Basic Survey (Radiation Dose Estimates)

Reported on 12 February 2015

1. Response Rates and Radiation Dose Estimates

1.1 Response Rates of Residents

The overall effective response rate to the Basic Survey (radiation dose estimates), which targeted the entire population of Fukushima Prefecture, was 27.0% (554,241/2,055,383) as of 31 December 2014. Response rate of the simplified questionnaire was 3.1% (63,451/2,055,383). (See Table 1)

Table 1

Response rates to the Basic Survey

As of 31 December 2014

Target population		2,055,383	
Response	Original questionnaire	490,790	23.9%
	Simplified questionnaire*	63,451	3.1%
	Total	554,241	27.0%

*Preliminary figures

Fractions have been rounded.

The following tables show the results of the original and simplified questionnaires combined.

1.2 Radiation Dose Estimates

It has been almost four years since the Great East Japan Earthquake and the Fukushima Daiichi nuclear disaster, and we continue to receive responses from participants. Doses have been estimated for 536,394 of 554,241 respondents (96.8%) as of 31 December 2014, and the results have been returned to 531,454 respondents. (See Table 2)

The number of returned results has increased by 19,260 since 31 October 2014.

Table 2

Response rates to the Basic Survey

As of 31 December 2014

Area(preceding and full-scale surveys)	Target population a	Responses b	Response rate c=b/a	Completed dose estimates d	Proportion e=d/b	Returned results f	Proportion g=f/b
Kempoku	504,062	150,493	29.9%	146,074	97.1%	144,569	96.1%
Kenchu	557,266	132,179	23.7%	128,633	97.3%	127,849	96.7%
Kennan	152,229	33,465	22.0%	32,360	96.7%	31,955	95.5%
Aizu	267,205	55,907	20.9%	53,301	95.3%	52,482	93.9%
Minami-aizu	30,787	6,171	20.0%	5,795	93.9%	5,726	92.8%
Soso	195,608	88,916	45.5%	86,268	97.0%	86,099	96.8%
Iwaki	348,226	87,110	25.0%	83,963	96.4%	82,774	95.0%
Total	2,055,383	554,241	27.0%	536,394	96.8%	531,454	95.9%

Including Yamakiya of Kawamata, Namie and Iitate.

We have been estimating doses for non-residents who were visiting or staying in Fukushima Prefecture at the time of the accident. (See Table 3)

Table 3 Response rates to the Basic Survey (Visitors) As of 31 December 2014

Number of requests a	Responses b	Response rate c=b/a	Completed dose estimates d	Proportion e=d/b	Returned results f	Proportion g=f/b
3,875	2,137	55.1%	1,879	87.9%	1,869	87.5%

2. Results of Radiation Dose Estimates

Table 4 shows the numbers of completed dose estimates (see Table 2) —excluding the data in the estimation period less than four months—within a range of values.

Radiation doses for a total of 457,859 residents have been estimated to date. The results for 448,948 respondents (excluding radiation workers) suggest that the doses for about 87% of the respondents in Kempoku area and about 92% in Kenchu area were <2 mSv. The doses for approximately 88% of the respondents in Kennan area and more than 99% of those in Aizu and Minami-aizu areas were <1 mSv. Doses for about 78% of respondents in the Soso area and more than 99% of respondents in Iwaki were also <1 mSv.

Table 4 Estimated external radiation doses (preceding and full-scale survey) As of 31 December 2014

Effective Dose (mSv)	Total	Excluding radiation workers				By area (excluding radiation workers)													
						Kempoku *		Kenchu		Kennan		Aizu		Minami-aizu		Soso **		Iwaki	
<1	284,668	279,118	62.2%	93.9%		24,590	20.2%	55,961	51.6%	24,353	88.4%	43,496	99.3%	4,672	99.3%	55,144	77.6%	70,902	99.1%
1-2	144,618	142,344	31.7%			81,671	67.0%	44,184	40.8%	3,182	11.5%	279	0.6%	34	0.7%	12,377	17.4%	617	0.9%
2-3	24,954	24,597	5.5%	5.8%	99.8%	15,057	12.4%	7,827	7.2%	17	0.1%	21	0.0%	0	-	1,647	2.3%	28	0.0%
3-4	1,532	1,457	0.3%			457	0.4%	413	0.4%	0	-	1	0.0%	0	-	583	0.8%	3	0.0%
4-5	537	495	0.1%	0.2%		39	0.0%	5	0.0%	0	-	0	-	0	-	450	0.6%	1	0.0%
5-6	429	376	0.1%			18	0.0%	3	0.0%	0	-	0	-	0	-	354	0.5%	1	0.0%
6-7	265	227	0.1%	0.1%		10	0.0%	1	0.0%	0	-	1	0.0%	0	-	215	0.3%	0	-
7-8	151	114	0.0%		0.2%	1	0.0%	0	-	0	-	0	-	0	-	113	0.2%	0	-
8-9	113	73	0.0%	0.0%		1	0.0%	0	-	0	-	0	-	0	-	72	0.1%	0	-
9-10	69	39	0.0%			0	-	0	-	0	-	0	-	0	-	39	0.1%	0	-
10-11	66	34	0.0%	0.0%		0	-	0	-	0	-	0	-	0	-	34	0.0%	0	-
11-12	52	31	0.0%			1	0.0%	0	-	0	-	0	-	0	-	30	0.0%	0	-
12-13	36	13	0.0%	0.0%	0.0%	0	-	0	-	0	-	0	-	0	-	13	0.0%	0	-
13-14	34	12	0.0%			0	-	0	-	0	-	0	-	0	-	12	0.0%	0	-
14-15	27	6	0.0%	0.0%		0	-	0	-	0	-	0	-	0	-	6	0.0%	0	-
≥15	308	12	0.0%		0.0%	0	-	0	-	0	-	0	-	0	-	12	0.0%	0	-
Total	457,859	448,948	100.0%	100.0%	100.0%	121,845	100%	108,394	100%	27,552	100%	43,798	100%	4,706	100%	71,101	100%	71,552	100%
Max	66mSv	25mSv				11mSv		6.3mSv		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		0.8mSv		0.3mSv	

* Including Yamakiya of Kawamata.

** Including Namie and Iitate.

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

Excluding those with estimation period less than four months.

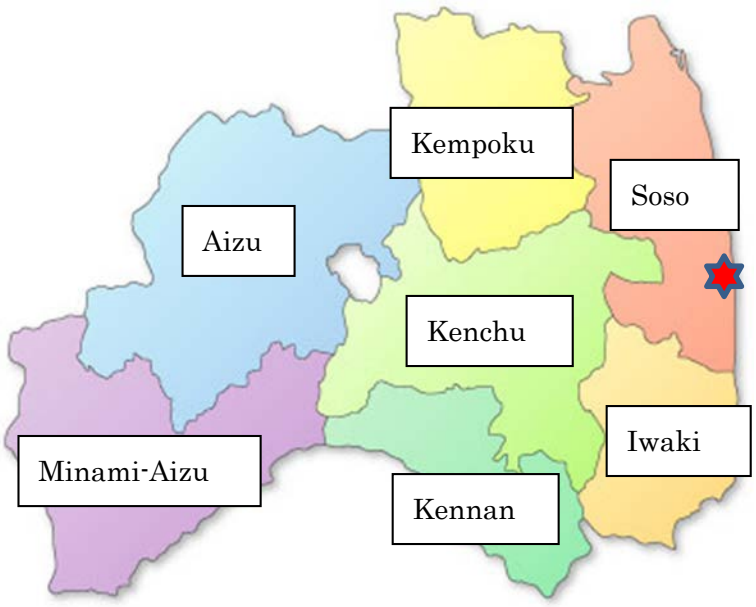
3. Evaluation of the results

The latest effective radiation dose estimates showed similar trends to those observed so far.

Since previous epidemiological studies[1] indicate no significant health effects at doses ≤100 mSv, we concluded that radiation doses estimated so far are unlikely to cause adverse effects on health, although this conclusion is based on external radiation doses estimated only for the first four months following the accident.

References

1) Sources and effects of ionizing radiation, United Nations Scientific Committee on the Effects of Atomic Radiation, UNSCEAR 2008 Report to the General Assembly, with scientific annexes.



Appendix 1

Response rates to the Basic Survey by district

Preceding and full-scale surveys

As of 31 December 2014

Area	District	Target population a	Response b	Response rate c=b/a	Completed dose estimates d	Proportion e=d/b	Returned results f	Proportion g=f/b
Kempoku	Fukushima	295,654	93,227	31.5%	91,113	97.7%	89,993	96.5%
	Nihonmatsu	60,859	16,480	27.1%	15,748	95.6%	15,649	95.0%
	Date	67,581	18,162	26.9%	17,592	96.9%	17,436	96.0%
	Motomiya	31,766	8,734	27.5%	8,260	94.6%	8,191	93.8%
	Kori	13,207	3,878	29.4%	3,743	96.5%	3,739	96.4%
	Kunimi	10,316	3,019	29.3%	2,876	95.3%	2,862	94.8%
	Kawamata	15,886	5,084	32.0%	4,917	96.7%	4,887	96.1%
	Otama	8,793	1,909	21.7%	1,825	95.6%	1,812	94.9%
	Subtotal	504,062	150,493	29.9%	146,074	97.1%	144,569	96.1%
Kenchu	Koriyama	339,736	84,127	24.8%	82,046	97.5%	81,571	97.0%
	Sukagawa	80,162	16,666	20.8%	16,156	96.9%	16,033	96.2%
	Tamura	41,726	10,018	24.0%	9,676	96.6%	9,594	95.8%
	Kagamiishi	13,109	2,852	21.8%	2,778	97.4%	2,770	97.1%
	Tenei	6,469	1,169	18.1%	1,137	97.3%	1,131	96.7%
	Ishikawa	17,490	4,162	23.8%	4,041	97.1%	4,022	96.6%
	Tamakawa	7,338	1,468	20.0%	1,418	96.6%	1,417	96.5%
	Hirata	7,057	1,630	23.1%	1,569	96.3%	1,563	95.9%
	Asakawa	7,163	1,476	20.6%	1,437	97.4%	1,433	97.1%
	Furudono	6,319	1,296	20.5%	1,255	96.8%	1,247	96.2%
	Miharu	18,994	4,775	25.1%	4,657	97.5%	4,619	96.7%
	Ono	11,703	2,540	21.7%	2,463	97.0%	2,449	96.4%
	Subtotal	557,266	132,179	23.7%	128,633	97.3%	127,849	96.7%
Kennan	Shirakawa	65,428	14,930	22.8%	14,396	96.4%	14,088	94.4%
	Nishigo	20,091	4,809	23.9%	4,667	97.0%	4,637	96.4%
	Izumizaki	6,931	1,318	19.0%	1,272	96.5%	1,269	96.3%
	Nakajima	5,306	964	18.2%	939	97.4%	928	96.3%
	Yabuki	18,343	4,017	21.9%	3,901	97.1%	3,887	96.8%
	Tanagura	15,383	2,936	19.1%	2,852	97.1%	2,840	96.7%
	Yamatsuri	6,489	1,434	22.1%	1,377	96.0%	1,374	95.8%
	Hanawa	10,062	2,260	22.5%	2,191	96.9%	2,169	96.0%
	Samegawa	4,196	797	19.0%	765	96.0%	763	95.7%
	Subtotal	152,229	33,465	22.0%	32,360	96.7%	31,955	95.5%
Aizu	Aizuwakamatsu	127,815	28,939	22.6%	27,753	95.9%	27,294	94.3%
	Kitakata	53,201	10,142	19.1%	9,598	94.6%	9,312	91.8%
	Kitashiobara	3,275	595	18.2%	566	95.1%	562	94.5%
	Nishiaizu	7,725	1,432	18.5%	1,329	92.8%	1,327	92.7%
	Bandai	3,888	752	19.3%	733	97.5%	729	96.9%
	Inawashiro	16,272	3,588	22.1%	3,426	95.5%	3,400	94.8%
	Aizubange	17,881	3,202	17.9%	3,035	94.8%	3,022	94.4%
	Yugawa	3,514	705	20.1%	671	95.2%	670	95.0%
	Yanaizu	4,077	710	17.4%	674	94.9%	672	94.6%
	Mishima	2,031	372	18.3%	338	90.9%	336	90.3%
	Kaneyama	2,544	619	24.3%	562	90.8%	559	90.3%
	Showa	1,569	344	21.9%	317	92.2%	317	92.2%
	Aizumisato	23,413	4,507	19.2%	4,299	95.4%	4,282	95.0%
	Subtotal	267,205	55,907	20.9%	53,301	95.3%	52,482	93.9%
Minami-aizu	Shimogo	6,650	1,215	18.3%	1,150	94.7%	1,144	94.2%
	Hinoemata	614	142	23.1%	130	91.5%	130	91.5%
	Tadami	5,030	1,083	21.5%	1,015	93.7%	1,013	93.5%
	Minami-aizu	18,493	3,731	20.2%	3,500	93.8%	3,439	92.2%
	Subtotal	30,787	6,171	20.0%	5,795	93.9%	5,726	92.8%
Soso	Soma	37,371	12,990	34.8%	12,461	95.9%	12,436	95.7%
	Minami-soma	70,012	29,824	42.6%	29,066	97.5%	29,012	97.3%
	Hirono	5,165	2,197	42.5%	2,116	96.3%	2,113	96.2%
	Naraha	7,963	4,137	52.0%	3,976	96.1%	3,969	95.9%
	Tomioka	15,753	8,561	54.3%	8,359	97.6%	8,351	97.5%
	Kawauchi	2,996	1,525	50.9%	1,475	96.7%	1,472	96.5%
	Okuma	11,476	6,009	52.4%	5,793	96.4%	5,768	96.0%
	Futaba	7,051	3,915	55.5%	3,819	97.5%	3,810	97.3%
	Namie	21,333	12,879	60.4%	12,597	97.8%	12,580	97.7%
	Katsurao	1,541	811	52.6%	756	93.2%	756	93.2%
	Shinchi	8,357	2,652	31.7%	2,545	96.0%	2,535	95.6%
	Iitate	6,590	3,416	51.8%	3,305	96.8%	3,297	96.5%
	Subtotal	195,608	88,916	45.5%	86,268	97.0%	86,099	96.8%
Iwaki	Iwaki	348,226	87,110	25.0%	83,963	96.4%	82,774	95.0%
Total		2,055,383	554,241	27.0%	536,394	96.8%	531,454	95.9%

*Including Yamakiya of Kawamata, Namie and Iitate.

Basic Survey, Fukushima Health Management Survey

Appendix 2

Estimated external radiation doses in the first four months (from 11 March through 11 July)

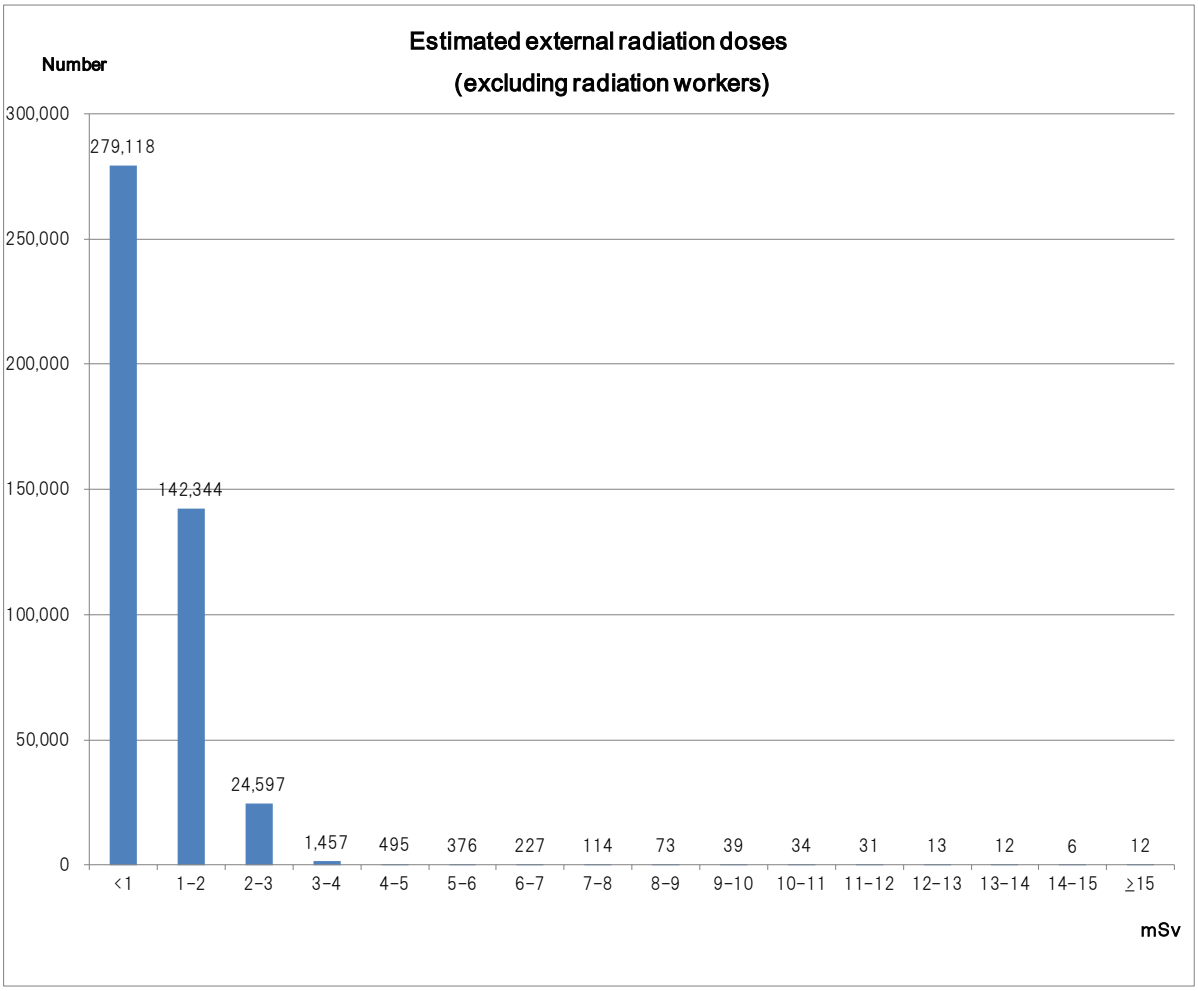
Preceding Survey and full-scale survey

As of 31 December 2014

Estimated external radiation doses by region

Effective Dose (mSv)	Total	Excluding radiation workers	By region							Proportion (%) excluding radiation workers		
			Kempoku	Kenchu	Kennan	Aizu	Minami-aizu	Soso	Iwaki			
<1	284,668	279,118	24,590	55,961	24,353	43,496	4,672	55,144	70,902	62.2	93.9	99.8
1-2	144,618	142,344	81,671	44,184	3,182	279	34	12,377	617	31.7		
2-3	24,954	24,597	15,057	7,827	17	21	0	1,647	28	5.5	5.8	
3-4	1,532	1,457	457	413	0	1	0	583	3	0.3		
4-5	537	495	39	5	0	0	0	450	1	0.1	0.2	
5-6	429	376	18	3	0	0	0	354	1	0.1		0.2
6-7	265	227	10	1	0	1	0	215	0	0.1	0.1	
7-8	151	114	1	0	0	0	0	113	0	0.0		
8-9	113	73	1	0	0	0	0	72	0	0.0	0.0	
9-10	69	39	0	0	0	0	0	39	0	0.0		
10-11	66	34	0	0	0	0	0	34	0	0.0	0.0	0.0
11-12	52	31	1	0	0	0	0	30	0	0.0		
12-13	36	13	0	0	0	0	0	13	0	0.0	0.0	
13-14	34	12	0	0	0	0	0	12	0	0.0		
14-15	27	6	0	0	0	0	0	6	0	0.0	0.0	
≥15	308	12	0	0	0	0	0	12	0	0.0	0.0	0.0
Total	457,859	448,948	121,845	108,394	27,552	43,798	4,706	71,101	71,552	100.0	100.0	100.0
Max	66	25	11	6.3	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	0.8	0.3			

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



Estimate from 11 March through 11 July.

Appendix 3

As of 31 December 2014

Estimated external radiation dose by age group (excluding radiation workers)

Effective Dose (mSv)	Age at the time of the disaster									Total
	0 - 9	10 - 19	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 -	
<1	46,407	42,629	20,455	32,823	27,664	31,871	35,190	25,090	16,989	279,118
1-2	22,056	20,814	9,672	17,497	16,217	18,189	19,010	12,008	6,881	142,344
2-3	6,091	4,086	1,072	2,225	2,161	2,880	3,313	1,940	829	24,597
3-4	245	156	79	150	148	229	222	161	67	1,457
4-5	19	45	36	40	76	91	77	72	39	495
5-6	13	14	27	33	43	83	73	63	27	376
6-7	4	5	11	21	25	45	51	44	21	227
7-8	3	6	7	8	13	34	22	14	7	114
8-9	2	4	3	8	7	15	14	10	10	73
9-10	0	1	1	2	4	12	11	5	3	39
10-11	1	1	1	2	5	11	4	6	3	34
11-12	0	0	1	3	0	6	8	11	2	31
12-13	0	0	0	0	1	6	4	1	1	13
13-14	0	0	1	1	1	4	3	2	0	12
14-15	0	0	0	0	0	3	3	0	0	6
≥15	0	0	0	0	2	2	5	1	2	12
Total	74,841	67,761	31,366	52,813	46,367	53,481	58,010	39,428	24,881	448,948

Estimated external radiation doses by sex in the first four months (excluding radiation workers)

Effective Dose (mSv)	By sex				Total	Proportion (%)
	Male	Proportion (%)	Female	Proportion (%)		
<1	124,856	60.6	154,262	63.5	279,118	62.2
1-2	66,093	32.1	76,251	31.4	142,344	31.7
2-3	13,376	6.5	11,221	4.6	24,597	5.5
3-4	927	0.4	530	0.2	1,457	0.3
4-5	277	0.1	218	0.1	495	0.1
5-6	194	0.1	182	0.1	376	0.1
6-7	127	0.1	100	0.0	227	0.1
7-8	67	0.0	47	0.0	114	0.0
8-9	43	0.0	30	0.0	73	0.0
9-10	23	0.0	16	0.0	39	0.0
10-11	21	0.0	13	0.0	34	0.0
11-12	17	0.0	14	0.0	31	0.0
12-13	6	0.0	7	0.0	13	0.0
13-14	8	0.0	4	0.0	12	0.0
14-15	3	0.0	3	0.0	6	0.0
≥15	9	0.0	3	0.0	12	0.0
Total	206,047	100.0	242,901	100.0	448,948	100.0

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

Basic Survey, Fukushima Health Management Survey
Estimated external radiation doses (preceding and full-scale surveys)

Appendix 4

As of 31 December 2014

Estimated external radiation doses by region in the first four months (from 11 March through 11 July) excluding radiation workers

Area/region		Effective Doses (mSv)																Total
		<1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	≥15	
Kempoku	Fukushima	16,004	51,747	9,173	149	12	10	4	0	0	0	0	0	0	0	0	0	77,099
	Nihonmatsu	1,279	8,163	3,286	86	1	0	0	0	0	0	0	0	0	0	0	0	12,815
	Date	4,332	8,927	1,120	145	8	2	3	1	1	0	0	0	0	0	0	0	14,539
	Motomiya	718	5,000	1,093	20	1	0	0	0	0	0	0	0	0	0	0	0	6,832
	Kori	311	2,724	66	2	0	1	0	0	0	0	0	0	0	0	0	0	3,104
	Kunimi	941	1,398	12	0	0	0	0	0	0	0	0	0	0	0	0	0	2,351
	Kawamata	624	2,686	179	53	17	5	3	0	0	0	0	1	0	0	0	0	3,568
	Otama	381	1,026	128	2	0	0	0	0	0	0	0	0	0	0	0	0	1,537
Kempoku Subtotal		24,590	81,671	15,057	457	39	18	10	1	1	0	0	1	0	0	0	0	121,845
Kenchu	Koriyama	23,080	38,831	7,402	403	5	3	1	0	0	0	0	0	0	0	0	0	69,725
	Sukagawa	10,317	3,085	320	4	0	0	0	0	0	0	0	0	0	0	0	0	13,726
	Tamura	7,190	664	22	3	0	0	0	0	0	0	0	0	0	0	0	0	7,879
	Kagamiishi	2,294	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,365
	Tenei	366	548	53	1	0	0	0	0	0	0	0	0	0	0	0	0	968
	Ishikawa	3,107	38	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3,146
	Tamakawa	1,143	17	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1,163
	Hirata	1,262	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,296
	Asakawa	1,176	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,191
	Furudono	1,040	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1,056
	Miharu	3,039	786	22	2	0	0	0	0	0	0	0	0	0	0	0	0	3,849
	Ono	1,947	81	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2,030
Kenchu Subtotal		55,961	44,184	7,827	413	5	3	1	0	0	0	0	0	0	0	0	0	108,394
Kennan	Shirakawa	11,188	1,144	9	0	0	0	0	0	0	0	0	0	0	0	0	0	12,341
	Nishigo	2,149	1,861	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4,012
	Izumizaki	1,036	19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1,056
	Nakajima	787	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	799
	Yabuki	3,267	78	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3,346
	Tanagura	2,417	28	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2,448
	Yamatsuri	1,101	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,110
	Hanawa	1,784	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,806
	Samegawa	624	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	634
Kennan Subtotal		24,353	3,182	17	0	0	0	0	0	0	0	0	0	0	0	0	0	27,552
Aizu	Aizuwakamatsu	22,796	146	11	0	0	0	1	0	0	0	0	0	0	0	0	0	22,954
	Kitakata	7,885	49	1	1	0	0	0	0	0	0	0	0	0	0	0	0	7,936
	Kitashiobara	458	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	461
	Nishiaizu	992	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	994
	Bandai	618	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	628
	Inawashiro	2,756	28	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2,787
	Aizubange	2,535	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,548
	Yugawa	571	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	575
	Yanaizu	531	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	535
	Mishima	245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	245
	Kaneyama	394	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	397
	Showa	235	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	236
	Aizumisato	3,480	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3,502
Aizu Subtotal		43,496	279	21	1	0	0	1	0	0	0	0	0	0	0	0	0	43,798
Minami-aizu	Shimogo	921	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	926
	Hinoemata	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
	Tadami	810	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	814
	Minami-aizu	2,841	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,866
Minami-aizu Subtotal		4,672	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,706
Soso	Soma	9,719	439	86	20	5	0	0	0	0	2	0	0	0	0	0	0	10,271
	Minami-soma	18,845	6,108	507	99	35	3	6	4	1	0	0	1	0	0	0	0	25,609
	Hirono	1,819	54	2	0	0	0	1	0	1	0	0	0	0	0	0	0	1,877
	Naraha	3,355	127	13	2	0	1	1	0	0	0	0	0	0	0	0	0	3,499
	Tomioka	5,787	1,098	98	18	3	2	0	3	2	0	0	1	0	0	0	0	7,012
	Kawauchi	957	345	16	1	0	1	1	1	0	0	0	0	0	0	0	0	1,322
	Okuma	3,334	1,266	111	17	6	4	4	3	0	2	2	1	0	4	0	1	4,755
	Futaba	2,656	464	75	18	6	4	3	6	2	1	0	2	0	0	0	1	3,238
	Namie	5,868	1,972	355	64	38	17	15	12	9	5	11	8	5	4	3	6	8,392
	Katsurao	495	161	24	4	0	1	0	0	0	0	0	0	0	0	0	0	685
	Shinchi	2,113	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,133
	Iitate	196	323	360	340	357	321	184	84	57	29	21	17	8	4	3	4	2,308
Soso Subtotal		55,144	12,377	1,647	583	450	354	215	113	72	39	34	30	13	12	6	12	71,101
Iwaki	Iwaki	70,902	617	28	3	1	1	0	0	0	0	0	0	0	0	0	0	71,552
Total		279,118	142,344	24,597	1,457	495	376	227	114	73	39	34	31	13	12	6	12	448,948
Proportion (%)		62.2	31.7	5.5	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
		93.9		5.8		0.2		0.1		0.0		0.0		0.0		0.0		100.0
		99.8					0.2					0.0					0.0	100.0
Visitors		1,331	264	18	2	0	0	0	0	0	0	0	0	0	0	0	0	1,615
Total+Visitors		280,449	142,608	24,615	1,459	495	376	227	114	73	39	34	31	13	12	6	12	450,563

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

Interim Report of Thyroid Ultrasound Examination (Initial Screening)

Reported on 12 February 2015
Revised on 5 June 2015

1. Summary

1.1 Purpose

One of the health problems caused by the Chernobyl nuclear power plant accident was thyroid cancer in childhood caused by internal exposure to radioactive iodine.

In response to the Tokyo Electric Power Company's (TEPCO's) Fukushima Daiichi nuclear accident, Fukushima Prefecture started a Thyroid Ultrasound Examination program to protect the health of children over their lifetimes.

Initial Screening aims to check the baseline condition of participants' thyroid glands.

1.2 Group

Residents of Fukushima Prefecture, including visitors, as of 11 March 2011, aged 0-18 years (born between 2 April 1992 and 1 April 2011).

1.3 Implementation Period

The Initial Screening started from 9 October 2011 and was planned to end on 31 March 2014, but we continued these examinations until notice of the Full-scale Thyroid Screening program was sent to residents. The data tabulation period lasted to 31 December 2014.

We continue to conduct confirmatory testing on the basis of the primary test results.

1.4 Responsible Organizations

Fukushima Prefecture commissioned Fukushima Medical University to conduct the survey in cooperation with institutions inside and outside Fukushima Prefecture.

We started the primary examination from 1 November 2012 outside Fukushima, and 92 institutions have agreed to cooperate as of 31 December 2014.

The confirmatory examination has been conducted in Koriyama and Iwaki in Fukushima Prefecture from July 2013, Aizuwakamatsu from August 2014, and several institutions outside Fukushima Prefecture from November 2013. As of 31 December 2014, 26 institutions conduct the examination.

1.5 Method

1.5-1 Primary Examination

We used ultrasonography for examination of the thyroid gland.

Assessments were made by specialists on the basis of the following criteria.

-Diagnostic Criteria: A

Those with A1 and A2 test results are recommended for watchful waiting until they undergo the next screening

starting from April 2014.

(A1) No nodules / cysts

(A2) Nodules ≤5.0 mm or cysts ≤20.0 mm

-Diagnostic Criteria: B

Those with B test result are advised to take the Confirmatory Examination.

(B) Nodules ≥5.1 mm or cysts ≥20.1 mm

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

-Diagnostic Criteria: C

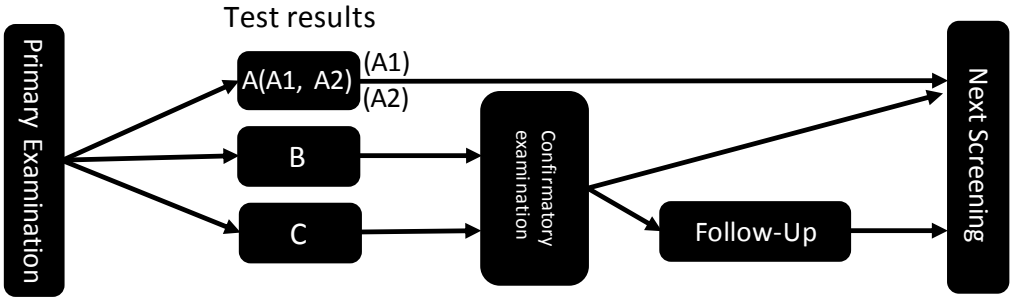
Those with C test result are advised to take the Confirmatory Examination.

(C) Immediate need for confirmatory examination.

1.5-2 Confirmatory Examination

We conduct ultrasonography, blood test, urine test, 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.

1.5-3 Flow chart

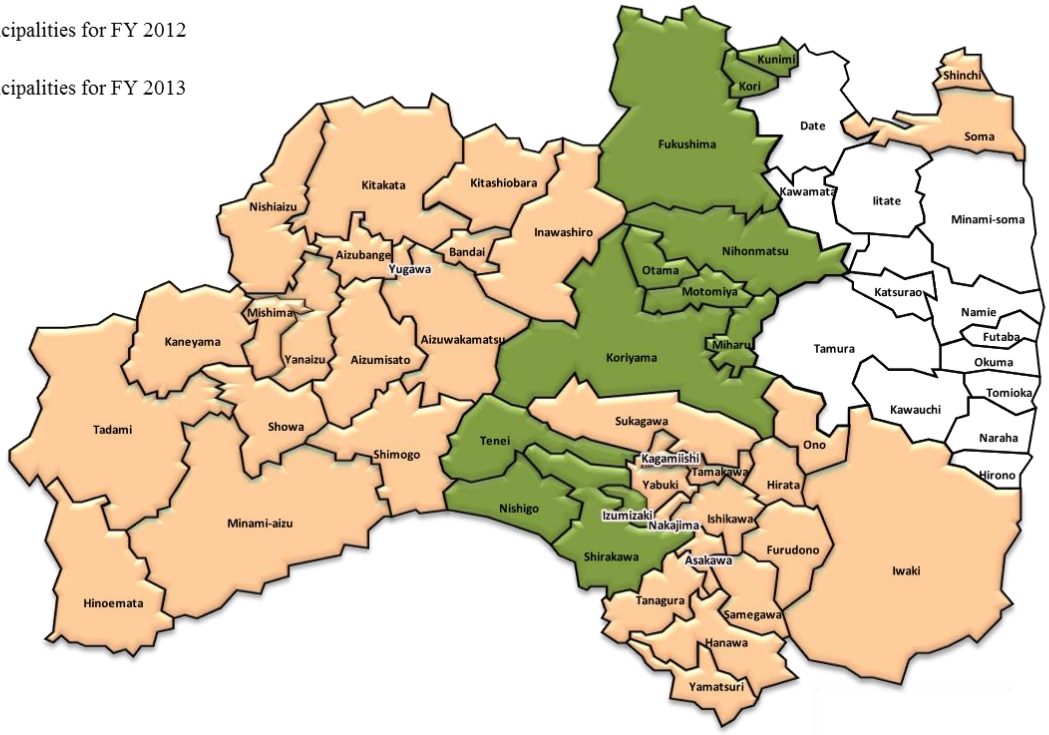


1.6 Target Municipalities

13 target municipalities for FY 2011

12 target municipalities for FY 2012

34 target municipalities for FY 2013



2.1 Results (As of 31 December 2014)

2.1-1 Primary Examination

The participation rate as of 31 December 2014 is 81.2% (298,577/367,687). (See Appendix 2 and 3)

The results have been returned to 99.5% of the 297,046 participants. (See Appendix 4 and 5)

Those with A1 or A2 test results were 294,795 (99.2%), B were 2,250 (0.8%), and C was 1.

Table 1. Screening test coverage as of 31 December 2014

	Target Population	Participants		Test results				
		Proportion (%)	Screened outside Fukushima	Proportion (%)	Class			
					A		Requiring confirmatory test	
	a	b (b/a)		c (c/b)	A1 d (d/c)	A2 e (e/c)	B f (f/c)	C g (g/c)
FY 2011	47,768	41,810 (87.5)	2,025	41,810 (100.0)	26,373 (63.1)	15,216 (36.4)	221 (0.5)	0 (0.0)
FY 2012	161,135	139,339 (86.5)	4,266	139,317 (100.0)	76,183 (54.7)	62,146 (44.6)	987 (0.7)	1 (0.0)
FY 2013	158,784	117,428 (74.0)	3,111	115,919 (98.7)	50,461 (43.5)	64,416 (55.6)	1,042 (0.9)	0 (0.0)
Total	367,687	298,577 (81.2)	9,402	297,046 (99.5)	153,017 (51.5)	141,778 (47.7)	2,250 (0.8)	1 (0.0)

Table 2. Number and proportion of children with nodules/cysts as of 31 December 2014

	Number of confirmed screening results	Number and proportions of children with nodules/cysts			
		Nodules		Cysts	
	a	≥5.1mm b (b/a)	≤5.0mm c (c/a)	≥20.1mm d (d/a)	≤20.0mm e (e/a)
FY 2011	41,810	219 (0.5)	232 (0.6)	1 (0.0)	15,140 (36.2)
FY 2012	139,317	973 (0.7)	730 (0.5)	9 (0.0)	62,259 (44.7)
FY 2013	115,919	1,040 (0.9)	718 (0.6)	2 (0.0)	64,704 (55.8)
Total	297,046	2,232 (0.8)	1,680 (0.6)	12 (0.0)	142,103 (47.8)

Fractions have been rounded and may not total to 100%.

Because of the duplication of the participants, some numbers are not consistent with the previous ones.

2.1-2 Confirmatory Examination

The number of participants with B or C test results who required further testing is 2,251, of whom 2,067 (91.8%) underwent confirmatory testing. Among them, 2,010 (97.2%) have completed the tests (Appendix 6).

Of 2,010 children, 681 (33.9%), specifically 117 with A1 and 564 with A2 results (Table 3), were recommended for watchful waiting.

Of 1, 329 (66.1%) needed 6 to 12 months follow-up provided by health insurance, 523 (39.4%) underwent FNAC.

Table 3. Confirmatory testing coverage and results as of 31 December 2014

	Number of children requiring confirmatory test	Participants	Confirmatory test coverage (%)	Confirmed test results			
		Proportion (%)		Next screening advised		Follow-up advised	
				A1	A2		Cytology
	a	b (b/a)	c (c/b)	d (d/c)	e (e/c)	f (f/c)	g (g/f)
FY 2011	221	199 (90.0)	197 (99.0)	12 (6.1)	44 (22.3)	141 (71.6)	91 (64.5)
FY 2012	988	919 (93.0)	899 (97.8)	54 (6.0)	246 (27.4)	599 (66.6)	262 (43.7)
FY 2013	1,042	949 (91.1)	914 (96.3)	51 (5.6)	274 (30.0)	589 (64.4)	170 (28.9)
Total	2,251	2,067 (91.8)	2,010 (97.2)	117 (5.8)	564 (28.1)	1,329 (66.1)	523 (39.4)

Those confirmed within the range of A1 and A2 (including those with other thyroid conditions) were advised to take their next regularly scheduled examination.

Those who require 6- or 12-month follow-up provided by health insurance and those beyond the specified level of A2 were categorized as “Follow-up advised.”

2.2 Fine Needle Aspiration Biopsy and Cytology (FNAC)

2.2-1 Aspiration biopsy cytology results as of 31 December 2014

Those who were not diagnosed as suspicious or malignant were recommended for 6- to 12-months follow-up.

Target municipalities in FY 2011

Suspicious or malignant	15 (15 surgical cases: 1 of benign thyroid nodules; 13 of papillary thyroid carcinoma; 1 poorly differentiated thyroid carcinoma)
Male to female ratio	5:10
Mean age (SD, min-max)	17.3 (2.0, 13-20) 15.7 (1.9, 11-18) at the time of the disaster
Mean tumor size	14.1 mm (6.6 mm, 6.0-33.0 mm)

Target municipalities in FY 2012

Suspicious or malignant	56 (50 surgical cases: 49 of papillary thyroid carcinoma ; 1 poorly differentiated thyroid carcinoma)
Male to female ratio	21:35
Mean age (SD, min-max)	17.2 (2.7, 8-21) 14.9 (2.6, 6-18) at the time of the disaster
Mean tumor size	14.5 mm (7.8 mm, 5.2-40.5 mm)

Target municipalities in FY 2013

Suspicious or malignant	39 (22 surgical cases: 21 of papillary thyroid carcinoma; 1 poorly differentiated thyroid carcinoma)
Male to female ratio	12:27
Mean age (SD, min-max)	17.2 (3.0, 11-21) 14.4 (2.8, 8-18) at the time of the disaster
Mean tumor size	13.3 mm (6.9 mm, 5.1-35.9 mm)

Total for cases FY 2011 – FY 2013

Suspicious or malignant	110 (87 surgical cases: 1 of benign thyroid nodules; 83 of papillary thyroid carcinoma; 3 poorly differentiated thyroid carcinoma)
Male to female ratio	38:72
Mean age(SD, min-max)	17.2 (2.7, 8-21) 14.8 (2.6, 6-18) at the time of the disaster
Mean tumor size	14.0 mm (7.3 mm, 5.1-40.5 mm)

2.2-2 Suspicious or malignant cases on FNAC by age and sex

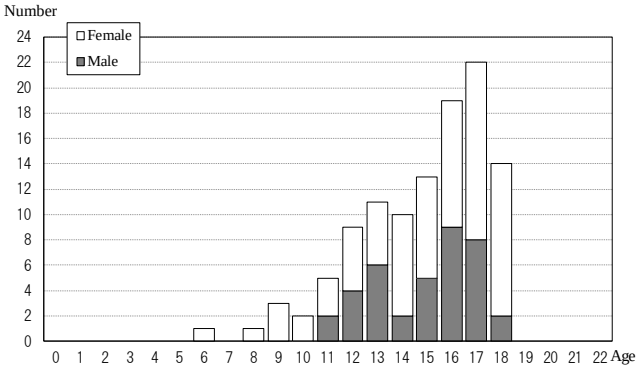


Fig.3 Age as of 11 March 2011

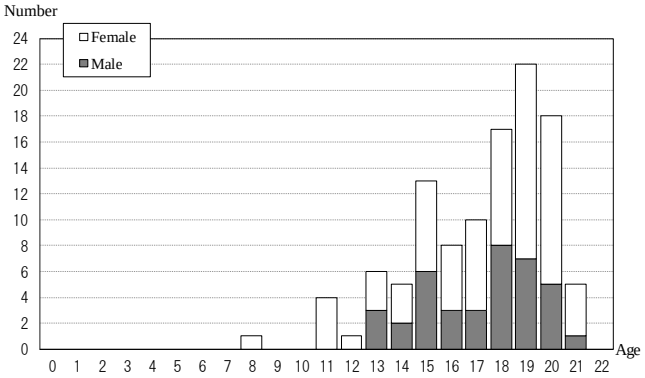


Fig. 4 Age as the date of confirmatory examination

2.2-3 Suspicious or malignant cases on FNAC by estimated radiation dose

Sixty-two of the 110 cases (56.4%) participated in the Basic Survey (radiation dose estimates) and 59 of them, including 5 with less than four months' data, have received the results. Among those, 41 (69.5%) had estimated radiation exposure dose below 1 mSv, and the highest effective dose was 2.2 mSv.

Table 5. Number of suspicious or malignant cases by age and sex As of 31 December 2014

Effective dose (mSv)	Sex	Age at the time of disaster				
		0-5	6-10	11-15	16-18	Total
<0.5	Male	0	0	2	5(1)	7(1)
	Female	0	4(1)	6	10(2)	20(3)
0.5-0.9	Male	0	0	4(1)	2	6(1)
	Female	0	1	1	6	8
1.0-1.4	Male	0	0	2	2	4
	Female	0	0	5	1	6
1.5-1.9	Male	0	0	1	0	1
	Female	0	0	4	2	6
2.0-2.4	Male	0	0	1	0	1
	Female	0	0	0	0	0
Total	Male	0	0	10(1)	9(1)	19(2)
	Female	0	5(1)	16	19(2)	40(3)

Numbers inside the brackets are estimates for participants with less than four months' data.

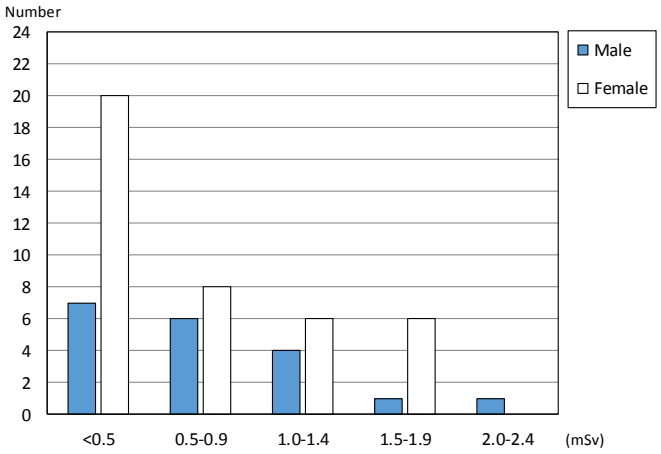


Fig. 5 Effective dose of the respondents

2.2-4 Blood and urinary iodine test results as of 31 December 2014

Table 6. Blood test results Mean±SD (Abnormality rate)

	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	2.13-4.07 7)	0.340-3.880	≦32.7	<28.0	<16.0
110 suspicious or malignant	1.2 ± 0.2 (6.4%)	3.4 ± 0.4 (5.5%)	1.3 ± 0.7 (5.5%)	38.3 ± 77.7 (35.5%)	― (27.3%)	― (15.5%)
Other 1,898	1.3 ± 0.3 (7.2%)	3.6 ± 0.9 (6.2%)	1.8 ± 12.3 (8.4%)	33.7 ± 182.6 (17.8%)	― (13.2%)	― (9.6%)

Table 7. Urinary iodine (μg/day)

	Minimum	25th percentile	Median	75th percentile	Maximum
110 suspicious or malignant	42	134	229.5	373.25	6,020
Other 1,895	24	120	196	368	35,700

1) FT4: Free Thyroxine; higher among patients with Graves' disease and lower with Hashimoto's disease.

2) FT3: Free Triiodothyronine; higher among patients with Graves' disease and lower with Hashimoto's disease.

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 thyroid cancer produces thyroglobulin.

5) TgAb: Anti-Thyroglobulin Antibody; higher among patients with Hashimoto's disease and Graves' disease.

6) TPOAb: Anti-Thyroid Peroxidase Antibody; higher among patients with Hashimoto's disease or Graves' disease.

7) Reference range differs according to age.

2.2-5 Confirmatory test results by municipality as of 31 December 2014

The proportion of suspicious or malignant is 0.03% in FY 2011 target municipalities (13 municipalities in the nationally designated evacuation zones), 0.04% in FY 2012 target municipalities (12 towns of the Kenchu area), and 0.03% in FY 2013 target municipalities (34 towns of the Iwaki, Kennan, and Aizu areas).

Table 8.
Confirmatory test results in FY 2011
(13 municipalities in the nationally designated evacuation zones)

	Number of children screened	Number who required confirmatory test	Proportion who required confirmatory test (%)	Number who underwent confirmatory test	Suspicious or malignant cases[1]	Proportion of suspicious or malignant cases (%)
Kawamata	2,221	8	0.4	8	2	0.09
Namie	3,249	26	0.8	24	2	0.06
Iitate	943	6	0.6	6	0	0.00
Minami-soma	10,789	52	0.5	48	2	0.02
Date	10,605	50	0.5	45	2	0.02
Tamura	6,325	32	0.5	26	3	0.05
Hirono	838	5	0.6	4	0	0.00
Naraha	1,153	7	0.6	6	0	0.00
Tomioka	2,302	13	0.6	12	1	0.04
Kawauchi	280	4	1.4	4	1	0.36
Okuma	1,973	14	0.7	13	1	0.05
Futaba	949	3	0.3	2	0	0.00
Katsurao	183	1	0.5	1	0	0.00
Subtotal	41,810	221	0.5	199	14	0.03

1) Excluding one suspected case found benign by aspiration biopsy cytology.

Confirmatory test results by municipality in FY 2012

	Number of children screened	Number who required confirmatory test	Proportion who required confirmatory test (%)	Number who underwent confirmatory test	Suspicious or malignant cases	Proportion of suspicious or malignant cases (%)
Fukushima	47,307	283	0.6	271	12	0.03
Nihonmatsu	8,857	57	0.6	54	5	0.06
Motomiya	5,234	29	0.6	29	3	0.06
Otama	1,373	7	0.5	7	2	0.15
Koriyama	54,063	458	0.8	415	25	0.05
Kori	1,874	14	0.7	13	0	0.00
Kunimi	1,437	15	1.0	13	0	0.00
Tenei	878	7	0.8	6	0	0.00
Shirakawa	10,811	61	0.6	59	6	0.06
Nishigo	3,618	30	0.8	26	1	0.03
Izumizaki	1,157	5	0.4	5	1	0.09
Miharu	2,730	22	0.8	21	1	0.04
Subtotal	139,339	988	0.7	919	56	0.04

Confirmatory test results by municipality in FY 2013

	Number of children screened	Number who required confirmatory test	Proportion who required confirmatory test (%)	Number who underwent confirmatory test	Suspicious or malignant cases	Proportion of suspicious or malignant cases (%)
Iwaki*	48,810	436	0.9	401	22	0.05
Sukagawa	12,018	103	0.9	98	4	0.03
Soma	5,088	46	0.9	42	0	0.00
Kagamiishi	2,021	10	0.5	8	0	0.00
Shinchi	1,114	7	0.6	7	0	0.00
Nakajima	830	2	0.2	2	0	0.00
Yabuki	2,555	17	0.7	13	0	0.00
Ishikawa	2,145	11	0.5	10	1	0.05
Yamatsuri	793	3	0.4	2	0	0.00
Asakawa	1,089	12	1.1	11	0	0.00
Hirata	864	9	1.0	9	1	0.12
Tanagura	2,314	22	1.0	22	1	0.04
Hanawa	1,246	8	0.6	7	0	0.00
Samegawa	521	3	0.6	1	0	0.00
Ono	1,433	14	1.0	13	0	0.00
Tamakawa	1,011	10	1.0	8	0	0.00
Furudono	816	6	0.7	6	0	0.00
Hinoemata	61	0	0.0	0	0	0.00
Minami-aizu	1,822	16	0.9	15	0	0.00
Kaneyama	137	0	0.0	0	0	0.00
Showa	101	0	0.0	0	0	0.00
Mishima	129	1	0.8	1	0	0.00
Shimogo	694	10	1.4	9	1	0.14
Kitakata	5,740	46	0.8	40	0	0.00
Nishiaizu	640	5	0.8	4	0	0.00
Tadami	494	7	1.4	6	0	0.00
Inawashiro	1,908	13	0.7	13	1	0.05
Bandai	414	4	1.0	3	0	0.00
Kitashiobara	388	1	0.3	1	0	0.00
Aizumisato	2,551	26	1.0	23	0	0.00
Aizubange	2,082	25	1.2	23	1	0.05
Yanaizu	376	2	0.5	2	0	0.00
Aizuwakamatsu	14,715	160	1.1	142	6	0.04
Yugawa	508	7	1.4	7	1	0.20
Subtotal	117,428	1,042	0.9	949	39	0.03

Total	298,577	2,251	0.8	2,067	109	0.04

* Including districts of FY 2012

3. Primary and confirmatory test results by municipality (Interim report)

In order to compare the results by municipality, we divided the area into three regions, Hamadori, Nakadori, and Aizu. Hamadori and Nakadori are divided into 13 municipalities in the nationally designated evacuation zones and otherwise.

The below is the interim report since the results of the Confirmatory Examination in Aizu area are not fully available yet.

Table 9. Proportion of B or C test results, and suspicious or malignant (Interim report) As of 31 December 2014

			13 municipalities[14]	Nakadori[15]	Hamadori[16]	Aizu[17]	Total
Target population			47,768	199,456	70,536	49,927	367,687
Number of participants of Primary Examination	A[10]		41,810	168,214	54,345	32,677	297,046
Mean age (SD) Total			10.4 (5.3)	10.7 (5.1)	11.1 (4.9)	11.1 (4.5)	-
Mean age (SD) Female			10.4 (5.3)	10.8 (5.2)	11.3 (5.0)	11.3 (4.6)	-
Mean age (SD) Male			10.3 (5.2)	10.5 (5.1)	10.9 (4.9)	10.9 (4.4)	-
Female (%)		%	49.6	49.3	50.0	49.7	49.5
B or C test results	B		221	1,218	489	323	2,251
Proportion of B or C test results	(B/A)	%	0.53	0.72	0.90	0.99	0.76
Number of participants of Confirmatory Examination	C[11]		197	1,100	437	276	2,010
Proportion of participants	(C/B)	%	89.1	90.3	89.4	85.4	89.3
Participants of FNAC	D[12]		94	295	94	46	529
Proportion of participants of Confirmatory Examination	(D/C)	%	47.7	26.8	21.5	16.7	26.3
Proportion of participants of Primary Examination	(D/A)	%	0.22	0.18	0.17	0.14	0.18
Number of suspicious or malignant	E[13]		14	63	22	10	109
Proportion	(E/D)	%	14.9	21.4	23.4	21.7	20.6
Proportion per 100,000	(E/A)		33.5	37.5	40.5	30.6	36.7
		%	(0.033)	(0.037)	(0.040)	(0.031)	(0.037)

10) Excluding duplicates and unconfirmed results.
11) Excluding number of unconfirmed test results.
12) Number of those who underwent FNAC including A1 and A2 test results among participants of Confirmatory Examination.
13) Excluding one suspected case found benign by aspiration biopsy cytology.
14) Tamura, Minami-soma, Date, Kawamata, Hirono, Naraha, Tomioka, Kawauchi, Okuma, Futaba, Namie, Katsurao, Iitate
15) Fukushima, Koriyama, Shirakawa, Sukagawa, Nihonmatsu, Motomiya, Kori, Kunimi, Otama, Kagamiishi, Tenei, Nishigo, Izumizaki, Nakajima, Yabuki, Tanagura, Yamatsuri, Hanawa, Samegawa, Ishikawa, Tamakawa, Hirata, Asakawa, Furudono, Miharu, Ono
16) Iwaki, Soma, Shinchi
17) Aizuwakamatsu, Kitakata, Shimogo, Hinoemata, Tadami, Minami-aizu, Kitashiobara, Nishiaizu, Bandai, Inawashiro, Aizubange, Yugawa, Yanaizu, Mishima, Kaneyama, Showa, Aizumisato

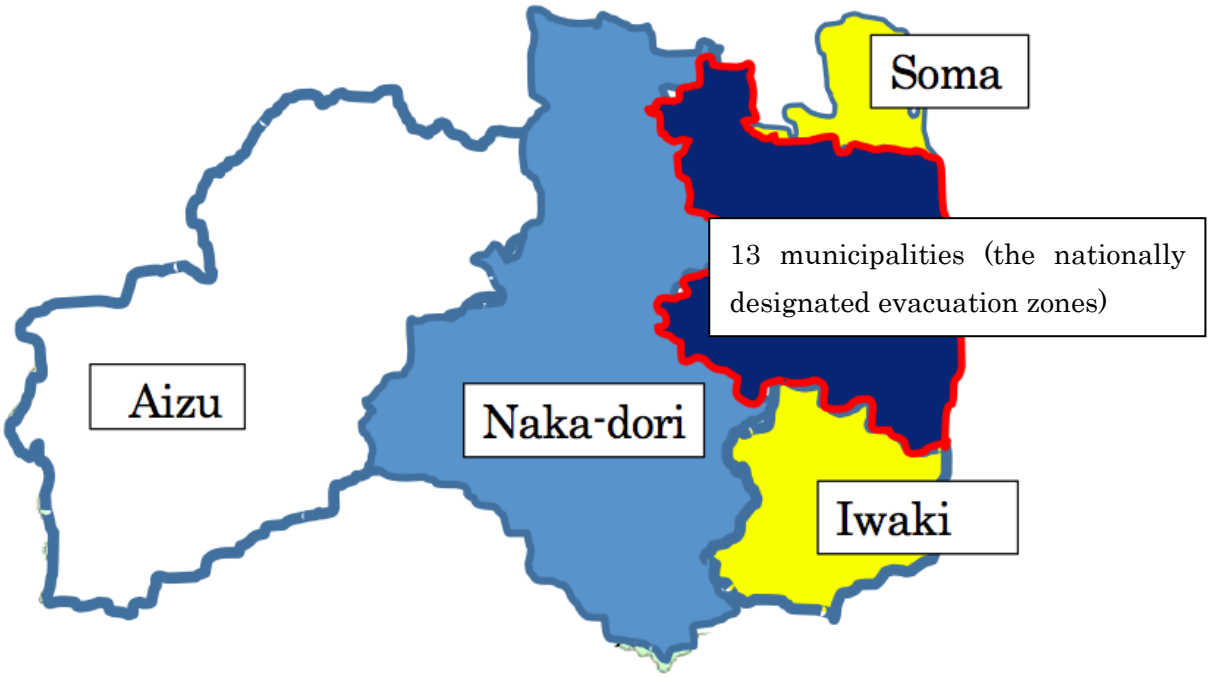
Summary

Among the 297,046 participants of Primary Examination excluding duplicates and unconfirmed test results, proportion of B or C test results increased in all areas, and was highest in Aizu followed by Hamadori, Nakadori, and 13 municipalities of the nationally designated evacuation zones.
The proportion of suspicious or malignant was almost the same among 13 municipalities in the nationally designated evacuation zones, Nakadori, and Hamadori, but lower in Aizu since the proportion of those completed the Confirmatory Examination is lower.

FY 2011 is from 1 April 2011 through 31 March 2012.

FY 2012 is from 1 April 2012 through 31 March 2013.

FY 2013 is from 1 April 2013 through 31 March 2014.


Soma
13 municipalities (the nationally designated evacuation zones)
Aizu
Naka-dori
Iwaki

Appendix 1

Participants by municipality — As of 31 December 2014

	Target Population	Age			
		0-5	6-10	11-15	16-18
FY 2011					
Kawamata	2,394	588	631	719	456
Namie	3,643	1,023	920	1,031	669
Iitate	1,084	281	300	301	202
Minami-soma	12,526	3,697	3,418	3,297	2,114
Date	11,400	2,755	3,023	3,401	2,221
Tamura	7,068	1,738	1,807	2,073	1,450
Hirono	1,077	258	250	348	221
Naraha	1,432	351	362	415	304
Tomioka	2,962	767	740	897	558
Kawauchi	357	90	99	89	79
Okuma	2,385	782	634	619	350
Futaba	1,207	369	300	337	201
Katsurao	233	56	62	67	48
Subtotal	47,768	12,755	12,546	13,594	8,873
FY 2012					
Fukushima	53,553	15,248	14,062	14,880	9,363
Nihonmatsu	10,256	2,784	2,646	2,945	1,881
Motomiya	6,112	1,760	1,583	1,691	1,078
Otama	1,617	486	399	430	302
Koriyama	64,383	19,216	16,911	17,497	10,759
Kori	2,065	526	547	595	397
Kunimi	1,594	381	420	484	309
Tenei	1,061	300	284	280	197
Shirakawa	12,161	3,357	3,258	3,478	2,068
Nishigo	3,977	1,143	1,081	1,075	678
Izumizaki	1,289	353	355	335	246
Miharu	3,067	750	776	931	610
Subtotal	161,135	46,304	42,322	44,621	27,888
FY 2013					
Iwaki*	62,289	17,231	16,181	17,755	11,122
Sukagawa	15,309	4,344	4,096	4,256	2,613
Soma	6,813	1,981	1,778	1,849	1,205
Kagamiishi	2,597	740	707	723	427
Shinchi	1,434	392	394	411	237
Nakajima	1,079	270	282	317	210
Yabuki	3,277	981	850	896	550
Ishikawa	2,848	711	722	831	584
Yamatsuri	1,010	287	236	315	172
Asakawa	1,340	340	379	372	249
Hirata	1,209	330	298	342	239
Tanagura	2,988	867	744	882	495
Hanawa	1,662	415	391	531	325
Samegawa	694	178	172	186	158
Ono	1,936	496	490	568	382
Tamakawa	1,332	384	347	369	232
Furudono	1,040	287	242	315	196
Hinoemata	107	23	30	34	20
Minami-aizu	2,823	713	682	841	587
Kaneyama	203	40	52	72	39
Showa	128	44	38	33	13
Mishima	192	43	55	53	41
Shimogo	1,007	265	252	293	197
Kitakata	8,910	2,293	2,334	2,578	1,705
Nishiaizu	1,019	216	245	334	224
Tadami	710	195	177	201	137
Inawashiro	2,662	704	659	768	531
Bandai	617	180	163	166	108
Kitashiobara	557	159	140	156	102
Aizumisato	3,658	916	909	1,098	735
Aizubange	3,081	766	800	958	557
Yanaizu	590	158	142	175	115
Aizuwakamatsu	22,987	6,261	5,965	6,578	4,183
Yugawa	676	179	177	192	128
Subtotal	158,784	43,389	41,129	45,448	28,818
Total	367,687	102,448	95,997	103,663	65,579

* Including districts of FY 2012

Because of the duplication of the participants, some numbers are not consistent with the previous ones.

Appendix 2

Thyroid Ultrasound Examination (TUE) coverage by municipality

Screening coverage by municipality in FY 2011 (13 municipalities in the nationally designated zones) As of 31 December 2014

	Target Population	Participants	Screened outside Fukushima 5)	Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)
	a	b		b/a	0-5	6-10	11-15	16-18	c 4)	c/b
Kawamata	2,394	2,221	34	92.8	560	612	687	362 1)	125	5.6
					95.2	97.0	95.5	79.4 2)		
					25.2	27.6	30.9	16.3 3)		
Namie	3,643	3,249	192	89.2	920	858	918	553	1,194	36.7
					89.9	93.3	89.0	82.7		
					28.3	26.4	28.3	17.0		
Iitate	1,084	943	16	87.0	248	271	264	160	88	9.3
					88.3	90.3	87.7	79.2		
					26.3	28.7	28.0	17.0		
Minami-soma	12,526	10,789	875	86.1	3,205	3,052	2,929	1,603	2,877	26.7
					86.7	89.3	88.8	75.8		
					29.7	28.3	27.1	14.9		
Date	11,400	10,605	155	93.0	2,573	2,977	3,287	1,768	579	5.5
					93.4	98.5	96.6	79.6		
					24.3	28.1	31.0	16.7		
Tamura	7,068	6,325	61	89.5	1,557	1,762	1,969	1,037	221	3.5
					89.6	97.5	95.0	71.5		
					24.6	27.9	31.1	16.4		
Hirono	1,077	838	57	77.8	204	216	294	124	151	18.0
					79.1	86.4	84.5	56.1		
					24.3	25.8	35.1	14.8		
Naraha	1,432	1,153	77	80.5	285	319	353	196	224	19.4
					81.2	88.1	85.1	64.5		
					24.7	27.7	30.6	17.0		
Tomioka	2,962	2,302	237	77.7	594	638	720	350	632	27.5
					77.4	86.2	80.3	62.7		
					25.8	27.7	31.3	15.2		
Kawauchi	357	280	22	78.4	72	92	70	46	53	18.9
					80.0	92.9	78.7	58.2		
					25.7	32.9	25.0	16.4		
Okuma	2,385	1,973	183	82.7	656	579	529	209	500	25.3
					83.9	91.3	85.5	59.7		
					33.2	29.3	26.8	10.6		
Futaba	1,207	949	113	78.6	289	246	277	137	423	44.6
					78.3	82.0	82.2	68.2		
					30.5	25.9	29.2	14.4		
Katsurao	233	183	3	78.5	43	55	57	28	15	8.2
					76.8	88.7	85.1	58.3		
					23.5	30.1	31.1	15.3		
Subtotal	47,768	41,810	2,025	87.5	11,206	11,677	12,354	6,573	7,082	16.9
					87.9	93.1	90.9	74.1		
					26.8	27.9	29.5	15.7		

1) Number of participants. 2) Number of participants/Number in the target population age group.

3) Number of participants in the age group/Number of participants.

4) Number of participants currently living outside Fukushima.

5) Number of participants who underwent the test outside Fukushima.

Because of the duplication of the participants, some numbers are not consistent with the previous ones.

Fractions have been rounded and may not total to100%. Ages are at the time of the disaster.

While some participants who underwent the test at their schools had been categorized according to the municipalities of their schools in the previous survey, they were categorized into the municipalities they belonged at the time of the disaster.

Screening coverage by municipality in FY 2012

As of 31 December 2014

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima 5)		0-5	6-10	11-15	16-18		
	a	b		b/a					c 4)	c/b
Fukushima	53,553	47,307	1,238	88.3	13,370	13,565	13,670	6,702	3,566	7.5
					87.7	96.5	91.9	71.6		
					28.3	28.7	28.9	14.2		
Nihonmatsu	10,256	8,857	174	86.4	2,528	2,589	2,672	1,068	441	5.0
					90.8	97.8	90.7	56.8		
					28.5	29.2	30.2	12.1		
Motomiya	6,112	5,234	110	85.6	1,534	1,554	1,506	640	231	4.4
					87.2	98.2	89.1	59.4		
					29.3	29.7	28.8	12.2		
Otama	1,617	1,373	18	84.9	447	397	385	144	43	3.1
					92.0	99.5	89.5	47.7		
					32.6	28.9	28.0	10.5		
Koriyama	64,383	54,063	2,217	84.0	16,317	16,148	15,492	6,106	3,965	7.3
					84.9	95.5	88.5	56.8		
					30.2	29.9	28.7	11.3		
Kori	2,065	1,874	34	90.8	494	541	570	269	68	3.6
					93.9	98.9	95.8	67.8		
					26.4	28.9	30.4	14.4		
Kunimi	1,594	1,437	29	90.2	349	412	464	212	53	3.7
					91.6	98.1	95.9	68.6		
					24.3	28.7	32.3	14.8		
Tenei	1,061	878	13	82.8	285	281	229	83	31	3.5
					95.0	98.9	81.8	42.1		
					32.5	32.0	26.1	9.5		
Shirakawa	12,161	10,811	296	88.9	3,083	3,193	3,242	1,293	603	5.6
					91.8	98.0	93.2	62.5		
					28.5	29.5	30.0	12.0		
Nishigo	3,977	3,618	83	91.0	1,089	1,062	1,012	455	197	5.4
					95.3	98.2	94.1	67.1		
					30.1	29.4	28.0	12.6		
Izumizaki	1,289	1,157	14	89.8	339	346	311	161	43	3.7
					96.0	97.5	92.8	65.4		
					29.3	29.9	26.9	13.9		
Miharu	3,067	2,730	40	89.0	696	760	859	415	105	3.8
					92.8	97.9	92.3	68.0		
					25.5	27.8	31.5	15.2		
Subtotal	161,135	139,339	4,266	86.5	40,531	40,848	40,412	17,548	9,346	6.7
					87.5	96.5	90.6	62.9		
					29.1	29.3	29.0	12.6		

Screening coverage by municipality in FY 2013

As of 31 December 2014

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima 5)		0-5	6-10	11-15	16-18		
	a	b		b/a					c 4)	c/b
Iwaki*	62,289	48,810	1,640	78.4	14,194	15,478	14,129	5,009	2,184	4.5
					82.4	95.7	79.6	45.0		
					29.1	31.7	28.9	10.3		
Sukagawa	15,309	12,018	259	78.5	3,748	3,978	3,270	1,022	334	2.8
					86.3	97.1	76.8	39.1		
					31.2	33.1	27.2	8.5		
Soma	6,813	5,088	226	74.7	1,660	1,656	1,324	448	339	6.7
					83.8	93.1	71.6	37.2		
					32.6	32.5	26.0	8.8		
Kagamiishi	2,597	2,021	33	77.8	636	685	542	158	42	2.1
					85.9	96.9	75.0	37.0		
					31.5	33.9	26.8	7.8		
Shinchi	1,434	1,114	64	77.7	342	377	302	93	52	4.7
					87.2	95.7	73.5	39.2		
					30.7	33.8	27.1	8.3		
Nakajima	1,079	830	9	76.9	230	273	267	60	13	1.6
					85.2	96.8	84.2	28.6		
					27.7	32.9	32.2	7.2		
Yabuki	3,277	2,555	55	78.0	880	828	681	166	56	2.2
					89.7	97.4	76.0	30.2		
					34.4	32.4	26.7	6.5		
Ishikawa	2,848	2,145	54	75.3	662	688	614	181	51	2.4
					93.1	95.3	73.9	31.0		
					30.9	32.1	28.6	8.4		
Yamatsuri	1,010	793	17	78.5	269	233	237	54	19	2.4
					93.7	98.7	75.2	31.4		
					33.9	29.4	29.9	6.8		
Asakawa	1,340	1,089	25	81.3	320	374	303	92	27	2.5
					94.1	98.7	81.5	36.9		
					29.4	34.3	27.8	8.4		
Hirata	1,209	864	14	71.5	280	284	231	69	10	1.2
					84.8	95.3	67.5	28.9		
					32.4	32.9	26.7	8.0		
Tanagura	2,988	2,314	41	77.4	768	730	652	164	54	2.3
					88.6	98.1	73.9	33.1		
					33.2	31.5	28.2	7.1		
Hanawa	1,662	1,246	26	75.0	373	382	388	103	26	2.1
					89.9	97.7	73.1	31.7		
					29.9	30.7	31.1	8.3		
Samegawa	694	521	14	75.1	175	170	136	40	17	3.3
					98.3	98.8	73.1	25.3		
					33.6	32.6	26.1	7.7		
Ono	1,936	1,433	35	74.0	421	469	419	124	30	2.1
					84.9	95.7	73.8	32.5		
					29.4	32.7	29.2	8.7		
Tamakawa	1,332	1,011	13	75.9	344	341	255	71	14	1.4
					89.6	98.3	69.1	30.6		
					34.0	33.7	25.2	7.0		
Furudono	1,040	816	24	78.5	269	239	241	67	25	3.1
					93.7	98.8	76.5	34.2		
					33.0	29.3	29.5	8.2		

*Including districts of FY 2012

Screening coverage by municipality in FY 2013

As of 31 December 2014

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima 5)		0-5	6-10	11-15	16-18		
	a	b		b/a					c 4)	c/b
Hinoemata	107	61	3	57.0	15 65.2 24.6	27 90.0 44.3	19 55.9 31.1	0 0.0 0.0	3	4.9
Minami-aizu	2,823	1,822	22	64.5	610 85.6 33.5	641 94.0 35.2	464 55.2 25.5	107 18.2 5.9	32	1.8
Kaneyama	203	137	7	67.5	34 85.0 24.8	50 96.2 36.5	47 65.3 34.3	6 15.4 4.4	6	4.4
Showa	128	101	0	78.9	37 84.1 36.6	38 100.0 37.6	25 75.8 24.8	1 7.7 1.0	4	4.0
Mishima	192	129	1	67.2	29 67.4 22.5	54 98.2 41.9	37 69.8 28.7	9 22.0 7.0	0	0.0
Shimogo	1,007	694	13	68.9	244 92.1 35.2	233 92.5 33.6	179 61.1 25.8	38 19.3 5.5	15	2.2
Kitakata	8,910	5,740	69	64.4	1,636 71.3 28.5	2,232 95.6 38.9	1,495 58.0 26.0	377 22.1 6.6	85	1.5
Nishiaizu	1,019	640	4	62.8	203 94.0 31.7	238 97.1 37.2	172 51.5 26.9	27 12.1 4.2	6	0.9
Tadami	710	494	4	69.6	161 82.6 32.6	169 95.5 34.2	147 73.1 29.8	17 12.4 3.4	4	0.8
Inawashiro	2,662	1,908	34	71.7	614 87.2 32.2	643 97.6 33.7	505 65.8 26.5	146 27.5 7.7	63	3.3
Bandai	617	414	9	67.1	133 73.9 32.1	159 97.5 38.4	94 56.6 22.7	28 25.9 6.8	11	2.7
Kitashiobara	557	388	9	69.7	144 90.6 37.1	137 97.9 35.3	96 61.5 24.7	11 10.8 2.8	8	2.1
Aizumisato	3,658	2,551	25	69.7	827 90.3 32.4	873 96.0 34.2	686 62.5 26.9	165 22.4 6.5	39	1.5
Aizubange	3,081	2,082	29	67.6	614 80.2 29.5	752 94.0 36.1	577 60.2 27.7	139 25.0 6.7	33	1.6
Yanaizu	590	376	3	63.7	127 80.4 33.8	129 90.8 34.3	103 58.9 27.4	17 14.8 4.5	3	0.8
Aizuwakamatsu	22,987	14,715	323	64.0	4,169 66.6 28.3	5,640 94.6 38.3	4,040 61.4 27.5	866 20.7 5.9	402	2.7
Yugawa	676	508	7	75.1	166 92.7 32.7	177 100.0 34.8	128 66.7 25.2	37 28.9 7.3	8	1.6
Subtotal	158,784	117,428	3,111	74.0	35,334 81.4 30.1	39,377 95.7 33.5	32,805 72.2 27.9	9,912 34.4 8.4	4,015	3.4
Total	367,687	298,577	9,402	81.2	87,071 85.0 29.2	91,902 95.7 30.8	85,571 82.5 28.7	34,033 51.9 11.4	20,443	6.8

Appendix 3

Thyroid Ultrasound Examination (TUE) coverage by prefecture

As of 30 November 2014

Prefecture	Number of test venues	Participants
Hokkaido	4	**334**
Aomori	1	**162**
Iwate	3	**187**
Miyagi	2	**1,522**
Akita	1	**208**
Yamagata	3	**455**
Ibaraki	4	**446**
Tochigi	5	**452**
Gunma	1	**185**
Saitama	1	**249**
Chiba	3	**282**
Tōkyō	12	**1,768**
Kanagawa	4	**750**
Niigata	1	**616**
Toyama	1	**34**
Ishikawa	1	**45**

Prefecture	Number of test venues	Participants
Fukui	1	**22**
Yamanashi	1	**82**
Nagano	2	**132**
Gifu	1	**43**
Shizuoka	2	**110**
Aichi	3	**179**
Mie	1	**38**
Shiga	1	**20**
Kyōto	3	**97**
Ōsaka	6	**210**
Hyōgo	1	**135**
Nara	1	**25**
Wakayama	1	**13**
Tottori	1	**15**
Shimane	1	**13**
Okayama	3	**80**

Prefecture	Number of test venues	Participants
Hiroshima	1	**37**
Yamaguchi	1	**24**
Tokushima	1	**10**
Kagawa	1	**29**
Ehime	1	**23**
Kōchi	1	**14**
Fukuoka	2	**81**
Saga	1	**7**
Nagasaki	2	**25**
Kumamoto	1	**25**
Ōita	1	**35**
Miyazaki	1	**35**
Kagoshima	1	**31**
Okinawa	1	**117**

Total	92	**9,402**

Participants underwent testing at venues outside Fukushima carried out either by Fukushima Medical University staff (twice in Niigata and Kanagawa respectively, and three times in Yamagata) or by local specialists.

Appendix 4

Thyroid Ultrasound Examination (TUE) results by municipality

Primary test results in FY 2011 (13 municipalities in the nationally designated zones) As of 31 December 2014

	Participants	Number confirmed	Number by test results				Nodules		Cysts	
			Proportion (%)				Proportion (%)		Proportion (%)	
			A		B	C				
	a	Proportion (%) b/a (%)	A1	A2			≥5.1mm	≤5.0mm	≥20.1mm	≤20.0mm
Kawamata	2,221	2,221	1,520	693	8	0	8	17	0	681
		100.0	68.4	31.2	0.4	0.0	0.4	0.8	0.0	30.7
Namie	3,249	3,249	2,119	1,104	26	0	26	42	0	1,088
		100.0	65.2	34.0	0.8	0.0	0.8	1.3	0.0	33.5
Iitate	943	943	693	244	6	0	6	15	0	233
		100.0	73.5	25.9	0.6	0.0	0.6	1.6	0.0	24.7
Minami-soma	10,789	10,789	6,789	3,948	52	0	52	87	0	3,905
		100.0	62.9	36.6	0.5	0.0	0.5	0.8	0.0	36.2
Date	10,605	10,605	6,748	3,807	50	0	48	31	1	3,808
		100.0	63.6	35.9	0.5	0.0	0.5	0.3	0.0	35.9
Tamura	6,325	6,325	4,000	2,293	32	0	32	11	0	2,299
		100.0	63.2	36.3	0.5	0.0	0.5	0.2	0.0	36.3
Hirono	838	838	521	312	5	0	5	3	0	313
		100.0	62.2	37.2	0.6	0.0	0.6	0.4	0.0	37.4
Naraha	1,153	1,153	651	495	7	0	7	4	0	498
		100.0	56.5	42.9	0.6	0.0	0.6	0.3	0.0	43.2
Tomioka	2,302	2,302	1,350	939	13	0	13	8	0	939
		100.0	58.6	40.8	0.6	0.0	0.6	0.3	0.0	40.8
Kawauchi	280	280	156	120	4	0	4	1	0	120
		100.0	55.7	42.9	1.4	0.0	1.4	0.4	0.0	42.9
Okuma	1,973	1,973	1,140	819	14	0	14	7	0	816
		100.0	57.8	41.5	0.7	0.0	0.7	0.4	0.0	41.4
Futaba	949	949	570	376	3	0	3	3	0	375
		100.0	60.1	39.6	0.3	0.0	0.3	0.3	0.0	39.5
Katsurao	183	183	116	66	1	0	1	3	0	65
		100.0	63.4	36.1	0.5	0.0	0.5	1.6	0.0	35.5
Subtotal	41,810	41,810	26,373	15,216	221	0	219	232	1	15,140
		100.0	63.1	36.4	0.5	0.0	0.5	0.6	0.0	36.2

Fractions are rounded and may not total to 100%.

Because of the duplication of the participants, some numbers are not consistent with the previous ones.

Fractions have been rounded and may not total to100%. Ages are at the time of the disaster.

While some participants who underwent the test at their schools had been categorized according to the municipalities of their schools in the previous survey, they were categorized into the municipalities they belonged at the time of the disaster.

Primary test results in FY 2012

As of 31 December 2014

	Participants	Number confirmed	Number by test results				Nodules		Cysts	
			Proportion (%)							
			A		B	C	Proportion (%)		Proportion (%)	
	a	Proportion (%) b/a (%)	A1	A2			≥5.1mm	≤5.0mm	≥20.1mm	≤20.0mm
Fukushima	47,307	47,307	26,962	20,062	283	0	276	196	3	20,079
		100.0	57.0	42.4	0.6	0.0	0.6	0.4	0.0	42.4
Nihonmatsu	8,857	8,857	5,198	3,602	56	1	56	46	1	3,605
		100.0	58.7	40.7	0.6	0.0	0.6	0.5	0.0	40.7
Motomiya	5,234	5,234	2,955	2,250	29	0	27	25	1	2,254
		100.0	56.5	43.0	0.6	0.0	0.5	0.5	0.0	43.1
Otama	1,373	1,373	816	550	7	0	7	8	0	550
		100.0	59.4	40.1	0.5	0.0	0.5	0.6	0.0	40.1
Koriyama	54,063	54,041	27,915	25,668	458	0	454	332	3	25,751
		100.0	51.7	47.5	0.8	0.0	0.8	0.6	0.0	47.7
Kori	1,874	1,874	1,025	835	14	0	14	9	0	836
		100.0	54.7	44.6	0.7	0.0	0.7	0.5	0.0	44.6
Kunimi	1,437	1,437	763	659	15	0	14	9	1	663
		100.0	53.1	45.9	1.0	0.0	1.0	0.6	0.1	46.1
Tenei	878	878	528	343	7	0	7	4	0	348
		100.0	60.1	39.1	0.8	0.0	0.8	0.5	0.0	39.6
Shirakawa	10,811	10,811	6,111	4,639	61	0	61	54	0	4,636
		100.0	56.5	42.9	0.6	0.0	0.6	0.5	0.0	42.9
Nishigo	3,618	3,618	2,085	1,503	30	0	30	21	0	1,503
		100.0	57.6	41.5	0.8	0.0	0.8	0.6	0.0	41.5
Izumizaki	1,157	1,157	524	628	5	0	5	11	0	624
		100.0	45.3	54.3	0.4	0.0	0.4	1.0	0.0	53.9
Miharu	2,730	2,730	1,301	1,407	22	0	22	15	0	1,410
		100.0	47.7	51.5	0.8	0.0	0.8	0.5	0.0	51.6
Subtotal	139,339	139,317	76,183	62,146	987	1	973	730	9	62,259
		100.0	54.7	44.6	0.7	0.0	0.7	0.5	0.0	44.7

Primary test results in FY 2013 As of 31 December 2014

	Participants	Number confirmed	Number by test results				Nodules		Cysts	
			Proportion (%)							
			A		B	C	Proportion (%)		Proportion (%)	
	a	Proportion (%) b/a (%)	A1	A2			≥5.1mm	≤5.0mm	≥20.1mm	≤20.0mm
Iwaki*	48,810	48,152	21,221	26,495	436	0	435	282	1	26,603
		98.7	44.1	55.0	0.9	0.0	0.9	0.6	0.0	55.2
Sukagawa	12,018	11,777	5,368	6,306	103	0	103	51	0	6,341
		98.0	45.6	53.5	0.9	0.0	0.9	0.4	0.0	53.8
Soma	5,088	5,083	2,415	2,622	46	0	46	45	0	2,633
		99.9	47.5	51.6	0.9	0.0	0.9	0.9	0.0	51.8
Kagamiishi	2,021	1,954	922	1,022	10	0	10	8	0	1,023
		96.7	47.2	52.3	0.5	0.0	0.5	0.4	0.0	52.4
Shinchi	1,114	1,110	505	598	7	0	7	5	0	602
		99.6	45.5	53.9	0.6	0.0	0.6	0.5	0.0	54.2
Nakajima	830	801	377	422	2	0	2	8	0	420
		96.5	47.1	52.7	0.2	0.0	0.2	1.0	0.0	52.4
Yabuki	2,555	2,462	1,047	1,398	17	0	17	8	0	1,406
		96.4	42.5	56.8	0.7	0.0	0.7	0.3	0.0	57.1
Ishikawa	2,145	2,084	953	1,120	11	0	11	15	0	1,120
		97.2	45.7	53.7	0.5	0.0	0.5	0.7	0.0	53.7
Yamatsuri	793	785	320	462	3	0	3	4	0	459
		99.0	40.8	58.9	0.4	0.0	0.4	0.5	0.0	58.5
Asakawa	1,089	1,070	461	597	12	0	12	10	0	603
		98.3	43.1	55.8	1.1	0.0	1.1	0.9	0.0	56.4
Hirata	864	831	376	446	9	0	9	2	0	452
		96.2	45.2	53.7	1.1	0.0	1.1	0.2	0.0	54.4
Tanagura	2,314	2,269	1,001	1,246	22	0	22	11	0	1,254
		98.1	44.1	54.9	1.0	0.0	1.0	0.5	0.0	55.3
Hanawa	1,246	1,220	497	715	8	0	8	9	0	718
		97.9	40.7	58.6	0.7	0.0	0.7	0.7	0.0	58.9
Samegawa	521	508	237	268	3	0	3	4	0	268
		97.5	46.7	52.8	0.6	0.0	0.6	0.8	0.0	52.8
Ono	1,433	1,355	526	815	14	0	14	13	0	817
		94.6	38.8	60.1	1.0	0.0	1.0	1.0	0.0	60.3
Tamakawa	1,011	988	440	538	10	0	10	6	0	542
		97.7	44.5	54.5	1.0	0.0	1.0	0.6	0.0	54.9
Furudono	816	793	383	404	6	0	6	5	0	408
		97.2	48.3	50.9	0.8	0.0	0.8	0.6	0.0	51.5

* Including districts of FY 2012

Primary test results in FY 2013 As of 31 October 2014

	Participants	Number confirmed b	Number by test results				Nodules		Cysts	
			Proportion (%)							
			A		B	C	Proportion (%)		Proportion (%)	
	a	Proportion (%) b/a (%)	A1	A2			≥5.1mm	≤5.0mm	≥20.1mm	≤20.0mm
Hinoemata	61	61	25	36	0	0	0	3	0	34
		100.0	41.0	59.0	0.0	0.0	0.0	4.9	0.0	55.7
Minami-aizu	1,822	1,812	741	1,055	16	0	16	13	0	1,057
		99.5	40.9	58.2	0.9	0.0	0.9	0.7	0.0	58.3
Kaneyama	137	137	64	73	0	0	0	1	0	73
		100.0	46.7	53.3	0.0	0.0	0.0	0.7	0.0	53.3
Showa	101	101	56	45	0	0	0	0	0	45
		100.0	55.4	44.6	0.0	0.0	0.0	0.0	0.0	44.6
Mishima	129	129	38	90	1	0	1	0	0	91
		100.0	29.5	69.8	0.8	0.0	0.8	0.0	0.0	70.5
Shimogo	694	691	318	363	10	0	10	4	0	366
		99.6	46.0	52.5	1.4	0.0	1.4	0.6	0.0	53.0
Kitakata	5,740	5,728	2,277	3,405	46	0	46	42	0	3,412
		99.8	39.8	59.4	0.8	0.0	0.8	0.7	0.0	59.6
Nishiaizu	640	640	245	390	5	0	5	5	0	392
		100.0	38.3	60.9	0.8	0.0	0.8	0.8	0.0	61.3
Tadami	494	494	202	285	7	0	7	3	0	287
		100.0	40.9	57.7	1.4	0.0	1.4	0.6	0.0	58.1
Inawashiro	1,908	1,882	782	1,087	13	0	13	13	0	1,088
		98.6	41.6	57.8	0.7	0.0	0.7	0.7	0.0	57.8
Bandai	414	414	168	242	4	0	4	2	0	244
		100.0	40.6	58.5	1.0	0.0	1.0	0.5	0.0	58.9
Kitashiobara	388	383	160	222	1	0	1	3	0	222
		98.7	41.8	58.0	0.3	0.0	0.3	0.8	0.0	58.0
Aizumisato	2,551	2,551	1,061	1,464	26	0	26	17	0	1,476
		100.0	41.6	57.4	1.0	0.0	1.0	0.7	0.0	57.9
Aizubange	2,082	2,081	843	1,213	25	0	25	9	0	1,223
		100.0	40.5	58.3	1.2	0.0	1.2	0.4	0.0	58.8
Yanaizu	376	376	178	196	2	0	2	0	0	198
		100.0	47.3	52.1	0.5	0.0	0.5	0.0	0.0	52.7
Aizuwakamatsu	14,715	14,690	6,068	8,462	160	0	159	115	1	8,510
		99.8	41.3	57.6	1.1	0.0	1.1	0.8	0.0	57.9
Yugawa	508	507	186	314	7	0	7	2	0	317
		99.8	36.7	61.9	1.4	0.0	1.4	0.4	0.0	62.5
Subtotal	117,428	115,919	50,461	64,416	1,042	0	1,040	718	2	64,704
		98.7	43.5	55.6	0.9	0.0	0.9	0.6	0.0	55.8
Total	298,577	297,046	153,017	141,778	2,250	1	2,232	1,680	12	142,103
		99.5	51.5	47.7	0.8	0.0	0.8	0.6	0.0	47.8

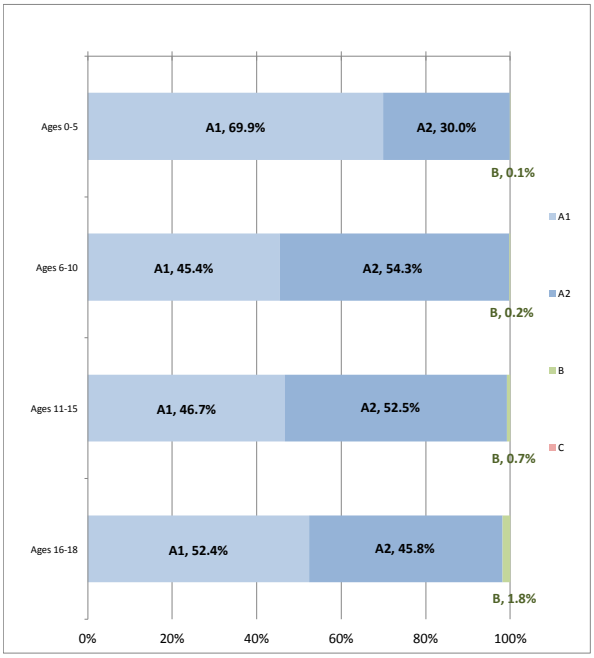
Appendix 5

1. Thyroid Ultrasound Examination results by age and sex

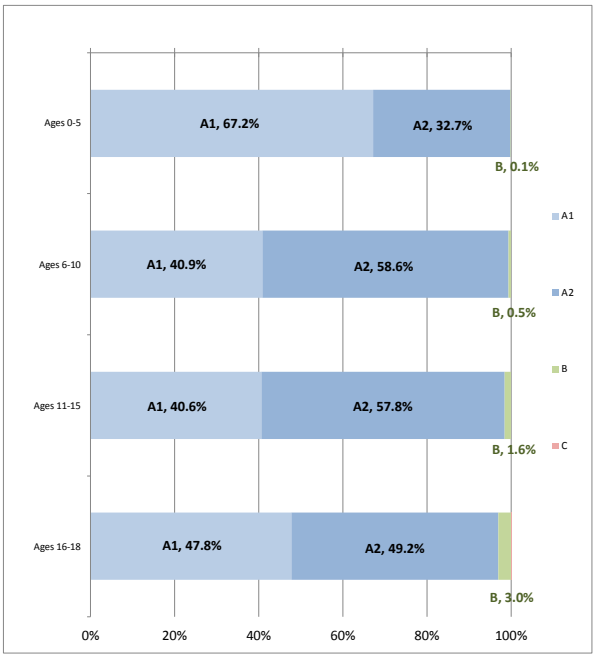
As of 31 December 2014

Ages	A						B			C			Total		
	A1			A2											
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-5	31,054	28,323	59,377	13,339	13,791	27,130	41	57	98	0	0	0	44,434	42,171	86,605
6-10	21,420	18,303	39,723	25,594	26,192	51,786	116	236	352	0	0	0	47,130	44,731	91,861
11-15	19,965	17,128	37,093	22,440	24,371	46,811	319	655	974	0	0	0	42,724	42,154	84,878
16-18	8,212	8,612	16,824	7,179	8,872	16,051	282	544	826	0	1	1	15,673	18,029	33,702
Total	80,651	72,366	153,017	68,552	73,226	141,778	758	1,492	2,250	0	1	1	149,961	147,085	297,046

Test results by age group (Male)



Test results by age group (Female)



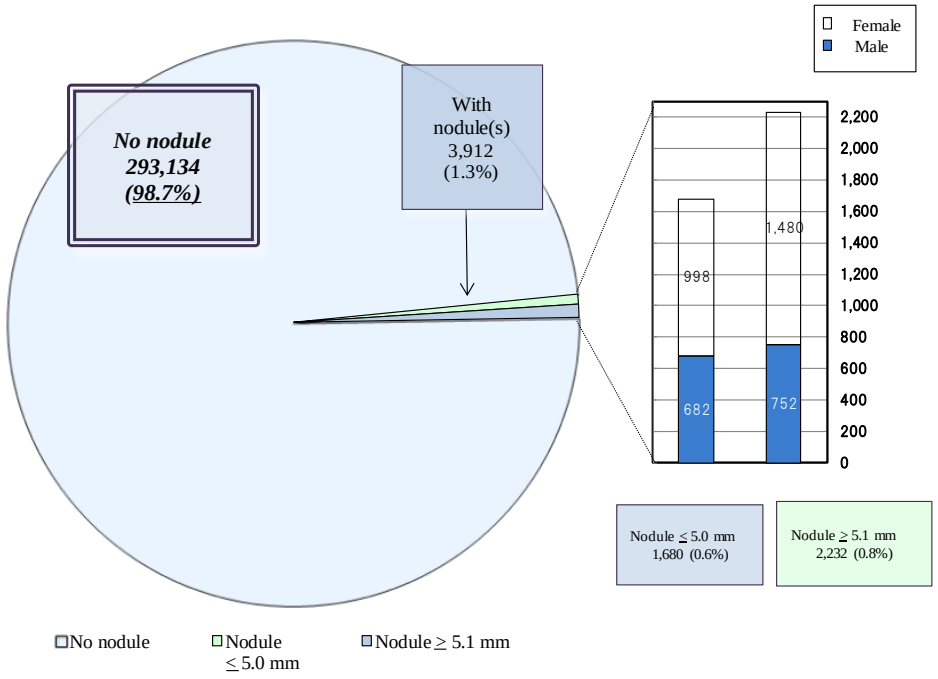
Percentages have been rounded and may not total to 100%.

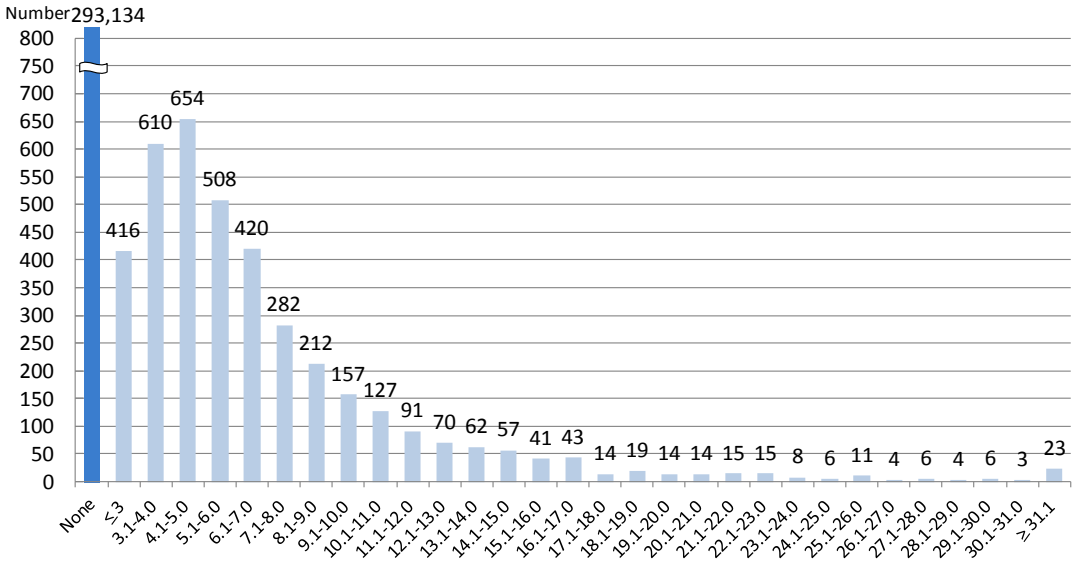
Ages are at the time of the disaster.

2. Nodule size

As of 31 December 2014

Nodule size	Total	Male	Female	Test result	Proportion
None	293,134	148,527	144,607	A1	98.7%
≤ 3.0 mm	416	188	228	A2	0.6%
3.1-5.0 mm	1,264	494	770		
5.1-10.0 mm	1,579	565	1,014	B	0.8%
10.1-15.0 mm	407	115	292		
15.1-20.0 mm	131	39	92		
20.1-25.0 mm	58	17	41		
≥ 25.1 mm	57	16	41		
Total	297,046	149,961	147,085		

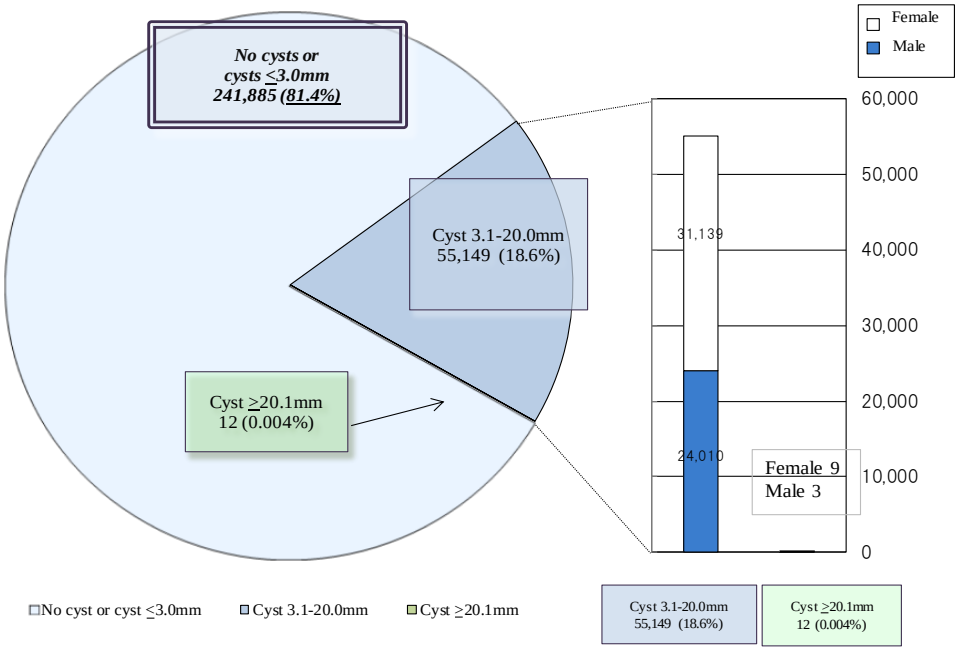


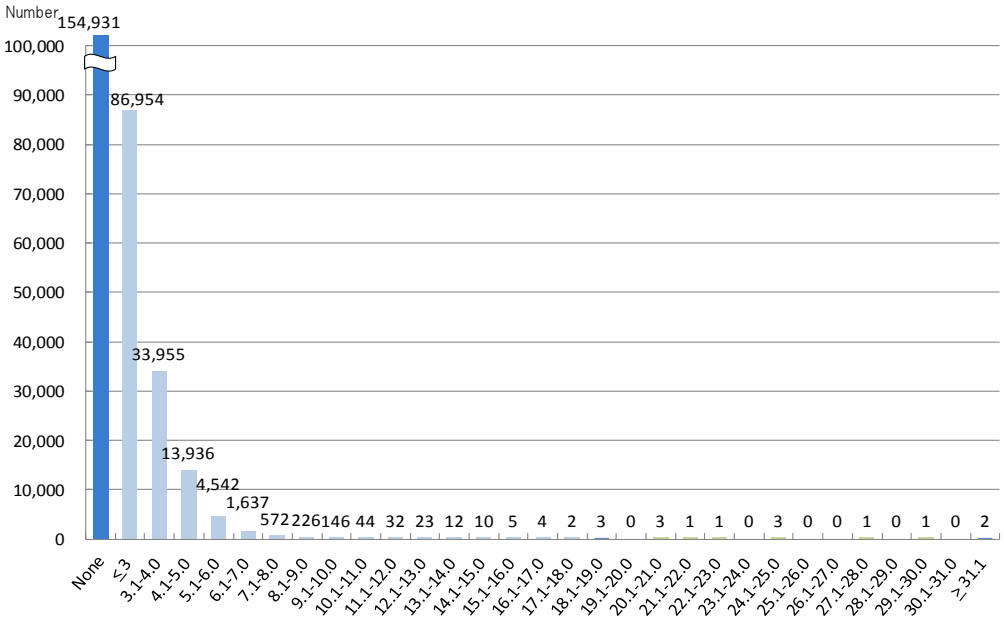


3. Cyst size

As of 31 December 2014

Cyst size	Total	Male	Female	Class	%
None	154,931	81,389	73,542	A1	81.4%
≤ 3.0 mm	86,954	44,559	42,395	A2	18.6%
3.1-5.0 mm	47,891	21,444	26,447		
5.1-10.0 mm	7,123	2,524	4,599		
10.1-15.0 mm	121	41	80		
15.1-20.0 mm	14	1	13		
20.1-25.0 mm	8	1	7	B	0.004%
≥ 25.1 mm	4	2	2		
Total	297,046	149,961	147,085		





Appendix 6

Confirmatory test results by municipality

As of 31 December 2014

	Number of children screened	Number who required confirmatory test	Number of children who underwent confirmatory test by age					Number of confirmed results				
			Total	Ages 0-5	Ages 6-10	Ages 11-15	Ages 16-18	Total	Next screening advised		Follow-up advised	Aspiration biopsy cytology
	a	b	c	d	e	f	g	h	A1 i	A2 j	k	l
		Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)
Target municipalities for Confirmatory test in FY 2011												
Kawamata	2,221	8	8	0	1	3	4	7	1	0	6	5
		0.4	100.0	0.0	12.5	37.5	50.0	87.5	14.3	0.0	85.7	83.3
Namie	3,249	26	24	1	3	8	12	23	1	4	18	12
		0.8	92.3	4.2	12.5	33.3	50.0	95.8	4.3	17.4	78.3	66.7
Iitate	943	6	6	0	2	1	3	6	0	3	3	3
		0.6	100.0	0.0	33.3	16.7	50.0	100.0	0.0	50.0	50.0	100.0
Minami-soma	10,789	52	48	6	5	16	21	48	4	11	33	19
		0.5	92.3	12.5	10.4	33.3	43.8	100.0	8.3	22.9	68.8	57.6
Date	10,605	50	45	0	3	16	26	45	4	8	33	23
		0.5	90.0	0.0	6.7	35.6	57.8	100.0	8.9	17.8	73.3	69.7
Tamura	6,325	32	26	1	3	12	10	26	0	5	21	14
		0.5	81.3	3.8	11.5	46.2	38.5	100.0	0.0	19.2	80.8	66.7
Hirono	838	5	4	0	1	1	2	4	1	2	1	0
		0.6	80.0	0.0	25.0	25.0	50.0	100.0	25.0	50.0	25.0	0.0
Naraha	1,153	7	6	1	0	1	4	6	0	2	4	2
		0.6	85.7	16.7	0.0	16.7	66.7	100.0	0.0	33.3	66.7	50.0
Tomioka	2,302	13	12	0	1	5	6	12	0	2	10	7
		0.6	92.3	0.0	8.3	41.7	50.0	100.0	0.0	16.7	83.3	70.0
Kawauchi	280	4	4	0	1	0	3	4	0	1	3	2
		1.4	100.0	0.0	25.0	0.0	75.0	100.0	0.0	25.0	75.0	66.7
Okuma	1,973	14	13	1	1	6	5	13	1	5	7	2
		0.7	92.9	7.7	7.7	46.2	38.5	100.0	7.7	38.5	53.8	28.6
Futaba	949	3	2	0	0	1	1	2	0	0	2	2
		0.3	66.7	0.0	0.0	50.0	50.0	100.0	0.0	0.0	100.0	100.0
Katsurao	183	1	1	0	1	0	0	1	0	1	0	0
		0.5	100.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0
Subtotal	41,810	221	199	10	22	70	97	197	12	44	141	91
		0.5	90.0	5.0	11.1	35.2	48.7	99.0	6.1	22.3	71.6	64.5
Target municipalities for Confirmatory test in FY 2012												
Fukushima	47,307	283	271	6	28	106	131	265	12	68	185	94
		0.6	95.8	2.2	10.3	39.1	48.3	97.8	4.5	25.7	69.8	50.8
Nihonmatsu	8,857	57	54	0	5	27	22	53	3	7	43	24
		0.6	94.7	0.0	9.3	50.0	40.7	98.1	5.7	13.2	81.1	55.8
Motomiya	5,234	29	29	1	4	14	10	28	0	9	19	7
		0.6	100.0	3.4	13.8	48.3	34.5	96.6	0.0	32.1	67.9	36.8
Otama	1,373	7	7	0	0	4	3	7	0	1	6	4
		0.5	100.0	0.0	0.0	57.1	42.9	100.0	0.0	14.3	85.7	66.7
Koriyama	54,063	458	415	21	65	172	157	403	24	127	252	99
		0.8	90.6	5.1	15.7	41.4	37.8	97.1	6.0	31.5	62.5	39.3
Kori	1,874	14	13	1	2	3	7	13	0	2	11	3
		0.7	92.9	7.7	15.4	23.1	53.8	100.0	0.0	15.4	84.6	27.3
Kunimi	1,437	15	13	2	2	2	7	13	1	2	10	4
		1.0	86.7	15.4	15.4	15.4	53.8	100.0	7.7	15.4	76.9	40.0
Tenei	878	7	6	1	2	1	2	6	1	2	3	0
		0.8	85.7	16.7	33.3	16.7	33.3	100.0	16.7	33.3	50.0	0.0
Shirakawa	10,811	61	59	2	10	27	20	59	6	14	39	15
		0.6	96.7	3.4	16.9	45.8	33.9	100.0	10.2	23.7	66.1	38.5
Nishigo	3,618	30	26	2	6	9	9	26	2	8	16	5
		0.8	86.7	7.7	23.1	34.6	34.6	100.0	7.7	30.8	61.5	31.3
Izumizaki	1,157	5	5	0	2	0	3	5	1	2	2	1
		0.4	100.0	0.0	40.0	0.0	60.0	100.0	20.0	40.0	40.0	50.0
Miharu	2,730	22	21	0	1	11	9	21	4	4	13	6
		0.8	95.5	0.0	4.8	52.4	42.9	100.0	19.0	19.0	61.9	46.2
Subtotal	139,339	988	919	36	127	376	380	899	54	246	599	262
		0.7	93.0	3.9	13.8	40.9	41.3	97.8	6.0	27.4	66.6	43.7

h) Excluding participants who have not receive the test results.

Fractions have been rounded and may not total to 100%.

Ages are at the time of the disaster.

While some participants who underwent the test at their schools had been categorized according to the municipalities of their schools in the previous survey, they were categorized into the municipalities they belonged at the time of the disaster.

Confirmatory test results by municipality

As of 31 December 2014

	Number of children screened	Number who required confirmatory test	Number of children who underwent confirmatory test by age					Number of confirmed results				
			Total	Ages 0-5	Ages 6-10	Ages 11-15	Ages 16-18	Total	Next screening advised		Follow-up advised	
												Aspiration biopsy cytology
	a	b	c	d	e	f	g	h	A1 i	A2 j	k	l
		Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)
Target municipalities for Confirmatory test in FY 2013												
Iwaki*	48,810	436	401	21	59	196	125	390	20	124	246	84
		0.9	92.0	5.2	14.7	48.9	31.2	97.3	5.1	31.8	63.1	34.1
Sukagawa	12,018	103	98	6	16	52	24	95	7	32	56	12
		0.9	95.1	6.1	16.3	53.1	24.5	96.9	7.4	33.7	58.9	21.4
Soma	5,088	46	42	3	9	19	11	41	3	16	22	6
		0.9	91.3	7.1	21.4	45.2	26.2	97.6	7.3	39.0	53.7	27.3
Kagamiishi	2,021	10	8	0	4	3	1	8	0	1	7	1
		0.5	80.0	0.0	50.0	37.5	12.5	100.0	0.0	12.5	87.5	14.3
Shinchi	1,114	7	7	0	3	3	1	6	0	0	6	3
		0.6	100.0	0.0	42.9	42.9	14.3	85.7	0.0	0.0	100.0	50.0
Nakajima	830	2	2	0	0	1	1	2	0	0	2	1
		0.2	100.0	0.0	0.0	50.0	50.0	100.0	0.0	0.0	100.0	50.0
Yabuki	2,555	17	13	0	2	6	5	12	0	3	9	1
		0.7	76.5	0.0	15.4	46.2	38.5	92.3	0.0	25.0	75.0	11.1
Ishikawa	2,145	11	10	0	4	4	2	10	0	1	9	5
		0.5	90.9	0.0	40.0	40.0	20.0	100.0	0.0	10.0	90.0	55.6
Yamatsuri	793	3	2	0	0	1	1	2	0	0	2	0
		0.4	66.7	0.0	0.0	50.0	50.0	100.0	0.0	0.0	100.0	0.0
Asakawa	1,089	12	11	1	1	6	3	11	0	3	8	2
		1.1	91.7	9.1	9.1	54.5	27.3	100.0	0.0	27.3	72.7	25.0
Hirata	864	9	9	0	4	3	2	8	1	1	6	1
		1.0	100.0	0.0	44.4	33.3	22.2	88.9	12.5	12.5	75.0	16.7
Tanagura	2,314	22	22	2	5	9	6	20	2	2	16	6
		1.0	100.0	9.1	22.7	40.9	27.3	90.9	10.0	10.0	80.0	37.5
Hanawa	1,246	8	7	0	1	3	3	5	0	2	3	0
		0.6	87.5	0.0	14.3	42.9	42.9	71.4	0.0	40.0	60.0	0.0
Samegawa	521	3	1	0	0	0	1	1	0	0	1	0
		0.6	33.3	0.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	0.0
Ono	1,433	14	13	1	2	6	4	13	1	4	8	0
		1.0	92.9	7.7	15.4	46.2	30.8	100.0	7.7	30.8	61.5	0.0
Tamakawa	1,011	10	8	1	2	2	3	8	0	2	6	1
		1.0	80.0	12.5	25.0	25.0	37.5	100.0	0.0	25.0	75.0	16.7
Furudono	816	6	6	0	1	4	1	6	0	2	4	1
		0.7	100.0	0.0	16.7	66.7	16.7	100.0	0.0	33.3	66.7	25.0
Hinoemata	61	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minami-aizu	1,822	16	15	0	7	7	1	13	1	3	9	2
		0.9	93.8	0.0	46.7	46.7	6.7	86.7	7.7	23.1	69.2	22.2
Kaneyama	137	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Showa	101	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mishima	129	1	1	0	1	0	0	1	0	0	1	0
		0.8	100.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
Shimogo	694	10	9	0	1	5	3	9	0	3	6	2
		1.4	90.0	0.0	11.1	55.6	33.3	100.0	0.0	33.3	66.7	33.3
Kitakata	5,740	46	40	1	11	17	11	40	2	11	27	11
		0.8	87.0	2.5	27.5	42.5	27.5	100.0	5.0	27.5	67.5	40.7
Nishiaizu	640	5	4	0	2	1	1	2	0	0	2	0
		0.8	80.0	0.0	50.0	25.0	25.0	50.0	0.0	0.0	100.0	0.0
Tadami	494	7	6	0	3	3	0	6	0	2	4	1
		1.4	85.7	0.0	50.0	50.0	0.0	100.0	0.0	33.3	66.7	25.0
Inawashiro	1,908	13	13	1	1	8	3	13	2	3	8	1
		0.7	100.0	7.7	7.7	61.5	23.1	100.0	15.4	23.1	61.5	12.5
Bandai	414	4	3	1	0	1	1	3	1	0	2	0
		1.0	75.0	33.3	0.0	33.3	33.3	100.0	33.3	0.0	66.7	0.0
Kitashiobara	388	1	1	1	0	0	0	1	0	1	0	0
		0.3	100.0	100.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0
Aizumisato	2,551	26	23	0	4	12	7	22	2	9	11	3
		1.0	88.5	0.0	17.4	52.2	30.4	95.7	9.1	40.9	50.0	27.3
Aizubange	2,082	25	23	3	4	9	7	23	0	4	19	4
		1.2	92.0	13.0	17.4	39.1	30.4	100.0	0.0	17.4	82.6	21.1
Yanaizu	376	2	2	0	0	2	0	2	0	1	1	0
		0.5	100.0	0.0	0.0	100.0	0.0	100.0	0.0	50.0	50.0	0.0
Aizuwakamatsu	14,715	160	142	6	31	77	28	134	8	44	82	21
		1.1	88.8	4.2	21.8	54.2	19.7	94.4	6.0	32.8	61.2	25.6
Yugawa	508	7	7	0	1	3	3	7	1	0	6	1
		1.4	100.0	0.0	14.3	42.9	42.9	100.0	14.3	0.0	85.7	16.7
Subtotal	117,428	1,042	949	48	179	463	259	914	51	274	589	170
		0.9	91.1	5.1	18.9	48.8	27.3	96.3	5.6	30.0	64.4	28.9
Total	298,577	2,251	2,067	94	328	909	736	2,010	117	564	1,329	523
		0.8	91.8	4.5	15.9	44.0	35.6	97.2	5.8	28.1	66.1	39.4

*Including districts of FY 2012

Thyroid Ultrasound Examination (Full-scale Thyroid Screening Program)

Reported on 12 February 2015

1. Summary

1.1 Purpose

In order to protect the long-term health of children, we are now engaged in a Full-scale Thyroid Screening Program following a preliminary Initial Screening period.

1.2 Group

Residents of Fukushima Prefecture including visitors who were born between 2 April 1992 and 1 April 2011 (Initial Screening), and those who were born between 2 April 2011 and 1 April 2012.

1.3 Implementation Period

The full-scale screening starts from 2 April 2014 and lasts for two years.

We repeat the examination every two years until the age of 20, and every five years afterwards.

1.4 Responsible Organizations

Fukushima Prefecture commissioned Fukushima Medical University to conduct the survey in cooperation with institutions inside and outside Fukushima.

As of 31 December 2014, we provide the Primary Examination at 11 medical institutions under contract, and try to have more institutions inside Fukushima Prefecture.

Ninety-two institutions outside Fukushima Prefecture have agreed to cooperate as of 31 December 2014.

The confirmatory examination has been conducted in Koriyama and Iwaki in Fukushima Prefecture from July 2013, Aizuwakamatsu from August 2014, and several institutions outside Fukushima Prefecture from November 2013. There are 26 institutions that provide the examination as of 31 December 2014.

1.5 Method

1.5-1 Primary Examination

We used ultrasonography for examination of the thyroid gland.

Assessments were made by specialists on the basis of the following criteria.

-Diagnostic Criteria: A

Those with A1 and A2 test results are recommended for watchful waiting until they undergo the next screening starting from April 2016.

(A1) No nodules / cysts

(A2) Nodules $\leq$5.0 mm or cysts $\leq$20.0 mm

-Diagnostic Criteria: B

Those with B test result are advised to take the Confirmatory Examination.

(B) Nodules ≥5.1 mm or cysts ≥20.1 mm

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

-Diagnostic Criteria: C

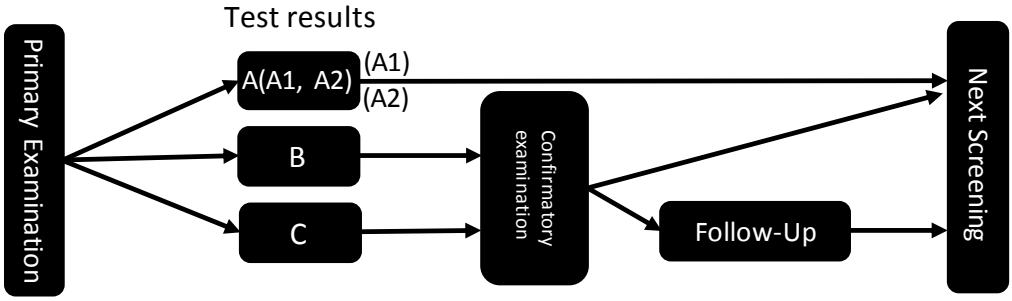
Those with C test result are advised to take the Confirmatory Examination.

(C) Immediate need for confirmatory examination.

1.5-2 Confirmatory Examination

We conduct ultrasonography, blood test, urine test, 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.

1.5-3 Flow chart



1.6 Target Municipalities

25 target municipalities for FY 2014

34 target municipalities for FY 2015

2. Results (As of 31 December 2014)

2.1-1 Primary Examination

The Primary Examination started from 2 April 2014, and the participation rate as of 31 December 2014 is 48.6% (106,068) out of around 220,000 from 25 municipalities. (See Appendix 1 and 2)

The results have been returned to 71.0% (75,311) of the participants. (See Appendix 3)

Those with A1 or A2 test results were 74,700 (99.2%), B were 611 (0.8%), and C was 0.

Table 1. Screening test coverage as of 31 December 2014

	Target Population	Participants			Test results				
		Proportion (%)		Screened outside Fukushima	Proportion (%)	Class			
						A		Requiring confirmatory test	
	a	b (b/a)			c (c/b)	A1 d (d/c)	A2 e (e/c)	B f (f/c)	C g (g/c)
FY 2014	216,203	103,874	(48.0)	5,360	74,847 (72.1)	31,622 (42.2)	42,617 (56.9)	608 (0.8)	0 (0.0)
FY 2015	2,194	2,194	(100.0)	4	464 (21.1)	167 (36.0)	294 (63.4)	3 (0.6)	0 (0.0)
Total	218,397	106,068	(48.6)	5,364	75,311 (71.0)	31,789 (42.2)	42,911 (57.0)	611 (0.8)	0 (0.0)

Table 2. Number and proportion of children with nodules/cysts as of 31 December 2014

	Number of confirmed screening results	Number and proportions of children with nodules/cysts			
		Nodules		Cysts	
	a	≥5.1mm b (b/a)	≤5.0mm c (c/a)	≥20.1mm d (d/a)	≤20.0mm e (e/a)
FY 2014	74,847	606 (0.8)	472 (0.6)	1 (0.0)	42,813 (57.2)
FY 2015	464	3 (0.6)	3 (0.6)	0 (0.0)	293 (63.1)
Total	75,311	609 (0.8)	475 (0.6)	1 (0.0)	43,106 (57.2)

Fractions have been rounded and may not total to 100%.

2.1-2 Comparison with the Initial Screening

Among 74,700 participants who were diagnosed as A1 or A2, 69,948 (93.6%) had A1 or A2 results from the Initial Screening. Among 611 participants who were diagnosed as B, 441 (72.2%) had A1 or A2 results from the Initial Screening.

Table 3. Changes in the results of Initial Screening and Full-scale Thyroid Screening Program as of 31 December 2014

			Number of confirmed test results of Full-scale Thyroid Screening Program (%) a	Results of the Initial Screening				
				A		B	C	Non-participants
				A1 b b/a (%)	A2 c c/a (%)	d d/a (%)	e e/a (%)	f f/a (%)
Results of the Full-scale Thyroid Screening	A	A1	31,789 (100.0)	26,242 (82.6)	2,500 (7.9)	24 (0.1)	0 (0.0)	3,023 (9.5)
		A2	42,911 (100.0)	15,349 (35.8)	25,857 (60.3)	90 (0.2)	0 (0.0)	1,615 (3.8)
	B		611 (100.0)	160 (26.2)	281 (46.0)	147 (24.1)	0 (0.0)	23 (3.8)
	C		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Total		75,311 (100.0)	41,751 (55.4)	28,638 (38.0)	261 (0.3)	0 (0.0)	4,661 (6.2)

2.1-3 Confirmatory Examination

The number of children who required further testing (started in June 2014) is 611, of whom 377 (61.7%) underwent confirmatory testing. Among them, 262 (69.5%) have completed the tests. (See Appendix 4)

Of 262 participants, 94 (35.9%) with confirmed test results of Confirmatory Examination have been confirmed within the range of A1 and A2, and were advised to take their next regularly scheduled examination.

Those who require 6- 12-month follow-up provided by health insurance were 168 (64.1%).

Table 4. Confirmatory testing coverage and results as of 31 December 2014

	Number of children requiring confirmatory test	Participants	Confirmatory test coverage (%)	Confirmed test results			
		Proportion (%)		Next screening advised		Follow-up advised	
				A1	A2		Cytology
	a	b (b/a)	c (c/b)	d (d/c)	e (e/c)	f (f/c)	g (g/f)
FY 2014	608	375 (61.7)	261 (69.6)	16 (6.1)	77 (29.5)	168 (64.4)	22 (13.1)
FY 2015	3	2 (66.7)	1 (50.0)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)
Total	611	377 (61.7)	262 (69.5)	16 (6.1)	78 (29.8)	168 (64.1)	22 (13.1)

Priority was given to those in urgent clinical need.

Those confirmed within the range of A1 and A2 (including those with other thyroid conditions) were advised to take their next regularly scheduled examination.

Those who require 6- or 12-month follow-up provided by health insurance and those beyond the specified level of A2 were categorized as "Follow-up advised."

2.2 **Fine Needle Aspiration Biopsy and Cytology (FNAC)**

2.2-1 Aspiration biopsy cytology results

Table 5. Target municipalities in FY 2014

Suspicious or malignant	8 (1 surgical case: 1 of papillary thyroid carcinoma)
Male to female ratio	4:4
Mean age (SD, min-max)	15.6 (3.4, 10-20) 12.1 (3.4, 6-17) at the time of the disaster
Mean tumor size	10.2 mm (3.9 mm, 6.0-17.3 mm)

2.2-2 Suspicious or malignant cases on FNAC by age and sex

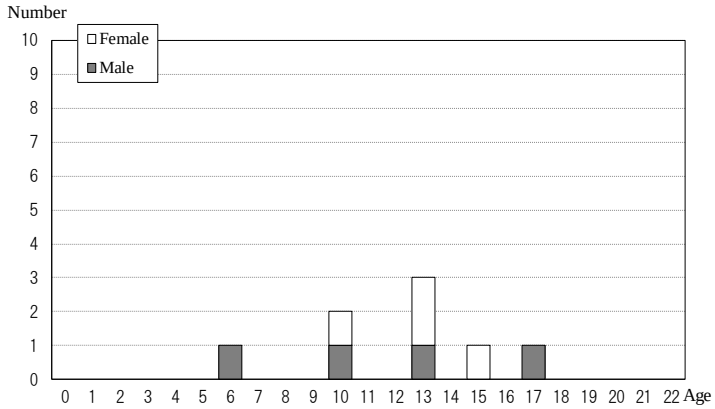


Fig.3 Age as of 11 March 2011

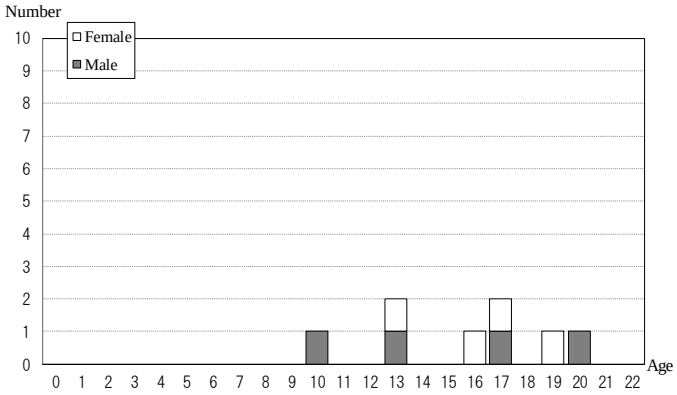


Fig. 4 Age as the date of confirmatory examination

2.2-3 Suspicious or malignant cases on FNAC by estimated radiation dose

Six of the 8 cases (75.0%) participated in the Basic Survey (radiation dose estimates) and have received the results. Among those, 2 had estimated radiation exposure dose below 1 mSv, and the highest effective dose was 2.1 mSv.

Table 6. Estimated external radiation doses for participants of Basic Survey As of 31 December 2014

Effective dose (mSv)	Sex	Age at the time of disaster				
		0-5	6-10	11-15	16-18	Total
<0.5	Male	0	0	0	0	0
	Female	0	0	0	0	0
0.5-0.9	Male	0	1	0	0	1
	Female	0	0	1	0	1
1.0-1.4	Male	0	0	1	1	2
	Female	0	1	0	0	1
1.5-1.9	Male	0	0	0	0	0
	Female	0	0	0	0	0
2.0-2.4	Male	0	1	0	0	1
	Female	0	0	0	0	0
Total	Male	0	2	1	1	4
	Female	0	1	1	0	2

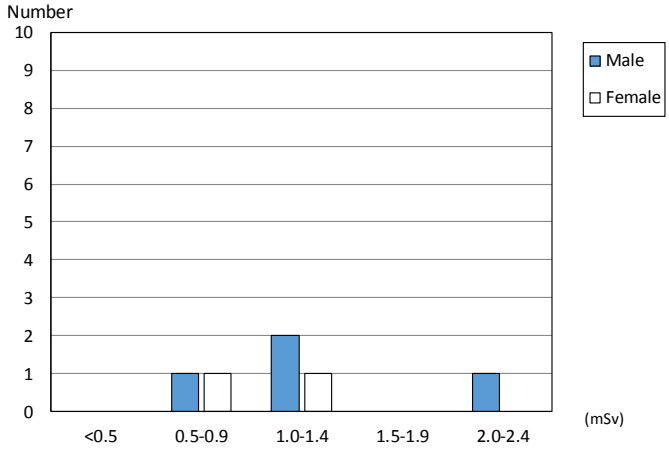


Fig. 5 Effective dose of the respondents

2.2-4 Blood and urinary iodine test results as of 31 December 2014

Table 7. Blood test results Mean±SD (Abnormality rate)

	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	2.13-4.07 7)	0.340-3.880	≦32.7	<28.0	<16.0
8 suspicious or malignant	1.2 ± 0.1 (0.0%)	3.6 ± 0.5 (0.0%)	1.6 ± 1.2 (0.0%)	36.7 ± 50.5 (25.0%)	－ (12.5%)	－ (12.5%)
Other 253	1.2 ± 0.2 (7.5%)	3.6 ± 0.5 (6.3%)	1.4 ± 1.0 (9.1%)	22.8 ± 45.4 (11.5%)	－ (10.7%)	－ (11.1%)

Table 8. Urinary iodine (μg/day)

	Minimum	25th percentile	Median	75th percentile	Maximum
8 suspicious or malignant	61	126.25	165.5	386	690
Other 251	38	120	195	369	11,800

1) FT4: Free Thyroxine; higher among patients with Graves' disease and lower with Hashimoto's disease.

2) FT3: Free Triiodothyronine; higher among patients with Graves' disease and lower with Hashimoto's disease.

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 thyroid cancer produces thyroglobulin.

5) TgAb: Anti-Thyroglobulin Antibody; higher among patients with Hashimoto's disease and Graves' disease.

6) TPOAb: Anti-Thyroid Peroxidase Antibody; higher among patients with Hashimoto's disease or Graves' disease.

7) Reference range differs according to age.

2.2-5 Confirmatory test results by municipality as of 31 December 2014

The proportion of suspicious or malignant is 0.01% in FY 2014 target municipalities (13 municipalities in the nationally designated evacuation zones and 12 towns of the Kempoku area), 0.00% in FY 2015 target municipalities (34 towns of the Iwaki, Kennan, and Aizu areas).

Table 9.

Confirmatory test results in FY 2014

	Number of children screened	Number who required confirmatory test	Proportion who required confirmatory test (%)	Number who underwent confirmatory test	Suspicious or malignant cases	Proportion of suspicious or malignant cases (%)
Kawamata	1,675	20	1.2	17	0	0.00
Namie	1,902	19	1.0	13	1	0.05
Iitate	693	11	1.6	8	0	0.00
Minami-soma	7,442	57	0.8	44	0	0.00
Date	8,725	77	0.9	58	2	0.02
Tamura	4,604	35	0.8	26	2	0.04
Hirono	487	7	1.4	7	0	0.00
Naraha	710	4	0.6	3	0	0.00
Tomioka	1,278	14	1.1	11	0	0.00
Kawauchi	162	0	0.0	0	0	0.00
Okuma	1,261	8	0.6	5	1	0.08
Futaba	458	2	0.4	0	0	0.00
Katsurao	100	1	1.0	1	0	0.00
Fukushima	40,210	308	0.8	171	2	0.00
Nihonmatsu	7,405	25	0.3	7	0	0.00
Motomiya	4,411	12	0.3	0	0	0.00
Otama	1,194	0	0.0	0	0	0.00
Koriyama	10,106	2	0.0	1	0	0.00
Kori	1,502	2	0.1	0	0	0.00
Kunimi	1,126	1	0.1	1	0	0.00
Tenei	444	0	0.0	0	0	0.00
Shirakawa	5,431	0	0.0	0	0	0.00
Nishigo	1,368	0	0.0	0	0	0.00
Izumizaki	668	0	0.0	0	0	0.00
Miharu	512	3	0.6	2	0	0.00
Subtotal	103,874	608	0.6	375	8	0.01

Confirmatory test results in FY 2015

Subtotal	2,194	3	0.1	2	0	0.00

Total	106,068	611	0.6	377	8	0.01

FY 2014 is from 1 April 2014 through 31 March 2015.

FY 2015 is from 1 April 2015 through 31 March 2016.

Appendix 1

Thyroid Ultrasound Examination (TUE) coverage by municipality

As of 31 December 2014

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima 3)		2-7	8-12	13-17	18-22		
	a	b		b/a					c	c/b
Screening coverage by municipality in FY 2014										
Kawamata	2,460	1,675	34	68.1	396	570	586	123 1)	46	2.7
					23.6	34.0	35.0	7.3 2)		
Namie	3,771	1,902	533	50.4	503	548	611	240	595	31.3
					26.4	28.8	32.1	12.6		
Iitate	1,123	693	26	61.7	166	259	232	36	29	4.2
					24.0	37.4	33.5	5.2		
Minami-soma	12,981	7,442	1,406	57.3	1,912	2,591	2,306	633	1673	22.5
					25.7	34.8	31.0	8.5		
Date	11,737	8,725	251	74.3	2,180	2,718	2,942	885	238	2.7
					25.0	31.2	33.7	10.1		
Tamura	7,320	4,604	110	62.9	1,028	1,586	1,619	371	104	2.3
					22.3	34.4	35.2	8.1		
Hirono	1,108	487	87	44.0	139	156	136	56	83	17.0
					28.5	32.0	27.9	11.5		
Naraha	1,488	710	109	47.7	197	215	216	82	116	16.3
					27.7	30.3	30.4	11.5		
Tomioka	3,101	1,278	318	41.2	334	339	415	190	360	28.2
					26.1	26.5	32.5	14.9		
Kawauchi	360	162	14	45.0	41	57	51	13	16	9.9
					25.3	35.2	31.5	8.0		
Okuma	2,498	1,261	305	50.5	417	391	335	118	335	26.6
					33.1	31.0	26.6	9.4		
Futaba	1,258	458	187	36.4	150	141	118	49	200	43.7
					32.8	30.8	25.8	10.7		
Katsurao	240	100	13	41.7	25	34	31	10	12	12.0
					25.0	34.0	31.0	10.0		
Fukushima	55,730	40,210	1,716	72.2	10,104	12,360	13,007	4,739	2,128	5.3
					25.1	30.7	32.3	11.8		
Nihonmatsu	10,595	7,405	147	69.9	1,769	2,409	2,624	603	153	2.1
					23.9	32.5	35.4	8.1		
Motomiya	6,342	4,411	67	69.6	1,106	1,434	1,486	385	74	1.7
					25.1	32.5	33.7	8.7		
Otama	1,684	1,194	8	70.9	330	392	372	100	7	0.6
					27.6	32.8	31.2	8.4		
Koriyama	66,208	10,106	9	15.3	572	335	7,258	1,941	35	0.3
					5.7	3.3	71.8	19.2		
Kori	2,136	1,502	14	70.3	341	493	542	126	15	1.0
					22.7	32.8	36.1	8.4		
Kunimi	1,624	1,126	4	69.3	204	373	440	109	6	0.5
					18.1	33.1	39.1	9.7		
Tenei	1,101	444	0	40.3	163	232	41	8	0	0.0
					36.7	52.3	9.2	1.8		
Shirakawa	12,675	5,431	0	42.8	984	1,613	2,363	471	8	0.1
					18.1	29.7	43.5	8.7		
Nishigo	4,168	1,368	1	32.8	269	166	832	101	1	0.1
					19.7	12.1	60.8	7.4		
Izumizaki	1,337	668	0	50.0	205	184	252	27	1	0.1
					30.7	27.5	37.7	4.0		
Miharu	3,158	512	1	16.2	11	33	364	104	1	0.2
					2.1	6.4	71.1	20.3		
Subtotal	216,203	103,874	5,360	48.0	23,546	29,629	39,179	11,520	6,236	6.0
					22.7	28.5	37.7	11.1		
Screening coverage by municipality in FY 2015										
Subtotal	2,194	2,194	4	100.0	114	210	1,452	418	15	0.7
					5.2	9.6	66.2	19.1		
Total	218,397	106,068	5,364	48.6	23,660	29,839	40,631	11,938	6,251	5.9
					22.3	28.1	38.3	11.3		

1) Number of participants. 2) Number of participants in the age group/Number of participants.

3) Number of participants who underwent the test outside Fukushima.

Fractions have been rounded and may not total to100%. Ages are at the time when the participants underwent the testing.

Because of the duplication of the participants, some numbers are not consistent with the previous ones.

Appendix 2

Thyroid Ultrasound Examination (TUE) coverage by prefecture

As of 30 November 2014

Prefecture	Number of test venues	Participants
Hokkaido	4	**100**
Aomori	1	**62**
Iwate	3	**123**
Miyagi	2	**1,259**
Akita	1	**89**
Yamagata	3	**457**
Ibaraki	4	**333**
Tochigi	5	**336**
Gunma	1	**94**
Saitama	1	**154**
Chiba	3	**243**
Tōkyō	12	**660**
Kanagawa	4	**374**
Niigata	1	**490**
Toyama	1	**5**
Ishikawa	1	**29**

Prefecture	Number of test venues	Participants
Fukui	1	**8**
Yamanashi	1	**76**
Nagano	2	**34**
Gifu	1	**15**
Shizuoka	2	**61**
Aichi	3	**66**
Mie	1	**11**
Shiga	1	**2**
Kyōto	3	**20**
Ōsaka	6	**51**
Hyōgo	1	**38**
Nara	1	**10**
Wakayama	1	**2**
Tottori	1	**7**
Shimane	1	**3**
Okayama	3	**19**

Prefecture	Number of test venues	Participants
Hiroshima	1	**4**
Yamaguchi	1	**9**
Tokushima	1	**4**
Kagawa	1	**7**
Ehime	1	**1**
Kōchi	1	**3**
Fukuoka	2	**28**
Saga	1	**10**
Nagasaki	2	**10**
Kumamoto	1	**2**
Ōita	1	**17**
Miyazaki	1	**15**
Kagoshima	1	**12**
Okinawa	1	**11**

Total	92	**5,364**

Participants underwent testing at venues outside Fukushima carried out either by Fukushima Medical University staff (once in Niigata, Kanagawa, and Yamagata respectively) or by local specialists.

Appendix 3

Results of primary examination by municipality — As of 31 December 2014

	Participants	Number confirmed b	Number by test results (Proportion (%))				Nodules (Proportion (%))		Cysts (Proportion (%))	
			A		B	C				
	a	Proportion (%) b/a (%)	A1	A2			≥5.1mm	≤5.0mm	≥20.1mm	≤20.0mm
Screening coverage by municipality in FY 2014										
Kawamata	1,675	1,648	734	894	20	0	19	11	1	902
		98.4	44.5	54.2	1.2	0.0	1.2	0.7	0.1	54.7
Namie	1,902	1,737	722	996	19	0	19	12	0	1,005
		91.3	41.6	57.3	1.1	0.0	1.1	0.7	0.0	57.9
Iitate	693	685	324	350	11	0	11	3	0	353
		98.8	47.3	51.1	1.6	0.0	1.6	0.4	0.0	51.5
Minami-soma	7,442	7,334	3,152	4,125	57	0	57	52	0	4,139
		98.5	43.0	56.2	0.8	0.0	0.8	0.7	0.0	56.4
Date	8,725	8,618	3,716	4,825	77	0	77	62	0	4,848
		98.8	43.1	56.0	0.9	0.0	0.9	0.7	0.0	56.3
Tamura	4,604	4,028	1,657	2,336	35	0	35	22	0	2,350
		87.5	41.1	58.0	0.9	0.0	0.9	0.5	0.0	58.3
Hirono	487	485	211	267	7	0	7	6	0	265
		99.6	43.5	55.1	1.4	0.0	1.4	1.2	0.0	54.6
Naraha	710	697	297	396	4	0	4	6	0	396
		98.2	42.6	56.8	0.6	0.0	0.6	0.9	0.0	56.8
Tomioka	1,278	1,155	497	644	14	0	14	9	0	649
		90.4	43.0	55.8	1.2	0.0	1.2	0.8	0.0	56.2
Kawauchi	162	146	45	101	0	0	0	1	0	101
		90.1	30.8	69.2	0.0	0.0	0.0	0.7	0.0	69.2
Okuma	1,261	1,212	527	677	8	0	8	11	0	676
		96.1	43.5	55.9	0.7	0.0	0.7	0.9	0.0	55.8
Futaba	458	427	195	230	2	0	2	4	0	230
		93.2	45.7	53.9	0.5	0.0	0.5	0.9	0.0	53.9
Katsurao	100	89	50	38	1	0	1	0	0	39
		89.0	56.2	42.7	1.1	0.0	1.1	0.0	0.0	43.8
Fukushima	40,210	39,424	16,591	22,525	308	0	307	232	0	22,638
		98.0	42.1	57.1	0.8	0.0	0.8	0.6	0.0	57.4
Nihonmatsu	7,405	3,899	1,594	2,280	25	0	25	21	0	2,282
		52.7	40.9	58.5	0.6	0.0	0.6	0.5	0.0	58.5
Motomiya	4,411	1,959	807	1,140	12	0	12	5	0	1,146
		44.4	41.2	58.2	0.6	0.0	0.6	0.3	0.0	58.5
Otama	1,194	92	33	59	0	0	0	1	0	59
		7.7	35.9	64.1	0.0	0.0	0.0	1.1	0.0	64.1
Koriyama	10,106	466	191	273	2	0	2	6	0	274
		4.6	41.0	58.6	0.4	0.0	0.4	1.3	0.0	58.8
Kori	1,502	331	126	203	2	0	2	2	0	203
		22.0	38.1	61.3	0.6	0.0	0.6	0.6	0.0	61.3
Kunimi	1,126	274	93	180	1	0	1	6	0	177
		24.3	33.9	65.7	0.4	0.0	0.4	2.2	0.0	64.6
Tenei	444	7	4	3	0	0	0	0	0	3
		1.6	57.1	42.9	0.0	0.0	0.0	0.0	0.0	42.9
Shirakawa	5,431	22	13	9	0	0	0	0	0	9
		0.4	59.1	40.9	0.0	0.0	0.0	0.0	0.0	40.9
Nishigo	1,368	10	4	6	0	0	0	0	0	6
		0.7	40.0	60.0	0.0	0.0	0.0	0.0	0.0	60.0
Izumizaki	668	1	0	1	0	0	0	0	0	1
		0.1	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Miharu	512	101	39	59	3	0	3	0	0	62
		19.7	38.6	58.4	3.0	0.0	3.0	0.0	0.0	61.4
Subtotal	103,874	74,847	31,622	42,617	608	0	606	472	1	42,813
		72.1	42.2	56.9	0.8	0.0	0.8	0.6	0.0	57.2
Screening coverage by municipality in FY 2015										
Subtotal	2,194	464	167	294	3	0	3	3	0	293
		21.1	36.0	63.4	0.6	0.0	0.6	0.6	0.0	63.1
Total	106,068	75,311	31,789	42,911	611	0	609	475	1	43,106
		71.0	42.2	57.0	0.8	0.0	0.8	0.6	0.0	57.2

Fractions have been rounded and may not total to 100%.

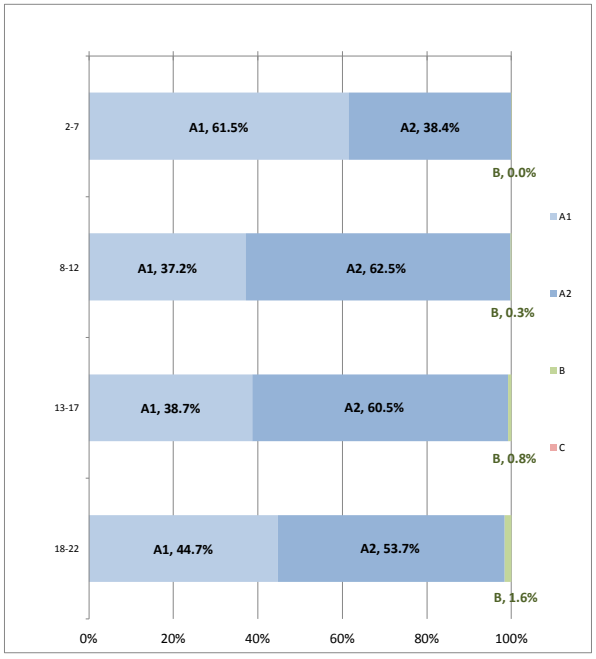
Appendix 4

1. Thyroid Ultrasound Examination results by age and sex

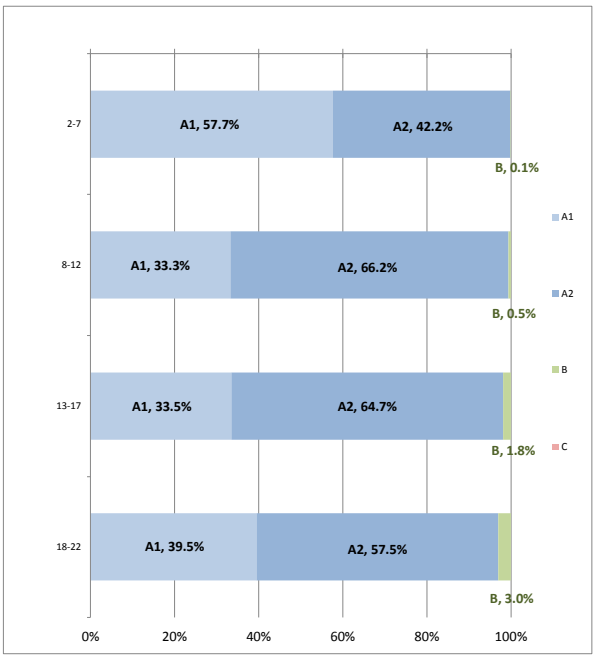
As of 31 December 2014

Ages	A						B			C			Total		
	A1			A2											
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
2-7	5,833	5,204	11,037	3,645	3,809	7,454	4	7	11	0	0	0	9,482	9,020	18,502
8-12	4,750	4,029	8,779	7,988	8,008	15,996	34	66	100	0	0	0	12,772	12,103	24,875
13-17	4,752	4,019	8,771	7,424	7,770	15,194	102	215	317	0	0	0	12,278	12,004	24,282
18-22	1,526	1,676	3,202	1,832	2,435	4,267	56	127	183	0	0	0	3,414	4,238	7,652
Total	16,861	14,928	31,789	20,889	22,022	42,911	196	415	611	0	0	0	37,946	37,365	75,311

Test results by age group (Male)



Test results by age group (Female)



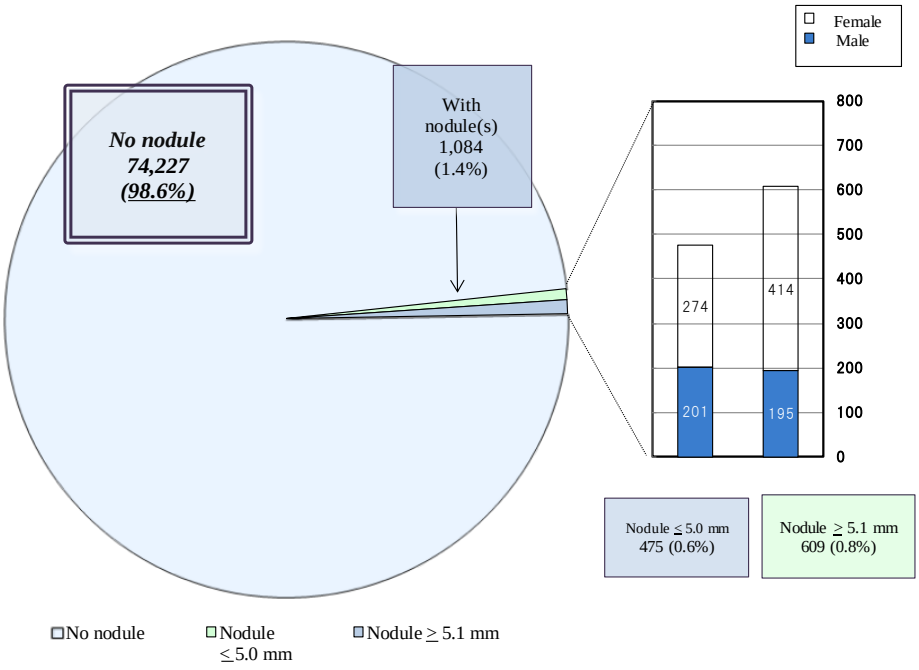
Percentages have been rounded and may not total to 100%.

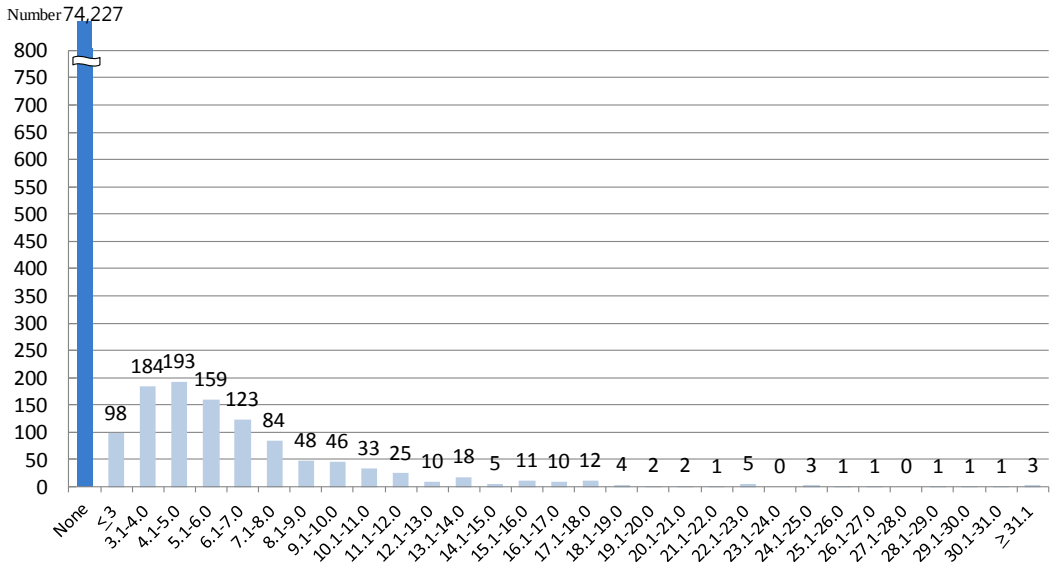
Ages are at the time when the participants underwent the testing.

2. Nodule size

As of 31 December 2014

Nodule size	Total	Male	Female	Test result	Proportion
None	74,227	37,550	36,677	A1	98.6%
≤ 3.0 mm	98	48	50	A2	0.6%
3.1-5.0 mm	377	153	224		
5.1-10.0 mm	460	148	312	B	0.8%
10.1-15.0 mm	91	30	61		
15.1-20.0 mm	39	13	26		
20.1-25.0 mm	11	4	7		
≥ 25.1 mm	8	0	8		
Total	75,311	37,946	37,365		

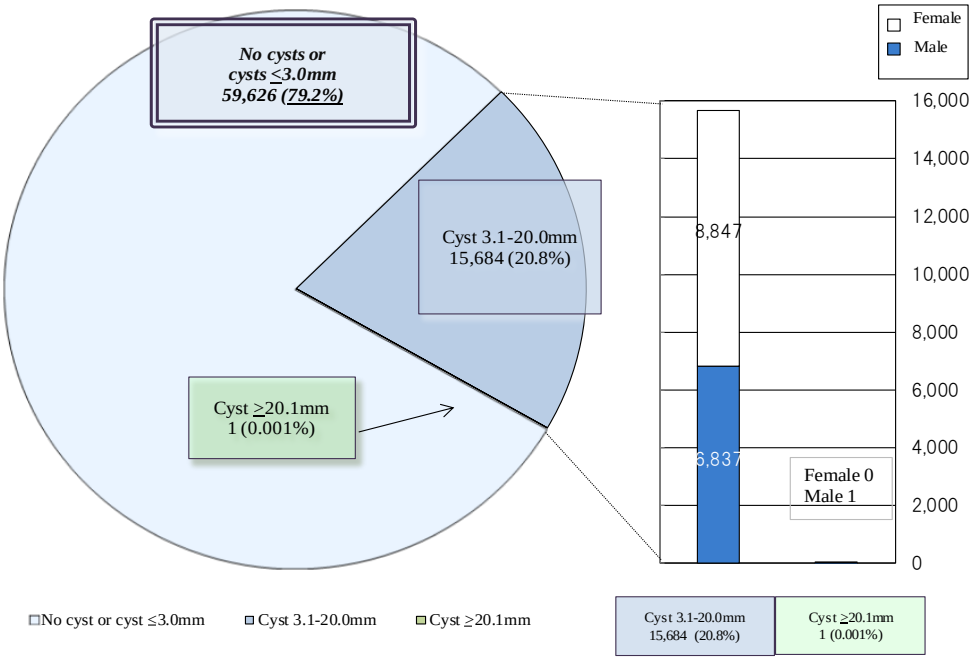


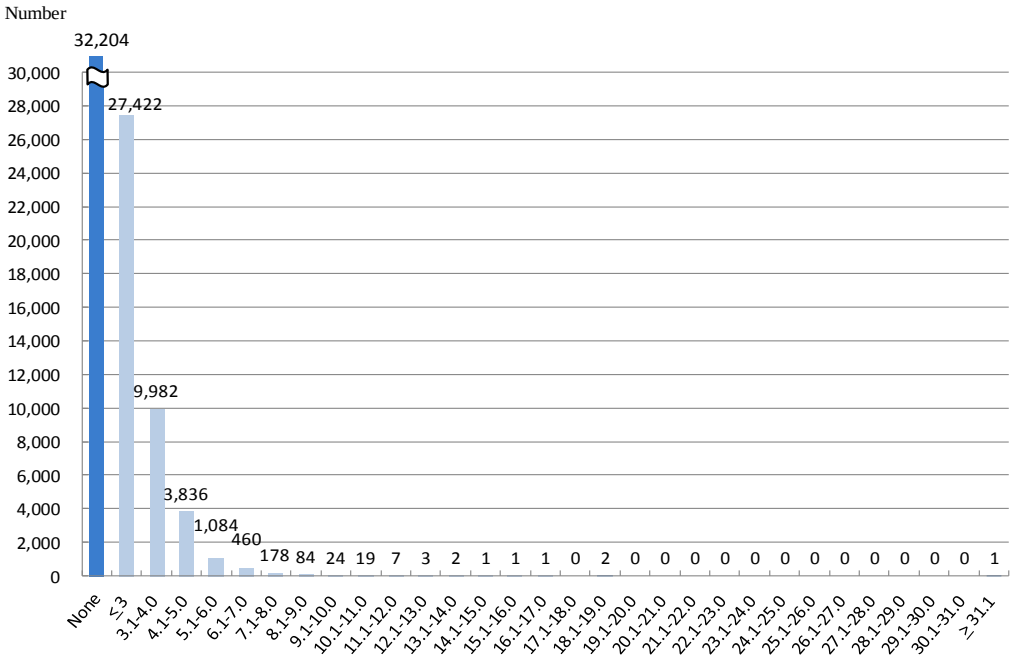


3. Cyst size

As of 31 December 2014

Cyst size	Total	Male	Female	Class	%
None	32,204	17,014	15,190	A1	79.2%
≤ 3.0 mm	27,422	14,094	13,328	A2	20.8%
3.1-5.0 mm	13,818	6,207	7,611		
5.1-10.0 mm	1,830	621	1,209		
10.1-15.0 mm	32	7	25		
15.1-20.0 mm	4	2	2		
20.1-25.0 mm	0	0	0	B	0.001%
≥ 25.1 mm	1	1	0		
Total	75,311	37,946	37,365		





Appendix 5

Confirmatory test results by municipality

As of 31 December 2014

	Number of children screened	Number who required confirmatory test	Number of children who underwent confirmatory test by age					Number of confirmed results				
			Total	Ages 2-7	Ages 8-12	Ages 13-17	Ages 18-22	Total	Next screening advised		Follow-up advised	
												Aspiration biopsy cytology
	a	b	c	d	e	f	g	h	A1 i	A2 j	k	l
		Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)
Screening coverage by municipality in FY 2014												
Kawamata	1,675	20	17	0	3	11	3	16	3	5	8	1
		1.2	85.0	0.0	17.6	64.7	17.6	94.1	18.8	31.3	50.0	12.5
Namie	1,902	19	13	0	1	5	7	11	0	2	9	1
		1.0	68.4	0.0	7.7	38.5	53.8	84.6	0.0	18.2	81.8	11.1
Iitate	693	11	8	0	2	4	2	6	1	2	3	1
		1.6	72.7	0.0	25.0	50.0	25.0	75.0	16.7	33.3	50.0	33.3
Minami-soma	7,442	57	44	1	8	25	10	36	3	9	24	2
		0.8	77.2	2.3	18.2	56.8	22.7	81.8	8.3	25.0	66.7	8.3
Date	8,725	77	58	1	17	31	9	48	0	21	27	4
		0.9	75.3	1.7	29.3	53.4	15.5	82.8	0.0	43.8	56.3	14.8
Tamura	4,604	35	26	1	2	18	5	22	1	8	13	3
		0.8	74.3	3.8	7.7	69.2	19.2	84.6	4.5	36.4	59.1	23.1
Hirono	487	7	7	0	1	3	3	6	0	3	3	0
		1.4	100.0	0.0	14.3	42.9	42.9	85.7	0.0	50.0	50.0	0.0
Naraha	710	4	3	0	0	0	3	3	0	0	3	0
		0.6	75.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	0.0
Tomioka	1,278	14	11	0	1	3	7	9	0	2	7	1
		1.1	78.6	0.0	9.1	27.3	63.6	81.8	0.0	22.2	77.8	14.3
Kawauchi	162	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Okuma	1,261	8	5	0	0	3	2	5	0	1	4	2
		0.6	62.5	0.0	0.0	60.0	40.0	100.0	0.0	20.0	80.0	50.0
Futaba	458	2	0	0	0	0	0	0	0	0	0	0
		0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Katsurao	100	1	1	0	1	0	0	1	0	1	0	0
		1.0	100.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0
Fukushima	40,210	308	171	5	34	84	48	94	7	22	65	7
		0.8	55.5	2.9	19.9	49.1	28.1	55.0	7.4	23.4	69.1	10.8
Nihonmatsu	7,405	25	7	0	0	5	2	2	1	0	1	0
		0.3	28.0	0.0	0.0	71.4	28.6	28.6	50.0	0.0	50.0	0.0
Motomiya	4,411	12	0	0	0	0	0	0	0	0	0	0
		0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Otama	1,194	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Koriyama	10,106	2	1	0	0	1	0	0	0	0	0	0
		0.0	50.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Kori	1,502	2	0	0	0	0	0	0	0	0	0	0
		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kunimi	1,126	1	1	0	0	0	1	0	0	0	0	0
		0.1	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
Tenei	444	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shirakawa	5,431	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nishigo	1,368	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Izumizaki	668	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miharu	512	3	2	0	0	2	0	2	0	1	1	0
		0.6	66.7	0.0	0.0	100.0	0.0	100.0	0.0	50.0	50.0	0.0
Subtotal	103,874	608	375	8	70	195	102	261	16	77	168	22
		0.6	61.7	2.1	18.7	52.0	27.2	69.6	6.1	29.5	64.4	13.1
Screening coverage by municipality in FY 2015												
Subtotal	2,194	3	2	0	0	2	0	1	0	1	0	0
		0.1	66.7	0.0	0.0	100.0	0.0	50.0	0.0	100.0	0.0	0.0
Total	106,068	611	377	8	70	197	102	262	16	78	168	22
		0.6	61.7	2.1	18.6	52.3	27.1	69.5	6.1	29.8	64.1	13.1

h) Excluding participants who have not receive the test results.

Ages are at the time when the participants underwent the testing.

Progress Report of the Comprehensive Health Check

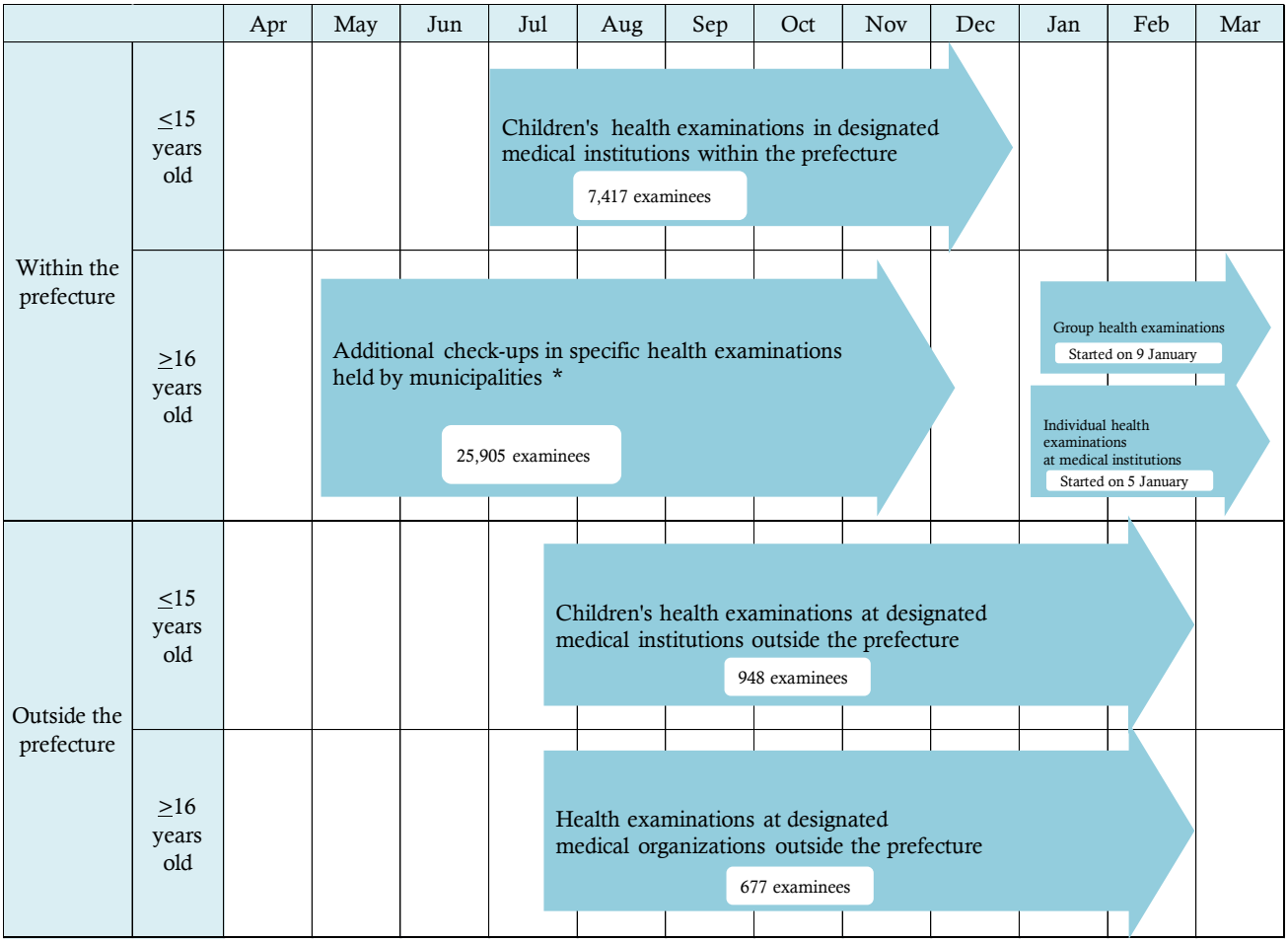
Reported on 12 February 2015

1. Progress Report of FY 2014

Group: 214,211 individuals

(25,883 individuals aged 15 and younger, and 188,328 individuals aged 16 and older)

As of 31 December 2014



* Iitate (from 16 May), Tamura (from 28 May), Katsurao (7, 8 Jun), Kawamata (from 19 Jun), Minami-soma (from 7 Jul), Hirono (from 15 Jul), Kawauchi (from 1 Sep), Futaba (from 6 Sep), Namie (from 20 Sep), Naraha (from 26 Sep), Tomioka (from 29 Sep), Okuma (from 20 Oct)

【Individuals living in Fukushima Prefecture】

For those aged 15 years and younger, we conducted the Comprehensive Health Check from July to December 2014, for about 6 months as was the case in FY 2013, with the cooperation of 101 medical institutions. The number of participants is 7,417 (preliminary data).

For eligible residents aged 16 years and older in 12 municipalities except Date city, items were added to specific health exams held by municipalities as was the case in FY 2013. The number of participants aged 16 and older is 25,905 (preliminary data). For those who missed the chance, we started the Comprehensive Health Check in group health exams and in individual health exams at 504 medical institutions from January 2015.

【Individuals living outside Fukushima Prefecture】

We sent out notice for the Comprehensive Health Check held at medical institutions outside Fukushima Prefecture starting in August. The number of participants at this point is 948 aged 15 and younger and 677 aged 16 and older.

Comprehensive Health Check for Children in FY 2011, FY 2012, and FY 2013

Height and Weight (Aged 0-5)

Boys' height	FY 2011		FY 2012		FY 2013		Difference
Age	n	Mean(cm)(a)	n	Mean(cm)(b)	n	Mean(cm)(c)	(c)-(a)
10-11 mo	44	73.6	46	73.3	42	72.7	▵ 0.9
1 y-	77	74.8	52	74.1	47	74.4	▵ 0.4
1 y 2 mo-	68	76.5	64	77.2	35	77.0	0.5
1 y 4 mo-	93	78.7	54	79.1	43	78.1	▵ 0.6
1 y 6 mo-	80	81.2	59	80.2	30	79.8	▵ 1.4
1 y 8 mo-	73	82.1	56	82.5	32	82.6	0.5
1 y 10 mo- 1 y 11 mo	83	83.8	52	83.7	44	83.4	▵ 0.4
2 y-	281	86.6	181	87.4	177	87.1	0.5
2 y 6 mo-	269	90.7	196	91.4	170	91.4	0.7
3 y-	281	94.8	193	94.9	179	95.3	0.5
3 y 6 mo-	257	98.6	170	99.0	176	98.2	▵ 0.4
4 y-	258	101.7	203	102.3	172	101.8	0.1
4 y 6 mo-	280	105.7	193	105.7	177	105.6	▵ 0.1
5 y-	286	108.5	182	108.9	175	108.9	0.4
5 y 6 mo-5 y 11 mo	293	111.4	199	111.9	180	111.9	0.5
Total	2,723		1,900		1,679		

Girls' height	FY 2011		FY 2012		FY 2013		Difference
Age	n	Mean(cm)(a)	n	Mean(cm)(b)	n	Mean(cm)(c)	(c)-(a)
10-11 mo	36	71.5	49	72.0	45	72.6	1.1
1 y-	79	73.7	60	73.4	45	74.0	0.3
1 y 2 mo-	85	75.1	41	75.2	43	75.9	0.8
1 y 4 mo-	80	77.4	54	77.8	28	78.7	1.3
1 y 6 mo-	78	78.9	53	78.9	23	79.6	0.7
1 y 8 mo-	86	81.2	49	81.1	47	80.9	▵ 0.3
1 y 10 mo- 1 y 11 mo	98	82.0	52	81.8	51	82.9	0.9
2 y-	263	85.4	178	85.6	148	85.8	0.4
2 y 6 mo-	288	89.9	199	89.7	166	90.3	0.4
3 y-	255	93.5	208	94.0	164	94.0	0.5
3 y 6 mo-	246	97.3	181	97.4	155	97.4	0.1
4 y-	275	100.6	175	100.8	197	101.3	0.7
4 y 6 mo-	253	104.2	192	103.9	175	104.5	0.3
5 y-	286	107.6	197	107.5	168	107.8	0.2
5 y 6 mo-5 y 11 mo	296	110.3	191	111.1	153	111.0	0.7
Total	2,704		1,879		1,608		

Comprehensive Health Check for Children in FY 2011, FY 2012, and FY 2013

Height and Weight (Aged 0-5)

Boys' weight	FY 2011		FY 2012		FY 2013		Difference
Age	n	Mean(kg)(a)	n	Mean(kg)(b)	n	Mean(kg)(c)	(c)-(a)
10-11 mo	44	9.8	46	9.4	42	9.3	▲ 0.5
1 y-	77	9.9	52	9.5	47	9.4	▲ 0.5
1 y 2 mo-	68	10.4	64	10.2	35	10.1	▲ 0.3
1 y 4 mo-	93	10.9	54	10.5	44	10.3	▲ 0.6
1 y 6 mo-	80	11.2	59	11.2	30	11.0	▲ 0.2
1 y 8 mo-	73	11.6	56	11.4	32	11.4	▲ 0.2
1 y 10 mo- 1 y 11 mo	83	12.0	52	11.6	44	11.6	▲ 0.4
2 y-	281	12.7	181	12.8	177	12.5	▲ 0.2
2 y 6 mo-	269	13.8	196	13.5	170	13.6	▲ 0.2
3 y-	281	14.8	193	14.6	179	14.6	▲ 0.2
3 y 6 mo-	257	15.9	170	15.7	176	15.7	▲ 0.2
4 y-	258	16.8	203	16.6	172	16.5	▲ 0.3
4 y 6 mo-	280	17.9	193	17.8	177	17.7	▲ 0.2
5 y-	286	18.7	182	18.5	175	19.0	0.3
5 y 6 mo-5 y 11 mo	293	20.0	199	19.9	180	20.2	0.2
Total	2,723		1,900		1,680		

Girls' weight	FY 2011		FY 2012		FY 2013		Difference
Age	n	Mean(kg)(a)	n	Mean(kg)(b)	n	Mean(kg)(c)	(c)-(a)
10-11 mo	36	8.9	49	8.7	45	8.9	0.0
1 y-	79	9.4	60	9.1	45	9.0	▲ 0.4
1 y 2 mo-	85	9.7	41	9.4	43	9.5	▲ 0.2
1 y 4 mo-	80	10.3	54	10.1	28	10.7	0.4
1 y 6 mo-	79	10.5	53	10.4	23	10.8	0.3
1 y 8 mo-	86	11.0	49	10.5	47	10.7	▲ 0.3
1 y 10 mo- 1 y 11 mo	98	11.2	52	10.8	51	11.0	▲ 0.2
2 y-	263	12.1	178	11.9	148	11.9	▲ 0.2
2 y 6 mo-	288	13.2	199	12.9	166	13.0	▲ 0.2
3 y-	255	14.1	208	14.1	164	13.8	▲ 0.3
3 y 6 mo-	246	15.2	181	15.0	155	15.0	▲ 0.2
4 y-	275	16.4	175	16.0	197	16.2	▲ 0.2
4 y 6 mo-	253	17.2	193	17.0	175	17.1	▲ 0.1
5 y-	286	18.4	197	18.2	168	18.5	0.1
5 y 6 mo-5 y 11 mo	296	19.3	191	19.6	153	19.6	0.3
Total	2,705		1,880		1,608		

Boys' height (cm)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2013	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2013	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Difference	
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	(g)-(e)	(g)-(b)
Primary school	6	116.7	116.6	△ 0.1	116.6	116.9	0.3	116.6	116.6	117.3	0.7	0.7
	7	122.5	122.4	△ 0.1	122.3	122.4	0.1	122.8	123.0	122.8	0.0	0.4
	8	128.2	128.2	0.0	128.3	128.7	0.4	128.1	128.5	128.3	0.2	0.1
	9	133.5	133.6	0.1	133.7	134.2	0.5	133.4	133.9	134.2	0.8	0.6
	10	138.8	139.0	0.2	138.8	139.5	0.7	139.3	139.4	139.1	△ 0.2	0.1
	11	145.0	145.0	0.0	145.6	145.5	△ 0.1	145.5	145.8	146.0	0.5	1.0
Middle school	12	152.4	152.3	△ 0.1	153.3	153.1	△ 0.2	153.2	153.3	153.6	0.4	1.3
	13	159.7	159.5	△ 0.2	160.1	159.7	△ 0.4	160.1	160.6	160.0	△ 0.1	0.5
	14	165.1	165.0	△ 0.1	165.2	165.2	0.0	165.3	165.7	165.6	0.3	0.6
High school	15	168.2	168.3	0.1	168.6	167.9	△ 0.7	168.4	168.2	167.6	△ 0.8	△ 0.7

Boys' weight (kg)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2013	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2013	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Difference	
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	(g)-(e)	(g)-(b)
Primary school	6	21.4	21.3	△ 0.1	21.7	22.0	0.3	22.1	21.5	22.1	0.0	0.8
	7	24.0	23.9	△ 0.1	24.3	24.7	0.4	24.8	24.8	24.8	0.0	0.9
	8	27.2	27.1	△ 0.1	27.5	28.6	1.1	28.4	28.0	28.1	△ 0.3	1.0
	9	30.5	30.4	△ 0.1	31.6	32.1	0.5	32.6	32.2	32.0	△ 0.6	1.6
	10	34.1	34.3	0.2	34.3	36.2	1.9	36.0	35.9	35.9	△ 0.1	1.6
	11	38.4	38.3	△ 0.1	39.7	39.7	0.0	40.5	40.7	40.6	0.1	2.3
Middle school	12	44.1	43.9	△ 0.2	45.7	46.0	0.3	46.9	45.4	45.8	△ 1.1	1.9
	13	49.2	48.8	△ 0.4	50.6	50.8	0.2	51.2	51.5	50.5	△ 0.7	1.7
	14	54.4	54.0	△ 0.4	55.1	55.6	0.5	56.1	56.1	56.2	0.1	2.2
High school	15	59.5	58.9	△ 0.6	61.7	61.7	0.0	60.0	58.7	59.3	△ 0.7	0.4

Girls' height (cm)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2013	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2013	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Difference	
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	(g)-(e)	(g)-(b)
Primary school	6	115.8	115.6	△ 0.2	115.7	115.7	0.0	115.6	115.6	115.8	0.2	0.2
	7	121.7	121.6	△ 0.1	122.0	121.6	△ 0.4	121.5	121.6	121.8	0.3	0.2
	8	127.4	127.3	△ 0.1	128.1	127.7	△ 0.4	127.5	127.9	127.2	△ 0.3	△ 0.1
	9	133.5	133.6	0.1	133.5	133.3	△ 0.2	133.6	133.9	133.8	0.2	0.2
	10	140.2	140.1	△ 0.1	139.7	141.1	1.4	140.4	140.0	140.8	0.4	0.7
	11	146.8	146.8	0.0	146.9	147.4	0.5	146.9	147.4	147.3	0.4	0.5
Middle school	12	151.9	151.8	△ 0.1	151.6	152.1	0.5	152.2	152.1	151.7	△ 0.5	△ 0.1
	13	155.0	154.8	△ 0.2	155.1	154.2	△ 0.9	154.6	154.9	155.2	0.6	0.4
	14	156.5	156.5	0.0	156.2	156.1	△ 0.1	156.4	156.4	156.1	△ 0.3	△ 0.4
High school	15	157.1	157.0	△ 0.1	156.7	156.4	△ 0.3	157.0	157.3	157.1	0.1	0.1

Girls' weight (kg)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2013	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2013	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Difference	
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	(g)-(e)	(g)-(b)
Primary school	6	21.0	20.9	△ 0.1	21.0	21.2	0.2	21.7	21.1	21.1	△ 0.6	0.2
	7	23.5	23.5	0.0	24.1	23.9	△ 0.2	24.1	24.0	24.0	△ 0.1	0.5
	8	26.5	26.4	△ 0.1	27.2	27.1	△ 0.1	27.4	27.2	27.1	△ 0.3	0.7
	9	30.0	30.0	0.0	30.2	30.2	0.0	31.0	31.3	30.8	△ 0.2	0.8
	10	34.1	34.0	△ 0.1	34.0	35.7	1.7	35.7	34.8	35.6	△ 0.1	1.6
	11	39.0	39.0	0.0	40.0	40.1	0.1	40.5	40.7	40.6	0.1	1.6
Middle school	12	43.8	43.7	△ 0.1	45.1	45.3	0.2	45.8	44.0	43.8	△ 2.0	0.1
	13	47.3	47.1	△ 0.2	48.7	48.0	△ 0.7	48.5	47.4	47.8	△ 0.7	0.7
	14	50.0	49.9	△ 0.1	51.2	51.0	△ 0.2	51.8	50.7	49.7	△ 2.1	△ 0.2
High school	15	51.6	51.4	△ 0.2	53.1	53.2	0.1	53.5	51.7	50.9	△ 2.6	△ 0.5

Drawn from the statistical study of school health for FY 2010, 2013 conducted by the Ministry of Education, Culture, Science and Technology in Japan.

【Results】

◆Height

Comparing boys' height in FY 2013 with FY 2011, no specific trend was evident for children aged 10 months to 5 years. However, the heights increased among girls aged 10 months to 5 years except those aged 1 year 8-9 months compared to FY 2011.

Comparing the height of primary school boys in FY 2013 with FY 2011, children were taller except those aged 10 years. Comparing it with national averages in FY 2013, children aged 6-11 years were taller.

Comparing the height of middle school boys in FY 2013 with FY 2011, children aged 12 and 14 years were taller, and children aged 13 years were shorter. Comparing it with national averages in FY 2013, children aged 12-14 years were taller.

Comparing the height of boys aged 15 years in FY 2013 with FY 2011 and national averages in FY 2013, those aged 15 years were shorter.

Comparing the height of primary school girls in FY 2013 with FY 2011 and national averages in FY 2013, children were taller except those aged 8 years who were shorter.

Comparing the height of middle school girls in FY 2013 with FY 2011 and national averages in FY 2013, children aged 12 and 14 years were shorter, and children aged 13 years were taller.

Comparing the height of girls aged 15 years in FY 2013 with FY 2011 and national averages in FY 2013, those aged 15 years were taller.

◆Weight

Comparing children's weight in FY 2013 with FY 2011, most boys and girls aged 10 months to 5 years weigh less. However, boys and girls aged 5 years and older, and girls aged 1 year 4-8 months weigh more.

Comparing the weight of primary school boys in FY 2013 with FY 2011, there was little difference for children aged 6-7 years. Children aged 8-10 years weigh less but those aged 11 years weigh more. Comparing it with national averages in FY 2013, children aged 6-11 years weigh more, and the older the children are, the greater the gap.

Comparing the weight of middle school boys in FY 2013 with FY 2011, children aged 12-13 years weigh less, and children aged 14 years weigh more. Comparing it with national averages in FY 2013, children aged 12-14 years weigh more.

Comparing the weight of boys aged 15 years in FY 2013 with FY 2011, those aged 15 years weigh less but weigh more compared to national averages in FY 2013.

Comparing the weight of primary school girls in FY 2013 with FY 2011, children aged 6-10 years weigh less but those aged 11 years weigh more. Comparing it with national averages in FY 2013, children aged 6-11 years weigh more, and the older the children are, the greater the gap.

Comparing the weight of middle school girls in FY 2013 with FY 2011, children aged 12-14 years weigh less. Comparing it with national averages in FY 2013, those aged 12 and 13 years weigh more and those aged 14 years weigh less.

Comparing the weight of girls aged 15 years in FY 2013 with FY 2011 and national averages in FY 2013, those aged 15 years weigh less.

【Summary】

Comparing the FY 2013 survey with FY 2011, most children of target municipalities including the nationally designated evacuation zones tend to be taller and weigh less possibly due to better lifestyle. Compared it with the national median, most children were taller and weigh more, and the older the children are, the greater the gap especially in weight. (Girls aged 15 years were taller and weighed less.)

Progress Report of Mental Health and Lifestyle Survey

Reported on 12 February 2015

1. Progress Report of Mental Health and Lifestyle Survey for FY 2014

1.1 Purpose

Results of the Mental Health and Lifestyle Survey for FY 2011-2013 show that ongoing care is needed by understanding the residents' mental health and lifestyle changes. We will continue to conduct the survey using survey forms.

For the survey respondents requiring support, we provide effective and efficient support by offering over-the-phone or other support services, as well as by promptly sharing participants' information with municipal governments and the Fukushima Center for Disaster Mental Health.

1.2 Group

Residents of Evacuation Zones (when the FY 2011 survey was sent) as of 15 January 2015

(212,738 people)

[Evacuation Zones]

Hirono, Naraha, Tomioka, Kawauchi, Okuma, Futaba, Namie, Katsurao, Iitate Minami-soma, Tamura, Kawamata, part of Date (the area with a specific spot recommended for evacuation)

1.3 Survey Methods

We plan to send survey forms (to be filled out by self or parent/guardian) to the participants from early February 2015.

1.3-1 Classification

Category	Age Criteria	Method
Adults	Born before 1 April 1999	Self-administered
Middle school age	Born between 2 April 1999 and 1 April 2002	Partially self-administered
Primary school age	Born between 2 April 2002 and 1 April 2008	Completed by parents
4-6 years	Born between 2 April 2008 and 1 April 2011	Completed by parents
0-3 years	Born between 2 April 2011 and 1 April 2014	Completed by parents

1.3-2 Survey Items

- Mental and physical health
- Lifestyle (diet, sleep, smoking, alcohol and exercise)
- Activities
- Living environment and relationships (for adults)

1.3-3 Support after the Survey

- Doctors and other professionals at Fukushima Medical University (FMU) will evaluate and analyse the survey responses. The Mental Health Support Team consisting of clinical psychiatrists, public health nurses and other professionals will provide phone or other forms of support to respondents determined to require counseling or support for mental health or lifestyle problems.
- Participants determined to require examination by a doctor will be referred to a registered physician (*see next section) at a medical facility in the Fukushima Prefecture. Those requiring continued support will be connected to the municipal government of the area to which they evacuated and the Fukushima Center for Disaster Mental Health, where their support needs will be reviewed and met.
- At the registered doctor's discretion, participants determined to require further professional mental health care will be handled by FMU and cooperating institutions in the normal course of treatment. Specifically, children will be handled at the Children's Mental Health Treatment Center and all others will be handled in the Department of Psychosomatic Medicine.

- The Mental Health Support Team will offer information and advice about radiation to participants, and those participants determined to require assistance from a particular relevant specialist will be handled by the Radiation Health Consultation Team comprised of professors from FMU. If an individual inquiring about the health effects of radiation or some other issue needs to have a medical examination, specialist doctors and other professionals will determine the course of action.

2. Registered Physicians

Registered physicians are psychiatrists or pediatricians who provide services to participants determined to require healthcare services based on the Mental Health and Lifestyle Survey.

To be eligible for registration, a psychiatrist or a pediatrician needs to attend the accredited workshops held by FMU. The number of registrants is 143 from 83 medical institutions as of 31 December 2014.

Result of Mental Health and Lifestyle Survey for FY 2013

1. Purpose

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

As mental health services should involve medium- and long-term support, we will continue to conduct the survey to convey a strong message of ongoing care and support to the participants. Additionally, further support is needed based on understanding the changes in their situation that have occurred as well as the causes of these changes.

The survey responses were analyzed by doctors and other professionals at Fukushima Medical University (FMU). A Mental Health Support Team consisting of clinical psychologists, public health nurses and others performed consultations to those determined to require counseling or support for mental health or lifestyle problems.

2. Methods

2.1. Support Group

Respondents to the Mental Health and Lifestyle Survey for FY 2013, who are residents of nationally designated evacuation areas born on or before 1 April 2013, and apply to the following selection criteria.

We have five types of surveys according to age.

Age 0-3 years : Participants born between April 2, 2010 and April 1, 2013.
Age 4-6 years : Participants born between April 2, 2007 and April 1, 2010.
Primary School : Participants born between April 2, 2001 and April 1, 2007.
Middle School : Participants born between April 2, 1998 and April 1, 2001.
Adults : Participants born on or before April 1, 1998.

2.2 Criteria for Support

We provided telephone counseling or support by sending written materials according to the urgency and severity. In this survey, 'children' refers to the participants of middle school age and below.

Criteria for support are based on A) Scale scores and B) Items other than scales.

2.2-1 Telephone Counseling

Respondents who required support (A):

- Children with SDQ (Strength and Difficulties Questionnaire) score ≥20, adults with K6 (general mental health conditions) score ≥13 and PCL (trauma response) score ≥50, or adults with K6 score ≥17 regardless of their PCL score.

Respondents who required support (B):

- Children and adults identified based on the content of free-answer questions and in urgent need of support.
- Adults with a previous history of hypertension or diabetes who have not received treatment with a BMI ≥27.5 (calculated from weight and height written in the survey) and a weight gain of ≥3 kg after the disaster, or those who consume, on average, ≥540 ml alcoholic drinks per day.
- Adults with a history of mental disorders who are not currently visiting a clinic.

2.2-2 Written Materials

Respondents who required support (A):

- Children with SDQ score ≥16 (criterion in initial screening) and adults with K6 score ≥13 or PCL score ≥44 (criteria in initial screening), who did not meet the criteria for telephone counseling.

Respondents who required support (B):

- Children and adults identified based on the content of free-answer questions and not in urgent need of support.
- Adults who neither meet the above criteria nor receive medical treatment with sleep disorder, depression and decreased activity.
- Adults with CAGE (method of screening for alcoholism) score ≥2 out of 4.

We sent the respondents who required written support materials a letter with a special phone number for support, and a return postcard asking their desire for telephone support. Telephone support was provided for those who indicated their desire for support, or those who were determined to require support based on the reply content.

2.3. Categories of Results and Continued Support

The results of the telephone counseling were categorized into four groups: Follow-up 1, 2, 3, and 'Declined support.' The participants requiring continued support were given follow-up with telephone counseling, or connected to municipal governments and the Fukushima Center for Disaster Mental Health. Participants determined to require examination by a doctor were referred to a registered physician, or informed of the medical institutions and services they needed. When necessary, we contacted the participants' physicians to share information.

2.3-1 Categories of Results

Follow-up 1 : Participants confirmed to be improving or self-managing their problems.

Follow-up 2 : Participants not recovering from health problems, the emotional aftermath, adjustment problems, etc.

Follow-up 3 : Participants whose status could not be confirmed.

Declined support : Participants who clearly conveyed that they did not want support.

2.3-2 Continued Support

Follow-up : Participants requiring continued telephone counseling.

Municipal government : Participants required to be connected to municipal government.

Referral : Participants referred to registered doctors.

Sent list of registered doctors within Fukushima Prefecture:
Participants sent information of registered doctors.

Sent information of medical institutions outside the prefecture:
Participants sent information of institutions outside the prefecture for support.

Sharing information : Participants' information was shared with their home doctors.

Provided information : Participants were provided information of medical institutions or services they needed by telephone during or after the telephone counseling.

Handled by other departments:
Participants needing services related to the Basic Survey and/or Thyroid Ultrasound Examination of FMU's Radiation Medical Science Center.

3. Results

3.1 Numbers of Respondents Requiring Support and the Support Provided

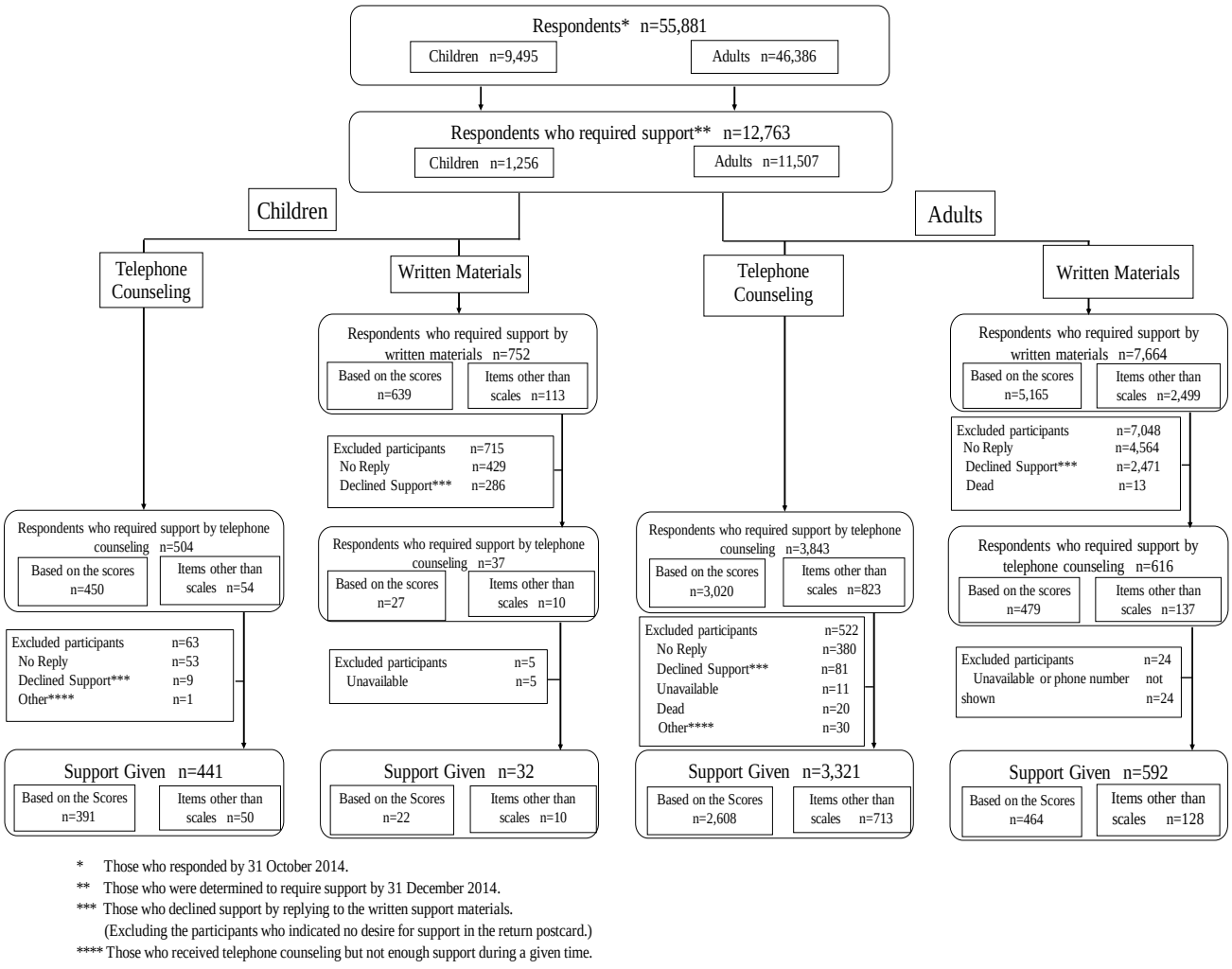
A total of 1,256 children required support; 504 of them needed telephone counseling and 752 were determined to require support with written materials. Of the 752 participants, 37 were determined to require telephone counseling based on the responses to the written materials.

A total of 11,507 adults required support; 3,843 of them needed telephone counseling and 7,664 were determined to require support with written materials. After receiving the support with written materials, 616 were determined to require telephone counseling. The number of those who only met the criteria of CAGE test scores was 2,010.

To those who were identified as requiring support but could not be reached for telephone support (except for the deceased), and to those who only met the criteria of CAGE test scores, information was provided by sending booklet made by Radiation Medical Science Center of FMU: *Mental Health and Lifestyle Support.*

Figure 1 shows the numbers of respondents requiring support and the support provided. It excludes participants who only met the criteria of CAGE test scores.

The percentages are rounded and may not total to 100%.



* Those who responded by 31 October 2014.
** Those who were determined to require support by 31 December 2014.
*** Those who declined support by replying to the written support materials.
(Excluding the participants who indicated no desire for support in the return postcard.)
**** Those who received telephone counseling but not enough support during a given time.

Figure 1: Number of participants required support and the number of support provided

3.2 Children

Since SDQ is for children aged 4 years and older, children aged 0-3 years old were determined on the basis of the free-answer question. Since few participants who had been sent written materials received telephone counseling (2 of age 0-3 years, 8 of age 4-6 years, 17 of primary school age, 5 of middle school age), the following results combine participants requiring telephone counseling with the number of those determined to require phone support based on the written materials.

3.2-1 Status of Respondents Requiring Support

A total of 541 children required support; 504 of them needed telephone counseling and 37 were determined to require telephone support on the basis of the written support materials. Of these 541 children, 321 (59.3%) were male and 220 (40.7%) were female. Phone support was successfully provided to 473 (87.4%) of the total. Respondents living within Fukushima Prefecture were 330 (69.8%) and 143 (30.2%) were living outside Fukushima (Table 1).

Table 1: Status of children requiring support (By sex and area)

Participants requiring support	Total	0-3 years	4-6 years	Primary school age	Middle school age
	541	10	124	265	142
Male	321 (59.3%)	3 (30.0%)	79 (63.7%)	165 (62.3%)	74 (52.1%)
Female	220 (40.7%)	7 (70.0%)	45 (36.3%)	100 (37.7%)	68 (47.9%)
Support Given	473	9	110	232	122
Within Fukushima	330 (69.8%)	6 (66.7%)	76 (69.1%)	158 (68.1%)	90 (73.8%)
Outside Fukushima	143 (30.2%)	3 (33.3%)	34 (30.9%)	74 (31.9%)	32 (26.2%)

The numbers shown of those given support only include participants who were provided telephone counseling.

3.2-2 Participants' State of Health

In order to more comprehensively understand the situation the participants are facing, we added new question items with the help of physicians specialized in child and adolescent psychiatry. Table 2 shows the frequency of the questions and answers talked about with participants (or guardians) during the telephone support.

Table 2-1: State of health of participants who received telephone counseling

Number of Support Given	Total 473		0-3 years 9		4-6 years 110		Primary school age 232		Middle school age 122	
Have sleeping problems										
Yes	53	(12.9%)	0	(0.0%)	8	(7.8%)	28	(14.0%)	17	(16.7%)
No	358	(87.1%)	7	(100.0%)	94	(92.2%)	172	(86.0%)	85	(83.3%)
Unclear	62	-	2	-	8	-	32	-	20	-
Have an appetite										
Yes	367	(91.3%)	6	(85.7%)	93	(93.9%)	180	(91.4%)	88	(88.9%)
No	35	(8.7%)	1	(14.3%)	6	(6.1%)	17	(8.6%)	11	(11.1%)
Unclear	71	-	2	-	11	-	35	-	23	-
Have friendship problems										
Yes	124	(32.6%)	1	(25.0%)	19	(22.1%)	67	(34.9%)	37	(37.8%)
No	256	(67.4%)	3	(75.0%)	67	(77.9%)	125	(65.1%)	61	(62.2%)
Unclear	93	-	5	-	24	-	40	-	24	-
Full of energy										
Yes	367	(93.1%)	5	(83.3%)	93	(100.0%)	183	(93.8%)	86	(86.0%)
No	27	(6.9%)	1	(16.7%)	0	(0.0%)	12	(6.2%)	14	(14.0%)
Unclear	79	-	3	-	17	-	37	-	22	-
Somatoform Disorders										
Yes	46	(12.4%)	1	(16.7%)	10	(11.2%)	21	(11.5%)	14	(14.9%)
No	326	(87.6%)	5	(83.3%)	79	(88.8%)	162	(88.5%)	80	(85.1%)
Unclear	101	-	3	-	21	-	49	-	28	-
Rebellious										
Yes	104	(31.4%)	1	(33.3%)	24	(29.6%)	49	(30.1%)	30	(35.7%)
No	227	(68.6%)	2	(66.7%)	57	(70.4%)	114	(69.9%)	54	(64.3%)
Unclear	142	-	6	-	29	-	69	-	38	-
Irritable										
Yes	116	(34.4%)	0	(0.0%)	27	(32.5%)	56	(33.3%)	33	(39.8%)
No	221	(65.6%)	3	(100.0%)	56	(67.5%)	112	(66.7%)	50	(60.2%)
Unclear	136	-	6	-	27	-	64	-	39	-
Emotionally dependent										
Yes	109	(38.0%)	2	(100.0%)	22	(29.7%)	62	(42.8%)	23	(34.8%)
No	178	(62.0%)	0	(0.0%)	52	(70.3%)	83	(57.2%)	43	(65.2%)
Unclear	186	-	7	-	36	-	87	-	56	-
Bored										
Yes	3	(1.2%)	0	(0.0%)	0	(0.0%)	2	(1.7%)	1	(1.7%)
No	245	(98.8%)	3	(100.0%)	66	(100.0%)	119	(98.3%)	57	(98.3%)
Unclear	225	-	6	-	44	-	111	-	64	-

The participants who did not mention the issue go to 'Unclear' category.
Proportions do not include the number of 'Unclear'.

Table 2-2: State of health of participants who received telephone counseling

Number of Support Given	Total 473		0-3 years 9		4-6 years 110		Primary school age 232		Middle school age 122	
Have developmental problems										
Yes	64	(20.8%)	1	(16.7%)	15	(75.0%)	30	(16.3%)	18	(18.6%)
No	243	(79.2%)	5	(83.3%)	5	(25.0%)	154	(83.7%)	79	(81.4%)
Unclear	166	-	3	-	90	-	48	-	25	-
Have emotional or behavioral problems										
Yes	92	(24.4%)	0	(0.0%)	12	(13.3%)	55	(29.6%)	25	(26.0%)
No	285	(75.6%)	5	(100.0%)	78	(86.7%)	131	(70.4%)	71	(74.0%)
Unclear	96	-	4	-	20	-	46	-	26	-
Mental disorder										
Yes	12	(3.2%)	0	(0.0%)	0	(0.0%)	7	(3.8%)	5	(5.1%)
No	363	(96.8%)	5	(100.0%)	88	(100.0%)	177	(96.2%)	93	(94.9%)
Unclear	98	-	4	-	22	-	48	-	24	-
Traumatic stress reaction										
Yes	45	(12.7%)	0	(0.0%)	7	(8.3%)	29	(16.5%)	9	(9.9%)
No	309	(87.3%)	3	(100.0%)	77	(91.7%)	147	(83.5%)	82	(90.1%)
Unclear	119	-	6	-	26	-	56	-	31	-
School adjustment										
Well-adjusted	369	(90.7%)	1	(100.0%)	88	(96.7%)	190	(91.8%)	90	(83.3%)
Fail to adjust	38	(9.3%)	0	(0.0%)	3	(3.3%)	17	(8.2%)	18	(16.7%)
Unclear	66	-	8	-	19	-	25	-	14	-
Household or environmental problem										
Yes	38	(10.1%)	0	(0.0%)	3	(3.4%)	23	(12.4%)	12	(12.2%)
No	340	(89.9%)	5	(100.0%)	86	(96.6%)	163	(87.6%)	86	(87.8%)
Unclear	95	-	4	-	21	-	46	-	24	-
Guardian's anxiety about child rearing										
Yes	125	(30.3%)	4	(57.1%)	20	(20.8%)	67	(32.5%)	34	(32.7%)
No	288	(69.7%)	3	(42.9%)	76	(79.2%)	139	(67.5%)	70	(67.3%)
Unclear	60	-	2	-	14	-	26	-	18	-
Guardian's physical problems										
Yes	43	(10.3%)	0	(0.0%)	10	(10.4%)	20	(9.7%)	13	(12.1%)
No	373	(89.7%)	7	(100.0%)	86	(89.6%)	186	(90.3%)	94	(87.9%)
Unclear	57	-	2	-	14	-	26	-	15	-
Guardian's mental problems										
Yes	71	(17.2%)	0	(0.0%)	13	(13.1%)	39	(19.0%)	19	(18.4%)
No	342	(82.8%)	6	(100.0%)	86	(86.9%)	166	(81.0%)	84	(81.6%)
Unclear	60	-	3	-	11	-	27	-	19	-
Treatments										
Psychiatry or psychosomatic medicine	37	(10.2%)	1	(12.5%)	5	(5.7%)	16	(9.1%)	15	(16.1%)
Other	41	(11.3%)	2	(25.0%)	11	(12.6%)	20	(11.4%)	8	(8.6%)
No	286	(78.6%)	5	(62.5%)	71	(81.6%)	140	(79.5%)	70	(75.3%)
Unclear	109	-	1	-	23	-	56	-	29	-
Contacting institutions for counseling										
Yes	57	(17.8%)	4	(50.0%)	10	(12.7%)	27	(17.1%)	16	(21.3%)
No	263	(82.2%)	4	(50.0%)	69	(87.3%)	131	(82.9%)	59	(78.7%)
Unclear	153	-	1	-	31	-	74	-	47	-

The participants who did not mention the issue go to 'Unclear' category.
Proportions do not include the number of 'Unclear'.

Among the participants who received the telephone support, the most frequently discussed issues were the following: 124 participants had friendship problems (32.6%), 104 talked about rebellious behaviors (31.4%), 116 discussed becoming irritable (34.4%), 109 talked about being emotionally dependent (38.0%), and 125 guardians had anxiety about child rearing (30.3%).

As of treatments, 37 visited psychiatrists or psychosomatic medicine services (10.2%), 41 visited other departments or clinics (11.3%), and 286 did not visit any clinics (78.6%).

3.2-3 Results of Telephone Counseling and Continued Support

The results of the support were categorized into 'Follow-up 1,' 'Follow-up 2,' 'Follow-up 3,' and 'Declined Support' as was the case in the previous surveys (Table 3). The breakdown below shows the criteria of 'Follow-up 2,' which were divided into the problems faced by the children and the problems faced by the guardians (Table 4). Numbers in the breakdown (Table 4) refer to the total number and the proportion in the brackets show the ratio of total number to the number of 'Follow-up 2.'

After the telephone support, 355 (75.1%) were categorized as 'Follow-up 1,' 102 (21.6%) were categorized as 'Follow-up 2,' 9 (1.9%) were categorized as 'Follow-up 3,' and 7 (1.5%) declined support (Table 3). Among the participants who were categorized as 'Follow-up 2,' 34 children (33.3%) had school adjustment problems, and 28 children (27.5%) and 39 guardians (38.2%) had mental problems.

Table 3: Results of support given (Children)

Number of support given	Total 473	0-3 years 9	4-6 years 110	Primary school age 232	Middle school age 122
Follow-up 1	355 (75.1%)	8 (88.9%)	86 (78.2%)	173 (74.6%)	88 (72.1%)
Follow-up 2	102 (21.6%)	1 (11.1%)	19 (17.3%)	51 (22.0%)	31 (25.4%)
Follow-up 3	9 (1.9%)	0 (0.0%)	3 (2.7%)	5 (2.2%)	1 (0.8%)
Declined support	7 (1.5%)	0 (0.0%)	2 (1.8%)	3 (1.3%)	2 (1.6%)

Table 4: Breakdown of ‘Follow-up 2’

	Total		0-3 years		4-6 years		Primary school age		Middle school age	
Number of 'Follow-up 2'	102		1		19		51		31	
(Children)										
Physical Problems	9	(8.8%)	0	(0.0%)	2	(10.5%)	3	(5.9%)	4	(12.9%)
Mental Problems	28	(27.5%)	0	(0.0%)	0	(0.0%)	15	(29.4%)	13	(41.9%)
Emotional aftermath	14	(13.7%)	0	(0.0%)	6	(31.6%)	6	(11.8%)	2	(6.5%)
Adjustment disorder	34	(33.3%)	0	(0.0%)	13	(68.4%)	8	(15.7%)	13	(41.9%)
Other	20	(19.6%)	1	(100.0%)	5	(26.3%)	8	(15.7%)	6	(19.4%)
(Guardian)										
Physical Problems	14	(13.7%)	0	(0.0%)	2	(10.5%)	7	(13.7%)	5	(16.1%)
Mental Problems	39	(38.2%)	0	(0.0%)	9	(47.4%)	20	(39.2%)	10	(32.3%)
Child Rearing Problems	18	(17.6%)	0	(0.0%)	4	(21.1%)	7	(13.7%)	7	(22.6%)
Isolation	5	(4.9%)	0	(0.0%)	1	(5.3%)	2	(3.9%)	2	(6.5%)
Other	8	(7.8%)	1	(100.0%)	1	(5.3%)	6	(11.8%)	0	(0.0%)

As a continued support, 28 were categorized as ‘Follow-up,’ 4 were connected to municipal governments, 5 were sent list of registered doctors within Fukushima Prefecture, 1 was categorized as ‘Sharing information,’ 9 were provided information, and 1 was handled by other departments (Table 5).

Table 5: Continued support for children

Number of support given	Total		0-3 years		4-6 years		Primary school age		Middle school age	
	473		9		110		232		122	
Follow-up	28	(5.9%)	1	(11.1%)	5	(4.5%)	11	(4.7%)	11	(9.0%)
Municipal government	4	(0.8%)	0	(0.0%)	2	(1.8%)	1	(0.4%)	1	(0.8%)
Referral	0	(0.0%)	0	(0.0%)	0	(0.0%)	0	(0.0%)	0	(0.0%)
Sent list of registered doctors within Fukushima Prefecture	5	(1.1%)	0	(0.0%)	0	(0.0%)	4	(1.7%)	1	(0.8%)
Sent list of medical institutions outside the prefecture	0	(0.0%)	0	(0.0%)	0	(0.0%)	0	(0.0%)	0	(0.0%)
Sharing information	1	(0.2%)	0	(0.0%)	0	(0.0%)	1	(0.4%)	0	(0.0%)
Provided information	9	(1.9%)	0	(0.0%)	2	(1.8%)	4	(1.7%)	3	(2.5%)
Handled by other departments	1	(0.2%)	0	(0.0%)	1	(0.9%)	0	(0.0%)	0	(0.0%)

3.2-4 Problems Faced by Participants (children)

Since the Mental Health and Lifestyle Survey in FY 2011, we have used analytic induction to understand the problems discussed by participants on the phone. The problems fall into four broad categories: child's reaction, parent/guardian and family problems, school and neighborhood relationships, and environment. Child's reaction and parent/guardian and family problems divide into subcategories. Figure 2 is the conceptual diagram of those problems.

The content of the respondents' problems mentioned for the FY 2013 survey were categorized, as was the case in FY 2012, based on the categories from the survey for FY 2011.

Frequently mentioned problems in the FY 2013 survey were impact on school and irritability and violence (from the category 'child's reaction'), and parent/guardian's problems from the category 'parent/guardian and family problems.'

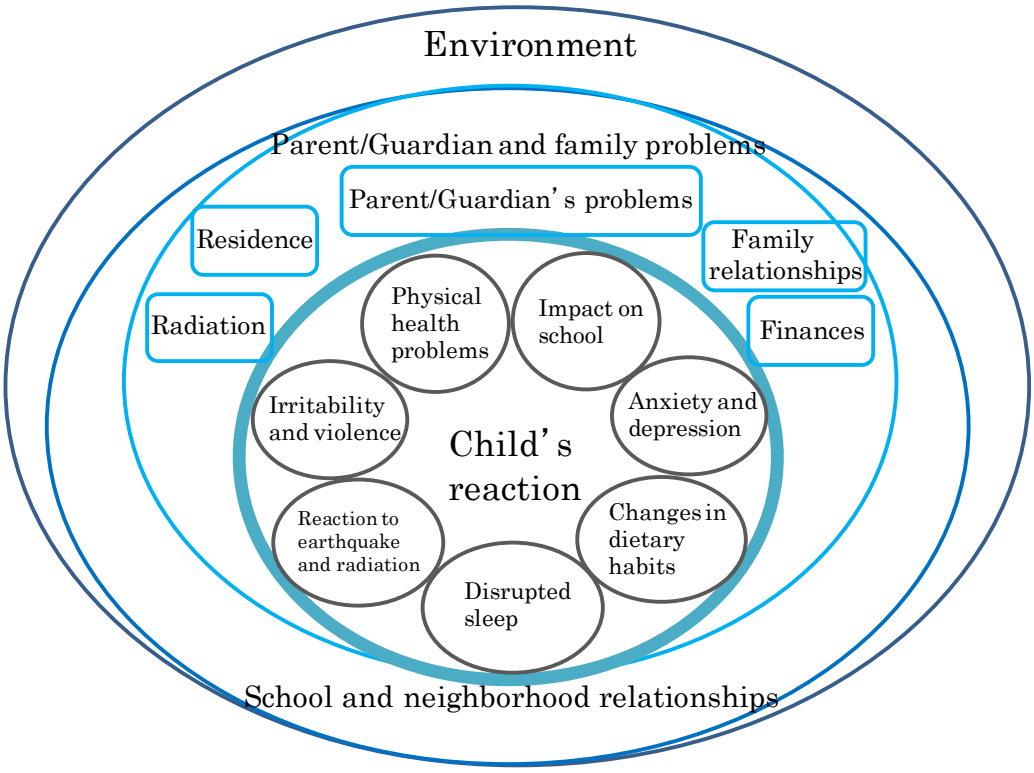


Figure 2: Conceptual diagram of problems faced by participants (children)

3.3 Adults

3.3-1 Status of Respondents Requiring Support

(Telephone Counseling)

A total of 3,843 adults required telephone counseling. Among the 3,020 participants identified on the basis of the scores, 1,150 (38.1%) were male and 1,870 (61.9%) were female. 823 participants were determined on the basis of items other than scores. Of these, 392 (47.6%) were male and 431 (52.4%) were female (Table 6). Telephone support was provided to 3,321 (86.4%). Among the participants, 2,622 (79.0%) lived within Fukushima Prefecture and 699 (21.0%) lived outside Fukushima (Table 7).

Table 6: Participants requiring telephone counseling (By sex and age group)

	Based on the scores					Based on the items other than scales				
Age group	Total	Male		Female		Total	Male		Female	
15-19	55	21	(38.2%)	34	(61.8%)	13	5	(38.5%)	8	(61.5%)
20-29	124	40	(32.3%)	84	(67.7%)	45	16	(35.6%)	29	(64.4%)
30-39	295	116	(39.3%)	179	(60.7%)	90	35	(38.9%)	55	(61.1%)
40-49	303	132	(43.6%)	171	(56.4%)	114	63	(55.3%)	51	(44.7%)
50-59	416	170	(40.9%)	246	(59.1%)	161	101	(62.7%)	60	(37.3%)
60-69	657	274	(41.7%)	383	(58.3%)	217	98	(45.2%)	119	(54.8%)
70-79	691	254	(36.8%)	437	(63.2%)	123	55	(44.7%)	68	(55.3%)
80-	479	143	(29.9%)	336	(70.1%)	60	19	(31.7%)	41	(68.3%)
Total	3,020	1,150	(38.1%)	1,870	(61.9%)	823	392	(47.6%)	431	(52.4%)

Ages are at the time of 1 April 2013.

Table 7: Participants requiring telephone counseling (By area)

	Support given		Based on the scores		Items other than scales	
Area of residence	3,321		2,608		713	
Within Fukushima	2,622	(79.0%)	2,049	(78.6%)	573	(80.4%)
Outside Fukushima	699	(21.0%)	559	(21.4%)	140	(19.6%)

The numbers shown of those given support only include participants who were provided telephone counseling.

(Written Materials)

Among the participants requiring written support materials, a total of 616 required telephone counseling. Out of the 479 participants identified on the basis of the scores, 210 (43.8%) were male and 269 (56.2%) were female. 137 participants were determined on the items other than scales. Of these, 76 (55.5%) were male and 61 (44.5%) were female (Table 8). The telephone counseling was provided to 592 (96.1%). Of these, 483 (81.6%) lived within Fukushima Prefecture and 109 (18.4%) lived outside Fukushima (Table 9).

Table 8: Participants required telephone counseling among those who required support by written materials (By sex and age group)

	Based on the scores						Based on the items other than scales					
Age group	Total	Male		Female			Total	Male		Female		
15-19	1	0	(0.0%)	1	(100.0%)		2	2	(100.0%)	0	(0.0%)	
20-29	6	2	(33.3%)	4	(66.7%)		3	1	(33.3%)	2	(66.7%)	
30-39	16	6	(37.5%)	10	(62.5%)		4	3	(75.0%)	1	(25.0%)	
40-49	19	8	(42.1%)	11	(57.9%)		12	3	(25.0%)	9	(75.0%)	
50-59	45	17	(37.8%)	28	(62.2%)		15	10	(66.7%)	5	(33.3%)	
60-69	79	39	(49.4%)	40	(50.6%)		49	28	(57.1%)	21	(42.9%)	
70-79	195	82	(42.1%)	113	(57.9%)		28	15	(53.6%)	13	(46.4%)	
80-	118	56	(47.5%)	62	(52.5%)		24	14	(58.3%)	10	(41.7%)	
Total	479	210	(43.8%)	269	(56.2%)		137	76	(55.5%)	61	(44.5%)	

Ages are at the time of 1 April 2013.

Table 9: Participants required telephone counseling among those who required support by written materials (By area)

	Support given		Based on the scores		Items other than scales	
Area of residence	592		464		128	
Within Fukushima	483	(81.6%)	380	(81.9%)	103	(80.5%)
Outside Fukushima	109	(18.4%)	84	(18.1%)	25	(19.5%)

The numbers shown of those given support only include participants who were provided telephone counseling.

3.2-2 Participants' State of Health

(Telephone Counseling)

We asked participants about their physical condition, sleep, and the medical institutions where they are treated.

Table 10: State of health of participants who received telephone counseling

Number of support given	Total 3,321		Based on the scores 2,608		Items other than scales 713	
Physical condition						
Improved	417	(13.4%)	280	(11.5%)	137	(20.1%)
No change	2,080	(66.6%)	1,642	(67.3%)	438	(64.2%)
Worse	502	(16.1%)	450	(18.4%)	52	(7.6%)
Have not had problems	123	(3.9%)	68	(2.8%)	55	(8.1%)
Unclear	199	—	168	—	31	—
Sleep disorders						
Improved	339	(11.2%)	245	(10.4%)	94	(13.9%)
No change	2,279	(75.0%)	1,791	(75.8%)	488	(72.3%)
Worse	243	(8.0%)	217	(9.2%)	26	(3.9%)
Have not had problems	178	(5.9%)	111	(4.7%)	67	(9.9%)
Unclear	282	—	244	—	38	—
Treatments						
Psychiatry or psychosomatic medicine	468	(15.4%)	426	(17.9%)	42	(6.3%)
Other	1,959	(64.3%)	1,587	(66.8%)	372	(55.4%)
None	621	(20.4%)	364	(15.3%)	257	(38.3%)
Unclear	273	—	231	—	42	—
Contacting institutions for counseling						
Yes	459	(28.6%)	296	(25.7%)	163	(36.0%)
No	1,145	(71.4%)	855	(74.3%)	290	(64.0%)
Unclear	1,717	—	1,457	—	260	—
Depression						
Yes	1,245	(44.2%)	1,104	(50.3%)	141	(22.7%)
No	1,570	(55.8%)	1,091	(49.7%)	479	(77.3%)
Unclear	506	—	413	—	93	—
Reaction to earthquake						
Severe	147	(7.0%)	140	(7.8%)	7	(2.2%)
Mild	277	(13.2%)	248	(13.8%)	29	(9.3%)
None	1,679	(79.8%)	1,403	(78.3%)	276	(88.5%)
Unclear	1,218	—	817	—	401	—

The participants who did not mention the issue go to 'Uncertain' category.
Proportion does not include the number of 'Unclear'.

Comparing physical conditions with a year ago, 417 (13.4%) saw improvement, 2,080 (66.6%) saw no changes, 502 (16.1%) became worse, and 123 (3.9%) have not had problems so far.

Asked about their sleep compared to a year ago, 339 (11.2%) saw improvement, 2,279 (75.0%) saw no changes, 243 (8.0%) became worse, 178 (5.9 %) have not had problems so far.

As for clinics, 468 (15.4%) were treated by psychiatrists or psychosomatic medicine specialists, 1,959 (64.3%) were treated by other specialists, and 621 (20.4%) did not see a doctor.

(Written Materials)

We provided telephone counseling to those who indicated their desire for telephone support by return postcard, and to those who were determined by the Mental Health Support Team that they required support based on the content of the reply. We asked participants over the phone about their physical condition, sleep, and what medical institutions they visited for consultation.

Table 11: State of health of participants who received telephone counseling among those who required support by written materials

Number of support given	Total 592		Based on the scores 464		Items other than scales 128	
Physical condition						
Improved	47	(8.7%)	35	(8.3%)	12	(9.9%)
No change	368	(67.8%)	295	(69.9%)	73	(60.3%)
Worse	97	(17.9%)	80	(19.0%)	17	(14.0%)
Have not had problems	31	(5.7%)	12	(2.8%)	19	(15.7%)
Unclear	49	—	42	—	7	—
Sleep disorders						
Improved	27	(5.2%)	18	(4.4%)	9	(7.8%)
No change	400	(76.8%)	326	(80.3%)	74	(64.3%)
Worse	25	(4.8%)	19	(4.7%)	6	(5.2%)
Have not had problems	69	(13.2%)	43	(10.6%)	26	(22.6%)
Unclear	71	—	58	—	13	—
Treatments						
Psychiatry or psychosomatic medicine	42	(7.5%)	39	(8.9%)	3	(2.4%)
Other	438	(78.1%)	365	(83.3%)	73	(59.3%)
None	81	(14.4%)	34	(7.8%)	47	(38.2%)
Unclear	31	—	26	—	5	—
Contacting institutions for counseling						
Yes	89	(41.4%)	50	(33.3%)	39	(60.0%)
No	126	(58.6%)	100	(66.7%)	26	(40.0%)
Unclear	377	—	314	—	63	—
Depression						
Yes	139	(28.8%)	117	(31.3%)	22	(20.4%)
No	343	(71.2%)	257	(68.7%)	86	(79.6%)
Unclear	110	—	90	—	20	—
Reaction to earthquake						
Severe	12	(3.6%)	12	(3.8%)	0	(0.0%)
Mild	21	(6.3%)	17	(5.4%)	4	(25.0%)
None	300	(90.1%)	288	(90.9%)	12	(75.0%)
Unclear	259	—	147	—	112	—

The participants who did not mention the issue go to 'Uncertain' category.
Proportion does not include the number of 'Unclear'.

Comparing the physical condition with a year ago, 47 (8.7%) saw improvement, 368 (67.8%) saw no changes, 97 (17.9%) became worse, 31 (5.7%) have not had problems so far.

Asked about their sleep compared to a year ago, 27 (5.2%) saw improvement, 400 (76.8%) saw no changes, 25 (4.8%) became worse, 69 (13.2%) have not had problems so far.

As for clinics, 42 (7.5%) were treated by psychiatrists or psychosomatic medicine specialists, 438 (78.1%) were treated by other specialists, and 81 (14.4%) did not see a doctor.

3.3-3 Results of Telephone Counseling and the Continued Support

The results of the support were categorized into 'Follow-up 1,' 'Follow-up 2,' 'Follow-up 3,' and 'Declined Support' as was the case in the previous surveys. The breakdown below shows the criteria of 'Follow-up 2.' Numbers in the breakdown (Table 13 and 16) refer to the total number and the proportion in the brackets show the ratio of total number to the number of 'Follow-up 2.'

(Respondents Required Telephone Counseling)

After the telephone counseling, 2,573 (77.5%) were designated as 'Follow-up 1,' 599 (18.0%) as 'Follow-up 2,' 114 (3.4%) as 'Follow-up 3,' and 35 (1.1%) as 'Declined Support' (Table 12). The reasons for 'Follow-up 2' were categorized into the following: 308 (51.4%) for physical health problems, 412 (68.8%) for mental health problems, 64 (10.7%) for emotional aftermath, 63 (10.5%) for adjustment problems, 69 (11.5%) for isolation (Table 13).

Table 12: Results of telephone counseling

Number of support given	Total		Based on the scores		Items other than scales	
	3,321		2,608		713	
Follow-up 1	2,573	(77.5%)	1,982	(76.0%)	591	(82.9%)
Follow-up 2	599	(18.0%)	501	(19.2%)	98	(13.7%)
Follow-up 3	114	(3.4%)	94	(3.6%)	20	(2.8%)
Declined support	35	(1.1%)	31	(1.2%)	4	(0.6%)

Table 13: Breakdown of the reasons for 'Follow-up 2'

	Total		Based on the scores		Items other than scales	
Number of 'Follow-up 2'	599		501		98	
Physical problems	308	(51.4%)	261	(52.1%)	47	(48.0%)
Mental problems	412	(68.8%)	347	(69.3%)	65	(66.3%)
Emotional aftermath	64	(10.7%)	57	(11.4%)	7	(7.1%)
Adjustment disorder	63	(10.5%)	59	(11.8%)	4	(4.1%)
Isolation	69	(11.5%)	62	(12.4%)	7	(7.1%)

For continued support, 214 were designated as 'Follow-up,' 65 were connected to the municipal government, 8 were sent a referral, 34 were sent list of registered doctors within Fukushima Prefecture, 5 were sent list of medical institutions outside Fukushima, 4 were designated as 'Sharing information,' 34 were provided information, and 6 were handled by other departments (Table 14).

Table 14: Continued support

Number of support given	Total 3,321		Based on the scores 2,608		Items other than scales 713	
Follow-up	214	(6.4%)	121	(4.6%)	93	(13.0%)
Municipal government	65	(2.0%)	56	(2.1%)	9	(1.3%)
Referral	8	(0.2%)	7	(0.3%)	1	(0.1%)
Sent list of registered doctors within Fukushima Prefecture	34	(1.0%)	29	(1.1%)	5	(0.7%)
Sent list of medical institutions outside the prefecture	5	(0.2%)	2	(0.1%)	3	(0.4%)
Sharing information	4	(0.1%)	3	(0.1%)	1	(0.1%)
Provided information	34	(1.0%)	28	(1.1%)	6	(0.8%)
Handled by other departments	6	(0.2%)	5	(0.2%)	1	(0.1%)

(Respondents Requiring Written Support Materials)

After the telephone counseling, 506 (85.5%) were designated as 'Follow-up 1,' 78 (13.2%) as 'Follow-up 2,' 6 (1.0%) as 'Follow-up 3,' and 2 (0.3%) as 'Declined Support' (Table 15). The reasons for 'Follow-up 2' were categorized into the following: 48 (61.5%) for physical health problems, 42 (53.8%) for mental health problems, 4 (5.1%) for emotional aftermath, 4 (5.1%) for adjustment problems, 3 (3.8%) for isolation (Table 16).

Table 15: Results of the telephone counseling among those who required support by written materials

Number of support given	Total 592		Based on the scores 464		Items other than scales 128	
Follow-up 1	506	(85.5%)	395	(85.1%)	111	(86.7%)
Follow-up 2	78	(13.2%)	62	(13.4%)	16	(12.5%)
Follow-up 3	6	(1.0%)	6	(1.3%)	0	(0.0%)
Declined support	2	(0.3%)	1	(0.2%)	1	(0.8%)

Table 16: Breakdown of the reasons for ‘Follow-up 2’

	Total		Based on the scores		Items other than scales	
Number of 'Follow-up 2'	78		62		16	
Physical problems	48	(61.5%)	36	(58.1%)	12	(75.0%)
Mental problems	42	(53.8%)	36	(58.1%)	6	(37.5%)
Emotional aftermath	4	(5.1%)	4	(6.5%)	0	(0.0%)
Adjustment disorder	4	(5.1%)	3	(4.8%)	1	(6.3%)
Isolation	3	(3.8%)	3	(4.8%)	0	(0.0%)

For continued support, 25 were designated as ‘Follow-up,’ 4 were connected to the municipal government, 8 were sent list of registered doctors within Fukushima Prefecture, 4 were provided information, and 4 were handled by other departments (Table 17).

Table 17: Continued support

Number of support given	Total		Based on the scores		Items other than scales	
	592		464		128	
Follow-up	25	(4.2%)	16	(3.4%)	9	(7.0%)
Municipal government	4	(0.7%)	2	(0.4%)	2	(1.6%)
Referral	0	(0.0%)	0	(0.0%)	0	(0.0%)
Sent list of registered doctors within Fukushima Prefecture	8	(1.4%)	7	(1.5%)	1	(0.8%)
Sent list of medical institutions outside the prefecture	0	(0.0%)	0	(0.0%)	0	(0.0%)
Sharing information	0	(0.0%)	0	(0.0%)	0	(0.0%)
Provided information	4	(0.7%)	4	(0.9%)	0	(0.0%)
Handled by other departments	4	(0.7%)	3	(0.6%)	1	(0.8%)

3.3-4 Problems Faced by Participants (adults)

Since the Mental Health and Lifestyle Survey in FY 2011, we have used analytic induction to understand the problems faced by participants. The problems fall into four broad categories: personal problems, household problems, problems with social life, and environment and culture. Personal problems, household problems, and problems with social life divide into subcategories. Figure 3 is the conceptual diagram of those problems.

The content of the respondents' problems mentioned in the FY 2013 survey were categorized, as was the case in FY 2012, based on the categories from the survey for FY 2011.

Frequently mentioned problems in the FY 2013 survey were physical problems, disrupted sleep, depression, anxiety about the future (from the category 'Personal reaction'), and changes in living environment, family relationships, changes in daily life and habits (from the category 'Household problems'), and dissatisfaction with government policies or problems with disaster claims from the category 'Problems with social life'.

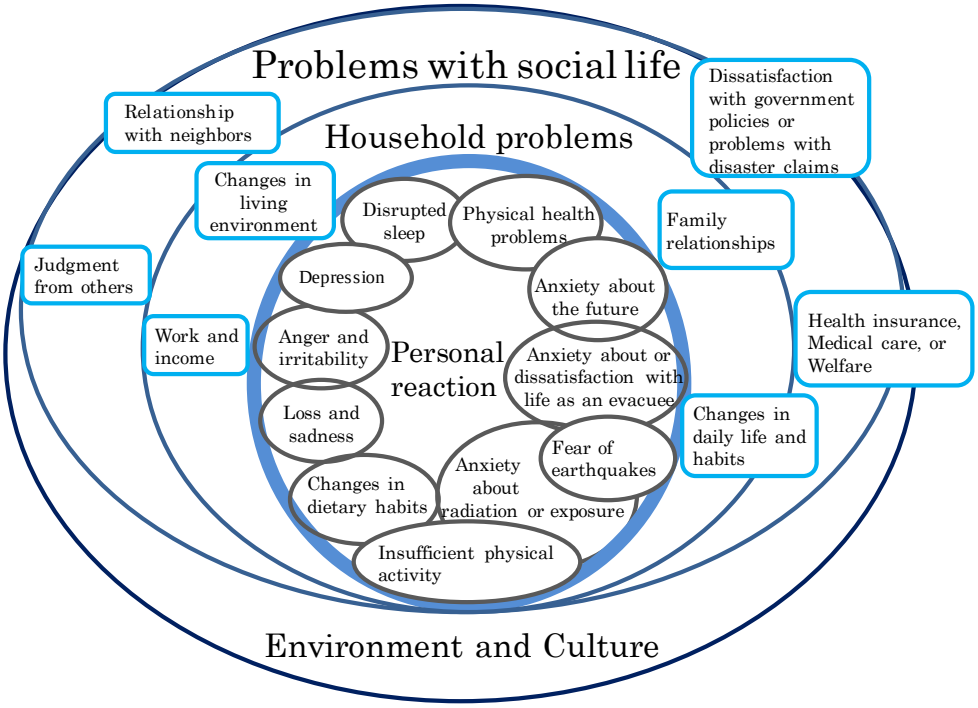


Figure 3: Conceptual diagram of problems faced by participants (adults)

4. Conclusion

The number of those who required support was 1,256 children and 11,507 adults for the Mental Health and Lifestyle Survey for FY 2013. Based only on the CAGE test scores, the number was 2,010. Among the children, 504 required telephone counseling and 752 required written support materials. The number of participants determined to require telephone support based on the content of written materials was 37. The number of adults who required telephone counseling was 3,843 and 7,664 required written materials. The number of those determined to require telephone support based on the content of written materials was 616. If those identified as requiring support could not be reached for telephone counseling (except for the deceased), information was provided by sending booklet made by Radiation Medical Science Center of FMU: *Mental Health and Lifestyle Support.* It was also distributed to those who only met the criteria of CAGE test scores.

After the telephone counseling for children, 355 (75.1%) were categorized as 'Follow-up 1*,' and 102 (21.6%) were categorized as 'Follow-up 2**.' Frequently discussed issues were impact on school, and irritability and violence form the category 'Child's reaction,' and parent or guardian's problem from the category 'Parent/Guardian and family problems.'

Among the adults, 2,573 (77.5%) were categorized as 'Follow-up 1' and 599 (18.0%) were categorized as 'Follow-up 2.' Among the respondents who required written materials, 506 (85.5%) were categorized as 'Follow-up 1' and 78 (13.2%) were categorized as 'Follow-up 2.' Frequently discussed issues were physical problems, disrupted sleep, depression, and anxiety about the future from the category 'Personal reaction,' changes in living environment, family relationships, and changes in daily life and habits from the category 'Household problems,' and dissatisfaction with government policies or problems of disaster claims from the category 'Problems with social life.'

* Participants confirmed to be improving or self-managing their problems.

** Participants not recovering from health problems, the emotional aftermath, adjustment disorder etc.

Pregnancy and Birth Survey for FY 2013

Reported on 12 February 2015

1. Outline

1.1 Purpose

Fukushima Medical University established a Pregnancy and Birth Survey in FY 2011 to promote health management of women and mothers in Fukushima under the initiative of Fukushima Prefecture.

The survey revealed that pregnant women and mothers with infants strived to raise their children in Fukushima Prefecture since the Great East Japan Earthquake and the subsequent nuclear disaster, despite the evacuation, changes in daily life, and concerns toward health effects of radiation.

We continued to conduct the survey in FY 2013 to address their anxiety and provide necessary support through assessing their physical and mental health. The survey also aims to improve perinatal care in Fukushima Prefecture by listening to their needs and expectations.

1.2 Group

Those who received Maternal and Child Health Handbooks from municipal offices in Fukushima Prefecture between 1 August 2012 and 31 July 2013, and those who had handbooks issued during the same period in other prefectures but received antenatal care or delivered babies in Fukushima Prefecture.

Number of participants: 15,218 (FY 2011: 16,001; FY 2012: 14,516)

1.3 Methods

Survey questionnaire was sent to the participants on 18 December 2013.

Newly added questions from FY 2013 address the issue of tobacco smoking.

1.4 Data Tabulation Period

From 24 December 2013 through 26 December 2014

(FY 2012 survey: From 14 December 2012 through 30 November 2013)

(FY 2011 survey: From 20 January 2012 through 31 March 2013)

2. Survey Results

The number of valid responses may not equal to the survey total because of missing answers.

2.1 Response Rates

The total number of responses for FY 2013 Survey was 7,260 (47.7%).

Valid responses: 7,214

Invalid responses: 46 (No response: 10; Duplication: 8; Exclusions: 28)

The total number of responses for FY 2011 Survey was 9,316 (58.2%), and it was 7,181 (49.5%) in FY 2012.

The response rate of the survey for FY 2013 was lower than that for FY 2011 but nearly the same as FY 2012.

2.2 Respondents

- The number of responses for FY 2013 by area was as follows: Kempoku, 1,936 (53.2%); Kenchu, 1,982 (44.5%); Kennan, 588 (48.5%); Soso, 535 (45.4%); Iwaki, 1,195 (45.1%); Aizu, 833 (45.9%); Minami-aizu, 83 (51.2%); outside Fukushima Prefecture, 108.
- Compared with FY 2011, the overall response rate declined in all areas. However, compared with FY 2012, the overall response rate was almost the same, with a slight decline in Kempoku, Kenchu and Iwaki, and a slight improvement in Kennan, Soso, Aizu and Minami-aizu.
- Roughly two-thirds of respondents were in the 25-34 age group, followed by 35-39 and 20-24 age groups. The same trend was seen in FY 2011 and FY 2012.

2.3 Pregnancy Outcome

- There was little difference in the proportion of miscarriage (0.78%) and abortion (0.04%) after receiving the Maternal and Child Health Handbooks compared with those in FY 2011 (miscarriage, 0.77%; abortion, 0.06%), and FY 2012 (miscarriage, 0.81%; abortion, 0.08%). (Q10)
- The proportion of preterm deliveries was 5.40%, which was almost the same as FY 2011 (4.75%), FY 2012 (5.74%), and the recent data in Japan 2013; 5.8% (Q18)
- The proportion of low birth weight infants was 9.9%, which was higher than FY 2011 (8.9%) and FY 2012 (9.6%), but roughly the same as the recent data in Japan 2013; 9.6% (Q19)
- The incidence of congenital anomalies in singleton pregnancies was 2.35%, which was roughly the same as FY 2011 (2.85%*) and FY 2012 (2.39%), and a generally reported incidence of 3-5%. The most frequent anomaly was cardiovascular malformation with an incidence of 0.91% (0.89%* in FY 2011, and 0.79% in FY 2012), which was similar to a generally reported incidence of 1%. (Q19)
  Note: The denominator was the total number of valid responses.

2.4 Mental Health of Mothers

- The proportion of mothers with depressive symptom(s) was 24.5%, which was lower than the previous surveys (27.1% in FY 2011 and 25.5% in FY 2012). (Q4-1, Q4-2)
  The area with the highest rate was Minami-aizu (32.5%) in FY 2013, whereas it was the Soso area in FY 2011 (32.1%) and in FY 2012 (32.9%) compared to 28.2% in FY 2013. According to the national maternal and child health plan in Japan (*Sukoyaka Oyako 21*), the proportion of mothers with postpartum depression, evaluated by using the Edinburgh Postnatal Depression Scale, was 9.0% in 2013, and the estimated proportion of postpartum depression from this survey based on the

Edinburgh Postnatal Depression Scale was 13%.
Reference: Mishina H, et al. Pediatr Int. 2009; 51: 48.

2.5 Perinatal Care

- Mothers were asked if they received sufficient antenatal and delivery care, and 2.3% answered NO or NOT AT ALL, which was lower than that of FY 2012 (3.5%). (Q3)
- The proportion of those who could not receive antenatal care or deliver at initially planned medical institutions was 14.7%, which was below 24.6% in FY 2011, but roughly the same as FY 2012 (14.1%). Outside Fukushima Prefecture had the highest rate (36.3%) as was the case in FY 2012 (26.9%). The proportion of respondents who chose to change their clinics outside the prefecture was 22.5%, which was lower than that of FY 2011 (54.7%), but roughly the same as FY 2012 (24.9%). (Q12)
- The proportion of those who could not receive antenatal care as scheduled was 2.2%, which was below that of 18.8% in FY 2011, but remain the same as in FY 2012 (2.2%). (Q13)

2.6 Family and Child Rearing

- The Soso area had the highest proportion of those who had evacuated (50.9%) but the proportion declined compared to 61.3% in FY 2012. (Q5)
- The proportion of those who were not confident in child rearing was 17.5%, which was higher than 15.4% in FY 2012. (Q20)
  According to the 2010 national survey to assess toddlers' health status, the proportion of mothers with one-year-old children, who were not confident in child rearing, was 23.0%.
- When asked how they fed their babies before weaning, 36.6% answered breastfeeding only, 54.4% breast and bottle feeding combined, 8.7% bottle feeding only. The proportion of breastfeeding increased from 30.4% in FY 2011 and 35.2% in FY 2012. (Q21)
  When asked about the reasons for choosing bottle feeding, 77.1% answered not enough breast milk, and 1.8% were worried about the effects of radiation (the proportion decreased from 19.8% in FY 2011, and 6.2% in FY 2012). According to the survey by the Ministry of Health, Labour and Welfare, the national average of mothers who were breastfeeding when their baby was four months old was 35-40% (55.8% in FY 2010). Compared to the national data, the proportion in Fukushima Prefecture had been low; the survey in 2007 by the Breastfeeding Association in Fukushima found that 32.2% mothers were breastfeeding their four months old baby.

2.7 Family Planning

- 52.8% of respondents were planning a pregnancy (52.9% in FY 2012). According to the 14th National Fertility Survey in 2010, 58% of couples married for less than 10 years were planning a pregnancy. The proportion was 51% among those who already had a child.
- Following services were requested among those who were planning a pregnancy: improvement of preschool, care for longer hours, or day care for sick children, 70.5%; information or services about child rearing and pediatric medicine, 66.6%.
- The reasons for not planning a pregnancy were as follows: no desire, 54.4%; busy raising children, 36.6%. The proportion of respondents who worried about the effects of radiation was 5.6% which was below 14.8% in FY 2012.

2.8 Free-answer Questions

- The total of 867 respondents (12.0%) answered the free-answer questions. The number was lower than that of 3,722 (42.2%) in FY 2011 and 1,481 (20.7%) in FY 2012.

2.9 Conclusion

- The response rate was 47.7%, which was below 58.2% in FY 2011 and almost the same as 49.5% in FY 2012.
- The proportions of miscarriage (0.78%) or abortion (0.04%) after receiving the Maternal and Child Health Handbooks stayed roughly the same as in FY2011 (miscarriage, 0.77%; abortion, 0.06%), and FY 2012 (miscarriage, 0.81%; abortion, 0.08%).
- The proportion of preterm deliveries was 5.40%, which was roughly the same as 4.75% in FY 2011 and 5.74% in FY 2012. The proportion of low birth weight infants was 9.9%, which was slightly above the numbers in the previous years (8.9% in FY 2011, and 9.6% in FY 2012), but roughly the same as the national average.
- The incidence of congenital anomalies in singleton pregnancies was 2.35%, which was roughly the same as 2.85% in FY 2011, 2.39% in FY 2012 and the generally reported incidence of 3-5%.
- The proportion of mothers with depression symptom(s) was 24.5%, which was below FY 2011 (27.1%) and FY 2012 (25.5%), but the estimated proportion was still higher than the national average.
- 52.8% were planning a pregnancy. The proportion was roughly the same as the data from the National Fertility Survey in 2010 (The proportion was 51% among those who already had a child).

* The figure differs from the survey for FY 2011 since the denominator included the number of invalid response.
**The figure differs from the survey for FY 2011 since the denominator included the sum of multiple answers.

3. Support after the Survey

3.1 Purpose

Counseling was provided via telephone or email by midwives and public health nurses for respondents who were screened to be in need of support in order to address their anxiety.

3.2 Support Group

Respondents of the Pregnancy and Birth Survey for FY 2013

3.3 Criteria for Support

- Respondents who had two depression symptoms
- Respondents who were screened based on their opinions written in a given free space
  We used wider criteria than the previous year:
  Those who appeared to have a severely depressed mood
  Those in need of support for child rearing
  Those who are concerned about radiation exposure
  Those who want detailed information
  Those who requested support

3.4 Methods

Support via telephone and email

4. Results of the Support

Note: Participants who responded after 26 December 2014 and received support were excluded.

4.1 Number of Supports Given

- The number of those who required telephone support was 1,101 out of 7,260 who responded from 24 December 2013 through 26 December 2014. The proportion was 15.2%, which was roughly the same as that of FY 2011: 1,401 (15.0%); FY 2012: 1,104 (15.4%).
  The number of those who received support via email was 3 (13 in FY 2011, and 6 in FY 2012).
- 67.6% were screened based on their depression symptoms (87.4% in FY 2011, and 68.0% in FY 2012), and 32.4% based on their comments written in a free space (12.6% in FY 2011, and 32.0% in FY 2012).

4.2 Content

- The most frequently discussed issue by the respondents was physical and mental health of mothers (42.5%), as was the case issue in FY 2012 (33.4%), followed by child rearing (38.7%) and physical and mental health of children (20.3%). Concerns about radiation were the most frequent category in FY 2011 (29.2%).

4.3 Reasons for Completing Support

- We completed telephone support after carefully listening to mothers' concerns in 679 (61.7%) cases, providing information about other counseling services in 473 (43.0%) cases, confirming that they were already receiving care in 271 (24.6%) cases, and answering to their specific questions in 128 (11.6%) cases. In other cases, 104 (9.4%) respondents were recommended further treatment, 6 (0.5%) were referred to clinical psychologists, 1 (0.1%) was connected to municipal government, 1 (0.1%) was referred to specialists, 209 (19.0%) did not answer our calls, 12 (1.1%) did not provide their phone numbers, 3 (0.3%) declined support, and 2 (0.2%) were categorized as 'Other.'
  Note: Multiple answers allowed. The denominator is the total number of supports provided.

4.4 Conclusion

- The proportion of mothers to whom we provided support was roughly the same as in FY 2011 and FY 2012. We provided more support by increasing the proportion of those required support on the basis of free-answered questions as was the case in FY 2012.
- The most frequently discussed issue in the counseling was physical and mental health of mothers as was the case in FY 2012. Issues related to radiation became less frequent.

Results of Pregnancy and Birth Survey for FY2013

1. Response rates

Responses received from 24 December 2013 through 26 December 2014

Area	Participants		Responses (Response rate)	
Kempoku	3,637	23.9%	1,936	53.2%
Kenchu	4,453	29.3%	1,982	44.5%
Kennan	1,213	8.0%	588	48.5%
Soso	1,178	7.7%	535	45.4%
Iwaki	2,649	17.4%	1,195	45.1%
Aizu	1,816	11.9%	833	45.9%
Minami-aizu	162	1.1%	83	51.2%
Outside Fukushima	110	0.7%	108	98.2%
Total	15,218	100.0%	7,260	47.7%

2. Results by Items

The total number is 7,214 of 7,260 participants excluding 46 invalid responses (10 nonrespondents, 8 overlapping respondents, and 28 exclusions). Each item includes nonrespondents and invalid responses.

Age Group of Participants

Area	Ages 15-19		Ages 20-24		Ages 25-29		Ages 30-34		Ages 35-39		Ages 40-44		Ages 45-49		No response		Total	
Kempoku	12	0.6%	164	8.5%	593	30.8%	633	32.8%	414	21.5%	80	4.1%	1	0.1%	31	1.6%	1,928	100.0%
Kenchu	8	0.4%	193	9.8%	628	31.9%	642	32.6%	391	19.8%	76	3.9%	1	0.1%	32	1.6%	1,971	100.0%
Kennan	3	0.5%	51	8.7%	194	33.1%	190	32.4%	113	19.3%	26	4.4%	2	0.3%	7	1.2%	586	100.0%
Soso	5	0.9%	76	14.3%	185	34.8%	136	25.6%	108	20.3%	10	1.9%	1	0.2%	10	1.9%	531	100.0%
Iwaki	10	0.8%	131	11.0%	321	27.0%	417	35.1%	236	19.9%	48	4.0%	0	0.0%	24	2.0%	1,187	100.0%
Aizu	6	0.7%	94	11.4%	258	31.2%	258	31.2%	170	20.6%	23	2.8%	1	0.1%	16	1.9%	826	100.0%
Minami-aizu	0	0.0%	10	12.0%	21	25.3%	31	37.3%	16	19.3%	2	2.4%	0	0.0%	3	3.6%	83	100.0%
Outside Fukushima	0	0.0%	10	9.8%	38	37.3%	40	39.2%	10	9.8%	2	2.0%	0	0.0%	2	2.0%	102	100.0%
Total	44	0.6%	729	10.1%	2,238	31.0%	2,347	32.5%	1,458	20.2%	267	3.7%	6	0.1%	125	1.7%	7,214	100.0%

Ages are at the time when pregnancy outcome occurred.

Q2. Do you think of yourself as healthy?

Area	Very much		A little		Not so much		No		No response		Total	
Kempoku	480	24.9%	1,367	70.9%	74	3.8%	5	0.3%	2	0.1%	1,928	100.0%
Kenchu	550	27.9%	1,345	68.2%	70	3.6%	2	0.1%	4	0.2%	1,971	100.0%
Kennan	149	25.4%	415	70.8%	22	3.8%	0	0.0%	0	0.0%	586	100.0%
Soso	109	20.5%	394	74.2%	25	4.7%	2	0.4%	1	0.2%	531	100.0%
Iwaki	340	28.6%	813	68.5%	30	2.5%	4	0.3%	0	0.0%	1,187	100.0%
Aizu	191	23.1%	601	72.8%	28	3.4%	5	0.6%	1	0.1%	826	100.0%
Minami-aizu	27	32.5%	54	65.1%	2	2.4%	0	0.0%	0	0.0%	83	100.0%
Outside Fukushima	39	38.2%	61	59.8%	1	1.0%	0	0.0%	1	1.0%	102	100.0%
Total	1,885	26.1%	5,050	70.0%	252	3.5%	18	0.2%	9	0.1%	7,214	100.0%

Q3. Did you receive sufficient antenatal or delivery care?

Area	Very much		Yes		Not sure		No		Not at all		No response		Total	
Kempoku	515	26.7%	1,183	61.4%	184	9.5%	33	1.7%	10	0.5%	3	0.2%	1,928	100.0%
Kenchu	505	25.6%	1,194	60.6%	224	11.4%	37	1.9%	8	0.4%	3	0.2%	1,971	100.0%
Kennan	114	19.5%	373	63.7%	88	15.0%	8	1.4%	1	0.2%	2	0.3%	586	100.0%
Soso	142	26.7%	297	55.9%	67	12.6%	20	3.8%	3	0.6%	2	0.4%	531	100.0%
Iwaki	316	26.6%	701	59.1%	140	11.8%	23	1.9%	4	0.3%	3	0.3%	1,187	100.0%
Aizu	181	21.9%	545	66.0%	80	9.7%	14	1.7%	2	0.2%	4	0.5%	826	100.0%
Minami-aizu	19	22.9%	54	65.1%	5	6.0%	3	3.6%	1	1.2%	1	1.2%	83	100.0%
Outside Fukushima	29	28.4%	65	63.7%	5	4.9%	2	2.0%	0	0.0%	1	1.0%	102	100.0%
Total	1,821	25.2%	4,412	61.2%	793	11.0%	140	1.9%	29	0.4%	19	0.3%	7,214	100.0%

Q4-1. Have you often been feeling down or depressed for the past month?

Area	Yes		No		No response		Total	
Kempoku	475	24.6%	1,445	74.9%	8	0.4%	1,928	100.0%
Kenchu	412	20.9%	1,553	78.8%	6	0.3%	1,971	100.0%
Kennan	138	23.5%	447	76.3%	1	0.2%	586	100.0%
Soso	138	26.0%	391	73.6%	2	0.4%	531	100.0%
Iwaki	245	20.6%	939	79.1%	3	0.3%	1,187	100.0%
Aizu	178	21.5%	644	78.0%	4	0.5%	826	100.0%
Minami-aizu	25	30.1%	57	68.7%	1	1.2%	83	100.0%
Outside Fukushima	26	25.5%	75	73.5%	1	1.0%	102	100.0%
Total	1,637	22.7%	5,551	76.9%	26	0.4%	7,214	100.0%

Q4-2. Have you lost interest in activities or found things unpleasurable for the past month?

Area	Yes		No		No response		Total	
Kempoku	233	12.1%	1,687	87.5%	8	0.4%	1,928	100.0%
Kenchu	223	11.3%	1,742	88.4%	6	0.3%	1,971	100.0%
Kennan	72	12.3%	513	87.5%	1	0.2%	586	100.0%
Soso	78	14.7%	451	84.9%	2	0.4%	531	100.0%
Iwaki	140	11.8%	1,044	88.0%	3	0.3%	1,187	100.0%
Aizu	96	11.6%	726	87.9%	4	0.5%	826	100.0%
Minami-aizu	15	18.1%	67	80.7%	1	1.2%	83	100.0%
Outside Fukushima	11	10.8%	90	88.2%	1	1.0%	102	100.0%
Total	868	12.0%	6,320	87.6%	26	0.4%	7,214	100.0%

Results of the above questions related to depression

Area	Yes to both questions		Yes to either of the question		No to both questions		No response		Total	
Kempoku	202	10.5%	304	15.8%	1,414	73.3%	8	0.4%	1,928	100.0%
Kenchu	190	9.6%	255	12.9%	1,520	77.1%	6	0.3%	1,971	100.0%
Kennan	63	10.8%	84	14.3%	438	74.7%	1	0.2%	586	100.0%
Soso	66	12.4%	84	15.8%	379	71.4%	2	0.4%	531	100.0%
Iwaki	114	9.6%	157	13.2%	913	76.9%	3	0.3%	1,187	100.0%
Aizu	83	10.0%	108	13.1%	631	76.4%	4	0.5%	826	100.0%
Minami-aizu	13	15.7%	14	16.9%	55	66.3%	1	1.2%	83	100.0%
Outside Fukushima	10	9.8%	17	16.7%	74	72.5%	1	1.0%	102	100.0%
Total	741	10.3%	1,023	14.2%	5,424	75.2%	26	0.4%	7,214	100.0%

Proportion of the depressed: 24.5% (741 checked both boxes of *Yes*+1,023 checked either of *Yes*/total of 7,214)

Q5. Are you evacuated from your home?

Area	Yes, I am living in temporary housing		Yes, I am living in other kind of accommodation		Have evacuated but returned home		Have never been evacuated		No response		Total	
Kempoku	5	0.3%	43	2.2%	431	22.4%	1,405	72.9%	44	2.3%	1,928	100.0%
Kenchu	3	0.2%	35	1.8%	548	27.8%	1,335	67.7%	50	2.5%	1,971	100.0%
Kennan	0	0.0%	4	0.7%	67	11.4%	503	85.8%	12	2.0%	586	100.0%
Soso	42	7.9%	228	42.9%	167	31.5%	87	16.4%	7	1.3%	531	100.0%
Iwaki	2	0.2%	23	1.9%	689	58.0%	444	37.4%	29	2.4%	1,187	100.0%
Aizu	0	0.0%	9	1.1%	36	4.4%	755	91.4%	26	3.1%	826	100.0%
Minami-aizu	0	0.0%	0	0.0%	5	6.0%	74	89.2%	4	4.8%	83	100.0%
Outside Fukushima	0	0.0%	6	5.9%	5	4.9%	87	85.3%	4	3.9%	102	100.0%
Total	52	0.7%	348	4.8%	1,948	27.0%	4,690	65.0%	176	2.4%	7,214	100.0%

Q6. Are you living apart from family members you previously lived with because of evacuation?

This question is for 400 respondents who answered *Yes* to Q5.

Area	Yes		No		No response		Total	
Kempoku	38	79.2%	9	18.8%	1	2.1%	48	100.0%
Kenchu	20	52.6%	17	44.7%	1	2.6%	38	100.0%
Kennan	1	25.0%	3	75.0%	0	0.0%	4	100.0%
Soso	132	48.9%	138	51.1%	0	0.0%	270	100.0%
Iwaki	9	36.0%	16	64.0%	0	0.0%	25	100.0%
Aizu	2	22.2%	7	77.8%	0	0.0%	9	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	2	33.3%	4	66.7%	0	0.0%	6	100.0%
Total	204	51.0%	194	48.5%	2	0.5%	400	100.0%

Are you communicating well with your family?

This question is for 204 respondents who answered *Yes* to Q6.

Area	Yes		No		Not sure		No response		Total	
Kempoku	26	68.4%	4	10.5%	8	21.1%	0	0.0%	38	100.0%
Kenchu	11	55.0%	1	5.0%	7	35.0%	1	5.0%	20	100.0%
Kennan	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Soso	101	76.5%	2	1.5%	27	20.5%	2	1.5%	132	100.0%
Iwaki	8	88.9%	0	0.0%	1	11.1%	0	0.0%	9	100.0%
Aizu	2	100.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	2	100.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Total	150	73.5%	7	3.4%	44	21.6%	3	1.5%	204	100.0%

Q7. Whom are you living with?

Area	No one		Husband or partner		Children		Parents or parents-in-law		Other		Valid response
Kempoku	0	0.0%	1,837	95.4%	1,742	90.5%	520	27.0%	166	8.6%	1,925
Kenchu	2	0.1%	1,862	94.7%	1,751	89.0%	630	32.0%	182	9.3%	1,967
Kennan	1	0.2%	555	94.7%	519	88.6%	228	38.9%	55	9.4%	586
Soso	2	0.4%	498	94.0%	482	90.9%	143	27.0%	33	6.2%	530
Iwaki	1	0.1%	1,099	92.9%	1,061	89.7%	342	28.9%	64	5.4%	1,183
Aizu	0	0.0%	776	94.5%	752	91.6%	358	43.6%	103	12.5%	821
Minami-aizu	0	0.0%	79	96.3%	79	96.3%	45	54.9%	14	17.1%	82
Outside Fukushima	0	0.0%	99	97.1%	83	81.4%	10	9.8%	3	2.9%	102
Total	6	0.1%	6,805	94.6%	6,469	89.9%	2,276	31.6%	620	8.6%	7,196

The denominator is the sum of valid responses of Q7. Proportion does not total to 100% because of the multiple answers.

Q8. Smoking

1) Tell us about your tobacco use.

a. Did you smoke when you were notified of your recent pregnancy?

Area	Have never smoked		Quit before pregnancy		Quit after pregnancy		Yes		No response		Total	
Kempoku	1,303	67.6%	306	15.9%	239	12.4%	74	3.8%	6	0.3%	1,928	100.0%
Kenchu	1,281	65.0%	290	14.7%	301	15.3%	96	4.9%	3	0.2%	1,971	100.0%
Kennan	362	61.8%	104	17.7%	88	15.0%	31	5.3%	1	0.2%	586	100.0%
Soso	323	60.8%	70	13.2%	98	18.5%	38	7.2%	2	0.4%	531	100.0%
Iwaki	757	63.8%	169	14.2%	175	14.7%	82	6.9%	4	0.3%	1,187	100.0%
Aizu	535	64.8%	129	15.6%	109	13.2%	52	6.3%	1	0.1%	826	100.0%
Minami-aizu	58	69.9%	11	13.3%	10	12.0%	4	4.8%	0	0.0%	83	100.0%
Outside Fukushima	74	72.5%	16	15.7%	9	8.8%	3	2.9%	0	0.0%	102	100.0%
Total	4,693	65.1%	1,095	15.2%	1,029	14.3%	380	5.3%	17	0.2%	7,214	100.0%

b. Did you smoke during the pregnancy?

Area	No		Yes		No response		Total	
Kempoku	1,863	96.6%	53	2.7%	12	0.6%	1,928	100.0%
Kenchu	1,887	95.7%	69	3.5%	15	0.8%	1,971	100.0%
Kennan	565	96.4%	19	3.2%	2	0.3%	586	100.0%
Soso	494	93.0%	32	6.0%	5	0.9%	531	100.0%
Iwaki	1,116	94.0%	59	5.0%	12	1.0%	1,187	100.0%
Aizu	782	94.7%	38	4.6%	6	0.7%	826	100.0%
Minami-aizu	80	96.4%	3	3.6%	0	0.0%	83	100.0%
Outside Fukushima	99	97.1%	1	1.0%	2	2.0%	102	100.0%
Total	6,886	95.5%	274	3.8%	54	0.7%	7,214	100.0%

c. Do you smoke?

Area	No		Yes		No response		Total	
Kempoku	1,823	94.6%	97	5.0%	8	0.4%	1,928	100.0%
Kenchu	1,834	93.0%	130	6.6%	7	0.4%	1,971	100.0%
Kennan	536	91.5%	49	8.4%	1	0.2%	586	100.0%
Soso	468	88.1%	60	11.3%	3	0.6%	531	100.0%
Iwaki	1,100	92.7%	80	6.7%	7	0.6%	1,187	100.0%
Aizu	770	93.2%	54	6.5%	2	0.2%	826	100.0%
Minami-aizu	75	90.4%	8	9.6%	0	0.0%	83	100.0%
Outside Fukushima	100	98.0%	2	2.0%	0	0.0%	102	100.0%
Total	6,706	93.0%	480	6.7%	28	0.4%	7,214	100.0%

2) How often were you exposed to second hand smoke from other people at home, office or outside?

Area	Almost never		One day a week		A few days a week		4-6 days a week		Every day		No response		Total	
Kempoku	1,191	61.8%	248	12.9%	190	9.9%	113	5.9%	184	9.5%	2	0.1%	1,928	100.0%
Kenchu	1,144	58.0%	243	12.3%	201	10.2%	123	6.2%	256	13.0%	4	0.2%	1,971	100.0%
Kennan	333	56.8%	74	12.6%	64	10.9%	45	7.7%	69	11.8%	1	0.2%	586	100.0%
Soso	285	53.7%	63	11.9%	57	10.7%	31	5.8%	93	17.5%	2	0.4%	531	100.0%
Iwaki	658	55.4%	158	13.3%	114	9.6%	81	6.8%	172	14.5%	4	0.3%	1,187	100.0%
Aizu	495	59.9%	82	9.9%	87	10.5%	57	6.9%	102	12.3%	3	0.4%	826	100.0%
Minami-aizu	48	57.8%	10	12.0%	8	9.6%	5	6.0%	12	14.5%	0	0.0%	83	100.0%
Outside Fukushima	66	64.7%	14	13.7%	4	3.9%	6	5.9%	12	11.8%	0	0.0%	102	100.0%
Total	4,220	58.5%	892	12.4%	725	10.0%	461	6.4%	900	12.5%	16	0.2%	7,214	100.0%

Q9. Pregnancy History

The number of times a woman has been pregnant excluding the current one

Area	None		Once		Twice		Three times		Four times		Five times	
Kempoku	743	38.5%	565	29.3%	377	19.6%	162	8.4%	50	2.6%	16	0.8%
Kenchu	831	42.2%	571	29.0%	347	17.6%	135	6.8%	46	2.3%	28	1.4%
Kennan	233	39.8%	186	31.7%	97	16.6%	45	7.7%	13	2.2%	8	1.4%
Soso	220	41.4%	140	26.4%	106	20.0%	38	7.2%	12	2.3%	9	1.7%
Iwaki	450	37.9%	380	32.0%	207	17.4%	97	8.2%	35	2.9%	11	0.9%
Aizu	309	37.4%	239	28.9%	165	20.0%	62	7.5%	35	4.2%	11	1.3%
Minami-aizu	28	33.7%	22	26.5%	23	27.7%	6	7.2%	3	3.6%	1	1.2%
Outside Fukushima	47	46.1%	36	35.3%	15	14.7%	4	3.9%	0	0.0%	0	0.0%
Total	2,861	39.7%	2,139	29.7%	1,337	18.5%	549	7.6%	194	2.7%	84	1.2%

Area	Six times		Seven times		Eight times		Nine times		Ten times		Total	
Kempoku	10	0.5%	2	0.1%	2	0.1%	0	0.0%	1	0.1%	1,928	100.0%
Kenchu	7	0.4%	3	0.2%	1	0.1%	1	0.1%	1	0.1%	1,971	100.0%
Kennan	2	0.3%	1	0.2%	1	0.2%	0	0.0%	0	0.0%	586	100.0%
Soso	4	0.8%	0	0.0%	1	0.2%	0	0.0%	1	0.2%	531	100.0%
Iwaki	3	0.3%	3	0.3%	0	0.0%	1	0.1%	0	0.0%	1,187	100.0%
Aizu	3	0.4%	1	0.1%	1	0.1%	0	0.0%	0	0.0%	826	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	83	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	102	100.0%
Total	29	0.4%	10	0.1%	6	0.1%	2	0.0%	3	0.0%	7,214	100.0%

Outcome

Number of deliveries

Area	None		Once		Twice		Three times		Four times		Five times		Six times		Nine times		Total	
Kempoku	861	44.7%	679	35.2%	321	16.6%	54	2.8%	10	0.5%	1	0.1%	1	0.1%	1	0.1%	1,928	100.0%
Kenchu	960	48.7%	657	33.3%	276	14.0%	63	3.2%	11	0.6%	4	0.2%	0	0.0%	0	0.0%	1,971	100.0%
Kennan	267	45.6%	201	34.3%	91	15.5%	22	3.8%	3	0.5%	2	0.3%	0	0.0%	0	0.0%	586	100.0%
Soso	242	45.6%	167	31.5%	99	18.6%	20	3.8%	1	0.2%	2	0.4%	0	0.0%	0	0.0%	531	100.0%
Iwaki	526	44.3%	427	36.0%	178	15.0%	45	3.8%	9	0.8%	1	0.1%	1	0.1%	0	0.0%	1,187	100.0%
Aizu	353	42.7%	287	34.7%	153	18.5%	25	3.0%	5	0.6%	3	0.4%	0	0.0%	0	0.0%	826	100.0%
Minami-aizu	36	43.4%	22	26.5%	22	26.5%	3	3.6%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	83	100.0%
Outside Fukushima	53	52.0%	42	41.2%	6	5.9%	1	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	102	100.0%
Total	3,298	45.7%	2,482	34.4%	1,146	15.9%	233	3.2%	39	0.5%	13	0.2%	2	0.0%	1	0.0%	7,214	100.0%

Number of miscarriages

Area	None		Once		Twice		Three times		Four times		Five times		Six times		Total	
Kempoku	1,612	83.6%	244	12.7%	57	3.0%	11	0.6%	3	0.2%	0	0.0%	1	0.1%	1,928	100.0%
Kenchu	1,684	85.4%	226	11.5%	45	2.3%	14	0.7%	1	0.1%	1	0.1%	0	0.0%	1,971	100.0%
Kennan	499	85.2%	72	12.3%	13	2.2%	1	0.2%	1	0.2%	0	0.0%	0	0.0%	586	100.0%
Soso	455	85.7%	57	10.7%	17	3.2%	2	0.4%	0	0.0%	0	0.0%	0	0.0%	531	100.0%
Iwaki	1,013	85.3%	136	11.5%	30	2.5%	5	0.4%	3	0.3%	0	0.0%	0	0.0%	1,187	100.0%
Aizu	695	84.1%	103	12.5%	22	2.7%	5	0.6%	0	0.0%	0	0.0%	1	0.1%	826	100.0%
Minami-aizu	67	80.7%	14	16.9%	2	2.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	83	100.0%
Outside Fukushima	88	86.3%	13	12.7%	1	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	102	100.0%
Total	6,113	84.7%	865	12.0%	187	2.6%	38	0.5%	8	0.1%	1	0.0%	2	0.0%	7,214	100.0%

Number of induced abortions

Area	None		Once		Twice		Three times		Four times		Five times		Eight times		Total	
Kempoku	1,762	91.4%	124	6.4%	34	1.8%	5	0.3%	3	0.2%	0	0.0%	0	0.0%	1,928	100.0%
Kenchu	1,803	91.5%	126	6.4%	31	1.6%	7	0.4%	4	0.2%	0	0.0%	0	0.0%	1,971	100.0%
Kennan	546	93.2%	32	5.5%	6	1.0%	0	0.0%	1	0.2%	1	0.2%	0	0.0%	586	100.0%
Soso	493	92.8%	26	4.9%	8	1.5%	3	0.6%	0	0.0%	0	0.0%	1	0.2%	531	100.0%
Iwaki	1,092	92.0%	68	5.7%	18	1.5%	8	0.7%	0	0.0%	1	0.1%	0	0.0%	1,187	100.0%
Aizu	742	89.8%	68	8.2%	13	1.6%	2	0.2%	1	0.1%	0	0.0%	0	0.0%	826	100.0%
Minami-aizu	75	90.4%	7	8.4%	1	1.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	83	100.0%
Outside Fukushima	97	95.1%	5	4.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	102	100.0%
Total	6,610	91.6%	456	6.3%	111	1.5%	25	0.3%	9	0.1%	2	0.0%	1	0.0%	7,214	100.0%

Number of stillbirths

Area	None		Once		Twice		Total	
Kempoku	1,914	99.3%	14	0.7%	0	0.0%	1,928	100.0%
Kenchu	1,942	98.5%	28	1.4%	1	0.1%	1,971	100.0%
Kennan	581	99.1%	5	0.9%	0	0.0%	586	100.0%
Soso	526	99.1%	4	0.8%	1	0.2%	531	100.0%
Iwaki	1,181	99.5%	5	0.4%	1	0.1%	1,187	100.0%
Aizu	819	99.2%	6	0.7%	1	0.1%	826	100.0%
Minami-aizu	82	98.8%	1	1.2%	0	0.0%	83	100.0%
Outside Fukushima	101	99.0%	1	1.0%	0	0.0%	102	100.0%
Total	7,146	99.1%	64	0.9%	4	0.1%	7,214	100.0%

Q10. Tell us about the current pregnancy.

Details of pregnancy

Area	Natural conception		Ovarian hyper-stimulation		Artificial insemination		In vitro fertilization		Ovarian hyperstimulation and artificial insemination		Ovarian hyperstimulation and in vitro fertilization		No response		Total	
Kempoku	1,772	91.9%	64	3.3%	8	0.4%	73	3.8%	3	0.2%	2	0.1%	6	0.3%	1,928	100.0%
Kenchu	1,867	94.7%	34	1.7%	14	0.7%	45	2.3%	3	0.2%	0	0.0%	8	0.4%	1,971	100.0%
Kennan	556	94.9%	11	1.9%	2	0.3%	14	2.4%	0	0.0%	0	0.0%	3	0.5%	586	100.0%
Soso	502	94.5%	6	1.1%	8	1.5%	13	2.4%	0	0.0%	0	0.0%	2	0.4%	531	100.0%
Iwaki	1,108	93.3%	19	1.6%	19	1.6%	34	2.9%	0	0.0%	1	0.1%	6	0.5%	1,187	100.0%
Aizu	765	92.6%	17	2.1%	7	0.8%	29	3.5%	0	0.0%	0	0.0%	8	1.0%	826	100.0%
Minami-aizu	78	94.0%	2	2.4%	2	2.4%	1	1.2%	0	0.0%	0	0.0%	0	0.0%	83	100.0%
Outside Fukushima	98	96.1%	1	1.0%	0	0.0%	3	2.9%	0	0.0%	0	0.0%	0	0.0%	102	100.0%
Total	6,746	93.5%	154	2.1%	60	0.8%	212	2.9%	6	0.1%	3	0.0%	33	0.5%	7,214	100.0%

Outcome

Area	Currently pregnant		Delivered		Miscarriage		Induced abortion		Stillbirth		Total	
Kempoku	3	0.16%	1,905	98.81%	15	0.78%	0	0.00%	5	0.26%	1,928	100.00%
Kenchu	1	0.05%	1,949	98.88%	16	0.81%	2	0.10%	3	0.15%	1,971	100.00%
Kennan	1	0.17%	578	98.63%	2	0.34%	0	0.00%	5	0.85%	586	100.00%
Soso	1	0.19%	523	98.49%	5	0.94%	0	0.00%	2	0.38%	531	100.00%
Iwaki	3	0.25%	1,168	98.32%	11	0.93%	1	0.08%	5	0.42%	1,188	100.00%
Aizu	0	0.00%	818	98.91%	7	0.85%	0	0.00%	2	0.24%	827	100.00%
Minami-aizu	0	0.00%	82	98.80%	0	0.00%	0	0.00%	1	1.20%	83	100.00%
Outside Fukushima	0	0.00%	102	100.00%	0	0.00%	0	0.00%	0	0.00%	102	100.00%
Total	9	0.12%	7,125	98.74%	56	0.78%	3	0.04%	23	0.32%	7,216	100.00%

Due to the different outcomes in twin pregnancy, total number does not match the sum of respondents.

Q11. Singleton pregnancy or twin pregnancy (including the case of a stillbirth)

Area	Singleton		Twin		No response		Total	
Kempoku	1,903	98.7%	23	1.2%	2	0.1%	1,928	100.0%
Kenchu	1,948	98.8%	20	1.0%	3	0.2%	1,971	100.0%
Kennan	578	98.6%	8	1.4%	0	0.0%	586	100.0%
Soso	524	98.7%	7	1.3%	0	0.0%	531	100.0%
Iwaki	1,179	99.3%	7	0.6%	1	0.1%	1,187	100.0%
Aizu	816	98.8%	10	1.2%	0	0.0%	826	100.0%
Minami-aizu	82	98.8%	1	1.2%	0	0.0%	83	100.0%
Outside Fukushima	102	100.0%	0	0.0%	0	0.0%	102	100.0%
Total	7,132	98.9%	76	1.1%	6	0.1%	7,214	100.0%

Q12. Antenatal care after the disaster

Did you receive antenatal care or deliver at the institutions as scheduled?

Area	Yes		No		No response		Total	
Kempoku	1,610	83.5%	311	16.1%	7	0.4%	1,928	100.0%
Kenchu	1,666	84.5%	295	15.0%	10	0.5%	1,971	100.0%
Kennan	524	89.4%	61	10.4%	1	0.2%	586	100.0%
Soso	452	85.1%	77	14.5%	2	0.4%	531	100.0%
Iwaki	1,017	85.7%	161	13.6%	9	0.8%	1,187	100.0%
Aizu	714	86.4%	107	13.0%	5	0.6%	826	100.0%
Minami-aizu	70	84.3%	13	15.7%	0	0.0%	83	100.0%
Outside Fukushima	65	63.7%	37	36.3%	0	0.0%	102	100.0%
Total	6,118	84.8%	1,062	14.7%	34	0.5%	7,214	100.0%

Breakdown of NO

This question is for 1,062 respondents who answered NO.

Area	Other institution within Fukushima*		Other institution outside Fukushima**		Referred to other institution within Fukushima***		Referred to other institution outside Fukushima****		No response		Total	
Kempoku	110	35.4%	59	19.0%	131	42.1%	2	0.6%	9	2.9%	311	100.0%
Kenchu	89	30.2%	55	18.6%	141	47.8%	3	1.0%	7	2.4%	295	100.0%
Kennan	23	37.7%	19	31.1%	17	27.9%	2	3.3%	0	0.0%	61	100.0%
Soso	36	46.8%	16	20.8%	21	27.3%	1	1.3%	3	3.9%	77	100.0%
Iwaki	34	21.1%	33	20.5%	90	55.9%	2	1.2%	2	1.2%	161	100.0%
Aizu	26	24.3%	22	20.6%	58	54.2%	0	0.0%	1	0.9%	107	100.0%
Minami-aizu	5	38.5%	3	23.1%	5	38.5%	0	0.0%	0	0.0%	13	100.0%
Outside Fukushima	2	5.4%	32	86.5%	3	8.1%	0	0.0%	0	0.0%	37	100.0%
Total	325	30.6%	239	22.5%	466	43.9%	10	0.9%	22	2.1%	1,062	100.0%

* Respondents who chose to change their clinics within Fukushima Prefecture.

** Respondents who chose to change their clinics outside Fukushima Prefecture.

*** Respondents who were referred to or transferred to other institutions within Fukushima Prefecture for medical reasons.

**** Respondents who were referred to or transferred to other institutions outside Fukushima Prefecture for medical reasons.

Q13. Did you receive antenatal care as planned?

Area	Yes		No		No response		Total	
Kempoku	1,866	96.8%	56	2.9%	6	0.3%	1,928	100.0%
Kenchu	1,916	97.2%	44	2.2%	11	0.6%	1,971	100.0%
Kennan	577	98.5%	7	1.2%	2	0.3%	586	100.0%
Soso	520	97.9%	9	1.7%	2	0.4%	531	100.0%
Iwaki	1,166	98.2%	15	1.3%	6	0.5%	1,187	100.0%
Aizu	804	97.3%	17	2.1%	5	0.6%	826	100.0%
Minami-aizu	80	96.4%	3	3.6%	0	0.0%	83	100.0%
Outside Fukushima	96	94.1%	6	5.9%	0	0.0%	102	100.0%
Total	7,025	97.4%	157	2.2%	32	0.4%	7,214	100.0%

Breakdown of NO

This question is for 157 respondents who answered NO to the question above.

Area	Could not receive antenatal care and had problems		Could not receive antenatal care and had no problems		No response		Total	
Kempoku	11	19.6%	43	76.8%	2	3.6%	56	100.0%
Kenchu	14	31.8%	28	63.6%	2	4.5%	44	100.0%
Kennan	1	14.3%	6	85.7%	0	0.0%	7	100.0%
Soso	3	33.3%	6	66.7%	0	0.0%	9	100.0%
Iwaki	3	20.0%	10	66.7%	2	13.3%	15	100.0%
Aizu	8	47.1%	8	47.1%	1	5.9%	17	100.0%
Minami-aizu	1	33.3%	2	66.7%	0	0.0%	3	100.0%
Outside Fukushima	2	33.3%	4	66.7%	0	0.0%	6	100.0%
Total	43	27.4%	107	68.2%	7	4.5%	157	100.0%

Q14. Have you suffered from any disease prior to the current pregnancy?

Area	Yes		No		No response		Total	
Kempoku	483	25.1%	1,442	74.8%	3	0.2%	1,928	100.0%
Kenchu	513	26.0%	1,452	73.7%	6	0.3%	1,971	100.0%
Kennan	155	26.5%	427	72.9%	4	0.7%	586	100.0%
Soso	129	24.3%	401	75.5%	1	0.2%	531	100.0%
Iwaki	329	27.7%	854	71.9%	4	0.3%	1,187	100.0%
Aizu	227	27.5%	594	71.9%	5	0.6%	826	100.0%
Minami-aizu	20	24.1%	62	74.7%	1	1.2%	83	100.0%
Outside Fukushima	19	18.6%	82	80.4%	1	1.0%	102	100.0%
Total	1,875	26.0%	5,314	73.7%	25	0.3%	7,214	100.0%

Breakdown of YES (Multiple answers allowed)　　Valid response: 1,867　Invalid response: 8

Area	Other allergic disease[1]		Respiratory disease[2]		Mental illness[3]		Thyroid disease		Intestinal disorder		Neurological disorder[4]		Heart disease[5]		Cancer		Neuromuscular disease[9]	
Kempoku	262	41.1%	91	14.3%	54	8.5%	37	5.8%	24	3.8%	11	1.7%	14	2.2%	8	1.3%	12	1.9%
Kenchu	295	43.7%	93	13.8%	67	9.9%	31	4.6%	24	3.6%	17	2.5%	15	2.2%	4	0.6%	6	0.9%
Kennan	75	36.1%	29	13.9%	23	11.1%	10	4.8%	13	6.3%	9	4.3%	3	1.4%	4	1.9%	4	1.9%
Soso	62	36.0%	28	16.3%	17	9.9%	7	4.1%	7	4.1%	4	2.3%	2	1.2%	4	2.3%	3	1.7%
Iwaki	174	39.7%	72	16.4%	38	8.7%	22	5.0%	17	3.9%	10	2.3%	8	1.8%	8	1.8%	2	0.5%
Aizu	105	34.2%	49	16.0%	25	8.1%	20	6.5%	18	5.9%	8	2.6%	15	4.9%	6	2.0%	6	2.0%
Minami-aizu	6	28.6%	1	4.8%	5	23.8%	0	0.0%	3	14.3%	0	0.0%	2	9.5%	0	0.0%	0	0.0%
Outside Fukushima	9	39.1%	2	8.7%	3	13.0%	2	8.7%	2	8.7%	0	0.0%	0	0.0%	0	0.0%	1	4.3%
Total	988	39.8%	365	14.7%	232	9.3%	129	5.2%	108	4.4%	59	2.4%	59	2.4%	34	1.4%	34	1.4%

Area	Blood disorders[10]		Collagen disease[7]		Liver disease[8]		Hypertension		Hyperlipemia		Infection[6]		Diabetes		Other		Total	
Kempoku	6	0.9%	8	1.3%	6	0.9%	5	0.8%	3	0.5%	6	0.9%	2	0.3%	89	13.9%	638	100.0%
Kenchu	6	0.9%	8	1.2%	6	0.9%	8	1.2%	2	0.3%	5	0.7%	7	1.0%	81	12.0%	675	100.0%
Kennan	5	2.4%	3	1.4%	3	1.4%	1	0.5%	2	1.0%	2	1.0%	0	0.0%	22	10.6%	208	100.0%
Soso	1	0.6%	3	1.7%	3	1.7%	2	1.2%	2	1.2%	0	0.0%	2	1.2%	25	14.5%	172	100.0%
Iwaki	7	1.6%	3	0.7%	1	0.2%	6	1.4%	7	1.6%	4	0.9%	3	0.7%	56	12.8%	438	100.0%
Aizu	7	2.3%	2	0.7%	4	1.3%	0	0.0%	4	1.3%	3	1.0%	2	0.7%	33	10.7%	307	100.0%
Minami-aizu	0	0.0%	0	0.0%	1	4.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	14.3%	21	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	17.4%	23	100.0%
Total	32	1.3%	27	1.1%	24	1.0%	22	0.9%	20	0.8%	20	0.8%	16	0.6%	313	12.6%	2,482	100.0%

1) Atopic dermatitis, Allergic rhinitis　2) Pneumonia, asthma　3) Depression, schizophrenia　4) Cerebral apoplexy, epilepsy　5) Myocardial infarction, angina pectoris, arrhythmia, congenital heart disease

6) Tuberculosis　7) Lupus erythematosus　8) Chronic hepatitis　9) Myasthenia gravis　10) Idiopathic thrombocytopenia

Incidence rate is not shown because of uncertain duration of the disease

Breakdown of OTHER (Multiple answers allowed)

Ovarian tumor	73	Uveitis	3	Laryngopharyngitis	1	Chocolate cyst	1
Myoma of the uterus	51	Lumbar disc herniation	3	Adenoid vegetation	1	Disc hernia	1
Endometriosis	36	Anaphylactoid purpura	2	Dislocation of the hip	1	Anisocoria	1
Polycystic ovary syndrome	10	Hyperprolactinemia	2	Pelviperitonitis	1	Idiopathic osteonecrosis of femoral head	1
Sinusitis	10	Endometrial hyperplasia	2	Tumor of the parotid gland	1	Mastopathy	1
Cervical intraepithelial neoplasia	9	Polyp in the uterus	2	Optic neuritis	1	Breast fibroma	1
Pyelonephritis	9	Purpura nephritis	2	Soft tissue tumors about the knee	1	Bartholinitis	1
Meniere's disease	9	Palmoplantar pustulosis	2	Renal transplantation	1	Nasal hemangioma	1
IgA nephropathy	8	Renal failure	2	Renal calculus	1	Tonsillar hypertrophy	1
Nephritis	6	Hydronephrosis	2	Exudative erythema	1	Cystitis	1
Ureteral lithiasis	6	Scoliosis	2	Renal disease	1	Dizziness	1
Allergic purpura	4	Shingles	2	Deep thrombophlebitis	1	Drug eruption	1
Kawasaki disease	4	Cholecystitis	2	Pancreatitis	1	Lumbar spondylosis and spondylolytic spondylolisthesis	1
Hemorrhoid	4	Nephrotic syndrome	2	Stevens-Johnson syndrome	1	Hydrosalpinx	1
Adenomyosis of the uterus	4	Hernia	2	Contact dermatitis	1	Ovarian teratoma	1
Endometrial polyp	4	Subacute lymphadenitis	1	Condylomata Acuminata	1	Ovarian hemorrhage	1
Cholelithiasis	4	Anaphylactic shock	1	Congenital kyphoscoliosis	1	Glaucoma	1
Hydatidiform mole	4	Angioma cavernosum	1	Destructive hydatidiform mole	1		
Retinal detachment	4	Dentigerous cyst	1	Polycystic kidney	1		
Sarcoidosis	3	Primary aldosteronism	1	Otitis media	1		
Peliosis	3	Teratoma	1	Toxic eruption	1		
Sudden deafness	3	Periarteritis nodosa	1	Hearing impairment	1		

Q15. Have you suffered from any disease during the current pregnancy?

Area	Yes		No		No response		Total	
Kempoku	593	30.8%	1,332	69.1%	3	0.2%	1,928	100.0%
Kenchu	550	27.9%	1,415	71.8%	6	0.3%	1,971	100.0%
Kennan	158	27.0%	424	72.4%	4	0.7%	586	100.0%
Soso	146	27.5%	385	72.5%	0	0.0%	531	100.0%
Iwaki	324	27.3%	860	72.5%	3	0.3%	1,187	100.0%
Aizu	264	32.0%	556	67.3%	6	0.7%	826	100.0%
Minami-aizu	31	37.3%	52	62.7%	0	0.0%	83	100.0%
Outside Fukushima	26	25.5%	75	73.5%	1	1.0%	102	100.0%
Total	2,092	29.0%	5,099	70.7%	23	0.3%	7,214	100.0%

Area	Incidence of all diseases		Valid response
Kempoku	593	30.8%	1,925
Kenchu	550	28.0%	1,965
Kennan	158	27.1%	582
Soso	146	27.5%	531
Iwaki	324	27.4%	1,184
Aizu	264	32.2%	820
Minami-aizu	31	37.3%	83
Outside Fukushima	26	25.7%	101
Total	2,092	29.1%	7,191

The denominator is the sum of valid response of YES and NO.

Incidence

Area	Threatened premature delivery		Threatened abortion		Hypertension in pregnancy		Infectious disease*		Gestational diabetes mellitus		Oligohydramnios		Placenta previa	
Kempoku	271	14.1%	192	10.0%	55	2.9%	51	2.6%	60	3.1%	30	1.6%	19	1.0%
Kenchu	246	12.5%	163	8.3%	74	3.8%	54	2.7%	34	1.7%	36	1.8%	24	1.2%
Kennan	55	9.5%	49	8.4%	24	4.1%	18	3.1%	8	1.4%	12	2.1%	11	1.9%
Soso	64	12.1%	41	7.7%	15	2.8%	11	2.1%	5	0.9%	0	0.0%	9	1.7%
Iwaki	127	10.7%	126	10.6%	33	2.8%	36	3.0%	21	1.8%	19	1.6%	15	1.3%
Aizu	120	14.6%	94	11.5%	23	2.8%	30	3.7%	10	1.2%	7	0.9%	11	1.3%
Minami-aizu	15	18.1%	9	10.8%	3	3.6%	2	2.4%	2	2.4%	1	1.2%	2	2.4%
Outside Fukushima	10	9.9%	6	5.9%	6	5.9%	1	1.0%	4	4.0%	1	1.0%	1	1.0%
Total	908	12.6%	680	9.5%	233	3.2%	203	2.8%	144	2.0%	106	1.5%	92	1.3%

Area	Premature birth		Mental problems including insomnia and anxiety		Miscarriage		Polyhydramnios		Injury		Cerebral apoplexy**		Thrombosis***		Other	
Kempoku	33	1.7%	13	0.7%	11	0.6%	9	0.5%	1	0.1%	0	0.0%	0	0.0%	51	2.6%
Kenchu	19	1.0%	13	0.7%	4	0.2%	5	0.3%	1	0.1%	1	0.1%	0	0.0%	50	2.5%
Kennan	10	1.7%	3	0.5%	1	0.2%	2	0.3%	1	0.2%	0	0.0%	0	0.0%	10	1.7%
Soso	8	1.5%	5	0.9%	5	0.9%	1	0.2%	0	0.0%	0	0.0%	0	0.0%	10	1.9%
Iwaki	9	0.8%	6	0.5%	3	0.3%	4	0.3%	2	0.2%	0	0.0%	1	0.1%	43	3.6%
Aizu	7	0.9%	4	0.5%	4	0.5%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	25	3.0%
Minami-aizu	1	1.2%	1	1.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	3.6%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	1	1.0%	0	0.0%	0	0.0%	0	0.0%	2	2.0%
Total	87	1.2%	45	0.6%	28	0.4%	22	0.3%	6	0.1%	1	0.0%	1	0.0%	194	2.7%

* Pneumonia, influenza, and tetanus, etc.

** Brain infraction, cerebral hemorrhage, etc.

*** Thrombosis, pulmonary embolism, etc.

The denominator is the sum of valid responses.

Proportion does not total to 100% because of multiple answers.

Breakdown of ‘Other’ (Multiple answers allowed)

Myoma of the uterus	28	Endometriosis	2	Vasa previa	1
Ovarian tumor	15	Carpal canal syndrome	2	Diverticulitis of colon	1
Sinusitis	14	Nephritis	2	Gallstone	1
Asthma	13	Twin-to-twin transfusion syndrome	2	Low-tone sensorineural hearing loss	1
Cancer of the uterine cervix	8	Idiopathic thrombocytopenic purpura	2	Idiopathic thrombocytopenia	1
Cervical intraepithelial neoplasia	8	Placenta accreta	2	Sudden deafness	1
Premature ablation of normally implanted placenta	7	Nephrotic syndrome	1	Diabetes insipidus	1
Prurigo gestationis	7	Basedow disease	1	Angioma of nose	1
Endocervical polyp	5	Hunt syndrome	1	Chronic glomerulonephritis	1
Pyelonephritis	4	Protein S deficiency	1	Chronic nephritis	1
Phlebeurysm	4	Meniere's disease	1	Ovarian cancer	1
Inguinal hernia	4	Rheumatoid arthritis	1	Benign paroxysmal positional vertigo	1
Cingulum	4	Calculus	1	Impetigo herpetiformis	1
Arrhythmia	4	Blood type incompatible pregnancy	1	Pancreatitis	1
Condyloma	3	Teleangiectatic granuloma	1	Hypothyroidism	1
Acute appendicitis	3	Harada disease	1	Disc hernia	1
Polyp in the uterus	3	Primary biliary cirrhosis	1		
Cervical incompetence	3	Lumbar disc herniation	1		
Calculus of ureter	3	Neuralgia sciatica	1		
Gestational thrombocytopenia	3	Uterine prolapse	1		
Hives	3	Autonomic dystonia	1		
Hernia	2	Premature ventricular contraction	1		
Polyp	2	Cerebral meningitis	1		
Acute enterocolitis	2	Ileosacral arthritis	1		

Q16. Do you think you received adequate treatment for the disease?

This question is for 3,291 respondents who answered YES to Q14 or 15.

Area	Very much		Yes		Not sure		No		Not at all		No response		Total	
Kempoku	247	28.1%	310	35.3%	117	13.3%	21	2.4%	8	0.9%	176	20.0%	879	100.0%
Kenchu	229	25.6%	321	35.9%	110	12.3%	25	2.8%	9	1.0%	199	22.3%	893	100.0%
Kennan	58	22.1%	106	40.5%	28	10.7%	9	3.4%	1	0.4%	60	22.9%	262	100.0%
Soso	54	22.7%	96	40.3%	26	10.9%	8	3.4%	4	1.7%	50	21.0%	238	100.0%
Iwaki	121	22.7%	175	32.8%	75	14.0%	19	3.6%	11	2.1%	133	24.9%	534	100.0%
Aizu	100	24.8%	175	43.3%	43	10.6%	12	3.0%	5	1.2%	69	17.1%	404	100.0%
Minami-aizu	10	24.4%	13	31.7%	8	19.5%	1	2.4%	0	0.0%	9	22.0%	41	100.0%
Outside Fukushima	11	27.5%	14	35.0%	5	12.5%	2	5.0%	0	0.0%	8	20.0%	40	100.0%
Total	830	25.2%	1,210	36.8%	412	12.5%	97	2.9%	38	1.2%	704	21.4%	3,291	100.0%

Participants who were pregnant for more than 12 weeks and gave birth

Area	Singleton		Twin		No response		Total	
Kempoku	1,880	98.7%	23	1.2%	1	0.1%	1,904	100.0%
Kenchu	1,937	98.9%	20	1.0%	1	0.1%	1,958	100.0%
Kennan	573	98.6%	8	1.4%	0	0.0%	581	100.0%
Soso	520	99.0%	5	1.0%	0	0.0%	525	100.0%
Iwaki	1,166	99.4%	7	0.6%	0	0.0%	1,173	100.0%
Aizu	807	98.8%	10	1.2%	0	0.0%	817	100.0%
Minami-aizu	82	98.8%	1	1.2%	0	0.0%	83	100.0%
Outside Fukushima	102	100.0%	0	0.0%	0	0.0%	102	100.0%
Total	7,067	98.9%	74	1.0%	2	0.0%	7,143	100.0%

The numbers of participants in the following tables (‘The first child of twins’ and ‘The second child of twins’) differ since one of the respondents had a miscarriage before 12 weeks.

Q17. What was your baby’s position at birth?

Singleton

Area	Cephalic presentation		Breech presentation		Other		Not sure		No response		Total	
Kempoku	1,730	92.0%	65	3.5%	34	1.8%	35	1.9%	16	0.9%	1,880	100.0%
Kenchu	1,775	91.6%	70	3.6%	35	1.8%	40	2.1%	17	0.9%	1,937	100.0%
Kennan	513	89.5%	30	5.2%	11	1.9%	12	2.1%	7	1.2%	573	100.0%
Soso	464	89.2%	14	2.7%	22	4.2%	14	2.7%	6	1.2%	520	100.0%
Iwaki	1,064	91.3%	37	3.2%	21	1.8%	31	2.7%	13	1.1%	1,166	100.0%
Aizu	739	91.6%	28	3.5%	14	1.7%	20	2.5%	6	0.7%	807	100.0%
Minami-aizu	75	91.5%	2	2.4%	3	3.7%	1	1.2%	1	1.2%	82	100.0%
Outside Fukushima	96	94.1%	3	2.9%	2	2.0%	1	1.0%	0	0.0%	102	100.0%
Total	6,456	91.4%	249	3.5%	142	2.0%	154	2.2%	66	0.9%	7,067	100.0%

The first child of twins

Area	Cephalic presentation		Breech presentation		Other		Not sure		No response		Total	
Kempoku	18	78.3%	4	17.4%	1	4.3%	0	0.0%	0	0.0%	23	100.0%
Kenchu	11	55.0%	5	25.0%	1	5.0%	3	15.0%	0	0.0%	20	100.0%
Kennan	6	75.0%	0	0.0%	0	0.0%	0	0.0%	2	25.0%	8	100.0%
Soso	5	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	5	100.0%
Iwaki	3	42.9%	2	28.6%	0	0.0%	1	14.3%	1	14.3%	7	100.0%
Aizu	4	40.0%	2	20.0%	1	10.0%	2	20.0%	1	10.0%	10	100.0%
Minami-aizu	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	48	64.9%	13	17.6%	3	4.1%	6	8.1%	4	5.4%	74	100.0%

The second child of twins

Area	Cephalic presentation		Breech presentation		Other		Not sure		No response		Total	
Kempoku	15	65.2%	7	30.4%	1	4.3%	0	0.0%	0	0.0%	23	100.0%
Kenchu	11	55.0%	5	25.0%	1	5.0%	3	15.0%	0	0.0%	20	100.0%
Kennan	5	62.5%	1	12.5%	0	0.0%	0	0.0%	2	25.0%	8	100.0%
Soso	2	40.0%	2	40.0%	1	20.0%	0	0.0%	0	0.0%	5	100.0%
Iwaki	0	0.0%	2	28.6%	0	0.0%	3	42.9%	2	28.6%	7	100.0%
Aizu	3	33.3%	4	44.4%	1	11.1%	1	11.1%	0	0.0%	9	100.0%
Minami-aizu	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	36	49.3%	22	30.1%	4	5.5%	7	9.6%	4	5.5%	73	100.0%

Q18. How many weeks' gestation were you when you gave birth?

Singleton

Area	12-21 weeks		22-23 weeks		24-27 weeks		28-31 weeks		32-36 weeks		37-41 weeks		≥42 weeks		Total	
Kempoku	4	0.2%	2	0.1%	2	0.1%	7	0.4%	70	3.7%	1,791	95.3%	4	0.2%	1,880	100.0%
Kenchu	11	0.6%	0	0.0%	5	0.3%	6	0.3%	61	3.1%	1,849	95.5%	5	0.3%	1,937	100.0%
Kennan	1	0.2%	0	0.0%	5	0.9%	1	0.2%	26	4.5%	533	93.0%	7	1.2%	573	100.0%
Soso	1	0.2%	0	0.0%	0	0.0%	1	0.2%	26	5.0%	491	94.4%	1	0.2%	520	100.0%
Iwaki	5	0.4%	2	0.2%	4	0.3%	5	0.4%	53	4.5%	1,088	93.3%	9	0.8%	1,166	100.0%
Aizu	2	0.2%	0	0.0%	0	0.0%	4	0.5%	33	4.1%	766	94.9%	2	0.2%	807	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	2.4%	80	97.6%	0	0.0%	82	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	1.0%	101	99.0%	0	0.0%	102	100.0%
Total	24	0.3%	4	0.1%	16	0.2%	24	0.3%	272	3.8%	6,699	94.8%	28	0.4%	7,067	100.0%

Twin

Area	12-21 weeks		22-23 weeks		24-27 weeks		28-31 weeks		32-36 weeks		37-41 weeks		≥42 weeks		Total	
Kempoku	0	0.0%	0	0.0%	0	0.0%	0	0.0%	9	39.1%	14	60.9%	0	0.0%	23	100.0%
Kenchu	0	0.0%	0	0.0%	0	0.0%	2	10.0%	10	50.0%	8	40.0%	0	0.0%	20	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	25.0%	6	75.0%	0	0.0%	8	100.0%
Soso	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	80.0%	1	20.0%	0	0.0%	5	100.0%
Iwaki	0	0.0%	0	0.0%	0	0.0%	1	14.3%	4	57.1%	2	28.6%	0	0.0%	7	100.0%
Aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	40.0%	6	60.0%	0	0.0%	10	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	0	0.0%	0	0.0%	0	0.0%	3	4.1%	33	44.6%	38	51.4%	0	0.0%	74	100.0%

Proportion of premature birth*

(Premature birth is one that occurs between 22 and 36 week of pregnancy.)

Singleton and twin pregnancy

Area	Number of delivery by weeks								Number of premature birth	Proportion**
		Premature birth								
	12-21	22-23	24-27	28-31	32-36	37-41	42-	Total	22-36 weeks	
Kempoku	4	2	2	7	88	1,819	4	1,926	99	5.15%
Kenchu	11	0	5	10	81	1,865	5	1,977	96	4.88%
Kennan	1	0	5	1	30	545	7	589	36	6.12%
Soso	1	0	0	1	34	493	1	530	35	6.62%
Iwaki	5	2	4	7	61	1,092	9	1,180	74	6.30%
Aizu	2	0	0	4	41	777	2	826	45	5.46%
Minami-aizu	0	0	0	0	2	82	0	84	2	2.38%
Outside Fukushima	0	0	0	0	1	101	0	102	1	0.98%
Total	24	4	16	30	338	6,774	28	7,214	388	5.40%

*Excluding those who checked NOT SURE, and pregnant for less than 12 weeks.

**The denominator excludes the number of delivery less than 22 weeks.

Details of delivery

Singleton

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	1,320	70.2%	214	11.4%	326	17.3%	20	1.1%	1,880	100.0%
Kenchu	1,307	67.5%	240	12.4%	374	19.3%	16	0.8%	1,937	100.0%
Kennan	392	68.4%	57	9.9%	114	19.9%	10	1.7%	573	100.0%
Soso	279	53.7%	124	23.8%	108	20.8%	9	1.7%	520	100.0%
Iwaki	761	65.3%	166	14.2%	226	19.4%	13	1.1%	1,166	100.0%
Aizu	540	66.9%	82	10.2%	176	21.8%	9	1.1%	807	100.0%
Minami-aizu	53	64.6%	6	7.3%	22	26.8%	1	1.2%	82	100.0%
Outside Fukushima	68	66.7%	14	13.7%	20	19.6%	0	0.0%	102	100.0%
Total	4,720	66.8%	903	12.8%	1,366	19.3%	78	1.1%	7,067	100.0%

The first child of twins

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	5	21.7%	2	8.7%	16	69.6%	0	0.0%	23	100.0%
Kenchu	3	15.0%	0	0.0%	17	85.0%	0	0.0%	20	100.0%
Kennan	1	12.5%	1	12.5%	5	62.5%	1	12.5%	8	100.0%
Soso	0	0.0%	0	0.0%	5	100.0%	0	0.0%	5	100.0%
Iwaki	0	0.0%	0	0.0%	7	100.0%	0	0.0%	7	100.0%
Aizu	1	10.0%	0	0.0%	9	90.0%	0	0.0%	10	100.0%
Minami-aizu	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	10	13.5%	3	4.1%	60	81.1%	1	1.4%	74	100.0%

The second child of twins

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	5	21.7%	2	8.7%	16	69.6%	0	0.0%	23	100.0%
Kenchu	2	10.0%	1	5.0%	17	85.0%	0	0.0%	20	100.0%
Kennan	1	12.5%	0	0.0%	6	75.0%	1	12.5%	8	100.0%
Soso	0	0.0%	0	0.0%	5	100.0%	0	0.0%	5	100.0%
Iwaki	0	0.0%	0	0.0%	6	85.7%	1	14.3%	7	100.0%
Aizu	0	0.0%	0	0.0%	9	100.0%	0	0.0%	9	100.0%
Minami-aizu	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	8	11.0%	3	4.1%	60	82.2%	2	2.7%	73	100.0%

The ratio of male to female by area (Singleton and twin pregnancies)

Area	Male		Female		No response		Total	
Kempoku	955	49.6%	966	50.2%	5	0.3%	1,926	100.0%
Kenchu	991	50.1%	976	49.4%	10	0.5%	1,977	100.0%
Kennan	267	45.3%	320	54.3%	2	0.3%	589	100.0%
Soso	276	52.1%	253	47.7%	1	0.2%	530	100.0%
Iwaki	621	52.6%	556	47.1%	3	0.3%	1,180	100.0%
Aizu	425	51.5%	399	48.3%	2	0.2%	826	100.0%
Minami-aizu	42	50.0%	42	50.0%	0	0.0%	84	100.0%
Outside Fukushima	53	52.0%	49	48.0%	0	0.0%	102	100.0%
Total	3,630	50.3%	3,561	49.4%	23	0.3%	7,214	100.0%

Q19. State of newborn baby

Newborn baby birth weight (Singleton pregnancy) Mean±SD (g) (n)

Area	Total	Male	Female	No response
Kempoku	3,012.3 ± 424.1 (1,877)	3,055.1 ± 435.2 (929)	2,973.6 ± 398.0 (946)	3
Kenchu	3,010.1 ± 458.2 (1,928)	3,075.5 ± 455.2 (966)	2,953.5 ± 422.5 (959)	9
Kennan	3,018.4 ± 486.8 (573)	3,030.3 ± 435.1 (261)	3,017.6 ± 502.4 (311)	0
Soso	3,026.2 ± 403.7 (519)	3,073.7 ± 395.3 (271)	2,974.2 ± 407.1 (248)	1
Iwaki	3,007.4 ± 447.7 (1,163)	3,053.0 ± 458.2 (616)	2,956.0 ± 430.3 (547)	3
Aizu	3,011.9 ± 421.4 (805)	3,061.8 ± 446.2 (411)	2,959.8 ± 388.1 (393)	2
Minami-aizu	3,022.2 ± 433.6 (82)	3,023.3 ± 369.9 (40)	3,021.2 ± 491.2 (42)	0
Outside Fukushima	3,068.0 ± 391.3 (102)	3,160.0 ± 413.9 (53)	2,968.6 ± 342.3 (49)	0
Total	3,013.3 ± 440.7 (7,049)	3,061.9 ± 442.2 (3,547)	2,968.3 ± 420.1 (3,495)	18

(n): Number of valid response

The total number includes babies with indeterminate sex.

Males and females (Singleton pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg	
Kempoku	7	0.4%	4	0.2%	14	0.7%	119	6.3%	756	40.2%
Kenchu	12	0.6%	6	0.3%	16	0.8%	128	6.6%	745	38.5%
Kennan	6	1.0%	2	0.3%	4	0.7%	43	7.5%	209	36.5%
Soso	1	0.2%	0	0.0%	4	0.8%	36	6.9%	204	39.2%
Iwaki	8	0.7%	3	0.3%	7	0.6%	97	8.3%	429	36.8%
Aizu	2	0.2%	2	0.2%	8	1.0%	64	7.9%	310	38.4%
Minami-aizu	0	0.0%	0	0.0%	1	1.2%	5	6.1%	30	36.6%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	6	5.9%	36	35.3%
Total	36	0.5%	17	0.2%	54	0.8%	498	7.0%	2,719	38.5%

Area	3.0-<3.5 kg		3.5-<4.0 kg		4.0-<4.5 kg		≥4.5 kg		No response		Total	
Kempoku	796	42.3%	169	9.0%	11	0.6%	1	0.1%	3	0.2%	1,880	100.0%
Kenchu	803	41.5%	196	10.1%	21	1.1%	1	0.1%	9	0.5%	1,937	100.0%
Kennan	243	42.4%	58	10.1%	7	1.2%	1	0.2%	0	0.0%	573	100.0%
Soso	216	41.5%	53	10.2%	5	1.0%	0	0.0%	1	0.2%	520	100.0%
Iwaki	495	42.5%	114	9.8%	8	0.7%	2	0.2%	3	0.3%	1,166	100.0%
Aizu	329	40.8%	87	10.8%	2	0.2%	1	0.1%	2	0.2%	807	100.0%
Minami-aizu	38	46.3%	7	8.5%	1	1.2%	0	0.0%	0	0.0%	82	100.0%
Outside Fukushima	46	45.1%	13	12.7%	1	1.0%	0	0.0%	0	0.0%	102	100.0%
Total	2,966	42.0%	697	9.9%	56	0.8%	6	0.1%	18	0.3%	7,067	100.0%

Males (Singleton pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg	
Kempoku	4	0.4%	3	0.3%	4	0.4%	59	6.4%	324	34.9%
Kenchu	6	0.6%	0	0.0%	6	0.6%	51	5.3%	328	33.9%
Kennan	1	0.4%	1	0.4%	2	0.8%	20	7.7%	92	35.2%
Soso	0	0.0%	0	0.0%	1	0.4%	19	7.0%	94	34.7%
Iwaki	5	0.8%	2	0.3%	4	0.6%	35	5.7%	209	33.9%
Aizu	2	0.5%	1	0.2%	5	1.2%	26	6.3%	135	32.8%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	2	5.0%	14	35.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	4	7.5%	12	22.6%
Total	18	0.5%	7	0.2%	22	0.6%	216	6.1%	1,208	34.0%

Area	3.0-<3.5 kg		3.5-<4.0 kg		4.0-<4.5 kg		≥4.5 kg		No response		Total	
Kempoku	425	45.7%	104	11.2%	5	0.5%	1	0.1%	0	0.0%	929	100.0%
Kenchu	432	44.6%	127	13.1%	15	1.5%	1	0.1%	2	0.2%	968	100.0%
Kennan	118	45.2%	26	10.0%	0	0.0%	1	0.4%	0	0.0%	261	100.0%
Soso	121	44.6%	31	11.4%	5	1.8%	0	0.0%	0	0.0%	271	100.0%
Iwaki	289	46.8%	65	10.5%	5	0.8%	2	0.3%	1	0.2%	617	100.0%
Aizu	183	44.4%	57	13.8%	2	0.5%	0	0.0%	1	0.2%	412	100.0%
Minami-aizu	21	52.5%	3	7.5%	0	0.0%	0	0.0%	0	0.0%	40	100.0%
Outside Fukushima	27	50.9%	9	17.0%	1	1.9%	0	0.0%	0	0.0%	53	100.0%
Total	1,616	45.5%	422	11.9%	33	0.9%	5	0.1%	4	0.1%	3,551	100.0%

Females (Singleton pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg	
Kempoku	2	0.2%	1	0.1%	10	1.1%	60	6.3%	431	45.6%
Kenchu	3	0.3%	6	0.6%	10	1.0%	77	8.0%	417	43.5%
Kennan	4	1.3%	1	0.3%	2	0.6%	23	7.4%	117	37.6%
Soso	1	0.4%	0	0.0%	3	1.2%	17	6.9%	110	44.4%
Iwaki	3	0.5%	1	0.2%	3	0.5%	62	11.3%	220	40.2%
Aizu	0	0.0%	1	0.3%	3	0.8%	38	9.7%	174	44.3%
Minami-aizu	0	0.0%	0	0.0%	1	2.4%	3	7.1%	16	38.1%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	2	4.1%	24	49.0%
Total	13	0.4%	10	0.3%	32	0.9%	282	8.1%	1,509	43.2%

Area	3.0-<3.5 kg		3.5-<4.0 kg		4.0-<4.5 kg		≥4.5 kg		No response		Total	
Kempoku	371	39.2%	65	6.9%	6	0.6%	0	0.0%	0	0.0%	946	100.0%
Kenchu	371	38.7%	69	7.2%	6	0.6%	0	0.0%	0	0.0%	959	100.0%
Kennan	125	40.2%	32	10.3%	7	2.3%	0	0.0%	0	0.0%	311	100.0%
Soso	95	38.3%	22	8.9%	0	0.0%	0	0.0%	0	0.0%	248	100.0%
Iwaki	206	37.7%	49	9.0%	3	0.5%	0	0.0%	0	0.0%	547	100.0%
Aizu	146	37.2%	30	7.6%	0	0.0%	1	0.3%	0	0.0%	393	100.0%
Minami-aizu	17	40.5%	4	9.5%	1	2.4%	0	0.0%	0	0.0%	42	100.0%
Outside Fukushima	19	38.8%	4	8.2%	0	0.0%	0	0.0%	0	0.0%	49	100.0%
Total	1,350	38.6%	275	7.9%	23	0.7%	1	0.0%	0	0.0%	3,495	100.0%

Newborn baby birth weight (Twin pregnancy)

Mean (g) ±SD (Valid response)

Area	Total	Male	Female	No response
Kempoku	2,314.5 ± 343.3 (46)	2,245.0 ± 371.8 (26)	2,404.8 ± 286.4 (20)	0
Kenchu	2,012.4 ± 455.7 (40)	2,070.3 ± 406.7 (23)	1,934.0 ± 517.1 (17)	0
Kennan	2,449.1 ± 195.5 (15)	2,550.5 ± 100.3 (6)	2,381.4 ± 218.5 (9)	1
Soso	2,283.4 ± 360.4 (10)	2,188.8 ± 478.9 (5)	2,378.0 ± 201.2 (5)	0
Iwaki	2,068.3 ± 530.9 (13)	1,921.5 ± 670.4 (4)	2,133.6 ± 488.6 (9)	1
Aizu	2,366.5 ± 397.4 (19)	2,444.6 ± 258.0 (13)	2,197.3 ± 598.9 (6)	0
Minami-aizu	2,185.0 ± 12.7 (2)	2,185.0 ± 12.7 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	2,225.9 ± 416.7 (145)	2,228.7 ± 398.9 (79)	2,222.5 ± 440.1 (66)	2

The total number includes babies with indeterminate sex.

Newborn baby birth weight

Males and females (Twin pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg		3.0-<3.5 kg		No response		Total	
Kempoku	0	0.0%	1	2.2%	8	17.4%	26	56.5%	11	23.9%	0	0.0%	0	0.0%	46	100.0%
Kenchu	0	0.0%	6	15.0%	13	32.5%	17	42.5%	3	7.5%	1	2.5%	0	0.0%	40	100.0%
Kennan	0	0.0%	0	0.0%	1	6.3%	6	37.5%	8	50.0%	0	0.0%	1	6.3%	16	100.0%
Soso	0	0.0%	0	0.0%	2	20.0%	5	50.0%	3	30.0%	0	0.0%	0	0.0%	10	100.0%
Iwaki	2	14.3%	0	0.0%	3	21.4%	7	50.0%	1	7.1%	0	0.0%	1	7.1%	14	100.0%
Aizu	0	0.0%	0	0.0%	5	26.3%	6	31.6%	8	42.1%	0	0.0%	0	0.0%	19	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	2	1.4%	7	4.8%	32	21.8%	69	46.9%	34	23.1%	1	0.7%	2	1.4%	147	100.0%

Males (Twin pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg		3.0-<3.5 kg		Total	
Kempoku	0	0.0%	1	3.8%	6	23.1%	13	50.0%	6	23.1%	0	0.0%	26	100.0%
Kenchu	0	0.0%	3	13.0%	6	26.1%	12	52.2%	2	8.7%	0	0.0%	23	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	1	16.7%	5	83.3%	0	0.0%	6	100.0%
Soso	0	0.0%	0	0.0%	2	40.0%	1	20.0%	2	40.0%	0	0.0%	5	100.0%
Iwaki	1	25.0%	0	0.0%	1	25.0%	2	50.0%	0	0.0%	0	0.0%	4	100.0%
Aizu	0	0.0%	0	0.0%	1	7.7%	6	46.2%	6	46.2%	0	0.0%	13	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	1	1.3%	4	5.1%	16	20.3%	37	46.8%	21	26.6%	0	0.0%	79	100.0%

Females (Twin pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg		3.0-<3.5 kg		Total	
Kempoku	0	0.0%	0	0.0%	2	10.0%	13	65.0%	5	25.0%	0	0.0%	20	100.0%
Kenchu	0	0.0%	3	17.6%	7	41.2%	5	29.4%	1	5.9%	1	5.9%	17	100.0%
Kennan	0	0.0%	0	0.0%	1	11.1%	5	55.6%	3	33.3%	0	0.0%	9	100.0%
Soso	0	0.0%	0	0.0%	0	0.0%	4	80.0%	1	20.0%	0	0.0%	5	100.0%
Iwaki	1	11.1%	0	0.0%	2	22.2%	5	55.6%	1	11.1%	0	0.0%	9	100.0%
Aizu	0	0.0%	0	0.0%	4	66.7%	0	0.0%	2	33.3%	0	0.0%	6	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	1	1.5%	3	4.5%	16	24.2%	32	48.5%	13	19.7%	1	1.5%	66	100.0%

Newborn baby birth weight (Singleton and twin pregnancies)

Excluding 20 participants with no response

Area	<1.0 kg	1.0-<1.5 kg	1.5-<2.0 kg	2.0-<2.5 kg	2.5-<3.0 kg	3.0-<3.5 kg	3.5-<4.0 kg	4.0-<4.5 kg	≥4.5 kg	Total	Low birth weight infant	Proportion of low birth weight infant
Kempoku	7	5	22	145	767	796	169	11	1	1,923	179	9.3%
Kenchu	12	12	29	145	748	804	196	21	1	1,968	198	10.1%
Kennan	6	2	5	49	217	243	58	7	1	588	62	10.5%
Soso	1	0	6	41	207	216	53	5	0	529	48	9.1%
Iwaki	10	3	10	104	430	495	114	8	2	1,176	127	10.8%
Aizu	2	2	13	70	318	329	87	2	1	824	87	10.6%
Minami-aizu	0	0	1	7	30	38	7	1	0	84	8	9.5%
Outside Fukushima	0	0	0	6	36	46	13	1	0	102	6	5.9%
Total	38	24	86	567	2,753	2,967	697	56	6	7,194	715	9.9%

Newborn baby birth height (Singleton pregnancy) Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	49.0 ± 2.7 (1,871)	49.3 ± 2.7 (927)	48.8 ± 2.4 (942)	9
Kenchu	49.0 ± 2.8 (1,918)	49.4 ± 2.7 (963)	48.6 ± 2.3 (953)	19
Kennan	49.2 ± 3.5 (568)	49.4 ± 3.7 (260)	49.1 ± 2.8 (307)	5
Soso	48.7 ± 3.0 (518)	48.9 ± 3.6 (271)	48.5 ± 2.1 (247)	2
Iwaki	49.0 ± 3.0 (1,159)	49.3 ± 2.8 (614)	48.7 ± 2.6 (544)	7
Aizu	48.7 ± 2.4 (799)	48.9 ± 2.8 (408)	48.4 ± 2.0 (391)	8
Minami-aizu	48.8 ± 2.2 (81)	48.9 ± 1.9 (39)	48.8 ± 2.4 (42)	1
Outside Fukushima	49.0 ± 1.9 (101)	49.1 ± 2.0 (52)	48.9 ± 1.9 (49)	1
Total	49.0 ± 2.8 (7,015)	49.3 ± 2.9 (3,534)	48.7 ± 2.4 (3,475)	52

(n): Number of valid response

The total number includes babies with indeterminate sex.

Newborn baby birth height

Males and females (Singleton pregnancy)

Area	<47 cm		47-<48 cm		48-<49 cm		49-<50 cm		50-<51 cm	
Kempoku	212	11.3%	212	11.3%	277	14.7%	397	21.1%	391	20.8%
Kenchu	206	10.6%	203	10.5%	302	15.6%	387	20.0%	437	22.6%
Kennan	52	9.1%	38	6.6%	74	12.9%	117	20.4%	131	22.9%
Soso	72	13.8%	68	13.1%	92	17.7%	105	20.2%	89	17.1%
Iwaki	141	12.1%	100	8.6%	188	16.1%	248	21.3%	249	21.4%
Aizu	122	15.1%	100	12.4%	140	17.3%	151	18.7%	184	22.8%
Minami-aizu	15	18.3%	8	9.8%	16	19.5%	14	17.1%	14	17.1%
Outside Fukushima	14	13.7%	11	10.8%	12	11.8%	23	22.5%	20	19.6%
Total	834	11.8%	740	10.5%	1,101	15.6%	1,442	20.4%	1,515	21.4%

Area	51-<52 cm		≥52 cm		No response		Total	
Kempoku	231	12.3%	151	8.0%	9	0.5%	1,880	100.0%
Kenchu	237	12.2%	146	7.5%	19	1.0%	1,937	100.0%
Kennan	91	15.9%	65	11.3%	5	0.9%	573	100.0%
Soso	58	11.2%	34	6.5%	2	0.4%	520	100.0%
Iwaki	141	12.1%	92	7.9%	7	0.6%	1,166	100.0%
Aizu	62	7.7%	40	5.0%	8	1.0%	807	100.0%
Minami-aizu	6	7.3%	8	9.8%	1	1.2%	82	100.0%
Outside Fukushima	15	14.7%	6	5.9%	1	1.0%	102	100.0%
Total	841	11.9%	542	7.7%	52	0.7%	7,067	100.0%

Males (Singleton pregnancy)

Area	<47 cm		47-<48 cm		48-<49 cm		49-<50 cm		50-<51 cm	
Kempoku	75	8.1%	93	10.0%	119	12.8%	207	22.3%	206	22.2%
Kenchu	78	8.1%	84	8.7%	131	13.5%	194	20.0%	215	22.2%
Kennan	21	8.0%	15	5.7%	28	10.7%	55	21.1%	61	23.4%
Soso	29	10.7%	36	13.3%	44	16.2%	55	20.3%	48	17.7%
Iwaki	57	9.2%	56	9.1%	78	12.6%	124	20.1%	143	23.2%
Aizu	53	12.9%	43	10.4%	58	14.1%	88	21.4%	96	23.3%
Minami-aizu	6	15.0%	2	5.0%	11	27.5%	6	15.0%	9	22.5%
Outside Fukushima	7	13.2%	5	9.4%	7	13.2%	10	18.9%	8	15.1%
Total	326	9.2%	334	9.4%	476	13.4%	739	20.8%	786	22.1%

Area	51-<52 cm		≥52 cm		No response		Total	
Kempoku	128	13.8%	99	10.7%	2	0.2%	929	100.0%
Kenchu	149	15.4%	112	11.6%	5	0.5%	968	100.0%
Kennan	48	18.4%	32	12.3%	1	0.4%	261	100.0%
Soso	36	13.3%	23	8.5%	0	0.0%	271	100.0%
Iwaki	89	14.4%	67	10.9%	3	0.5%	617	100.0%
Aizu	40	9.7%	30	7.3%	4	1.0%	412	100.0%
Minami-aizu	3	7.5%	2	5.0%	1	2.5%	40	100.0%
Outside Fukushima	14	26.4%	1	1.9%	1	1.9%	53	100.0%
Total	507	14.3%	366	10.3%	17	0.5%	3,551	100.0%

Females (Singleton pregnancy)

Area	<47 cm		47-<48cm		48-<49 cm		49-<50 cm		50-<51 cm	
Kempoku	136	14.4%	119	12.6%	157	16.6%	190	20.1%	185	19.6%
Kenchu	126	13.1%	119	12.4%	171	17.8%	193	20.1%	222	23.1%
Kennan	30	9.6%	23	7.4%	46	14.8%	62	19.9%	70	22.5%
Soso	43	17.3%	32	12.9%	48	19.4%	50	20.2%	41	16.5%
Iwaki	83	15.2%	44	8.0%	110	20.1%	124	22.7%	106	19.4%
Aizu	69	17.6%	57	14.5%	82	20.9%	63	16.0%	88	22.4%
Minami-aizu	9	21.4%	6	14.3%	5	11.9%	8	19.0%	5	11.9%
Outside Fukushima	7	14.3%	6	12.2%	5	10.2%	13	26.5%	12	24.5%
Total	503	14.4%	406	11.6%	624	17.9%	703	20.1%	729	20.9%

Area	51-<52 cm		≥52 cm		No response		Total	
Kempoku	103	10.9%	52	5.5%	4	0.4%	946	100.0%
Kenchu	88	9.2%	34	3.5%	6	0.6%	959	100.0%
Kennan	43	13.8%	33	10.6%	4	1.3%	311	100.0%
Soso	22	8.9%	11	4.4%	1	0.4%	248	100.0%
Iwaki	52	9.5%	25	4.6%	3	0.5%	547	100.0%
Aizu	22	5.6%	10	2.5%	2	0.5%	393	100.0%
Minami-aizu	3	7.1%	6	14.3%	0	0.0%	42	100.0%
Outside Fukushima	1	2.0%	5	10.2%	0	0.0%	49	100.0%
Total	334	9.6%	176	5.0%	20	0.6%	3,495	100.0%

Newborn baby birth height (Twin pregnancy)

Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	46.0 ± 2.5 (46)	45.8 ± 2.7 (26)	46.3 ± 2.2 (20)	0
Kenchu	43.3 ± 4.4 (40)	44.2 ± 3.2 (23)	41.9 ± 5.3 (17)	0
Kennan	46.3 ± 2.2 (15)	48.0 ± 1.1 (6)	45.2 ± 2.1 (9)	1
Soso	45.1 ± 3.1 (10)	43.6 ± 3.0 (5)	46.6 ± 2.7 (5)	0
Iwaki	43.3 ± 3.7 (13)	42.4 ± 5.2 (4)	43.7 ± 3.2 (9)	1
Aizu	45.3 ± 2.6 (19)	46.0 ± 1.9 (13)	43.8 ± 3.4 (6)	0
Minami-aizu	44.8 ± 1.1 (2)	44.8 ± 1.1 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	44.9 ± 3.4 (145)	45.2 ± 3.0 (79)	44.5 ± 3.8 (66)	2

The total number includes babies with indeterminate sex.

Newborn baby birth height

Males and females (Twin pregnancy)

Area	<44 cm		44-<45 cm		45-<46 cm		46-<47 cm		47-<48 cm		48-<49 cm		≥49 cm		No response		Total	
Kempoku	8	17.4%	3	6.5%	7	15.2%	5	10.9%	9	19.6%	9	19.6%	5	10.9%	0	0.0%	46	100.0%
Kenchu	19	47.5%	4	10.0%	4	10.0%	4	10.0%	3	7.5%	3	7.5%	3	7.5%	0	0.0%	40	100.0%
Kennan	3	18.8%	0	0.0%	3	18.8%	2	12.5%	1	6.3%	4	25.0%	2	12.5%	1	6.3%	16	100.0%
Soso	3	30.0%	2	20.0%	1	10.0%	1	10.0%	0	0.0%	2	20.0%	1	10.0%	0	0.0%	10	100.0%
Iwaki	4	28.6%	2	14.3%	7	50.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	7.1%	14	100.0%
Aizu	6	31.6%	1	5.3%	2	10.5%	2	10.5%	5	26.3%	1	5.3%	2	10.5%	0	0.0%	19	100.0%
Minami-aizu	0	0.0%	1	50.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	43	29.3%	13	8.8%	25	17.0%	14	9.5%	18	12.2%	19	12.9%	13	8.8%	2	1.4%	147	100.0%

Males (Twin pregnancy)

Area	<44 cm		44-<45 cm		45-<46 cm		46-<47 cm		47-<48 cm		48-<49 cm		≥49 cm		Total	
Kempoku	5	19.2%	2	7.7%	4	15.4%	3	11.5%	5	19.2%	4	15.4%	3	11.5%	26	100.0%
Kenchu	9	39.1%	3	13.0%	4	17.4%	3	13.0%	1	4.3%	1	4.3%	2	8.7%	23	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	1	16.7%	1	16.7%	2	33.3%	2	33.3%	6	100.0%
Soso	2	40.0%	2	40.0%	0	0.0%	0	0.0%	0	0.0%	1	20.0%	0	0.0%	5	100.0%
Iwaki	1	25.0%	1	25.0%	2	50.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	100.0%
Aizu	2	15.4%	1	7.7%	2	15.4%	2	15.4%	4	30.8%	1	7.7%	1	7.7%	13	100.0%
Minami-aizu	0	0.0%	1	50.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	19	24.1%	10	12.7%	13	16.5%	9	11.4%	11	13.9%	9	11.4%	8	10.1%	79	100.0%

Females (Twin pregnancy)

Area	<44 cm		44-<45 cm		45-<46 cm		46-<47 cm		47-<48 cm		48-<49 cm		≥49 cm		Total	
Kempoku	3	15.0%	1	5.0%	3	15.0%	2	10.0%	4	20.0%	5	25.0%	2	10.0%	20	100.0%
Kenchu	10	58.8%	1	5.9%	0	0.0%	1	5.9%	2	11.8%	2	11.8%	1	5.9%	17	100.0%
Kennan	3	33.3%	0	0.0%	3	33.3%	1	11.1%	0	0.0%	2	22.2%	0	0.0%	9	100.0%
Soso	1	20.0%	0	0.0%	1	20.0%	1	20.0%	0	0.0%	1	20.0%	1	20.0%	5	100.0%
Iwaki	3	33.3%	1	11.1%	5	55.6%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	9	100.0%
Aizu	4	66.7%	0	0.0%	0	0.0%	0	0.0%	1	16.7%	0	0.0%	1	16.7%	6	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	24	36.4%	3	4.5%	12	18.2%	5	7.6%	7	10.6%	10	15.2%	5	7.6%	66	100.0%

The total number below includes babies with indeterminate sex.

Chest circumference (Singleton pregnancy) Mean (cm)±SD (n)

Area	Total	Male	Female	No response
Kempoku	31.6 ± 1.7 (1,850)	31.7 ± 1.7 (917)	31.5 ± 1.7 (933)	30
Kenchu	31.7 ± 1.8 (1,901)	32.0 ± 1.8 (954)	31.5 ± 1.8 (947)	36
Kennan	31.8 ± 2.0 (564)	31.8 ± 1.9 (259)	31.8 ± 2.1 (305)	9
Soso	31.8 ± 1.7 (511)	32.0 ± 1.7 (267)	31.6 ± 1.7 (244)	9
Iwaki	31.7 ± 1.9 (1,141)	31.8 ± 1.8 (601)	31.5 ± 2.0 (540)	25
Aizu	31.8 ± 1.8 (793)	31.9 ± 1.8 (405)	31.7 ± 1.7 (388)	14
Minami-aizu	31.8 ± 1.8 (80)	31.7 ± 1.6 (39)	31.9 ± 2.1 (41)	2
Outside Fukushima	31.7 ± 1.5 (101)	32.0 ± 1.7 (52)	31.4 ± 1.3 (49)	1
Total	31.7 ± 1.8 (6,941)	31.9 ± 1.8 (3,494)	31.5 ± 1.8 (3,447)	126

Chest circumference (Twin pregnancy) Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	28.7 ± 1.6 (44)	28.6 ± 1.6 (24)	28.9 ± 1.6 (20)	2
Kenchu	27.2 ± 2.4 (40)	27.3 ± 2.1 (23)	27.0 ± 2.8 (17)	0
Kennan	29.7 ± 1.2 (15)	30.3 ± 1.0 (6)	29.3 ± 1.2 (9)	1
Soso	29.1 ± 1.6 (10)	28.7 ± 2.0 (5)	29.6 ± 1.1 (5)	0
Iwaki	27.9 ± 3.0 (13)	26.9 ± 3.6 (4)	28.3 ± 2.9 (9)	1
Aizu	28.9 ± 2.1 (19)	29.3 ± 1.4 (13)	28.3 ± 3.2 (6)	0
Minami-aizu	28.0 ± 0.0 (2)	28.0 ± 0.0 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	28.4 ± 2.2 (143)	28.4 ± 2.0 (77)	28.4 ± 2.4 (66)	4

Head circumference (Singleton pregnancy) Mean (cm)±SD (n)

Area	Total	Male	Female	No response
Kempoku	33.2 ± 1.6 (1,853)	33.4 ± 1.7 (918)	33.0 ± 1.4 (935)	27
Kenchu	33.2 ± 1.5 (1,901)	33.4 ± 1.5 (954)	32.9 ± 1.5 (947)	36
Kennan	32.8 ± 1.7 (561)	33.0 ± 1.6 (257)	32.7 ± 1.8 (304)	12
Soso	33.0 ± 1.5 (511)	33.2 ± 1.4 (267)	32.8 ± 1.6 (244)	9
Iwaki	33.3 ± 1.6 (1,142)	33.5 ± 1.4 (601)	33.1 ± 1.7 (541)	24
Aizu	33.1 ± 1.4 (792)	33.3 ± 1.5 (405)	32.9 ± 1.3 (387)	15
Minami-aizu	33.3 ± 1.2 (80)	33.4 ± 1.3 (39)	33.2 ± 1.2 (41)	2
Outside Fukushima	33.3 ± 1.4 (101)	33.8 ± 1.4 (52)	32.7 ± 1.4 (49)	1
Total	33.2 ± 1.6 (6,941)	33.4 ± 1.6 (3,493)	32.9 ± 1.5 (3,448)	126

Head circumference (Twin pregnancy)

Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	32.3 ± 1.4 (44)	32.3 ± 1.5 (24)	32.2 ± 1.3 (20)	2
Kenchu	31.0 ± 2.0 (40)	31.5 ± 1.6 (23)	30.3 ± 2.3 (17)	0
Kennan	32.4 ± 1.5 (15)	33.1 ± 0.6 (6)	32.0 ± 1.8 (9)	1
Soso	31.6 ± 1.4 (10)	30.8 ± 1.6 (5)	32.4 ± 0.7 (5)	0
Iwaki	31.3 ± 2.9 (13)	30.0 ± 3.4 (4)	31.8 ± 2.7 (9)	1
Aizu	32.1 ± 1.7 (19)	32.4 ± 1.6 (13)	31.6 ± 1.8 (6)	0
Minami-aizu	31.0 ± 1.4 (2)	31.0 ± 1.4 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	31.7 ± 1.9 (143)	31.9 ± 1.7 (77)	31.6 ± 2.0 (66)	4

Newborn infants in apparent death (Singleton pregnancy)

Area	Yes		No		No response		Total	
Kempoku	19	1.0%	1,840	97.9%	21	1.1%	1,880	100.0%
Kenchu	16	0.8%	1,849	95.5%	72	3.7%	1,937	100.0%
Kennan	7	1.2%	554	96.7%	12	2.1%	573	100.0%
Soso	4	0.8%	505	97.1%	11	2.1%	520	100.0%
Iwaki	7	0.6%	1,126	96.6%	33	2.8%	1,166	100.0%
Aizu	7	0.9%	781	96.8%	19	2.4%	807	100.0%
Minami-aizu	1	1.2%	81	98.8%	0	0.0%	82	100.0%
Outside Fukushima	2	2.0%	98	96.1%	2	2.0%	102	100.0%
Total	63	0.9%	6,834	96.7%	170	2.4%	7,067	100.0%

Resuscitated or not (Singleton pregnancy)

This question is for 63 respondents who answered YES to the above question.

Area	Yes		No		Not sure		No response		Total	
Kempoku	14	73.7%	1	5.3%	3	15.8%	1	5.3%	19	100.0%
Kenchu	12	75.0%	2	12.5%	2	12.5%	0	0.0%	16	100.0%
Kennan	5	71.4%	0	0.0%	2	28.6%	0	0.0%	7	100.0%
Soso	3	75.0%	0	0.0%	1	25.0%	0	0.0%	4	100.0%
Iwaki	5	71.4%	0	0.0%	2	28.6%	0	0.0%	7	100.0%
Aizu	5	71.4%	0	0.0%	2	28.6%	0	0.0%	7	100.0%
Minami-aizu	1	100.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%
Outside Fukushima	2	100.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Total	47	74.6%	3	4.8%	12	19.0%	1	1.6%	63	100.0%

Newborn infants in apparent death

(The first child of twins)

Area	Yes	No	No response	Total
Kempoku	0	23	0	23
Kenchu	1	19	0	20
Kennan	0	8	0	8
Soso	0	5	0	5
Iwaki	1	6	0	7
Aizu	0	10	0	10
Minami-aizu	0	1	0	1
Outside Fukushima	0	0	0	0
Total	2	72	0	74

Resuscitated or not (The first child of twins)

The question is for 2 respondents who said YES to the previous question.

Area	Yes	No	Not sure	Total
Kempoku	0	0	0	0
Kenchu	0	1	0	1
Kennan	0	0	0	0
Soso	0	0	0	0
Iwaki	1	0	0	1
Aizu	0	0	0	0
Minami-aizu	0	0	0	0
Outside Fukushima	0	0	0	0
Total	1	1	0	2

Newborn infants in apparent death
(The second child of twins)

Area	Yes	No	No response	Total
Kempoku	2	21	0	23
Kenchu	1	19	0	20
Kennan	0	7	1	8
Soso	0	5	0	5
Iwaki	0	6	1	7
Aizu	0	9	0	9
Minami-aizu	0	1	0	1
Outside Fukushima	0	0	0	0
Total	3	68	2	73

Resuscitated or not (The second child of twins)
The question is for 3 respondents who said YES to the previous question.

Area	Yes	No	Not sure	Total
Kempoku	2	0	0	2
Kenchu	1	0	0	1
Kennan	0	0	0	0
Soso	0	0	0	0
Iwaki	0	0	0	0
Aizu	0	0	0	0
Minami-aizu	0	0	0	0
Outside Fukushima	0	0	0	0
Total	3	0	0	3

Congenital anomaly: Yes/No

This question is for 7,067 respondents with singleton pregnancy of 12 weeks or after.

Area	Yes		No		No response		Total	
Kempoku	42	2.23%	1,806	96.06%	32	1.70%	1,880	100.0%
Kenchu	46	2.37%	1,839	94.94%	52	2.68%	1,937	100.0%
Kennan	8	1.40%	552	96.34%	13	2.27%	573	100.0%
Soso	9	1.73%	498	95.77%	13	2.50%	520	100.0%
Iwaki	34	2.92%	1,105	94.77%	27	2.32%	1,166	100.0%
Aizu	19	2.35%	769	95.29%	19	2.35%	807	100.0%
Minami-aizu	2	2.44%	80	97.56%	0	0.00%	82	100.0%
Outside Fukushima	2	1.96%	97	95.10%	3	2.94%	102	100.0%
Total	162	2.29%	6,746	95.46%	159	2.25%	7,067	100.0%

Area	Incidence of congenital anomalies		Valid response
Kempoku	42	2.27%	1,848
Kenchu	46	2.44%	1,885
Kennan	8	1.43%	560
Soso	9	1.78%	507
Iwaki	34	2.99%	1,139
Aizu	19	2.41%	788
Minami-aizu	2	2.44%	82
Outside Fukushima	2	2.02%	99
Total	162	2.35%	6,908

The denominator is the sum of valid response of YES and NO.

The figure differs from the survey for FY 2011 since the denominator included the number of invalid response.

Incidence of diseases

Participants of singleton pregnancy who answered YES to the question above (Multiple answers allowed)

Area	Cardiovascular malformation	Polydactyly and syndactyly	Anomalies of kidney and urinary tract	Cleft lip and plate	Gastro-intestinal atresia*	Rachischisis	Imperforate anus	Hydro-cephalus	Cataract	Microcephaly	Other
Kempoku	20	3	4	1	2	0	0	1	0	0	16
Kenchu	16	8	3	4	1	2	0	0	0	0	17
Kennan	3	2	0	2	0	0	0	0	0	0	2
Soso	2	2	2	0	2	1	1	0	0	0	2
Iwaki	14	4	1	5	1	0	0	0	1	0	8
Aizu	6	3	2	0	0	0	1	0	0	0	8
Minami-aizu	2	0	0	0	0	0	0	0	0	0	0
Outside Fukushima	0	0	0	0	0	0	0	0	0	0	2
Total	63	22	12	12	6	3	2	1	1	0	55
Incidence	0.91%	0.32%	0.17%	0.17%	0.09%	0.04%	0.03%	0.01%	0.01%	0.00%	0.80%

The denominator is the sum of valid response.

* Esophagus, duodenum, jejunum, ileum

Breakdown of OTHER (Multiple answers allowed)

Clubfoot	7	Diaphragmatic hernia	1	Congenital genu recurvatum	1
Accessory auricles	7	Valgus foot	1	Inguinal hernia	1
Microtia	6	Blepharoptosis	1	Brachydactyly	1
Down syndrome	4	Hypothyroidism	1	Intestinal malrotation	1
Aural fistula	3	Osteogenesis imperfecta	1	Scalp defect	1
Hemangioma	2	Exomphalos	1	Nasolacrimal duct obstruction	1
Chromosomal aberration	2	Short extremities	1	Malformation of the auricle	1
Hearing impairment	2	Trisomy 18	1	Methemoglobinemia	1
Adrenal hyperplasia	2	Perforation of the digestive tract	1	Defects in the upper extremities	1
Nevus	2	Congenital knee dislocations	1	Split-hand and split-foot	1
Finger defect	2	Congenital chylothorax	1		

Congenital anomaly: Yes/No

This question is for 147 respondents with twin pregnancy of 12 weeks or after.

Area	Yes		No		No response		Total	
Kempoku	2	4.35%	42	91.30%	2	4.35%	46	100.0%
Kenchu	5	12.50%	34	85.00%	1	2.50%	40	100.0%
Kennan	0	0.00%	15	93.75%	1	6.25%	16	100.0%
Soso	0	0.00%	8	80.00%	2	20.00%	10	100.0%
Iwaki	2	14.29%	10	71.43%	2	14.29%	14	100.0%
Aizu	1	5.26%	17	89.47%	1	5.26%	19	100.0%
Minami-aizu	1	50.00%	1	50.00%	0	0.00%	2	100.0%
Outside Fukushima	0	0.00%	0	0.00%	0	0.00%	0	0.0%
Total	11	7.48%	127	86.39%	9	6.12%	147	100.0%

Area	Incidence of congenital anomalies		Valid response
Kempoku	2	4.55%	44
Kenchu	5	12.82%	39
Kennan	0	0.00%	15
Soso	0	0.00%	8
Iwaki	2	16.67%	12
Aizu	1	5.56%	18
Minami-aizu	1	50.00%	2
Outside Fukushima	0	0.00%	0
Total	11	7.97%	138

The denominator is the sum of the valid response of YES and NO.

The figure differs from the survey for FY 2011 since the denominator included the number of invalid response.

Breakdown by disease

Participants of twin pregnancy who answered YES to the question above (Multiple answers allowed)

Area	A	B	C	D	E	F	G	H	I	J	Other
Kempoku	0	1	0	1	0	0	0	0	0	0	1
Kenchu	0	1	3	3	0	0	0	1	0	0	1
Kennan	0	0	0	0	0	0	0	0	0	0	0
Soso	0	0	0	0	0	0	0	0	0	0	0
Iwaki	0	0	0	2	0	0	0	0	0	0	0
Aizu	1	0	0	0	0	0	0	0	0	0	0
Minami-aizu	0	0	0	0	0	0	0	0	0	0	1
Outside Fukushima	0	0	0	0	0	0	0	0	0	0	0
Total	1	2	3	6	0	0	0	1	0	0	3

A: Rachischisis B: Cleft lip and plate C: Hydrocephalus D: Cardiovascular malformation

E: Cataract F: Anomalies of kidney and urinary tract G: Microcephaly H: Gastrointestinal atresia

I: Imperforate anus J: Polydactyly and syndactyly

Breakdown of OTHER

Scalp defect	1
Accessory auricles	1
Asplenia syndrome	1

Q20. Do you sometimes lose confidence in child rearing?

The questions below are for 7,125 respondents who gave birth.

Area	Yes		No		Not sure		No response		Total	
Kempoku	367	19.3%	828	43.5%	697	36.6%	13	0.7%	1,905	100.0%
Kenchu	356	18.3%	832	42.7%	745	38.2%	16	0.8%	1,949	100.0%
Kennan	105	18.2%	278	48.1%	190	32.9%	5	0.9%	578	100.0%
Soso	92	17.6%	229	43.8%	199	38.0%	3	0.6%	523	100.0%
Iwaki	160	13.7%	585	50.1%	411	35.2%	12	1.0%	1,168	100.0%
Aizu	123	15.0%	380	46.5%	309	37.8%	6	0.7%	818	100.0%
Minami-aizu	18	22.0%	30	36.6%	33	40.2%	1	1.2%	82	100.0%
Outside Fukushima	27	26.5%	36	35.3%	39	38.2%	0	0.0%	102	100.0%
Total	1,248	17.5%	3,198	44.9%	2,623	36.8%	56	0.8%	7,125	100.0%

Q21. How did you feed your baby before starting solids?

Area	Breast milk		Formula and breast milk		Formula		No response		Total	
Kempoku	750	39.4%	1,022	53.6%	127	6.7%	6	0.3%	1,905	100.0%
Kenchu	689	35.4%	1,079	55.4%	172	8.8%	9	0.5%	1,949	100.0%
Kennan	186	32.2%	313	54.2%	77	13.3%	2	0.3%	578	100.0%
Soso	186	35.6%	270	51.6%	67	12.8%	0	0.0%	523	100.0%
Iwaki	467	40.0%	601	51.5%	93	8.0%	7	0.6%	1,168	100.0%
Aizu	260	31.8%	488	59.7%	69	8.4%	1	0.1%	818	100.0%
Minami-aizu	27	32.9%	44	53.7%	10	12.2%	1	1.2%	82	100.0%
Outside Fukushima	42	41.2%	56	54.9%	4	3.9%	0	0.0%	102	100.0%
Total	2,607	36.6%	3,873	54.4%	619	8.7%	26	0.4%	7,125	100.0%

Q21-1. Why did you choose formula?

Area	Do not have enough breast milk		Worried about the effects of radiation		Other		Valid response
Kempoku	868	76.0%	17	1.5%	297	26.0%	1,142
Kenchu	979	78.8%	25	2.0%	280	22.5%	1,242
Kennan	307	80.4%	5	1.3%	80	20.9%	382
Soso	233	70.0%	10	3.0%	103	30.9%	333
Iwaki	522	76.2%	16	2.3%	169	24.7%	685
Aizu	437	78.7%	5	0.9%	127	22.9%	555
Minami-aizu	40	75.5%	0	0.0%	16	30.2%	53
Outside Fukushima	47	78.3%	0	0.0%	15	25.0%	60
Total	3,433	77.1%	78	1.8%	1,087	24.4%	4,452

The denominator is the sum of valid answers (i.e., Respondents who answered to the next question).

Proportion does not total to 100% because of multiple answers.

The figure differs from the survey for FY 2011 since the denominator included multiple answers.

Q21-2. What kind of water did or do you use for formula?

Area	Tap		Bottled		Other		Valid response
Kempoku	487	42.6%	691	60.5%	31	2.7%	1,142
Kenchu	518	41.6%	780	62.7%	30	2.4%	1,244
Kennan	199	51.6%	208	53.9%	3	0.8%	386
Soso	93	28.0%	246	74.1%	6	1.8%	332
Iwaki	263	38.1%	454	65.8%	8	1.2%	690
Aizu	396	71.2%	186	33.5%	15	2.7%	556
Minami-aizu	43	79.6%	16	29.6%	0	0.0%	54
Outside Fukushima	31	51.7%	30	50.0%	3	5.0%	60
Total	2,030	45.5%	2,611	58.5%	96	2.2%	4,464

The denominator is the sum of valid answers (i.e., Respondents who answered to the question).
Proportion does not total to 100% because of multiple answers.

Q22. Results of medical checkup of babies aged one month or more

When did you go for a medical checkup of the babies?

Number of participants was 7,048 (6,911 singleton and 137 twin pregnancies) who received medical checkup within 60 days after delivery.

Area	Participants	Mean age (Days)
Kempoku	1,882	35.1
Kenchu	1,934	33.1
Kennan	574	32.4
Soso	526	32.3
Iwaki	1,138	33.0
Aizu	812	32.6
Minami-aizu	80	32.8
Outside Fukushima	102	33.6
Total	7,048	33.5

Weight (Singleton pregnancy) Mean (g)±SD (n)

Area	Total	Male	Female	No response
Kempoku	4,308.8 ± 580.9 (1,836)	4,443.1 ± 600.3 (903)	4,178.8 ± 530.2 (933)	3
Kenchu	4,216.3 ± 594.8 (1,897)	4,368.9 ± 602.8 (954)	4,061.8 ± 544.9 (943)	1
Kennan	4,210.7 ± 596.9 (559)	4,297.3 ± 586.9 (256)	4,137.6 ± 596.4 (303)	1
Soso	4,184.1 ± 537.0 (514)	4,288.6 ± 545.0 (267)	4,071.4 ± 506.6 (246)	2
Iwaki	4,199.1 ± 546.2 (1,122)	4,324.4 ± 571.2 (594)	4,058.2 ± 479.4 (528)	3
Aizu	4,172.0 ± 548.1 (789)	4,284.5 ± 569.5 (401)	4,052.5 ± 498.5 (386)	4
Minami-aizu	4,234.3 ± 499.6 (78)	4,323.4 ± 508.0 (37)	4,153.9 ± 483.9 (41)	0
Outside Fukushima	4,306.2 ± 544.0 (102)	4,477.3 ± 585.1 (53)	4,121.1 ± 429.6 (49)	0
Total	4,231.7 ± 574.3 (6,897)	4,360.5 ± 588.8 (3,465)	4,101.4 ± 528.3 (3,429)	14

Weight (Twin pregnancy) Mean (g) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	3,611.9 ± 589.8 (43)	3,641.5 ± 675.3(23)	3,577.8 ± 488.6 (20)	0
Kenchu	3,030.2 ± 728.0 (36)	3,004.3 ± 638.5(22)	3,070.9 ± 874.8 (14)	0
Kennan	3,553.4 ± 442.6 (14)	3,831.2 ± 405.5(6)	3,345.1 ± 361.5 (8)	0
Soso	3,418.4 ± 796.3 (10)	3,217.2 ± 1,011.0(5)	3,619.6 ± 550.8 (5)	0
Iwaki	2,893.0 ± 813.6 (13)	2,882.5 ± 1,210.7(4)	2,897.7 ± 665.6 (9)	0
Aizu	3,477.5 ± 647.1 (19)	3,763.1 ± 462.1(13)	2,858.7 ± 568.8 (6)	0
Minami-aizu	3,742.5 ± 81.3 (2)	3,742.5 ± 81.3(2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	3,354.0 ± 704.4 (137)	3,424.8 ± 730.7 (75)	3,268.3 ± 667.1 (62)	0

Height (Singleton pregnancy) Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	53.6 ± 2.2 (1,829)	54.1 ± 2.4 (899)	53.2 ± 2.0 (930)	10
Kenchu	53.4 ± 2.5 (1,892)	54.0 ± 2.4 (949)	52.8 ± 2.5 (943)	6
Kennan	52.8 ± 2.6 (555)	53.2 ± 2.6 (255)	52.4 ± 2.5 (300)	5
Soso	53.2 ± 2.2 (514)	53.5 ± 2.1 (267)	52.8 ± 2.1 (246)	2
Iwaki	53.5 ± 2.1 (1,119)	53.9 ± 2.1 (594)	53.0 ± 2.0 (525)	6
Aizu	53.2 ± 2.4 (788)	53.6 ± 2.5 (400)	52.8 ± 2.2 (386)	5
Minami-aizu	53.5 ± 2.2 (78)	53.7 ± 1.8 (37)	53.2 ± 2.6 (41)	0
Outside Fukushima	53.8 ± 2.3 (102)	54.2 ± 2.6 (53)	53.2 ± 2.0 (49)	0
Total	53.4 ± 2.3 (6,877)	53.9 ± 2.4 (3,454)	52.9 ± 2.2 (3,420)	34

Height (Twin pregnancy) Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	51.1 ± 2.5 (43)	51.5 ± 2.8 (23)	50.7 ± 2.0 (20)	0
Kenchu	48.6 ± 3.8 (36)	48.9 ± 3.7 (22)	48.3 ± 3.9 (14)	0
Kennan	50.6 ± 1.9 (14)	51.8 ± 1.4 (6)	49.7 ± 1.7 (8)	0
Soso	51.3 ± 3.3 (10)	50.4 ± 4.5 (5)	52.2 ± 1.4 (5)	0
Iwaki	48.0 ± 3.6 (13)	47.1 ± 5.3 (4)	48.4 ± 2.9 (9)	0
Aizu	51.3 ± 2.7 (19)	52.6 ± 1.4 (13)	48.5 ± 2.6 (6)	0
Minami-aizu	53.5 ± 0.0 (2)	53.5 ± 0.0 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	50.2 ± 3.2 (137)	50.7 ± 3.5 (75)	49.6 ± 2.9 (62)	0

Chest circumference (Singleton pregnancy) Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	36.3 ± 2.0 (1,822)	36.7 ± 2.1 (895)	35.9 ± 1.9 (927)	17
Kenchu	36.0 ± 2.1 (1,884)	36.4 ± 2.0 (943)	35.5 ± 2.0 (941)	14
Kennan	36.0 ± 2.2 (554)	36.3 ± 2.1 (254)	35.7 ± 2.3 (300)	6
Soso	35.8 ± 1.9 (512)	36.1 ± 2.0 (266)	35.5 ± 1.8 (245)	4
Iwaki	36.0 ± 1.9 (1,114)	36.4 ± 2.0 (590)	35.6 ± 1.8 (524)	11
Aizu	36.0 ± 2.0 (782)	36.2 ± 2.1 (398)	35.7 ± 1.8 (382)	11
Minami-aizu	36.3 ± 1.9 (78)	36.4 ± 1.9 (37)	36.2 ± 1.9 (41)	0
Outside Fukushima	36.3 ± 1.8 (101)	36.7 ± 2.0 (52)	35.8 ± 1.4 (49)	1
Total	36.0 ± 2.0 (6,847)	36.4 ± 2.0 (3,435)	35.7 ± 1.9 (3,409)	64

Chest circumference (Twin pregnancy) Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	33.9 ± 2.4 (43)	34.0 ± 2.7 (23)	33.8 ± 2.0 (20)	0
Kenchu	31.7 ± 2.9 (36)	31.5 ± 2.8 (22)	31.9 ± 3.2 (14)	0
Kennan	33.7 ± 1.7 (14)	34.4 ± 1.4 (6)	33.1 ± 1.8 (8)	0
Soso	33.0 ± 2.6 (10)	32.6 ± 3.7 (5)	33.5 ± 1.0 (5)	0
Iwaki	31.7 ± 3.7 (13)	31.3 ± 5.6 (4)	31.8 ± 3.0 (9)	0
Aizu	33.5 ± 2.3 (19)	34.4 ± 1.9 (13)	31.4 ± 1.7 (6)	0
Minami-aizu	35.2 ± 0.3 (2)	35.2 ± 0.3 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	33.0 ± 2.8 (137)	33.2 ± 3.0 (75)	32.7 ± 2.5 (62)	0

Head circumference (Singleton pregnancy) Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	36.9 ± 1.4 (1,827)	37.3 ± 1.4 (898)	36.5 ± 1.3 (929)	12
Kenchu	36.6 ± 1.5 (1,889)	37.0 ± 1.4 (947)	36.1 ± 1.4 (942)	9
Kennan	36.4 ± 1.6 (554)	36.7 ± 1.5 (254)	36.1 ± 1.6 (300)	6
Soso	36.3 ± 1.5 (513)	36.6 ± 1.4 (266)	35.9 ± 1.4 (246)	3
Iwaki	36.6 ± 1.5 (1,118)	36.9 ± 1.5 (592)	36.2 ± 1.3 (526)	7
Aizu	36.4 ± 1.5 (788)	36.8 ± 1.5 (401)	36.1 ± 1.3 (385)	5
Minami-aizu	36.6 ± 1.3 (78)	36.8 ± 1.1 (37)	36.4 ± 1.3 (41)	0
Outside Fukushima	36.8 ± 1.3 (101)	37.3 ± 1.3 (52)	36.3 ± 1.1 (49)	1
Total	36.6 ± 1.5 (6,868)	37.0 ± 1.5 (3,447)	36.2 ± 1.4 (3,418)	43

Head circumference (Twin pregnancy) Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	35.7 ± 1.3 (43)	35.8 ± 1.4 (23)	35.7 ± 1.2 (20)	0
Kenchu	34.2 ± 2.1 (36)	34.3 ± 2.3 (22)	34.1 ± 1.7 (14)	0
Kennan	35.6 ± 1.0 (14)	36.1 ± 0.6 (6)	35.1 ± 1.0 (8)	0
Soso	34.9 ± 1.9 (10)	34.6 ± 2.3 (5)	35.2 ± 1.6 (5)	0
Iwaki	33.9 ± 3.4 (13)	33.1 ± 5.3 (4)	34.2 ± 2.4 (9)	0
Aizu	35.3 ± 2.0 (19)	36.2 ± 1.4 (13)	33.3 ± 1.9 (6)	0
Minami-aizu	36.8 ± 0.6 (2)	36.8 ± 0.6 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	35.0 ± 2.0 (137)	35.2 ± 2.2(75)	34.8 ± 1.7(62)	0

Are you planning a pregnancy?

Area	Yes		No		No response		Total	
Kempoku	1,013	52.5%	887	46.0%	28	1.5%	1,928	100.0%
Kenchu	1,049	53.2%	889	45.1%	33	1.7%	1,971	100.0%
Kennan	306	52.2%	269	45.9%	11	1.9%	586	100.0%
Soso	275	51.8%	245	46.1%	11	2.1%	531	100.0%
Iwaki	606	51.1%	563	47.4%	18	1.5%	1,187	100.0%
Aizu	454	55.0%	364	44.1%	8	1.0%	826	100.0%
Minami-aizu	41	49.4%	41	49.4%	1	1.2%	83	100.0%
Outside Fukushima	67	65.7%	34	33.3%	1	1.0%	102	100.0%
Total	3,811	52.8%	3,292	45.6%	111	1.5%	7,214	100.0%

Request for services for next pregnancy or childbirth

Area	Improvement of preschool, care for longer hours, or day care for sick children		Information or services about child rearing and pediatric medicine		Improvement of maternity or maternal leave		Information of radiation and health risk		Other		Valid response
Kempoku	709	72.6%	636	65.2%	581	59.5%	395	40.5%	73	7.5%	976
Kenchu	725	72.4%	634	63.3%	589	58.8%	440	44.0%	73	7.3%	1,001
Kennan	197	66.6%	205	69.3%	159	53.7%	112	37.8%	10	3.4%	296
Soso	161	61.9%	196	75.4%	116	44.6%	120	46.2%	23	8.8%	260
Iwaki	412	70.2%	407	69.3%	328	55.9%	259	44.1%	34	5.8%	587
Aizu	305	70.6%	286	66.2%	260	60.2%	145	33.6%	36	8.3%	432
Minami-aizu	18	47.4%	27	71.1%	16	42.1%	13	34.2%	3	7.9%	38
Outside Fukushima	50	75.8%	45	68.2%	37	56.1%	24	36.4%	7	10.6%	66
Total	2,577	70.5%	2,436	66.6%	2,086	57.1%	1,508	41.2%	259	7.1%	3,656

The denominator is the sum of valid responses (i.e., Respondents who answered the question)
Proportion does not total to 100% because of multiple answers.

Reasons for not planning a pregnancy

Area	Do not have a desire for it		Busy raising children		Age or health related reason		Financial reason		Have no one to support me in child rearing		Have no daycare service	
Kempoku	459	52.0%	320	36.2%	344	39.0%	207	23.4%	97	11.0%	55	6.2%
Kenchu	489	55.3%	349	39.5%	305	34.5%	229	25.9%	103	11.7%	72	8.1%
Kennan	164	62.1%	91	34.5%	93	35.2%	62	23.5%	27	10.2%	17	6.4%
Soso	124	51.2%	91	37.6%	92	38.0%	44	18.2%	23	9.5%	19	7.9%
Iwaki	300	54.1%	194	35.0%	189	34.1%	135	24.3%	52	9.4%	25	4.5%
Aizu	202	56.1%	130	36.1%	124	34.4%	78	21.7%	32	8.9%	27	7.5%
Minami-aizu	18	43.9%	11	26.8%	15	36.6%	13	31.7%	4	9.8%	2	4.9%
Outside Fukushima	18	52.9%	9	26.5%	11	32.4%	4	11.8%	5	14.7%	2	5.9%
Total	1,774	54.4%	1,195	36.6%	1,173	35.9%	772	23.7%	343	10.5%	219	6.7%

Area	Worried about the effects of radiation		Life as an evacuee		Family living apart		Other		Valid response
Kempoku	39	4.4%	5	0.6%	14	1.6%	20	2.3%	883
Kenchu	64	7.2%	1	0.1%	15	1.7%	19	2.1%	884
Kennan	22	8.3%	0	0.0%	5	1.9%	7	2.7%	264
Soso	19	7.9%	22	9.1%	10	4.1%	9	3.7%	242
Iwaki	28	5.0%	4	0.7%	8	1.4%	17	3.1%	555
Aizu	8	2.2%	0	0.0%	4	1.1%	8	2.2%	360
Minami-aizu	1	2.4%	0	0.0%	0	0.0%	1	2.4%	41
Outside Fukushima	2	5.9%	0	0.0%	3	8.8%	0	0.0%	34
Total	183	5.6%	32	1.0%	59	1.8%	81	2.5%	3,263

The denominator is the sum of valid responses (i.e., Respondents who answered the question)
Proportion does not total to 100% because of multiple answers.

3. Free-answer questions

The participants are 867 of 7,214 valid responses who answered the free-answer question.

Opinion about the survey	146	16.8%
Other	118	13.6%
Effects of radiation on fetus and child	112	12.9%
Physical problems**	97	11.2%
Consultation of child rearing**	92	10.6%
Request for information on radiation and research results	80	9.2%
Request for adequate medical service and physical care	66	7.6%
Mental illness	64	7.4%
Effects of radiation on food or baby food	61	7.0%
Anxiety over the effects of radiation on water	53	6.1%
Request for adequate child support services	47	5.4%
Anxiety about radiation exposure of children when outside	43	5.0%
Anxiety and dissatisfaction about inadequate medical services	43	5.0%
Positive comments about this survey	35	4.0%
Anxiety and dissatisfaction about reliability or lack of information	28	3.2%
Request for the overall examination	28	3.2%
Request for decontamination and provision of safe playgrounds	23	2.7%
Relationships***	22	2.5%
Issues related to the current pregnancy outcome	21	2.4%
Effects of radiation on breast milk or infant formula	20	2.3%
Anxiety and dissatisfaction about evacuation and family living apart	19	2.2%
Regarding financial anxiety and burden	19	2.2%
Request for Thyroid Ultrasound Examination	13	1.5%
Request for financial support	12	1.4%
Request to measure internal radiation exposure (by whole body counter, etc.)	9	1.0%
Request for adequate mental health care services	9	1.0%
Anxiety about the effects of radiation on the next pregnancy	8	0.9%
Request for medical check-up and examinations	8	0.9%
Request for test on breast milk	6	0.7%
Request for Fukushima Health Management Survey	4	0.5%
Regarding external radiation exposure (provision of glass badges and dosimeters)	4	0.5%
Request for support for supplies and gasoline	3	0.3%
Request for evacuation support	2	0.2%

The denominator is the sum of 867 of respondents. Multiple answers allowed

** Issue not mentioned in FY 2011survey

*** Issue not mentioned in FY 2012survey

4. Support

The number of those who required support in FY 2013 is 1,101 of 7,260 respondents (15.2%).

The results of responses received from 24 December 2013 through 26 December 2014

Number of respondents required support

Area	Participants	Response		Number of respondents who required support	
Kempoku	3,637	1,936	53.2%	288	14.9%
Kenchu	4,453	1,982	44.5%	297	15.0%
Kennan	1,213	588	48.5%	91	15.5%
Soso	1,178	535	45.4%	89	16.6%
Iwaki	2,649	1,195	45.1%	173	14.5%
Aizu	1,816	833	45.9%	123	14.8%
Minami-aizu	162	83	51.2%	17	20.5%
Outside Fukushima	110	108	98.2%	23	21.3%
Total	15,218	7,260	47.7%	1,101	15.2%

The denominator of response is the number of participants.

The denominator of number of respondents who required support is the number of response.

Respondents requiring support by area

Area	Support required based on the categories of depression		Support required based on the free-answer questions		Number of respondents who required support	
Kempoku	202	70.1%	86	29.9%	288	100.0%
Kenchu	190	64.0%	107	36.0%	297	100.0%
Kennan	63	69.2%	28	30.8%	91	100.0%
Soso	67	75.3%	22	24.7%	89	100.0%
Iwaki	115	66.5%	58	33.5%	173	100.0%
Aizu	83	67.5%	40	32.5%	123	100.0%
Minami-aizu	13	76.5%	4	23.5%	17	100.0%
Outside Fukushima	11	47.8%	12	52.2%	23	100.0%
Total	744	67.6%	357	32.4%	1,101	100.0%

Content of counseling by area

Area	Health of mothers		Childrearing		Health of children		Family life		Effects of radiation		Evacuation		Other		Valid response
Kempoku	133	46.2%	133	46.2%	56	19.4%	60	20.8%	41	14.2%	6	2.1%	89	30.9%	288
Kenchu	107	36.0%	105	35.4%	63	21.2%	67	22.6%	62	20.9%	1	0.3%	102	34.3%	297
Kennan	48	52.7%	33	36.3%	18	19.8%	24	26.4%	19	20.9%	2	2.2%	20	22.0%	91
Soso	41	46.1%	37	41.6%	19	21.3%	17	19.1%	14	15.7%	11	12.4%	26	29.2%	89
Iwaki	71	41.0%	53	30.6%	36	20.8%	25	14.5%	32	18.5%	3	1.7%	69	39.9%	173
Aizu	51	41.5%	43	35.0%	26	21.1%	20	16.3%	13	10.6%	0	0.0%	46	37.4%	123
Minami-aizu	9	52.9%	8	47.1%	2	11.8%	2	11.8%	3	17.6%	0	0.0%	5	29.4%	17
Outside Fukushima	8	34.8%	14	60.9%	4	17.4%	3	13.0%	4	17.4%	0	0.0%	5	21.7%	23
Total	468	42.5%	426	38.7%	224	20.3%	218	19.8%	188	17.1%	23	2.1%	362	32.9%	1,101

The denominator is the sum of valid response.

Proportion does not total to 100% because of multiple answers.

Reason for completing support

Area	A		B		C		D		E		F		G	
Kempoku	194	67.4%	112	38.9%	71	24.7%	31	10.8%	26	9.0%	1	0.3%	0	0.0%
Kenchu	170	57.2%	132	44.4%	72	24.2%	39	13.1%	31	10.4%	0	0.0%	0	0.0%
Kennan	59	64.8%	42	46.2%	23	25.3%	14	15.4%	7	7.7%	2	2.2%	0	0.0%
Soso	58	65.2%	39	43.8%	28	31.5%	13	14.6%	11	12.4%	1	1.1%	0	0.0%
Iwaki	100	57.8%	76	43.9%	34	19.7%	16	9.2%	13	7.5%	2	1.2%	1	0.6%
Aizu	76	61.8%	49	39.8%	31	25.2%	9	7.3%	10	8.1%	0	0.0%	0	0.0%
Minami-aizu	8	47.1%	10	58.8%	7	41.2%	2	11.8%	5	29.4%	0	0.0%	0	0.0%
Outside Fukushima	14	60.9%	13	56.5%	5	21.7%	4	17.4%	1	4.3%	0	0.0%	0	0.0%
Total	679	61.7%	473	43.0%	271	24.6%	128	11.6%	104	9.4%	6	0.5%	1	0.1%

Area	H		I		Absent		Phone number not shown		Denied Support		Other		Number of respondents required support
Kempoku	0	0.0%	0	0.0%	49	17.0%	0	0.0%	0	0.0%	1	0.3%	288
Kenchu	0	0.0%	0	0.0%	59	19.9%	5	1.7%	1	0.3%	0	0.0%	297
Kennan	1	1.1%	0	0.0%	12	13.2%	2	2.2%	0	0.0%	0	0.0%	91
Soso	0	0.0%	0	0.0%	15	16.9%	0	0.0%	0	0.0%	0	0.0%	89
Iwaki	0	0.0%	0	0.0%	39	22.5%	2	1.2%	2	1.2%	0	0.0%	173
Aizu	0	0.0%	0	0.0%	30	24.4%	3	2.4%	0	0.0%	0	0.0%	123
Minami-aizu	0	0.0%	0	0.0%	2	11.8%	0	0.0%	0	0.0%	1	5.9%	17
Outside Fukushima	0	0.0%	0	0.0%	3	13.0%	0	0.0%	0	0.0%	0	0.0%	23
Total	1	0.1%	0	0.0%	209	19.0%	12	1.1%	3	0.3%	2	0.2%	1,101

The denominator is the sum of valid response. Proportion does not total to 100% because of multiple answers.

A: We listened and dealt with the issues of respondents.

B: Respondents were given information about counseling services

C: Respondents who were confirmed to have visited clinics for consultation.

D: We answered to respondents' questions.

E: Respondents were recommended to receive medical treatment.

F: Respondents were referred to clinical psychologists.

G: Respondents were connected to municipal governments.

H: Respondents were connected to a radiation consultation office.

I: Specialists answered to the respondents' questions.