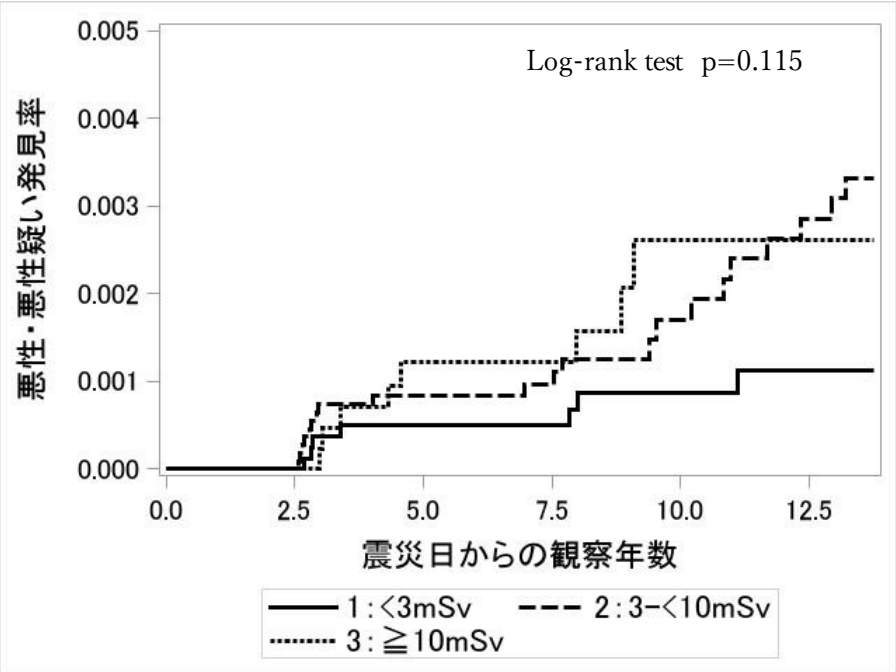


Figure 6-5-1 Cases detected by Preliminary Baseline Survey and Full-scale Surveys (excluding cases registered only in the cancer registry)

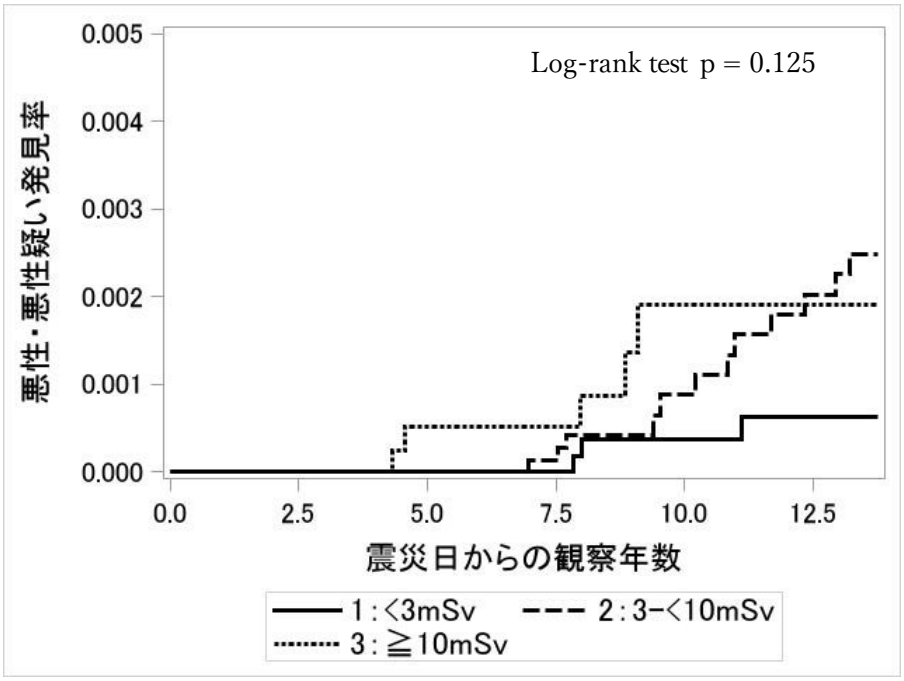


Figure 6-5-2 Cases detected by Full-scale Surveys (excluding cases registered only in the cancer registry)

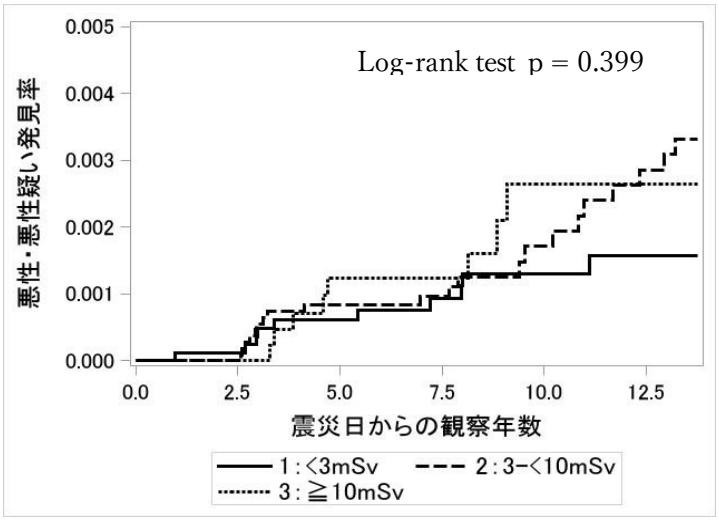


Figure 6-5-3 Cases detected by Preliminary Baseline Survey, Full-scale Surveys, and cases registered only in the cancer registry *1

*1: Cancer registry cases diagnosed between 2011 and 2019

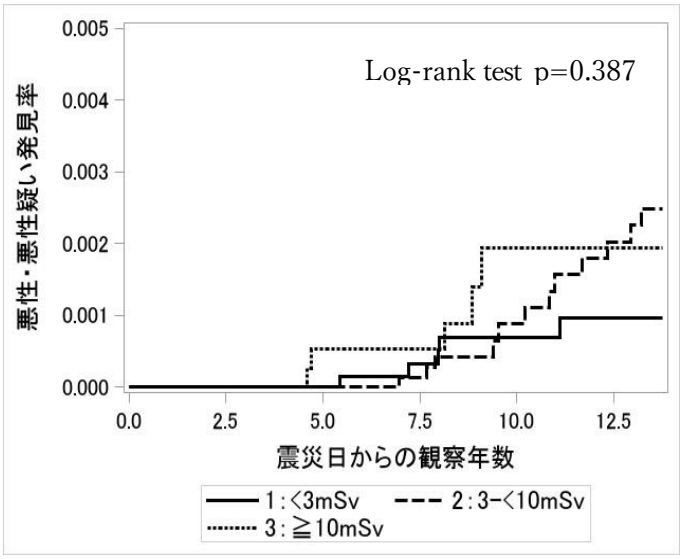


Figure 6-5-4 Cases detected by Full-scale Surveys and cases registered only in the cancer registry[*2]

*2: Cancer registry cases with a diagnosis year from 2014 to 2019

* In calculating the detection rate of malignant and suspicious for malignancy cases, the end date of observation was determined as the earliest of the following dates:

I. The date of FNAC performed during the examination round where a malignant (including suspected) diagnosis was made
II. (2) Data cutoff date (December 31, 2024, but only for those who underwent the Fifth-round Survey or the concurrent Age 25 or Age 30 Survey)
III. (3) Final examination date (either the date of the primary examination, the date of the secondary examination, or the date of cytology)

* The information was provided based on the Act on the Promotion of Cancer Registration, etc., and was created and processed independently.

*Thyroid equivalent dose is the sum of internal and external exposure doses (thyroid equivalent dose in mSv). Internal exposure dose is calculated with the thyroid equivalent dose from tap water during the 14 days following the accident and the thyroid equivalent dose from inhalation exposure based on the detailed behavior records from March 12 to March 25, 2011, and the external exposure was calculated by multiplying the dose evaluated in the Basic Survey (effective dose) by a thyroid equivalent dose correction factor of 1.1.

The 26th Thyroid Evaluation Subcommittee Reference 4 (May 22, 2026)
The 57th Oversight Committee Meeting Document 3-1 (November 20, 2025)

Implementation Overview of the Questionnaire Survey on Thyroid Ultrasound Examination (Draft)

November 20, 2025
Fukushima Prefecture,
Fukushima Health Management Survey Division

1. Purpose of the Questionnaire Survey

(1) The Survey aims to assess the level of awareness among examinees and parents/guardians regarding the advantages and disadvantages of thyroid examinations, and to inform discussions on improving the content and methods of information dissemination related to those advantages and disadvantages.

(2) In light of conclusions presented in the Subcommittee Summary prepared in July 2025, which stated that “it is important to continue providing opportunities for thyroid examinations while respecting residents’ intentions, and that continuous implementation of questionnaire surveys is necessary to appropriately ascertain those intentions,” and that “to ensure voluntariness, appropriate provision of information is essential; therefore, examinations should be conducted in a manner that enables residents to make informed decisions based on sufficient information, including not only the advantages and disadvantages of the examination but also the evaluations and findings obtained in the present summary,” this survey aims to identify residents’ intentions regarding participation in thyroid examinations and the types of information required when considering future examination methods.

2. Implementing Body

The survey will be implemented by Fukushima Prefecture and conducted through outsourcing to a survey company or similar entity.

3. Survey Period

Around August 2026 (tentative).

4. Survey Methods

(1) The questionnaire and *“Advantages and Disadvantages of Thyroid Ultrasound Examination”* booklet will be mailed to survey participants.

(2) Responses may be submitted by mail or via a web-based response form, allowing for online participation.

(3) In principle, the survey items will follow those used in the survey conducted in 2023, with approximately 20 questions (including sub-questions). The estimated time required to complete the questionnaire is approximately 20–25 minutes.

(4) The survey will be conducted anonymously, with no attempts to identify individual respondents.

5. Survey Participants

(1) **Number of participants**
Approximately 381,000 individuals.

(2) **Sampling method**
Participants will be randomly selected from the following four groups as the population base (as of January 1, 2026):

- **A.** When the Thyroid Ultrasound Examination participants are under 16 years old:
  The parents/guardians of eligible participants
- **B.** When the eligible examinee is aged 16 to 18:
  a. The eligible participants
  b. The parents/guardians of eligible participants (not necessarily the parents/guardians of (a))
- **C.** When the eligible examinee is 18 years of age or older:
  The eligible participants

6. Number of Questionnaires Distributed

(Persons)

Category (as of April 1, 2026)	Population group	Population size	Expected responses	Number distributed
A	Parents/guardians of eligible examinees under 16	approx. 47,000	approx. 400	4,000
B-a	Eligible examinees aged 16 to 18	approx. 34,000	approx. 400	4,000
B-b	Parents/guardians of eligible examinees aged 16 to 18	approx. 34,000	approx. 400	4,000
C	Eligible examinees aged 18 or older	approx. 301,000	approx. 400	8,000
Total		approx. 416,000	approx. 1,600	20,000

7. Timing of Reporting Survey Results

Around February 2027 (tentative).

Reference

Excerpt from "Summary of Results from the Preliminary Baseline Survey through the Full-Scale Survey (5th Round)."
(56th Fukushima Health Management Survey Oversight Committee, Document 5-2)

(3) Perspectives on Future Examinations and Information Dissemination to Residents

The Thyroid Ultrasound Examination (TUE) program has been conducted to monitor children's health over the long term, in the context of voluntary participation. Fukushima Prefecture also ascertained residents' intentions through a questionnaire survey conducted in 2023. In light of this, it is important to continue providing opportunities for examination, and continuous implementation of questionnaire surveys is necessary in order to appropriately understand residents' intentions.

At the same time, summaries up to the fourth round of examinations have pointed out that, while thyroid examination may have advantages such as providing reassurance and potentially improving quality of life, there are also possible disadvantages, including physical and psychological burdens and the possibility of diagnosing and treating cancers that would not cause symptoms or lead to death. Therefore, examinations must be conducted voluntarily, with adequate understanding and consent from examinees. This point is emphasized again here.
Furthermore, to ensure voluntariness, the appropriate provision of information is essential. Examinations should be implemented in a manner that enables residents to make informed decisions based on

sufficient information, including not only the advantages and disadvantages of the examination but also the evaluations and findings obtained in the present summary.

Based on these findings and residents' perceptions ascertained through the questionnaire survey, future examination methods should be assessed by the Oversight Committee.

The 26th Thyroid Evaluation Subcommittee Reference 5 (May 22, 2026)
(The 23rd Thyroid Evaluation Subcommittee Document 8 (November 15, 2024))

Surgical Cases at Fukushima Medical University Hospital

Department of Thyroid and Endocrinology
School of Medicine
Fukushima Medical University

A descriptive study entitled "Clinicopathological Findings of 220 Pediatric, Adolescent, and Young Adult Patients with Thyroid Cancer in Fukushima Medical University Hospital," summarizing the clinical and pathological findings of 220 patients who underwent surgical treatment at Fukushima Medical University Hospital between June 2012 and September 2021, was published online in Thyroid, the official journal of the American Thyroid Association. The study was conducted by Dr. MATSUMOTO Yoshiko and colleagues at Fukushima Medical University
(PMID: 39397568; DOI: 10.1089/thy.2024.0226).

In addition to providing detailed clinical and pathological findings, the study showed that no persistent postoperative complications, such as hoarseness or hypoparathyroidism, were observed following less invasive lobectomy, which was performed in approximately 90% of cases. These findings indicate that thyroid cancers detected through the Thyroid Ultrasound Examination have been treated carefully and appropriately.

Male-to-female ratio: 85:135
Age at diagnosis (years), median (interquartile range): 18.6 (16.2, 20.3)
Tumor size determined at surgery (mm), median (interquartile range): 13.0 (10.4, 18.0)
Cases with multiple nodules: 18 (8.2%)

Surgical procedures
Total thyroidectomy 21 (9.5%)
Thyroid lobectomy 199 (90.5%)

Preoperative risk classification*1
Very low risk 43 (19.5%)
Low risk 121 (55.0%)
Intermediate risk 47 (20.5%)
High risk 9 (4.1%)

*1: Based on the preoperative risk classification for papillary thyroid carcinoma in the 2018 Clinical Guidelines for the Management of Thyroid Tumors.

***Postoperative diagnosis*2, 3**
Primary tumor classification: pT1a - 47 (21.5%), pT1b - 126 (57.6%), pT2 - 19 (8.7%), pT3a - 15 (6.9%), pT3b - 7 (3.2%), pT4a - 5 (2.3%)
Lymph node metastasis: pN0 - 45 (20.6%), pN1a - 144 (65.8%), pN1b - 30 (13.7%)
Distant metastasis (lung metastasis): 4 (1.8%)

Histopathological diagnosis
Conventional papillary thyroid carcinoma: 205 (93.2%)
Follicular variant of papillary thyroid carcinoma: 3 (1.4%)
Solid variant of papillary thyroid carcinoma: 2 (0.9%)
Diffuse sclerosing variant of papillary thyroid carcinoma: 2 (0.9%)
Cribriform-morular carcinoma: 4 (1.8%)
Follicular thyroid carcinoma: 1 (0.5%)
Poorly differentiated thyroid carcinoma: 1 (0.5%)
Others: 2 (0.9%)

Histopathological findings
Microscopic extrathyroidal extension: 112 (51.1%)
Vascular invasion: 108 (49.5%)
Lymphatic invasion: 47 (21.7%)
Extranodal extension: 33 (15.1%)

Comparison by age
Since the median age was 18.6 years, clinical and pathological findings were compared between patients younger than 18.6 years (n = 110) and those aged 18.6 years or older (n = 110). No statistically significant differences were observed in any of the findings.

*2: Tumor staging was based on the 8th edition of the UICC classification, and histopathological diagnoses were based on the 5th edition of the WHO classification.
*3: Tumor size, lymph node metastasis, and histopathological findings were evaluated in 219 cases, excluding one patient whose postoperative diagnosis was benign. Histopathological diagnoses were evaluated in all 220 cases.

Postoperative complications
Among patients who underwent thyroid lobectomy, no cases of hypothyroidism (excluding patients with Hashimoto's disease who had been taking thyroid hormone medication before surgery), hypoparathyroidism, recurrent laryngeal nerve palsy, or hoarseness were observed.
Among patients who underwent total thyroidectomy, one case of transient recurrent laryngeal nerve palsy and two cases of hypoparathyroidism were observed.

Reference *1

pT Classification
- pT1 pT1a: Tumor limited to the thyroid gland and measuring 1 cm or less in greatest dimension (greatest dimension ≤ 1 cm).
pT1b: Tumor limited to the thyroid gland and measuring more than 1 cm but not more than 2 cm in greatest dimension (1 cm < greatest dimension ≤ 2 cm).
- pT2: Tumor limited to the thyroid gland and measuring more than 2 cm but not more than 4 cm in greatest dimension (2 cm < greatest dimension ≤ 4 cm).
- pT3 pT3a: Tumor limited to the thyroid gland and measuring more than 4 cm in greatest dimension (greatest dimension > 4 cm).
pT3b: Tumor of any size with gross invasion into the strap muscles (sternohyoid, sternothyroid, or omohyoid muscles).
- pT4 pT4a: Tumor extending beyond the thyroid capsule and invading any of the following: subcutaneous soft tissue, larynx, trachea, esophagus, or recurrent laryngeal nerve.
pT4b: Tumor invading the prevertebral fascia or mediastinal great vessels, or encasing the carotid artery.
Notes 1. There is no need to describe the findings at the resection margin.
2. Tumor invasion limited to the surrounding adipose tissue is considered to be confined to the thyroid gland.

pN Classification
- pN0: No regional lymph node metastasis.
- pN1: Regional lymph node metastasis present.
- pN1a: Metastasis to the central cervical lymph nodes (levels I, II, III, IV, XI).
- pN1b: Metastasis to the lateral cervical lymph nodes on the ipsilateral, bilateral, or contralateral side (levels Va, Vb, VI, VII, VIII, IX).

*1: General Rules for the Description of Thyroid Cancer, 8th Edition.